

# **Women and Water *Wahala***

## **Picturing Gendered Waterscapes in Southwest Cameroon**

Jennifer A. Thompson  
Department of Integrated Studies in Education  
McGill University, Montreal

October 2017

A thesis submitted to McGill University in partial fulfillment  
of the requirements of the degree of Doctor of Philosophy.

© Jennifer A. Thompson

For Anna, Bella, and Maya

In Memoriam:

My aunt,  
Judith M. Fraser  
1941-2014

My grandmother,  
Margaret E. Lamb  
1917-2014

My father,  
Gordon A. Thompson  
1948-2015

## Abstract

With gendered divisions of labour, many women play an important role in daily water management. Women therefore have specific experiential knowledge with water and are disproportionately impacted by water access challenges. Yet women's priorities and the gendered nature of water use, access, and control are often overlooked in water policy and research. This bias perpetuates 'gender-neutral' water management strategies and distorts how water problems are addressed. Responding to calls for broader approaches to water governance that include social power, this study explores the gendered politics of the waterscape in Cameroon. Bringing together feminist intersectionality theory and new thinking about the politics and materiality of water, I explore through participatory visual methodologies women's and men's everyday water experiences. In collaboration with a civil society organization, Changing Mentalities and Empowering Groups (CHAMEG), I co-facilitated photovoice and participatory video processes in two urban and two rural communities in Cameroon's Southwest Region involving 130 participants (96 women and 34 men). Participant-produced images and participant-led analysis emphasize women's daily problems or troubles (*wahala* in Pidgin English) with water. Despite an abundance of freshwater available in the vicinity of Mount Cameroon, the services from both partially privatized and community-managed water supply networks tend to be unreliable. Multiple alternative sources such as wells, springs, and streams provide resilience for communities to fulfill their daily water needs. Yet these alternatives also present gendered concerns about, for example, the embodied and emotional labour related to searching for water, sexual and gender-based violence, intra-household dynamics, and the technologies of water access, storage, and treatment. Participants also identified the gendered nature of planning and sanitation in relation to water quality, source protection, and sustainability. A discussion forum with local decision-makers provided an opportunity to interrogate the implications of the research for local change, which highlighted the politics of participation, community, authority, and water decision-making. In applying an intersectional lens that attends to social difference and the complexity of gender, the materiality of water and water infrastructure *also* emerged as critical factors influencing experience. I suggest that these interconnections between the social and the material have implications for intersectionality theory. Offering a deconstruction of the theory, I propose four analytic tools for looking at intersectionality: Simultaneity, situated specificity, relationality, and fluid consistencies. These

tools or mechanisms help to widen the analytical frame of intersectional thinking to include the mutual entanglements between gendered social relations of power and the materiality of water. The thesis contributes to the areas of gender and development in Cameroon, participation in water governance, feminist intersectionality theory, and the use of visual methodologies for water research.

## Résumé

Compte tenu de la division du travail entre les sexes, de nombreuses femmes jouent un rôle important dans la gestion de l'eau au quotidien. Les femmes détiennent donc des connaissances expérientielles particulières sur l'eau, et elles sont affectées de manière disproportionnée par les problèmes d'accès à l'eau. Pourtant, les priorités des femmes et la nature genrée de la consommation d'eau, de l'accès à l'eau, et de son contrôle sont souvent négligées dans les politiques et les recherches sur l'eau. En conséquence, on tend à perpétuer des stratégies de gestion de l'eau qui ne tiennent pas compte du sexe, et à aborder les problèmes relatifs à l'eau de manière faussée. Répondant aux appels à des approches plus globales de la gestion de l'eau qui tiennent compte du pouvoir social, la présente étude explore les politiques genrées du paysage hydrique au Cameroun. Convoquant à la fois la théorie féministe de l'intersectionnalité et les nouvelles approches concernant la politique et la matérialité de l'eau, j'y explore par l'intermédiaire de méthodologies visuelles participatives les expériences que les femmes et les hommes ont avec l'eau au quotidien. En collaboration avec une organisation de la société civile, Changing Mentalities and Empowering Groups (CHAMEG), j'ai coanimé des processus *photovoice* et de vidéo participative dans deux collectivités urbaines et deux collectivités rurales de la région du Sud-Ouest du Cameroun auprès de 130 participants (96 femmes et 34 hommes). Les images produites par les participants et les analyses qu'ils ont dirigées mettent l'accent sur les problèmes ou difficultés (*wahala*, en pidgin anglais) qu'éprouvent les femmes au quotidien en ce qui a trait à l'eau. Malgré l'abondance d'eau douce à proximité du mont Cameroun, les services des réseaux d'approvisionnement en eau y sont peu fiables, qu'ils soient partiellement privatisés ou gérés par la collectivité. De nombreuses autres sources d'eau, comme des puits, des sources, et des ruisseaux, permettent de répondre aux besoins des collectivités au quotidien. Cependant, ces autres sources posent aussi des problèmes genrés, par exemple, en ce qui concerne le travail incorporé et le travail émotionnel associés à la recherche d'eau, la violence

sexuelle et fondée sur le sexe, les dynamiques intrafamiliales et les technologies d'accès à l'eau, de même que les technologies d'entreposage et de traitement de l'eau. Les participants soulignent également la nature genrée de la planification et de l'assainissement relativement à la qualité de l'eau, à la protection des sources, et à la durabilité. Un forum de discussion avec des décideurs locaux a été l'occasion d'interroger la contribution de la recherche au changement à l'échelle locale, ce qui a mis en relief les politiques liées à la participation, à la collectivité, à l'autorité, et à la prise de décisions concernant l'eau. Sous une perspective intersectionnelle portant attention à la différence sociale et à la complexité du genre, la matérialité de l'eau et de l'infrastructure de l'eau sont également ressortis comme étant des facteurs cruciaux influençant l'expérience. Je suggère que ces interconnexions entre le social et le matériel ont des implications sur la théorie de l'intersectionnalité. Offrant une déconstruction de cette théorie, je propose quatre outils analytiques pour l'envisager: la simultanéité, la spécificité située, la relationalité, et les constantes fluides. Ces outils ou mécanismes aident à élargir le cadre analytique de la pensée intersectionnelle pour y inclure les enchevêtrements mutuels entre les relations de pouvoir genrées à l'échelle sociale et la matérialité de l'eau. La présente thèse apporte une contribution aux domaines du genre et du développement au Cameroun, de la participation à la gouvernance de l'eau, à la théorie féministe de l'intersectionnalité, et à l'utilisation de méthodologies visuelles pour la recherche sur l'eau.

## Contribution of Authors

This thesis is an original work by Jennifer A. Thompson. Parts of this thesis were previously published in the following articles:

Thompson, J. A. (2014). On writing notes in the field: Interrogating positionality, emotion, participation and ethics. *McGill Journal of Education*, 49(1), 247-254. doi: 10.7202/1025781ar

Thompson, J. A. (2016). Intersectionality and water: How social relations intersect with ecological difference. *Gender, Place & Culture*, 23(9), 1286-1301. doi: 10.1080/0966369X.2016.1160038

Thompson, J. A., Gaskin, S. J., & Agbor, M. (2017). Embodied intersections: Gender, water, and sanitation in Cameroon. *Agenda*. doi: <http://dx.doi.org/10.1080/10130950.2017.1341158>

## Table of Contents

<b>Abstract</b>	<b>3</b>
<b>Contribution of Authors</b>	<b>6</b>
<b>Table of Contents</b>	<b>7</b>
<b>Acknowledgements</b>	<b>11</b>
<b>List of Tables</b>	<b>12</b>
<b>List of Figures</b>	<b>12</b>
<b>List of Acronyms</b>	<b>13</b>
<b>Map of Cameroon</b>	<b>15</b>
<b>Map of the Research Sites</b>	<b>16</b>
<b>Glossary of Selected Terms in Cameroonian Pidgin English</b>	<b>17</b>
<b>CHAPTER 1: THINKING THROUGH WATER</b>	<b>19</b>
<i>Gendered Waterscapes</i>	20
<i>Gender and Water in the Majority World</i>	24
<i>Intersectionality</i>	27
<b>A Feminist, Participatory, Visual Approach to Research</b>	<b>30</b>
<i>My Relationship with Gender and Water</i>	32
<i>Why Cameroon?</i>	33
<i>Participatory Visual Methodologies for Social Change</i>	35
<i>Research Objectives and Questions</i>	38
<i>Women and Water Wahala: Overview of the Study</i>	39
<i>Organization of the Dissertation</i>	39
<b>CHAPTER 2: INTERSECTIONALITY AND WATER</b>	<b>42</b>
<b>Setting the Scene: Women, Environment, and Development</b>	<b>43</b>
<b>Conceptual Undercurrents</b>	<b>44</b>
<i>Pillars of Water Governance</i>	45
<i>From Women in Development (WID) to Gender and Development (GAD)</i>	48
<i>From Ecofeminism to Feminist Political Ecology (FPE)</i>	49
<b>Key Areas of Gender-Water Research</b>	<b>50</b>
<i>Women's Work and Water Use</i>	50
<i>Gendered Structures and Processes</i>	51
<i>Intersecting Relations: Complicating Women and Gender</i>	55
<b>Water-Society Relations</b>	<b>56</b>
<b>Revisiting the Social Roots of Intersectionality</b>	<b>60</b>
<i>Navigating Hydrosocial Complexity</i>	61
<i>Conclusion</i>	62

<b>CHAPTER 3: CONTEXTUALIZING GENDER AND WATER IN CAMEROON</b>	<b>63</b>
<b>I) Overview: Water and Development</b>	<b>64</b>
<i>Celebrating Peace, Diversity, and Abundant Natural Resources</i>	64
<i>Water and Development</i>	64
<b>II) Interrogating Power and Politics</b>	<b>70</b>
<i>Tracing Colonial Legacies</i>	70
<i>Changes in Cameroon's Political Economy since Independence</i>	75
<b>III) Gender and Power: Women Navigating Patriarchy</b>	<b>81</b>
<i>Women: The Backbone of Cameroon</i>	82
<i>Women's Group Membership</i>	83
<i>National Gender Machinery</i>	84
<i>Women's Activism and Protest</i>	87
<b>IV) The Politics of Water Management</b>	<b>89</b>
<i>Neoliberal Ideologies in Water Management</i>	89
<i>Water Machinery at a Glance</i>	92
<i>Société Nationale des Eaux du Cameroun (SNEC) Era (1968-2008)</i>	93
<i>Neoliberal Reform: Decentralization and Privatization</i>	95
<i>Community Water Schemes</i>	99
<i>Participation in Water Research and Governance</i>	103
<i>Gender and Water in Cameroon</i>	105
<i>Conclusion</i>	107
<b>CHAPTER 4: DOING FIELDWORK</b>	<b>109</b>
<i>Working in Collaboration</i>	110
<i>Orientation</i>	112
<b>Participatory Visual Research Design: A Workshop Model</b>	<b>113</b>
<i>Fieldnotes</i>	115
<i>Research Sites</i>	116
<i>Combining Photovoice and Participatory Video</i>	117
<b>Phase I: Community-based Image Production and Analysis</b>	<b>117</b>
<i>Facilitator Training</i>	117
<i>Community Photovoice and Participatory Video Workshops</i>	118
<b>Phase II: Post-Production Analysis</b>	<b>121</b>
<i>Sharing Visual Data: DVD Production</i>	121
<i>Participatory Analysis Workshop</i>	122
<b>Phase III: Dissemination, Outreach, and Audiencing</b>	<b>125</b>
<i>Community Exhibitions</i>	125
<i>Media Outreach</i>	126
<i>Decision-Makers</i>	127
<b>Reflecting on Method: Participation, Power, and Voice</b>	<b>128</b>
<i>Status and Exclusion</i>	128
<i>Challenging Gendered Norms</i>	129
<i>Ownership</i>	131
<i>Pedagogy and the Ethics of Working in Community</i>	131
<i>On Language</i>	134
<i>Studying up</i>	136



<i>Funding</i>	138
<b>Phase IV: Returning to Cameroon</b>	<b>139</b>
<b>Phase V: Stitching Together Participant Analysis</b>	<b>140</b>
<i>Conclusion</i>	145
<b>CHAPTER 5: NEGOTIATING WATER WAHALA</b>	<b>146</b>
<b>I: Unreliable Piped Water: The Costly Tease of the Tap</b>	<b>148</b>
<i>Partially-Privatized Urban Water</i>	148
<i>Community-Managed Rural Water</i>	155
<b>II: Embodied Intersections</b>	<b>157</b>
<i>Stressing for Water</i>	157
<i>Marriage: From Marital Problems to Conjugal Violence</i>	158
<i>Negotiating Gender Norms</i>	160
<i>Calling and Sending Girls: Daughterly Duties</i>	162
<i>Water is Chest Pain: Through Bodies and Emotion</i>	165
<i>Convergence: Negotiating Crowds</i>	169
<i>Masculinities, Mobility, and Vehicle Transport</i>	171
<i>Sexual Violence</i>	173
<i>Disrupting and Interrupting Change</i>	175
<b>III: Multiple Water Sources and Technologies of Water Access</b>	<b>177</b>
<i>Mimbo and Bottled Beverages</i>	178
<i>Water Storage: Tools and Practices</i>	178
<i>Begging and Buying Water from Neighbours</i>	180
<i>Doubtful Sources</i>	181
<b>IV: Protecting Water – Development and Sustainability</b>	<b>196</b>
<i>Ownership</i>	196
<i>Dirty Water Spaces</i>	197
<i>Pollution Points: The Body and Bodily Processes</i>	198
<i>Water, Land, Forests, and Competing Development Priorities</i>	200
<i>Conclusion</i>	209
<b>CHAPTER 6: THE POLITICS OF INTERROGATING CHANGE</b>	<b>211</b>
<b>What Change?</b>	<b>214</b>
<i>More Taps, Tanks, and Boreholes</i>	214
<i>Improved Surface Wells</i>	215
<i>Rainwater Harvesting</i>	216
<i>Improved Household Storage and Treatment</i>	217
<i>Soft-Path Possibilities and Constraints</i>	218
<i>Sanitation, Land, and Water Protection</i>	219
<i>Community Participation</i>	222
<i>Awareness, Education, and Sensitization</i>	223
<b>The Politics of Participation, Power, and Change</b>	<b>227</b>
<i>Involvement in Decision-Making</i>	228
<i>Barriers to Participation</i>	236
<i>The Possibilities of Participatory Visual Research</i>	264
<i>Conclusion</i>	272

<b>CHAPTER 7: MUTUAL ENTANGLEMENTS</b>	<b>274</b>
<b>Revisiting Intersectionality Theory: A Hydrosocial Framework</b>	<b>275</b>
1) <i>Simultaneity</i>	276
2) <i>Situated Specificity</i>	282
3) <i>Relationality</i>	287
4) <i>Fluid Consistencies</i>	292
<i>Conclusion</i>	299
<b>CHAPTER 8: CONCLUSION</b>	<b>301</b>
<i>Chapter Summaries</i>	302
<b>Answering my Research Questions</b>	<b>306</b>
<i>Question 1</i>	306
<i>Question 2</i>	307
<i>Question 3</i>	308
<b>Contributions to Knowledge</b>	<b>310</b>
<i>Area 1: Gender and Water in Cameroon – Asking Women about Water</i>	310
<i>Area 2: Democratizing Research in the Cameroon Context</i>	311
<i>Area 3: Participatory Visual Research about Gender and Water</i>	311
<i>Area 4: Feminist Theory – Intersectionality and Water</i>	312
<b>Study Limitations</b>	<b>313</b>
<i>Focus on the Anglophone Region</i>	313
<i>Moving On: The Sustainability of Collaboration</i>	313
<b>Study Implications</b>	<b>314</b>
<b>Implications for Practice</b>	<b>314</b>
1) <i>Improving Water Access</i>	314
2) <i>Protecting Water Resources</i>	316
3) <i>Mainstreaming Gender in Decision-Making</i>	317
4) <i>Promoting Knowledge-Sharing and Participatory Decision-Making</i>	317
<b>Implications for Research</b>	<b>319</b>
1) <i>Further Disaggregating Water Labour</i>	319
2) <i>Water and Sanitation Practices</i>	321
3) <i>Broadening the Lens</i>	323
<b>A Reflection: Seeing Aminata, Seeing Water</b>	<b>326</b>
<b>Works Cited</b>	<b>327</b>
<b>Appendix A: Informed Consent Form – Community Workshops</b>	<b>355</b>
<b>Appendix B: Invitation Letter and Program for Decision-Maker Forum</b>	<b>358</b>
<b>Appendix C: Informed Consent Form – Decision-Maker Forum</b>	<b>360</b>
<b>Appendix D: CHAMEG <i>Connect Cameroon</i> Newsletter</b>	<b>362</b>
<b>Appendix E: My Water Storage System</b>	<b>366</b>

## Acknowledgements

### Personal acknowledgements

It is difficult to express the extent of my appreciation to the network of people who have supported this study in different ways. To begin, I extend my sincere gratitude to the research participants in Cameroon who participated in this study. Your trust in me as a researcher and willingness to work together was a true honour, for which I am indebted. I hope that I have adequately represented the scope and nature of the concerns that you shared during the research process. I accept responsibility for any errors in the thesis.

Changing Mentalities and Empowering Groups (CHAMEG) and Mrs. Magdaline Agbor, in particular, you were the backbone of this study. Meg, your commitment, hope, boundless energy, and ability to make things happen continue to inspire me. I thank you for inviting me so warmly into your organization, your personal and professional networks, and your home in ways that extended beyond what I imagined collaborative research to entail.

I would also like to thank the following individuals who played pivotal roles as my co-facilitators during the community-based workshops: Agnes Nanyongo Mediki, Bruno Difang Tahr, Elizabeth Oben Besong, Eta Stella Nkongho, Kidze Faith Sevidzem, Pamela Orock, Sally Tchouyomgo, Stacey Manka Kisun, Theresia Etengeneng Achuo, and Verra Ndemazia Tajong.

I extend my deep appreciation to members of the Buea Water Resources Research Team who advised me and helped shape the direction of this study and thesis: Dr. Fidelis Folifac, Dr. Sunday Shenda Kometa, Zian Sally, and Angela Huston. Our meetings together were invaluable in shaping my understanding of what it means to do water research in this research context.

For my co-supervisors, Claudia Mitchell and Susan Gaskin, I do not have enough words. Your support and dedication to my work and learning has been tremendous. Thank you for believing in me, for opening up opportunities, for reading draft upon draft of my writing, for offering suggestions and challenging me to think differently, and for creating spaces in which I could explore and grow.

To my committee member, Kathleen Fallon, thank you so much for your encouragement and for supporting my ideas and scholarship.

This thesis would not have been possible without many friends and colleagues who each, in different ways before, during, and after fieldwork, provided ideas, questions, critique, sustenance, emotional support, and nights out that helped to both ground and inspire me: Thank you April, Ashley, Haidee, Hilary, Janna, Jenn, Josh, Katie, Liana, Lysanne, Patience, Sarah, Steph, and Susie. Susann Allnutt, thank you for your close read at the end. To the wider members of the Participatory Cultures Lab over the years, I am grateful for this sense of community throughout what can be a fairly isolating journey.

Finally, thank you to my family for your unconditional love, support, and stability through my doctoral process. Over the last few years in particular, we have adjusted to tremendous loss, but also to new beginnings. I feel beyond fortunate for our closeness and connection, and for the fun that we have together. I love you.

### Institutional acknowledgements

This research was made possible by the *Fond de recherche du Québec – Société et culture* doctoral bursary and the International Development Research Centre Doctoral Research Award. I also gratefully acknowledge financial assistance from McGill University's Jackie Kirk Fellowship, which supported my fieldwork, as well as financial assistance from the Provost's Graduate Fellowship, the Guha Award in International Development Education, the Ruth H. Cameron Award, and annual departmental Keep on Track Awards.

## List of Tables

<b>Table 1.</b> Neoliberal strategies for water management	<b>90</b>
<b>Table 2.</b> Legal instruments reforming the water sector	<b>95</b>
<b>Table 3.</b> Fieldwork timeline	<b>109</b>
<b>Table 4.</b> Data chart	<b>116</b>

## List of Figures

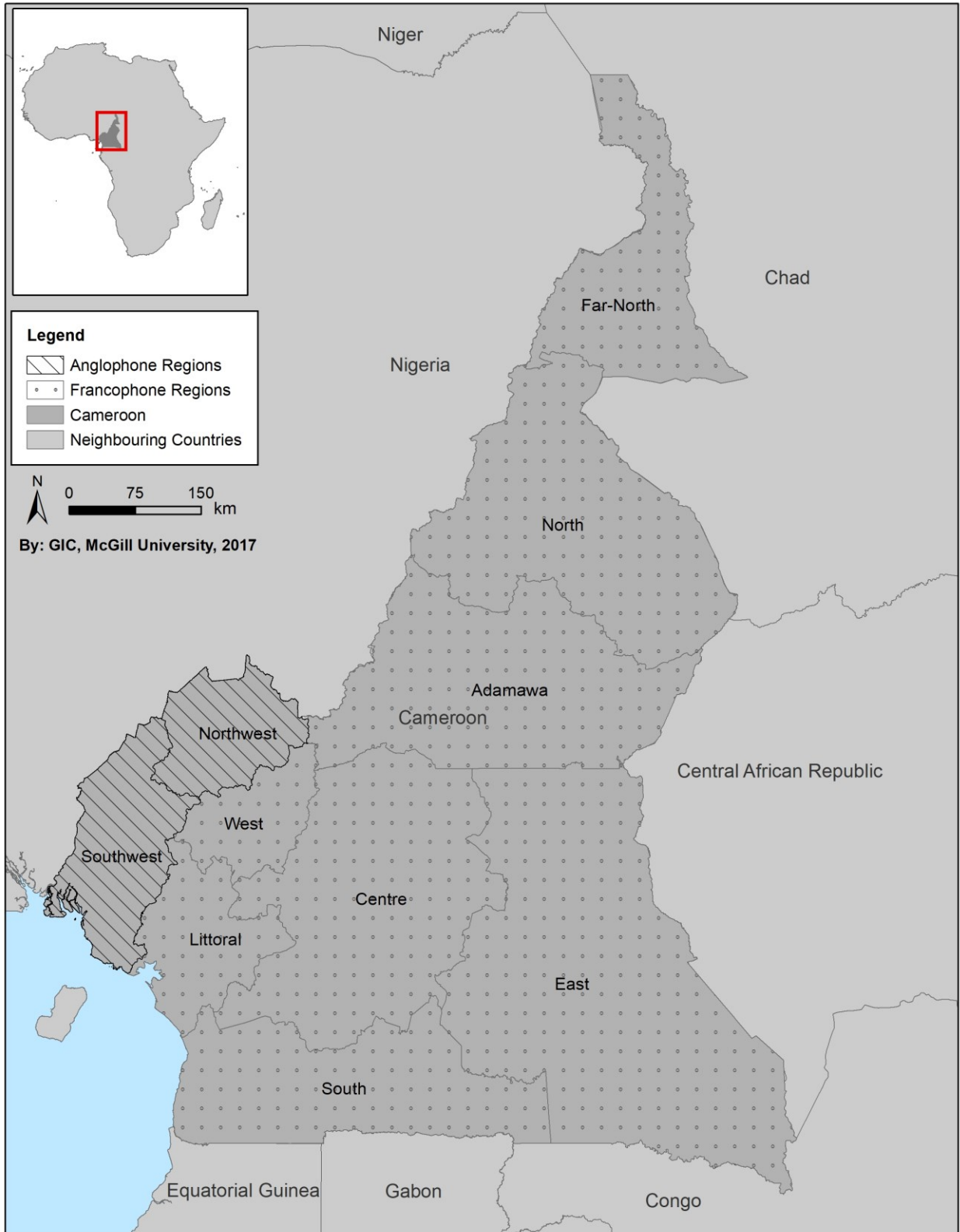
<b>Figure 1.</b> Key areas informing the field of gender and water	<b>45</b>
<b>Figure 2.</b> The hydrosocial cycle (from Linton & Budds, 2014)	<b>58</b>
<b>Figure 3.</b> Screen shots from "Water Bills for Thirsty Women" (Action Group, Buea)	<b>150</b>
<b>Figure 4.</b> "A lady drinking water directly from the broken pipe" (Group of Grace, Molyko)	<b>153</b>
<b>Figure 5.</b> Screen shots from "Women as Decision-Makers" video (Women in Action, Buea)	<b>163</b>
<b>Figure 6.</b> Screen shots from "Water Nightmare" video (Caring Friends, Kumba)	<b>168</b>
<b>Figure 7.</b> "A mob of people scrambling to carry water" (Caring Friends, Kumba)	<b>170</b>
<b>Figure 8.</b> "This borehole is unuseable" (Faith Sisters, Mudeka)	<b>183</b>
<b>Figure 9.</b> "Village well abandoned because someone died in it many years ago" (Elders' Group, Mudeka)	<b>186</b>
<b>Figure 10.</b> "Old drinking water" (Women with Action, Mudeka)	<b>190</b>
<b>Figure 11.</b> Screen shots from "In Need of Potable Water" (Youths of Hope, Mudeka)	<b>192</b>
<b>Figure 12.</b> "Poor drainage along the major road" (Investigation Group, Buea)	<b>198</b>
<b>Figure 13.</b> "Palm tree environment to shade the water" (Peaceful Women, Bwitingi)	<b>201</b>
<b>Figure 14.</b> "Water storage in tanks at Bwitingi" (Peaceful Women, Bwitingi)	<b>201</b>
<b>Figure 15.</b> Screen shots from Peaceful Women's video (Bwitingi)	<b>202</b>
<b>Figure 16.</b> "Dried up farms in the locality of Bwitingi due to changes in season" (Adventurous Youths, Bwitingi)	<b>206</b>
<b>Figure 17.</b> "Pulling mechanism (pulley system)" (Water is Life, Kumba)	<b>216</b>
<b>Figure 18.</b> Sophie's WMC pyramid (Adapted from fieldnotes, November 2013)	<b>231</b>
<b>Figure 19.</b> "Members of the traditional council in Bokova." (ANNCLOHANBET Youths)	<b>233</b>
<b>Figure 20.</b> Photographs of German Spring, Mudeka	<b>267</b>
<b>Figure 21.</b> Photographs of German Spring after the research (Mudeka)	<b>268</b>
<b>Figure 22.</b> SNEC logo	<b>318</b>

## List of Acronyms

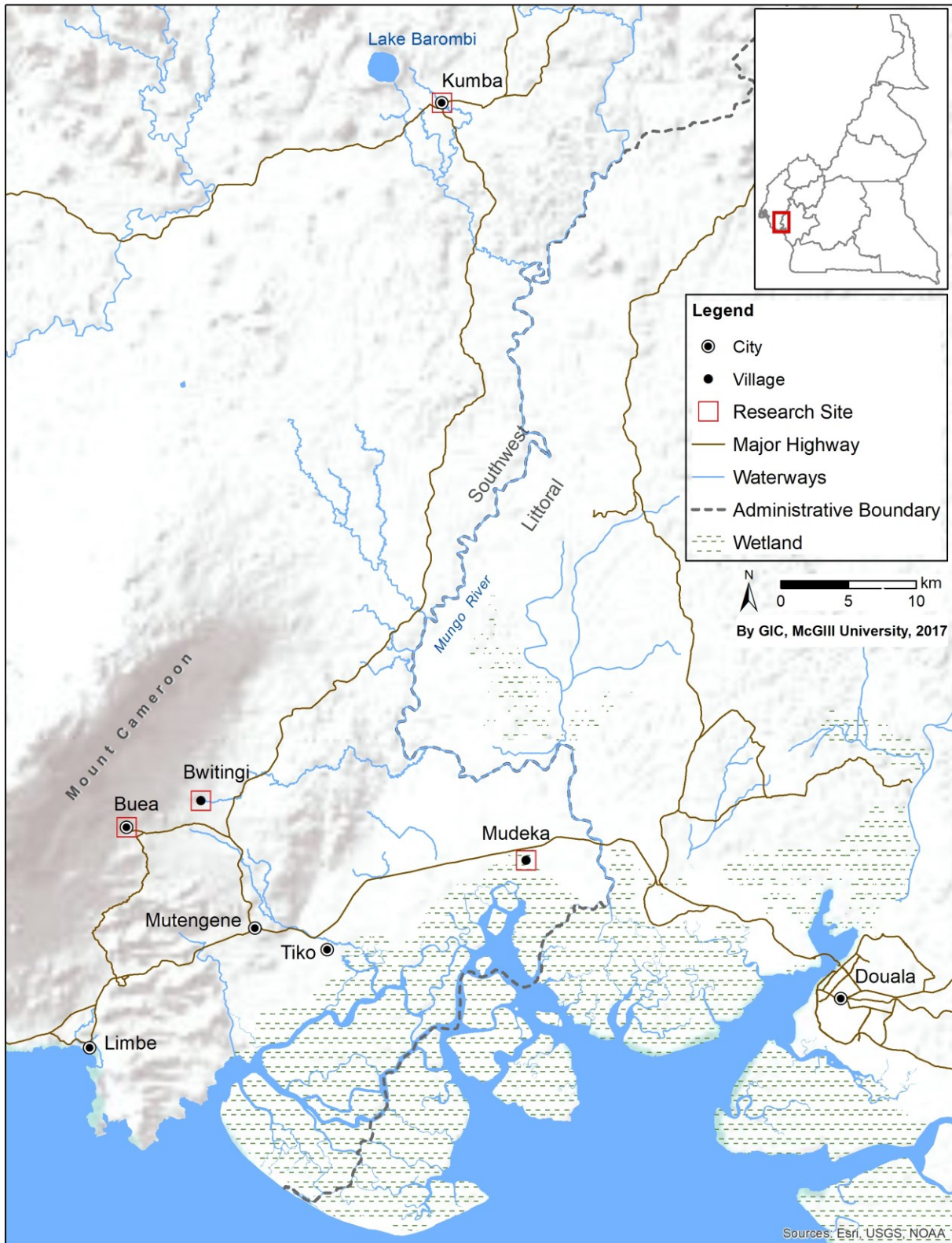
AfDB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
AMCOW	African Minister's Council on Water
AU	African Union
BIR	<i>Battalion d'Intervention Rapide</i> [Rapid Intervention Battalion]
BWRRG	Buea Water Resources Research Group
CAMWATER	Cameroon Water Utilities Corporation
CEDAW	Convention for the Elimination of Discrimination Against Women
CDC	Cameroon Development Corporation
CDE	<i>Camerounaise des Eaux</i>
CHAMEG	Changing Mentalities and Empowering Groups
CPDM	Cameroon People's Democratic Movement
CRTV	Cameroon Radio Television
CSO	Civil Society Organization
DO	Divisional Officer
ECA	United Nations Economic Commission for Africa
FAO	Food and Agriculture Organization
FGM	Female genital mutilation
FPE	Feminist political ecology
GAD	Gender and development
GeED	Gender Empowerment and Development
GBV	Gender-based violence
GWP	Global Water Partnership
HIPCI	Heavily Indebted Poor Country Initiative
HIV	Human immunodeficiency virus
IEC	Information and education campaign
IMF	International Monetary Fund
IWRM	Integrated Water Resources Management
JMP	Joint Monitoring Programme
MDG	Millennium Development Goal
MINADER	<i>Ministre de l'Agriculture et du Développement Rural</i> [Ministry of Agriculture and Rural Development]
MINEE	<i>Ministère de l'Eau et de l'Energie</i> [Ministry of Energy and Water]
MINEPAT	<i>Ministère de l'Economie, de la Planification et de l'Aménagement du Territoire</i> [Ministry of Economy, Planning, and Regional Development]
MINFOF	<i>Ministère des Forêts et de la Faune</i> [Ministry of Forestry and Wildlife]
MINPROFF	<i>Ministère de la Promotion de la Femme et de la Famille</i> [Ministry of Women's Empowerment and the Family]
NGO	Non-governmental organization
NW	Northwest
OECD	Organisation for Economic Co-operation and Development

PRSP	Poverty Reduction Strategy Paper
SAP	Structural Adjustment Program
SDF	Social Democratic Front
SDG	Sustainable Development Goal
SNEC	<i>Société Nationale des Eaux du Cameroun</i> [National Water Supply Company of Cameroon]
SW	Southwest
PANGIRE	<i>Plan d'Action National de Gestion Intégré des Ressources en Eau</i> [National Integrated Water Resources Management Action Plan]
PNDP	<i>Programme National du Développement Participatif</i> [National Participatory Development Program]
PPP	Public-Private-Partnership
PRSP	Poverty Reduction Strategy Paper
PV	Participatory video
PVM	Participatory visual methodology
TOT	Training of trainers
UB	University of Buea
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
US	United States
WASH	Water, sanitation, and hygiene
WATSAN	Water and sanitation
WHO	World Health Organization
WID	Women in development
WMC	Water Management Committee
WWAP	World Water Assessment Programme

# Map of Cameroon



# Map of the Research Sites





## Glossary of Selected Terms in Cameroonian Pidgin English<sup>1</sup>

Pronunciation:        a: short a (as in “bath”)  
                               e: short e (as in “get”)  
                               i: long e (as in “agree”)  
                               o: long o (as in “slow”)  
                               u: ou (as in “boot”)

### People and Institutions

<i>bo</i>	friend, term of affection
<i>fren</i>	friend
<i>gel</i>	girl
<i>govmen</i>	government
<i>jenda</i>	gender
<i>kolcha</i>	culture
<i>kominiiti</i>	community
<i>man</i>	man
<i>masa</i>	master, man, husband
<i>pikin</i>	child
<i>pipul</i>	people
<i>populashon</i>	population
<i>powa</i>	power
<i>tradishonal kaunsil</i>	traditional council
<i>wait man</i>	White man
<i>wuman</i>	woman

### Transportation

<i>ben-sikin</i>	[bend-skin] motorcycle
<i>moto</i>	car
<i>okada</i>	motorcycle
<i>truk</i>	[truck] pushcart

### The Body

<i>ai</i>	eye
<i>fes</i>	face
<i>mop</i>	mouth
<i>wes</i>	waist

### Water

<i>pom</i>	pump
<i>shotej</i>	shortage
<i>tap</i>	tap
<i>wel</i>	wel
<i>wata</i>	water

### Place, Objects and Environment

<i>bush-lam</i>	[bush-lamp] oil lantern
<i>dort</i>	dirt
<i>got</i>	goat
<i>klos</i>	clothes
<i>lait</i>	light
<i>mini-cité</i>	[fr.] apartment building
<i>ofis</i>	office
<i>pam</i>	palm
<i>pam wain</i>	palm wine
<i>planti</i>	plantain
<i>ples</i>	place
<i>quartier</i>	[fr.] neighbourhood
<i>son-lait</i>	sunlight
<i>tri</i>	tree
<i>vilech</i>	village

### Time

<i>agen</i>	again
<i>bifo</i>	before
<i>monin-taim</i>	morning time
<i>taim</i>	time
<i>tide</i>	today
<i>tumoro</i>	tomorrow

<sup>1</sup> Spelling based on Kouega’s (2008) dictionary of Cameroonian Pidgin English.

**Verbs**

<i>aks</i>	to ask
<i>bek</i>	to beg
<i>bon</i>	to give birth
<i>chop</i>	to eat
<i>drink</i>	to drink
<i>dro</i>	to draw
<i>enta</i>	to enter
<i>fain</i>	to find
<i>fait</i>	to fight
<i>fit</i>	to feel
<i>flo</i>	to flow
<i>gi</i>	to give
<i>grit</i>	to greet
<i>helep</i>	to help
<i>kam</i>	to come
<i>kari</i>	to carry
<i>komot</i>	to come out/from
<i>kot</i>	to cut
<i>krai</i>	to cry
<i>kuk</i>	to cook
<i>mek</i>	to make
<i>no</i>	to know
<i>raip</i>	to rape
<i>sabi</i>	to know
<i>si</i>	to see
<i>se</i>	to say
<i>sen</i>	to send
<i>spol</i>	to spoil/ruin
<i>wan</i>	to want
<i>wek</i>	to wake
<i>wok</i>	to work

**Personal pronouns**

<i>a</i>	I
<i>awa</i>	our
<i>dem</i>	them
<i>una</i>	you (plural)
<i>wi</i>	we
<i>yi</i>	she, he, him, her, it,
<i>yu</i>	you

**Additional terms, clauses, phrases**

<i>bai</i>	by
<i>bikos</i>	because
<i>dat</i>	that
<i>de</i>	there, to exist, day
<i>di</i>	the, is
<i>dis</i>	this
<i>difikol</i>	difficult
<i>difren</i>	different
<i>don</i>	down, past tense
<i>eksampul</i>	example
<i>gut</i>	good
<i>hau</i>	how
<i>hia</i>	here
<i>kain</i>	kind
<i>mos</i>	must
<i>ol</i>	all
<i>onli</i>	only
<i>ova</i>	over
<i>palava</i>	troubles, problems
<i>sho-sho</i>	show-off
<i>wahala</i>	troubles, problems
<i>wan</i>	one
<i>we</i>	when
<i>weti</i>	what

## THINKING THROUGH WATER<sup>2</sup>

*A no di drink lait!*  
I don't drink light!

Ma Sara, Buea

Ma Sara has a vending stall where I sometimes bought fruit in the evenings when I was living in the city of Buea in the Southwest (SW) Region of Cameroon. When Ma Sara asked why I was visiting Cameroon and I shared my research focus on women's concerns about water, she nodded approvingly, "Good!" Comparing the value of water and electricity in her daily life, Ma Sara explained that she preferred water to electricity, because she uses water for everything: drinking, cooking, cleaning, doing laundry, bathing children.... She laughed, "electricity, what does it do?" Nodding to the oil lantern shining over the pineapples, bananas, and papayas on her table, Ma Sara said she could see in the evenings using her *bush lamp*, but for drinking...? She scoffed that could not drink light! If faced with the choice, Ma Sara would put water first.

I begin my dissertation with Ma Sara's words to introduce my focus on the relationship between gender and water. Framing my study in Cameroon is a broad narrative about the role of gender in water management. Gendered divisions of labour position women in many areas of the world with primary responsibilities in the daily use, collection, and management of water. Women have specific water roles, needs, and interests and are most affected by water access challenges. However, women are often not included in water research, policy, and decision-making. Persistent views about water as a technical issue and the aggregation of households as basic units of analysis produce 'gender-neutral' water policies and management decisions. The results are unsatisfactory for two reasons. First, water decisions that exclude women are incomplete because they lack women's knowledge about water use practices; this leads to poorly informed water decisions, which affects the efficiency and sustainability of water management. Second, men often prioritize men's needs and concerns in water decisions. In overlooking women's concerns, this gender bias creates disproportionate burdens for women and exacerbates gender inequality. For more equitable and sustainable water management, women's experience,

---

<sup>2</sup> I draw on Krause and Strang's (2016) methodological approach, *thinking relationships through water*, to study the relationships between water and society.

concerns, and knowledge and the gendered differences in the use, access, and control of water need to be better understood, valued, and incorporated within water policies and interventions.

Ma Sara also politicized water and electricity as basic utilities, both of which are unreliable in her daily life. Suggesting a context of constraint, Ma Sara implicitly pitted access to one service against the other, as if to imply access to both was not possible. Yet abundant freshwater resources flow through networks of springs and streams on the flanks of Mount Cameroon, where Buea is located. In this context of abundant water resources yet unreliable water access, questions about governance and the distributions of power, capital, and resources become more prominent. Furthermore, water services in urban and semi-urban areas of Cameroon were partially privatized in 2008 by *Camerounaise des Eaux*, (CDE) a consortium of Moroccan firms, as part of the conditions for Cameroon's access to loans. I position Ma Sara's concerns about water access as deeply embedded within a global political economy informed by aid policies that work to maintain structural inequalities.

Lastly, Ma Sara's dismissal of the idea of "drinking light" explicitly emphasizes the critical materiality of water. Water sustains all forms of life and social organization; it is a material substance that is essential for survival. As the popular slogan aptly suggests, water *is* life. Yet the specific material properties of water pose distinct challenges for the provision of good quality water, as compared to the provision of other basic services such as electricity and communication networks. As a dense liquid, water is difficult and costly to transport. Water's quality is not consistent, and is strongly contingent on how it is used and stored. Notably, there is a finite amount of water on the planet; the Earth is not producing more water. With increasing demands and pressures on existing supplies, better understanding the complexities of human relationships with water is critical for addressing questions about sustainability and social justice.

### **Gendered Waterscapes**

Locating this study within the field of gender and water, I bring together feminist geographies and development studies, and work with the broad idea of a *waterscape*. While this term is said to originate from mid-nineteenth century descriptions of artwork depicting scenes with bodies of water (Orlove & Caton, 2010), I take up its more recent use by geographers who define the waterscape as the "water landscape" (Swyngedouw, 1999) or a "produced socio-natural entity" (Loftus, 2007, p. 49). I work with the core geographical concept that nature is socially produced (Castree & Braun, 2001) and theorizing about the materiality of water (Bakker

& Bridge, 2006; Strang, 2004) to explore how water is both socially and materially produced. The waterscape thus includes H<sub>2</sub>O, or water in the physical world, as well as the production of water through the interaction of various social, political, economic, and technological systems.

Within this idea of a waterscape, I draw on water governance as a multifaceted site of change, where different ways of thinking and decision-making about water are enacted. While water governance is typically conceptualized with a fairly narrow focus on water delivery mechanisms, such as water committees and pricing mechanisms, I respond to scholarly calls for broader and more holistic views of water governance (Bakker, 2010; Rogers & Hall, 2003). Acknowledging the dynamic and complicated ways that water shapes and is shaped by so many aspects of society, I work with the definition of water governance as “the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water resources, at different levels of society” (Global Water Partnership, 2002, cited in Rogers & Hall, 2003, p. 7). Thus, water governance includes the relationships between state, market, and society (Bakker, 2010; Rogers & Hall, 2003).

With significant influence in the area of water governance, neoliberalism constitutes “the ideologies, networks and institutions that further the implementation of market-oriented policies” (Harris, 2009, p. 389). While enacted differently in different contexts, neoliberal ideologies promote private sector involvement and market-based strategies as the most efficient way to manage water, and feed into larger processes of capitalist expansion and reorganization (Ahlers & Zwarteveen, 2009; Harris, 2009). In the past several decades, some of the most drastic neoliberal measures have been implemented within the area of water governance, in particular in developing contexts (Bayliss & Fine, 2008; Harris, 2009). Yet the very proponents of privatization now admit the failure of this experiment at improving access to basic services, particularly in the developing contexts where it was most aggressively implemented (Bayliss & McKinley, 2007).

In a global context where the United Nations (UN) only explicitly declared water and sanitation as a human right in 2010 (UN Resolution 64/292) amidst fiercely contested debates about the privatization of basic services, geographer Karen Bakker (2010) offered important conceptual insight about governance failure in the area of water. Having seen successful and unsuccessful private and public water supply systems, Bakker called for a focus beyond the polarized debate between ‘public’ (i.e. state) and ‘private’ (i.e. market) towards

reconceptualizing water governance in more relational and multiscalar ways. She wrote: “Our frame of reference in water governance debates should not be restricted to the networks and its users, but should, rather, include a larger, integrated set of technological systems and ecosystems” (p. 201). Bakker (2010) advocated for deeper conceptual engagement with ideas related to the dynamics of ‘community’ (however problematic a concept), and the ecological systems that are routinely overlooked within approaches to water governance that focus on the political economy.

Importantly, with this broadened understanding of water governance, there is a need to examine how formal and informal modes of water access intersect. Ahlers, Cleaver, Rusca, and Schwartz (2014) cautioned that the strong academic focus on political economic processes such as capitalism and neoliberalism risks overshadowing how people negotiate everyday water access through both formal and informal mechanisms and structures. In this study, I do not focus specifically on the inner workings of formal water institutions. Instead, I explore gendered everyday water practices *in relation to* both the formal and informal mechanisms of water governance and decision-making. Everyday struggles for water produce important situated knowledges that need to inform water governance. The role of gender is a critical, yet understudied dimension of how water is used and understood. Water governance also needs to include how gendered social values, norms, and informal networks also influence how water is managed (Rogers & Hall, 2003).

With my interest in gender-water relations (the relationship between gender and water), I would be remiss not to acknowledge the hugely influential role of gender mainstreaming in the development of gender and water as a field of study:

Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality. (UN, 1997, p. 3)

A good proportion of gender-water literature considers what it means to mainstream gender within the water sector. Gender mainstreaming is often associated with two broad objectives: 1) to change the structure of institutions, and 2) to foster women’s empowerment. Certainly, enormous institutional strides are evidenced by the general plethora of gender policies, ministries, and programs in the development sector. However, there are broader questions about how

empowerment is conceptualized, and there is still much work to do in the area of both objectives. Stemming partly from the dual focus of gender mainstreaming, some question whether the institutional focus normalizes, depoliticizes, and decontextualizes some of the more radical aims of empowerment (Koczberski, 1998; Pearson & Jackson, 1998; Rathgeber, 1990; Razavi & Miller, 1995). Women's emancipatory interests (Molyneux, 1985) have been depoliticized as gender planning needs (Moser, 1993). Furthermore, in practice, many empowerment projects tend to continue to focus exclusively on women (Razavi & Miller, 1995); this focus overlooks questions about gender relations and masculinities. While women's work with water was first recognized globally in 1992 through the Dublin-Rio Principle III, gender remains largely a rhetorical concept within global water policies and institutions (Joshi, 2005; Seager, 2010; Wallace & Coles, 2005). For example, it was almost twenty years after gender mainstreaming was developed at the 1995 4<sup>th</sup> World Conference on Women in Beijing that the World Water Development Report underwent its first gender mainstreaming exercise and dedicated a chapter to gender issues (World Water Assessment Programme (WWAP), 2012). Indeed, amidst debates about the successes and failures of gender mainstreaming (see Moser, 2005; Moser & Moser, 2005), it is clear that this work is "easier to say, harder to do" (House, 2005, p. 209). To address women's under-representation in water management, Figueiredo and Perkins (2013) compiled a variety of promising participatory and inclusive approaches that are community-based and people-centred, and that value multiple types of knowledge and experience. These strategies include, for example, community mapping, collective story-telling, water dialogues and learning circles, fostering connection between universities and community organizations, and photovoice. Drawing on these methodological possibilities, this study explores questions about why gender matters through participatory visual methodologies and what it means to work towards more sustainable and equitable water governance.

## Gender and Water in the Majority World

I specifically take up the criticality of gender-water issues in the Global South.<sup>3</sup> Of the 663 million people who currently face inadequate access to improved water sources (UN, 2015) the majority live in the Global South, where 90% of population growth is expected to occur in the coming decades (WWAP, 2009). These trends signal a growing intensification of water stress and struggle, with specific implications for the daily lives of the majority of women in the world. According to the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation (2012), data from 25 sub-Saharan African countries showed that “women spend a combined total of at least 16 million hours<sup>4</sup> each day collecting drinking water” (p. 31). In addition to the burden of physical labour involved in carrying heavy loads over long distances, this represents time away from schooling, paid work, and leisure time. Improving reliable access to good quality, affordable water closer to home directly impacts women’s lives and well-being. Critically understudied is how water access is a *gender* issue.<sup>5</sup>

However, with my research focus on the experiences of women in the SW Region of Cameroon, I reflect on how gender-water studies often concentrate inherently on women in the Global South. I am mindful of Chandra Mohanty’s (1988) postcolonial feminist concern about the discursive construction of *Third World Woman* as a singular, monolithic, and universal category. Mohanty drew attention to the political effects of *a priori* assumptions about same-ness and shared oppression that inherently position women as, for example, victims of male violence and colonial processes, and dependent within family systems. Such decontextualized Othering<sup>6</sup>

---

<sup>3</sup> I use the term Global South to refer to countries where the majority of the world’s population lives, and that have experienced systemic exploitations through slavery, colonialism, and multinational trade (D’Souza, 2006; Frank, 1971; McNally, 2002; Rodney, 1974). I emphasize how constructions of race have played a central organizing role in these systems and flows. I also use the terms developing country, Majority World and Third World to remain consistent with various authors’ choice of terms across contexts and theoretical frameworks, and recognize the contested nature of these terms due to the problematic ways that they essentialize a diverse range of lived experience (Willis, 2005).

<sup>4</sup> As compared with 6 million hours for men, and 4 million hours for children.

<sup>5</sup> My focus on the Global South is not meant to overlook how various peoples and communities in the Global North also face water access challenges. For example, First Nations communities in Canada face disproportionate impacts of mining, pipeline development, and chronic boil water advisories (Health Canada, 2014). Additionally, as noted by Shove (2003), cultures and broader patterns of excess and overconsumption—characteristic of wealthy contexts—also need to be interrogated more deeply as critical sites of change.

<sup>6</sup> In feminist and postcolonial scholarship, references to the ‘other’ are sometimes capitalized as Other because of concerns about the dichotomy between Self and Other (drawing on the work of Edward Said who wrote about the discursive construction of the West in relation to what it is not, or Other). I capitalize Other to distinguish the effect of how Othering processes construct particular political identities, and to remain consistent with Chandra Mohanty’s (1988) capitalization of the term.



works to essentialize and colonize many women's diverse lived experiences. One of Mohanty's key points was that patriarchy is not singular or universal. To avoid this analytical trap, Mohanty stressed the importance of *historical specificity* in the study of women's lives. Therefore, as I take up women's and men's concerns about water in the specific context of Southwest Cameroon, I also work to contextualize the ways in which contemporary arrangements of power and privilege in this part of Cameroon have been constructed historically by the unique politics and social and cultural traditions (and I add environmental conditions) shaping the research context.

Mindful of the complicated ways in which structures of power work across multiple geographies of scale, I also heed Michelle Fine's (2014) suggestion that researchers *not crop too close*. In a presentation about her work using Participatory Action Research with marginalized youth in the US, Fine cautioned about the limitations of making meaning based solely on observations of the behaviours and interactions of individuals. While close attention to the immediacies of daily life in institutions such as schools and juvenile detention centers is critical for understanding the experiences and agencies of youth, this analytical frame also risks obscuring the systemic nature of inequalities. It is also important to *zoom out* and consider how institutional cultures are shaped not only by the agencies of the people in them, but also by broader and historic patterns of discrimination. Therefore, I strive to widen the frame (keeping with Fine's photography metaphor) and push my analytical perspective to include, but also look beyond, immediate interpersonal, community, and even national dynamics. In my analysis, I work to consider broadly how the people and groups in Cameroon whose perspectives and experiences shape the study are located within structures of power that operate on a global scale.

With this framing, I emphasize the importance of specifically locating this study as influenced by the social production of Africa. I hesitate, here, in my use of the term *Africa* because of its ongoing homogenizing effect constructing crisis, failure, and problems. However, it is precisely because of how Africa has been imagined, constructed, and positioned in the world, that the term is important. James Ferguson (2006) wrote about the construction of

‘Africa’ as a category through which a ‘world’ is structured – a category that (like all categories) is historically and socially constructed (indeed, in some sense arbitrary), but also a category that is ‘real,’ that is imposed with force, that has a mandatory quality; a category within which, and according to which, people must live. (p. 5)

While I examine water governance issues in the SW Region of Cameroon, I also position how Ma Sara's dismal access to basic services such as water and electricity has been produced

historically, on a regional and global scale. This construction can be traced to historic political and economic processes such as early systems of capitalist trade, 400 years of the trans-Atlantic slave trade, and the colonial Scramble for Africa. These processes of exploitation each worked in different ways to exploit, control, or export African people and resources, often forcibly (Rodney, 1974; Willis, 2005). In Walter Rodney's (1974) terms, Africa has been actively *underdeveloped* in order to fuel development in Europe and the 'New World.' This making of an inequitable global order relied unequivocally on constructions of race, the effects of which are ongoing through contemporary neoliberal economic policies and forms of global capitalism that work to maintain, intensify, and construct new forms of inequality. When the heavily centralized political and economic systems of many postcolonial governments in Africa imploded with the global economic recession in the 1980s, multilateral financial institutions such as the World Bank (WB) and the International Monetary Fund (IMF) launched the Structural Adjustment Programs (SAPs) in the 1990s. With the SAPs, struggling countries could access loans with conditions that they liberalize their political and economic systems (Mbaku & Takougang, 2004), processes that are ongoing through new iterations of loans and aid aimed at debt relief and poverty reduction. For example, African countries constitute the majority of countries approved for the WB and IMF Heavily Indebted Poor Country Initiative (IMF, 2017). These historic and ongoing global political and economic relations produce poverty and debt and have real material consequences for the conditions of everyday life.

At the same time, I frame this study in the context of questions about the changing nature of participation and power, broadly speaking. The transition of many African governments to democracy and decentralization of power and authority to lower levels of government are creating—in theory—new opportunities for participation. The rise of democracy in many sub-Saharan African contexts is opening up new opportunities for women's voices, rights advocacy, solidarity, mobilization and protest, and increased opportunities for women's participation within formal political structures (Fallon, 2003, 2008). Yet democratization is also a highly variable process with factors such as political context and the ideologies and legacies of women's movements significantly shaping women's political participation and the gendered outcomes of

the transition process (Viterna & Fallon, 2008).<sup>7</sup> Further, given how neoliberal policy works, I note Ferguson's (2006) caution about the limitations of formal democracy and how countries' "scope for making policy [are] radically constrained by the *nondemocratic* international financial institutions themselves" (p. 84). Nevertheless, within changing political economies, women's advocacy organizations and transnational gender activist networks and movements are shaping the political landscape in new and important ways. While I do not specifically focus my inquiry on women's movements, I draw on the role and force of women's solidarity as an important source of strength, continuity, and multiplicity of voice in shifting patriarchal relations of power.

In this study about women's and men's experiences with water and the relationship between gender and water, I also avoid privileging gender as the sole analytical lens. Drawing on feminist thinking in the field of intersectionality studies, I take up calls to consider more deeply the situated complexities of gendered social relations in relation to water (Harris, 2008; Hawkins et al., 2011). As many gender-water scholars have shown, not all women or men experience water in the same way and there is an enormous amount of diversity both in terms of how water burdens play out, and also in terms of different women's and men's access to political power. To attend to questions about difference, I turn to intersectionality theory.

### **Intersectionality**

Intersectionality is a critical feminist theory and method for understanding the complexities of social experience. Initially a lens for addressing how gender intersects with race and class, intersectionality now explores difference among any number of social categories. As activists and scholars work with intersectionality, more specific understandings of experience emerge, along with more effective and nuanced strategies for addressing power and oppression. Hailed by McCall (2005) as feminism's most important theoretical contribution to date, intersectionality offers a critique of feminist theories that have, as Mohanty (1988) demonstrated, essentialized women as a universal category.

Developed by Black,<sup>8</sup> multicultural, and postcolonial feminists, the theory emerged in the 1980s and 1990s in resistance and response to how theorizing about women's experiences of

---

<sup>7</sup> Examining why some women's movements have been more successful than others, Viterna and Fallon (2008) identified four factors that are important for creating a positive environment for women's mobilising: "a complete transition, a cohesive coalition within the women's movement, a transitional ideology that aligns easily with feminist frames, and a legacy of women's activism that legitimates present-day feminist demands" (p. 669).

<sup>8</sup> In the thesis, I capitalize Black and White to distinguish and politicize the social construction of race. I acknowledge that capitalization risks reinscribing these identity categories.

discrimination solely as a result of patriarchy based on sex fails to account for the complexities of oppression (Baca Zinn & Dill, 1996; Collins, 1990; Mohanty, 1988; Moraga, 1983; Narayan, 1997). The term intersectionality is generally accredited to Kimberlé Crenshaw (1989) who articulated the distinct multidimensional experiences of Black women in the US: “Because the intersectional experience is greater than the sum of racism and sexism, any analysis that does not take intersectionality into account cannot sufficiently address the particular manner in which Black women are subordinated” (p. 140). Framing experiences through a single lens such as gender, race, or class distorts and marginalizes those who face multiple intersecting oppressions.

While multicultural feminisms largely emerged from the United States and postcolonial feminisms concern women in the Global South, intersectionality brings together multiple strands of feminist thought about diversity and difference (Davis, 2008), as well as sociological accounts of difference (Risman, 2004; West & Fenstermaker, 1995). First theorized to better understand the experiences of women, intersectionality has since been expanded to include a variety of standpoints. Intersectionality thinking strives to continue identifying and making visible intersections of power. In her TED Talk, *The Urgency of Intersectionality*, Crenshaw (2016) is said to have drawn attention to the importance of framing:

The problem is, in part, a framing problem [...] Without frames that are capacious enough to address all the ways that disadvantages and burdens play out for all members of a particular group, the efforts to mobilize resources to address a social problem will be partial and exclusionary. (Vasquez, 2016, para 2)<sup>9</sup>

With an ever-widening frame, intersectionality now refers to “the relationships among multiple dimensions and modalities of social relations and subject formations” (McCall, 2005, p. 1771). Multiple intersecting dimensions extend beyond gender, race, and class to include social categories such as sexuality, culture, and ethnicity, among others, and larger structures of power

---

<sup>9</sup> According to the transcript of Crenshaw’s (2016) TED talk, she said the following: “Why does a frame matter? I mean, after all, an issue that affects black people and an issue that affects women, wouldn’t that necessarily include black people who are women and women who are black people? Well, the simple answer is that this is a trickle-down approach to social justice, and many times it just doesn’t work. Without frames that allow us to see how social problems impact all the members of a targeted group, many will fall through the cracks of our movements, left to suffer in virtual isolation. But it doesn’t have to be this way.” [4:07] Later, discussing the situation of Emma Degraffenreid, Crenshaw also said: “The problem that Emma was facing was a framing problem. The frame that the court was using to see gender discrimination or to see race discrimination was partial, and it was distorting.” [8:49] It appears that Vasquez’s (2016) citation differs from what Crenshaw said. However, Vasquez’s blog has been widely circulated. It might be that Vasquez’s citation comes from Crenshaw’s promotional materials or speaking notes. The idea of needing frames that are “capacious enough” provides an important framing role in my argument. As such, I have kept the citation and note that the authenticity and original source of this citation is a potentially problematic conundrum. Crenshaw did use the expression “capacious enough” in an interview two years previously (McDonough, 2014).

such as government, colonialism, and capitalism (Simpson, 2009). Intersectional thinking offers an important social framework for countering the production of a universal Third World Woman, and for differentiating gender relations. In this study, I consider intersectionality as an analytical lens for gender-water research. As I explore later in the thesis, I also take up what it means to work with intersectionality as theory, method, and praxis (Cho, Crenshaw, & McCall, 2013).

In my approach, I consider concurrently feminist questions about the analytical benefits and compromises of focusing on the terms, ‘women,’ ‘gender,’ and ‘intersectionality.’ Rather than delimit a sole focus, I hold these tensions together and simultaneously consider women (and men) as “real, material subjects of their collective histories” (Mohanty, 1988, p. 62), gender as a relation and structure of power, and intersectionality as a lens for particularizing how gendered experiences intersect with other forms of difference. In doing so, I strive to maintain a frame “capacious enough,” (Vasquez, 2016, para 2) expression, to differentiate and consider a diversity of perspectives, but also to work with collective ideas about solidarity in which group identification is a source of strength and advocacy.<sup>10</sup>

In this process of widening the frame, I suggest it is important to integrate an environmental standpoint that encompasses human-environment relations and consider how water *also* shapes gender. Water access challenges are not limited to the social realm. Given the need to examine the material and the social together, I suggest that intersectional theory’s social roots might not be capacious enough. I draw inspiration from Matsuda’s (1991) strategy to *ask the other question* to better expose the interconnections between different forms of inequality:

When I see something that looks racist, I ask, ‘Where is the patriarchy in this?’  
When I see something that looks sexist, I ask, ‘Where is the heterosexism in this?’  
When I see something that looks homophobic, I ask, ‘Where are the class interests in this?’ (p. 1189)

Asking other questions provides opportunities to identify and highlight more explicitly the ways that forms of difference intersect. With an interest in pushing feminist theorizing into the environmental realm, I suggest asking: Where is the water in this? To facilitate this inquiry, I take up Krause and Strang’s (2016) proposal to “think relationships through water as a way to consider the materiality of social relations as well as the sociality of material relations” (p. 634).

---

<sup>10</sup> Given my interest in expanding the frame of gender-water research, I note that with a focus on women and men, as well as on girls and boys, this study draws on rather narrow binary and heteronormative understandings about gender. This reflects much scholarship in the development and gender mainstreaming literature. I acknowledge the importance of complicating and disrupting these assumptions, and the need for more gender-water research from a non-binary and queer perspective.

Responding to the need for more intersectional understandings of water issues, I also extend this analysis to explore what it means to take up water within feminist theorizing about intersectionality.<sup>11</sup> This shift in perspective, from asking what it means to mainstream gender within water governance to considering the role of water in how gender relations are understood, offers an opportunity to deepen understandings about the relationship between gendered social relations and the materiality of water.

### **A Feminist, Participatory, Visual Approach to Research**

Building on a small but growing body of gender-water research in Cameroon, this study integrates feminist, participatory, and visual research paradigms. Following Mitchell (2011), I present ethics up front as a central compass guiding my approach to research.<sup>12</sup> Concerned with questions about what it means to do the *most good* and the *least harm*, my approach to doing research places in the foreground the relationship between power and knowledge. I am wary of the universal objective truth claims of traditional ethnographic and positivist research, which have produced distorted representations of the world. These claims have worked to distance knowledge from the knower, to obscure how knowledge is produced, and to emphasize expert models of *who* can know (Maguire, 1987). In so doing, this research has systematically reinforced dominant power relations, and perpetuated elitist, Western, and often patriarchal understandings of the world (Haraway, 1988; Kindon, 2003; Maguire, 1987). Feminist and postcolonial thinking emphasizes the need to interrogate the relationship between power, knowledge, and representation.

Given these concerns about objectivity, Donna Haraway (1988) suggested that feminist goals to produce a “more adequate, richer, better account of the world” (p. 579) require an acknowledgement of the partiality of research. A feminist standpoint perspective considers knowledge as always partial, embodied, and situated: “views from somewhere” (Haraway, 1988, p. 590). Thus, attention to positionality and the partial and situated nature of researcher subjectivity is a necessary criterion for doing ethical, rigorous, and more reflexive research. My conceptual framework—the place where I, the researcher, stand—brings together the constellation of values and themes through which I view the world (Maguire, 1987). Influenced by the intersection of my social position and combination of life experiences, my worldview is

---

<sup>11</sup> I thank my co-supervisor, Claudia Mitchell, for asking what it means to mainstream water.

<sup>12</sup> I position ethics “up front” in response to the observation that ethical questions are often addressed towards the end of edited books, methodology courses, and in reports of research findings.

the “overarching framework, which organizes [my] whole approach to being in the world” (Reason & Bradbury, 2006, p. 4). Rather than work to eliminate my subjectivity, I work to address the relationships between power and knowledge production by situating how my social location and subjectivity affect the research process (Haraway, 1988; Harding & Norberg, 2005).

In particular, my position as a White researcher from Canada working in Cameroon risks replicating a colonial relation embroiled in ongoing histories of exploitative North-South relations. I echo the concerns of Catherine Vanner (2015), as she articulated the need for a postcolonial perspective for looking at gender issues in Kenyan schools:

The Western researcher represents not only a colonial past but also a neo-colonial present. In light of postcolonial critiques of Western researchers and international development, I have often wondered: Am I doing more harm than good? The privilege that accompanies my social location as a White, upper class, Canadian, academic woman means that, despite good intentions, my efforts to support education in postcolonial contexts risk being patronizing, insulting, threatening, imperialist, and recolonizing [...]

Yet neglecting and ignoring postcolonial contexts because I am not a member of a community directly and negatively affected by colonialism and neo-colonialism similarly reflects and reproduces my privileged position without drawing attention to or challenging unequal and oppressive structures. (pp. 1-2)

Already implicated, I trouble and am troubled by the ethical tension in this relation. To navigate this particular positionality and strive to do the most good and the least harm, Vanner (2015) developed a methodological framework for a Western feminist conducting research in the postcolonial:<sup>13</sup> 1) a collaborative approach; 2) situated ethics; 3) cultural and linguistic sensitivity; and 4) participatory research. My approach to research, which I elaborate below, combines these methodological considerations as I draw on research traditions that seek alternative *ways* of doing research *with* participants, communities, and organizations (Kendon, Pain, & Kesby, 2007; Maguire, 2006), but that also strive to think through broader historical and ongoing structures that impact the everyday.

At the same time, I also want to leave space for the complicated and relational nature of positionality. While the structural power associated with White Western academics conducting research in African contexts certainly demands critical attention, it can also be risky to assume or

---

<sup>13</sup> Vanner (2015) defined the term postcolonial as “previously colonized space that is now technically independent. It can describe a nation-state or an area, group of people, texts, or ideas within a nation-state that may or may not be postcolonial itself. These spaces are officially decolonized but are usually characterized by new imperialism (Harvey, 2003; Tikly, 2004) shaped by the economic, political, military, and cultural hegemony of the West within the context of globalization” (p. 1).

privilege an absolute power with this position. My social position and identity are not singular or fixed, but conflicted and changing as I move between different contexts, relations, and audiences. Thus, this project and my changing position within it have and continue to take on different meanings from different vantage points. However, given the particular discursive implications of this text and what a dissertation represents, I recognize that *I am here* writing this story. The approach that I describe below begins to address my positionality and the ethics of representation, but I do not expect to resolve these ethical tensions. In particular, I trouble the ways in which the writing process solidifies my authorial power, regardless of the participatory and collaborative strategies that I worked with during other stages of the research process. Instead, I strive to keep ethical questions prominent and complex to signify their importance. While I weave questions and reflections about my social position and beliefs throughout different areas of the thesis, I begin with two particular aspects of my positionality that trace my interest in gender and water, as well as how I came to do research in Cameroon.

### **My Relationship with Gender and Water**

My interest in the relationship between gender and water stems from my background in engineering. In a disciplinary sense, I studied the forces and materials that make up earth systems, how rocks and soils intersect with groundwater flows, as well as how to intervene when polluted. My immersion in engineering spaces also provided me with insights about the *culture* of engineering, which I characterize as a pragmatic problem-solving logic and technical concern for the structure of how things work. Yet as a young woman entering the traditionally male-dominated field of engineering in the 1990s, I also became aware of how my gender identity challenged social norms. Competent at maths and sciences, I was encouraged to pursue engineering precisely because women were (and still are) under-represented in science, technology, engineering, and math (STEM) fields. Yet every year on December 6<sup>th</sup>, when I commemorate the 1989 massacre at École Polytechnique in my hometown of Montreal, I am reminded of how fourteen women were killed because they—like me—pursued engineering.<sup>14</sup> In many ways, my positioning as a woman in engineering alerted me to consider how normalized beliefs about gender shape the systemic nature of inequality, ranging from disciplinary norms to extreme acts of violence.

---

<sup>14</sup> I note the 14 women killed included 12 engineering students, a nursing student, and an administrative clerk.



While it was important to me to continue my work as a woman in engineering, I also struggled with a disjuncture between my social and environmental justice values and the capitalist underpinnings of the corporate consulting work I was engaged in. For years, I alternated between contracts with engineering companies, and working in inner city primary schools in Montreal with youth with disabilities and considered at risk. This moving back and forth complicated my emergent awareness of my social position as a woman in engineering, but also of the systemic privileges afforded to me as an upper-middle class, able-bodied White ciswoman, with an engineering degree that carries considerable social capital. While I tended to separate my roles in engineering and education into distinct silos, this doctoral research reflects my first attempt to merge and transcend these different experiences.

### **Why Cameroon?**

The question I was asked most frequently by research participants was: Why did you come to Cameroon to study water? My decision to do research in Cameroon stems from my interest in working collaboratively on water issues and involvement with an interdisciplinary research collective, loosely named the Buea Water Resources Research Group (BWRRG). Wanting to move away from the notion of the solitary, expert researcher (Fonow & Cook, 1991), I value less hierarchical research models that foster more collaborative and egalitarian relationships between researchers and participants. For the last 10 years, several Canadian and Cameroonian scholars and NGOs have collaborated on research addressing water issues in and around Buea, the capital city of the SW Region. This partnership was initiated by Cameroonian-Canadian Fidelis Folifac, through his doctoral work in the area of urban planning and stakeholder participation in water management supervised by my own co-supervisor Susan Gaskin in Civil Engineering at McGill University. Working to improve water access and management in Cameroon, the BWRRG operates with strong knowledge-sharing and mentorship components, continually evolving as availabilities and interests shift over time. I joined the group in 2010 as a doctoral student in education.

For the group, my background in engineering and experience in education positioned me well to contribute to the interdisciplinary study of water. My previous experience in using participatory visual research methods to study gender and environmental issues in other African

contexts<sup>15</sup> offered additional possibilities for taking up the study of social relations regarding water management. This doctoral project integrates and contributes two new lenses to the BWRRG and study of water in Cameroon: 1) the lens of gender, and doing research *with* women, and 2) participatory visual methodologies (PVMs).

As I negotiated entry into this research collective, my partial understanding of Cameroon as having been a French colony led me to initially assume that my French language skills learned growing up in Quebec would be helpful for fieldwork. Indeed, in my encounters with government officials during fieldwork, my French skills offered critical points of connection for building trust and rapport. However, Cameroon was also a British colony for a time and in the Anglophone Regions (where the BWRRG operates), English, as well as the Regions' *lingua franca* Cameroonian Pidgin English are spoken widely. Although serendipitous, the Krio that I had learned through previous work in Sierra Leone was compatible with Pidgin.<sup>16</sup> As I take up more significantly later, my language skills significantly influenced my positionality during fieldwork, and my ability to negotiate what it means to do more good than harm.

While collaboration can include an interdisciplinary approach and working across academic disciplines, it was also important to me to collaborate with individuals, associations, and communities outside of academia such that the research project and my time in Cameroon might build on and contribute meaningfully to the momentum of ongoing initiatives. In particular, I conducted the research fieldwork in collaboration with a local civil society organization (CSO) in the SW Region, Changing Mentalities and Empowering Groups (CHAMEG), which had previously been involved in BWRRG initiatives. Through this relationship, I sought to work *with* communities and research participants in a way that was culturally appropriate and responsive, and that integrated possibilities for reciprocity and more sustainable research design. Adopting a

---

<sup>15</sup> In 2003-2004, I completed an 8-month environmental education internship in post-conflict Sierra Leone with an NGO based in Freetown, where I worked with women farmers on issues related to organic agriculture practice. In 2008-2009, I returned to Sierra Leone for 7 months to conduct my Master's research, an intergenerational photovoice study in seven rural communities around the Tiwai Island Wildlife Sanctuary (Thompson, 2009a, 2009b, 2011). In 2011, I completed a 3-month internship at the Jimma University College of Agriculture and Veterinary Medicine in Ethiopia, focused on gender mainstreaming using participatory visual methodologies. Through this internship, I co-produced a documentary film about gender and onset (the 'false banana tree') for use in agricultural curriculum (MacEntee, Thompson, & Fikreyesus, 2012; MacEntee, Thompson, Fikreyesus, & Jihad, 2013).

<sup>16</sup> Krio is widely spoken in many parts of Sierra Leone as a *lingua franca*. While linguistically distinct, Krio and Cameroonian Pidgin English also have similarities and are mutually intelligible with other English-based pidgins and creoles that developed in the coastal regions of West Africa as languages of trade, as well as on slave ships and plantations. Varieties of English-based pidgins continue to be widely spoken in West and Central Africa, as well as amongst African diaspora communities.

collaborative approach, I aim to co-produce research that is relevant and meaningful for research participants and that is responsive to the ongoing work of CHAMEG, Cameroonian activists, development practitioners, and scholars already engaged in research and advocacy work.

Reflecting on Vanner's (2015) methodological framework, my collaborative approach, language skills, and close work with a local women's organization enabled a type of situated ethics that addresses both the specific concerns of my university's institutional ethical requirements, as well as the importance of working within culturally appropriate ethical protocols relevant in working with communities. Lastly, I draw on participatory and visual research traditions as tools to foreground ethical questions and challenge the relationship between power and knowledge.

### **Participatory Visual Methodologies for Social Change**

My research approach is centrally informed by the work of my co-supervisor, Claudia Mitchell, and her long-time collaboration with South African scholars Relebohile Molestane from the University of KwaZulu-Natal and Naydene de Lange from the Nelson Mandela Metropolitan University in the area of visual methodologies (see, for example, de Lange, Mitchell, & Stuart, 2007; Mitchell, 2006; Mitchell, 2008; Mitchell, 2011; Mitchell & de Lange, 2011; Mitchell & de Lange, 2013; Mitchell, de Lange, & Moletsane, 2016; Mitchell, de Lange, Moletsane, Stuart, & Buthelezi, 2005; Mitchell, Stuart, Moletsane, & Nkwanyana, 2006; Moletsane et al., 2007; Moletsane et al., 2009). This community of practice has reworked Schratz and Walker's (1995) term, "research as social change," to develop the area of participatory visual methodologies for social change, interrogating how research can make a difference in the lives of research participants. This approach shifts views of researchers as collectors of data, to facilitators of practice-based interventions in which the participants collectively become researchers and engage in problem solving in their communities. The research process can invite opportunities for community engagement, dialogue, reflexivity, and transformation among both researchers and research participants. Much of the foundational work about participatory visual methodologies for social change has emerged in the context of gender research in relation to HIV and AIDS, gender-based and sexual violence, and schooling, offering critical groundwork and possibilities for taking up gender issues within water management. I now describe how my approach to using participatory visual methodologies brings together participatory, feminist, and visual research traditions.

**Participation, learning, and action.** While participatory research (PR), action research (AR), and participatory action research (PAR) are certainly distinct fields, I draw on the crosscutting idea that research is a learning process. Informed by the pioneering work of Paulo Freire (1970) in the field of education, and Robert Chambers (1994, 1997) in the area of rural development, I draw on the pedagogical possibilities for building knowledge exchange, learning and transformation into the research process. Participation recognizes local people and communities as experts about their lives and experiences, best positioned and capable of identifying, analyzing and resolving the problems they face. Drawing on the work of Reason and Bradbury (2006), I subscribe to research that is:

A participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities. (p. 1)

Ultimately, incorporating participation and action components into research aims to broaden the knowledge production process by doing research *with* people in a more inclusive way, and for research to go beyond investigating the world to transforming it. By starting with issues that are relevant in participants' lives, research can contribute to empowerment, develop consciousness and transform social relationships, and make a meaningful difference in the lives of the research participants (Fonow & Cook, 2005; Maguire, 1987).

I note broader critiques that participation has been taken up by large powerful development institutions (Gaventa & Cornwall, 2006), from colonial administrations (Cooke, 2008) to the World Bank (1996). Participatory research (indeed, all research) is inherently political, with the need to attend to the location of power in the research process (Cornwall & Jewkes, 1995). Mindful of these critiques, I remain committed to the idea that shifting *who* has access to knowledge production, use, and dissemination is critical for addressing justice issues, and expanding the conceptual boundaries of what is possible (Gaventa & Cornwall, 2006).

**Gendered intersections and voice.** Critically, participatory and action research have often replicated or overlooked gendered inequalities (Maguire, 1987, 2006). Working *within* local contexts and social structures, PR often inadvertently privileges those who are already in positions of power, disregarding what Cornwall (2003) termed the “voices and choices” of those members marginalized within community structures, including women. Feminist, participatory

and action research draw on metaphors about voice, and the importance of speaking up, speaking out, and speaking back, as well as telling, listening to, and affirming marginalized voices (Maguire, 2006). I do not purport to *give voice*, as I believe this idea has patronizing implications. Instead, I strive to listen carefully. Beginning by tuning my attention specifically to the voices of women, I consider gender as a strategic entry point to exploring women's experiences that are often excluded or marginalized from scholarship. However, as noted earlier from an intersectional perspective, gender analysis needs to also incorporate other social determinants such as class, ethnicity, and age to explore how patriarchy intersects with other structures of power and produces particular types of experiences for different women. In addition to identifying and documenting the complexities of social injustices, I also note the ethical imperatives within the field of intersectionality to interrogate change and spur political action (Cho, Crenshaw, & McCall, 2013).

**Visual research.** Informed by educational research about the critical role of art in expressing and exploring different types of knowledges and ways of knowing (Eisner, 2008), visual research helps to decenter the written text as primary mode of knowledge production (Gubrium & Harper, 2013). Visual modes of communication offer inclusive possibilities for production of knowledges often overlooked or ignored in traditional research (Banks, 2001; Pink, 2001; Rose, 2012). For example, visual anthropologist Sarah Pink (2011) explored how the visual enables access to the embodied and sensory aspects of everyday life that are critical for understanding the materiality and corporeality of experience. Images can encapsulate—in one frame—the complexities of social relations (Moletsane & Mitchell, 2007). Critical visual research interrogates meaning at multiple sites, including the social context of image production, the content and materiality of the images, as well as practices of looking and how different audiences engage with images and visual texts (Banks, 2001; Rose, 2012).

When the visual is combined with a participatory approach, the resultant participatory visual methodologies (PVMs) offer tools for both research and community engagement, or “modes of inquiry, modes of representation and modes of dissemination in research related to social change” (Mitchell, 2011, p. xi). Using visual methods in collaborative and participatory ways offers critical openings to avoid replicating the problematic history and ongoing risk of voyeuristic objectification of traditional research methods (Kindon, 2003; Pink, 2011; Rose, 2012). PVMs offer opportunities for alternative and participant-produced constructions of

knowledge that ‘speak back’ to or disrupt dominant narratives and representations (Mitchell & de Lange, 2013). PVMs encompass a number of different arts-based methods including drawing, cartooning, collage and performance, and increasingly work to incorporate digital technologies within visual productions, such as digital storytelling and cellphilmaking (making videos on mobile phones). In this study, I specifically take up the established traditions of photovoice (see Wang, 1997, 1998, 1999) and participatory video (see Milne, Mitchell, & de Lange, 2012). With each of these methods, research participants use digital cameras to produce and discuss photographs and videos that document and reflect on important issues in their lives.

Moreover, visual research can invite wider community engagement in research activities and findings, generating increased awareness and dialogue about critical issues and opportunities for action to emerge with and from the research process. Showing images diverges from exclusionary practices related to research typically restricted to university library shelves and costly academic databases, towards research that can be viewed, questioned, interpreted, and taken up by much broader ranges of audiences. Visual forms of expression offer more accessible modes of making research more public, and of getting the research out to communities and policy-makers for imagining and enacting new pathways for change. Participatory visual research can present opportunities for promoting dialogue across disciplines, for challenging decision-makers to see water problems from women’s perspectives, and for women’s skills and experiences to contribute to more equitable and sustainable water governance.

### **Research Objectives and Questions**

Building on the arguments above, this study has four broad objectives: 1) To work within and strengthen existing gender and water initiatives and networks; 2) To broaden the research process by asking women about their experiences and priorities; 3) To explore the relationship between gender and water as a community engagement intervention using participatory visual methods; and 4) To interrogate the politics of social and environmental change. Informed by these research objectives, the study focuses on three sets of research questions.

- 1) What are women’s concerns about water use, access, and control in the Southwest Region of Cameroon? In what ways is this waterscape gendered?
- 2) How do participants and communities envision and interrogate change? What possibilities and priorities are prioritized? What barriers restrict change? What are the politics of change?
- 3) How can participatory visual methodologies deepen an understanding of gender and water research?

## **Women and Water *Wahala*: Overview of the Study**

To explore these questions, this study brings together the concerns of 130 participants—mostly women and some men—across four communities in the SW Region of Cameroon, each within about a one or two hours' drive of Mount Cameroon. The two urban communities, the SW Regional capital city of Buea and the city of Kumba, are serviced by both partially privatized water service arrangements and community-managed schemes. The two rural communities, Bwitingi and Mudeka, manage their own water supplies. A series of research events began with a workshop to train local facilitators in participatory visual methodologies. Then, together we co-facilitated a two-day participatory image production workshop in each community. Working with both photovoice and participatory video, participants used digital cameras to produce 233 photographs and 27 short videos in response to the prompt, “What are the challenges you face with water? What are some solutions?” At a subsequent two-day analysis workshop, representatives from each community interpreted the corpus of images, identified the key themes, and selected representative images. Culminating the study, a decision-maker forum involved 40 participants, including traditional leaders, NGO leaders, and representatives from municipal councils, ministries, and district offices, in discussions about the implications of the research.

Although the situation in each community is quite different, water services are chronically unreliable despite a rich abundance of fresh water in the SW Region. In many ways, gendered divisions of labour and unreliable water access are such fundamental aspects of everyday life that they have become routine. Unsettling normalized practices, this study makes the everyday relationship between gender and water more visible. While I initially titled the study, *Women, Water, and Weather*, the longitudinal aspects of climate change were eclipsed by participants' more immediate concerns about daily water hardship. As our work progressed, participants reworked the alliteration and the project became known as *Women and Water Wahala*. Participants framed water issues primarily through a lens of struggle, as *wahala* (troubles or problems in Cameroonian Pidgin English). The thesis focuses on the social and material dimensions of the politics of these everyday struggles.

### **Organization of the Dissertation**

In **Chapter Two**, I elaborate a theoretical framework for the study. Locating the study within the field of gender and water, I outline its conceptual foundations across 1) water and

development, 2) gender and development, and 3) gender and environment. I trace the key trends and topics informing this field research, to highlight how its analytical focus has shifted according to evolving theories of sex and gender, from women to gender and to more recent calls for an intersectional lens that attends to difference. Emphasizing the complexity of social relations, I also present emerging theories about water, and new thinking about inseparability of water-society relations. This lays the theoretical groundwork for bringing intersectionality together with theories of water.

In **Chapter Three**, I contextualize gender-water relations in Cameroon and trace the historical specificity of contemporary arrangements of power. This chapter presents an overview of water access trends and the status of women, and brings together the water and gender policy environments. Given the need to expand understandings of water governance, the chapter also works to locate these trends within broader questions about how colonial and neoliberal policies have impacted development trends, the politics of participation, and gendered forms of social organization. In this chapter, I frame how this study is shaped by privatization and decentralization processes, and tensions between democratization and authoritarian rule.

**Chapter Four** outlines the process of doing fieldwork using participatory visual methodologies. Tracing and justifying my decisions at different junctures in the research process, I present the “workshop model” that I used for working with photovoice and participatory video. I list the specific methods that I deployed through different stages of data collection and analysis, as well as how I approached analysis and writing. In this chapter, I also reflect on method, my positionality in the field, some ethical issues that emerged, and the circulation of power in the research process.

The findings are divided into two chapters. **Chapter Five** constitutes the first findings chapter. Here, I present the key themes and images identified by participants through participatory analysis. Focused on the daily concerns negotiating water access and use, this chapter is organized in four major sections. First, I present participant concerns in relation to what might be considered formal water distribution networks. Given the unreliability of these networks, the second section addresses participant concerns about the social relations and embodied implications of the need to find water elsewhere. Next, I describe the various types of alternative practices, technologies and modes that participants rely on for water access. Finally, I



present participants' overarching concerns about water protection in light of sanitation, development and agricultural practices.

**Chapter Six**, the second findings chapter, presents discussions among both community members and leaders about the implications of the research. Here, I highlight some relatively concrete and accessible participant suggestions to address the water problems identified in Chapter Five. However, this chapter deals more significantly with the politics of interrogating change. While most participants agreed about what might change, more contentious conversations emerged in relation to how to bring about change. This chapter highlights the barriers that both local communities and women face negotiating access to decision-making, underscoring the importance of addressing deeper questions about institutionalized power related to access to information, culture, internalized blame, authority, and trust.

In **Chapter Seven**, I revisit intersectionality theory to discuss the implications of the research findings in relation to the materiality of water. Offering a deconstruction of intersectionality, I propose four mechanisms that inform how the theory works: 1) simultaneity, 2) situated specificity, 3) relationality, and 4) fluid consistencies. Presenting how these analytical tools are consistent with foundational intersectionality texts, I discuss these tools using examples from the research findings. These include how different forms of social and material violence intersect simultaneously, the situated specificity of how Mount Cameroon influences water-society relations, the role of relationality in everyday water decision-making, and the fluid consistencies of power in relation to questions about tradition and change.

In **Chapter Eight**, I answer the three research questions and summarize the study findings. I identify the key contributions of the thesis to new knowledge in the areas of gender and water research, research about the Cameroon context, participatory visual methodologies, and feminist thinking about intersectionality. In this chapter, I also outline some implications for practice based on participant recommendations, as well as some implications for future research. After discussing some of the study limitations, I offer a final reflection.

## INTERSECTIONALITY AND WATER

Gender-water relations are not just intersected by social axes, as generally argued by feminist scholars, but also by ecological change and spatial relations.

Farhana Sultana, 2009, p. 428

In this chapter, I explore the theoretical relationship between gender and water. Drawing on Farhana Sultana's (2009) reconceptualization of gender as a socio-spatial-ecological process, I unsettle intersectionality as a *social* theory of difference. Situating my work in gender and water studies, I explore how this field draws on feminist concerns in the overlapping areas of environment and development. Over the years, trends in gender-water research have reflected the evolution of feminist theories of sex and gender, with an analytical focus that broadens from women to gender relations, and most recently to understandings of how gender intersects with other forms of social difference, such as race and class. However, in the application of intersectionality as a lens for exploring difference in gender-water research, heterogeneities in the physical world also come into focus. I suggest these forms of environmental difference have implications for feminist theory.

To advance this study of gender-water relations, I establish a framework that integrates intersectionality theory with emergent theories of water. To begin, I elaborate three broad areas informing gender-water studies at the confluence of gender, environment, water, and development. Tracing some key conceptual ideas, I identify how paradigm shifts in each of these areas have influenced the key trends in gender-water research. Importantly, more recent gender-water scholarship draws attention to the complicated interactions between gendered social relations and water. To consider the role of water in intersecting gender relations, I then integrate new theories about water-society relations and the materiality of water. Revisiting the social roots of intersectionality, I suggest the theory risks missing important environmental considerations. Lastly, I propose integrating intersectionality and the *hydrosocial* cycle, as analytical tools for deepening the study of gender-water relations.

## Setting the Scene: Women, Environment, and Development

Feminist concerns about environmental issues emerged in the 1970s at the crossroads of feminist and environmental activism. In developing contexts, women's grassroots environmental organizing included the Chipko movement in India and Wangari Maathai's Green Belt movement in Kenya, which both drew international attention to the gendered impacts of deforestation. Critical work by Vandana Shiva (1988) and Bina Agarwal (1992) connected the detrimental impact of colonial and economic ideologies on both women and the environment in India, an idea that shaped eco-feminist and feminist environmentalist thought. These concerns reflected how the rise of global capitalism and neoliberal market-based development strategies in the 1980s intensified negative consequences for both women's lives and the environment. It is worth noting that, with the exception of Shiva and Agarwal, water was largely not taken up initially within this feminist theorizing, which focused more on agriculture, forests, and land use (Leach, 1992; Rocheleau, 1991; Rocheleau, 1995; Rocheleau & Ross, 1995; Rocheleau, Thomas-Slayter, & Wangari, 1996).

Gender-water scholarship emerged in the mid-1990s with a predominant focus on women in developing contexts. Credited to women's grassroots development and advocacy work in the Global South, this emergence was spurred by support by the UN Decade for Women (1976-1985), which overlapped with the first UN Decade for Water (1981-1990) (Dávila-Poblete & Rico, 2005). The relationship between gender and water was formalized in global water policy in 1992, when women's primary role in the daily management of water was formally recognized as a key principle informing water management, at a time when feminist thinking was shifting from a focus on women to a focus on gender. Notably, early research by Margreet Zwarteveen in the area of gender and irrigation management (1995, 1996a, 1996b, 1997, 1998) played a critical role establishing gender and water as a field of studies. Gender-water scholarship flourished in 2005, punctuated by a number of important scholarly contributions. These include three edited collections: *Gender, Water, and Development* (Coles & Wallace, 2005), *Opposing Currents: The Politics of Water and Gender in Latin America* (Bennett, Dávila-Poblete, & Rico, 2005), and *Fluid Bonds: Views on Gender and Water* (Lahiri-Dutt, 2011a). Special issues in the journals *Gender, Place, and Culture* (2009) and *Gender and Development* (2010) furthered thinking about the relationship between gender and water. Launched in 2012, *wH<sub>2</sub>O: The Journal of Gender and Water* is dedicated entirely to empirical research about gender, water, and sanitation.

While some scholarship has explored gender-water relations in the Global North,<sup>17</sup> most gender-water research maintains a strong focus on the Global South, although contexts in Africa have received less attention as compared with South Asia and Latin America, for example.

After decades of advocacy and intervention, the recognition and implementation of a gender lens have been slow (UN, 2008; Wallace & Coles, 2005). While women and gender are—in official terms—on the agenda of the mainstream water sector, gender is arguably still largely rhetoric (Seager, 2010). For example, the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation, the UN body charged with monitoring Millennium Development Goal (MDG) Seven in relation to water did not begin disaggregating water data until 2008 (Seager, 2010). Even then, only one gender indicator monitored the primary responsibility for water collection (women, men, boys, and girls) at the household level. Alarming, Seager (2015) remarked that the 2008, 2010, and 2012 Joint Monitoring Program reports disaggregated results by gender, the 2013 and 2014 reports did not, suggesting a decline in the focus on gender in major international reports about water. Sustainable Development Goal (SDG) Six related to water and sanitation makes more explicit reference to women and girls, and commits to disaggregating water access data by gender, income, age, race, ethnicity, minority status, disability, and geographic location, amongst others (UN-Water, 2016). However, the specific indicators and exact mechanisms for how they will be monitored remain unclear.<sup>18</sup> Gendered differences have significant implications for addressing social inequalities, as well as for women's workloads, access to water, and well-being. Gender relations also play a critical role influencing how water research is done. Understanding gendered practices have direct implications in developing more sustainable and equitable ways of protecting and living with the finite amount of water on the planet, especially in a global context of water uncertainty, characterized by changing and unpredictable social and material water relations (WWAP, 2012).

### **Conceptual Undercurrents**

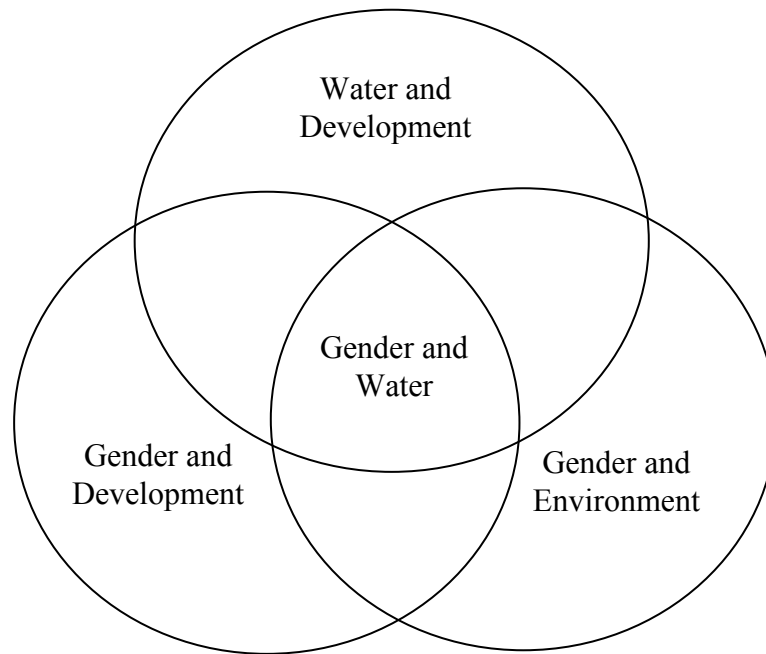
As gender-water research evolves in critical response to its own trajectory and the changing global political economy, three key areas inform the field: Water and Development, Gender and Development, and Gender and Environment (see Figure 1). Below, I trace the

---

<sup>17</sup> See gender-water scholarship about the US (Raby, 2011), the UK (Bull, 2009; Strang, 2005a), and Australia (Alston, 2011; Bolitho, 2011; Davidson & Stratford, 2011; Dowling, 2011; Goodall, 2011; Head & Muir, 2011; Howitt & Suchet-Pearson, 2011; James, 2011; Tennant-Wood, 2011).

<sup>18</sup> The UN Integrated Monitoring Guide for SDG 6, for example, does not address how to disaggregate water data according to gender (UN-Water, 2017).

emergence of more complicated and politicized relationships between gender and water, reflecting changing water management paradigms and advances in theories of sex and gender.



**Figure 1.** Key areas informing the field of gender and water

### **Pillars of Water Governance**

The first broad area informing gender-water research is water and development. Global water governance has undergone significant paradigm shifts in recent decades. Spurred by international efforts to address sustainability such as the 1977 UN Conference on Water in Mar del Plata and the UN International Decade for Drinking Water Supply and Sanitation (1981-1990), the global water sector identified four key pillars critical for more equitable and sustainable water management: sustainability, participation, gender, and economic value. Formalized in 1992 as the Dublin-Rio principles, these pillars drive and shape much thinking about water development and underlie Integrated Water Resources Management (IWRM) (GWP, 2000a). IWRM does not offer a universal blueprint for water management, but rather a set of ideas that may be operationalized in a coordinated way across sectors and boundaries, in response to context (GWP, 2000a). Given how much gender-water research contributes to or resists these ideas, I briefly define their key arguments, as outlined by Global Water Partnership (2000a), with some key examples of how they tend to be enacted.

## I: Sustainability

*Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment (GWP, 2000a, p. 13)*

One central change in thinking emerges from the recognition that there is a finite amount of fresh water on Earth. The Earth is not producing more water and these natural yields need to be incorporated within approaches to water management. Existing water supplies are also threatened by human activities such as pollution and over-consumption. Colonial and postcolonial approaches to water management typically involved supply side, or what Gleick (2003) termed *hard-path* models characterized by top-down centralized engineering infrastructure projects that focused on managing water supply. Supply management approaches tended to prioritize large infrastructure projects such as dams, aqueducts, piped networks, and treatment plants, which facilitated human withdrawal and use, and the development of hydropower and irrigated infrastructure. However, the thinking that water management should serve human interests alone has proved unsustainable with devastating social, economic, and environmental costs. Given the limitations of the Earth's capacity, human impacts on water, and linkages between upstream and downstream users, new trends work within the constraints of available water supplies to address water demand. Decentralized, demand management, or what Gleick (2003) termed *soft-path* strategies work to curb how water is used, ultimately aiming to promote more efficient and equitable distribution and use of available water. The sustainability principle involves thinking holistically about water and ecosystems, as well as coordinating across social, political, and economic sectors.

## II: Participation

*Water development and management should be based on a participatory approach, involving users, planners and policymakers at all levels (GWP, 2000a, p. 14)*

Everyone uses water. Recognizing how different sections of the population use, manage, and compete for water in different ways, more effective water management requires stakeholder participation in decision-making across all levels and social structures. A participatory approach includes increasing public awareness, but also going beyond consultation to incorporate more diligently the views and concerns of all members of society. Given competing interests, water

management needs to develop mechanisms and foster capacities for cooperation, consensus building, conflict resolution, and keeping powerful interest groups in check. A participatory approach requires adequate economic resources, and transparent sharing and exchange of information (GWP, 2000a), and integrates learning exchanges such that water governance can best adapt to changing and uncertain circumstances (Pahl-Wostl, 2007; Pahl-Wostl et al., 2007). More *distributed* forms of water governance include both formal and informal networks, and consider dynamic state-market-society relationships (Hill, 2013; Rogers & Hall, 2003).<sup>19</sup>

### III: Gender

*Women play a central part in the provision, management, and safeguarding of water (GWP, 2000a, p. 14)*

Gendered divisions of labour mean that women play an important role in water-related work (including cooking, cleaning, childcare, and farming) through their productive, reproductive, and community roles. Therefore, the impacts of water access challenges are gendered. Women face disproportionate burdens negotiating access to adequate quantities and safe quality water. Additionally, women have important experiential knowledge about water yet are often missing from formal water decision-making about water infrastructure policy (Wallace & Coles, 2005; Lahiri-Dutt, 2011b; UNDP, 2003). The gendered burdens in relation to the time and energy women spend collecting, managing, and using water for households are unacknowledged. Water projects that do not include women often face challenges because water use is not adequately understood and management solutions often conflict with women's daily realities (UN-Water, 2006). This gender principle explicitly identifies women's exclusion from participation in decision-making hierarchies, and the need to develop more effective mechanisms for women's access to power. There is a critical need for stronger gender awareness within the water sector, and women's increased participation in decision-making to work towards more effective, equitable, and sustainable water management (Wallace & Coles, 2005; GWP, 2000a).

---

<sup>19</sup> The terms governance and management are often used interchangeably in the literature. As distinguished by Hill (2013), water governance is a broader term. Governance is more inclusive than the term government; it encompasses the institutions, laws, policies, and practices of natural resource management as well as broader networks of influence. Water management is a more specific term referring to the application of rules and how policies are operationalized. My focus is on the broader concept of governance.

#### IV: Economic Value

*Water has an economic value in all its competing uses and should be recognized as an economic good (GWP, 2000a, p. 14)*

The last Dublin-Rio principle recognizes the value of water as an economic good. Here, the broad concept of the *value* of water combines its intrinsic, social, and economic values. Value is distinguished from the *cost* of water, which includes the more specific questions about charging for water. This principle advocates determining the full cost of water, including the operations and maintenance costs of providing water to water users, water's opportunity cost, as well as externalities related to the economy and environment, for example, regarding public health and protecting ecosystems. As I explore in greater detail later, ideas related to "paying for water" have sparked much scholarship, controversy, and activism, in particular in relation to questions about the commodification of water, water rights, and equitable access. Underlying these concerns are questions about who pays for water, and under what circumstances. For the moment, I note how this principle promotes the use of economic tools for better managing the demand for water. These economic instruments include different arrangements related to markets, pricing, and private sector involvement (Gleick, 2003). This principle is meant to alter water users' perceptions, to rectify distorted views that water is free, to maximize the use of available water, and "recover the costs" of water production (GWP, 2000a).

#### **From Women in Development (WID) to Gender and Development (GAD)**

The second broad area shaping gender-water research is the transition from a focus on women to a focus on gender in development. With roots in socialist feminism and feminist anthropology, GAD identifies development processes as systematically gendered and proposes mechanisms for better addressing gender discrimination. A focus on gender reflects concerns about how earlier women-focused approaches were not improving the status of women. Certainly, WID played a critical role in positioning women as active producers and contributors to the economy (Boserup, 1970). Valuing women's work challenged dominant views at the time that positioned women as wives and mothers in need of assistance, through welfare interventions (Moser, 1993). The WID era also established critical tools that established an important foundation for much global gender advocacy work today, including: the UN Decade for Women (1975-1985); the 1979 *Convention on the Elimination of all Forms of Discrimination against*



*Women* (CEDAW); and institutional machinery (offices, units, and experts) working to improve women's status within government and non-governmental organizations. However, while integrating women within existing structures might create more efficient development, WID critics argue this does little to change the nature of development. This efficiency rationale does not necessarily address women's needs and interests, or challenge the nature of economic growth models that drive mainstream development (Elson, 1993; Kabeer, 1994; Koczberski, 1998; Moser, 1993; Rathgeber, 1990; Razavi & Miller, 1995).

Gender and development focuses on structural change through gender mainstreaming, a strategy developed as part of the 1995 Beijing Platform for Action. Gender mainstreaming maintains a dual focus on both addressing women's empowerment and incorporating a gender lens within the structures of institutions, policies and programs. In practice, some question the difference between WID and GAD,<sup>20</sup> and the extent to which gender mainstreaming has succeeded (Moser, 2005; Mukhopadhyay, 2004). Others acknowledge how systemic change takes time and celebrate meaningful progress in the development of gender analysis frameworks (March, Smyth, & Mukhopadhyay, 1999) as well as in relation to MDG 3 targets regarding women's access to education, political representation and employment (Kabeer, 2005).

### **From Ecofeminism to Feminist Political Ecology (FPE)**

The third broad area influencing gender-water thinking is gender and the environment. Feminist Political Ecology (FPE) integrates feminist and environmental geographies (Rocheleau, Thomas-Slayter, & Wangari, 1996). FPE draws on and benefits from genealogies of ecofeminist thought. However, FPE diverges from eco-feminism in its conceptualization of gender. In Vandana Shiva's (1988) important ecofeminist text, *Staying Alive: Women, Ecology and Survival in India*, she positioned women as nurturing caregivers "naturally" or somehow inherently closer to the Earth. Such essentialist views (i.e. about Mother Earth) have been largely abandoned in favour of views that recognize the socially constructed nature of gender (Leach 2007).<sup>21</sup> Considering gender as a social construction, FPE stresses the political relationship

---

<sup>20</sup> A focus on institutions sometimes normalizes, depoliticizes, or decontextualizes GAD's empowerment aims leading to concerns about the need for a more radical questioning of power structures (Koczberski, 1998; Pearson & Jackson, 1998; Rathgeber, 1990; Razavi & Miller, 1995). Critiques of GAD also cite challenges in operationalizing systemic change on a large scale, and in transforming whose interests are served. For example, women's interests in emancipation have been translated as gender planning needs (Moser, 1993), and women's empowerment projects have ended up replicating WID-like income generation projects (Razavi & Miller, 1995).

<sup>21</sup> While not all ecofeminist scholarship makes essentialist connections between women and nature (Kothari, 1988), this remains a dominant critique of eco-feminism.

between gender and the environment as identified through three main themes: knowledge, rights, and activism. FPE advocates the need to explore gender-environment relationships across multiple sites (such as field, market, and policy), scales (such as global, national, the household, and the body), and processes (such as capitalism, neoliberalism, globalization, and privatization). Initially articulated by Rocheleau, Thomas-Slayter & Wangari (1996), FPE seemed to disappear for almost 15 years but has recently re-emerged with renewed interest (Elmhirst, 2011).

### **Key Areas of Gender-Water Research**

Drawing on the broad disciplinary areas of gender, environment, and development identified in Figure 1, the trajectory of gender-water scholarship reflects shifts in feminist theory. The field has moved from a focus on women, to examining gender relations, and more recently to intersectional analyses that explore how gender intersects with other forms of social difference to influence water use, access, and control. As the field advances, each of these three analytical areas (women, gender, and intersecting relations) continues to maintain significance. Amidst increasingly complex understanding of the social dynamic of water access and urgent concerns about the impact of neoliberal changes in water management, the field strives to maintain but also complicate its critical focus on women and gender. These areas elucidate the multi-faceted ways that water is gendered.

#### **Women's Work and Water Use**

The first major area of study documents women's work with water. Elaborating women's multiple roles with water is critical for developing water policies and programs that best reflect women's interests and concerns. This focus on women's work and specific water needs falls in line with the need to make the hidden economy of women's labour more visible (Buechler, 2005). Many critique how earlier scholarship positioned women as domestic water managers, placing women in the home and focusing only on women's reproductive roles, inadvertently overlooking women's multiple roles (Green, Joekes, & Leach, 1998; Hawkins et al., 2011; Joshi, 2005). Research about women's productive work with water identified how false divisions between domestic and productive water fail to recognize women's specific production needs (Cleaver & Elson, 1995). Much of this scholarship focuses on agriculture and the gendered nature of irrigation management. Given how many women around the world farm smaller-scale, subsistence, or unique crops as compared with men (who often control larger-scale cash crops), or participate in specific stages of the production process, women engage in different water

practices and therefore have different water needs (Chancellor, 2005; Dey, 1981; van Koppen, Khumbane, de Lange, & Mohapi, 2011; Zwarteveen, 1995). For example, Zwarteveen (1995) identified women farmers' specific water needs regarding the amount, frequency, spatial distribution, quality, and timeliness of water delivery within irrigation systems. Notably, women's access to water becomes threatened by the increasing commodification and allocation of water for "productive" purposes (Cleaver & Elson, 1995; Zwarteveen, 1997). Scholars advocate that "farming households" must be disaggregated to better understand intra-household dynamics in relation to bargaining and decision-making about water, land, and livelihoods (Arku & Arku, 2010; Carney, 1988, 1998).

### **Gendered Structures and Processes**

A second major area of gender-water scholarship explores the gendered nature of broader social, cultural, and political ideologies, structures, and processes, and how these gendered dynamics intersect with water management. Emerging with the transition from WID to GAD, this area shifts from individualized, bounded views of women (and men) to an analysis of how gendered relations are systemic. Gender becomes an analytical lens for exploring the social construction of identities, relations, and structures.

**Gendered social meanings.** In the study of human-water relations, gendered social values associated with masculinities and femininities play an important role in the social meanings ascribed to water. This scholarship explores dominant constructions of masculinities as global, colonizing, productive, technical, and rational, in contrast to how femininities connote local, Indigenous, communal, emotional, caring, and natural. Within this gender binary, many document how societies have shifted from feminine to more masculine water management strategies (Lahiri-Dutt, 2011b; Pavia & Mason, 2001; Strang, 2005a; Tennant-Wood, 2011). For example, engineering feats such as concrete dams and waterways in the US and Australia reflect values associated with dominant masculinities that constrain and conquer water, which is gendered as feminine, wild, and in need of control (Pavia & Mason, 2001; Tennant-Wood, 2011). Lahiri-Dutt (2011c) deconstructed symbolic imagery in Bengal mythology that feminizes rivers ecologies, with riverbeds as wombs, high tides as menstruation, flash floods as girls' loss of virginity, and powerful river flows as wild and uncultured. Drawing on the links between fertility and pagan water goddesses in the UK, Strang (2005a) explored how wells in the ground reflect womb-like vessels in contrast with phallic tap stands erected onto the landscape as shows of

dominant masculinities. In parts of South Asia, beliefs about water as both polluter and purifier construct a social order of exclusion whereby women who are menstruating and people from lower castes are considered impure and therefore restricted from using particular water sources (Joshi & Fawcett, 2005; Mahon & Fernandes, 2005). Gendered cultural and social meanings ascribed to water—while varying across different contexts and cultures—influence how water is valued, used, and managed.

**Participation and gender mainstreaming in the water sector.** Another branch of gender-water research examines women’s participation in different types of water organizations, including government bodies, NGOs, and local water committees. Much of this work falls under gender mainstreaming efforts: “the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels” (UN, 1997, p. 28). Ultimately gender mainstreaming strives for gender equality by working to integrate both women’s and men’s concerns within all policies and programs. Here, women’s increased participation in water organizations is positioned as a central mechanism for incorporating women’s concerns within the water sector. Reflecting women in development approaches, the motivation for participation often reflects *efficiency* goals of water supply systems (e.g. network coverage and cost-effectiveness) (Pandey & Moffat, 2005; Regmi, 2005; Wallace & Wilson, 2005). Notably, gendered organizational structures, hierarchies, and incentives can limit women’s participation as well as the manner in which gender initiatives are operationalized (Cleaver, 1997; Regmi, 2005; Wallace & Wilson, 2005). Several mainstreaming manuals provide helpful practical strategies and starting points for involving both men and women in water projects (e.g. Baden, 1999; Maharaj, 1999; Swiss Agency for Development and Cooperation, 2017; Water Governance Facility, 2016). However, given the ways that gender relations and inequalities are often entrenched within organizational cultures, many such manuals offer limited support for sustaining long-term systemic change (House, 2005; Panda, 2007). Despite efforts by the NGO, WaterAid, to mainstream gender in its programs in Ethiopia, Ghana, India, and Tanzania, Wallace and Wilson (2005) found ongoing challenges with regards to improving women’s access to water, participation in decision-making, and status, more generally. Others characterize mainstreaming efforts as ad hoc, erratic, and one-off (Regmi, 2005), raising questions about the genuine extent of organizational commitments to addressing gender (House, 2005; Pandey & Moffat, 2005). In Brazil, despite relatively progressive legislation establishing

Watershed Committees that include representatives from government and civil society, women continue to be under-represented with women from poor and marginalized communities facing particular participation challenges (Moraes & Perkins, 2007; Perkins & Walker, 2015).

While gender mainstreaming strives to include men, development scholars critique how men are often missing from gender analyses or stereotyped in negative ways (Cornwall, 2000). A more recent analytical focus on men and masculinities highlights, for example, relationships between masculinities and the construction of engineering culture (Udas & Zwarteven, 2010; Zwarteven, 2008), men's changing roles in water transportation (Hawkins & Seager, 2010), and how global business masculinities structure the organization of work and reshape local masculinities (Braun, 2011a).

**Gendered water access and control.** Regarding water access and control, significant scholarship focuses on how water rights are far from a *fait accompli* with the recent signing in 2010 of a UN convention declaring the human right to water. Critical water scholars Rhodante Ahlers, Margreet Zwarteven, Ruth Meinzen-Dick, and others characterize water rights as messy, multi-layered, and often highly contextual, relational, and changing over time. Gender plays a critical role in differentiating water access because water rights are often contingent upon various modes of access such as private access to pumps, common property access, and access to state-run supply networks (Crow, 2001; Crow & Sultana, 2002; Roy & Crow, 2004). It is important to distinguish between formal and informal rights, how water rights intersect with land rights, how collective or shared rights models work, as well as how water rights are negotiated, maintained, and traded (Ahlers, 2005; Ahlers & Zwarteven, 2009; Zwarteven, 1998; Zwarteven & Boelens, 2011; Zwarteven & Meinzen-Dick, 2001). Water rights need to be understood as embedded within larger, gendered social-economic systems (Ahlers & Zwarteven, 2009).

Also of critical concern regarding water access and control, global policies and processes often exacerbate or construct new forms of gendered inequalities. These analyses trace the impacts of colonization and how the control of water was used as a colonizing mechanism that continues to shape gender-water relations (Goodall, 2011; Lahiri-Dutt, 2011c; Tennant-Wood, 2011; van Koppen et al., 2011). Concerns about global processes also explore globalization and the uneven and contradictory impacts of economic policies in shaping and reproducing unequal labour relations at the intersection of gender, race, and class (Braun, 2011a; Davidson & Stratford, 2011; Dávila-Poblete & Rico, 2005).

Specifically, feminist scholars have critiqued neoliberal approaches to water management (Ahlers, 2005; Ahlers & Zwartveen, 2009; Harris, 2009; O'Reilly, 2006; Zwartveen & Meinzen-Dick, 2001). This area of gender-water research considers the gendered implications of how market processes such as privatization and commodification impact water rights, and how neoliberalism alters the relationships between states, markets, the private sector, communities and individual water users. I distinguish several neoliberal concepts later in relation to the specific trajectory and changing water service arrangements in Cameroon. For the moment, I note the need for careful scholarly attention to how different types of neoliberal processes work in complicated and contradictory ways (Harris, 2009). I emphasize an overarching concern about the role of capitalist ideologies in constructing and maintaining social inequalities, and how market-based approaches, which often pre-suppose a level playing field, overlook these structural inequalities. As such, neoliberal processes inevitably benefit wealthy and powerful populations (including industry and large commercial entities), and deepen systemic discrimination against women, marginalized people, and poor people. Privatization, for example, has worked to restrict or disconnect vulnerable people's access to water and created situations where poor people end up paying more for water, through private water vendors (Acey, 2010; Bayliss & McKinley, 2007; Brown, 2010).

**Women's activism and resistance movements.** Faced with disproportionate impacts of water injustices, women have often played central roles protesting against water policy changes. Women's collective organizing about water is particularly well documented in Latin America (Bennett, 1995; Bustamante, Peredo, & Udaeta, 2005; Delgado, 2005; Giarracca & Del Pozo, 2005; Laurie, 2011), as well as Tanzania (Brown, 2010), Cameroon (Page, 2005a) and India (Panda, 2007). This literature celebrates women's collective organizing based on shared gender identities and validates the critical roles women have played challenging and constructing the gendered politics of water. At the same time, water activism is embedded within power relations. Gendered stereotypes within social movements constrain women's participation, for example, the labeling of women as more caring and tender than men and the idea that there are appropriate (and therefore inappropriate) ways for women to enact their resistance (Bustamante et al., 2005; Giarracca & Del Pozo, 2005; Laurie, 2011). This body of work both celebrates and interrogates women's activism, offering critical insight about the importance of informal networks in shaping and speaking back to economic water policies that restrict water access.

## **Intersecting Relations: Complicating Women and Gender**

Reflecting broader feminist concerns about difference, a third broad area of gender-water scholarship unsettles gender as a sole analytical lens for understanding the social dynamics of water. Whether examining water labour, institutions, rights, policies or social movements, gender-water research is increasingly applying an intersectional lens to examine how gender intersects with other forms of social difference.

**Intersectionality and social difference.** Intersectionality helps to differentiate how the gendered use, access, and control of water are co-implicated with other social structures. Bennett (1995) described how gender and class intersect, distinguishing women's different advocacy strategies for better public services across poor and wealthy urban neighbourhoods in Monterrey, Mexico. Braun (2011a) elaborated how gender intersected with race and class in the social organization of work in a major dam infrastructure project in the Lesotho Highlands. In this context, Braun (2011b) also examined how the revenue-generating goals of such international development projects can systematically exclude poor rural women across class and generation. Joshi and Fawcett (2005) described how gender intersects with the caste system through religious beliefs about water in India, creating particular modes of discrimination for both women and lower caste people in terms of water access and use. These examples complicate gender relations by also bringing an analytical focus of class, race, caste, and religion. As Harris (2008) suggested, intersectionality offers an important and increasingly common lens for addressing the gendered benefits and vulnerabilities of water access.

**Spatial and temporal difference.** With this attention to social difference, the spatial and temporal dimensions of gendered identities also enter into gender-water analyses. Geographers have long conceptualized the social world iteratively with space and time. As Valentine (2007) argued, identity categories need to be understood simultaneously and relationally as "specific spatial and temporal moments" (p. 18). In gender and water research, the spatial and temporal dimensions of water often enter into analyses. Water spaces and access technologies intersect with and are co-constructed by gendered subjectivities in Sierra Leone (Thompson, 2011) and Mozambique (Van Houweling, 2014). Many have considered, almost implicitly, how the material properties of physical landscapes intersect with gendered social relations. In rural South Africa, rough hilly terrain, seasonal pond locations, and brackish water produced by coal seams influenced women's roles as caregivers for people living with AIDS (Hutchings & Buijs, 2005).

In Vietnam, interventions to harness dynamic delta environments were shaped by seasonal floods, saltwater intrusion, *and* gendered agricultural practices (Miller, 2011). In the Gambia, the nature of tidal swamps shaped gendered struggles over crop rights and labour within rice production projects (Carney, 1988). Additionally, household decision-making regarding water collection intersects with gender, class, and age, along with source locations and time of day or night (Faisal & Kabir, 2005; Thompson, Folifac, & Gaskin, 2011). These studies show how material spatial and temporal dimensions of climate, hydrogeology, and physical landscape *also* intersect with social hierarchies in critical ways.

A few gender-water studies consider the materiality of water more explicitly. Anne Coles' (2005) historical analysis of gender, hydrogeology and rainfall across villages in Sudan demonstrated how water collection duties were constructed at intersection of gender, ethnicity, livelihood, and religion, but also through geological and seasonal features in the landscape that affected the distance and feasibility of extracting water in different locations. In the context of arsenic-laden groundwater in Bangladesh, Farhana Sultana (2007, 2009, 2011a, 2011b) disaggregated the gendered impacts of this deadly toxin within households at the intersection of gender, age, and marital status. This study also showed how the unpredictable spatial variation of arsenic contamination played a critical role shaping intersecting gendered relations. These authors used intersectional analysis to both deconstruct how gender intersects with other forms of social difference, and to demonstrate how various material dimensions of water also influence the social relations of water access. These studies suggest that material dimensions of distance and location as well as seasonal and hydrogeological processes play a role in shaping social structures of power.

Many gender and water scholars already implicitly consider the intersections of both social and ecological systems in some way. Given the complex relationships between society and the environment, I suggest that a more explicit consideration of the materiality of the water could enhance intersectional analyses. In this study, I explore how this possibility might advance and broaden gender-water research. To support this idea, I now turn to critical scholarship exploring water-society relations.

### **Water-Society Relations**

From a number of disciplinary perspectives, paradigm shifts hinge upon changing understandings about the relationship between water and society. For example, systems thinking

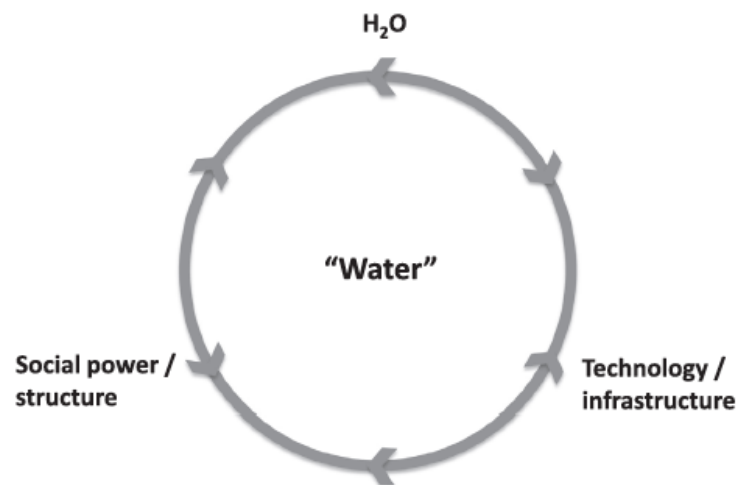


and the idea that ‘the whole is more than the sum of its parts’ was taken up within engineering in the 1960s and forms the basis of scholarship in areas such as system dynamics (see Simonovic, 2002, 2009) and sociohydrology (see Troy, Konor, Srinivasan, & Thompson, 2015). Such systems research approaches tend to explore the dynamics of human-water systems through feedback processes and loops, with a particular focus on quantitative modeling that works to simulate, predict, and optimize the behaviour and function of hydrosocial systems (see Loucks & van Beek, 2017). Within these changing paradigms aiming to investigate more holistically the relationship between water and society, I take up work in the area of political ecology, given the need for explicit attention to the politics of power within a social justice approach.

In particular, I draw on the geographic concept, socio-nature, which challenges ideas about nature as separate from society and explores the social construction and production of nature (see Castree & Braun, 2001; Braun, 2009). With the expansion of socio-natures thinking in relation to water, the political and material relations between water and society are becoming increasingly salient (Swyngedouw, 2004). Many no longer consider water a natural or physical resource that can be understood or managed without considering how or why society interacts with it. Water does not flow downhill, independently from people. Water is instead intimately and historically enmeshed with social life. From a political ecology perspective, water flows in relation to social power and capital (Linton & Budds, 2014; Swyngedouw, 2004). Capital transforms the hydrologic cycle. Transforming water for human use and benefit underlies political and economic systems, with scholars paying particular analytical attention to urban contexts, and processes of urbanization and capitalism (Loftus, 2007; Swyngedouw, 2004). Others explore how technologies mediate the transformation of water with large-scale infrastructure and technological networks, such as dams and centralized water supply and sewerage systems central to processes of modernization and development (Kaika, 2006; Kaika & Swyngedouw, 2000; Swyngedouw, 2004). Ultimately, water constitutes a socio-natural hybrid or assemblage; water and social power are mutually constitutive (Swyngedouw, 2004).

**The hydrosocial cycle.** Extending the concept of the hydrological cycle, Linton and Budds (2014) proposed the *hydrosocial* cycle as “a socio-natural process by which water and society make and remake each other over space and time” (p. 170). Rather than consider water and society as entities that can be considered separately, the hydrosocial cycle works to transcend this dualism by attending to how each is constitutive of the other. Water and society,

they argue, are *internally related* in an iterative way. Water-society relations are understood as a shifting hydrosocial cycle that integrates social power, technology and infrastructure, and H<sub>2</sub>O (material flows of water in the physical world), as shown in Figure 2 (Linton & Budds, 2014). The way society is organized and how water is managed are continuously being transformed in cyclical processes.



**Figure 2.** The hydrosocial cycle (from Linton & Budds, 2014, p. 176)

As described above, the social power aspect of the hydrosocial cycle has often been explored in relation to questions about the political economy, regarding, for example, capitalism and neoliberalism. With an interest in bringing feminist theory together with theories of water, I take up how the gendered and intersectional nature of social power might enhance hydrosocial thinking, as well as how hydrosocial thinking can in turn enhance gender theory.

**The materiality of water and infrastructure.** Also central to this reconceptualization of water are questions about the influence of materiality. Anthropologist Veronica Strang's (2004) seminal work elucidated how water is encoded with symbolical meanings, as an acculturated artefact. Water also has distinct material properties that play a formative role in shaping social relations (Edgeworth, 2014; Strang, 2004, 2014a). Additionally, infrastructures are also gaining attention as technological objects and networks that often reflect inequitable social relations, as political terrain (Von Schnitzler, 2013), and as key actors mediating and reconfiguring human experience (Jensen & Morita, 2016). Within these entanglements and possibilities, growing

strands of water research consider the generative analytical possibilities of also including the materialities of water to deepen understandings of water-society relations. Framed within a wider rediscovery or resurgence of interest in the material, Bakker and Bridge (2006) argued that conceptualizing nature as entirely produced or constructed forecloses the analytical possibilities of exploring how “things other than humans make a difference in the way that social relations unfold” (pp. 17-18). They suggest an imperative to address how social relations are “embedded in a world of things, bodies, networks [and] socio-ecological relations” (p. 18). In short, matter matters (Bakker & Bridge, 2006).

This material turn means considering the unique biophysical properties of water that set water apart from other substances. Writing extensively about the properties of water from an anthropological perspective, Veronica Strang (2004, 2005a, 2005b, 2006, 2008, 2014a) traced how the characteristics of water influence human relationships with it. Water circulates, conforms to the shape of its environment, and can conduct electricity. It changes form and state, shimmers with light and movement, and dissolves and is incorporated into other substances. These qualities shape social meanings of water, for example, its spiritual cleansing power, which remain fairly consistent from place to place and over time. Water is also dense and therefore heavy, costly to transport, and more difficult to commodify. Karen Bakker (2003) characterized water as an “uncooperative commodity” (p. 18), because of the ways in which water’s biophysical properties consistently present difficulties for privatization and commercialisation. While the social meanings of water are not fixed, they are also not random. Water’s characteristics and behaviours have been relatively consistent across space, time and scale, and have played a *relational formative* role in water-society relations (Strang, 2005b, 2014a).<sup>22</sup>

Anthropological research about infrastructure explores its role in cultural production. Star’s (1999) ethnography of IT infrastructure complicated common views of infrastructure as a hidden or invisible “system of substrates” (p. 380) that frames the background or underground to social life, to show the embeddedness of infrastructure within human systems and the emergent nature of infrastructure, shaped by particular communities of practice. More recently, scholars have also expanded on how the materiality of infrastructure also plays a formative role

---

<sup>22</sup> The idea that water has or might have agency is gaining traction, albeit controversially (Bakker & Bridge, 2006; Linton & Budds, 2014; Strang, 2014a, 2014b; Swyngedouw, 2004). While I acknowledge agency debates, I focus on how water’s heterogeneous distribution on earth can nuance our understanding of social processes and power (Bakker & Bridge, 2006; Sultana, 2009).

constructing social relations. In particular, Brian Larkin (2013) urged a reconceptualization of infrastructures not only as technical objects, or as symbolic representations of particular political relations, but as poetic entities. Infrastructures produce particular citizenships and affective relations that can include desire, fantasy, awe, and possibility. As Larkin (2013) noted, the changing materialities of infrastructures such as the shift from wood to hard concrete, from dusty dirt to pavement, and from open flame to light bulbs alter the particular ambient, aesthetic, or sensory experiences associated with infrastructures such as buildings, roadways, and lighting.

Amidst these debates about materiality, I echo Bakker's (2009) concern about the "fine line between incorporating materiality ... and avoiding the spectre of environmental determinism" (p. 517). Certainly, conceptualizations of matter and materiality are historical and ideological. Adding to the social, cultural, historical, political, and economic aspects of human relationships with water, the materiality of water *also* shapes water-society relations. Attending to the materiality of water is not to suggest that environmental conditions determine social meaning and experience. Instead, environmental materialities interact with and are co-constructed by social structures. Just as societies act on water, water also acts on societies.

However, as Loftus (2009) noted, much of the influential scholarship on political ecologies of water has been "surprisingly silent" (p. 963) on issues of gender. Further, significant portions of this work concentrate on urbanization and the implications of large centralized water systems. I suggest theoretical opportunities for bringing together socio-natures and feminist thinking across multiple contexts and hydrosocial arrangements. In particular I heed Loftus' (2009) reminder that "a rethinking of environmental questions [must recognize] how thoroughly embedded these are in everyday life" (p. 966). The spatial and material aspects of water (including biophysical processes and infrastructure) play an important role shaping the everyday politics of water (Ahlers et al., 2014). There are opportunities to consider how intersectionality's social difference might also be conceptualized *relationally* with water and infrastructure.

### **Revisiting the Social Roots of Intersectionality**

Given this emerging work about the co-constructions of water and society and the formative influence of the materiality of water and water infrastructure, there is a need to go back and examine what these entanglements mean for intersectionality theory. Framed as a theory for studying human experience, intersectionality has conceptualized difference as predominantly social. Accounting for difference and power within the social realm,

intersectionality risks inadvertently privileging culture over nature and overlooking important eco-social relations. As is well documented across various environmental disciplines that explore human-environment relationships, people interact with each other but also with the nonhuman world. While debates about the nature of human-environment relations vary widely, human experience is constructed at the intersection of *both* social *and* environmental systems. Intersectional accounts of social experience risk missing how environmental materials and processes also intersect in the co-construction of socio-natural relations. Building on this critical scholarship, I unsettle intersectionality as a theory and method accounting for social factors alone. Such approaches risk distorting human experiences of power and oppression, by constructing experience through a sole social lens. I propose advancing intersectionality theory by exploring how to better incorporate an analytical focus on the materiality of water. This is not to downplay the important social, political and economic dimensions of water. In the *ongoing* project of applying intersectionality theory as a feminist lens to complicate the study of gender-water relations, how is intersectionality theory and method transformed?

### **Navigating Hydrosocial Complexity**

With increasing numbers of categories entering into intersectional analyses, intersectionality incorporates a fair amount of complexity, which raises methodological questions. McCall (2005) offers three approaches to navigating intersectionality's complexity:

- 1) Anti-categorical complexity: To reject and deconstruct categories;
- 2) Intra-categorical complexity: To interrogate the process of boundary-making and use finer intersections; and
- 3) Inter-categorical complexity: To strategically use categories.

In this study, I use McCall's inter-categorical approach and "provisionally adopt existing analytic categories to document relationships of inequality among social groups and changing configurations of inequality along multiple and conflicting dimensions" (p. 1773). Attentive to how this approach risks overlooking difference within social groups, I tease out categories such as gender, class, family status, and age "provisionally" to problematize single-issue thinking about difference. Additionally, I incorporate the materiality of water—including its physical properties and heterogeneous spatial and temporal arrangements—as well as water infrastructure and technology as analytic categories that intersect with and co-construct hydrosocial relations. As theorized by Tuan (1977), space is an abstract area tied to location but that allows movement. While societies and spaces are co-constituted, I work with the idea that space (and time) also

provide a structuring medium through which social relations unfold (Callard, 2004). I work with relational understandings of how material substances are physically organized in space.

As I proceed, I emphasize how hydrosocial water relations are already politicized, embedded within situated spatialized and racialized development histories of colonization, structural adjustment, and the ongoing constraints and conditionalities of neoliberal policy. Within this politicized view, I articulate how intersectionality's interlocking grid of social power is enmeshed with spatial and temporal differences in the physical world, as well as with infrastructure development. Water access is mediated through gender in ways that interact with multiple other interlocking social relationships. However, materialities regarding the distribution and quality of water *also* intersect with social structures and decision-making. Drawing on the work of Sultana (2009) and others, incorporating the materiality of water within gender research can help further the study of water-society relations.

### **Conclusion**

In this chapter, I traced the trajectory of the field of gender and water across the three broad disciplinary traditions in the areas of water and development, gender and development, and gender and the environment. I demonstrated how the analytical focus within gender-water research has shifted from women to gender and intersectionality. As the relationship between gender and water has been described in increasingly more complex and varied ways, this literature suggests the need to unsettle intersectionality as a theory and method focused predominantly on social structures of power. I have argued that intersectionality theory needs to also consider environmental dimensions to better understand interlocking structures of power and human experiences of inequality. New water-society research offers opportunities to enhance intersectional understandings of gendered social experiences. The hydrosocial cycle offers H<sub>2</sub>O (water in the material world) as well as technology and infrastructure as analytical modalities shaping social experience that could be not only compatible but also important to include with intersectional thinking.

## CONTEXTUALIZING GENDER AND WATER IN CAMEROON

This chapter situates the intersectional study of gender and water in the context of Cameroon, with a focus on power, politics, and governance processes. Accepting Cleaver and Hamada's (2010) challenge to "widen the gaze" (p. 28) of water governance, I consider how societal resources are allocated more generally, as well as how different people with different identities and subjectivities can influence change. To do this, I trace the emergence of broader patterns of politics, social structure, and power in relation to Cameroon's colonial history and contemporary position in the global political economy. As I proceed, I acknowledge false dichotomy between formal and informal structures, institutions, and norms that shape the waterscape (Ahlers et al., 2014). More distributed and equitable forms of water governance need to consider the patterns and possibilities of how different people participate in formal and informal networks (Rogers & Hall, 2003). Thinking intersectionally, I attend to social difference and distinguish between women's and men's experiences. I also highlight the importance of collective identity and solidarity in shaping political action.

I organize this chapter into four main sections. In part I, I begin with an overview of Cameroon's rich natural resources and how water fuels development and economic growth. Part II interrogates the range of political, social, and economic systems in place that affect the distribution of resources and power, and how the ideologies informing these systems have emerged over time through precolonial, colonial, and postcolonial phases of Cameroon's history. In Part III, I examine gender and power in Cameroon, outlining women's roles, livelihoods, and collective strategies for navigating, coping with, and resisting patriarchy. Part IV details more elaborately the water policy environment in Cameroon, characterized by ongoing neoliberal policy reform towards decentralization and privatization that distinguish different approaches to urban and rural water supply. Lastly, I identify a methodological gap in gender-water research about Cameroon. The chapter situates the historic specificities of how the waterscape in SW Cameroon has been produced by larger gendered social, political, and environmental landscapes.<sup>23</sup>

---

<sup>23</sup> While I situate the research in Cameroon's Southwest (SW) Region, this chapter also draws significantly on literature about the neighbouring Northwest (NW) Region, Cameroon's other Anglophone Region.

## **I) Overview: Water and Development**

### **Celebrating Peace, Diversity, and Abundant Natural Resources**

Cameroon's multi-faceted diversity and relative stability are widely celebrated. Often characterized a microcosm of Africa, or "Africa in miniature," Cameroon contains coastal, grassland, rainforest, mountain, and desert climates and geographies. These environments produce abundant resources, including different types of forests, ores and minerals, fertile agricultural soil, and a rich biodiversity. Located at the hinge of the continent between West and Central Africa, Cameroon sits at a pivotal spot where precolonial migration routes intersected, bringing diverse groups of people together in one place (Konde, 2005). The current population of Cameroon includes up to 240 ethnic groups who speak an estimated 280 living languages (Amungwa, 2011; Lewis, Simons, & Fennig, 2016). Cameroon is described as a veritable "ethnic and linguistic mosaic" (Republic of Cameroon, 2009, p. iv). While officially considered Central Africa, Cameroon also neighbours Nigeria, whose prominent economic and cultural influence in West Africa spills over the Cameroonian border (Republic of Cameroon, 2009). Lastly, the land that is now Cameroon is unique in how it was ruled by three different colonial powers; first as a German protectorate (1884-1916) and then partitioned as French and British mandates (and then as trust territories) until 1960 and 1961, respectively. Given Cameroon's diversity of peoples and landscapes and somewhat complicated colonial history, Cameroon celebrates its status as one of the few African countries that has not experienced war since independence, either internally or with its neighbours. As I describe later, Cameroon is certainly not conflict-free; national unity, peace, and social cohesion pose ongoing development challenges (Republic of Cameroon, 2009). However, Cameroon's relative stability also constitutes a significant achievement and source of national pride.

### **Water and Development**

Cameroon's array of natural resources includes a privileged abundance of water. Cameroon's freshwater reserves are ranked second in Africa after the Democratic Republic of the Congo (Ako Ako, Eyong, & Nkeng, 2010; Donkor, 2003). Unevenly distributed across Cameroon's diverse geographies, water flows north and south through a dense network of rivers originating in the central Adamawa Plateau (WWAP, 2009). With climate change underway, decreased rainfall disproportionately affects the northern areas of Cameroon with increasing desertification (Hassan, 2006; WWAP, 2009). However, as compared with many other parts of



the world such as North Africa and the Middle East, Cameroon's renewable water resources are positioned well above physical water stress indicators (WWAP, 2016).

**Mount Cameroon.** In the southern corner of the SW Region around Mount Cameroon, where this study focuses, water is particularly abundant. An active volcano rising steeply from the ocean, Mount Cameroon reaches over 4000 meters above sea level, the highest peak in West Africa (Fraser, Hall, & Healey, 1998). On the flanks of the mountain where people live, the rainy tropical climate produces high annual rainfall rates. Meteorological stations recorded between 2000 and 5000 mm of rainfall annually (30 year average), predominantly during the six-month rainy season from roughly May through October (Fraser et al., 1998). In comparison to a national average around 1600 mm, the SW Region is one of the wetter places in the country (WWAP, 2009). More recent data suggests declining rainfall rates (Akoh, 2009). Nonetheless, some areas along the coast where the mountain traps rainclouds receive annual rainfalls above 9000 mm, making these parts of Cameroon among the wettest places on earth (WWAP, 2009).

**Water use sectors.** Water use assessments often characterize three key sectors for statistical and reporting purposes: Industrial use, agricultural use, and municipal use. While these are simplified distinctions because water is often used for multiple purposes, these sectors help compare competing demands for water across economic development and community health.

**Fuelling growth: Agriculture and an export economy.** Cameroon's abundance of water is positioned as a pivotal asset for economic development in several ways. To begin, Cameroon is described as having "relatively large economic clout," accounting for approximately 50% of Central Africa's wealth (AfDB & OECD, 2007, p. 169). The main shipping port in Central Africa, Douala is a long-standing center of trade established prior to colonial rule, during the Atlantic slave trade (AfDB & OECD, 2007; Eckert, 1998). Furthermore, plans for two new deep-water seaports will encourage larger and more frequent tanker ship traffic at Kribi, the terminus of the Chad-Cameroon Oil Pipeline in the Southern Region, and Limbe, a site of offshore drilling in the SW Region not far from Mount Cameroon (Tiafack, Chretien, & Emmanuel, 2014).

Secondly, agriculture is the mainstay of Cameroon's economy. The majority of Cameroonians work in agriculture, which accounts for the bulk (75%) of fresh water withdrawals in the country (FAO, 2012). Small-scale and subsistence farming play critical roles feeding families and supplementing household incomes, trends that are reportedly increasing in urban areas as a means to supplement household income (Ngome & Foeken, 2012). However, large-

scale monoculture plantations for export (e.g. tea, bananas, rubber, palm oil) dominate agricultural production in Cameroon. The agro-industrial parastatal Cameroon Development Corporation (CDC) is the second largest employer in the country after the government (Konings, 2008). Furthermore, large-scale land acquisitions by multinational, foreign national and private Cameroonian companies in the agro-industrial sector are on the rise (Nguiffo & Watio, 2015). Cameroon is also one of Africa's biggest exporters of tropical timber, exporting the majority of its sawn and log timber to Europe and China (European Forest Institute, 2010).

Thirdly, water plays a key role fuelling industrialization in Cameroon. However, energy limits the expansion of the manufacturing sector, with the aluminum industry currently using half of all the energy produced in Cameroon (WWAP, 2009). Given how the country harnesses only 2% of its hydroelectric potential, hydroelectricity is considered a critical promise for economic development with several large dam projects in the pipeline (WWAP, 2009).

In sum, Cameroon's development strategies prioritizes economic growth through large-scale infrastructure projects, cash crop production for export, manufacturing, and energy production, which all aim to increase Cameroon's economic competitiveness in the regional and global economies (AfDB & OECD, 2007; WWAP, 2009). While I will interrogate the nature of this development more critically later, for the time being, it frames competing demands for water. Keeping these trends in mind, in this study, I focus primarily on the municipal sector and how communities and households negotiate daily access to water.

***Municipal access to water and sanitation.*** Access to water and sanitation are rather complex to assess. The WHO/UNICEF JMP monitored global progress in relation to MDG target 7 regarding environmental sustainability. In contexts where water is not continuously available 24 hours a day and 7 days a week, multiple factors affect the reliability of water access. The WHO (2011) drinking water guidelines define some key terms (see pp. 83-86), which I summarize below:

*Quality.*

This key access indicator assesses global health standards for drinking water quality (such as microbial, chemical, radiological and acceptability ie color or taste) as well as whether populations are using "improved" water sources, defined as: Piped water into dwelling, plot or yard; public tap or standpipe; borehole or tubewell; protected dug well; protected spring; rainwater collection; and bottled water (under certain circumstances).

*Availability (Quantity) and Accessibility.*

These indicators integrate the volume of water with distance and time to the source, and distinguish between different levels of service (no, basic, intermediate and optimal access). Most development initiatives use “basic” access as a threshold: The availability of 20 L of water per person per day within one kilometer (or 30 minutes round trip) of the user’s dwelling.

*Affordability.*

Of concern with this indicator are the tariffs paid by water users. While numbers vary, estimates range between 2% and 6% of household income/expenditures (Hutton, 2012). Poorer households generally spend more proportionately to access good quality water.

*Continuity.*

This indicator addresses the amount of time water flows and accounts for service interruptions as year-round, seasonal, or daily/weekly and the cause of interruptions (intermittent sources, engineering deficiencies, power failures, excessive demands or leakages, natural variations, competing demands, etc.).

According to the WHO/UNICEF JMP (2015) final report on MDG 7, Cameroon achieved mixed progress. For water access, the country successfully met its target to reduce the proportion of the population without sustainable access to an improved water source by half since 1990. In 2015, 76% of the population was using an improved source. However, reflecting the urban/rural disparity trends in sub-Saharan Africa more generally, 95% of the urban population in Cameroon has access to improved water sources, but only 53% in rural areas. Furthermore, access statistics over-represent the realities of actual water supply given the poor state of urban infrastructure and corresponding increases in network loss rates, rising from 25% to 40% between 1990 and 2000 (WWAP, 2009). In cities, where water demands often exceed supply, water scheduling (a common intervention in many cities in the Global South) ensures that different sub-sections of the network can be functional on a daily rotating schedule, as a consequence of which other sections of the network are non-functional for days at a time (Folifac, 2012; Kimengsi & Gur, 2015). This schedule changes frequently and is generally not publicized (Folifac, 2012; Kimengsi & Gur, 2015).

Research assessing how households across Cameroon select their drinking water source indicates that distance to source (time required to collect water), size of household (amount of water that needs to be collected) and household income (capital available to pay for water collection) all factor into this decision (Fotue & Sikod, 2012). Households often opt to collect

water from the nearest source, even if unimproved (Fotue & Sikod, 2012). Drawing on household survey data from Buea, Folifac (2012) reported that 49% of households meet their water needs primarily with an in-house connection, 20% with a yard connection, and 30% with public standtaps, yet over 90% of households *also* use public standtaps. With an estimated average per capita water use of only 20 L per day, citizens prioritized water quantity over water quality. While citizens accepted an intermittent water supply resulting from water scheduling, people wanted more information from the water utility about when water was going to flow, and where. In terms of water quality, 95% of households did not prioritize water quality as requiring immediate attention, and 90% reported not using any form of water treatment. These trends stem, in part, from a general belief in this area that spring water from Mount Cameroon is good quality for drinking, a belief that is at odds with researcher observations of human activity around source areas, including: clearing of vegetation, farming, bush fires, dumping of waste, housing and construction, toilets, bathing or washing, herbicides, animals, and open defecation (Akoh, 2009; Folifac, Lifongo, Nkeng, & Gaskin, 2009).

In 61% of households in Cameroon, women (46%) and girls (15%) bear the primary responsibility for household water collection (WHO/UNICEF JMP, 2008). In 39% of households, water collection is the responsibility of men (25%) and boys (14%) (WHO/UNICEF JMP, 2008). While Cameroon stands out as one of the more equitable countries in sub-Saharan Africa with respect to water collection,<sup>24</sup> Seager (2010) raised questions about the limitations of large-scale generalizations to describe the complex gendered dynamics of water use, access, and control. Given Cameroon's vast social and environmental diversity, the complexities of water collection likely vary a great deal across different areas of the country, and among different social groups.

With regards to sanitation, the JMP (2015) reported that Cameroon made little or no progress in reducing by half the proportion of the population without access to improved sanitation facilities.<sup>25</sup> In 2015, 46% of the population was using improved sanitation facilities, with 62% in urban areas and 27% in rural areas (WHO/UNICEF JMP, 2015). Shared facilities and open defecation have significant implications for health and hygiene. Unimproved sanitation facilities also affect water quality, which has been evaluated as generally below WHO standards

---

<sup>24</sup> In other African contexts such as Guinea-Bissau, Djibouti, Malawi, Côte d'Ivoire and Burkina Faso, over 85% of households consider water collection as women's work (WHO/UNICEF JMP, 2008).

<sup>25</sup> Improved sanitation is defined as facilities that separate human excreta from human contact (WHO/UNICEF JMP, 2015).

in major urban areas such as Dschang (Katte, Fonteh, & Guemuh, 2003), Yaoundé (Kuitcha et al., 2010), Douala (Ndjama, Kamgang, Sigha, Ekodeck, & Tita, 2008) and Buea (Akoh, 2009). In sum, Cameroon faces significant challenges meeting the water and sanitation needs of its population (Ako Ako, Shimada, Eyong, & Fantong, 2010; WWAP, 2009).

**Calls for stronger governance.** Given Cameroon's abundant water reserves, many attribute the country's water and sanitation challenges to poor water governance (AfDB & OECD, 2007; Ako Ako, Eyong, & Nkeng, 2010; Ako Ako, Shimada, Eyong, & Fantong, 2010; Folifac, 2012). Here a useful concept is the WWAP's (2016) distinction between physical water scarcity and economic water scarcity, which refers to the "human, institutional, and financial capital limit access to water even though water in nature is available locally to meet human demands" (p. 19). Cameroon lacks the human, institutional and financial resources to meet the water demands of its population (WWAP, 2016). Further, a general lack of data about the state of water resources in the country limits more effective water governance (Ako Ako, Shimada, Eyong, & Fantong, 2010; WWAP, 2009). For example, while Cameroon's National Institute of Statistics (2016) website has a link for the production and consumption of water, statistical data is not available at that link. Poor coordination among agencies (Folifac, 2012; WWAP, 2009) combined with the general lack of monitoring, evaluation and reporting (AfDB & OECD, 2007) also present significant planning challenges. Restricted budgets and vague legal instruments leave authorities with a weak capacity to implement and enforce initiatives, such that the laws in place offer communities and municipalities little recourse against infractions (Tamasang, 2007; WWAP, 2009). As I take up later, questions about decentralization and rapid urbanization present additional challenges, exacerbating an already fragmented water sector.

While these governance issues present significant challenges for the sustainable and equitable management of water, I also articulate a note of caution. Narrow views of good governance often risk implicitly erasing history, simplifying complex social relations in different contexts, and effectively blaming only local governments and peoples for their situations. Technical and managerial issues certainly present barriers to more effective water management. However, water governance needs to address more broadly the range of social, historical, political, and economic factors that also interact, complicating the waterscape. Next, I interrogate social power and the political landscape in Cameroon and elaborate how various phases of Cameroon's history continue to intertwine and shape water governance.

## II) Interrogating Power and Politics

While Cameroon celebrates relative stability, prominent critiques of inequitable distributions of resources and power in the country underscore broader questions about mechanisms of power. To establish these arguments, I introduce how colonial interventions and capitalist production strategies intersect with postcolonial politics of development and state building, all of which shape the current political landscape.

### Tracing Colonial Legacies

The strategies used by European powers to divide, claim, and rule the land and people that now constitute Cameroon continue to play a significant role in the contemporary social and political landscape of the country. Cameroon is unique as it was governed by three different colonial powers. As part of the Scramble for Africa, Germany claimed *Kamerun* in 1884. After World War I, the territory was disproportionately divided into the larger French *Cameroun* and smaller *British Cameroons* establishing distinctly Francophone and Anglophone countries. With independence from European rule in 1960 and 1961, respectively, these areas joined together as the Republic of Cameroon, first in a federated structure and then in 1972 as a united republic. This focus on unity reflects postcolonial government efforts to promote national unity in a context of immense culturally and linguistic diversity (Republic of Cameroon, 2009). Today, the government of Cameroon operates with official bilingual status that maintains the colonial languages of French and English, and distinguishes eight Francophone and two Anglophone administrative regions.

**The politics of belonging.** These colonial demarcations fuel ongoing imbalances of power and questions of belonging in relation to Anglophone and Francophone identity politics. Cameroon's Anglophone minority living in the Northwest (NW) and Southwest Regions constitutes an estimated 17% of the population (Republic of Cameroon, 2010).<sup>26</sup> With the central government based in the Francophone capital of Yaoundé, many have critiqued the uneven flow of power and resources to the Anglophone parts of the country (Nkwi, 1997). The Anglophone NW Region is home to Cameroon's official opposition party, the Social Democratic Front (SDF). Often termed "the Anglophone Problem," many Anglophones speak out against their

---

<sup>26</sup> This statistic is based on data from the 3<sup>rd</sup> household census, which was conducted in 2005 and published in 2010 (Republic of Cameroon, 2010). According to my calculations, of a total population of 17,463,836 people in Cameroon, 17.4 % of the population lives in Anglophone Regions (9.9 % in the NW Region and 7.5 % lives in the SW Region).

marginalization and disenfranchisement, a problem the central government has resisted addressing (Konings & Nyamnjoh, 1997).

Furthermore, cleavages among different Anglophone groups further complicate Anglo-Franco identity politics. Many trace these tensions to colonial capitalist production strategies on plantations concentrated in the fertile volcanic soils around Mount Cameroon in the SW Region (see Geschiere & Nyamnjoh, 2000; Konings & Nyamnjoh, 2003). Drawing on precolonial slavery traditions (Eckert, 1998), the Germans mobilized labourers—at first by force and eventually voluntarily—from other regions, including the NW. As such, many people from other regions settled in the SW Region, and are referred to locally as ‘strangers.’ Indigenous groups whose land had already been expropriated for colonial plantations asserted their power which resulted in a troubled dynamic between ‘strangers’ and local groups. As many have demonstrated, these discourses about Indigeneity are strongly rooted in histories of capitalist colonial appropriations of land and mobilizations of labour (Geschiere & Nyamnjoh, 2000; Konings, 1996), which continue to impact the politics of power.

With contemporary processes of political liberalization, decentralization, and the shift towards democracy in Cameroon, these cleavages have strengthened exclusionary politics (Geschiere & Nyamnjoh, 2000; Mbuagbo, 2012). Cameroon’s current Constitution recognizes minority and Indigenous rights, which is critical for protecting Indigenous leaders, languages, and identities. However, there is much contention because the Constitution stipulates that regional and local council leaders must be Indigenous and reflect the sociological components of their regions (Republic of Cameroon, 1996). With the devolution of power to the council levels, these stipulations have intensified what many term *allochthony-autochthony* debates about Indigeneity and citizenship by marginalizing many Cameroonians who settled in areas where their families did not originate (Albaugh, 2011; Geschiere & Nyamnjoh, 2000). Indeed, with such a diverse population, most Cameroonians do not live in what would be considered their ancestral or home village. While these tensions play out across the population, they are acutely concentrated among elites vying for leadership positions. Many argue that the central government capitalizes on these complex politics of belonging and exclusion as a divisive tactic for preventing Anglophone elites from collaborating, for quelling separatist movements, and for consolidating central power (Albaugh, 2011; Geschiere & Nyamnjoh, 2000; Konings & Nyamnjoh, 2003).

**The church.** The Christian church's significant role in Cameroon's history also traces colonial legacies and underscores contemporary politics of language and power. Christian missionaries arrived in Cameroon several hundred years before the Germans took control in 1884. Missionaries taught English and learned Pidgin (already the *lingua franca* in the Region) to indoctrinate people to Christianity. English and Pidgin were so firmly established that the German colonial administration, who wanted to govern in German, faced significant challenges and could not immediately enforce its use (Orosz, 2011). During colonial rule, church-state conflicts in Europe played into the antagonism between missionaries and colonial officials who disagreed about education and language policies and the most effective ways for instilling particular types of identities and loyalties (Orosz, 2011). While organized religion was limited in early postcolonial Cameroon, Christian churches have gained renewed influence with political liberalization since the 1990s (Konings, 2003). The majority of people in the SW Region today are Christian (predominantly Catholic, Presbyterian, and Baptist), with church groups replacing or taking on new social significance with respect to traditional forms of social association (Goheen, 1996). In particular, revival movements inspired by born-again Pentecostal teachings and practices have emerged across the different churches. Konings (2003) suggested that in a context of increasing structural poverty and social repression, the concept of rebirth offers more personal forms of spirituality such as faith healing, direct experiences with God, and increased spiritual and material opportunities. Leadership struggles within different church factions also complicate the NW-SW autochthony-allochthony conflicts (Konings, 2003).

**Traditional leadership.** Adding to these politics of power about Indigeneity, belief, and belonging, colonial legacies also shaped contemporary forms of traditional rule. Geschiere (1993) described precolonial leadership structures as varying quite widely across Cameroon, often reflecting environmental conditions. In areas characterized by more open fields such as the Grassfields of the NW Region, strong Chieftaincy traditions enabled Chiefs, known as *fons* in that area, to govern large areas. In other more densely forested parts of Cameroon such as the SW Region, precolonial populations reportedly lived in smaller groups with more segmented leadership structures and more autonomous authorities at the village or family level.

Colonial administrations significantly reorganized Indigenous leadership structures, inventing or manipulating Chieftaincies in different ways to govern their colonies (Geschiere, 1993). Goheen (1996) wrote that colonizers worked to “graft new relations of domination onto



old hierarchical relationships” (p. 67). Yet different colonial administrations used different strategies. The French preferred direct forms of rule and worked to assimilate the population and centralize control (Amungwa, 2011; Konde, 2005; Memfih, 2008). Chiefs were created as administrative auxiliaries for implementing discipline and coercive labour, roles that ultimately threatened their legitimacy with the population and weakened traditional leaders (Geschiere, 1993). The British, who governed from neighbouring Nigeria, relied on indirect rule and created, used, or enhanced Native Authorities in order to implement colonial policies, collect taxes, and conscript labour (Amungwa, 2011; Geschiere, 1993; Konde, 2005; Memfih, 2008). In the Anglophone areas, various Indigenous groups became invested in the power struggle for Chieftaincy positions, establishing and legitimatizing more formalized traditional authorities as *keepers of tradition* with the population (Geschiere, 1993). With independence, Cameroon’s new elites, who were often educated overseas or in Western universities, needed the customary authorities for their political base in state building (Goheen, 1996). Men’s secret societies continued to operate as political institutions and play an important role as regulatory bodies and sources of social wealth and power, albeit in exclusive ways meant to distinguish and legitimize authority positions (Goheen, 1996). While formal governmental and traditional leadership structures continue to coexist, this relationship is currently ambiguous if not tenuous (Page, 2003). Further unsettling this distinction, a recent Presidential Decree<sup>27</sup> allots monthly government salaries for the three hierarchies of traditional leaders.

**Women’s roles and hierarchies.** Colonial rule also significantly reorganized women’s roles within formal structures of authority. Gender relations in precolonial Cameroon were grounded in ideas about gender complementarity where “women [were] seen as powerful in their own right by virtue of being female” (Goheen, 1996, p. 16). Prior to colonial rule, women held established leadership positions within the hierarchies of traditional governance structures in many contexts in sub-Saharan Africa (Fallon, 2008). In some areas of precolonial Cameroon, women leaders governed by settling disputes and participating in council meetings (Kaberry, 1952; Konde, 2005). Women inherited various types of ranks and titles within palace hierarchies (Goheen, 1996). Women leaders had significant privileges, such as the right to own property and plantations, to choose a husband, and to have extra-marital relations without sanction (Kaberry,

---

<sup>27</sup> Decree No. 2013/332 (September 13, 2013) modifying Decree No. 77/245 (15 July, 1977) pertaining to the organization of traditional Chieftaincies.

1952; Konde, 2005). Women also governed areas where male leaders had no power. Most notably, men were excluded from women's societies (secret societies), where women celebrated their roles as farmers, made decisions about agricultural harvests, and gained prestige in the distribution of surplus harvest (Goheen, 1996; Kaberry, 1952; Konde, 2005). Women's secret societies were both socially and economically powerful, providing women with the public authority to reprimand male leaders (Goheen, 1996; Kaberry, 1952).

Certainly, precolonial social structures were by no means based on equality. Women in leadership positions had privileges that many other women did not. Many women were considered men's property and were thus acquired, traded, and gifted. Within polygamous social structures, women's reproductive and productive labour were considered part of men's political wealth and power (Goheen, 1996). However, there were accepted roles of authority for women within governance hierarchies (Fallon, 2008). As Goheen (1996) has argued, women were important political actors negotiating social cohesion within and between palaces, and had more political power than they do today. Critically, limited accounts of Cameroon's history document women's precolonial roles and power (Goheen, 1996; Kah, 2011; Konde, 2005; Njoh, 2003).

During colonial rule, European ignorance and disregard for Indigenous politics combined with Victorian stereotypes about gender roles led to colonial laws, structures, and education systems that privileged male leaders and banned women outright from positions of authority (Goheen, 1996; Konde, 2005; Njoh, 2003). Colonial officials viewed and treated women as tied to domesticity and the home (Page, 2005a). Through colonialism, women's governing roles and positions of power were selectively structured out of formal politics and decision-making. As Goheen (1996) has demonstrated, gender has been central in the evolution of both local and nationalist politics. Lastly, the colonial intensification of particular types of market relations through the implementation of cash crops plantations, wage labour, and a cash economy also significantly altered and undermined women's access to land, livelihoods, and social positions (Goheen, 1996).

**Community participation, labour, and development.** The practice of community participation was a development strategy long before colonial rule and the emergence of the State (Njoh, 2003; Nkwi, 1997). Community members came together in work teams to execute communal development projects, such as bridges, roads, or small dams (Njoh, 2003). Oftentimes, people worked cooperatively to help clear each other's farming land or to erect houses, for

example (Kaberry, 1952). During colonial rule, community labour was selectively employed in different ways as voluntary as well as forced labour to further colonial interests and profits (Geschiere, 1993; Goheen, 1996). The colonial use of Native Authorities meant that Chiefs were often responsible for recruiting community labour and collecting financial contributions towards development and infrastructure projects (Geschiere, 1993). This popularized the idea of volunteerism within communities and played a pivotal role in colonial development strategies, and was often implemented with overt and subtler forms of coercion. Hickey (2002) remarked that with postcolonial state building, participation became a reciprocal obligation for communities to be included in the State and a critical factor for accessing state resources. As I will elaborate later, this particular dynamic around participation has significant implications for how water is managed today.

Interrogating power and politics in Cameroon, I have shown how colonial legacies created Anglo-Franco divisions, used or created traditional leaders, excluded women from leadership and employed community labour. Ultimately, I do not purport to romanticize precolonial relations. Instead I draw attention to how the process of colonization significantly reorganized the social dynamics of authority and belonging in Anglophone Cameroon. While the two Cameroonian colonies officially gained independence from Europe in 1960 and 1961, colonial legacies have had a lasting impact. These legacies continue to underlie the country's struggles and successes through various phases of independence work that also shape the political economy and social relations in the country today. These political dynamics are important considerations for more equitable and sustainable water governance because they persist in influencing the ways resources are allocated and distributed, and the mechanisms that communities have for effecting change.

### **Changes in Cameroon's Political Economy since Independence**

Since independence, Cameroon's political economy has undergone considerable change, characterized by processes of political and economic liberalization. I summarize these changes below according to three approximate phases: 1) Economic growth under authoritarian rule; 2) Crisis and structural adjustment; and 3) Global capitalism under questionable democracy.

**Economic growth under authoritarian rule.** During Cameroon's early decades of independence, President Ahmadou Ahidjo ruled Cameroon for over 20 years (1960-1982) in a heavily centralized one-party state (Mbaku & Takougang, 2004). While supporters celebrated

Ahidjo's strong drive for unity, critics denounced his repressive and assimilatory measures. Fombad (2004) argued: "The independent state of Cameroon was born in the midst of a state of emergency proclaimed in 1958 and this continued in many parts of the country until the late 1970s" (p. 62). Freedom of association was severely limited, repressing civil society, religious and other organizations deemed independent from the State from organizing and gathering, restrictions that remained in place until 1990 (Adams, 2007; Konings, 2003).

Between 1961 and 1990, a series of national development plans initially reflected French interests, in particular French business interests and eventually shifted to support Ahidjo's regime (Memfih, 2008; Nkwi, 1997). During this time, Cameroon experienced two decades of significant economic growth on the world stage by exploiting its forests, agricultural plantations, and mineral deposits for raw export, bolstered by an offshore oil boom (Memfih, 2008). This economic growth is characterized as one of the rare success stories in Africa at a time when many postcolonial states struggled to develop depleted economies and political systems (Konings, 1996; Mbaku & Takougang, 2004).

**Crisis and structural adjustment.** However, by the 1980s, Cameroon was experiencing the devastating impact of global economic recession (Memfih, 2008). Cameroon was not alone; many consider the 1980s as a lost decade for economic development in Africa (Donkor, 2003). During this time, Ahidjo resigned and handed the country over in 1982 to his Prime Minister at the time, Paul Biya, who inherited the crisis. In the 1990s, Cameroon began widespread reform towards political and economic liberalization. Of considerable influence were the externally driven structural adjustment programs (SAPs) of the World Bank (WB) and International Monetary Fund (IMF) (Memfih, 2008; Page, 2003), the devastating impacts of which continue to impact global political economic relations. In order to access WB and IMF loans, developing countries around the world underwent structural adjustment as part of conditions for the loans.

Structural adjustment in Cameroon spurred intensive processes of internal change to the Cameroonian economy and state spending. These reforms liberalized labour laws and trade policies, restructured or abolished parastatals, and cut public spending such as civil service salaries and social welfare (AfDB, n.d.; Konings, 2008; Memfih, 2008; Page, 2003). In 1994, the Cameroonian currency (CFA franc) was devalued by 50% effectively reducing the global value of Cameroonian resources and labour so the country could be more competitive in global markets. As a result of these reforms, combined with the loans, the country sank deeper into

more acute debt. By the end of the 1990s, Cameroon's external debt had increased drastically with a debt-to-GDP ratio skyrocketing from 32% to 113% between 1987 and 1997 (Memfih, 2008). Exacerbating the situation, roughly one quarter of Cameroon's national budget was reportedly mismanaged, embezzled or taken out of the country by politicians and elites (Konings, 1996). The global recession combined with structural adjustment measures and constraints on public spending meant many layoffs from within the government and CDC leading to high levels of unemployment, which combined with inflation, gravely affected the standard of living in the country (Fonjong, 2004; Goheen, 1996).

In the midst of recession and structural adjustment, high levels of debt and poverty, depleted national coffers, and a strongly centralized one-party government led to widespread public protest. In 1990, the government of Cameroon liberalized the political system implementing a multi-party system, which effectively legalized political opposition, enabled groups to associate, and the existence of CSOs (UN, 1999).<sup>28</sup> With the opening up of political voice and dissent, there was considerable turmoil and upheaval, leading Page (2003) to characterize the 1990s as a decade of protest in Cameroon. Political liberalization also worked to effectively appease international donors in the context of economic recession, ensuring Cameroon could access debt relief, loans, and financing.

**Global capitalism: Debt, poverty, and foreign investment.** Memfih (2008) categorized Cameroon's current phase of development as influenced in particular by two externally driven policies for managing debt and reducing poverty: the Heavily Indebted Poor Country Initiative (HIPCI), for which Cameroon became eligible in 2006 and the Poverty Reduction Strategy Papers (PRSPs) (IMF, 2003, 2010). These policies work hand in hand and continue to restructure the Cameroonian economy to address external debt and to qualify for debt relief and low-interest loans (AfDB & OECD, 2007; Memfih, 2008).

Certainly, it can be difficult to distinguish what constitutes internal and external motivations driving policy. Cameroon undoubtedly wants to increase its competitiveness in global markets; accessing loans and attracting foreign investors offer important mechanisms. Immense capital investment is required for the host of mega-projects such as the hydroelectric dams and deep seaports mentioned earlier. A fairly aggressive and well-funded *Invest in Cameroon* campaign boasts how Cameroon's relative peace and political stability can protect

---

<sup>28</sup>Political Parties Act: Law No. 90/56 (December 19, 1990)

investments, how an educated, bilingual and entrepreneurial workforce can increase profitability and how growing energy, industrial, and ICT sectors can ease global connectivity (Investment Promotion Agency Cameroon, 2014). The continued privileging of an export economy in Cameroon fits succinctly within concerns about the more recent scramble for resources in Africa (see Nting, 2009). Together, strategies to attract foreign investment and sell resources signal Cameroon's commitment to global capitalism.

Despite research about social, ecological, and economic concerns (both realized and potential) from mega-projects such as dams and seaports (Hassan, 2006; Tiafack et al., 2014; WWAP, 2009), there seems to be limited literature about public resistance to them. Furthermore, it is difficult to discern public response to the rampant neoliberal economic changes in the country. Piet Konings (2008) has documented resistance to privatization of the CDC in the form of worker strikes, road blockades, and the occupation of the CDC head office. However, Konings (1996, 2008) suggested that this resistance did not oppose privatization per se but reflected the long-standing Anglophone struggle for power in Cameroon. More specifically, anti-privatization protests opposed the secretive and corrupt ways that privatization occurred without consultation with workers or trade unions, and was specifically limited to the labourers whose wages, work and living conditions were directly affected by the privatization. Opposition to privatization of the CDC was, for the most part, not supported by CSOs, leading Konings (2008) to position opposition to privatization in Cameroon as not as widespread as in other African contexts. I suggest that opposition to government initiatives may be connected to ongoing questions about the nature of political power in the country.

**From authoritarianism to democracy?** Regarding the formal government, many interrogate the country's difficult process of political liberalization. From a governance perspective, formal politics gravely affect state-society relations. Cameroon has a number of democratic tools in place, such as a multi-party political system and regular parliamentary and presidential elections since 1990, and the recent implementation in 2013 of a Senate elected by municipal councillors (Albaugh, 2011; International Foundation for Electoral Systems, 2016; International Institute for Democracy and Electoral Assistance, 2016). The country has also signed dozens of human rights conventions (see Fombad, 2004). However, current President Paul Biya of the Cameroon People's Democratic Movement (CPDM) party was appointed in

1982, making him among the longest reigning leaders in Africa (Albaugh, 2011). With only two presidents since independence, evidence of democratization in Cameroon is questionable.

Despite the country's official banner of democracy, many characterize the government of Cameroon as a non-democratic, authoritarian, or autocratic dictatorship (Adams, 2007; Albaugh, 2011; Easterly, 2010; Fombad, 2004). Widespread evidence of fraud, corruption, intimidation, and human rights abuses call the legitimacy of the electoral process into question (Albaugh, 2011; Amnesty International, 2012; Fombad, 2004; Hickey, 2002). Frequent repression of opposition parties and the media continues to hamper freedom of speech (Amnesty International, 2012). Cameroon's rate of imprisonment ranks second highest in sub-Saharan Africa (AfDB & OECD, 2007). The government frequently declares states of emergency, effectively giving the President *carte blanche* (Fombad, 2004). In 2001, the government established a rapid intervention paramilitary force, *Batallion Intervention Rapide* (BIR). When Paul Biya amended the constitution in 2008 to remove term limits to his time in office,<sup>29</sup> BIR security forces played a significant role suppressing public dissent, reportedly assassinating 100 protestors at point blank range (Easterly, 2010). In short, the State relies heavily on military force for social control.

State power also operates in more subtle ways. Cameroon scores bleakly on indices ranking perception of public sector corruption (Transparency International, 2016). Bribery is particularly pervasive as compared with other countries in sub-Saharan Africa, with 48% of Cameroonians paying bribes for public services spanning public schools, hospitals, personal ID offices, utilities, the police, and the court system (Pring, 2015). Albaugh (2011) further detailed the Biya government's strategies for manipulating the democratic process, including: Gerrymandering electoral districts to secure a majority of seats; restricting opposition supporters from registering to vote through targeted disenfranchisement, and capitalizing on minority rights discourses, as discussed earlier in relation to clauses about Indigeneity and leadership in the 1996 constitution, as a way to fragment a diverse civil society. Compounding these dynamics, with only three national censuses completed since independence (1976, 1985, 2005), a lack of updated demographic data limits evidence of injustice. As a result, Paul Biya and the CPDM party continue to maintain a stronghold of power in the country. However, legitimate levels of citizen loyalty complicate simplistic views of an authoritarian dictator ruling by force.

---

<sup>29</sup> Law No. 2008-1 (April 14, 2008)

**Patronage and paternalism.** Attempting to explain Cameroon's uncertain trajectory of political liberalization, many have written about patron-client relationships. Here, patronage networks and clientelism support the regime in power, significantly impacting how political power and resources are distributed. Adams (2007) offered a brief summary of this dynamic:

State-society relations in Cameroon are based not on rights but rather on paternalistic relationships. Whereas rights are about mutual obligations of state and society, patronage is about the largesse of the State directed toward quiescent, 'deserving' clients. Agents of the State affirm their generosity and good will by distributing goods in return for political support. (p. 182)

These networks are often characterized as strongly elitist, whereby elites have been incorporated into State structures (Konings, 1996; Nkwi, 1997). The use of personal favours within patronage networks affects the distributions of jobs, licenses, contracts, and projects to clients who "in turn mobilize political support and refer all decisions upward as a mark of deference to patrons" (Bratton & Van de Walle, 1994, p. 458). These relationships create loops of resources and power, which ensure material support for political loyalty. In this view, paternalistic social structures reinforce particular dependency relationships between formal governments, traditional leaders and populations (Goheen, 1996). Paternalistic relations also infuse participatory development, often inadvertently reinforcing clientelistic forms of participation by excluding marginalized groups and empowering the urban elite, or creating beneficiaries who are expected to feel grateful for support and intervention (Hickey, 2002). The accumulation of dependents, as either clients or kin, provides social status and capital (Goheen, 1996).

These particular types of hierarchies challenge the development of competition and participation, which Bratton and Van de Walle (1994) characterized as two key determinants of the transition to democracy. With political and economic liberalization since the 1990s, many worry that patron-client politics have intensified as the central government worked to repress or coopt autonomous groups or associations (Hickey, 2002) and limited availability of cash intensified the need for clients to ask patrons for help, effectively strengthening patronage power hierarchies (Goheen, 1996).

Unfortunately, in many ways, these characterizations of the Cameroon state as a corrupt dictatorship reinforces stereotypical and essentialist negative views of African governments. The postcolonial government of Cameroon has been constructed in unique ways over time, as a result of complex internal social and environmental dynamics *as well as* in relation to global economic forces such as colonialism, global capitalism, and neoliberalism. In his article, "Provisional



Notes on the Postcolony,” which draws significantly on his reflections about his homeland of Cameroon, Achille Mbembe (1992) characterized the postcolony as chaotically pluralistic while maintaining internal coherence. Multiple identities, institutions, and relations coexist simultaneously to construct particular regimes of violence distinctly connected to histories of colonialism. With this in mind, I emphasize that forms of authoritarianism, military force, corruption, and patronage networks operate simultaneously with democratic processes, human rights activism, and resistance to structures of power, although with different elements more salient in different times and places. As I move forward with this analysis, I settle with the idea that Cameroon operates as what deGrassi (2008) would call a “hybrid regime” (p. 107) that combines ideas about patrimonial authority and formal state-like apparatus, both shaped by a history of colonial exploitation and ongoing global economic policies that create new forms of dependencies. Recalling the need to widen the gaze of water governance, these social, political, and economic systems inform the conditions under which resources and power are distributed, as well as the mechanisms by which individuals and communities can be constrained or enabled towards social and environmental change.

My interest in interrogating political power is how these relations inform the production of patriarchy. Indeed, the above social, political, and economic systems all configure social power in particular ways that are grounded in a gender hierarchy. Ideas about patrimony, patronage, and patriarchy are rooted in the Greek *patér* or father, positioning men, fathers, and male ancestors as the heads of households, communities, and social hierarchies. Cameroon’s slogan, *Peace, Work, and Fatherland*, stipulates the ongoing importance of male power and authority as central to nationalist pride (Goheen, 1996). In the next section, I counter the implicit focus within much of the political landscape above by articulating the relationship between gender and power.

### **III) Gender and Power: Women Navigating Patriarchy**

Women’s strong traditions of solidarity feature strongly and distinguish Cameroonian society. While women’s formal leadership positions were structured out during colonial rule, the contemporary proliferation of women’s organizations, societies, and associations in Cameroon can be traced back to precolonial traditions and continue to underlie the country’s informal economy (Konde, 2005). Women’s organizations play an important role in the gendered distribution of resources and power.

As described by Goheen (1996), the women's movement in Cameroon relies on ideas about gender complementarity in that *women* constitute a distinct category and source of power. Women have always had and negotiated power by virtue of their status as women. Through various stages of colonial rule and postcolonial state building, local and traditional institutions headed by men have intersected with national institutions reinforcing male hegemonic structures, eroding women's power in different ways. Strong patriarchal traditions have played significant roles in the centralization of power and resources within male-dominated hierarchies. Goheen (1996) argued that the control of women's productive and reproductive labour has been central to men's power, accumulation, and prestige.

However, in this section, I highlight literature articulating women's individual and collective strength, resilience and entrepreneurial initiatives that resist the centralization of power and resources and maintain networks of support among women. I describe how informal structures and movements operate within, around and in spite of formal government arrangements, with important implications for the social welfare of communities at large.

### **Women: The Backbone of Cameroon**

Significant contributors to the informal and agricultural sectors in Cameroon, women are the vital backbone of the economy in Cameroon. Danish economist Esther Boserup's (1970) ground-breaking study of women's contributions to the economy as agricultural producers in the Grassfields of Cameroon (in the NW Region) provided critical evidence among women's movements around the world for why women's work must be acknowledged and included in development initiatives.

During economic recession and structural adjustment in the 1990s, women are credited as having absorbed and picked up the pieces (Endeley, 2001; Fonchingong, 1999, 2005; Sikod, 2007). During this time, changes in the global economy created new demands on households for cash income (Goheen, 1996). Women's responsibilities to earn income for their families and households increased, intensifying women's triple workloads that span reproductive, productive, and community responsibilities (Fonchingong, 1999, 2005; Fonjong, 2004). Forfeiting sleep, social and leisure time, and often delegating childcare duties to older daughters, women essentially took on more income generating activities outside the home (Fonchingong, 1999). This work included farming both cash crops and subsistence crops to feed their families, as well as small trading and vending business ventures, such as *buyam-sellam* [buy it, sell it], the

middle-women between farmers and urban markets (Fonchingong, 1999; Fonjong, 2004), solidifying women's contemporary entrepreneurial roles. Women celebrate how poverty rates among women went down in the 2000s, at a time when men faced increased poverty (MINPROFF, 2012). While women entrepreneurs face particular challenges securing capital and accessing credit (Fonjong, 2004), the increased capacity to earn a cash income plays a critical role in furthering women's social positions, supporting their families, as well as extending the broader well-being of communities.

### **Women's Group Membership**

Amidst insufficient sources of formal support, women negotiate their multiple roles by relying strongly on various types of group membership. A proliferation of women's groups, associations and organizations bring women together on the basis of shared gender identity, providing important strategies for sharing knowledge and resources. Said to emulate precolonial work cooperatives, which operated as forms of community participation as described earlier, women's groups often pool their resources and labour and engage in various types of productive activities such as farming collectives. *Njangis*, for example, provided critical coping strategies for women during structural adjustment (Fonchingong, 1999; Fonjong, 2004). Informal group savings and micro-credit schemes, *njangis* (*tontines* in Francophone areas) are important sources of capital and sometimes labour for women (Fonchingong, 1999; Fonjong, 2004; Mayoux, 2001). Women's membership in groups range from neighbours gathering informally to make monthly contributions, to more elaborate NGO-funded micro-finance schemes. For example, Mayoux (2001) described that women's groups can operate with rotating terms where members contribute and take turns receiving the contribution, with fixed terms resembling loans with interest, or with emergency terms through a reserve "trouble fund" (p. 443) in case of health issues or funerals. These different forms of group membership provide women with more reliable forms of support as compared with formal financial institutions or when their families simply cannot help (Fonchingong, 1999; Fonjong, 2004; Mayoux, 2001). Fonchingong (2005) found that women food vendors in Limbe relied predominantly on themselves and other women, including *njangis* (42%), personal savings (18%), and friend networks (16%) to procure start-up capital for their businesses. Loans from formal institutions such as credit unions and banks (18%) and women's husbands (6%) were less significant sources of capital. Further, group meetings provide women

with breaks from their husbands and workloads, and emotional strength to continue coping (Fonchingong, 1999).

Certainly, women's group membership and increased capacity to earn and control their income do not eradicate oppression. Mayoux (2001) found that collective savings schemes provide small and continual injections of funds that keep women afloat, but do little to address larger market and structural constraints, such as women's access to land. In areas where land is at a premium, women farm on fragmented plots, often far from home (Fonchingong, 1999; Goheen, 1996). Further, customary land tenure arrangements privilege men, such that women are not traditionally entitled to inherit or own land (Fonjong, 2012). While land laws are changing, strong patriarchal customary traditions continue to discriminate against women (Fonjong, 2012). Also, the increasingly commercialized concept of land as a source of income and investment further limit women's access to land (Goheen, 1996). In some households, husbands treated their wives' increased capacity to earn or access credit as an opportunity and either demanded a percentage, or increased the pressure on women to provide cash income for the household (Mayoux, 2001). Lastly, Mayoux cautioned how peer pressure ensures accountability within groups, such that some groups risk re-inscribing hierarchies among women. However, women view women's groups as critical sources of economic empowerment for improving the status of women in Cameroon (Mayoux, 2001). Women's organizations provide reliable coping mechanisms that support and further women.

### **National Gender Machinery**

National gender machinery constitutes organizational and institutional structures that promote gender equality and the advancement of women (UN Division for the Advancement of Women, 2005). Such machinery provides important legal, institutional, and policy mechanisms for addressing gender equality. Since 1990, when the Political Parties Act implemented a multi-party system (UN, 1999),<sup>30</sup> local organizations—including women's organizations—have been enabled to exist more autonomously from the government (Adams, 2007). Cameroon's gender NGOs and women's organizations along with transnational networks are credited for playing a significant advocacy and support role for furthering women's issues in civil society and creating systemic change within government structures (Adams, 2007; Galega & Tumnde, 2004; Gender Empowerment and Development (GeED), 2010).

---

<sup>30</sup> Law No. 90/56 (December 19, 1990)

Cameroon has signed numerous international human rights conventions that work to eliminate discrimination against women and girls and address gender issues, including the 1979 Convention for the Elimination of Discrimination Against Women (CEDAW) and the 1995 Beijing Platform for Action commitment to gender mainstreaming, signed in 1994 and 1995, respectively (Abena Ondo, 2010; GeED, 2010; UN, 1999). Numerous additional global policy trends, including the MDGs and PRSPs, also provide mechanisms for addressing gender in local contexts (GeED, 2010).

**Discriminatory law.** Cameroon's constitution commits to the equal rights of men and women, including in marriage, the elimination of discrimination against women and the protection of women and children, and affirms its commitment to international conventions (Republic of Cameroon, 1996). However, Cameroon operates in a context of legal pluralism, including English common law in the Anglophone areas, French civil law in the Francophone areas, and customary law constituted by unwritten norms and practices. While these different types of authority coexist in complex ways (Global Conscience Initiative, 2016), women in Cameroon critique patriarchal traditions and customary laws as particularly salient in the maintenance of unequal gender relations (Abena Ondo, 2010; Endeley, 2001; GeED, 2010). Furthermore, national law discriminates against women and girls in several ways. To begin, the law offers no legal definition of discrimination, and fails to address gender discrimination such as polygamy, domestic violence, sexual harassment, marital rape, female genital mutilation and breast ironing (GeED, 2010). Abortion is illegal except under circumstances of rape and maternal health risks (GeED, 2010). Additionally, clauses governing family and household relations overtly discriminate against women and girls. For example, the legal marriage age is 15 years old for girls and 18 for boys; parents can consent to a girls' marriage; bride price payments enable the husband's family to gift the woman's family upon marriage; and inheritance operates according to customary law, which discriminates against women. Fathers are considered the legal heads of household, and husbands have rights over women's property and their right to work (GeED, 2010). Households are traditionally patrilineal; upon marriage, women are often expected to join their husband's family household or compound (Goheen, 1996).

**Slow progress.** The Ministry of Women's Empowerment and the Family (MINPROFF) reports a number of plans and policy tools in progress. A 1999 National Gender Policy draft

reportedly reflects seven of the twelve priority areas of the Beijing Platform for Action<sup>31</sup> (Abena Ondo, 2010) and includes a policy declaration, a multi-sectoral action plan and a national action plan focusing on integrating women within development (GeED, 2010). MINPROFF proposed a gender mainstreaming bill in 2010 (Social Watch, 2010), and is in the process of drafting a Gender-based Violence Act and National Strategy and a new Person and Family Code to improve the legal status of women (GeED, 2010). Gender trainings have been conducted with traditional leaders, religious authorities, community leaders and juridical staff including judges (Abena Ondo, 2010). When developed, these plans for national machinery and legal tools will provide women in Cameroon with critical resources in the fight for gender justice.

However, progress instituting national gender machinery has been slow. The country's Beijing + 15 report card characterizes gender mainstreaming in Cameroon as unfinished (Gender, Empowerment and Development (GeED), 2010). Exacerbating slow progress, it has been difficult to access updated information about national documents. News reports suggested the National Gender Policy was publically validated in 2010 (Yufeh, 2010) and adopted in 2014 (Mbella, 2015). However, this policy along with MINPROFF's first annual statistical report have been difficult to access online, as the link to the MINPROFF website was inactive at the time of writing. Many critique the government's general lack of political will to allocate resources and take genuine action towards gender equality (GeED, 2010; Galega & Tumnde, 2004).

Underlying Cameroon's hesitant progress at addressing gender issues are questions about why an authoritarian state would agree to adopt national gender machinery aimed at promoting women's rights (Adams, 2007; Albaugh, 2011). Adams (2007) presents the government's commitments to women and gender as mere rhetoric, used during political campaigns. The central government does not prioritize women's machinery with MINPROFF positioned alarmingly low in budget breakdowns and facing severe funding shortages (Adams, 2007). This perhaps explains the lack of budget to fund technical support such as that required for the MINPROFF website. While celebrations such as International Women's Day are sponsored by the State, only women's groups registered with the Ministry are eligible to attend and receive gifts (farming tools and fertilizer, for example), thus bolstering patronage relations (Adams, 2007). Additionally, women attending International Women's Day events are now required to

---

<sup>31</sup> Poverty, the economy, health, education and training, violence against women, decision-making, and the female child (Abena Ondo, 2010).

buy and wear clothes sewn using state-sponsored fabric that changes every year – effectively generating income for the government. Finally, First Lady Chantal Biya’s philanthropic organization *Cercle des Amis du Cameroun* (CERAC) is well supported by presidential resources and gains significant media support and attention, overshadowing the work and needs of many other women’s organizations in the country (Adams, 2007). Within these examples interrogating the effectiveness of gender machinery under authoritarian rule, Albaugh (2011) concludes that national gender machinery provides Cameroon with a low-cost mechanism for increasing international legitimacy and attracting international assistance. This financial assistance then fuels domestic patronage networks, which work to strengthen state resources and political power. In an authoritarian context, national machinery operates from above to channel women’s activism, effectively bolstering state-delineated projects and goals.

These concerns about how state-controlled national machinery undercuts women’s advancement are significant. However, within this potential rhetoric lie considerable gains. For example, the country’s quota system stipulates 30% female political leadership (Abena Ondo, 2010; UN, 2012). Women have used this quota and successfully secured 31% of seats within national parliament, among the top countries in sub-Saharan Africa (UN Women, 2015). While the ways in which women politicians can and will affect change within the structures of formal government remains to be seen, this critical mass provides both evidence and hope for continued advocacy towards more gender equitable society. Additionally, as Susan Diduk (2004) noted, “the full force of political participation in Africa can be comprehended only if we step away from focusing on politicians, institutions, and structures and include ‘alternative sources’ of political and grassroots dynamism” (p. 29). I now present the strong traditions of women’s collective organizing in Cameroon.

### **Women’s Activism and Protest**

Women’s organizing also extends to collective resistance. Women’s distinct forms of public protest began to be documented in the colonial era across sub-Saharan Africa. For example, the 1929 Women’s War in Nigeria resisted the colonial imposition of taxes and the shutting out of women from political circles (Diduk, 1989; Ifeka-Moller, 1975). In Cameroon, variations of these protests are known by different names such as *anlu*, *titi ikoli*, *fombuen*, and *takembeng*, and are often performed or attributed to older women farmers from rural areas (Diduk, 1989, 2004). These forms of protest are notorious for their specific symbolic forms

including the use of the body (nudity, exposed genitalia, and performance), bodily functions (urinating and defecating outside an offender's home or place of work), dress (wearing men's clothing, dirty or tattered clothing, or brightly coloured and mismatched outfits), materials (eggplants, dry banana leaves, vines, and sticks), and sound (song, chants, whistles, and ululations) (Ardener, 1975; Diduk, 1989, 2004; Kah, 2011; Konde, 2005). Some also connect women's activist strategies with *juju* or witchcraft (Kah, 2011; Page, 2005a). Women's use of curse and insult are a highly visible, disruptive and effective means for shaming and disciplining those in positions of authority who offend womanhood, threaten community well-being, or generally abuse power (Diduk, 2004).

How women's protests relate to formal politics seems to range from grassroots social movements to more organized formal organizations. Protest names oftentimes represent the names of women's group (Ardener, 1975; Diduk, 1989, 2004; Konde, 2005). Women who call themselves *Takembeng* mobilize *Takembeng* as protest, implying more autonomous grassroots action. Protest is sometimes localized to particular communities in spontaneous responses to personal insult (Ardener, 1975). However, larger scale protests have been highly planned and organized across multiple communities (Kah, 2011). Women's anti-colonial uprisings protesting a 1955 colonial agricultural law that implemented contour farming saw thousands of women from the NW Region march to Bamenda (Diduk, 1989, 2004; Kah, 2011; Konde, 2005). Sometimes, women's protest have occurred within the context of tense opposition politics such that some organizations eventually developed into political associations intertwined with and mobilized by nationalist politics (Diduk, 2004; Konde, 2005). Yet traditions of women's organizing and protest based on the common gender identity of woman that transcends ethnicity and region predate colonialism in Cameroon. Women's collective participation and resistance constitute significant political weight, refuting views of women as passive victims of patriarchy, colonialism, authoritarianism, and neoliberalism. Women's collective voices and actions intertwine with the growing legal and institutional gender mechanisms that constitute the current gender policy environment in Cameroon. Gendered social, political, and economic histories and contemporary dynamics are central to a broader understanding of water governance that transcends formal and informal spheres. In the next section, I examine the current water policy context in Cameroon.



#### **IV) The Politics of Water Management**

In this last section, I trace the evolution of the water policy environment in Cameroon in relation to changing water management trends and the global political economy. I highlight how a neoliberal approach to water management reflects trends in sub-Saharan Africa more generally. With Côte d'Ivoire as the first African country to privatize its water supply in 1960, the privatization of public water utilities in sub-Saharan Africa intensified in the late 1980s and early 1990s phase of structural adjustment (Hall, Bayliss, & Lobina, 2002; Thompson et al., 2000). Significantly, the push towards privatization in sub-Saharan Africa has been to privatize public services only in urban and periurban areas, as rural areas are not seen as profitable (Hall et al., 2002). Reflecting colonial relations, privatization initially involved French multinationals capitalizing on Francophone African countries (Hall et al., 2002). However, the trend to decentralize and seek private sector involvement eventually took off more substantially across the sub-continent and rarely has privatization of public utilities improved access. In many cases, private sector involvement has resulted in lower levels of access because of increased rates of disconnection and poorly maintained infrastructure, leaving the poorest segments of the population paying the highest costs to access water from secondary suppliers (Bayliss & McKinley, 2007). Privatization is linked with the worst cholera outbreak in South African history in 2000 (Hall et al., 2002). In sub-Saharan Africa, it is becoming evident that full cost recovery is simply not possible because the investment costs for water infrastructure and management far exceed what many water users can afford to pay (Bayliss & McKinley, 2007). Many—including the IMF and the World Bank—now acknowledge that privatization has failed, with many contexts returning to state provision models (Bayliss & Fine, 2008; Bayliss & McKinley, 2007; Marin, 2009). However, of the over 260 contracts awarded to private operators for urban water and sanitation services in developing contexts since 1990, 84% were still active at the end of 2007 (Marin, 2009). As Marin (2009) noted, while the number of signed contracts has decreased, increasing numbers of people are served by privatized water services.

#### **Neoliberal Ideologies in Water Management**

While privatization often receives significant attention in debates about neoliberalism and water management, scholars have distinguished different processes by which neoliberal ideologies are enacted within water management (summarized in Table 1).

**Table 1.** Neoliberal strategies for water management

Process	Description
Commodification	Making water an economic good
Commercialization	Distributing water through markets
Privatization	Private sector involvement
Individual allocation	Enabling the ownership of water
Decentralization	Shifting from centralized to local control
Democratization	The use of democratic and participatory management strategies

Sources: Ahlers, 2005; Ahlers & Zwarteveen, 2009; Bakker, 2003; Harris, 2009; O'Reilly, 2006; Zwarteveen & Meinzen-Dick, 2001.

While each process is distinct, no process necessarily constitutes neoliberalism on its own. These processes often work in tandem, overlapping, intertwining and working in contradictory, complex, or slippery ways (Ahlers, 2005; Ahlers & Zwarteveen, 2009; Bakker, 2003; Harris, 2009; O'Reilly, 2006; Zwarteveen & Meinzen-Dick, 2001).

In light of these processes, I attend to the idea of “paying for water.” Page (2005b) described how Cameroon has a long and dynamic cyclical history of communities paying and protesting against paying for water services, which began during a cocoa boom in the 1940s. With the introduction of cash exchange in relation to water access, Page considered paying for water as commodification. This argument draws on Karen Bakker’s (2003) characterization of water as an “uncooperative commodity” (p. 18) because of how water’s biophysical properties make it particularly difficult to bring into the market economy. Page outlined several unique qualities that influence how water is commodified. First, water is often not transported very far (as compared with other types of commodities). Second, because water is a basic necessity, governments are more often more significantly involved in the production of water than other commodities. Third, not a discretely bound unit, water is a continuously flowing commodity. Finally, and most importantly here, water service delivery is often commodified, not the water itself. Given the changing social acceptability of communities’ willingness to pay for water in Cameroon, Page argued that commodification must be conceptualized as transient, reversible, and often partial.

According to Table 1, Page’s (2005b) argument might conflate commodification (making water an economic good) with commercialization (distributing water through markets). Many do

not consider paying for water services as commodification, but as part of cost recovery (GWP, 2000a). The idea that someone inevitably needs to pay for water reflects Dublin-Rio Principle IV, which controversially recognizes water as an economic good and promotes economic instruments to recover the costs of producing water (GWP, 2000a). Following this view, water user bills need to cover the cost of production to maximize water service delivery and promote efficient water use. Water services become commodified when the water delivery is sold for profit. Others consider full cost recovery as part of neoliberal economic discourses with a focus on pricing mechanisms and cost effectiveness inevitably overshadowing or exacerbating social equity concerns (Ahlers & Zwarteveen, 2009; Harris, 2009). Further, in sub-Saharan Africa where structural adjustment increased national debts and imposed cutbacks to government spending, full cost recovery is deemed unrealistic because of deteriorated infrastructure, high system losses, high costs, and low revenue (Bayliss & McKinley, 2007). With the widespread failure of privatization to improve water access for rural and poor populations, Bayliss and McKinley (2007) prioritized a return to state water provision, and the need for large-scale donor investment in public utilities. In practice, distinctions about paying for water become more difficult to tease out, in particular with informal water service arrangements such as small private vendors and when state corruption obscures cost recovery for personal profit.

Given the specific trajectory of water management in Cameroon, I highlight two key characteristics of Cameroon's water policy environment. First, neoliberal reforms to the water sector began during structural adjustment in the early 1990s and have continued through a series of incremental changes with a particular focus on decentralization and privatization. Secondly, these reforms significantly differentiate how water is managed in urban and rural areas.

Before I proceed, it is worth noting the scarcity of data about the water sector. For one, it is challenging to access government documents. As noted earlier in relation to the progress of gender policies, government websites are often incomplete, only partially functional, or hosting limited information. The website for the Ministry of Water and Energy (MINEE), for example, provides volumes of information about the energy sector (hydroelectric dams, oil and gas projects, pipelines, power plants), but much less on water supply and sanitation. Many government documents are only available in French. Other times, grey literature reports reference policy documents that are not accessible online. Second, limited scholarship interprets water governance in Cameroon. Amidst numerous water quality studies, very few researchers

study the politics of water governance. Some grey literature presents helpful overviews of governance structures, but I rely heavily on the scholarship of Ben Page, Ambe Njoh, Lotsmart Fonjong, and members of the Buea Water Resources Research Group for an understanding of the policy environment and its implications. This does not provide a very diverse set of viewpoints. I suggest that the limited information, analysis and scholarly debate about the politics, power, and practice of *how* water is governed plays an important role in shaping the politics of knowledge and power in relation to water governance.

### **Water Machinery at a Glance**

Framing the policy environment, Cameroon does not currently have an official national water or sanitation policy. At the 2002 World Summit on Sustainable Development in Johannesburg, Cameroon along with 140 other countries committed to develop National IWRM and Water Efficiency Plans (Ngnike, Banseka, Fonteh, & Simalabwi, 2010; UN-Water 2008). While a 2009 draft (known by the French acronym PANGIRE, *Plan d'Action National de Gestion Intégrée des Ressources en Eau*) of Cameroon's plan is in circulation (MINEE & GWP, 2009) and a recent news report announced the launch of a national policy (Mauger, 2017), a finalized policy is not yet publicly available online.

In the absence of a comprehensive policy and long term vision, the water sector has evolved in a fragmented way with more focus on urban water. Water and sanitation in Cameroon is governed according to four sectors: Urban water, urban sanitation, rural water and rural sanitation (MINEE & GWP, 2009). Policy tools include an Urban Hydraulic Sector Policy Letter (2007) guiding water development in urban areas and the 2009 draft IWRM plan. These tools both prioritize decentralization and support the shift to market approaches to water management through partial privatization of water in urban areas (MINEE & GWP, 2009; Ngnike et al., 2010; Republic of Cameroon, 2007; WWAP, 2009).<sup>32</sup> Sanitation is also privatized in some urban areas with solid waste collection services in 14 cities in Cameroon (Hysacam, 2013). Along with these fragmented policy directions (and numerous localized projects), a series of legal and institutional arrangements govern the water sector.

---

<sup>32</sup> There is considerable grey literature reporting about rural WATSAN projects, such as the Rural Water Supply and Sanitation Initiative (RWSSI) (AfDB, 2010), but there does not seem to be a comprehensive policy or plan. The AMCOW (2011) references a Rural Water and Sanitation National Action Plan (PAEPAR in French), however this document is not publicly available.

In terms of water rights, legal provisions can be ambiguous. The 1996 Constitution does not explicitly recognize the right to water, although it does provide for social and economic rights (Tamasang, 2007). The 1996 Environment Law ensures that everyone has the right to a clean environment (MINEE & GWP, 2009), which encompasses both water and sanitation. The 1998 Water Law declares water a public good, which facilitates water protection and access for all, and implements strict criminal penalties for violators including jail time. Lastly, Cameroon operates with Common law in the Anglophone Regions and Civil law in the Francophone Regions (Tamasang, 2007). Certainly, definitive water rights on paper often differ from the ways that water rights are enacted through practice. Water rights pose questions related to the quantities and quality of water, as well as how often and how far people must travel to access it.

Below, I focus specifically on how the contemporary water policy context in Cameroon is driven by the inter-related processes of decentralization and privatization, which distinguish between urban and rural areas. As I elaborate, much of this reform focuses on urban areas, leaving rural areas responsible for funding and managing their own water supply systems. Establishing the critical background for this study, these trends contextualize discussions in later chapters about how communities interrogate the ownership, responsibility, and care for both water and land. I first address the more formal machinery of the government, and then position these policies and institutions in relation to more informal community water management.

### ***Société Nationale des Eaux du Cameroun (SNEC) Era (1968-2008)***

Since independence, the government of Cameroon has focused predominantly on water access in urban areas. In 1967-1968, the *Société Nationale des Eaux du Cameroun* (SNEC) was established as a state-owned company<sup>33</sup> to manage the public water supply networks in urban areas, an arrangement that lasted for 40 years (AMCOW, 2011; Page, 2003). During the SNEC era, water development focused on supply side interventions that considered water as a technical problem with a focus on centralized infrastructure such as networks and dams (Njoh, 2003). While many communities developed water supply systems in Cameroon long before SNEC, SNEC often implemented new systems without community consultation, using loans from the World Bank and international engineering firms (Page, 2005a). This lack of consultation was

---

<sup>33</sup> With a state-owned company, the government owns some or all shares. The entity is run like a crown corporation, intended to operate independently, and at cost using a corporate model to provide a service but without the intent to generate a profit. However, Page (2003) considered SNEC to be run more like a “politicized arm of the government” (p. 492). While it is difficult to trace capital flows and profits, Page (2005b) noted that SNEC never declared a profit, leading to the widely held public opinion in the 1980s that SNEC profits fuelled the ruling party and political elites.

typical of water supply development prior to the global policy recognition of the importance of stakeholder participation in the 1992 Dublin-Rio Principles, a commitment furthered by the Framework for Action developed as part of the 2000 World Water Forum (GWP, 2000a, 2000b).

Under the jurisdiction of SNEC, drinking water development in the 1980s focused on the major cities of Douala and Yaoundé (Njoh, 2003). In 1984, the Biya government issued a Presidential Decree<sup>34</sup> imposing SNEC control of all urban water systems (Folifac, 2012). With this transfer of ownership from various combinations of community-, council-, and government-managed arrangements to national control, SNEC implemented changes in how the systems were run, with a focus on cost recovery and revenue collection. By 1990, SNEC operated centralized systems in over 100 towns, using computerized bills and water meters for both private home connections and public taps (Page, 2005a, 2005b). Given the global trend at that time to engineer water supplies, SNEC's implementation of demand management strategies such as billing and cost recovery to influence water use demand was in many ways ahead of its time. Critically, SNEC's public taps served significant proportions of the population. Municipal councils, meant to pay for the public taps, eventually defaulted on payments and ended up in debt (Page, 2005a, 2005b). With SNEC's focus on increasing private household connections, prices rose sharply and there were frequent disconnections and closures of public taps (Page, 2003, 2005a, 2005b). Rather than close public taps in the early 1990s, to ensure service, SNEC began leasing some public taps to individual entrepreneurs who sold water by the bucket, paid SNEC for the water services, and earned a small profit (Page, 2005a, 2005b).

Communities were outraged about the closure of public taps and new requirements to pay for water at the tap, leading to numerous well-documented protests against SNEC. In 1982, 200 women marched into the Senior Divisional Officer's office in Limbe (Page, 2005a). In 1991, the residents of Kumbo led mass protests and drove SNEC out of town by force, losing six residents who were killed by government forces (Njoh, 2006; Page, 2003). In 1994, 4000 women marched to the SNEC office in Tombel, and used women's traditional forms of naked protest to drive SNEC employees and engineers out of town (Page, 2005a). While these protests occurred in an already somewhat tense political climate in the early 1990s, SNEC often faced public resistance, and women played an important role voicing this discontent.

---

<sup>34</sup> Law No. 84/013, December 5, 1984

## Neoliberal Reform: Decentralization and Privatization

Neoliberal reform processes began in the 1990s during the SNEC era, as part of political and economic liberalization associated with the enforcement of structural adjustment and conditionalities for Cameroon to receive loans. Focused on decentralization and privatization, these reforms have been implemented through a series of decrees and legal instruments, which have worked incrementally over the years to decrease the responsibilities of the State. I piece together this reform process by compiling these legal instruments, as shown in Table 2.

**Table 2.** Legal instruments reforming the water sector

Year	Legal instrument(s)	Reform
1990	Ordinance No. 90/004 (June 22, 1990) Decree No. 90/1257 (August 30, 1990)	Legalized the privatization of public and parastatal companies
1992	Law No. 92-002 (August 14, 1992)	Created an electoral process for municipal councils as lowest level of government
1996	Law No. 96/06 (January 18, 1996)	Constitutional revision: Cameroon declared a unified decentralized state
1998	Law No. 98/005 (April 14, 1998)	Water Law i) Regulates the protection of water resources, water use and pollution ii) Outlines disciplinary mechanisms and penalties for violation of the law iii) Establishes the rights of traditional authorities to manage water disputes
1999	Decree No. 99/210 (September 22, 1999)	Specified companies eligible for privatization – including national water authority, SNEC
2001	Decree No. 2001/161 (May 8, 2001)	Established function of the National Water Committee (NWC)
2001	Decree No. 2001/162 (May 8, 2001)	Established the role of water quality inspection control agents
2001	Decree No. 2001/163 (May 8, 2001)	Established source protection parameters
2001	Decree No. 2001/164 (May 8, 2001)	Established commercial and industrial withdrawal protocol
2001	Decree No. 2001/165 (May 8, 2001)	Created a water trust fund for financing WATSAN projects, to ensure an annual budget for the NWC
2004	Law No. 2004/17 (July 22, 2004) Law No. 2004/18 (July 22, 2004)	Established procedures and terms of operation for local councils
2005	Decree No. 2005/493 (December 31, 2005)	Delegated WATSAN services in urban and semi-urban areas: i) Entrusted a public company with maintenance and management of infrastructure ii) Entrusted a private partner with the production and distribution of water, water treatment, and fee collection iii) Established grounds for a 10-year PPP contract between a public company and private entity (minimum 2/3 private shareholders) iv) Enabled disbanding of SNEC when contract signed

2005	Decree No. 2005/494 (December 31, 2005)	Established public company CAMWATER as a national asset-holding company
2007	Urban Hydraulic Sector Policy Letter	Established a drinking water supply strategy for urban areas i) Clarified the responsibilities of the state, the infrastructure partner (CAMWATER) and a private partner ii) Set tariff structures
2008	Public-Private Partnership (PPP) contract signed	Established partially privatized water service in urban and semi-urban areas between the Ministry of Energy and Water Resources, CAMWATER and CDE
2010	Decree No. 2010/0239/PM (February 26, 2010)	Transferred competencies for the construction and management of wells and boreholes to local councils
2010	Decree No. 2010/3720/PM (December 27, 2010)	Implemented regulations for the distribution of drinking water in urban and semi-urban areas

This table shows how decentralization and privatization have been ongoing and interdependent processes that prioritize urban contexts. While some of the more significant institutional restructuring has occurred in the last 10 years, I note how reforms have been working since the early 1990s to decrease central state responsibility by increasing the authority of local councils and enabling private sector involvement. These reforms change how resources, power and responsibility are distributed between the public and private sectors. The national WATSAN budget, for example, decreased in the 2000s, with most funds directed towards urban water supply, neglecting rural areas and the sanitation sector altogether (AMCOW, 2011).

Notably, between the enabling of the disbanding of SNEC in 2005 and the signing of a PPP contract with CDE in 2008, the government was initially unable to secure a concessionaire for the contract (Hall et al., 2002). To attract foreign investors, the government restructured water-pricing mechanisms in order to expand the water market in urban areas. In 2006, the government not only exempted domestic water from the value-added tax in order to increase water consumption by 25%, but also reduced connection fees by 50% to increase the number of private in-house connections (Republic of Cameroon, 2007). These incentives to increase water consumption are contentious. Research has found that in-house connections greatly increase water consumption, which also alters household hygiene practices (Cairncross & Valdmanis, 2006). Although, in Buea, Huston (2015) found no significant correlation between distance to the tap and quantity of water used. Superficially, greater numbers of private piped water connections in households offer important health as well as time- and labour-saving implications. However, *only* increasing water consumption (without corresponding infrastructural upgrades) puts



additional strain on existing water networks and in effect reduces service levels (decreases water pressure and increases the need for water scheduling, which affects the number of hours water is available). Increasing private connections and water consumption increases potential for profit and presents a more lucrative package, useful for attracting foreign companies.

**Public-Private-Partnership (PPP): 2008-present.** Since 2008, water in urban and semi-urban areas has been partially privatized through a 10-year Public-Private-Partnership (PPP) with three key players:

- 1) Ministry of Energy and Water Resources (MINEE): The government ministry responsible for water in the country; developing and implementing water policy; coordinating and executing water projects; enforcing wastewater and pollution controls; issuing withdrawal and discharge permits; and setting water rates (Republic of Cameroon, 2007).
- 2) Cameroon Water Utilities Corporation (CAMWATER): The public asset-holding company responsible for mobilizing finances; constructing, maintaining and managing infrastructure; quality control; and communication with the public (CDE, 2009; Republic of Cameroon, 2007).
- 3) Camerounaise Des Eaux (CDE): The lease-holding company, a private consortium of Moroccan firms, responsible for providing water services to 106 urban and periurban areas; increasing numbers of connections; replacing equipment and meters; and seeking financing for network expansion (CDE, 2009; Republic of Cameroon, 2007).

In the early years of this contract, contractual obligations were not yet in full effect, in particular regarding investment and sanitation activities (AMCOW, 2011). Others interrogate how the current arrangement differs from SNEC, given very little change in staffing (Sally, Gaskin, Folifac, & Kometa, 2014). Ultimately, the way the contract divides responsibilities among partners creates uncertainties about infrastructure ownership, maintenance and operation (AMCOW, 2011). Notably, the legal framework does not stipulate minimum levels of service or mechanisms for user participation (Folifac, 2012). Explicitly driven by profit, water utility representatives have acknowledged how market size determines where they expand, thus excluding smaller villages from services (Fonjong & Ngekwi, 2014). At the time of writing, close to the end of the 10-year contract, limited analysis examines its components, legal implications and progress. News reports from 2016 suggest a partnership with fraught leadership: The Director General of CAMWATER was fired on charges of embezzlement (CameroonWeb, 2016a; Nsom, 2016), the Minister of Water and Energy announced that CDE's contract will not be renewed (CameroonWeb, 2016b), and this Minister also faced charges of fraud and embezzlement of public funds (Nsom, 2016).

**Decentralization.** The process of decentralization in Cameroon has been officially in effect since 2010, however, progress has been characterized as “extremely hesitant” (AMCOW, 2011, p. 12), as well as ambiguous, confusing, and conflicted (Mbuagbo, 2012). While the MINEE no longer has resources, local councils have been slow to become fully operational. General government bureaucracy reportedly impedes this process (AfDB & OECD, 2007; AMCOW, 2011). In a context of a heavily centralized top-down political system and dependence on foreign donors, as described earlier, the devolution of power, authority, and resources is tenuous (Banlilon, Abangma, & Bruno, 2012; Mbuagbo, 2012). Most legislation continues to be issued by Presidential Decree, and critical questions about financial resources for lower levels of government to govern properly combine with concerns about corruption.

The partial processes of privatization in urban areas intertwine with decentralization to affect water governance in complex ways. With the PPP, the government continues to carry responsibility and financial burden, while profits (if any) benefit a foreign company. Weak enforcement capacity leaves the government with little recourse to hold the utility accountable for poor water services. The PPP increased the number of key actors, creating more complex institutional arrangements, the need for *more* coordination between partners, and thus a more complicated political bureaucracy and hierarchy. This exacerbates what Folifac (2012) characterized as already fragmented and uncoordinated relationships between key actors in the water sector. Further, decentralization relies on an effective transfer of power and financial resources to municipal councils, an ambiguous process that is difficult to trace and achieve. This assumed shift of power may offer more egalitarian and participatory approaches to water management and new opportunities for community engagement (Commonwealth Foundation, 2013). However, the devolution of power also risks shifting increased financial responsibility to individuals and communities. Decentralization also increases the need for high levels of technical expertise and capacity of local managers. This raises questions about whether municipal councils currently have adequate technical capacity to govern water effectively (AfDB & OECD, 2007; AMCOW, 2011). Importantly, many cities have highly educated and experienced personnel with diverse social, political, financial, and technical capacities, but these potentials are not effectively harnessed or mobilized within current water governance (Folifac, 2012). Also, given utility priorities to make a profit, local managers have less power to influence decisions. Thus the complicated institutional arrangement of the PPP intersects with various

profit-earning and cost-recovery motives, and the inner workings of politics and capacities of individual municipal councils.

### **Community Water Schemes**

Following a long-standing tradition in Cameroon, many communities collectively own and maintain water supply systems. Sally et al. (2014) defined community-managed water systems as:

Small-scale water supply networks servicing rural or urban communities, established by governmental or non-governmental organizations (NGO), individuals or community groups, that are operated and managed locally by members of the community who are neither highly trained nor professional water managers using situation and skill-appropriate technology. (p. 525)

While I position community schemes as informal mechanisms of water service delivery that are distinct from the structures of formal government, I also challenge the idea that community schemes operate independently from the broader political context. As noted earlier, colonial administrations initially enforced labour to develop water supplies, and later institutionalized community development strategies, which continued in postcolonial policy (Page, 2005a). From independence to the mid-1980s, hundreds of community-managed water supply systems were built and financed as what Njoh (2003, 2006, 2011a, 2011b) characterized community *self-help* projects. Many of these systems were constructed in both urban and rural communities to service areas not covered by SNEC and were maintained by water management committees (WMCs). Notably, community water schemes are resurging in popularity in both urban and rural areas (Njoh, 2011a), partly because the PPP systematically excludes rural areas and partly owing to the inaccessibility of utility water in the urban and semi-urban areas (in terms of cost and the limited reach of CDE supply networks).

The literature on community water schemes emphasizes both the benefits and pitfalls of participation and local ownership. In terms of benefits, Njoh (2011a) celebrated collective water service models as based on the principles of self-determination and autonomous rule that reflect Indigenous development traditions in Cameroon, offer cost effective strategies by making use of available resources in underfunded areas, and align with democratic values being promoted through political liberalization. Community water schemes often operate at a smaller scale using technologies appropriate for local technical capacity, and as such are valued as more financially and technically accessible as compared with larger municipal networks (Page, 2003). Community water schemes offer viable ways for communities to manage water (Njoh, 2009).

However, deconstructing idealistic views of both community and participation, these also complicate the effectiveness of community-managed systems. Rarely are community schemes developed and maintained without challenges (Njoh, 2003, 2011a, 2011b). There are elaborate struggles over ownership and maintenance of the water supply systems. Most community water schemes rely on combinations of labour and financial contributions from community members, along with technical and financial support from outside agencies. Notably, the Swiss development NGO Helvetas provided financial and capacity building support for rural water supply projects across Cameroon's Anglophone Regions between 1964 and 2005 (Helvetas, 2010; Njoh, 2003, 2011b; Page, 2003, 2005a).<sup>3536</sup> The Cameroonian government was also involved in community water projects. Over the years, numerous schemes received support from within formal government structures, including the Community Development Department (Page, 2003), municipal councils, or public investment budgets (Folifac, 2012). Government authorities often made substantial decisions prior to a community's involvement and communities conveniently contributed cash and labour but did not necessarily participate in decision-making processes (Njoh, 2003). The point is that many stakeholders were involved in the development of most community water schemes. Not surprisingly, multiple and contested understandings, narratives, and tensions circulate about the ownership of these early community systems (Njoh, 2003, 2011a, 2011b; Page, 2003, 2005a, 2005b). As I describe later, this pattern also affects urban-managed community systems (Sally et al., 2014). However, shouldering good portions of the responsibility for water systems, which often took up to 10 or 20 years to build (Njoh, 2003) and participating for decades in WMCs, many rural communities claim ownership of their water systems (Fonjong, Ngwa, & Fonchingong, 2004; Njoh, 2003, 2011a, 2011b; Page, 2003). Some suggest that the feasibility of community schemes depends in part on the extent to which

---

<sup>35</sup> Helvetas (2010) also provided a handful of municipal councils in the NW Region with financial and capacity building support between 2004 and 2006 for the development of integrated water resource management plans as part of the decentralization process.

<sup>36</sup> Fonjong, Ngwa, and Fonchingong (2004) documented several other water development agencies/donors that also operated in the NW Region, including i) CIACC, an elusive company that entered research discussions but is difficult to trace, possibly referring to the Douala-based Cameroon Industrial and Civil Contractors; ii) the Canadian government, both from the Embassy in Cameroon as well as from CIDA through the personal connection of a professor from Kumbo (Njoh, 2006; Page, 2003); and iii) SCAN WATER, again, another program that is difficult to trace but that reportedly failed, with 87% of small piped systems no longer functioning (AMCOW, 2011). Many of these agencies likely operated in the SW Region at some point, as well (Makia, 2015; Ndong & Nguo, 2015). The Bonadikombo community water project in Limbe (SW) received financial contributions from at least five different external donors (Njoh, 2011a).

communities perceive water systems their own (Njoh, 2011a, 2011b), although there seems to be little discussion about the implications of this insider-outsider dichotomy when the social, economic, and political relationships around water schemes are clearly often much more complicated.

**Rural community water systems.** In practice, many rural community water schemes have unfortunately failed within a few years (Fonjong, Ngwa, & Fonchingong, 2004). Complicating insider/outsider ownership dichotomies, Njoh (2003, 2011a) identified broader barriers to participation related to questions about politics and power. Paternalism and gate keeping by elites, elders, and development officials often limit community involvement in decision-making and control of systems (Njoh, 2003, 2011a). In the romanticizing of rural community schemes, Njoh (2003) identified an over-reporting of success as well as excessive pressure among communities for immediate positive results. Within communities, selective participation and inter-group conflicts challenge the cohesion and efficacy of WMCs (Njoh, 2003). Also, the particular size and density of a given community's population influences the distribution of costs and responsibilities among community members (Njoh, 2011a). Additionally, WMCs that do not collect fees regularly (only on an as-needed basis for repairs) give water users the impression that water is free (Folifac, 2012). Lastly, many WMCs are plagued with persistent combinations of mismanagement of funds, dishonesty, and a lack of technical competence (Fonjong, Ngwa, & Fonchingong, 2004). As such, many community members do not trust the WMC and are unwilling to contribute financially (Njoh, 2003, 2011a).

Sometimes, rural communities are coerced, misled or taken advantage of when they have good water sources and a willingness to contribute labour and cash to develop water schemes (Njoh, 2009). For example, Njoh (2011b) found a tendency for national authorities to appropriate community projects. Additionally, rural communities sometimes agree to partner with larger organizations in so-called 'joint' water supply projects, yet are exploited through inequitable arrangements. Folifac and Gaskin (2011) explored how the village of Mautu in the SW Region partnered with the agro-industrial complex CDC on their self-help water supply project. Community members contributed labour and financial contributions, while the CDC provided materials and technical expertise. However, unbeknownst to the community, the CDC took unfair advantage of the community by installing different sizes of feeder pipes, harnessing 96% of the

flow for its rubber plantation and labour camp nearby, which left only 4% of the flow for the community. The system ultimately did not meet the water needs of Mautu villagers.

**Urban community water schemes.** Importantly, community water schemes also commonly operate in urban and semi-urban areas. While official legal stipulations clearly distinguish approaches to water management in urban and rural areas, in practice water arrangements vary from city to city. Some smaller urban areas such as Mutengene (SW Region) and Kumbo (NW Region) only operate community water schemes (Njoh, 2009). In other urban areas, community-managed schemes coexist with the municipal CDE network and supply areas not covered by the municipal network. In the city of Buea, for example, five major community schemes complement the utility network (Folifac, 2012; Sally et al., 2014).

The Buea Water Resources Research Group has explored how this ambiguous relationship between community schemes and CDE water complicates water governance (see Folifac, 2012; Sally et al., 2014). Legally, the PPP contract authorizes CDE as the sole provider of water services in urban and semi-urban areas, leaving community schemes with little official legitimacy. Yet in Buea, the CDE network harnesses only two springs, an insufficient supply for Buea's rapidly growing population, spurred in part by the establishment in 1993 of the University of Buea, Cameroon's first Anglophone university. At any given moment, the CDE network is reportedly only one quarter full because of inadequate source capacity (Folifac, 2012). Many communities (previously villages now included as parts of the city) claim sole ownership of water sources to supply community systems, and are reluctant to collaborate with CDE (to jointly exploit sources) for fear of losing ownership and decision-making power over their sources. Urban community schemes play an important role in water supply in Cameroon, but operate without formal legitimacy, which limits opportunities for funding and state support.

With rapidly increasing urbanization, Sally et al. (2014) questioned the long-term feasibility of urban community water-managed water schemes. In their study of the Great Soppo-Wokoko-Molyko community scheme in Buea, Sally et al. found the WMC faced challenges particular to the urban context. For one, volunteer WMC members were not equipped with the types of technical and planning skills required to develop, operate, and manage water sources and systems related to rapid urbanization. Secondly, the particular urban social dynamics of Buea, which are characterized by ethnic-based politics of belonging, or what Sally et al. called a *stranger-indigene* dynamic, affected cohesion within the WMC and volunteer members' sense of

ownership over their roles. Third, many WMC members did not live in the neighbourhoods serviced by the water system and therefore had little vested interest in its function, because they were appointed by and therefore accountable to municipal council. With inadequate incentives to fulfill managerial roles, many members of the WMC stopped attending meetings. Certainly the dynamics of each urban community water scheme likely differ. The inner workings of individual WMCs and the general effectiveness of community water schemes need to be understood in relation to broader social and political forces that affect participation in scheme management.

### **Participation in Water Research and Governance**

Both research and policy acknowledge that effective water governance hinges on questions about the nature of participation. Cameroon's policy commitment to IWRM affirms the need to identify and include a diversity of stakeholders in water management (Dublin-Rio Principle II). Whereas stakeholders include a number of governmental, private sector and civil society entities, several researchers also specifically advocate for greater citizen participation in water decision-making (Fonjong, Ngwa, & Fonchingong, 2004; Njoh, 2011a, 2011b).

Critically, participation is positioned uneasily at the intersection of neoliberal reforms. This tension reflects concerns about how major financial institutions such as the World Bank have appropriated participation to further neoliberal goals (Cooke & Kothari, 2001). Neoliberal processes also often work in contradictory ways. On the one hand, decentralization increases the significance of participation at the municipal level. Democratization creates the possibilities for public debate and empowerment to challenge patronage networks and forms of authoritarian control. On the other hand, privatized arrangements simultaneously remove public involvement and control; in Cameroon, CDE has no contractual obligation to consult with communities.

However, with a global climate now characterized by uncertain change (WWAP, 2012), the capacities of communities and governments to adapt to changing circumstances are becoming ever more crucial. More adaptive approaches to water management require effective mechanisms for exchange through increased participation and collaboration among agencies, stakeholders and various water user groups. Gaps between knowledge and practice in participatory forms of water governance are addressed by strategies for improving collective learning and knowledge management that foster adaptive capacity (Brugnach, Dewulf, Pahl-Wostl, & Taillieu, 2008; Pahl-Wostl, 2009; Pahl-Wostl et al., 2007).

Folifac's (2012) doctoral research examined ways of managing knowledge and collaborative action to improve water governance in Buea. Characterizing policy and decision-making practices as bureaucratic and hierarchical with power imbalances that affect vulnerable groups, Folifac identified a resistance amongst members of the water sector to collaborate. He problematized a lack of coordination and interaction between key actors (including government ministries, CDE, municipal councils, and NGOs) and little public consultation.<sup>37</sup> Other than two crisis meetings convened by the Governor of the Region in reaction to student protests and institutional interactions through personal patronage relationships, the key actors in the water sector had yet to work collectively to develop an institutionalized approach to address the water issues in Buea. Water services have deteriorated over two decades of inaction. In a context of multiple water service providers, this fragmented approach limits the extent to which existing knowledge and capacities are mobilized.

To respond to these gaps, Folifac (2012) designed three different participatory multi-stakeholder platforms to facilitate collaboration, knowledge exchange and meaningful engagement among key actors within the water sector and the public. The first roundtable water policy dialogue involved influential figures in the water sector (the Mayor, representatives from various ministries and NGOs, as well as CDE and the university). This event provided a formal occasion for horizontal dialogue, building mutual understanding, and shifting these actors' perceptions of the nature of the water problem in Buea. The second event involved some key actors as judges in a school competition involving 30 students from across 10 secondary schools in Buea. This event generated rich dialogue about water issues in Buea and prompted the Mayor to host an impromptu town hall meeting after the event, the first of its kind in Buea. The final water governance seminar re-engaged key actors in the water sector with a panel discussion format, generating tense discussions between researchers in the audience and key actors about access to funding for participatory research. Notably, the water utility representative did not attend this last event, because he was embarrassed by the impacts of an irregular water supply identified by youth at the previous event. Nonetheless, he pledged to make the water schedule public, which was announced on the radio in Buea for a time.

---

<sup>37</sup> While a National Water Committee is responsible for coordinating across agencies, this committee appears largely inactive (WWAP, 2009).



Folifac's (2012) findings indicate a strong willingness among people in leadership positions to collaborate. However, constraining this potential, many key actors expressed reluctance to initiate this collaboration. Folifac characterized this reluctance as a lack of leadership and will to trigger, facilitate, and mobilize collaborative action. This reluctance stems from high mutual expectations among key actors and mistrust related to bribery, corruption, and fear that some individuals would have more political influence and manipulate the process to claim credit for collaborative achievements. Regardless, the events were influential in that they spurred a critical shift in awareness among key actors in the water sector, from a perception of the need for physical supply-side interventions (such as more tanks, larger diameter pipes, and expanded networks), to recognizing the need for a multi-pronged, collaborative approach that includes knowledge sharing across agencies as well as outreach and education to promote water conservation. Folifac reiterated the importance of trust building and a focus on small successes.

### **Gender and Water in Cameroon**

In terms of gender, very little attention is paid to the relationship between gender and water within Cameroon's policy environment. As elaborated in the previous chapter, water is deeply embedded within and shaped by gender relations. Women's grassroots advocacy in the Global South led to the formal recognition of women's work with water in IWRM through the Dublin-Rio Principle III, which emphasizes women's primary role in the daily provision, management and safeguarding of water (GWP, 2000a). A major branch of gender-water studies draws attention more generally to the lack of attention to gender in water projects, policies, and institutions. Therefore, Cameroon is certainly not alone in this inattention; neither is the country at the forefront of gender progressive water interventions.

In terms of Cameroon's national water machinery, there has been limited gendered analysis of the policy and legal tools in place. Cameroon's 1998 Water Law<sup>38</sup> does not mention women, men, or gender (Ako Ako, Eyong, & Nkeng, 2010; Ako Ako, Shimada, Eyong, & Fantong, 2010). The 2009 draft IWRM plan recognizes women as a distinct group of stakeholders with primary roles in daily water management, who need to be consulted and involved in participatory decision-making processes. This commitment may provide hopeful inroads for more significant mainstreaming of gender concerns in the water sector. Within the MINEE workforce of 124 employees, there were no women and the youngest man was 42

---

<sup>38</sup> Law No. 98/005 (April 14, 1998)

(MINEE & GWP, 2009). This aging all-male workforce demonstrates the urgent need to diversify and mainstream gender within institutional culture, especially with the upcoming wave of retirements.

What is more, national gender machineries (such as policies, laws, and institutional mechanisms) also do not take up water. Despite the inclusion of women and environment as one of twelve priority areas in the Beijing Platform for Action, Cameroon's National Gender Policy does not include this priority (Abena Ondo, 2010). Women's advocacy efforts prioritize addressing acute levels of gender-based and sexual violence (Advocates for Human Rights, 2014) and increasing women's access to decision-making more generally (Commonwealth Foundation, 2013). While the presence of "national machineries" does not necessarily account for gaps between policy commitment and implementation (Adams, 2007), these policies serve as important political advocacy tools for women's movements and gender equality activists. There are opportunities to further bridge gender and water advocacy efforts, and develop stronger institutional connections.

Scholarship about Anglophone Cameroon generally acknowledges women's distinct roles with water and asserts the need to better include women in formal water decision-making processes (Ako Ako, Shimada, Eyong, & Fantong, 2010; Fonjong, Ngwa, & Fonchigong 2004; Njoh, 2011a, 2011b). Recent survey research about labour divisions concludes that women are most likely to *use* water (for activities such as cooking, childcare and cleaning), and therefore are most affected by water problems (Fonjong & Ngekwi, 2014). Through historical archival work, Page (2005a) argued that women have always played a role shaping the social production of water. Women are not only water consumers, but powerful actors who influence the politics of water. Tracing women's contributions in constructing water berms, digging water trenches, maintaining codes of behaviour at water points, and cooking and participating in inaugural ceremonies for water systems through precolonial, colonial, and postcolonial phases of Cameroon's history, Page demonstrated that women have *always* actively influenced the social production of water and water technologies. In particular, women's distinct forms of protest described earlier, what Page called women's "naked power" (p. 57), prevented the closure of public taps and shaped decisions about the management of water systems. Women's historical contributions, activism, and involvement in the social production of water need to be better acknowledged within water research, much of which assumes *a priori* women's exclusion from

water, rendering invisible women's historic contributions in the making of water infrastructure, institutions and politics.

Lastly, much gender-water research focuses predominantly on women, which raises additional questions about gender relations, and the differentiated impacts of water among women, as well as among girls, boys, and men. In our gender analysis of Folifac's (2012) school competition *Water for Life*, my colleagues and I argued for more critical scholarship about how water crises affect girls (Thompson, Folifac, & Gaskin, 2011). During *Water for Life*, youth addressed how girls fetching water face experiences of sexual harassment and rape, in particular in the early morning and evening hours when it is dark outside. In the school competition, many attendees—both youth and community leaders (judges in the competition)—accused girls of purposefully taking advantage of an uncertain and intermittent water supply to engage in sexual activities. This focus stigmatizes the sexualities of girls, while both overlooking and therefore tacitly accepting the sexualities of boys and men. This moral panic about girls' sexualities suggests that in addition to risking sexual assault when going out to collect water, girls also face gendered stigma about the sexual behaviours of young people more generally.

However, other than this study, limited research in Cameroon has asked women and girls about their experiences and concerns with water. Most gender-water research relies on surveys (Fonjong & Ngekwi, 2014), researcher observation, interviews with male leaders, and policy, document and archival reviews (Ako Ako, Eyong, & Nkeng, 2010; Ako Ako, Shimada, Eyong, & Fantong, 2010; Page, 2005a). This methodological bias leaves critical opportunities for more empirical qualitative water research *with* women about water and opportunities to explore more deeply how water affects women's lives in more participatory ways, with stronger attention to the intersectional dynamics of power. Building directly on Folifac's (2012) work developing multi-stakeholder platforms to promote dialogue among various water users and leaders in Cameroon's SW Region, I explicit adopt a gender lens and explore the use of participatory visual methodologies with women.

## **Conclusion**

In this chapter, I have situated this study in the water-rich context of Southwestern Cameroon. Contextualizing water policy in Cameroon within broader questions about resources and power, I positioned questions about water governance as intimately linked with historical political, social, and economic systems. I demonstrated how colonial legacies influencing

language and Indigeneity, labour and capitalism, and leadership structures shaped Cameroon's contemporary political landscape. Within these systems, gender is a central tenet constructing inequitable social hierarchies. Yet women have coped, navigating and resisted patriarchy and influencing change using a number of strategies related to labour, group membership, and gender machinery and projects. I also articulated how neoliberal economic strategies such as privatization and decentralization are driving the water sector in Cameroon today, creating distinct mechanisms for urban and rural communities to access water. Framing the study of gender-water relations in Cameroon, this chapter has also laid the groundwork for discussions about power and voice in the research process, and the ways in which communities interrogate social and environmental change.

## DOING FIELDWORK

While the research process starts long before and extends long after fieldwork, the time I spent in the field played a critical role shaping knowledge production in this study. Certainly, I trouble conventional definitions of *the field* as a far-off place, ‘out there,’ and somehow exoticized from everyday life. I am always constructing the research, no matter where I am. However, for me, doing fieldwork involved relocating from Canada to Cameroon. I spent almost 12 months in Cameroon, over two separate visits (November 2012 to April 2013, and October 2013 to March 2014), a general overview of which is presented in Table 3.

**Table 3.** Fieldwork timeline

Activities	2012		2013					2014								
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Orientation	◆.....◆															
Primary Data Collection			◆.....◆													
Reflection and Analysis			◆.....◆													
Volunteering/Service											◆.....◆					
Ethics Internship											◆.....◆					
	Cameroon		Canada					Cameroon								

Qualitative researchers should work to establish credible, trustworthy, and persuasive research (Butler-Kisber, 2010).<sup>39</sup> How researchers position themselves and explain the research process helps to establish this credibility. In this chapter, I describe the inquiry process and how the data were collected, and interrogate what I did in the field in relation to the principles outlined earlier. Presenting the research activities chronologically, I show how my decisions were iterative and responsive to context and how the principles informing my approach fluctuated in salience across the different research stages. I begin with my commitment to collaboration and my relationship with an interdisciplinary water research team. I then describe the research design, and the changing nature of participation in my work with participants

<sup>39</sup> Traditional ideas about research rigor such as generalizability, reliability, and validity are less relevant criteria for qualitative inquiry as they reflect more positivist frameworks for evaluating quantitative methods (Butler-Kisber, 2010).

through a series of sequential workshops and events. I also explore my approach to making the research public through various outreach and dissemination strategies, as well as how I worked with the data during the writing process after the fieldwork. Lastly, I reflect on the method and ethical tensions I faced as a researcher working to do the most good and the least harm, in particular in relation to my positionality. In this chapter, I situate myself in the research context and explore how my social position and subjectivity as well as those of various participants and collaborators inform the study.

### **Working in Collaboration**

As noted earlier, I worked with a collaborative approach through the Buea Water Resources Research Group (BWRRG). As my doctoral studies evolved, the nature of this collaboration and my participation in the group shifted. For two years before going to Cameroon, I attended weekly group supervision meetings in Montreal attended by other graduate students doing research in Cameroon and visiting Cameroonian scholars. We exchanged research updates, data and findings, and pieces of writing. We also co-developed a number of funding proposals. My involvement with the BWRRG prior to fieldwork provided me with important contextualized insight about water in Cameroon, as well as the politics, possibilities, and structural constraints of doing research in Cameroon. I also gained the opportunity to consider what it means to study water across various disciplinary and interpretive frameworks, including engineering, physical geography, urban planning, chemistry, and education. All of this was critical for helping me develop a meaningful project proposal grounded in the lived experiences of the team.

During fieldwork, two members of the BWRRG based in Cameroon played a stronger role in my study. These collaborators supported me in numerous ways by helping me to establish a living space, by introducing me through their personal and professional networks, and by acting as an advisory committee for the research. Dr. Sunday Shende Kometa, a geography professor then based at the University of Buea (UB), played an advisory role. Through regular meetings, Dr. Kometa reviewed my progress, provided logistical support, contributed to strategy

meetings, and shared insight about doing research in Cameroon.<sup>40</sup> Given my interest in working with women, I also worked closely with a local civil society organization (CSO).

**Changing Mentalities and Empowering Groups (CHAMEG).** CHAMEG is a small but influential CSO working in Cameroon's Southwest Region. According to the CHAMEG (2014) website:

CHAMEG Cameroon is a community based, nongovernmental organization registered in August 1996 by ten women's groups with the aim of empowering women socio-economically, culturally, and politically to raise their self-esteem to meet up with the challenges of the time.

CHAMEG is dedicated to the idea and actual search for sustainable development initiatives, designed and managed by its beneficiaries according to their collective spirit and culture, directed towards a freely chosen future and in partnership with other actors.

CHAMEG's (2014) mission, vision, and objectives include: Enhancing the socio-economic, cultural and political situation of underprivileged and marginalized persons, especially women; promoting women's and girls' empowerment socio-culturally, economically, and politically; advocating for good governance and accountability; partnering and collaborating with development institutions; creating communities where women and youths are empowered to overcome poverty, harmful cultural practices and discrimination; and improving the living standards of women through sustainable livelihood effort activities.

Working within existing development, government, and economic systems to promote change, CHAMEG addresses a range of issues with a central focus on women's economic empowerment and women's representation within formal political structures as key strategies for improving the status of women. CHAMEG develops micro-credit loan schemes to support women's businesses. The organization often functions as an important intermediary and mentor for smaller women's associations, providing guidance and support for groups navigating the non-profit sector funding system, from proposal development through to reporting requirements. CHAMEG also runs sensitization campaigns in areas such as malaria prevention, female genital mutilation, and HIV and AIDS. Committed to advocacy, CHAMEG has been instrumental in

---

<sup>40</sup> I had initially proposed working more closely with UB as an important venue for research dissemination as well as in my capacity to offer participatory visual methodology workshops. However, at the time of fieldwork, rolling faculty and student strikes meant the university was often closed. With frequent police and military presence on campus and a history of violent strike activities involving hostage taking and in one case the death of a student, I was strongly advised by my collaborators to avoid campus. When the university was open, faculty and students were busy catching up on core material, attending to delayed exam periods, observing religious holidays, and participating in national sporting events. Many faculty and student groups had little time to collaborate or attend additional seminars.

establishing several women's advocacy networks in the SW Region, for example, the *Coalition of Women-Headed Organizations in the Southwest* and the *Network of Many Women's Associations*. Funders often invite CHAMEG founder and director, Mrs. Magdaline Agbor (familiar to many as 'Meg' as reflected in the organization's name CHA-MEG) in a formal capacity to coach smaller organizations through funding processes. Combining community-based work and higher-level networking, CHAMEG is well situated to advocate within governance and policy circles. CHAMEG frequently chairs inter-sectorial meetings and represents civil society on panels charged with monitoring government accountability. With a small staff base, CHAMEG fosters a sense of community with an open-door policy and streams of visitors, collaborators, beneficiaries, and colleagues visiting the office daily. Through these networks and community ties, CHAMEG finds creative and resourceful ways to work within limited means to advocate for women and community, promote women's leadership, and develop action networks.

CHAMEG played a critical role in my day-to-day fieldwork. The Director, Mrs. Agbor, met with me multiple times weekly including in her parlour and on her kitchen stoop in the evenings and on weekends. Together, we strategized the research design, generated ideas, planned how to work across four communities, and debriefed each activity and event. Drawing on decades of experience, Meg helped shape my understanding of the women's movement, as well as the general political landscape in Cameroon. Collaborator, advisor, and sounding board, Meg was an invaluable mentor for navigating the complexities of communities, civil society networks, and political systems. My interest in designing a study that included community engagement and policy outreach worked synergistically with CHAMEG's vision and objectives.

### **Orientation**

When I first arrived in Cameroon, I worked with the understanding that when I first join a new community—be it a new workplace, peer group, or neighbourhood—my insight about the social dynamics of that space is limited. From my experience working across multiple different types of institutional and cultural settings, from primary schools in Montreal, to an engineering firm in Melbourne, to NGO work in Freetown, I knew how much I did not know. Therefore, my research plan was to avoid “hitting the ground running;” I did not rush into working with participants. For my first two months in Cameroon, I built time in the research schedule to



adjust.<sup>41</sup> As a visitor, it was important to me to make efforts to ground myself in the city of Buea, where I was living, and not just travel through. I spent time getting settled and building relationships. Having never met anyone from CHAMEG in person prior to arriving in Cameroon, I developed my relationship with the staff. I familiarized myself with Buea's many *quartiers*, in particular the university neighbourhood Molyko where I rented a one bedroom flat in one of Buea's *mini-cité* apartment buildings.<sup>42</sup> I learned how to travel around Buea independently using the city's shared taxi system. I also travelled around the SW Region and visited other mountain and coastal communities as well as around the neighbouring NW Region. During this time, I attended many gatherings and gained exposure to the social dynamics of different types of events. This included CSO training workshops, film and fashion industry events, community association and *njangi* (collective savings schemes) meetings, networks of women's organizations, formal government events, university lectures, and funerals. I also joined recreational sports activities at the university and made friends with students and international volunteers not involved in the research. It was difficult to justify an orientation phase in the study as I was concerned about wasting time and money. However, this time was critical for designing the activities and procedures in context-responsive ways that reflected the interests, concerns, and lived experience of my collaborators and participant communities. I only submitted the research proposal to my university's institutional review board after these conversations with my collaborators about project aims and methods. This orientation phase also allowed time for me to adapt my language skills from Sierra Leonean Krio to Cameroonian Pidgin English, which was crucial for building trust and working with communities.

### **Participatory Visual Research Design: A Workshop Model**

Inspired by the possibilities of participation to broaden access to knowledge making processes, and for research to make a meaningful difference in the lives of participants, I also heed concerns that participation has become a buzzword and that studies where participants initiate and are in full ownership and control of the research are quite rare (Cornwall & Jewkes, 1995). As such, I characterize the nature of participation in this study and distinguish my approach as a "Participatory Visual Methodology Workshop" intervention model implemented by a collaborative team. This workshop model is by no means novel. Indeed, workshops are the

---

<sup>41</sup> This also included the Christmas and New Year holiday season, during which fieldwork was not feasible.

<sup>42</sup> French for small city, named after the urban apartment complexes in France and Cameroon's Francophone Regions.

primary format in which I learned how to use participatory visual methodologies, through my graduate studies and involvement with the Participatory Cultures Lab within McGill University's Faculty of Education. Next, I articulate this model and several of its defining characteristics as a specific type of participatory visual research.

In this model, studies constitute a series of relatively short-term sequential events with a distinct beginning and end. This process does not necessarily or explicitly involve the iterative cycles of action and reflection that might characterize participatory and action research. Working in collaboration with organizations that maintain longer-term relationships with the communities (in my case, the BWRRG and CHAMEG), the research activities contribute to cycles of inquiry and practice at the organizational level. Collaborative teams, often composed of researchers and NGOs, invite groups of participants together in workshop settings to facilitate image production and interpretation about particular issues. In this study that involved over 100 participants across four different communities, it was not feasible or sustainable for every person to be involved at every step of decision-making about the research process. Participants have busy lives and most were only involved for two days during image production and interpretation workshops. We were fortunate to be able to gather different groups of people together for two consecutive days.

Using this workshop model, many participants were more closely involved in identifying, representing, and analysing the issues affecting their lives, than in deciding how our work together would unfold. I initiated and coordinated the research, and made decisions about the study design and procedures with the research team. Given the unpredictable nature of working creatively with groups of people, the workshop facilitators and I worked to structure the activities so as to avoid running out of time. Facilitating a group process using methods that are new to participants, the research team made strategic decisions in the moment; at times making compromises in relation to what we could realistically accomplish, and at times building on the opportunities and momentum generated by the work. Although we did this in a way that was responsive to context and sometimes in consultation with the participants, we lead the workshops. The workshops were structured loosely ahead of time, and provide a space for participants to take up new photography or video-making skills, discuss their experiences, learn new perspectives, and have their concerns heard in public spaces as well as by local leaders. The workshops open up space for different people to engage in debates about critical social and environmental issues in their lives and contribute to policy conversations. Lastly, the

collaborative team coordinates the sharing of images widely within the research communities and among community leaders. The workshop model aligns with the particular workshop culture prevalent in Cameroon, both enabling a familiar process, but at the same time constraining participation and ownership.

Despite limiting ownership, the workshop model enabled a structured approach across four communities. It was helpful to work with a basic plan while still allowing for flexible and responsive adaptations. Repeating similar workshop procedures across four communities provided an opportunity to examine the results from each community together as one data set. We were also able to use our access to wider social and political networks, as well as our available time and funding for dissemination and outreach activities. Many participants and community leaders appreciated how the breadth of the study strengthened the significance and representativeness of the findings.

### **Fieldnotes**

During fieldwork, I wrote fieldnotes to document and reflect on the research process. I wrote extensively; during my first stay in Cameroon, I compiled almost 250 single-spaced typed pages (213,000 words) of fieldnotes. These are not “jottings” or “scratch notes” taken *in situ* (Clifford, 1990). Often actively engaged as a workshop facilitator, I did not quietly write observations in the corner. I mainly produced my fieldnotes on my laptop at the beginning or end of my day. My fieldnotes describe my interactions and conversations, my observations about senses and spaces, as well as my decisions and interpretations. I elaborated on both everyday and more dramatic crisis events (Emerson, Fretz, & Shaw, 1995). The feminist tool, reflexivity, helped me situate myself and critically reflect on the research process (Fonow & Cook, 2005; Rose, 1997). I questioned my reactions and assumptions, and wrote about how others reacted too, such that my notes also consider the concerns of those around me (Emerson et al., 1995). My fieldnotes trace my thinking about the research design, and interpretations in the field. While I have questioned the ethical and methodological implications of my fieldnotes practice elsewhere (see Thompson, 2014), I note that writing fieldnotes about my everyday life in Cameroon as a participant observer helped me develop a more nuanced understanding of context, beyond what I would have learned in the research workshops alone.

**Table 4.** Data chart

<b>Phase</b>	<b>Method</b>	<b>Participants</b>	<b>Primary data</b>
I Image production and analysis workshops	Photovoice	130 community participants  (96 women, 34 men)	❖ 233 photographs with written and oral explanations, arranged on 28 posters  ❖ Process photos and video footage
	Participatory Video	130 community participants  (96 women, 34 men)	❖ 27 short videos (2-9 minutes each, groups)  ❖ Process photos and video footage
II Post- production analysis	Participatory analysis	14 facilitators and community representatives  (11 women, 3 men)	❖ 26 sheets written analysis on flipchart paper (groups) ❖ 14 participant-produced analysis notebooks (individual) ❖ 27 selected images: 17 photographs, 10 videos ❖ 2 days video recorded discussion
III Dissemination and outreach	Interviews	14 decision-makers (4 women, 10 men)	❖ 14 audio recordings or handwritten notes
	Discussion forum	27 decision-makers (19 women, 8 men)	❖ 2 hours video recording
Ongoing	Fieldnotes	Researcher	❖ 342 pages (297 474 words)

### Research Sites

Several factors influenced our selection of two urban (Buea, Kumba) and two rural (Bwitingi, Mudeka) sites for the study, each located within a one or two hour drive from Mount Cameroon.<sup>43</sup> First, we wanted to incorporate current policy arrangements that distinguish between urban and semi-urban areas supplied by partially privatized municipal water networks and rural areas responsible for their own water. Second, we worked strategically within

<sup>43</sup> Approximately 80 km separates the two communities, Kumba and Mudeka, that are located the farthest apart.

CHAMEG's networks, building on established working relationships and familiarity with community histories such that the research could contribute to ongoing initiatives. Lastly, given the general concentration of activities in Buea (the administrative capital of the SW Region and home of UB), other areas in the Region are often overlooked by research and development interventions. Including areas outside of Buea in this study helps to distribute any benefits of the research activities more widely, draw attention to issues outside the regional capital, and develop more diverse and critical understanding of gender and water issues in this context.<sup>44</sup>

### **Combining Photovoice and Participatory Video**

As my collaborators and I negotiated the research plan, we selected both photovoice and participatory video (PV). I had brought eight Canon Powershot® digital cameras with both photograph and video capabilities, and a portable photo printer, and I was prepared for both methods. While we could build on my experience using photovoice and documentary videomaking in other contexts, we were also keen to explore the possibilities of PV. Despite the risk of redundancy in exploring the same topic with the same participant groups using similar types of visual methodologies, CHAMEG in particular felt that many participants would have little photography or video-making experience, be excited to learn these skills, and want to explore the use of digital technologies in new ways.

### **Phase I: Community-based Image Production and Analysis**

#### **Facilitator Training**

In January 2013, I offered a two-day Training of Trainers (TOT) workshop at the CHAMEG office, *Participatory Visual Methodologies for Social Change*, attended by 14 people. In this training, I covered the theories informing participatory visual methodologies, the steps and techniques for using photovoice and participatory video, and issues related to visual ethics. I also used the TOT to pilot the method and research prompt about gender and water. In fact, the trainees were so engaged in the topic that they insisted their photos and videos also be included in the study as data, and as such constitute a fifth participant group (a second group from Buea).

Of the 14 trainees, we contracted ten facilitators (nine women and one man) to assist with the community-based workshops, organized in teams of two to four facilitators per community.<sup>45</sup>

---

<sup>44</sup> In the dissertation, I refer to the urban sites as cities or towns, and the rural sites as villages to be consistent with local usage. When referring to all four sites or in general, I also use the general term, communities.

<sup>45</sup> We selected and hired the facilitators based on expressed interest and availability, and full attendance of the training workshop.

The facilitators span a range of ages and social positions including field staff from CHAMEG and other CSOs, as well as recent undergraduates from UB's geography program who were seeking work and volunteer experience. Given the facilitators' diverse experiences (some more seasoned at negotiating community dynamics and others more familiar with digital technologies), we developed an intergenerational mentorship system such that the facilitators could learn from each other. We worked with the strength, insight, and expertise that each facilitator brought to the study, but also introduced opportunities for methodological training and experiential practice that could be useful for future community engagement within the non-profit and research sectors. Having facilitators from different social groups within age hierarchies created more accessible communication pathways for workshop participants, as the ages of the facilitators reflected the age ranges of the participants. Each of the four facilitator groups negotiated their roles differently. In some groups, the facilitators tackled the work together and in others they divided the recruitment and facilitation tasks among themselves. During the community-based workshops, I co-facilitated the activities, and worked closely with each facilitator group to discuss strategies, challenges, and activity structure. I sought the facilitators' advice, guidance, and critical perspectives about the work, incorporated this feedback into the workshop design, and held extensive debriefing meetings with the facilitators after each workshop.

### **Community Photovoice and Participatory Video Workshops**

**Access, recruitment, and participants.** In each community, the facilitators first approached the traditional leaders and other relevant authorities with an introductory letter and customary gift to gain permission and secure workshop venues.<sup>46</sup> Working with a recruitment script approved by my research ethics board, each facilitator team then recruited between 23 and 36 participants per workshop through their personal and professional networks. While I had initially proposed working with women and girls for image production, the facilitators disagreed. They felt that while the study should focus on women's experiences, some men should also be at the workshops to observe, hear women's perspectives and participate in image production. However, the team stipulated that men should not 'dominate.' Therefore, our recruitment targeted 'mostly women and some men.' In Kumba, participants reflect fairly high social status through connections to various CSOs and government institutions. In Buea, participants were

---

<sup>46</sup> The venues included a government-run Women's Empowerment Center, a community church, a vocational training institute, and a Chief's Palace.

predominantly young women and men attending or working at college, university, or secondary school. In Bwitingi, the facilitators recruited women only: elder women, university students, and vocational students. In Mudeka, this village's traditional council selected participants at a town meeting with a 50-50 gender split based on community members' interest and availability with respect to participant livelihoods across seasonal labour such as farming, fishing, and sand mining. The study participants constitute a diverse cross-section of social groups with a range of positions and occupations, including a range of women and men from the ages of 18 to 70 years old, identifying as teachers, farmers, journalists, business women, university students, labourers, mothers, NGO workers, vocational students, nurses, municipal council staff, and elders.

**Workshop procedures.** While the procedures evolved slightly from workshop to workshop, we consistently included the following activities:

***Individual and collective informed consent.*** While the workshops began with individual consent forms (see Appendix A), through the two-day workshops, we revisited questions about consent that emerged. Prior to having the groups work with cameras, as part of our informed consent conversations, we discussed visual ethics with particular emphasis on asking for permission before photographing or videoing. We distributed separate "Permission to Photograph" forms for participants to take into the field. When time permitted, we returned consent forms to participants at the end of the workshops for revision, if need be. Working in small groups, participants produced photographs and videos collectively. As such, we used separate Release Forms for the images, so that each group could specify whether or not they would like their images to be used for research purposes, shown publically, published in print, or on the internet. In the thesis, all community participant and facilitator names are pseudonyms.

***The prompt.*** Typically related to but different from the research questions, prompts help to focus image production. Designed carefully to facilitate inquiry about the research topic, prompts need to be inclusive of participant experiences, specific enough to be clear and accessible, and general enough to allow diverse perspectives and creativity. Prompts about 'problems and solutions' have been effective for participants to identify the challenges they face, but also for pushing analysis forward towards seeking plausible solutions (see Mitchell, 2011). We used the same prompt for both photovoice and PV activities: *What are your experiences with water? What are the challenges you face and some solutions you see possible?*

**Day 1: Photovoice.** We began photovoice with a Photography 101 activity to spur looking at and thinking about photographs, for example identifying distinctions between candid and posed photos, perspective, lighting and mood, as well as how multiple interpretations can emerge. After practicing the camera functions, participants worked in small groups of three to seven people to take photographs in response to the prompt. Each group then selected and printed up to eight or ten photos on a portable photo printer, arranged photographs on a poster narrative, and added writing to describe, punctuate, or supplement their photos. One representative from each group then briefly presented their photos and analysis. After the presentations, we concluded the workshop with larger group discussions about the work, possible audiences for the work, and ethical considerations.

**Day 2: Participatory Video.** We conducted PV using a No-Editing Required approach (Mak, 2012) in order to plan, video, and screen the work in one day. We began with a brief introduction to video-making that included watching an example of a short *one-shot video*, prompting participants to imagine they were holding the camera, and noting what strategies could be helpful for videoing without stopping. Participants then listed and discussed possible strategies such as how to plan and practice, move the camera, use infrastructure like doorways, corners and walls to change the scene, create written signs to supplement or enhance key messages, and use costumes to create characters. We also discussed the importance of sound and controlling background noise.

Working (for the most part) in the same groups as the previous day, participants then developed one-shot videos in response to the prompt, exploring more closely issues raised the previous day, or addressing any new topics that might have been missing from the photovoice work. Groups developed storyboards to think through storyline, possible scenes and scene transitions, characters, dialogue, messaging and timing, during which time the facilitators and I circulated and answered questions. After practicing the camera video and playback functions, each group left the workshop to make 2-minute videos over a two- to three-hour period. Upon return we screened each video, followed by a group discussion.

**Working in groups.** The research was not produced in a controlled environment. While some groups organized themselves according to particular dominant social categories related to gender and age (women, men, youths, elders), many wanted to mix men with women, and elders with youth for the group work. Many participants enjoyed the opportunity to meet and get to



know people they might not have otherwise had the chance to collaborate with in daily life. The group work was fluid and dynamic. Groups actively influenced, negotiated with and contested each other in a generative way, Some groups coordinated among themselves, each wanting to explore a different neighbourhood or water point and be able to come back to surprise the larger group with their images. Other groups worked in the same areas, watching, interacting, and contributing to each other's ideas. In one community, some participants opted not to participate in the photography or videoing, using the time and transport stipend to instead go to the market and return only for the afternoon portion of the workshops. Lastly, the workshops were not confidential closed-door events with community members often passing by out of curiosity, and sometimes observing and participating in the research conversations.

*Documenting the process.* For each event, I hired a third party to document the research process. This photographer documented the group work, took process photos while groups were out in the community, and video-recorded the photovoice presentations and group discussions. We also encouraged participants to document the research process from their perspectives.

### **Phase II: Post-Production Analysis**

Analysis was ongoing through the photovoice and PV workshop activities; community members were involved in identifying and representing issues and making sense of the images. However, analysis did not end there.

### **Sharing Visual Data: DVD Production**

Each research participant needed copies of the videos and photographs they produced in the workshops. Additionally, participants wanted copies of the other photos and videos from their community workshops. To share the data with participants in an accessible way, I compiled the visual data from each workshop into DVD formats<sup>47</sup> (ranging between 40 and 60 minutes each), including each photo, written caption, poster, and video production. While the videos already incorporate sound, I added sound to the photographs by splicing video footage of each photovoice poster presentation to complement written captions with spoken detail. This multi-textual format highlighted layers of interpretation because of how the written captions and spoken explanations elaborated quite different interpretations. The DVDs are records of all the

---

<sup>47</sup> According to participants, DVD players are more accessible than personal computers at the household level.

photographs and videos produced in each community, organized so that participants can play through images continuously, or scroll through title screens to select and view particular works.<sup>48</sup>

DVD production was time consuming, in particular splicing sound clips to accompany each of the 233 photographs. While I used the relatively user-friendly editing software iMovie®, this technology was new to me and I worked by trial and error. It took me nearly 6 weeks to produce the five DVDs and although I consulted with my collaborators, I did this work alone. I questioned how long this phase took, when perhaps I could have focused on other tasks. Did DVD production take away from opportunities for outreach, to work with participants, or target politicians for interviews? Should I have hired a professional technician or video artist to do this work? With numerous eager phone calls from participants asking about the DVDs, I felt accountable to deliver copies of participants' work to them, as quickly as possible. Additionally, an important outcome of this phase of DVD production was that I began engaging with the body of work as a whole. I realized that given how we had structured the research activities and facilitator groups, I was the only person who had participated in each of the five image production workshops.<sup>49</sup> Therefore, I was the only person setting out to make sense of the data collection across communities. Bringing this concern to the research team, we developed an additional research event to broaden the analytical frame.

### **Participatory Analysis Workshop**

To involve more people, we organized a two-day participatory analysis workshop to better involve community participants in the interpretation of what issues matter across the entire collection of work, and why. Whereas traditional forms of member checking bring preliminary results back to participants after analysis has been completed, this workshop enabled us to return to participants in order to begin formulating results.

**Participants.** While it was not feasible to re-convene all 130 community participants, we designed the analysis workshop for a group small enough for everyone to interact and have adequate space to speak and reflect. Based on levels of engagement, interest, and availability, we invited 14 people, including two representatives and one facilitator from each community, as well as the Director of CHAMEG and a journalist who dropped by and ended up staying out of

---

<sup>48</sup> The DVDs are distinctly different from de Lange and Mitchell's (2012) 'composite video' that contains process footage as well as some or all participant-produced videos, developed as stand-alone and aesthetically pleasing videos for wider audiences.

<sup>49</sup> One facilitator training and four community workshops

interest. Participants at the analysis workshop totalled 14 people (11 women and three men). Representing a less diverse group than in the community workshops, the analysis generated at this workshop reflects the perspectives of (mostly) women with relatively high social status, tertiary levels of education, and salaried NGO or government jobs. Additionally, CHAMEG and the facilitators had extensive experience planning and executing community-based interventions, as well as negotiating government and community dynamics more generally. While I facilitated the analysis activities, I also participated more actively in these discussions and interpretations.

**Analysis methods.** Wanting to avoid over-structuring this event as to not create a rigid process that would foreclose analytical possibilities, I worked with a relatively open analytical format and developed activities to guide and keep us focused. To facilitate working with the large volume of visual data (233 photographs and 27 videos) in a short time, I drew on methods that were accessible, that provided opportunities for us to move back and forth between the larger data set and individual images, that allowed time for participant-led discussion, and that were feasible to accomplish in two days.

**Individual reflection.** One week before the analysis workshop, we gave each participant copies of the entire visual data set along with a notebook and instructions. We asked each participant to come to the workshop having watched all five DVDs and having done some individual written reflection. Our instructions read as follows:

- *Please identify the issues (challenges and possible solutions) for each community.*
- *Please identify the major themes across all five communities.*
- *Make note of your personal reactions to the work – both generally, as well as specifically in relation to particular photos or videos that capture your attention.*

This step gave participants the chance to view and reflect on the entire body of visual work, and jot down individual ideas before embarking on a two-day group process.

**Walkabout.** Setting up the workshop space, I wanted the photographs to be visible and present during our discussions, contextualized within poster narratives, and available for lingering and getting close. Inspired by the “walkabout” technique, in which a selection of participant-produced photographs are printed in large format and hung around the workshop space for participants to browse (Mitchell et al., 2005; Moletsane et al., 2007), I hung all 28 posters around the workshop. Filling nearly all the available wall space as well as a bulletin board outside on the office’s front verandah, we designated different corners for each community.

We also screened each video and some of the process footage over the course of the two days to ground our analyses and discussions in the productions.

**Thematic analysis.** A common approach in qualitative research, thematic analysis is not bound to (or require detailed knowledge of) particular theoretical traditions and therefore presents a relatively accessible and flexible approach to thinking more abstractly about the data (Braun & Clark, 2006). This was a helpful starting point to identify the key themes and patterns in the visual data. With the photo posters displayed around us, we looked over the images holistically to think about patterns and distinctions. Participants worked in small groups with markers and flipchart paper to identify the main challenges and solutions in each community. We did not develop detailed coding system, nor did we unitize the data as is typical with constant comparison methods (Butler-Kisber, 2010; Leech & Onwuegbuzie, 2007). The “‘keyness’ of a theme is not necessarily dependent on quantifiable measures but rather on whether it captures something important in relation to the overall research question” (Braun & Clark, 2006, p. 82). Participants identified and interpreted what they considered to be important issues in relation to water. We compiled and discussed key issues, combining which themes were community-specific, and which themes bridged all four sites.

**Close readings.** Each attendee also selected and engaged in a closer analysis of one or two photos or videos. Moletsane and Mitchell’s (2007) analytical approach, “working with a single photograph,” allowed us to pause on particular poignant or powerful images to interrogate them more deeply. Moletsane and Mitchell (2007) wrote, “as researchers many of the images produced by the participants in the fieldwork compel us to want to go deeper, in that a single photograph often seems to capture in one image the complexity of the issues” (p. 131). I wondered what might happen if participants (and not just researchers) selected and worked with single photographs as part of our analysis and developed guiding questions:

- *What do you see in this photo/video? (Describe in your own words)*
- *What meaning do you interpret?*
- *Why this photo/video? How does it relate to your life?*

**Connecting key images and themes.** Lastly, we identified the key photos and videos that represent the body of work. In general, we selected these images relatively quickly and with consensus. During this process, to distinguish between images, we implicitly used short identifiers in discussion. Sometimes but not always reflecting the photo captions and video titles, these identifiers operated as quick tags to distinguish between works in the moment, such as “the

Mudeka photo of the grave” or “the Bwitingi video about deforestation.” This phrasing constituted an important analytical move, which allowed us to quickly identify a particular image in a way that also discursively named the primary issue of concern. Most important to participants were the *issues* being addressed; many photos and videos selected for the close readings became key images. In total, 27 images (17 photographs and 10 videos or video segments) were selected to illustrate participants’ key concerns.<sup>50</sup>

### **Phase III: Dissemination, Outreach, and Audiencing**

#### **Community Exhibitions**

As part of our outreach activities, we hosted three public exhibitions in participant communities,<sup>51</sup> where we displayed the photographs on the original participant-produced posters and screened each video from that community. In Kumba, we hosted the exhibition the same night to continue momentum. In Bwitingi, we held an exhibition as part of National Youth Day activities, displaying photos in the field at a secondary school. In Mudeka, the exhibition took place at the Chief’s Palace. The public exhibitions were less successful than I had hoped. Having facilitated exhibitions before with communities in Sierra Leone and Ethiopia, and given the rich participant engagement in the community workshops, I assumed participants would be excited to show the work. Yet, many participants did not attend the exhibitions. This raised a number of questions. Were the exhibitions mainly my idea? Indeed, one of my goals with this study was to ensure adequate time and budget after image-production for dissemination and outreach. Did this type of outreach require more time and planning from an organizational standpoint? Did we not advertise or generate enough excitement about the exhibitions through public radio and flyers? If we had exhibited for longer in more prominent public locations, participants might have had more time to engage. Exhibitions demand considerable thought, planning, and effort, and I suspect the facilitators perceived them as additional work. Perhaps a second contract with interested facilitators would have been more appropriate. Also, one facilitator connected exhibitions as Western expressions of high art, implicitly questioning their purpose and accessibility. Most critically, we missed opportunities to better involve interested participants, for example, by developing exhibition-working groups. Lastly, by this stage of the fieldwork, I

---

<sup>50</sup> In our initial selection, each community was relatively equally represented. We then added a few more images to ensure all the key issues were included.

<sup>51</sup> For Buea, we combined the exhibition with our final decision-maker forum (see below).

was quite exhausted from the intensive workshop schedule, and running out of energy and time, especially given the low interest and motivation among participants, facilitators, and collaborators for exhibitions. Should I have been more intentional or persistent about the exhibitions? Or was it better to work with the project momentum, and focus on other types of outreach for which there was more demand, such as the media?

### **Media Outreach**

Media dissemination through radio and television generated unexpected possibilities and tensions in relation to outreach, that I could have better considered in advance and integrated within the research design. On the one hand, the media offers immediacy and accessibility in terms of breadth of circulation. Several participants were journalists and in the weeks following their participation addressed gender-water issues in their reporting. I also participated in several local media interviews<sup>52</sup> and joined two live radio panel discussions (before and after the final forum) on the national radio show *Global Voices for Women* by, for, and about women.<sup>53</sup> Radio and television offered timely mechanisms for sharing the buzz of the study widely, as compared with the long time lag and inaccessibility of traditional research publications. For CHAMEG, media coverage of the research was valuable for increasing the credibility and political importance of the work, important for advocacy and public engagement. As CHAMEG noted, events are only seen as news if they are “in the news.” The significance of events depends on people knowing about them. Given a general scepticism in Cameroon that CSOs funnel development funds into the pockets of individuals, media coverage helps organizations establish their status as actively working with communities and beneficiaries.

On the other hand, image production workshops are not an appropriate place for media presence – both for confidentiality reasons, as well as how they might restrict freedom of expression. As such, we compromised and only had media present for our final event. Also, participants and collaborators often positioned me as the study spokesperson. While excited about the possibilities for outreach, I was uncomfortable because of the ways this role shifted ownership away from communities. Overwhelmed by large volumes of rich and raw data, I was too deeply immersed in the practicalities of the work and had not yet processed or reflected on the work with any distance from it. I was not prepared for having such a public voice. Aware that

---

<sup>52</sup> My interviews with Ocean City Radio (Kumba), Radio Bonakanda (Buea), and HiTV (Douala) all aired multiple times.

<sup>53</sup> Cameroon Radio Television (CRTV).

many organizations and public offices employ communications specialists and develop specific media strategies, my lack of training and preparedness certainly affected my efficacy.

Despite these concerns, many people commented how much they enjoyed the radio interviews, which provided an additional platform for public participation in the study. A number of leaders who could not attend our forum heard me on the radio, and either called my collaborators or into the radio show directly to contribute to the discussion. Also, my social position as a White person speaking Pidgin often entered into the discussion, which helped to generate interest, personalize, and draw more attention to the topic. Over one year after the interviews aired, I continued to meet people who—when hearing my study topic—recalled having heard me on the radio because of how I was interviewed in Pidgin. I wish I had integrated media possibilities within the study design in a more collaborative and participatory way.

### **Decision-Makers**

Interested in doing outreach with leaders, I wanted to better understand their perspectives and interrogate how the research might influence policy and designed the data collection in such a way as to also study the audiencing process with people in formal positions of power.

**Forum.** The research activities culminated with a final Decision-Maker Forum in April 2013, at the Regional Delegation of the Ministry of Economy, Planning and Regional Development (MINEPAT) in Buea. CHAMEG played a critical role in organizing this event, including recruiting and mobilizing some of the key decision-makers identified at the analysis workshop. Given how gender, water, and development are cross-cutting topics, many of us at the analysis workshop were uncertain as to the most appropriate leaders to invite to the forum. We wanted to target leaders who might be able to take up the research in the course of their responsibilities. Inviting leaders to a research event requires identifying the most appropriate people structurally in terms of official positions. However, it also requires the subtleties of the politics of determining who has strong political influence (regardless of official position) within particular social and political networks. Other than the obvious top figurehead positions within government structures, we struggled to ascertain who else might be able to best incorporate the research into their roles and possibly effect change. For this stage, we drew on the experience of two women at the workshop who headed organizations and frequently navigated formal political structures. Our uncertainty reflects questions about what it means to do outreach in a participatory way and work up power structures, when bureaucracies systemically obscure power.

Following standard protocol for formal events in the Region, we distributed invitations and the forum program (see Appendix B) along with informed consent forms (see Appendix C) to each invitee, and announced the event on public radio before the event. Approximately 40 people attended the forum. Participants included some community participants and facilitators, as well as multiple types of leaders in formal elected, appointed, and inherited positions of power, who are known locally as “dignitaries” or “personalities.” These public figures included traditional leadership (Chiefs and traditional councils) and formal government (Mayors and municipal councils, as well as various ministry representatives).<sup>54</sup> We also had representatives from CSOs, the political party in power, the media, and a few other urban elites.

At the forum, we briefly introduced the study rationale and methodology before screening the key photos and videos in a 40-minute Powerpoint presentation. Following the screening, veteran journalist Anne Munjong facilitated a discussion. We also hung the 28 participant-produced posters in the conference hall entryway, such that before and after the forum, attendees could review the entire body of work. Finally, we launched CHAMEG’s first special edition newsletter *Connect Cameroon* featuring the study (see Appendix D).

**Interviews.** I also conducted individual interviews with 14 leaders and representatives from formal government, traditional leadership and CSOs involved in gender, water or development issues in some way. Leaders were recruited using both strategic and snowball sampling strategies. The semi-structured interviews were audio-recorded with permission.

### **Reflecting on Method: Participation, Power, and Voice**

During the fieldwork and data collections activities, many methodological questions emerged about participation, power, and voice. In the sections below, I reflect on how I navigated structures of power in the research process.

### **Status and Exclusion**

In one sense, working through existing social networks replicates approaches to participation that have been critiqued because lower status members of communities are overlooked or excluded (Cornwall, 2003). For example, as mentioned earlier, I was interested in the perspectives of girls. Before recruitment, I expressed my concern about how we could ensure the inclusion of girls in the study. The facilitators assured me that girls would come. However, as the work unfolded, no girls under the age of 18 attended the workshops. Reflecting on the

---

<sup>54</sup> Often, government offices sent representatives in lieu of a particular dignitary.



research design, most workshops took place between Monday and Friday when many girls attended school. I also gathered from conversations about informed consent requirements that asking guardians to sign consent forms was regarded as a deterrent in what was already perceived to be an excessively comprehensive recruitment process. As I elaborate in the findings, despite the exclusion of girls, girls are frequently represented throughout the work.

A second example of how our recruitment strategy excluded lower status members of society is in relation to domestic workers. Many households have designated “house help” who play a critical role in daily water management, particularly in urban areas. When discussing with the research team how to include these perspectives in the study, I realized quickly the relatively precarious status of many house helpers who include workers earning intermittent wages or room and board, younger relatives from rural areas coming to the city for schooling, and migrant workers from other countries with varying documented or undocumented citizenship status. Given the public nature of this research, I realized the potential risk for domestic workers to be involved. Working with more vulnerable participant groups such as girls and house helpers would have required a different study design, access and recruitment strategies, and higher levels of anonymity than could be assured in this study. Therefore, the experiences and concerns of many people engaged in daily water labour and a consideration of their very specific positions within households were not included in the study. While PVMs often target marginalized groups, the participants in this study have relatively privileged age and class status in this context.

In the training workshop for facilitators, despite the majority of participants being women, all groups selected the few men present as group representatives and speakers. When I asked about it, many were not aware they had done this. This privileging of men’s voices continued throughout the research, and the facilitators and I worked to restructure activities in ways such that we created more space for women to speak and be heard. Younger women spoke less than elder women, and those with a stronger command of English or higher levels of formal education dominated, despite our running the workshops in Pidgin.

### **Challenging Gendered Norms**

However, despite these examples of social exclusion, seeking a diversity of perspectives from each community was simultaneously quite radical. Positioning women with expertise and important knowledge for improving the water situation, and inviting women to share their opinions was unsettling, challenging traditional hierarchies of whose voice counts. When I

shared the study topic with one male academic, he reacted defensively and asked if I implied that he was not taking good care of his family. Exploring gender issues, asking for women's input, and taking women's concerns seriously challenges gendered hierarchies.

In the workshops, despite having 'mostly women and some men,' it was still challenging to study and emphasize women's experiences and voices. Groups often selected the men to speak on behalf of their group, as either a sign of respect or because the women felt shy to speak in the workshop. In many workshops, the few men and handful of influential women tended to dominate the discussions. Further, while women described their own experiences in the study, they also often prioritized their more general concerns about water in the community.

To encourage more diverse viewpoints, the facilitators and I restructured the workshops to include mini-focus group discussions with each group gathered informally around their photographs prior to photovoice presentations to provide opportunities for more diverse voices. We also shortened the larger group discussion to structure a 'go around' and more space for individual participant perspectives, stories and reflections. In one workshop, a young mother who brought her infant to the workshops was particularly shy, reluctant at first to speak in front of the group. Prompted by one of the facilitators (her cousin), she eventually said a few words. The facilitator later told me that after speaking, this woman went home and told her family that by standing and speaking, she had "turned from a girl into a big woman!" Creating opportunities to shift the dynamics of who can traditionally speak can be transformative, even if at a small and quite structured scale.

However, despite these constraints to participation, women often orchestrated things how they wanted them. Many groups selected men to take the photos or hold the camera during video-making, and in some cases invited people from the wider community to hold the camera. As many women explained, they needed to *be in the picture*. Films depict participants acting key roles while simultaneously directing the camera. A number of on-screen directional cues such as hand motions, head nods, and stage whispers elucidate women's active roles as directors. This unsettles traditional assumptions of power in image production, where the person holding the camera objectifies the photo subject. Instead, the camera person struggled to keep up with the act, oftentimes quite literally running alongside participants or jostling around crowds to capture the action from a better angle.

## **Ownership**

Wanting to work collaboratively and seek participatory ways to do visual research, I had hoped for more shared ownership of the process, yet made more decisions than I had anticipated. “Women and Water *Wahala*” was largely considered to be my initiative, responsibility, and doctoral project. I chose the topic, proposed a design, and obtained funding prior to visiting Cameroon. Neither my collaborators nor the research participants had experience using participatory visual methodologies, implicitly positioning me in a role of expert. A number of people graciously offered their support to help me with my PhD research, framing their contributions as providing me with information. While I attempted to involve people and seek more collaborative decision-making processes, for example, by establishing an advisory committee and working with facilitator teams, many people were busy and control was often handed back to me.

I wonder to what extent I had difficulty relinquishing control over the research process. For example, I sometimes advocated for more participation. After the facilitator training (where we piloted the study), some of my colleagues suggested we end the study there and hire a professional scriptwriter, film crew, and actors from Cameroon’s burgeoning film industry to produce a feature-length film “Women and Water *Wahala*” based on the pilot findings. This inspiration would have transformed the essence of the study, and generated a different kind of buzz through the wide-reaching networks and consumers of the film and entertainment industry. However, committed to grounding the study in community identification and representation of research issues, I insisted we continue with the plan to work with four communities.

## **Pedagogy and the Ethics of Working in Community**

During the workshops, many participants left the venue and went into the community to take photographs and make videos *in situ*. Each group worked with a plan and many images intentionally document known water spaces and practices. However, groups also worked spontaneously to investigate situations and public spaces they encountered; plans also changed on site. Rather than deciding each image in advance, groups often engaged in an exploratory process inspired by context and the social dynamics encountered. It is through this inquiry process, along with discussion afterwards, that participatory visual research can spur discovery, learning, exchange, dialogue, and awareness. Groups returned to the workshops having taken dozens of photographs, gone to parts of town they rarely visit, and learned something new or

gained a different perspective about gender and water in their communities.

These activities operated as a form of public education and intervention within the wider community. Participants talked to people they met at water points, interviewing water users about their experiences and generating interest about the research topic. Participants engaged with the physical work that was happening, helping lift water buckets onto heads, carry heavy water containers up hills, and wading into streams to help with laundry. Many participants took on a role to advise the public by sharing tips and advice through their photographs and videos, creating public health messages for the greater good of the community. During videoing in particular, the scenarios that participants acted operated as community theater. Using small and unobtrusive cameras on a moving set, the *acting* was social action. This action created a stir around wells, taps, and pumps as water users waiting in line to fill their container turned and watched scenes, listened intently or laughed at the turn of events acted out for the camera. Reviewing the process footage, we saw many videos filmed by community members not part of the research workshops, but invited by participants to join in the action. Sometimes, members of the public jumped into the camera frame, wanting to contribute their ideas and concerns. Given critiques about the general disconnect between academic research and the communities most affected by pertinent issues, these examples attest to how participatory visual methodologies can offer effective forms of community engagement and awareness raising. Indeed, many people framed their experience in the workshops through the lens of learning and the feeling of gaining new knowledge, perspectives, and ideas. Many participants joked about the research activities (analysis especially) as *grama* [grammar] or *buk* [book]. At the final forum, Victoria commented: “We have come, like coming to the school. We are really in a school, a classroom...”

However, *grama* and *buk* also refer to intelligence, class, and social status more generally, characterizing workshops as privileged spaces attended by “educated” people. In a context where “grammar” refers to the formality of English and “book learning” to schooling and literacy, these characterizations align participation with learning processes. Opening up this workshop space was both celebrated and questioned. Some characterized this active involvement as ‘work,’ both the labour of trekking through communities in the hot mid-day sun, but also the expectation of producing images and analysis. Within these tensions, however, many appreciated the reciprocal nature of exchange among participants in the workshops. Countering more traditional workshop formats where facilitators are positioned as experts who deliver knowledge, I was not a source of

information about water in each community. Sometimes, my facilitation questions aimed at interrogating normative or taken-for-granted assumptions backfired, positioning me as a poorly informed outsider lacking understanding. Nonetheless having a designated space for generating new awareness and creating knowledge together was important. As I elaborate later, this type of effort to broaden access to decision-making and power emerged as a critical issue.

**Whose protocols and permissions?** From the perspective of ethical protocols around informed consent, many images capture community members at large, either intentionally as photo subjects, or as inadvertent curious onlookers or water users in the everyday waterscape. Given how water points are often busy places, many images depict crowds. What does it mean that participants assured me repeatedly that permission was explicitly granted, but that the community at large were uncomfortable signing forms? Or that many participants expressed their right to photograph children, because they have authority over and are responsible for children? Many participants deemed it appropriate to take and show images because water issues affect the whole community, and permission to conduct the study was granted through appropriate leadership channels. In one workshop, participants responded to my repeated questions about the ethical implications of our work together almost with exasperation and fatigue. A key message I understood was that because participants came to the workshop of their own free will, they implicitly consented to what we were doing together. Participants often wanted to just keep moving and do the work.

In addition to seeking permission from participants and leaders, I am also responsible for the rights of individuals in the wider public. Here, I reflect on work by Molyneux, Wassenaar, Peshu, & Marsh (2005), titled: “Even if they ask you to stand by a tree all day, you will have to do it (laughter)...!” This study, based on research in Kenya, questioned how Western institutional ethics boards often prioritize individual written forms (with a focus on the rights of individuals), when ethical protocols also need to consider more collective views of consent. Straddling multiple ethical frameworks, I strive to do research that works towards doing the most good and the least harm. As such, I opted for a more cautious route in terms of how I use the images produced by participants. Given that I do not know or have a relationship with the people in many of the images, I have chosen not to publish identifiable images depicting the community at large in the dissertation. The images published here only depict participants who I know and worked with, whose consent I gained directly, and who agreed to have their photo published.

## On Language

Language is a critical site through which power and positionality are mediated in research (Twyman, Morrison, & Sporton, 1999). In the Anglophone Region, Cameroonian Pidgin English (Pidgin) is spoken widely as a *lingua franca*. Not associated with a particular ethnic group, Pidgin offers a bridge across hundreds of Indigenous languages and has similarities with other English-based pidgins. As such I was able to adapt the Krio I learned previously in Sierra Leone to speak Pidgin in Cameroon. Certainly my Pidgin is limited in groups and with slang, and I was sometimes teased about my Krio accent. However, when immersed, I communicated effectively and facilitated all of the community-based workshops in Pidgin. Most participants worked together, explained their photos and acted their films in Pidgin, even renaming the study using the Pidgin term, *wahala*, meaning problems or troubles.

My ability to speak Pidgin was an asset for my work with communities, in particular given how embodied and cultural relationships with water are mediated in part through language (Somerville, 2013). Working with participants in Pidgin helped us ground our exploration of gender-water relations in local expressions of culture, identity and sociality. Language also offers an entry-point, a bridge or point of connection for building meaningful relationships. This helped me build trust, which enhanced my credibility as an individual as well as the credibility of the research as grounded in the realities and experiences of participants. When I spoke Pidgin, I often surprised people, provoking disbelief, laughter, and curiosity. Conversations about how “*wait wuman di tok Pidgin?*” [a White woman who speaks Pidgin?] shaped my daily exchanges in Cameroon. My Pidgin often generated a positive rapport, and many participants celebrated my Pidgin as an indication that I cared. Often hesitantly negotiating my Whiteness and role as a outside researcher, these responses suggested that I *was* making connections, and countering the types of colonial relations that I am concerned about replicating and perpetuating.

During fieldwork, a discriminatory politics of Pidgin also emerged at the intersection of gender, race, and class. Despite its widespread and popular use, Pidgin is marginalized and explicitly discouraged in wider society (Neba, Chibaka, & Atindogbe, 2006). A predominantly oral language, Pidgin is often associated with illiteracy; the colonial languages of English and French dominate formal institutions such as politics and education. Anti-Pidgin campaign signboards on school lawns warn: “Leave your Pidgin at home!” A number of times, I was scolded for speaking Pidgin because many people believed that Pidgin was bad, backwards, and

ruining local English. While I learned how and when to use Pidgin more carefully, I was alerted to the low status of Pidgin in Cameroon, and its association with uneducated lower classes.

Also, Pidgin is widely spoken among women. When scolded for speaking Pidgin, my defenses—that I liked speaking it, or that I wanted to try—were often rebuked. However, my work with women justified its use. Pidgin is not only classed, but also gendered. Pidgin is known for its predominant use in the home, marketplace, and street, often associated with "playfulness, informality, vulgarity, transgression, trade, celebration, and family" (Nfah-Abbenyi, cited by Tande, 2006, n.p.). Pidgin intersects with gender norms and critical spaces where water use is negotiated, and as such is critical for interrogating women's everyday challenges with water. When young women in the study described negotiating household work, they switched from English to Pidgin to explain the demands made by their brothers or boyfriends: "*Yu don wash mai klos?*" [have you washed my clothes yet?] and "*A beg, du ya, kuk fo mi. A wan go!*" [I am begging, please, cook for me. I want to leave!]. These expressions are more formal in English and decontextualize the demands. The specific familiar closeness of Pidgin nuances the types of gendered barriers women face in relation to water.

Doing research in Pidgin does not absolve me from difficult questions about the location of power in the research process. In what ways does my use of Pidgin differ from or replicate how many other "outsider" missionaries, colonial administrations and anthropologists have used language in exploitative ways? How is my use of Pidgin a form of cultural appropriation? If I slipped Pidgin into my conversations in Cameroon, everything would change. I gained access, credibility and leverage. Growing up in Quebec with years of French immersion schooling and only mediocre French language skills, what does it mean that I learned to speak Krio competently in Sierra Leone? Learning Krio and then Pidgin helped me de-center English, unlearn the culture I grew up in and transform how I understand myself, all of which is helpful for building connections, working across difference, and attending more closely to the lived particularities of participants. Doing participatory visual research in Pidgin offered a critical yet contested cross-linguistic space for seeking more inclusive forms of research about water in the Cameroonian context and challenging dominant hierarchies at the intersection of gender, race, and class.

## Studying up

Anthropologist Laura Nader (1972 [1999]) proposed that *studying up* can provide important insight about power and the attitudes of those who control bureaucracies and institutions. Attending to the culture of power and bureaucracy and seeking the perspectives of those in elected, appointed, or delegated positions of power can offer critical insights about citizen power and possible avenues for affecting social and political change. However, in studying up bureaucratic structures, Nader noted challenges related to access. Powerful people are busy, difficult to reach, often geographically spread out, and housed in different locations. In addition, many do not want to be studied, and it can be dangerous to look too closely given the levels of secrecy and confidentiality required for the control of information. Exploring how research can influence policy and intentionally engaging with decision-makers raised a number of questions for me about what it means to study up structures of authority.

**Structures and borders.** First, because formal government is structured in relation to administrative lines on the map, we inadvertently selected four research sites located in three different administrative divisions of the SW Region (Meme Division, Fako Division, and Tiko Division), each with their own Divisional Officers and Ministry representatives. Further, the sprawling city of Kumba has three municipal councils (Kumba I, II and III). As such, we navigated outreach across a total of six municipal and village councils. On the one hand, this significantly limited our ability to build relationships and do outreach as leaders were positioned within different hierarchical structures across the Region. On the other hand, the research was disseminated much more widely across regional and administrative boundaries, generating more far-reaching impact than if we had worked with just one council.

**Chasing politicians.** Second, I confronted the idea that people in positions of power are *politicians*. Power circles constitute relatively small groups of urban elites. In Buea, I repeatedly saw the same ‘personalities’ at tourism, finance, NGO, and women’s movement events that I attended. The same voices commented on the radio, sat on government committees, and headed CSOs. Critically, politicians and leaders are busy, and difficult to reach. Outreach takes a lot of work, waiting, and persistence, which took away from the work with communities. Through a series of phone calls and text messages, I arranged to meet one political figure for 15 minutes in his car at the entrance of a busy urban market. In our conversation, he expressed his gratitude that I shared the study findings with him because he felt they would help him develop a better



political platform and capture more women's votes in the upcoming election. One of my colleagues often referred to the game of *poli-tricks*, a game I had not anticipated playing but in working to engage political leaders in the study findings, inevitably found myself negotiating.

**Protocol and the politics in/of the room.** Third, working *within* existing power structures involves navigating and in some ways conforming to protocol. This is a difficult choreography. Aware that my position as an outsider limited my ability to understand the cultural nuances of respect and insult, I observed interactions keenly and regularly asked my friends and colleagues about protocol. While always striving for respect in my personal interactions, this concern was accentuated with more powerful people. I observed my outspoken colleagues become submissive and speak only when spoken to in the presence of big men. I learned these protocols, too. In interviews with leaders, I learned not to look at powerful figures directly. While I asked the questions I had developed in my interview guide, I held back asking too many follow-up questions or for more detailed information. I was afraid of over-stepping, and that my curiosity would come across as invasive interrogation. In particular scenarios, I often took on a more passive role of listener, and received the information that was offered to me. Trying to work within these protocols of respect, I am sure I made many embarrassing mistakes, and held back at times when not required. I often reflected on the relationship between these protocols, power structures, codes of respect, and a researcher's investigative capacity.

Protocols also influenced the politics in/of the room at the forum. Sending out invitations, we were unsure who would attend. As dignitaries arrived, we needed to keep re-adjusting seating arrangements and how to literally position decision-makers in relation to the head table, in keeping with official protocols. My collaborators kept asking me to quickly make more place nametags as we shuffled more chairs up to an overflowing head table. Given the status of many personalities, it would have been insulting to seat them in the audience. Working within existing protocols at an event attended by decision-makers, it was possible that we should have avoided a head table. I understood then why one of our team members, Folifac (2012), held a roundtable dialogue with leaders to avoid these dilemmas around space and hierarchy in his research about water governance issues.

However, protocols are also conflicted. The day before the forum, imagine my surprise when the Governor's representative called me personally on my mobile phone to discuss our program for the event (never did any other leader call me directly). He informed me that correct

protocol dictates singing the national anthem *before* opening prayer (the program we sent out with the invitations had listed prayer before anthem – see Appendix B). We obliged but I later learned that protocol debates reflect disputes between the women’s movement and formal government. As one woman explained to me, women put God before the State and the government puts the State before God. These priorities reflect church-state conflicts, with women’s allegiance to the Church at odds with constitutional designation of a secular State (Republic of Cameroon, 1996).

**Who makes decisions?** Lastly, there is the need to problematize the term, *decision-maker*. While an effective way to identify those people in formal positions of power, decision-maker also risks reinscribing power in exclusive ways. This naming inadvertently removes agency and power from the public. Water users are also important decision-makers who make and remake water in different ways. In some ways, daily decisions and actions offer just as critical sites of change as government policy. Additionally, people in formal positions of power also use water and while they have enhanced access to resources to negotiate challenges, they are not exempt from water shortages. Indeed, many women leaders also negotiate gendered expectations regarding the responsibility for household water.

These problems with the term decision-maker also point to the larger blurred distinctions among the different actors in the study whom I have named as collaborators, facilitators, community participants, and decision-makers. Collaborators, facilitators, and leaders joined our image production workshops as participants. A handful of CSOs who we initially considered as potential co-collaborators for the study became important participants, eventually positioned as decision-makers because of their key roles as implementers of water and gender advocacy projects. While I retain the terms collaborators, facilitators, community participants, and leaders, in practice, these roles shifted through the study making sharp distinctions difficult.

### **Funding**

While rarely considered a methodological concern, funding played a critical role in my decisions about method. Several doctoral student grants supported the equipment costs, fieldwork activities, and my living expenses. Most of my previous research experience in Sierra Leone and Ethiopia involved minimal budgets and simply having to make do with what was available. Having a budget made me quite conscious of how access to funding changes so much about the research process. Being well supported financially positions this work in a particular

way. While certainly guided by ethical principles, my supervisors, and conversations with collaborators and advisors in Cameroon, many research decisions were also influenced somewhat pragmatically by budget considerations such as how many participants we could afford to feed, the cost of photo paper, and compensating facilitators for their work. If the budget had run out, would we have hosted the additional participatory analysis workshop? The workshop events and equipment were considered costly by my collaborators and many participants; the expenses for printing and framing large format photographs (for exhibitions) deemed *sho-sho* (Pidgin for showing off). While some forms of student funding do not hold students accountable for expenses, one research grant positioned me personally liable for CDN\$ 20,000. I was anxious about the possibilities listed in the funding contract of an audit and needing to return funds. Therefore, while I sought advice and consulted about budget expenses, I ultimately made the final budget decisions and wrote the final expense report. Having never been responsible for a budget of this size before, how to best spend this money and document this spending was one aspect of the research I struggled with the most, making me further question the locus of power in participatory and collaborative research.

#### **Phase IV: Returning to Cameroon**

While primary data collection took place in early 2013 during my first stay in Cameroon, I returned six months later for an additional six months for a number of reasons. First, I regrettably left Cameroon at a moment when the project had gained momentum, leaving a disconnection between my aims and approach. Also, I wanted to stay grounded in context as I engaged with writing and needed more time in context to make sense of the fieldwork. In particular as I began writing, being in Cameroon allowed me to check or nuance my interpretations through observation as well as through conversation with participants, collaborators, and key informants, which contributes to the credibility and trustworthiness of the findings. During my second visit, I had time to walk instead of run, and literally spent many days walking on the mountain, from Buea to the coast, and along quiet country back roads. Also, research sites change; returning helped better ground my analysis within the dynamics of a changing social, political, and environmental landscape (Burawoy, 2003).

Secondly, returning to Cameroon enabled me to shift the nature of my collaboration with CHAMEG and Dr. Kometa to a more reciprocal relationship. Not actively doing fieldwork in communities on my second trip, I had more time to contribute to CHAMEG's daily operations. I

spent many afternoons at the office assisting with ongoing and emergent projects. I did data entry and management, ran errands, and contributed to report writing and grant development. Often, I provided IT support and training so the staff could be less reliant on the costly services of computer technicians. Having donated the digital cameras and portable photo printer we used for photovoice and PV to CHAMEG, the staff requested that I develop a series of media training workshops on how to use the equipment for other purposes, including video editing and social media networking. We further developed the CHAMEG newsletter as a communication tool for the organization.

Thirdly, fieldwork raised many questions about ethical frameworks for research in the Cameroon context. Building on my interest in the consent process (see Mitchell, 2011; Ruiz-Casares & Thompson, 2014; Thompson, 2009, 2013), as part of my second trip, I completed a three-month internship across the Universities of Buea (SW Region) and Bamenda (NW Region). During this internship, I broadened my learning about research ethics in the context of Cameroon, advanced a study about children's perceptions of participation using photographs, and shared training materials for university research ethics in Cameroon.

Lastly, I facilitated an additional study about gender and water with youth in Buea. Conducted the year after *Women and Water Wahala*, this study focused specifically on water at a secondary school, diverging from the community-based events above, and is therefore not included in this dissertation.

### **Phase V: Stitching Together Participant Analysis**

Generating more process data and methodological questions than I could feasibly address here, I focus the dissertation on participant concerns about the immediate issues in their lives. Interested in how participants made sense of the work in different ways, I elaborate the big picture and implications for change by exploring participant analysis about these core issues and images, bringing together word-driven and image-based analyses.

To begin, I transcribed the video recordings from the analysis workshop and decision-maker forum verbatim in the languages spoken (English, Pidgin, and French).<sup>55</sup> I compiled the major issues identified through thematic analysis and 27 key images (17 photographs and 10

---

<sup>55</sup> When selecting passages to include in the dissertation, for readability I made small changes to the presentation of some direct quotations in English. I removed terms such as uh, er, and um as well as repetitions that act as placeholders when participants were thinking or searching for a specific word. I also made minor grammatical adjustments where necessary.

videos) selected in the close readings, and transcribed participant explanations of these key images from the community-based workshops. These key thematic issues and images form the narrative structure for the findings.

**Structuring a narrative.** To construct an overall narrative, I drew connections between the issues by grouping them under higher order ideas. Iterations of concept maps helped me work through topic hierarchies and connections visually and create a cohesive narrative. As I developed an outline, I continually worked back and forth between the key themes and 27 images. As participant analysis implicitly drew on the collective body of work, I re-watched the entire collection from the community workshops. This helped me stay grounded in community participant perspectives, and ensure I was writing a credible representation of their concerns. I also added to participant narratives by contextualizing implicit aspects of everyday life for readers not familiar with the Cameroon context. With this discursive move, I connect everyday experience with the larger social and political context. I also include my experiences in Buea to punctuate participant concerns and situate myself as a participant in daily life in Buea. Lastly, I explicitly engage with the visual by describing and highlighting what I interpret as particularly salient about the work.

**Tracing collective contributions.** Given the interactive nature of the research events, discussions progressed through collective interaction: participants rarely re-stated an idea. More often, participants added to or contested previous comments, calling out or echoing phrases, finishing or supporting each other's thoughts. These frequent interjections by multiple speakers made it difficult to single out where ideas came from; many ideas and perspectives were shared and produced collectively. In the transcripts, I attribute comments to particular people, and acknowledge areas where a broader chorus of concentrated inputs indicate particularly significant or contested concerns. As recommended for focus group analysis, I looked for patterns of meaning emerging from the data and attended to social interactions among groups, so as to distinguish between the views of individuals and the group's collective perspectives, with particular attention to silences, disagreements and minority perspectives that stand out from the group (Liamputtong, 2011).

This study is not explicitly comparative in relation to, for example, urban and rural experiences, or in comparing women and men's perspectives. I aim to describe and particularize experience rather than produce definitive generalizable results describing causal relationships

(Butler-Kisber, 2010). I work with the data set as a whole to situate the perspectives shared and generate findings that construct common narrative threads. This approach is not to overlook difference within or across communities. In working to paint a broad picture of the gendered relationships around water, I have *also* worked to texture the findings with distinctions and exceptions that characterize lived experience across social structures, political histories, and physical geographies.

**Engaging with emotion.** We often had a lot of fun working together and juxtaposing perspectives in the image-production workshops. The data are filled with humour common in focus group settings as a way for participants to express points of concern indirectly, in particular around sensitive and controversial issues (Liamputtong, 2011). Laughter and jokes punctuated astonishment or surprise, or how the portrayal of issues resonated astutely with audiences' experiences. Other moments of laughter marked technical mishaps such as cameras slightly off kilter from the intended scene or zoomed in too closely, and the enjoyment or discomfort of watching peers and one's self perform. Other times, actors' particularly poignant or witty portrayals commanded audiences to interact with the performance. Humour ranged from playful responses to stinging sarcasm about context and research implications.

Yet the research depicts difficult physical and emotional experiences of anger, pain, anguish, and discouragement. At times, the nature, composition, and formality of a setting changed how the work was interpreted. At the community screenings, the room was alive with laughter and commentary. However, when we screened the work at the decision-maker forum, the room was so quiet that we could have heard a pin drop. Debriefing after the forum, the Director of CHAMEG and I both admitted that we had each quietly welled up with tears and swallowed the lumps in our throats at this screening. While we had both seen the images dozens of times (almost to the point of being desensitized), during the forum, the work took on new meanings. The situations and experiences depicted through photographs and videos somehow became graver and heavier. Working these responses into my analysis, I value the shifting and complicated emotions that the work evokes, not only through the issues voiced but through the visual, embodied, and expressive ways that photographs and videos permit ways of knowing and being that are often structured out of more traditional surveys and interviews.

**On writing.** The field activities were intensely social, active, and busy. I had set a demanding pace. I interacted with hundreds of people, improvised activity plans with facilitators,

and travelled between research sites searching out people, offices, equipment, and venues. Every night, I went to bed physically exhausted. The field activities were also designed by and for multiple players. We wanted communities to find the work useful in their struggles for water and gender equality. We also wanted to further CHAMEG's advocacy and civil engagement work in the SW Region. Therefore, shifting from fieldwork to writing, I was struck by the distinctly different purpose and form of the dissertation from fieldwork. While the fieldwork activities in Cameroon took place mostly in 2013, the majority of this writing took place over several years following fieldwork, after I moved back to Canada.

Setting out to write the dissertation, I became acutely aware of how writing changes the aims of research working within participatory and community-based frameworks. Research with collective intentions, however lopsided and imperfect this *we* might be, shifts to a single authorial *I*. The purpose of writing seems disconnected from, and almost contradictory to, the multiple purposes of the fieldwork. While there are also risks to not writing anything at all, writing can be isolated and isolating. There are fewer opportunities for interruption, challenge, sharing, and more collaborative meaning making. While I wrote extensively throughout fieldwork in the form of fieldnotes and some chapter musings, even this writing was solitary. As I have explored elsewhere, keeping fieldnotes while trying to do participatory work raised ethical questions about writing (Thompson, 2014). Writing reduces the chances for multiplicity and is simply a less accessible process for collaborative input. While there are certainly more collaborative approaches to writing than I have used, participants and collaborators seemed less interested or available for engaging in collective writing activities. Indeed, what would this serve? Discussing these concerns with one facilitator towards the end of the fieldwork, she simply said, "Now, it is up to you," framing the responsibility for the dissertation as mine alone.

Far from a straightforward process of 'writing up' findings, this writing was carefully crafted, pointing to ethnographic and postcolonial concerns about writing as interpretation. Geertz (1973) elaborated the ethnographer's role as inscribing action; "tracing the curve of a social discourse; fixing it into an inspectable form" (p. 19). *Writing things down* turns "a passing event, which exists only in its own moment of occurrence, into an account, which exists in its inscriptions and can be reconsulted" (p. 19). Add to these inscriptions and transcriptions, the multiple layers of interpretation related to the meanings of images, I emphasize the ways in which the act of writing is a critical and situated task. Not only am I inscribing and transcribing,

as an ethnographer might, but also translating what happened for a dissertation audience. Writing constitutes a sticky act of translating meaning across languages (Pidgin and French to English) but also across forms of communication (visual and oral to written). As Derrida (1985) noted, translation becomes “necessary and impossible” (p. 171), a conflicted, reductive, and sometimes violent task. While Derrida considered translation to *transport* meaning from one language to another, translating across multiple forms *transforms* meaning. Reducing the complexities of meaning around images, sound, movement, space and place, feeling, and relations to words seems so limiting. I am often at a loss for the right words or combinations of words, or flooded with too many words that I continue to edit and re-arrange in multiple attempts, although never quite able to convey the meaning and changing meanings that I have come to understand about the work. I do not mean to imply any ultimate gist or truth in these matters. Meaning is constructed rather than revealed, and interpretations are always iterative, changing, and ongoing. I want to highlight how my subjective and situated interpretations and choices became increasingly more blatant and salient to me through the writing process.

Many remembered moments are simply not documented in the data. My ideas about the research cannot be traced to fieldnotes, images, or recordings. Often, I looked through the various data sources for a conversation or comment about a particular image, only to realize there was no evidence of it. Or, I wrote about an idea very briefly in my fieldnotes, and cannot trace the complexity of my understanding now. More than once, I rewatched a video and was surprised how much my interpretation had developed and ‘filled in the gaps’ over time. Unable to pinpoint which events, conversations, or images shaped my thinking, my understanding has been bolstered by incremental cues such as subtle comments, word choices, slight glances, body movements, and momentary silences. Through writing, these understandings emerged.

**On writing Pidgin.** Considering how Pidgin was marginalized during fieldwork, I wanted to recognize and value Pidgin in the dissertation as an important and unique language with a critical role in participatory forms of knowledge production. Yet, I faced the methodological challenge of how to write it. A predominantly oral language, Cameroonian Pidgin is not commonly written in formal spheres such as education or government. It is difficult to find formal examples of written Pidgin. While research that involves speaking with people in the Cameroon’s Anglophone Regions presumably requires at least some Pidgin, publications



rarely include written text in Pidgin.<sup>56</sup> When I wrote Pidgin into my fieldnotes or transcriptions, I borrowed English spellings or spellings from Krio (more commonly written in Sierra Leone). I also drew on how Cameroonian friends and colleagues wrote to me in Pidgin by text message, email, or on social media. Spelling is not standardized to the same extent as, for example, English or French. When Pidgin is written in the context of everyday use, multiple different spellings are used. Many colleagues thought it quite hilarious that I would ask how to spell something in Pidgin; there is no one accepted spelling! This flexible and sometimes improvised multiplicity is, I think, a key feature of the accessibility of Pidgin.

However, Kouega's (2008) dictionary of commonly used Pidgin words is a critical contribution legitimizing Cameroonian Pidgin English. Kouega's (2008) more formal lexicon counters my initial approach to writing Pidgin during fieldwork, which often relied on English spelling. Kouega's spelling de-anglicises Pidgin, such that Pidgin become more obscure for English readers.<sup>57</sup> Given the prevalence of Pidgin words borrowed and adapted from English, English speakers may glean some understanding of it. Indeed, this was a critical component of the evolution of pidgins and creoles, as a communication bridge in multi-lingual contexts. For non-Pidgin speakers interested in engaging with the Pidgin text, I included a brief phonetic guide and glossary of terms at the beginning of the dissertation and advise reading Pidgin passages out loud for increased comprehension.

## **Conclusion**

Concluding this chapter, I now introduce the study findings organized into two chapters. In Chapter Five, I describe the everyday experiences and concerns identified by participants, with a focus on the scale of the body, household, and community dynamics. In the second findings chapter, Chapter Six, I articulate the discussions throughout the research about how to go about creating change, with a focus on the conversations about responsibility, culture, and social organization at the scale of community, municipality, government, and policy.

---

<sup>56</sup> This is changing; Njoh (2011b) and Tanyi-Tang (2001) include passages in Pidgin. However, for the most part, the socio-linguistic significance of Pidgin is translated out of knowledge production.

<sup>57</sup> For example, for the question "what did you say?" I wrote "*you talk say wetin?*" Here the only non-English word is *wetin*, meaning "what." The sentence literally reads: "you talk say what?" With Kouega's (2008) spelling, the question becomes "*yu tok se wetin?*" offering more accurate pronunciation.

## NEGOTIATING WATER *WAHALA*

*Weh, dis tap no di komot?! Weh, how a go do eh? [...]*  
*Wich kain of bad luck dis? [...]* *Wich kain trobul dis?*

What! This tap isn't flowing? Eh, what am I supposed to do?  
What kind of bad luck is this? [...] What kind of trouble is this?

Judith, Bwitingi

This chapter describes women's water troubles—*wahala*—introduced here by Judith's dilemma about how to feed her children, wash the laundry, and get her children ready for school when the tap is dry. Addressing daily water struggles from the perspective of end users in four communities in Cameroon's SW Region, this chapter makes visible the gendered nature of water access. Centering the key photographs, videos, and issues addressed through participatory analysis, I weave together participant representations of the impact of water challenges on their bodies, lives, and relationships. This chapter takes up my first set of research questions: What are women's concerns about water use, access, and control in the SW Region of Cameroon? In what ways is this waterscape gendered?

To begin, many participant images and narratives depict an appreciation for the abundance of water in the SW. In many images, participants drink water from public taps, wade into streams and rivers to freshen up, and help those they encountered at water points with daily chores such as fetching water and doing laundry. Many participants situated themselves as fortunate to live in a tropical climate and spoke of the availability of water in this Region of Cameroon as a "blessing" or "gift from God." However, in this context of abundance, water challenges become all the more frustrating. These troubles are typical and persistent, in particular for women. While water disruptions affect entire cities and villages, I highlight how gendered relations of inequality play an important role differentiating the impacts of water challenges. Undisputed in this study is how water *wahala* impacts women and children disproportionately. Thinking intersectionally, the material impacts and coping mechanisms of water *wahala* intertwine with gender and age-based social norms. Yet complicating the narratives that refer to 'women and children' in the study (and development discourse more generally), gender and age also intersect with other forms of social difference such as class, marital status, ability, and mobility. Centering and building on women's concerns, I articulate the gendered nature of the

waterscape, accounting also for how gender intersects with other forms of social difference.

Secondly, I highlight the role of agency in decision-making. Identifying and depicting situations of *wahala*, participants elaborate the types of water decisions they negotiate. Women make daily decisions about water access and use. On the one hand, with chronic water challenges in Southwestern Cameroon, gendered water practices are normalized. Often habitual, water decisions are almost obscured through the mundane routine of household work. As sociologist Elizabeth Shove (2003) suggested, the routines of everyday use offer critical points for exposing the ways in which social organization, resources, and infrastructure collide. On the other hand, participants also described the dynamic nature of water decisions. Despite various formal and informal water systems within households and communities, these systems are only partially reliable. Sometimes sporadic, sometimes seasonal, and inherently social, water access is always changing. The uncertainty of water access creates the need to continually improvise or make do. Thus, water decisions are sometimes intentional and calculated in relation to a particular or emergent situation, opportunity, or conflict. Water decisions are also sometimes habitual or routinized. The water decisions described in this chapter reflect social norms and duties, spontaneous moments of adaptation, and reluctant compromise in the moment. Additionally, as participants elaborate, the materiality of water plays a significant role influencing these decisions. Amalgamated here, these socio-material decisions and acts of negotiation are continually made and remade, shaping and altering the waterscape at the intersection of social, infrastructural, and ecological considerations. I wish to highlight how the waterscape is *co-produced* by multiple actors and intersecting hydrosocial relations.

Organized in four main sections, this chapter first considers participant concerns related to piped water supply networks. Often idealized infrastructure, these centralized systems require relatively costly investments to build, and technological expertise to maintain. Given their complexities, these systems often fail or are unreliable. The second section of the chapter outlines the stresses related to this unreliability. Negotiating water access involves creativity, compromise, and conflict. The third section lays out the multiple other socio-technological options that participants rely on for water access. Importantly, many critical decisions about water occur beyond centralized networks. Many of these alternative technologies of access function independently, and rely less on the politics of centralized management. However, these options also have limitations, leading ultimately to concerns about health, sanitation, and the

sustainable protection of water of good quality. The fourth section outlines participant concerns about the protection of water sources and quality. Throughout the chapter, participants framed social dynamics and inequalities as social vulnerabilities. Often portrayed as interpersonal struggles, quarrels, or fights, these flashpoints serve as markers of imbalances in power across the waterscape. These conflicts disaggregate ideas about households and communities.

### **I: Unreliable Piped Water: The Costly Tease of the Tap**

While each community has infrastructure for centralized piped water distribution, these technologies simultaneously mark a distinct material absence. For a variety of reasons, piped networks are unreliable and function at varying capacities. In one town, the network does not function at all. In this section, I contextualize participants' issues of concern related to water access from different types of service arrangements, including water provided by the partially privatized water networks ('utility water'), community-managed water schemes ('community water'), and combinations of the two.<sup>58</sup>

#### **Partially-Privatized Urban Water**

In urban and semi-urban areas of Buea and Kumba, the water utility has been partially privatized through a PPP involving a consortium of Moroccan companies, CDE. However, for a number of reasons, several independent community water schemes also serve urban areas. Therefore, the cities of Kumba and Buea are each supplied by combinations of the privatized municipal network and the community schemes, which often overlap in terms of coverage areas.

Both the utility and the community systems have limited capacity to keep up with water demands in the context of rapid urban population growth. For example, in Buea, the municipal water network designed for 20,000 to 50,000 people now serves over 200,000 (Buea Council, 2005). Harnessing water from just two mountain springs, the system cannot provide enough flow for the current levels of demand<sup>59</sup> (Folifac, 2012). To ensure adequate pressure in the network, a common practical intervention is water scheduling. Thus flow is supplied to different subsections of the network on a rotating schedule to enable different parts of the network to be functional for periods of time. Consequently, sections can be non-functional, sometimes for days

---

<sup>58</sup> While it might be more common to refer to a 'water utility' with a focus on the management scheme, participants tended to speak with a focus on the water and often used the expression 'community water' to designate water managed by the community. As such, I use the expression 'utility water' to remain consistent with participant explanations.

<sup>59</sup> For the system to be functional, the distribution pipes must be constantly full. If the network is not full, because of high demand at the taps, the system pressure is lowered and a slow trickle of water flows at the tap.

at a time. When the water schedule is unknown to communities, this practice creates uncertainties for water users: they do not know when there will be water, or where to find it. When there is water, it is uncertain for how long it will flow. This spatial and temporal uncertainty of piped water distribution frames many of the concerns voiced in this chapter.

Furthermore, the quality of piped water is also uncertain. Utility water, while treated with chlorine, can also supply poor quality water. In Buea, water quality research conducted by a colleague in the BWRRG identified an oversight in treatment procedures at the city's distribution station. The utility was unknowingly adding chlorine to the city's water supply at the wrong part of the system with the result that some distribution lines were being treated and others were not. Treatment processes were immediately rectified, but this suggests that a good portion of households in Buea unknowingly received untreated water for an unknown period of time (Huston, 2015). In Kumba, the largest city in the SW Region, utility water was brown and muddy at the time of research. This created controversy because the community water system that also served Kumba produced clear water, despite both systems drawing water from the same lake at a nearby village. This difference in water quality within the city of Kumba fueled ongoing water ownership conflicts between the villagers and the water utility. For a time, many people in Kumba popularly believed that the villagers used *juju* (magic or witchcraft) to tamper with utility water. The utility eventually resolved this issue by replacing the filter in their intake in the lake. However, for almost six months, those Kumba residents served by CDE had to filter their water or abandon their taps altogether. This ownership controversy, however, was not of central concern to participants, who focused instead on the implications of how unreliable water affected their daily lives negotiating water *wahala*.

**Do we drink bills?** In both cities, the utility continues to bill its customers despite its inability to provide reliable water services. Buea's Action Group depicted this issue in their video, "Water Bills for Thirsty Women" (see Figure 3).



**Figure 3.** Screen shots from "Water Bills for Thirsty Women" (Action Group, Buea)

As the video opens, a young woman, Nancy, looks over a pile of empty containers, dirty dishes and laundry that sprawls off the verandah of her *mini-cité*. Wringing her hands, she cries: “Oh God ... My plates. My clothes. What am I going to do?” She wonders how she is going to manage the mountain of work without water. Picking up a half-empty bottle of water, Nancy asks: “Am I going to use *this*... to clean all of *this*? Actually, I don’t really know what to do with this. I don’t even.... How am I going to do? This water problem, water problem...” Setting the water bottle back down, she continues: “I have to use one bottle of water for so many things and I don’t even know what to do. Oh God.”

As Nancy turns to the pile of laundry on the verandah, her sister Veronique comes out of the room, picks up the last bottle of water, and takes a sip. Nancy is enraged, rips the bottle from Veronique’s hands and the women get into a physical altercation over the water.

Their friend Bianca steps in to break up the fight, “What is wrong with you? Water is meant to heal, not to separate families!” As she struggles to physically separate the sisters, the landlord for the *mini-cité* interrupts to deliver their monthly water bill for an amount of 4,000 CFA (approximately CDN\$ 8).<sup>60</sup> The women stare at him incredulously. Nancy exclaims: “*What?! What is this? 4,000 francs?*” Bianca protests: “This is not serious. We need water. You give us bills in place of water?! [...] Do we drink bills? We need water, not bills.” The video ends as the camera then pans to a handwritten placard: “OUR GOVERNOR TAKE ACTION.”

This video depicted participants’ anger about being billed for unreliable quantities and qualities of water. In addition to being charged for water services that occur only every other day for a few hours, one young woman, Grace, lamented needing to pay for poor quality water:

The water that is coming out is not even water that you can use to wash your pans, these pans that you are using to eat! [...] The water is muddy, you cannot even drink it! You cannot even use it to wash your [clothes], but the bills come!

Bills arrive more reliably than water services.

What is more, many questioned the reliability of the billing system more generally. This concern included questions about if or when the utility actually comes to read water meters, whether bills accurately reflect the amounts of water used, why some bills vary so widely from month to month making it difficult for households to manage their budgets, and why there was a meter rental fee on water bills, regardless of whether residents used utility water that month. Worried about paying for water that they have not consumed, many are skeptical about the credibility of the utility billing system and how it is monitored. Indeed, the equipment used to measure water use is often in a questionable state of repair. Clusters of water valves and meters protrude crookedly from the ground at busy street corners, exposed and vulnerable to traffic, and

---

<sup>60</sup> Based on an exchange rate of approximately CFA 500 per Canadian dollar at the time of this research.

often rusty and spurting water into permanent puddles. Water gauges and dials fixed onto the sides of buildings quickly fill with water and become too blurred with humidity to be read clearly. These technological deficiencies add to participant skepticism about the reliability of the utility for accurately and fairly monitoring water use and determining water bills.

Additionally, many were concerned about a lack of transparency in how water bills are mediated by landlords. Many landlords charge a flat rate water bill regardless of water use. Water and electricity fees can be bundled for the entire year, and required up front at the beginning of an annual lease. Tenants may not necessarily see an actual bill, and rely on verbal agreements with landlords that they are being required to contribute their fair share of the costs. Presumably, landlords either profit or lose from these arrangements. Certainly living arrangements vary, as do individual residents' negotiations with landlords. Distrustful of landlords, Hope exclaimed:

*Sista!* If you are living in the house where it is the landlord who tells you how much you have to pay, the landlords are not honest. If you want to know, tell the landlord 'I want to see the bill from the water people.' He will never show you!

That landlords might take advantage and overcharge tenants was echoed by those who live in the same compound as their landlords. Rosine, from Kumba, exclaimed: "The landlords are not paying. You pay for them," suggesting tenant bills cover the landlord's water use. In sum, whether negotiated directly with the utility water or indirectly via rental accommodation, water bills are a source of contestation and frustration. Not necessarily contesting water billing in general, participants were concerned about a lack of transparency in billing practices.

**Pipe problems.** Frequent pipe leaks and breaks complicate questions about the reliability of metering and billing. On the one hand, leaks and breaks are wasteful and difficult to repair. They also change the amount and pressure of the water in the system for downstream users. Installed predominantly along road networks, pipes buried too close to the surface are easily and commonly damaged by passing vehicles. Grace explained the image in Figure 4, taken in Buea's busy student neighbourhood, Molyko: "The day we went out for this research, it was the day this pipe broke. And it was broken because of cars. I want to base our intention on the depth of the pipes." Shallow pipes are more susceptible to being inadvertently smashed by "big personal cars" and garbage trucks driving over the pipes.





**Figure 4.** "A lady drinking water directly from the broken pipe" (Group of Grace, Molyko)

Leaks are also exacerbated when the water pressure is higher than usual, placing additional stress on weak pipe joints. During university holidays, most students vacate their rental flats in *mini-cité* apartment buildings around the university. Given this sharp drop in demand in this neighbourhood's portion of the water network, the pressure increases in the system, causing numerous leaks and breaks. Water can gush for days, washing away sand and gravel from pathways between buildings and flooding lower level flats. Breaks and leaks damage personal property and lower the efficacy of the rest of the network.

On the other hand, breaks near the surface can offer new, useful access points in the system. Previously confined, new flows of relatively good quality water become more accessible. As Grace explained, the students in Figure 4 were en route to collect water from a stream a fair distance away, when they encountered the broken pipe and called their neighbours, "*Njo don kam! Njo don kam!*" [free water has come! free water has come!] Other photos in this series depict students arriving with buckets, making use of this opportunity, preventing wasted water, helping themselves to drinking water, and lifting buckets onto each other's heads to carry the water home. Often distributing treated water, pipe breaks offer better quality alternatives than the unprotected neighbourhood streams.

Therefore, pipes are sometimes purposefully broken to gain access to water. These acts tend to be characterized as a lack of care or vandalism (see Folifac & Gaskin, 2011). The Deputy Mayor from one municipal office complained: "People are not conscious... they do not use their

conscience. You will see somebody who will just break the pipe and think it's a hose. The water is just oozing... They don't call the attention of SNEC. It will affect neighbours [downstream]." Yet Grace identified a more pragmatic rationale for breaking pipes: "Because there was no water in Molyko, people decided they had to break the pipes. Yes, they had to break the pipes. It was too much, it was four days... there was no water." Broken pipes are useful and become, temporarily, opportunities. When left unrepaired, leaks become more permanent informal access points. In the Molyko *quartier*, a leak along the main road became a popular collection point. When the network was flowing, girls and young women lined up to dip their bucket precariously into the ditch, low enough to capture the water leaking from the half-buried pipe. These unplanned but reliable sources mean access to free treated water, closer to home.

However, compounding concerns about water bills, broken and leaky pipes also have financial implications: who inevitably pays for the lost water? Some participants noticed charges for "excess" units of water on their bills. The water utility explained these "excesses" to one woman as hidden leaks deep in the ground. While the utility encourages water users to report leaks to avoid being charged for excesses, participants noted that reported leaks are rarely fixed in a timely manner, if at all. Hannah queried: "How often do they come when they are being called upon?" Faith noted:

In my neighbourhood here, yesterday it started flowing in the night [...] It was as if there was a river flowing down the *quartier*, you know? The pipe has burst and this has been for more than two weeks now. Nobody is there! But they have brought our bills.

Hannah articulated other reasons why the utility does not fix broken pipes:

I am very disappointed with CDE, as they call it, *Camerounaise des Eaux*. You see a broken pipe, you go and report it. They tell you they don't have staff. But I think there are many Cameroonians who don't have jobs in this country, and they should recruit people to work. I have personally gone there many times to report them, to tell them: 'Pipes are broken here and here and here'. And I had to ask them, 'Do I need to go and bribe you to come and repair the pipes?'

Certainly, deep leaks are more difficult to detect and repair. If the utility is understaffed, maintaining and repairing pipe networks is challenging. Yet, as with billing systems and landlords, tones of distrust permeated accounts of negotiations. Participants doubted that the utility would invest money to repair and improve water services.

While the cities of Buea and Kumba both have combinations of utility and community water, urban participants did not always associate problems with a particular management scheme. While community and utility water systems have distinct types of ownership and control,

unreliable services result in similar types of experiences for end users, regardless of the scheme. Water access was simply characterized as irregular, insufficient or muddy. Residents struggle to know when and where water will flow, and whether the quality will be safe for consumption. Many participants were uncertain whether community systems were treated.

### **Community-Managed Rural Water**

In rural areas, communities are responsible for building and managing their own water supply systems. However, the effectiveness of community water systems varies quite widely from village to village for a number of reasons. In Bwitingi, a mountainside village with abundant springs, fresh water literally bubbles up from the ground and cascades down the mountain. There is so much water that many surrounding communities also depend on Bwitingi's spring source. The village faces an influx of urban residents and businesses from nearby Buea, who travel out of the city to collect water as they cope with water shortages. Additionally, sprawling suburban neighbourhoods further down the mountain depend on the Bwitingi catchment. Bwitingi's location on the slopes of Mount Cameroon enables a gravity-fed community-managed pipe network comprised of a storage tank in the catchment area and public stand taps placed throughout the village. With population growth around Bwitingi, more public taps have been installed, demands for water have increased and the single tank in the catchment area is insufficient for future water needs. The water levels around Bwitingi have decreased in recent years, as described by one elder woman, Isabelle:

The whole environment is just a mess. At first, we used to have water. When you slept in the night, you would hear the water was passing ... the thing had current. But now, you cannot even know whether there is water around.

As will be explored later, Bwitingi faces sustainability challenges in relation to growing pressure on existing water resources, land use decision-making, and the protection of its water supply from encroaching urban development. However, many acknowledged this village's privileged availability of water.

In contrast, the water situation in Mudeka is the most acute of all four research communities. In the Mudeka workshop, one elder man interrupted the informed consent process early one morning and held up a 2L container of cloudy water that he relies on for drinking, accentuating the sharp sense of immediacy about water quality in this community. Located near the border between the (Anglophone) Southwest and (Francophone) Littoral Regions, Mudeka is further away from the plentiful freshwater springs and streams flowing down Mount Cameroon.

While adjacent to the Mungo River, Mudeka also borders a mangrove forest where coastal tides rise and fall causing saltwater intrusion in some of this village's surface water. In terms of water infrastructure, a community water scheme tapping into deeper aquifers was reportedly installed in the 1980s. However high iron content in the ground renders the groundwater too rusty for household use. As one village elder explained, the bags of chemicals the town needed to treat the water were too costly for the community to maintain. The system was abandoned shortly after it was installed. Participant photos from Mudeka depict dry unused infrastructure: a drill point overgrown with bushes; a massive hollow structure (called the tank by the community) in the center of town, originally a warehouse for the pump and generator but with engine parts now missing; elevated storage tanks perched empty above houses; an underground pipe network snaking through town; and dusty stand taps scattered in convenient and central locations. These images of dry infrastructure in Mudeka generated much concern among audiences, especially given the severe lack of reliable alternatives in this area.

While each of the four communities—Buea, Kumba, Bwitingi and Mudeka—has infrastructure for piped networks and a general availability of water, water access is uncertain. Contextualizing the piped service arrangements in each of the four research sites, I have elaborated participant concerns related to water bills, broken pipes, landlords and ambiguity of the water utility in the two cities of Buea and Kumba. I have also characterized water access and availability in the two rural towns, Bwitingi and Mudeka, demonstrating the diversity of community water arrangements. Taps are attractive, desirable and supposedly convenient but often a tease, disconnected from daily use. For Mudeka, photographs of abandoned piped infrastructure represent less a daily uncertainty, but more a longer-term resignation since the taps have been abandoned for years.

With important distinctions across contexts and water system arrangements, the remainder of this chapter charts the shared narrative of participant experiences from the perspective of the end user negotiating daily water access. While factors such as population density, livelihoods, and types of development activities differ across urban and rural areas, many common issues and conflicts span network schemes and context. In urban areas, participants depict negotiating more crowds, using transportation vehicles, and being late for school or office jobs. In rural areas, participants referred more to farming, deforestation, and the protection of catchment areas. Yet just because an issue was not raised in a community does not

mean it is not an issue. Through participatory analysis, discussions about issues raised by one community invariably opened up critical reflection about how these issues cut across contexts. Overarching social relations of power transcend urban and rural experiences, as well as utility and community water schemes. The next section articulates these gendered patterns, and also how gender intersects with other forms of social difference.

## II: Embodied Intersections

### Stressing for Water

In each community, participant narratives tell similar stories about the gendered stress for water. Many posters and videos begin with a conflict: Women and girls arrive at a tap that is not flowing. As articulated by Judith at the beginning of the chapter, the question, “what am I supposed to do!?” punctuates a starting point for narratives. When taps are not flowing and stored supplies are low, women and girls must actively negotiate “going out” into the neighbourhood or community to find water. These journeys involve the embodied and time-consuming task of moving around to various water spaces, work accentuated by the dynamic nature of the waterscape. Changing water service schedules, seasonal water levels, and tidal flux create unpredictable water availability. Therefore, when women and girls arrive at a dry tap, they negotiate water access with questions such as: What are my options? Where will I find water today? How far will I have to go? How many other people will be there? How long will this take me? How much money is in my pocket today? How will I get the water home? Is it enough? Will I be safe? Portraying these concerns with a sense of urgency, participants described the journey for water as searching, rushing, scrambling, struggling, stressing, hunting, or fighting for water. Many juggle this stress for water with other responsibilities in their daily lives. Given strong divisions of labour in relation to household work, participants emphasize how this stress for water affects women and children more. Water points are gendered places of convergence, where the various gendered impacts emerge. In several videos, mothers such as Judith stand at a dry tap with their bucket in hand and worry about how they will bathe and cook for their children. One video from Buea, “Women in Trouble,” depicts a scene where three different women meet at a dry tap. An older woman wearing a head tie and *kabba*<sup>61</sup> sits, resting her chin on one hand, waiting to wash mud from her feet after working the morning on her farm. A university student wearing skinny jeans and a button-up collar shirt rushes to get to class. And a school girl with

---

<sup>61</sup> Women’s traditional loose-fitting dress.

her hair in pigtails struggles to complete her afterschool chores. These portraits depict shared experience and frustration in relation to an uncertain piped flow. Yet the portraits also demonstrate how the gendered impacts of unreliable water spiral through multiple social spheres. Each woman negotiates water access differently, complicating “women and children” narratives. In the three household scenarios below, participants differentiate how the gendered responsibilities for water are enacted differently within households, experiences complicated by intersections of age, language, class, education, and marital status.

### **Marriage: From Marital Problems to Conjugal Violence**

Many married women identified concern about intra-household conflict; water *wahala* affects their marriages. Focusing on their multiple roles as wives and mothers, women portrayed how water problems align with gender norms and expectations in relation to household work. Some participants described their marital problems as domestic arguments between husbands and wives, because women cannot fulfill their share of household duties. Comfort said:

We saw the woman was at home with three children. She had to take care of the children. She had to take care of the home, prepare the food for her husband. Due to time and mismanagement of her time, and also other household chores she had to [...] deal with ... the husband came back from work and met her with food not prepared. And that resulted in a big fight, a matrimonial problem.

Women negotiate actively in these arguments, speaking out and yelling back—loudly—that they were doing what they could, given the circumstances. In short, women were concerned about how water shortages cause or exacerbate conflict in the home, putting additional strain on their marriages and relationships with loved ones.

Participants also elaborated these arguments as grounded in unfair gendered expectations, and how marriage serves as a type of contract that intensifies these gendered expectations. Underlying this concern is the idea that with the prestige of marriage, men can expect their household work to be taken care of. Hope noted how marriage almost absolves men of the responsibility of collecting water: “If you see a man at the tap, know he is not married.” Several videos depict men making unreasonable demands of their wives. Participants problematized these demands, and Estelle critiqued husbands and men who are “so careless, with that culture of the man not doing anything again in the house.” From this perspective, women are overloaded and yet also expected to negotiate water challenges for the household. Furthermore, women articulated how they sometimes negotiate these expectations conveyed through the threat and use of physical violence. One group from Kumba, Women of Faith, portrayed spousal violence in

their video, “Stress Women.”<sup>62</sup> Filmed near a public tap located along a busy road, there is a lot of background noise as cars and motorcycles drive by. The action is fast and moving, and the footage rough and choppy. Often close to the action, the videographer captures the backs of actors’ heads and blurry unfocused movement. Additionally, as the tap is busy with members of the public collecting water mid-day, a number of on-lookers watch the performance. Miranda acts the part of a married woman, and Esther dons a baseball cap to play the part of the husband.

This story is set in a family compound. Miranda paces back and forth looking at her wristwatch, waiting for her children to return home with water: *Wata no notin. Di wan no notin. Wetin A go do, eh? Sins we A sen pikin fo go kari wata, dey neva kam up to nau. Wetin di go wrong, eh?* [No water, nothing. What am I supposed to do? Since I sent the children to go get water, they haven’t come home yet. What is wrong?]

Her husband approaches and begins yelling belligerently at his wife: “*Madam yu wan put mi wata fo bathroom, ehn!?* [Madam, do you want to put my water in the bathroom!?”]

Miranda looks around with worry and wrings her hands: “*Wich wata? A don sen di pikin dem, mek dem go kari wata*” [What water? I sent the children to go get water].

The man becomes increasingly more impatient and aggressive: *Yu sen wich pikin? Yu bin fo sen am fo difren ples. Yu no se yu man di wok... yi di wek up monin-taim, go fo ofis?* [You sent the children? You should have sent them to a different place. You don’t know that I work... I have to wake up in the morning and go to the office?]

Miranda replies: *Mi, A don sen pikin fo wata...* [But I sent the children for water...]

Her husband persists: *Tumoro, yu go aks mi chop moni. Yu shua se, yu sen am fo fain dat wata?!?* [Tomorrow, you will ask me for food money. Are you sure you sent them for water?!]

In this scene, the husband accuses the woman of lying, questions her judgment, manipulates her financial dependence on him (part of the expectations of the marriage contract), and uses physical force and aggression to intimidate her. This portion of the video elicited much concern about the connections between conjugal violence and water shortages. One young man, Thierry, expressed his concern for women: “Sometimes when their husband comes [home] and there is no water in the house, [women] get battered by their husbands.” Hope conceded how conjugal violence is normalized: “It’s the way you were brought up [...] He will say, ‘you will have a slap.’” Certainly, water shortages do not *cause* conjugal or gender violence. However, water shortages complicate the nature of daily stress for individuals and their personal relationships.

---

<sup>62</sup> This scenario highlights scenes from the video that were selected by participants as most important. Other scenes from the video include one woman watering her garden, and another woman listing all her water-related household work.

Water use is mediated through patriarchal marital relations. As many participants noted, these expectations can involve disciplining through physical and emotional violence.

While most participants implicitly referred to nuclear “husband-wife” relations within households, one man widened the frame. Victor extended this analysis to include ideas about communities and social networks more generally, structures that he posits position all women in similar roles:

In Africa, we have the case of... they say, the ‘other mother.’ [...In] our community, every woman is my mother. I don’t have a particular mother in the community. So, where [...] my own biological mother cannot provide, another woman will provide or assist. [This is why] women in the community will suffer the most.

As this man explained, traditional polygamous social structures position women as responsible for all the children in their community, thereby intensifying their workloads. This critique frames marriage as a construct creating situations of dependence and vulnerability for women. Victor was particularly concerned about women living on their own – when rural youth migrate to cities, widows and older women living in rural contexts are left to manage an uncertain water supply. These women are more vulnerable and face unique struggles regarding water access. Without adequate social support systems, Victor was concerned that elder women become, in his words, a “mockery” in society. His attention to polygamous households, youth migration, and the specificities of elder women in rural areas offered critical insight about the intersecting complexities of water access.

### **Negotiating Gender Norms**

While gender roles within households were often framed through marriage, several younger participants were not married but lived in shared housing arrangements. Their concerns spurred conversations about patriarchal relations across households and communities more generally. One woman wondered what happens in the university environment where students live away from home in Buea’s *mini-cité* apartment buildings. Students and recent graduates described their experiences negotiating with their brothers and boyfriends. Faith noted:

Even in *mini-cités* where the tap flows, maybe those who live upstairs [don’t] have water because of the pressure. Their girlfriends will come and take their containers from upstairs, fetch water from downstairs, carry [it] upstairs. While [the boys] are watching videos.

Furthermore, participants were incensed that these boys weren’t even using the extra time to study, but wasted the time watching Nigerian films. This spurred several young women to recite



some of the lines guys use with their girlfriends and female friends. Grace said: “*A bek, mai gel-fren. Du ya kari wata*” [I am begging you, my girlfriend. Please carry water], and Veronique: “*A no di yus wata! A no di kuk! [...] A only drink, A no di wash*” [I don’t use water! I don’t cook! [...] I only drink, I don’t wash”]. Many blamed dominant cultural norms, as explained by Hope:

You don’t see the guys going around with containers... you don’t see the boys, just the girls [...] You see? You see the culture? After all, it is not a man’s job [...] Even if it is not a girlfriend, it is a sister [or] a niece living there.

Grace said she accepts her role and is resigned that her brother does not do this type of work:

I live with my brother. Yes... I fetch water [for him]. It is just like that. [It’s] not that I fetch water, [and] I am angry with him. I just know that I have to get up and fetch [...] I will go to school, come back, and he has not helped.

Others do not accept traditional gender roles and describe challenging dominant norms discreetly.

Faith described how she negotiates household work:

My case is different, because I live with my brother. When the tap starts flowing, sometimes I pretend as if I don’t know if the tap is flowing. He goes and fetches water ... [laughing] ... I just leave the front [of the house] and go to the back [...] I just like share the work without me telling him. I just know he is going to fetching water. Because obviously I have to go to the kitchen and look for what he will eat before leaving the house. So I cannot be fetching water [at the same time]. So the only thing is for him to fetch water and maybe [make] the bed. I know the rest... I am doing it. So it all depends on how you [plan] it.

This young woman chooses her battles, and focuses on cooking while strategically avoiding water collection and making beds. Other participants laughed at her story, commenting on her confidence with the Pidgin expression “*Yu ai tron!*” [Your eye is strong!], which characterizes behaviour as bold, stubborn or headstrong, derived from the lack of respect demonstrated by looking an elder in the eye. Yet Hope characterized this calculated resistance as a form of empowerment that depends not only on this woman’s actions but on her brother’s acceptance of them: “This woman has been emancipated! And her brother knows!” Critically, empowerment is not only located within individuals, but negotiated within social relations. Certainly dominant gender roles affect everyone in ways that constrain change. In these negotiations, some men talked about being teased by women when fetching water at the tap.

Yet participants expressed cynicism about men’s expectations, and willingness to take on new roles. Victoria summarized her impression of the entire project:

The woman carries the whole load. All the suffering is the woman. And the woman is the whole *palava* [trouble]. Because when there is no water, it is the woman. When there is nothing, nothing, nothing... it is the woman. I wanted to ask here, how many men are there who have suffered like that when there is no water?

She implies that many men do not worry about water *wahala* to the same extent as women.

Water is part of women's daily responsibilities; managing water is embedded within multiple intersecting gender roles. At the same time, because many women fulfill this responsibility (with varying degrees of compliance and defiance, as described earlier), men depend on women. These established patterns of expectation and acceptance construct daily negotiations of water *wahala*. Yet, it was clear that many participants thought men—husbands, sons, uncles, colleagues, neighbours, and friends—could share more of this responsibility.

### **Calling and Sending Girls: Daughterly Duties**

The third household scenario further complicates the gendered dynamics of household water provision. While women retain *responsibility* for ensuring household water, some women delegate or assign this work to people within households. Considered low status work, water collection is often delegated to household members with lower social status, such as girls and house helpers. Both girls and domestic house help are tasked with fetching water. While I focus this section particularly on the idea of girls, I note an ambiguity of terms. Given strong age-based hierarchies in the research area, participants commonly use terms such as child and girl to refer to unmarried women in their 20s and 30s. Additionally, familial terms frequently refer to close relationships in general such that 'daughter' can include younger women, such as neighbours and employees. Younger female domestic workers (often nieces or grand-daughters from another town or village) might also sometimes be referred to as a daughter. Ideas about girls, daughters, and domestic workers become blurred. Several videos depict women calling girls to come and assist with water duties, or sending girls to go and fetch water. Often Big Women, household matriarchs and the urban elite, call girls to "come quick" or "*a beg, bring wata*" [I am begging, bring water]. In the videos, when girls are not around and water needs fetching quickly, women ask: "Where is that girl, *na*? Please give some water for our visitor." Despite the absence of girls under the age of 18 as research participants, many young women acted the parts of girls. Household water management cannot be understood without considering the role of girls.

The video "Women as Decision-Makers" produced by Women in Action (see Figure 5) depicts the role of girls in households. This video opens with handwritten sign that reads,

MOTHER ASSIGNING DAUGHTER TO GO FETCH WATER. The mother, played by Alice, asks her daughter Queen to fill their household's 200 L drum of water that morning. Queen then goes out, finds the tap to be dry, and needs to carry water from a source farther away.



**Figure 5.** Screen shots from "Women as Decision-Makers" video (Women in Action, Buea)

The video depicts the influence of the mother-daughter relationship, and gendered delegation of household work. Comfort explained the story:

The girl was preparing food in the kitchen and suddenly was called up by the Mum to come fetch water [...] When the mother was sitting in the parlor, there was the son sitting in the parlor with the Mum watching TV while the other girl was working in the kitchen struggling to prepare breakfast for the family. The brother was seated right inside the parlor, watching TV, but the mom did not call for him while he was idle, to go and assist in fetching water. She instead called the girl child who was already doing something, to fetch water. It means the men or the boys are ... [it] is not being considered as the task of a man to fetch water in the house.

In the portrayals of women delegating water collection work, many videos depict girls' irritation as they look for containers and run from the kitchen, to the tap, to the well, and to the stream.

The video "Women in Trouble" produced by the group Glorious from Molyko-Buea complicates the delegation of household work, with language, class and access to education:

A woman stands in front of her kitchen hut having run out of water in the middle of cooking a pot of rice. The pot on the fire is turning black, and the woman mutters to herself, "*Ma pikin no kari wata*" [My child did not collect water]. She calls her daughter, Pentacost, points to the water containers and sends her daughter to fetch water, "*A wan wata fo de. A se, a wan wata!*" [I want water here. I said, I want water!]

Pentacost complains to her mother (in English), "I'm just home from school." Pentacost is tired and does not want to go fetch water.

The woman balks at this excuse, "*A se, my momi neva sen mi fo skol! Yu wan tel mi grama? Kontena de emti*" [My mother never sent me to school! You want to speak in English? These containers are empty!]

Pentacost relents, takes the two containers in a huff and goes to the nearby tap only to find it dry. She then weaves her way through her family compound with the containers—around corners, in between buildings, under clotheslines—and eventually down into a gully to a stream to fetch water. Along her way, she stops repeatedly and puts her containers down because she is tired from being at school, "*Di wan na stres. Di wan na STRES!*" [This is stress. This is STRESS!]. When Pentacost finally returns to her family compound, she finds her parents arguing.

Upset because his meal is not ready, the father scolds the mother for sending their daughter for water. He pays for Pentacost's school fees and wants her to rest so she can focus on doing well in her studies.

In the analysis workshop, I expressed my concern about girls as part of the discussion:

In this video, [I see] vexation ... frustration ... anger ... [it] is their job to *fain wata but wata no de* [find water but there isn't any water]. So what I see is that the load is on this girl's shoulders. She is being asked to do something that is very difficult, because she has to go [here] and then she has to go [there] and then she has to go [somewhere else]. She goes to many different [places] to find water. Then she comes to the house and if she doesn't have enough water, she gets in trouble. Or, if the water is not clean, maybe she gets in trouble for going to the wrong place...

I wanted to draw attention to my concerns from the perspective of the girl, about her frustration but also her animated resistance. Participants, however, interpreted the video differently. Many attributed Pentacost's performance as bad behaviour: strong-headedness, laziness, and undisciplined. While some attributed the girl's behaviour to fatigue, others chastised her for fetching water from the wrong stream (which was closer to home). While I focused on the trouble faced by the girl, participants interpreted this video from the perspective of the mother, as indicated by the video title "Women in Trouble." Indeed, the mother's equally witty and provocative performance had many audiences dissolve into fits of laughter. Faith noted:

The mother was quarreling with the father because she sent the daughter to fetch water. So there you have double point: Marital issues and women considered as slaves in the house. Because the man was, like, why does the wife have to send the daughter to fetch water? [... If] they had a tap in the house, or the tap was flowing, maybe the mother wouldn't have sent her to go and fetch water, and to even provoke her to go to the wrong source.

In the disaggregation of the gendered social dynamics of household water collection, girls are assigned significant portions of water labour. In the context of unreliable water access, sending girls include the responsibility of going out farther into the community, carrying water longer distances, taking time away from other activities. Yet combined with the previous two scenarios depicting gendered household dynamics – marriage and gender norms – multiple layers of complexity emerge. Participant interpretations also reveal how relations of power and privilege are conflicted. The mother must cook and manage household water supply, but is also in a position of age privilege within the household in terms of assigning work to her children. The daughter bears disproportionate water collection work, but also the privilege of attending school and learning English, a significant marker of class. The father's financial investment furthering his daughter's education risks being usurped by an unreliable water supply, but at the same time his marriage and salaried office job absolve him of household work. Unreliable water services intensify existing gender norms, creating additional stresses for girls in particular, and on household relations more generally. The next section examines how stressing for water intersects with embodied, emotional and ecological terrain.

### **Water is Chest Pain: Through Bodies and Emotion**

Participants describe the stress of negotiating water *wahala* through multiple intersecting layers of discomfort. The embodied stress for water is aptly represented in one video, "Wata na Ches Pen" [Water is Chest Pain], produced by two young women from Buea who called

themselves the Water Strugglers. Here, the expression “water is chest pain” can be interpreted in several ways. For one, carrying large quantities of water in containers on your head creates physical pressure or discomfort on the sternum and spine. Given that the heart is in the chest, *wata na ches pen* also implies emotional strain that ranges from frustration to anguish, fatigue, and stress. Many participants also found this expression quite funny, because of its absurd poignancy. It is not actually water that causes such pain, but the lack of water such that the expression reflects the broader failure of the systems and structures supposedly in place to provide communities with reliable water. Thus, layers of ache etch into the waterscape; the physical and emotional geographies of water cannot be separated.

Carrying water is strenuous embodied work, the sheer physicality of which deserves appreciation. One standard 5-gallon yellow jerrican weighs approximately 40 lbs when filled with water (approximately 20 L). Given an average daily water use of 20 L per person in this area (Folifac, 2012), each household requires approximately one jerrican per person per day. Yet, as argued by the participants, it is mostly women and girls who collect water for the entire household. For a relatively small household of four, for example, a girl or woman might carry 160 lbs of water every day. Many water carriers head out on foot and tote water containers by hand or on their shoulders or heads. The role of the body is striking, in particular how the physicality of this labour intersects with gender and ability.

However, this labour does not necessary ensure good water quality; there are further embodied implications. One group from Kumba, Caring Friends, produced the video “Water Nightmare” (Figure 6) featuring a particular spring in Kumba, which became a focal point for discussion.

In the video, four women gather around a spring located in a gulley, in search of drinking water. The spring is busy with children in school uniform collecting water from a piece of grey plastic pipe inserted into the rock to channel a natural spring. Patience asks whether the water is OK for use: “*Wi don tun tun di hol Kumba fo fain wata... wata no de fo kari am. Na, A don kam fain wata so. Dat min se my pikin no wel, na. A go wash my pikin napkin. A go kuk chop. A drink am.*” [We went all around Kumba looking for water... but couldn’t find water to collect. But we found water here. My children are sick. I have to wash my children’s diapers. I have to cook food. I need to drink water.] She pushes through the children to fill her bottle.

Clara disagrees about the water quality: “*A beg, wuna no drink am. Dat wata no fain. No smol... Si krops, na? Eh eh sista, no. No drink dat wata. Mi, A no go drink dat wata.*” [Please, don’t drink the water. The water isn’t good. I’m not joking... Don’t you see the crops? Sister, no. Don’t drink that water. I’m not going to drink the water.] The

camera pans up the steep rock face to show farm fields above, indicating this woman's concern about run-off contaminated by fertilizers and pesticides flowing into the groundwater and gully.

Yet there is uncertainty among the group. Marie justifies why she believes the water should be safe to drink, referring to Patience: "*Wetin di wuman di tok, na fain wata. Dis skul pikin no fo di drink. Wi fo drink am. Kari am, drink am.*" [As she said, the water is fine. Otherwise, these school children wouldn't drink it. We should drink it. Carry it and drink it.] Most of the women decide that since the spring is busy, it must be reliable. They drink and collect water from the spring.

As the women start climbing the hill carrying jerricans of water, Bernice lifts her skirt with one hand and struggles with a yellow jerrican in her other: "*A don trai-o. A don trai kari my on. Sins monin, we A de hia. Sins monin, A neva do no notin fo my haus fo sake of dis smol wata. Weh, man go dai fo Kumba fo wata-o. Eh! Man go dai fo Kumba!*" [I'm trying. I'm trying to carry it myself. We've been here since this morning. I haven't done any work in my house today because of this water. People will die for water in Kumba. People will die in Kumba!]

As the women struggle up the hill, they look up the steep terrain. Talking simultaneously, some call out: "This hill!" and others call out their physical strain, "My foot! My knee! My waist!" Bernice calls out her age: "*A get 69 yia!*" [I'm 69 years old!] When the scene cuts to the top of the hill, the women are no longer under the tree canopy of the hollow. Looking back down the steep path, the camera microphone picks up the sound of the wind; the spring is no longer in the frame. The women breathe heavily, not performed per se but genuine exertion from hiking for the video. Bernice laments, "*Eh, dai fo palava wata fo wash klos*" [Eh, we are dying for these water problems. To wash clothes...]

As the women catch their breath, the impacts of drinking unsafe water come into effect. Patience doubles over with stomach pain and vomits, crying, "*My bele!*" [My belly!]. Bernice cries as she pulls up her sleeves and scratches her arms with skin itching from contaminated water: "*My skin di skrach-o. A bin tek di wata fo wash clos, di ting bin di komot fo my skin... kro kro fo my skin*" [My skin is itchy. I used this water to do laundry. My skin broke out... I've got a rash on my skin]. Marie rushes behind a tree and squats, also calling "*My bele! My bele!*" [My belly! My belly!] moaning with diarrhea. Clara, who decided not to drink the water, speaks out: "*Mi, A bin tel wuna! A bin se, me wuna no drink dat wata*" [I told you! I told you not to drink the water]. She holds up a green pop bottle filled with water, "*Na klin wata dis. Korek wata, we wi go drink am. Na, yi no go wori wi. Na, wuna onli fo ... tek wuna go hospital... if wuna bin hia mi, wuna no fo sufa so*" [This is clean water, water that is OK for drinking. This won't worry us. Now, we have to take you to the hospital ... if only you had listened to me, you wouldn't be suffering like this.]



**Figure 6.** Screen shots from "Water Nightmare" video (Caring Friends, Kumba)

This raises particular concern regarding age and ability, as expressed by Rosine, also from Kumba, who knew the spring in the video:

If you look at this Mama, she is of age. And if you know where this stream is! We that are in Kumba, we know the distance ... very far, eh?! It's very far... [...] And then, where these children live [...] The distance that they go is too far to go and carry that water. Then, the hill is very stiff [steep], right down there. Before, you see this Mama crying like that... it's something that is really difficult for them, to go there.



Rosine recalled her experiences helping a friend collect water from that spring, using a Pidgin term of affection for friend, *bo*:

I've also gone there [...] I went there to carry water to help [my friend]. She took me there and really, 20 L, I was unable to carry it and climb that hill [...] I put it in a Tangui bottle. I saw particles, inside, inside, inside. Then I asked her, I said 'Bo, is this the water that you people are drinking? Then *bo*, you people are in Hell here.' So, particularly this area is very bad, this area in Kumba is very bad.

Often, this water collection involves navigating the spatial and temporal dimensions of the physical geographies of water, travelling long distances while also negotiating steep and uneven topography. Images depict women, men and children trekking up hills, down into valleys and along forested mountain paths. Given the particularly troubling situation of muddy utility water in Kumba at the time of research, the conditions of the springs gained increased significance. Notably, during the rainy season, when the springs are more reliable sources of water because of increased infiltration of rainwater into the ground, access to the springs becomes more precarious. Physical access becomes more hazardous when the terrain is muddy and hill paths become more slippery. Also, during the rainy season, increased run-off from the surrounding areas impacts the quality of the spring water. The gendered responsibilities for water collection intersect with age and ability, as well as the seasonal and temporal environmental variations.

### **Convergence: Negotiating Crowds**

The sense of urgency associated with the rush, scramble, and fight in the journey for water involves the social dynamics at the source as participants negotiate crowds, making it more difficult and time-consuming to collect water. In more populated urban areas, photos and videos depict crowds of women, men, and schoolchildren at busy public taps and springs. One image of the spring in Kumba (Figure 7) illustrated this concern and spurred discussion about participants' experiences navigating what many called "congestion" at water sources.



**Figure 7.** "A mob of people scrambling to carry water" (Caring Friends, Kumba)

Despite a general unwritten *first come, first served* rule, people describe more fractious and embodied social dynamics at water points. One man from Kumba, Kenneth, raised the issue of ‘power’ to access water: “*If yu no ge powa, yu no go kari wata. Yu mos fait!*” [If you don’t have power, you won’t get water. You must fight!]. Here, power refers both the physical strength and ability to carry the water up the hill from the gully, as well as the physical size and social status required to assert oneself and push through a crowd. Given the struggle to even find water, conflict arises when people push ahead in line, in particular when reliable sources draw people from other parts of town. Thierry described his discomfort in the jostle with crowds of strangers:

Due to the crowdedness of the tap, you get to meet several people [...] Some of them may have diseases that you may contact as you get closer to them [...] You meet different people from different areas [...] You want to fetch your water, and another person wants to fetch water too. So... people fight, and thereby you create enmity within yourself.

This man describes being with strangers as an unpleasant experience, expressing ideas about fearing or disliking others who are also struggling for the same resources, creating situations of hostility at the tap.

Certainly, crowds, hostility and hatred do not construct the social dynamics at every source all the time. Water points can also be gathering places where people from different areas come together, build community and help one another. While doing fieldwork, many participants helped the people they encountered along the way. Many photos depict participants hauling water from wells, carrying water up hills, doing people’s laundry for them, and holding infants.

Water points can be supportive spaces, places where connections are made and labour is shared. However, water scarcity creates added pressure on available resources, both physical and human.

Different water users compete for access, which constructs a particular gendered and classed waterscape. Sources can be popular and busy with women and children collecting water for their household or using water at the source. Yet, the research also shows many men at busy popular sources. One video from Kumba opens with a noisy crowd of about 25 people around a tap. While a few women wait to fill their containers, young men constitute the majority of the crowd. When one man tries to push his way to the tap, a physical altercation erupts and a mediator intervenes to break up the fight. In this scene, the camera is jumpy as the videographer moves quickly to capture the scuffle. At the edge of the frame, we catch glimpses of motorcycles and pushcarts. The young men are collecting water in greater quantities for vending and generating income.

### **Masculinities, Mobility, and Vehicle Transport**

Various modes of vehicle transport facilitate carrying heavy volumes of water over long distances, quickly. Commercial motorcycle taxis, popularly called *okadas*<sup>63</sup> in many West African contexts, often gather at busy water sources waiting for business. As one photo caption reads: “Point of avenue where bike men come to transport gallons of water home” (Caring Friends, Kumba). Personal vehicles, taxis, and pickup trucks also feature as key resources for transporting water in urban areas. One image depicts women loading their containers into the back of a pickup truck. Urban elites complained about driving their personal cars all over town to find water.

Non-motorized vehicles also help move water efficiently and alleviate the embodied strain of carrying water by hand. Many hire men and boys with wheelbarrows or small metal-framed pushcarts with two bicycle wheels, playfully named *truks* (trucks) in Pidgin. As Faith noted, “*truks* save time and energy because you can carry ten containers at a time and you don’t have to carry them on your head.” In Mudeka, participants photographed canoes used for navigating the tidal waters of the mangrove swamps in search of freshwater springs.

Vehicle use responds to the unreliability of piped water, providing means of transporting better quality water, relieving or transferring some of the physical labour of carrying water by hand, and shaping the mechanisms by which water flows from sources to points of use. Smaller

---

<sup>63</sup> Named after the now defunct Nigerian Okada Airline (Kumar, 2011).

vehicles like *okadas*, *truks*, and wheelbarrows do not need to rely on road networks and are not affected by road traffic to the same extent as motorized vehicles (such as cars and trucks). Smaller vehicles are more versatile for navigating narrower or uneven alleyways and footpaths. Similar types of water transport pushcarts run by boys and young men in Freetown, Sierra Leone structure informal water routes and are mobile and responsive to water shortages reflecting young men's entrepreneurial skills (Shepler, 2010). Such informal transport systems construct the waterscape and provide important coping strategies to reduce the gendered strain and time of carrying water on foot. Many participants celebrated how these business opportunities provide means for income generation.

However, the integration of informal paid labour within water delivery systems constructs the waterscape in particular gendered and classed ways. As driving and portering work is almost exclusively male-dominated, participants identified a gendered advantage in terms of who benefits economically from water shortages. Indeed, women's embodied labour carrying water on foot described in the previous section is not valued as paid work. Victor described how this constitutes a "win-win" situation for many men:

Men will always benefit [...] Look at the pictures of Buea [...] We see young men standing there with *truks*. They are fetching water in great quantities. And what are they doing there? They distribute the water, for selling, for the purpose of income generation. Who are they distributing the water to? Women. [While] the women pay, who are those who consume the water? The men consume the water again.

Complicating this discussion are class hierarchies within the transportation industry. Water transport practices rely in part on inexpensive labour. *Okada* or *truk* drivers are often deemed lower status unskilled labourers. There are significant bodily risks to *okada* transport, which is also known in Cameroon as *ben sikin* (bend-skin), reflecting notoriously high accident rates. Many people in Cameroon refuse to ride *okadas* because they are so dangerous. *Okada* drivers often have reputations as rough risk takers. In Buea, the municipal council banned commercial motorcycle transport because of this danger and because of instances of vandalism reportedly committed by *okada* drivers (Fon Rene, 2011). Conversely, in Kumba, it is difficult to hail a taxi because there are so many *okadas* on the road. In the absence of reliable water access, informal transport systems become increasingly significant for helping to move water over long distances. While paying for water delivery is not new in Cameroon (Page, 2005b), the use of motorized vehicles is. Given the relationships between masculinity, class, and mobility, this trend alters the gendered and classed social relations that shape the waterscape.

## Sexual Violence

Also gendering the waterscape is sexual violence, described by participants as sexual harassment, assault and abuse but primarily in terms of rape. Photos of springs, bushes around water points and bush paths depict places where rape occurs, has occurred or might occur. Participants were concerned about the distance required to travel to collect water, especially through secluded bushes and forested areas. Exacerbating these risks, water is often collected in the dark before sunrise or after sunset.

To represent concerns about sexual violence, participants selected one scene from Women of Faith's video, "Stress Women," from Kumba. Introduced earlier in relation to marital problems and gender-based violence, this video portrays Miranda's challenges negotiating a water shortage and an abusive husband.

The marital abuse continues, the man gets physical and pushes Miranda backwards into the fence, continuing to berate her: "*Yu bin spos fo arrange mi bifo de wan brek. Yu no se yua masa get fo wash, go wok?! Dis wata crisis fo Kumba!*" [You were supposed to get things ready before dawn. Don't you know I have to wash and go to work? This water crisis in Kumba!].

In the midst of this scene, the couple's two daughters enter the scene carrying empty water containers. One of the girls has her head down. Miranda looks at the girl's skirt and realizes what has happened: "*Na weti?! Ma mami-eh! Dem don spol my pikin-eeeeeee. Na sombodi raip yi*" [What happened?! My goodness! They ruined my child. Somebody raped her]. Ignoring her husband, Miranda takes her daughter to a uniformed policeman. *A se, Massa. A sen pikin fo wata... Den rayp yi.* [Sir. I sent my daughter to get water... They raped her.]

The policeman is shocked: *Fo wata?* [For water?] He takes the girl to the tap and asks her to identify who raped her. The video ends with an arrest; the young male perpetrator with his hands behind his back in handcuffs.

The parents then come together, shouting:

*Ma mami-eh, wetin fo do? Palava wata fo Kumba...* [My goodness, what are we going to do? Water problems in Kumba....]

*Palava wata fo Kumba, na in dis now. Yi di rayp my pikin!* [Water problems in Kumba, this is it! It is raping my child!].

While being the only explicit depiction of sexual violence in this work, this video offered critical insight about women's concerns about sexual violence. Focusing their concern on the well-being of girls, women considered the potential consequences of rape for girls' lives and futures. As noted earlier, girls' perspectives are unfortunately missing from this discussion. Sexual violence was framed instead through the lens of women's multiple roles as the primary providers of water for their households in addition to their roles as mothers managing children's chores and protecting their children from harm. As shown in the video, faced with an unreliable water

supply, women simultaneously negotiate multiple roles as wives and mothers. Focusing less on trauma or individualized accounts, women consider the larger social and health implications. Hannah said, “when we look the issue, we see those girls; it is a lost opportunity for girls. A girl is raped [and] she does not go to school. She is lost completely.” Another woman, representing MINEPAT, raised additional consequences:

A child goes to carry water and she is raped. What comes after that? We know of HIV, we know of unwanted pregnancies... so how do we stamp out that in our community?

With this concern about how sexual violence impacts girls, one woman imagined the types of decisions that girls make. Comfort speculated:

Maybe a child has to carry a container [... She] goes to the stream to fetch water and then coming back, maybe she slips or falls and maybe the container gets broken. Maybe she is afraid now to come back home in fear of the fact that the parents might shout at her. She decides to stay there. What will that help? She might be attacked, stay there late at night and she might be attacked by these rough guys who come.

Such narratives describe how girls make daily decisions about how to navigate the landscape, the use of water containers, their parents’ expectations and the social dynamics of the water source.

Building on these narratives, many women attribute sexual violence to particular types of perpetrators, often characterized as dubious strangers who hide in the bushes: ‘rough guys,’ ‘rascals,’ and ‘*banga* people.’ Here, *banga* refers to marijuana, and sometimes drugs in general. The Pidgin expression *banga pipul* literally refers to people who use illicit drugs, but is also often a general derogatory label for people—usually men—viewed as sketchy or criminal. In a sense, these stereotypes resonate with normative ‘stranger-danger’ discourses, constructing perpetrators according to dominant norms related to class and social status, and leaving unaddressed how sexual violence is often committed by friends, neighbours and family members.

Yet, these descriptions raise questions about the changing gendered dynamics of water delivery. As described in the previous section, gendered informal transport systems help to alleviate the burden of distance. Porters wait for opportunities to carry water up a hill. *Okada* drivers wait to be hired to drive someone home with their containers. *Truk* drivers wait to fill water containers to deliver around town. Certainly, participants did not suggest that the *okada* and *truk* drivers who transport and vend water commit sexual assault. However, bringing together concerns about sexual violence with the social dynamics at water points raises questions about gendered geographies of water. In what ways does informal water transportation and vending shape girls’ and women’s experiences collecting water? With the recent rise of

motorcycle taxis across West Africa to fill in the service gaps from failed public transportation systems (Kumar, 2011), how do motorcycles and ideas about masculinity, class, and mobility shape the gendered nature of the waterscape? How do income generation development projects that supply motorcycles to unemployed youth (projects that tend to specifically target young men), impact the gendered collection and distribution of water? How might a public safety or child protection lens further inform this analysis? A number of critical perspectives are missing from this analysis, including the perspectives of girls' and men's in the transport business. However, women name this concern from their perspectives as mothers, as one dimension of the gendered inequalities around water challenges.

### **Disrupting and Interrupting Change**

Finding and carrying water interrupts and disrupts other activities. Many adjust their daily routines to make use of water in moments when it flows, and often abandon other tasks mid-day and complete household chores late into the night. If water begins to flow at 3 am, the whole neighbourhood wakes up to fill their containers.

Unreliable water supply makes people late, which participants framed as a problem particularly because of how lateness disrupts the formal spheres of schooling and work. Both students and teachers are late for school because of water access challenges at home. Estelle explained how her children negotiate fetching water: "The children are getting up at 4 am, 3 am, 2 am. You see them struggling to go and take their *okada* to the [water point] so that they carry the water before going early to school." Despite trying to plan, this woman's children have trouble maintaining their place in line, as others jump the line making them late for school. Participants were also particularly incensed to see photos and videos of so many children at public water points during the middle of the school day. In fact, *most* images from urban areas inadvertently capture young people in school uniform hanging about, collecting water, passing by or watching the research activities at water points. Despite the expectation that children collect water for their households, many parents opposed teachers sending students out of school to collect water for cleaning the school. In the workforce more generally, staff members miss work or are late for work because of water challenges. 'Work' was depicted primarily in relation to office jobs in cities. Men wearing suits (lawyers, university professors, and businessmen), leave their offices to find water. Women arrive late at the office, missing opportunities for signing important paperwork.

Ultimately, participant concerns about lateness did not prioritize individual opportunity or well-being. Participants problematized instead how water *wahala* has affected society and Cameroon's national economy more generally. Many participants considered Cameroon as underdeveloped, and were concerned that progress has been delayed and that Cameroon is moving backwards instead of forwards. Hope declared:

Today our society is one step behind. At least one step, because you spend that one step to go and look for water. If there was water, for sure everybody would be at school at 8 o'clock, at work at 8 o'clock [...] The output of our community is less than expected. [We have] this type of social problem... because of *wata wahala*.

On the one hand, this account reflects the centrality of water to economic growth and development, and describes how unreliable water constrains the production of society. On the other hand, the view that Cameroon is "one step behind" raises disconcerting questions about dominant discourses about development. While this warrants further attention, for the moment, I note this tension about the meaning of development and discuss it more comprehensively in the next chapter. For the sake of continuity, here I continue to elaborate community concerns about everyday negotiations for and with water.

This section has disaggregated the gendered waterscape in Southwestern Cameroon, and described how daily negotiations of water *wahala* involve embodied intersections. The burden and stress for water disproportionately affects different members of households and communities. The responsibilities and labour for managing household water closely reflects dominant social hierarchies. Participants frame women and children as most vulnerable to and affected by water *wahala*. At the final forum, the representative from MINEPAT responded to the presentation of participants' photographs and videos:

Looking at the pictures, we saw that there was sexual harassment of the children, and violence [against] the woman. So, it is not only that there is no water... but that the women and the children are the ones that suffer the most.

Social structures of power shape the waterscape, and uncertain water access exacerbates existing social inequalities. These processes, while often normalized, are also not benign. As participants portray, this shaping of hydrosocial relations involves discrimination, conflict, suffering, and assault, indicating the particular role of social power in the construction of the waterscape. These forms of violence have physical, embodied, and emotional implications. While women's gendered experiences are centered here, an intersectional lens elaborates how the responsibilities for water *wahala* also intersect with other forms of discrimination and social inequality based on



age, class, marital status, ability, and education. Water access challenges also intersect with larger structures and forces such as the role of marriage in society, changing transportation systems, and development more generally. In the third section of this chapter below, I bring together this intersectional social analysis with the other two components of Linton and Budd's (2014) hydrosocial cycle: H<sub>2</sub>O (water in the physical world) and infrastructure. Women's experiences and concerns also intersect with the spatial and temporal dimensions of hydrological conditions and technologies of water access.

### **III: Multiple Water Sources and Technologies of Water Access**

In this water-rich area of Cameroon, water is more readily available in particular geographic locations and is made accessible through various forms of social and technological intervention. A critical finding of this study is that communities rely on *multiple* different types of water sources to meet their household water needs. Rather than one alternative to a primary source, many portray regularly negotiating multiple options. In this section, I elaborate on the particularities of different water sources, including private taps, wells, springs and streams. Here I refer to 'technologies' of water access using the plural form to highlight multiplicity in this discussion, and the need to tease out the distinctions between different water technologies as well as how they interact. I present these technologies from highest to lowest cost of intervention, an order that also typically corresponds to decreasing water quality. Wells, springs, and streams constitute different interfaces between water in the natural environment, technologies and the social dynamics of access.

However, complicating these categories, the condition and reliability of water sources are not static, as water sources are dynamic entities that combine social, technological, and ecological systems. Water points change in character, reflecting how sources are used and cared for, as well how they are affected by factors outside user control such as weather conditions. Therefore, daily decisions about which source to use are made in relation to particular spatial, temporal, social, and ecological moments. Preferred sources are renegotiated and change regularly.

Maintaining multiple options provides resilience, absorbing some of the stress of water shortages. Multiple options also challenges traditional data collection measures that categorize sources hierarchically, as primary or secondary. Daily water use relies on decisions about complex and changing assemblages of water sources and technologies. Understanding these

practices and decisions requires an intersectional lens that considers the gendered responsibilities for water. Lastly and critically, each option involves some type of compromise (cost, distance, wait time, labour) or risk, which are critical for understanding the complexities of the waterscape.

### ***Mimbo* and Bottled Beverages**

Before exploring participant concerns about various technologies of water access, it is relevant to mention bottled beverages. While bottled water is a burgeoning industry in Cameroon, participants only addressed bottled water such as Tangui or Supermont<sup>64</sup> in any significant way as an idealized benchmark for how water should taste. Despite growing bottled water use among Cameroon's urban middle class, particularly due to recent acute shortages in major cities such as Douala and Yaoundé (Munteh, 2016; Nforngwa, 2014), participants did not position bottled water as a sustainable or affordable technology of access. However, the characteristic clear plastic bottles often enter images as containers for transporting and storing tap or spring water. Not only used for water, these disposable bottles have important use value within informal markets as vessels for packaging liquid food products such as honey, cooking oil, and palm wine.

Perhaps more significant are questions about the popularity of *mimbo* and the bottled beverage industry, more generally. The Pidgin term for beverages that are not water, *mimbo*, refers predominantly to alcoholic beverages such as beer and palm wine, but can also include carbonated sweet and malt drinks. The title of one video from Buea, "Alcohol, Alcohol Everywhere but no Water to Drink," juxtaposes the prevalence of *drinking spots* (bars and neighbourhood shops where *mimbo* is sold and often consumed) and the lack of access to drinking water. Victoria commented that when there is no water at home, "Some men, when they are thirsty... they run to their drinking places and they drink one liter [of beer] ... but the woman may not be able to go to that." This raises questions about gendered access to and practices in relation to drinking different kinds of beverages. However, for the most part, most participants discussed other types of technologies for improving water access, such as more accessible sources and coping mechanisms for an unreliable water supply.

### **Water Storage: Tools and Practices**

Water storage is a fundamental practice constructing daily life in this waterscape. Often implicit within participant analysis and representation, households that rely on communal sources (not within the home) must collect and bring water home to store at the point of use.

---

<sup>64</sup> Major bottled water brands in Cameroon.

However, because of water scheduling, even households with private in-house connections must store water for the days when water is not flowing. Water flows sporadically (due to unannounced scheduling), and rarely in the moments when it is needed for cooking, cleaning and laundering. Therefore water storage practices and tools are normalized as critical coping mechanisms for an irregular water supply. The need to accumulate and store several days' worth of water at a time underscores daily life and routine.<sup>65</sup> Household water storage practices play a significant, albeit sometimes understated, role shaping the waterscape.

Water containers are central to the transport and storage of water. Containers vary in size, shape, color, material, and durability. They range from the classic sturdy rectangular plastic yellow five gallon jerrican with a red screw-top cap, to endless varieties of plastic bowls and buckets made in Nigeria often with a swirl or tie-dye pattern. Clear plastic Supermont (bottled water) 5 and 10L bottles, not intended for re-use, are less durable and quickly dented only to be undented by blowing into them like a balloon. Often, lids go missing, so water bottles are corked with pieces of balled up plastic. Small metal pails with no lid as well as large 200 L recycled metal oil drums are used to collect rainwater, but provide a breeding site for mosquitos. While metal is more durable, the metal rusts out over time. Sometimes, combinations of containers are used. Buckets hold many smaller bottles. Smaller pots serve as cups or utensils to dip into larger reservoirs for drinking or watering gardens. While some households use larger roof-mounted cisterns, these are expensive and therefore less common – as Ben from Buea explained, “for the rich.” Smaller containers are accessible, affordable, and manageable on a household scale. Each of these containers and sets of containers constitute, as one group explained, methods for using and storing water.

Containers are depicted in photos and videos as explicit tools and objects of interest, but also as everyday objects that shape the nature of the waterscape. The containers help contain and move water around. Containers are hoisted and carried on heads cushioned with a *kata* (a scrap of fabric or old T-shirt twisted into a circular donut shape). Containers are also carried by hand, tied to the backs of motorbikes, and stacked into *truks* (pushcarts). There are containers

---

<sup>65</sup> With this discussion about water storage, I remark how water storage is also normalized in various contexts that have reliable access to running water 24/7. For example, in some parts of the world, roof-mounted reservoirs store water supplied by municipal networks, such that water service providers only need to meet average demand levels and the household tanks meet peak demands. This is in contrast to many North American water systems, which have enough water and pressure to circumvent the need for local storage within the system. This is not to be confused with how municipal systems that are ‘full’ are inherently considered to be storing water.

everywhere, nestled in the corners of kitchens and cook shacks, scattered around compounds where laundry soaks, and tucked between knees as students sit and do dishes and chat with their neighbours. Containers are also used as proxies for people, holding their places in the line at dry or busy taps. These material objects feature in and produce the waterscape.

An everyday necessity, water storage occurs mostly at the scale of individual households and is therefore often the responsibility of women and children. The cost of buying and replacing broken containers can be a significant additional household expense, as noted by participants. Furthermore, the quality of stored water decreases with time and must be managed through the scrubbing, rinsing, and cleaning of buckets before refilling containers, and treating stored water.

Additionally, stored water must be rationed for different competing uses, so the ability to meet all needs is tenuous with an unreliable supply with households not knowing when water will flow next. When stored reserves are low, inter- and intra-household conflicts sometimes erupt. Justine explained:

Due to a scarcity of water, there is always violence. Like, you have your small water that you have preserved, and maybe neighbour's children come to drink water. Sometimes it results in fighting, quarrelling.

Several images portray arguing and conflict over stored water. Interrogating how this type of water scarcity affects morality and social cohesion, a priest who participated in the study referred to the video introduced earlier where roommates fight over the last half-bottle of stored water:

When there is too much water, I will be generous. Look at that picture, the girl was beating up [her friend for a] small bottle of water to drink? And there was hatred! If water is [abundant], you are bound to be generous. But if the water is very gingerly, I will go and give but to my children [...] Which kind of hatred? Hatred ... we start being animals to one another? Because of a simple utility? [...] Ha! What made God a selfish God?

As this man's concerns about hatred and selfishness demonstrate, water connects intimately with social values. When water is scarce, household members are forced to make difficult decisions about how to distribute the remaining water, producing strained social relations between and among neighbours and communities.

### **Begging<sup>66</sup> and Buying Water from Neighbours**

In times of shortage, residents inevitably pay private vendors for water. When networks are not flowing and stored supplies are low, many participants rely on their neighbours for water

---

<sup>66</sup> In Pidgin, to *bek* (beg) is a term commonly used for asking. However, begging explicitly refers to situations in which the asker is asking for a favour. Often, begging implies a position of need or draws on empathy and a familiar closeness. The responder is in the position of granting or denying this need.

access. Many women and students describe begging or buying water from neighbours. Private taps often provide the most reliable option in terms of water quality. In cities with high tap densities, water scheduling, and geographical overlap between utility and community networks, it is often possible to find someone somewhere who has tap water.<sup>67</sup> Images depict university students asking or paying for water at taps in their neighbourhoods. As Grace explained: “You have your money. You go to a private tap and you pay money and you carry [your water].” Often run as an informal business, water is sold from private taps at a cost that is less than bottled water, but varies with the container size, time of year, and the general state of water scarcity in the neighbourhood. Some participants also suggested more secret or covert means: stealing water from private taps at night, especially from compounds without security guards. Private wells can also provide reliable options. To access a neighbour’s well, households can negotiate longer-term access arrangements. Often this access involves financial contributions once or twice a year when it is time to clean and treat the well. These mechanisms for water access—neighbours’ taps and wells—rely on several intersecting factors: the spatialized distribution of technologies of water access; embeddedness within social networks; a certain amount of agency, hustle, and social capital for negotiating access; a family or individual’s fluctuating financial situation; and lastly, an element of chance due to whether or not neighbours are home at the moment of need. Begging or buying water from neighbours demonstrates how water source options and practices are fluid and vary with context.

### **Doubtful Sources**

One of the top concerns among participants is the number of communities that rely on wells, springs and streams. These sources coexist with piped networks, providing critical options to supplement and support household water needs when piped networks fail or are unreliable. As decentralized point sources, wells, springs and streams require less coordination because they are not part of a system. In other words, these sources do not rely on the effective management of a centralized water network. These sources are also more accessible for communities to build and maintain without financial support from the government or NGOs. Participants characterized these sources as providing important means of survival, but these sources are also what participants called “doubtful” in terms of water quality, thus presenting health concerns.

---

<sup>67</sup> This was the case in the *quartier* where I lived, Molyko. Having established a living space across the street from my key research collaborator, I had access to her water supply for free. The other students living in my *mini-cité* did not have this privileged access. My neighbours regularly knocked on my door asking if I had extra water to spare.

Certainly, naming wells, springs, and streams doubtful risks constructing piped water as an ideal, safe, and reliable norm. As described earlier, this is not necessarily the case.

With frequent shortages in piped supply, wells, springs, and streams become intermittent or temporary solutions to communities' water problems. For villages without any piped water service such as Mudeka, wells, springs, and streams *are* primary sources. As participants noted, many wells, springs, and streams are quite vulnerable. According to global health standards, wells and springs can be considered improved drinking water sources, if they meet certain design standards. For example, a protected dug well is “protected from runoff water by a well lining or casing that is raised above ground level and a platform that diverts spilled water away from the well. A protected dug well is also covered, so that bird droppings and animals cannot fall into the well” (WHO & UNICEF, 2006, pp. 8-9).<sup>68</sup> Yet, when these standards are not met, communities are aware of the vulnerability of such sources. The surrounding environment affects the quality of the water supply, as evidenced by photographs of worms and leaves in standing pools. Furthermore, water quality changes seasonally. In the rainy season, runoff pollutes springs and streams creating a higher risk of water-borne diseases. In the dry season, water tables decrease and some sources dry up completely, or communities closer to the coast become more vulnerable to saltwater intrusion. Other sources are of ambiguous quality, with water quality varying between improved and unimproved depending on use and maintenance practices. The following sections detail participant concerns about the location, design, materials, use practices, and control of water sources. Each water source option involves some form of compromise.

**Wells.** Wells feature centrally in the city of Kumba and the village of Mudeka, located further from Mount Cameroon. The drier and flatter geography of these areas restrict the possibility of gravity-fed systems that draw on natural springs and streams, which are prevalent in the other two research communities, Buea and Bwitingi. In the discussion about wells, it is important to distinguish between boreholes and surface wells because factors such as the depth of the water table and well design influence well use practices. Whether wells are considered private or public also affects how wells are established and maintained.

---

<sup>68</sup> I note the very recent change in water access categorization from improved/unimproved water sources, to the new JMP service ladder that introduces the following service levels: safely managed, basic, limited, unimproved, and surface water (see WHO/UNICEF JMP, 2017). These distinctions better account for the amount of time required to collect water from an improved source. The previous categorization of water sources as improved/unimproved is still commonly used (see Fisher et al., 2017), and the definition of unprotected water sources remains unchanged.

**Borehole wells.** Borehole wells (tubewells) access deeper groundwater. While some artesian wells under pressure simply require a tap at the surface, in most cases, hand pumps draw water up to the surface against gravity. Considered protected sources as the top of the well is sealed, tubewells require drill equipment for construction. While costly, these wells are still within the means of some individuals and communities and require little ongoing maintenance. In Kumba, participants celebrated several borehole taps installed by prominent leaders and businessmen. Considered acts of volunteerism or personal initiative, well installation was seen as a charitable donation to alleviate community stress resulting from unreliable water networks.

However, installing borehole wells does not necessarily alleviate water challenges. In Mudeka, four of the six workshop groups (all three women's groups and one of the men's groups) documented how one borehole well has been unusable since it was installed (Figure 8).



**Figure 8.** "This borehole is unuseable" (Faith Sisters, Mudeka)

The well produces rusty water with a sharp metallic smell so strong that Ma Fanny described it as "carrying fire." John from the Water Fighters joked:

*Una si di kwalit of di wata? Brown. Dis na bi wata we yu no fil toch yua mop. If yu toch yua mop na seso (laughter).*

Do you see the quality of the water? Brown. This is water that you don't want to put near your mouth. If you put it near your mouth, it's like suicide (laughter).

Not only is the water from this well unreliable for drinking, but for cleaning and cooking as well.

This man went on to say he refused to even use the water from this well to wash his hands. Ma Fanny described how the quality of the water affects her cooking:

*Dat pom in on. Una si di color, sef? Mangere! Yi go kil wi [...] Wi no no weti de insai agen [...] Since we den gi wi, put planti fo de, yi di ton difren tin. Yu go kari am sef, na wata. Put wata fo fufu de. As yu put am, wan mon yi no di sof. Yu kuk planti, planti blak.*

The water from that pump, do you see the color? Terrible! It will kill us [...] We don't know what's in there [...] Since they gave it to us, when you put plantain in the water, it turns into something different. You go get the water, and it's just water. When you put it in fufu,<sup>69</sup> it still doesn't soften after one month. You cook plantain and it turns black.

While the rust in the water is likely related to high iron content in the groundwater (the same problem encountered by the Mudeka piped network which also accessed deeper groundwater), the research spurred discussion about sustainability more generally and how poorly planned projects waste valuable resources.

**Surface wells.** Surface wells, often dug by hand, access the water table directly with a bucket attached to rope. Although inexpensive to build and fairly easy to maintain, surface wells are susceptible to contamination from surface water and require skilled construction and regular maintenance. Several images presented a view peering down into the well and showing green algae-lined well walls. Others depicted what were called “traditional African wells” rimmed with old car tires at the surface opening. Well coverings range from fixed sliding covers to more temporary removable sheets of metal or wood. Some wells remain open and vulnerable to contamination from surface material. Other surface wells have been modernized with a wall of stone, concrete, or metal protecting the well and providing a higher ledge for access, which provides leverage for lifting water. Wells are vulnerable to seasonal changes in rainfall and the water table. In Mudeka, located closer to the coast, many wells have been abandoned because of saltwater intrusion due to over-extraction. Surface wells provide people with access to groundwater but are also pathways for hazardous surface materials to enter the groundwater. A number of additional concerns intersect with well depth and seasonal water table fluctuations.

First, water is heavy. Lifting water from a well is embodied and gendered work requiring physical strength and agility. Many images depict women and girls straining to haul water from wells. One group, Water is Life, drew attention to the situation of a young mother from Kumba with quadruplets. Describing a photo of the woman leaning over her well, Melina said:

---

<sup>69</sup> A staple starch dish prepared with cassava that has been boiled, soaked, fermented, and pounded into dough, fufu is eaten with the hands and served with soup or stew.



*Fo hea, na som yon gel. Yi bon fo pikin dem, wait man se “quadruplets” if ma English korek. Fo pikin dem we yi bon dem - fo helti gels... [Wi aks am:] “Hau yu de do fo wata eh?” Yi tel wi se, “yi de so... way no de. Na onli wel de. Pikin densef [...] yi bi difikol fo den, fo drink wata.” Na in dis fo hea, yi di tri fo kari wata - yi wes! We yi bon fo pikin dem. So yi no di fit fo dro dat wata, bikos yi nid pesin we kom fo helep yi fo di dro di wata.*

Here, we have a young girl. She gave birth to four children; White people call them “quadruplets” if my English is correct. She had four children, four healthy girls... [We asked her:] “What do you do for water?” She told us, “This is how it is... there is no way. There is only a well. The children [...] it is difficult for them, to drink water.” Here she is, she is trying to haul the water – but her waist! She gave birth to four children. So she can’t draw the water, because she needs somebody to come and help her haul the water.

This group elaborated on this mother’s situation in their video, titled “Matters Arising.” Melina and Gordon perform the part of a married couple. In the video, Melina struggles to cook, haul water and care for her four infants. When Gordon comes home from work, he is angry because Melina has not yet washed his clothes for his meeting in the evening. With one infant on her back and two in her arms, Melina argues that she is overwhelmed with her work and experiencing back pain. Melina and Gordon argue. A group of neighbours then enter the compound and intervene. Each neighbour takes one quadruplet to relieve Melina, and the women negotiate with Gordon collectively on behalf of Melina. Gordon eventually agrees to help with the household work, and the film ends as he hauls a bucket of water from the family well.

When screening this video in Cameroon, audiences typically call out each arm-length of rope (approximately 1 meter) as Gordon hauls the bucket to measure the well depth. When it becomes apparent that the well is 13 meters deep, the significance of the embodied strain related to Melina’s daily work is accentuated. Reinforcing poignantly how women’s heavy work intensifies when wells are deep, particularly during the dry season when water levels are lower, or when household water needs are magnified (in this case four-fold) through other caregiving responsibilities. Melina’s situation generated much empathy and discussion among participants and audience members. Interestingly, this video depicts the relatively atypical scenario of quadruplets. To a certain extent, this might suggest that women’s labour has become so normalized that it does not warrant concern. However, the key message of the video relates less to the specificity of quadruplets. Participants selected this video to underscore women’s embodied work negotiating childcare and water collection. The video highlights unfair expectations about the distribution of household work that intersect with men’s expectations, marital conflict, the particular nature of hauling water from wells, and ecological conditions that

impact the depth of the water table.

Secondly, some participants regarded surface wells with trepidation, as they were considered an unsafe technology because of the physical danger of falling in. While deep wells are important to ensure water access in the dry season, when water tables are lower, deep wells are also dangerous. Reflecting on the images that show a view into the wells, one young woman Veronique worried, “by the time you send your head to look into that well, your eyes are already turning [...] If I look into a deep pit, really, I’m scared. And you can easily fall into that pit.” Indeed, one critical image from Mudeka depicts a well abandoned and covered up because a community member had fallen into the well and died (Figure 9).



**Figure 9.** "Village well abandoned because someone died in it many years ago" (Elders' Group, Mudeka)

Jackson explained:

*Wi se weda di solushon na fo dip wel-o [But ...] na wel dis we govmen di gi wi an sombodi di do weti? Yi di fol insai, yi dai. Den lok am.*

We say the solution is to have deep wells. [But...] this is a well that the government provided for us and what did somebody do? They fell in and died. So they closed it up.

Jackson described the elder men gathering around the abandoned well in the photo, grieving for the person who fell into the well, as well as for the strain on their community because of the lost water source. While surface wells provide important and affordable water access points, the wells also pose a public safety risk with gendered and age-related impacts for different members of the community. Ultimately, women and children negotiate these risks, as well as the embodied labour associated with surface wells.

**Springs and streams: Open access, open source.** Given the abundance of fresh water in this area of Cameroon, springs and streams also featured prominently as popular water sources. Requiring minimal infrastructure, these sources rely more directly on the flow of water through the landscape. Springs and streams emerge where groundwater surfaces, or where the water table is relatively shallow. Water users convert springs and streams into water sources through interventions, albeit sometimes quite subtle, that alter the flow of the water. Photos and videos document several types of technologies that facilitate spring and stream access and the accumulation of water for use. Excavations are made into the rock or soil to form small basins replenished by the natural flow of the water and drained through mini gravity-fed exit channels. Micro-dams or containment barriers around springs or along streams create pools deep enough for dipping containers into or for washing laundry. Enclosed concrete tanks, or “spring boxes,” harness springs and control the release of the water with spigots. Spring flows are also channelled or directed into point sources, for example by tapping small pieces of pipe into fractures in rocky outcrops. Rosine described the photograph depicting a traditional funnel using a plantain leaf “as if it is a pipe, so that they can carry water that is coming out [...] They will use the leaf to direct the water into their own containers before you can get a bit of clean water.” Often involving the smallest scale and least expensive types of technological intervention, these examples show how water users interact with springs and streams in situ, shaping flows of people through landscapes to access water, rather than moving water through the landscape to serve people.

This research suggests that springs and streams are considered public spaces for community use. While certain springs in Buea (Woman Spring and Man Spring) historically restricted use based on gender (Ngekwi, 2013), the contemporary use of springs and streams in this part of Cameroon is seemingly not overtly restricted, as is found in other parts of the world. For example, in India, particular sources are restricted for use based on intersections of gender, class, caste, and women’s menstrual cycles (Joshi, 2005). Yet springs and streams are not neutral spaces, with particular social dynamics occurring at such water points. Given that women and children are responsible for water collection and are most affected by interruptions in piped water supplies, they are most likely to be accessing springs and streams. In addition, male labourers are often hired as caretakers or for transporting water as a source of income. Springs and streams are gendered, classed, and age-based spaces. While the relatively open access to

springs and streams in Southwest Cameroon offers critical water sources for communities, unrestricted use also produces challenges in relation to water quality.

**Water spaces as points of use.** Common spaces used by the general public for multiple purposes, springs and streams serve as both points for collecting and carrying water away, as well as direct *points of use*. Given that it is easier to carry work such as laundry or to bathe in the stream than it is to carry water home, springs and streams often bustle with a variety of water use activities. Multiple simultaneous use practices generate concerns about water quality. This concern was depicted in the video, “Women and Water: Challenges and Possible Solutions,” produced by Victory, students living in Buea’s student neighbourhood, Molyko:

The video opens with a pile of plastic containers resting on the concrete front stoop of one of Molyko’s typical *mini-cité* apartment buildings. In the background, one woman grinds pepper on a stone and a man adds a pot to a pile of dirty dishes. The main character, Lydia, a young woman wearing a wrapper comes outside and looks at the containers: “Weh, all my containers are empty. I don’t have water this morning. What will I do, ehn? I just pray that water is flowing-o.”

She slips her feet into her flip-flops, takes a bucket and walks a few meters to the tap in this compound. The camera rests on a single tapstand that drips slowly. Lydia puts her container down and goes to turn the water on, only to find it is dry: “No water. Dry season, as usual! What am I going to do? To carry [water from] that stream? Oh, King of Glory, just help me. Because I don’t know what to do-o! That water is not even good.”

The camera zooms down the small hill to a stream that weaves through the neighbourhood. Several people stand in the stream with buckets and piles of laundry, engaged in various types of activities. As Lydia walks down the hill, she calls out to the people in the stream: “Eh-eh! What are you people doing, like that, ehn? ... You are urinating, sir? Inside the water? Even you... throwing dirt [trash]?”

As Lydia arrives at the stream, the camera shows a man urinating in the stream. One woman looks down and brushes her teeth. Another woman empties her bag of trash. Lydia is incensed: “Water that we are using for drinking?!”

The man retorts: “What do you want me to do? [Leave] me alone...”

Lydia contests his attitude: “I should [leave] you? Water that I am going to drink? People are using it to cook. I should [leave] you alone?! You are urinating inside the water that I am going to use for *everything*. This is the only source of our drinking... The only source that we can have good water, for now, because water is not flowing.”

Lydia looks around, “And I am very thirsty, now. What am I going to do? To drink this water? I will drink it? What will I do?” She dips her bucket into the stream, not far from where the man was urinating, and takes a small packet from her pocket: “Anyway, let me just try and purify the water.” She sprinkles the white powder (likely chlorine) into the bucket, and swishes her hand in the bucket to mix it in. “Weh! Look at what I am going to drink-o. Look at what I am going to drink! Hey!” Lydia cups one hand, brings water to her mouth, and takes a sip.

As audiences cringe at this difficult compromise, the camera pans upstream to show dozens of people standing at different points along the stream doing laundry.

During participatory analysis, Faith summarized the storyline of this video:

If you look at the situation, the young lady ... wanted to bathe and there was no water. [She went] to the tap and the tap was not flowing. There was somebody who was grinding pepper, somebody who was cooking [...] You see? That same area where people were using it... that guy was peeing there [...] The other lady was washing her mouth. The others were doing laundry [...] Everybody was busy doing his or her own activity [...] And somebody was coming to get water, to drink or to bathe or to do other household activities. In that same water! [...] From what the camera focused on, you see it... there was a *rapun* [wrapper] inside, which means people go there and deposit their waste in that water [...] Even the surrounding pool, you see how the stream has been littered all over with our waste.

The connections between multiple water uses and water quality prompted further discussions about sanitation and source protection, which I take up more significantly later. For the time being, participants characterized springs and streams as busy spaces used for multiple purposes.

**Abandoned springs.** In Mudeka, the community with the most acute water challenges, the quality of springs and streams generated particular concern. Most springs in this village are in poor condition. Five of six groups in the workshop photographed German Spring, the oldest community spring that used to have the best quality drinking water (Figure 10). Participants described how the Germans came and built a concrete collection tank to harness the spring. This spring's popular legacy is that the water used to taste like bottled water. However, the long-abandoned spring is now stagnant and covered in algae. During the research workshop in this village, Ma Fanny brought a water sample from this spring to punctuate her photo presentation. Holding up a bottle of murky water, she explained how multiple uses of the spring deteriorated its quality: *Wi di yus am. Got di yus am. Papa di yus am. Wi di shit too fo de. See am? Wuna see am? Kolera de, Papa God* [We use it. Goats use it. Fathers use it. We shit there too. You see? Do you see it? Cholera is there, dear God]. Others also noted decreasing water levels due to changing weather, as well as deforestation and farming activities around the spring. Additionally, the community faced difficulties repairing the water collection tank and began using the area for waste disposal, as a garbage dump.



**Figure 10.** "Old drinking water" (Women with Action, Mudeka)

Critically, spring use and maintenance practices vary in relation to the availability of other sources. Justine explained:

At first we were using the springs, and they were good water. But during dry season, as some of the springs go dry, people came up with the initiative to dig wells behind their compounds. And as so many people were digging their wells, subsequently, we are abandoning the springs. Yes. They were organizing formerly communal labour, maybe monthly, to go and clean the various springs. But when so many people had wells, that [spring] was no longer operating. People were not carrying water from the spring, so people did not see any reason to go and clean the area.

This suggests that the increase in private wells led to a declining commitment to maintain communal springs. Participants describe a compounding downward spiral with intersecting factors, where one decision leads to another. Eventually, springs risk being abandoned due to a lack of maintenance. The areas around the springs are repurposed for other uses related to farming and community waste disposal. The situation in Mudeka illustrates how water source use intersects with the weather, a community's motivation and capacity to repair infrastructure, land use decisions, the availability of viable alternatives, and factors influencing the maintenance of public spaces.

**Health impacts.** Ultimately, contaminated water causes severe health consequences, most notably due to water-borne diseases such as typhoid, cholera, and dysentery. Numerous images portray people doubling over with stomach pain, vomiting, and diarrhea, and rolling up their sleeves to show itchy skin and rashes. Several videos portray people collapsing to the

ground and dying. Reflecting on these dramatic portrayals, Hannah grounded the health impacts in one of Buea's neighbourhoods, Mile 16: "What struck me, especially where the boy was urinating in the same water where they were drinking... That is real, in Mile 16. That is a real life story in Mile 16." Fresh in the minds of participants was the 2010 cholera outbreak in Buea's downstream neighbourhoods, where runoff from this mountainside city accumulates. Despite government anti-cholera campaigns, sanitation remains grossly underfunded. As participants highlight, streams continue to be used as toilets. Hope worried that communities were still a "big target for cholera attack," a risk only accentuated during the rainy season. What is more, institutions tasked with medical treatment and health promotion often lack running water. Hannah noted the irony of being infected with water-borne diseases from health clinics:

Water is life. It is so painful that even in the hospital, we don't have water. You go to the hospital [because] you are sick with a headache. You come out with diarrhea because there is no water. Even in a hospital!

The health impacts of poor water quality are represented by a group of young men from Mudeka, the Youths of Hope (Figure 11):

In this group's video, young men work as labourers clearing brush on a farm. Hot and tired in the mid-day sun, one of the men, Roland, is thirsty: "*A don tiya veri badli. A wan go luk fo wata*" [I'm very tired. I'm going to look for water]. The others all pipe up that they are thirsty too, so as he walks away, Roland calls back: "*If A si wata, A go kol yu*" [If I find water, I'll let you know].

When Roland finds a pond, he calls to his friends "*Hey, na wata dis. Na wata dis-o! Wata de, wata de. Wuna kam*" [Hey, I found water. I found water! There is water, there is water. Come on!]. As his friends arrive, Roland takes a sip of the water. But before his friends can take a drink, Roland doubles over and moans in pain, "*Ai! Ai! Ai! Ma bele! Ma bele! Ma bele!*" [Ah! Ah! Ah! My belly! My belly! My belly!]

The friends stop each other from also drinking the water, and rush over to Roland. He has collapsed to the ground, and rolls back and forth clutching his stomach, crying, "*Ma bele! Ma bele! Ma bele!*" [My belly! My belly! My belly!] and, "*Dat wata! Dat wata! Dat wata!*" [That water! That water! That water!] As his friends console and pick him up to carry him to the clinic, Roland becomes still in their arms and dies. In his grief, one of the men calls out: "*Wata problem, go do hau-o! Wata problem na dis kuntri. Hehn!*" [Water problems, what are we supposed to do? Water problems in this country. Hey!] The video ends in silence, as the camera pans to a sheet of paper with the video title written by hand: IN NEED OF POTABLE WATER.

This video affected audiences deeply. Veronique from Buea reflected on the immediacy and seriousness of the situation in Mudeka: "It is not something to laugh about. Yes. That video really touched me." The video generated alarm about the severe shortage of potable water in Mudeka, to the extent that many participants from other towns expressed shock or disbelief. At

the forum, the Chief of Bwitingi, where potable water flows freely from the mountain, leaned over and asked the Chief of Mudeka incredulously, “Do you people drink that water!?” This interaction highlights the highly variable water situations in different communities within the same region, based—in part—on the inequitable distribution of water in the environment.



**Figure 11.** Screen shots from "In Need of Potable Water" (Youths of Hope, Mudeka)



Through these health impacts, it is evident how the materiality of water quality intersects with both the technologies of water access and social structures. As reiterated firmly by participants, women and youth negotiate the responsibility for household access to safe drinking water. Yet, from an intersectional perspective, the Youths of Hope articulate the importance of how gender intersects with livelihoods, class, and rurality. Brush clearing is predominantly male-dominated agricultural work. Portraying labourers likely working on an elder's or other landowner's farm, the Youths of Hope video offers critical insight about the livelihood experiences and concerns of young men from rural areas, a perspective missing from much of the work from urban areas.

However, further complicating this perspective, Veronique contested the Youths of Hope video. She interrogated how the story might have evolved differently, had there been women in that research group:

So that video they acted where they were clearing the forest and then all of a sudden, he had to go and get water to drink... That is a challenge for the man because of what? If a woman was in that [research] group, they would have asked that woman to go and look for water while they are working. So, since the woman was not there, he was forced to go and look for water. So they involved themselves, yes. [And] he had to face the consequence of a stomach ache [...] If the woman was there, they would have sent [her]: 'You! Go and bring us water!' Yes. And [...] if the woman would have gone and brought that water, they would have said she went and fetched bad water.

Veronique's speculative skepticism offers a gender analysis of this situation, and provocatively questions intersections of gender and class in relation to water quality. Whereas the video does not "blame" the young man for his decision to drink poor quality water, Veronique posits that in the delegation of water collection responsibilities—as she suggests, to a woman—blame emerges, and the water carrier inherits the responsibility for the water collected being potable. This has enormous gender implications, and exacerbates the gendered "stress" for water described earlier.

What is more, participants' concerns about poor water quality often focus on the health and well-being of young people. Children and in particular infants have not yet developed diverse gut flora that protect the digestive tract from invasion of harmful bacteria, and are thus more vulnerable to water-borne disease. As Emeldine noted: "We, the adults...we say we are already immune to it. As they say in the villages, ...we take it every day. But what about our children? Our children are still growing..." Indeed, Cameroon ranks among the 20 countries in the world with highest mortality rates for children under age five (UNICEF, 2016).

These health impacts of poor water quality also intensify women's childcare responsibilities. Women are primary household caregivers when health issues arise. As Victor noted: "When we have cases of cholera because of bad water, who takes care of the family? We come back to the women again." Not only responsible for collecting household water, women must also manage the impacts of poor quality water when household members are sick and need care. Poor water quality certainly has material impacts on physical health, but also adds to women's caregiving responsibilities.

**Assessing water quality: Uncertainty, risk, and compromise.** Incorporated within women's responsibilities is knowing when and how to treat household water. Within these discussions about the health challenges related to water quality, participants recognized the importance of water treatment methods, such as filtering, straining, and the use of chemicals such as chlorine. Yet, overwhelmingly, women focused more strongly on the general lack of awareness about water quality in their communities. This contradiction alludes to tensions between knowledge and everyday practice. Participants identified uncertainties, unknowns, and deficits in this critical knowledge base. Layers of questions emerged as central within everyday decision-making about water quality. At "doubtful" sources, participants often depict scenarios of debate. Actors disagree about whether or not that particular water is potable. People are uncertain about the quality of a source they are using, about where the water they are given comes from, or how long water has been stored. Furthermore, participants were concerned about a general confusion about water-related illnesses. Rosine works as a nurse in a health clinic in Kumba, and recounted her experiences:

Every little child they bring to the hospital, you will see all the bodies are full of rashes. And then people have interpreted it to be HIV. No, not that it is HIV that is producing those rashes [...] It's the water that they use.

In addition to attributing the blame for water-related illness to sexually transmitted infections and reinforcing stigma, such misconceptions conceal the harmful impacts of poor water quality, ultimately prolonging these impacts.

The stress for water signifies a difficult or limited choice, involving some form of compromise. Participant videos depict situations where water is required quickly, such as someone struggling to eat spicy food or unannounced houseguests who are thirsty. In these situations, young women quickly toss aside empty bottles, looking for whatever water is available. When rushed to find water, many opt for a doubtful stream or borrow hastily from a

neighbour's well because it is closer, more convenient, or simply available. In the video portraying a stream busy with people brushing their teeth, urinating, and throwing away their trash, Lydia had few other viable options. She collected her water from the stream and quickly treated it with a packet of chlorine and then cupped a handful of water to drink. Considering Lydia's actions, Faith conceded, "She knew the water was dirty and there was no other alternative. She knew she had to purify the water before consuming the water." Lydia knew the water needed to be treated, and yet consuming it still resonated as a compromise. However, sometimes it is not always so clear. Sometimes using doubtful water is worth the risk, and there are no immediate health consequences. Certainly, tolerances to local bacteria develop over time. Yet, the quality of water sources changes daily, depending on the season and upstream activities. Sometimes the impact of doubtful water is temporary – a mildly unpleasant taste or diarrhoea for a day or two.<sup>70</sup> Sometimes, the risk can be fatal.

These health risks are challenging to negotiate and address. First, participants identified a common mindset about strong stomachs and pure water from the mountain. Yet participants were unsure about whether or not future generations would be able to develop immunities to increasingly poor water quality. While the human stomach can develop resilience to certain bacteria, immunity towards toxic substances cannot develop. Pollutants such as pesticides and heavy metals accumulate and are stored in the body. Secondly, to promote health messages that address water quality, several videos end with participants gathering to recite the slogan, "clean water has no taste, no color, and no smell." Ironically, participants wanted to draw attention to a lack of awareness about water quality, yet relied on a slogan that only partially addresses water quality concerns because it overlooks how contamination often cannot be detected by the human senses. Thirdly, participants were uncertain why or how they should treat water. During discussions at the 2-day analysis workshop, schoolteacher Estelle posed the very first question and asked the group for advice about how to use the chemical treatment products available in the markets. As the discussion about how to treat drinking water ensued, many people admitted that

---

<sup>70</sup> During my time in Cameroon, I generally avoided risk-taking in relation to water quality. Having been fairly ill for extended periods of time during past travels, I made fairly rigid decisions about water quality that involved extra work and spending more money. However, sometimes I did take calculated risks. One evening, I arrived home late from an interview and needed to make dinner. Water was not flowing and my stored cooking water was low. But I was exhausted and could not muster the energy to go back out to the road to buy bottled water or find prepared food. I had work to do and just wanted to get on with my evening. I decided to take a chance and I cooked my rice using water that I suspected had been stored for too long. The next day, I was stuck at home with diarrhoea, or as the Pidgin expression aptly translates, runny belly.

treating water is not part of their everyday practice, despite health concerns and some knowledge of treatment methods.

Certainly, in their overall interpretation of this work, participants did not blame women for making poor water decisions. The key message is that women make daily decisions for their households, having high uncertainty about the acceptability of water quality. Women are responsible for the risk and compromise in daily decision-making: What options do I have, today? Is this water safe? Is it really safe? What if it is not safe? Women also negotiate caregiving responsibilities in relation to water-related illnesses. In the context of water access challenges, inadequate access to reliable information about water quality exacerbates the burdens that women face. As described in this section, the gendered responsibilities to negotiate multiple sources and technologies of access have tremendous implications for households and communities. With urbanization and rapid unchecked development, traditional knowledges and water practices are changing. Multiple sources provide important options, and the navigation between and among them must be understood as relational, context-driven, and deeply rooted in intersecting and gendered social structures.

#### **IV: Protecting Water – Development and Sustainability**

Concerns about health and water quality prompted reflection about the state of the water sources with respect to land use, sanitation, and development practices, more generally. Along stream banks, around point sources such as wells, and in catchment areas, participants observed and documented how human activities threaten water quality. Through fieldwork analysis activities, participants developed new awareness about water and the environment in their communities. This section describes how participants often found the work discouraging and were offended by the practices and spaces they encountered through a new, visual lens. In this fourth section, participant concerns expand from immediate concerns to those for the future. These discussions highlight the tension between the simultaneous desire for development and concern about sustainability and environmental protection.

##### **Ownership**

The politics of ownership influence how water sources are used and maintained, with significant implications for water quality of the source. Who establishes, constructs, maintains, pays for, and controls particular technologies of access determines whether particular sources are considered private or public. In general, public or commonly accessed sources are less likely to

be properly maintained. In some instances, caretakers (typically men) are hired by community members to maintain public springs. However, in many cases, ownership for spring maintenance is more ambiguous. Justine explained how public and private wells are maintained differently:

In Mudeka, the public wells are not treated. But private wells are being treated. People who own the well treat the well. Every year, they wash the well. Somebody enters [into the well and] drains the water. And then they go to the health center [to] get that chlorine tablet. Yes. [They] put in the well, cover [it] for some two-three days then we start carrying [water from] it again.

Often, water access technologies and other water infrastructure are built and developed for the community by complicated arrangements that can integrate community members, outside agencies, and government representatives. This combination of community, state, and project-oriented contributions often leaves questions about maintenance unclear.

### **Dirty Water Spaces**

Participants characterized the immediate surroundings of well-used public taps, wells, springs, and streams as “dirty.” In Pidgin, *dort* or *dorti* [dirt, dirty] is a broad term for waste that includes garbage produced by humans (plastics, food waste, old clothing, etc.) as well as natural elements such as soil, dust, dried leaves, and mud (quite literally, dirt in the environment). Many photos depicted a wide range of materials and material conditions such as debris and plastic wrappers, muddy puddles of water, and algae growing on concrete infrastructure, all of which participants characterized as unclean and unhygienic. Reflecting particularly on garbage dumping practices, Isabelle expressed her shame:

It means we have embraced dirt. You can see it, down here. *Rapun!* [Plastic wrappers!]. Everything! Dumped here...which is not proper...where we drink water. So this one is really a pain in our heart. It's really a pain in our heart.

The photo of an open concrete-lined drainage ditch in the city of Buea elicited much discussion about sanitation and health (Figure 12).



**Figure 12.** "Poor drainage along the major road" (Investigation Group, Buea)

One group highlighted the debris in the ditch blocking the flow of water, as described by Eric:

Even along the major road where this picture was taken, disposal of dirt goes to block the good drainage system that has been built. [It] creates room for stagnant water, which... serves as a breeding ground for mosquitoes.

With seasonal weather patterns, flowing water transports garbage and debris downhill. Hope reinforced this point: "You should be here when it's raining, during the rainy season. You will see the kind of thing that this causes. All of this could end up in front of your own house." Indeed, when it rains in the hilly city of Buea, roads, walking paths, and ditches channel water downhill. These routes become vectors for debris, which inevitably collect downstream at corners or where the slope (and hence flow velocity) reduces. The garbage and debris in these locations is eventually compacted into a spongy surface by foot and road traffic, or dredged from ditches through community labour initiatives. These deposits and flows of material debris construct and interrupt the waterscape, leading to concerns about protecting water quality.

### **Pollution Points: The Body and Bodily Processes**

**A lack of toilets.** Toilets and bodily practices are intimately connected with water quality and gender-water relations in multiple ways. For one, in the absence of reliable toilets to meet the population's needs, waterways become toilets. Many photos and videos portray people, both men and women, urinating or defecating openly in water sources. As Hannah asserted: "Those issues happen where people don't have latrines; they go and pollute the water." In one video from Bwitingi, an elderly woman lifts her skirt and squats in a gurgling forest stream. A photo

from Mudeka depicts a young man squatting over the edge of a canoe into the mangrove river, prompting disbelief from Ma Fanny: “*Una si am? Yi di shit fo wata!*” [Do you see him? He is shitting in the water!]. Indeed, flowing streams offer a natural “flush,” or mechanism for human waste to be carried away. Given the general dependence on springs and streams for community water needs, participants were concerned about how these bodily practices impact water quality.

Additionally, women draw attention to how a lack of toilets reinscribes unequal gender norms. While a lack of toilets certainly affects everyone, many turned the gaze on men’s behaviours to interrogate why urinating in public is commonly accepted for men. The drainage ditch photo from the previous section (Figure 12) also elicited Hope’s concern:

The men would be passing [by] and peeing there! That is the attitude [...] Are men saying that women don’t feel like peeing when we go out? We also feel like peeing, but we don’t just go around peeing anywhere! So this is the kind of culture in our communities...

A lack of toilets affects women more because of social norms about respectable or appropriate behaviour for women restraining them from urinating in public. Characterizing the ways that cultural norms are gendered, these participants problematize dominant masculinities. Reacting to men urinating in public given that their choice of location affects the quality of water sources, women were frustrated by men’s attitudes. The video, “Women and Water: Challenges and Possible Solutions,” described earlier, where Lydia arrives at a busy stream to find a young man urinating also elicited sharp responses. Faith exclaimed: “He is a university guy! [...] When he was peeing, he did not even care ... there are girls there who can even see him.” This comment complicates views of masculinities, as central to Faith’s analysis are class and status expectations about modesty. Hope further positioned public urination in relation to European ideals: “I remember I went to Germany [...] Even if] you are dying, you cannot [pee] by the roadside. If you are caught, immediately, you will pay a large [fine]. I think some places they even lock you up.” The lack of toilets impacts women and men differently, gendering the need for toilets, and highlighting how the general lack of reliable toilet infrastructure systematically discriminates against women.

**Graves.** Although no traditional graves were photographed, the well in Mudeka that was covered up after a death due to falling into the well sparked much discussion about graves. In particular, participants expressed concerns about the location of graves in relation to water sources. Regarding burial practices in Cameroon, cemeteries are scarce and there are no

provisions in Cameroon Criminal Law requiring burial sites to be in a designated cemetery (Anyangwe, 2011). Instead, families commonly bury their dead within the family compound. Graves must be six feet deep and not located within 100 yards of a dwelling. Participants express how households might negotiate limited space. Justine explained that in her village:

Some wells are dug not very far, not far from toilets and graves. Yes. Because there are graves behind people's houses [...] When you are digging a well in your compound, maybe the area of the compound is small. And maybe your father or mother have been buried there; their grave is in the same compound. And toilets [too]. But [you] just use the space that you have. Not, like, as if [you] *want* to go and dig the graves there. [You] are using the space that you have.

Participants were concerned about the fundamental idea that graves might contaminate drinking water. With cremation banned by law (Anyangwe, 2011), this concern also raised questions about the increasing use of embalming fluids such as formaldehyde leaching into the groundwater. With an increasing number of mortuaries (which removes family care of the body), embalming practices enabling the preservation and transportation of corpses are relatively new and contribute to changing burial practices. This has resulted in remains being increasingly transported 'home' to family villages to bury corpses on family land (Page, 2007). While the location of graves signals belonging, burial is fraught with political contention about claims to land and ethnicity (Geschiere, 2005). Thus rural areas face disproportionate responsibilities for managing graves and the impacts associated with decomposition of bodies and release of embalming fluids into the ground or groundwater. This is particularly troubling given that local springs, streams and groundwater are important water access points. Participants were unsettled by the possibility of contamination of groundwater by buried bodies.

Graves and toilets both constitute technologies designed to manage and contain the body and bodily fluids. Given the risk of point source pollution, the *location* of toilets and graves matters for water protection. A broad consideration of water protection must also consider the spatial aspects of individual, household, and local practices and interactions.

### **Water, Land, Forests, and Competing Development Priorities**

Elaborating on their concerns about water quality, participants looked beyond the immediate challenges related to water points and sanitation practices, to connect development activities with land and land use decisions. The interrelated development processes of deforestation, farming, and construction threaten water sources.



**Deforestation and extraction.** An elders' group in Bwitingi, Peaceful Women, focused their photographs and videos on deforestation and the protection of catchment areas (see Figure 13 and 14). One group member, Isabelle, explained:

*Na di area fo di tank dis we yi bi soronded bai pam, we yi bin planted bai individual [... In] awa kolcha, dey fil as wel kot don dis pams fo mek pam wain. Weti go bi di neks? Di ples go bi espos wit son. Son-lait we yi go mek di wata go [don].*

This is the area for the tank that is surrounded by palms that were planted by someone. [...] In our culture, people like to cut palm trees to make palm wine. What will be the next? The place will be exposed to sun. Sunlight that will make the water levels go down.



**Figure 13.** "Palm tree environment to shade the water" (Peaceful Women, Bwitingi)



**Figure 14.** "Water storage in tanks at Bwitingi" (Peaceful Women, Bwitingi)

Extending this discussion about the effects of deforestation, Peaceful Women's video begins at a roadside creek in Bwitingi (Figure 15). As the group of elder women step on stones to cross the creek into the forest walking towards the catchment area, they pass a large yellow tanker truck from the nearby city of Buea extracting water from the creek using a loud generator powering a pump. At the catchment area, the women survey the area and pick up pieces of garbage they find. Isabelle exclaims that many trees have been cut down, and that the water levels have gone down:



**Figure 15.** Screen shots from Peaceful Women's video (Bwitingi)

*Ol dis tris, dem bin don kot am, kot am, kot am, kot am... no bi na dis tris dem di helep fo mek dis wata di climb? [...] Shotej of wata! Wi di iven hia hau moto, wi di si moto den di kam kari. Ol man, na hia yi di kam drink [...] Yu no se smol taim wi no go iven get wata fo drink? Iven fo wash, wan fo kuk... yu wan fo wash, wash klos... wi go do hau? [...] Yi no izi. Yi no izi at ol! Wi di si hau big big tank dem di kam kari wata! Ol ova Buea, na dis wata. Wata don stat shot. Si taim we wata bin di flo plenti. Wata bin flo plenti. Si? But now wata don go don, all. Wata don go don, ol. Yi no izi fo wi, at ol. Wi really krai fo di populashun.*

All these trees, they have just cut, cut, cut them down... don't these trees help to bring up the water? [...] Water shortages! We can even hear how vehicles, we can see vehicles coming to collect water. Everybody, this is where they come to get their drinking water [...] You know, it won't be long before we don't even have drinking water? Even to wash, or if we want to cook... [maybe] you want to wash your clothes... what will we do? [...] It is not easy. It is not easy at all! We can see how the big big tankers come and carry water! All over Buea, it is this water. Water is starting to become scarce. There was a time when there was so much more water flowing. Water flowed in abundance. See? But now, the levels have all gone down. Water has gone down everywhere. It is not easy for us, at all. We are really worried for the community.

This video depicts the multiple competing uses and values of water, and connects deforestation with the extraction of water for development. These concerns about sustainability and the future of water in the SW Region sparked further discussion about how land use decisions and development activities threaten forest cover and impact source protection.

Additionally, there was confusion about the extraction of water from the Mungo River, near Mudeka. Pa Eddy, an elder from Mudeka's traditional council alleged that the government sends piped water east towards Cameroon's economic capital, "The government has taken water from Mungo River to Douala! And we don't have water! Mungo water, which is our own water! It is now in Douala." A journalist from Douala countered his claim and declared that a Chinese company pipes water in the *other* direction, west towards the city of Tiko:

Papa do a mistake because, there is a Chinese company who took the water inside Mungo River. Go treat it. *Il y a une compagnie la. Juste après. Voila [...] Cette eau la, voila, sert a deservie toute autour du Mungo jusqu'à Tiko. Bon. Maintenant, après Tiko, on a des problèmes pour arriver ici à Buea à cause de la montée.* [There is a company, there. Just after. You see [...] This water, you see, serves the areas all around Mungo, all the way to Tiko. Good. Now, after Tiko, we have problems to get here to Buea because of the incline].

However, the Chief of Mudeka had not seen any pipes extracting water from the river at all:

*Tu connais où est situé Mudeka?* [Do you know where Mudeka is?] Is she doesn't know where Mudeka is [...] *Parce que vous avez dit que les tuyaux sont déjà en train de passer du Mungo jusqu'à Tiko. C'est passer où? C'est où?!* [Because you said the pipes already passed from Mungo to Tiko. Where do they pass? Where?!] I don't see it. *C'est ça.*

*Mudeka est entre le pont de Mungo et Tiko.* [That's it. Mudeka is between the Mungo bridge and Tiko]. So no pipe there! Now you are saying that we are waiting [for] the machine to push the water in Buea. Which machine? No pipe in... around Mungo beach and Tiko [...] Nothing is done! That's why, I will speak in English, [so] that you understand? Hm? My problem. So no pipe. Thank you.

This exchange, in both French and English (one of the few times participants spoke French in the study), is symbolic of Mudeka's position adjacent to the border between Anglophone and Francophone Regions, as well as exposing the difficulty in accessing accurate information about development activities.

**Agricultural livelihoods and land use.** Agriculture plays a significant role in Cameroon, although as noted earlier, it is difficult to obtain updated information about this significance and the statistics link on the Ministry of Agriculture and Rural Development (MINADER) website was inactive at the time of writing. From other sources, it is possible to estimate that agriculture represents on average 20% of land use (CountrySTAT, 2017), 23% of the GDP<sup>71</sup> (FAO, 2015), and 53% of employment<sup>72</sup> (FAO, 2015). Given regional variations in climate and the rich volcanic soil around Mount Cameroon, these statistics are likely higher in the SW Region. Additionally, women represent over 56% of the agricultural workforce and contribute 60% of national food production (FAO, 2017). While it is difficult to estimate rates of subsistence farming, in the SW it is common to observe crops growing in forests under the tree canopy, on large cleared farms, on small urban plots, in backyard gardens, and along the sides of roads. Many women discussed having small gardens or plots to grow produce to feed their families or sell for income.

Given that the dry season lasts for half of the year, irrigation water is an important consideration. Participants' concerns about farming and water reflect longstanding development tensions between agricultural livelihoods and environmental conservation. Many farmers prefer plots in wet areas close to springs as well as around streams. From a livelihoods perspective, the relatively wet land adjacent to water sources offers efficient access to water, which is convenient for farming, because it reduces the need for irrigation. Therefore, farmers often fell trees in these areas to use the land for agriculture. As Alice explained, "that is why we see farmers come around, [above the spring], doing their farming, felling their trees, because the water is around

---

<sup>71</sup> For value-added agriculture, suggesting much larger percentage for agricultural production more generally.

<sup>72</sup> Down from 77% in 1986 (WB, 1986)

there. The soil is very cold, good for cultivation.” Water is more readily available for irrigation thus reducing the distance, time, and labour needed to carry water.

Gendered and spatial agricultural practices complicate the competing priorities related to livelihoods, land, and water. Many photos and videos portray women watering their gardens. Women often keep small-scale backyard gardens and grow subsistence crops beside streams and in swampy areas during the dry season, growing vegetables like tomatoes and okra to increase household food security. While both women and men farm, research in Buea showed that women tend to have smaller plots closer to home (Ngome & Foeken, 2012). This enables women to negotiate their multiple roles, making farming work feasible to manage during the day. Planting close to water sources eases the labour required for irrigation. As identified earlier, women already spend much of their day finding and carrying water. Many images show containers like pots and watering cans that women use to irrigate their crops by hand, as Veronique described “in the local way.” Women lack access to capital and labour-saving irrigation technologies, in comparison to men. Victor asked: “Who is teaching these women how to use the [irrigation] machine? Where is the capital coming from for them to get the machines?” Given gendered access to irrigation technology, women strategically select farm plots closer to the water source to maximize productivity with the available land.

From a conservation perspective, deforestation and farming around water sources threatens the quantity of available water. Hannah exclaimed: “People are cultivating on the riverbed! They are working their farms on the riverbed! That is reducing the source of water in that community.” Removing trees and shrubs to clear land for farms and gardens destabilizes stream banks. Vegetation plays an important role in catchment areas (at springs), providing shade to maintain lower temperatures, reduce evaporation, and conserve higher soil moisture levels. Tree root systems help keep the soil in place and prevent soil erosion. As many photos and videos from rural areas show, erosion lowers water depths because of increased accumulation of sediments in streams. Streams become a slow, shallow trickle due to a reduction in flow rate and need to be dredged due to the sedimentation. Hannah further explained: “Once dirt is filled in the riverbed, we are losing a lot of water out of the riverbed.” These concerns about the availability of water are exacerbated by consideration of the impact of farming practices on water quality. Comfort was concerned about chemical fertilizer contaminating runoff flows into the streams: “We are spraying our crops. And because of that spraying, the

chemicals are intoxicating the water that we are using for drinking.” She was concerned about the toxic effects of chemicals on community water supplies. Others raised concern about how livestock rearing (such as cattle, goats, pigs, and fowl) threatens water supplies due to livestock drinking directly from the stream, trampling the riverbanks, and defecating into the stream, as well as how runoff transports animal manure into water sources.

Juxtaposing these situations, Victor articulated the tension between immediate gain and long-term sustainability: “For the short term, when we cut down the trees, we might have harvest. And then in the future, we face drought and then we have to shift again to another water source.” The photo of a maize farm (Figure 16) drew attention to changing weather patterns, and long term concerns about climate change.



**Figure 16.** "Dried up farms in the locality of Bwitingi due to changes in season"  
(Adventurous Youths, Bwitingi)

Within these agricultural concerns, the prevalence of large-scale agri-business in Cameroon’s SW Region was only addressed in a limited way. Reflecting on the photo of the maize farm, one young man worried about how plantations capitalize on free water flowing from Mount Cameroon. Victor focused in particular on the Cameroon Development Corporation (CDC), a public agro-industrial company that operates in Cameroon’s SW Region.

We have crops like plantain, banana and then we also have rubber, [...] tea, [...] and palms as well. [The] CDC, they cultivate vast land. They destroy trees in great quantity. [S]econdly, they plant crops that consume a lot of water. And where are they planting the crops? At the source of the water. Because, the water leaves the mountain and runs down slopes underground, even though we cannot see it. [...] When they plant [crops] like this, they [consume] a lot of water from the source [...] At the slopes again, they plant again a greater quantity of these crops, which also consumes water at both sides.

The agricultural practices of agri-business corporations such as the CDC impact water resources due to their size and their crops. This area of concern was rarely addressed by participants in this study, which is surprising considering the prevalence of agricultural production in Cameroon. The connections between agriculture, land use, forest conservation, and water conservation are critical. Bananas, for example, are one of the CDC's major crops (CDC, 2014) and banana cultivation ranks as the *highest* water-consuming crop in Cameroon (Hoekstra & Hung, 2002).<sup>73</sup> While the banana plantations around Buea rely on abundant runoff from Mount Cameroon, other areas of the SW Region, such as Banana Plain (Ako Ako et al., 2014), draw on groundwater supplies. A large Del Monte plantation, spanning several kilometers, is on the plains approaching Mudeka, whose regularly spaced black irrigation hoses are plainly visible from the highway. Presumably, they are drawing water from the nearby Mungo River or from the groundwater. This raises questions about how this water-intensive agriculture shapes water access in the adjacent research community, which is suffering the most acute water shortages. Given national development priorities established in *Cameroon Vision 2035* to expand as a competitive agricultural export economy (Republic of Cameroon, 2009), large-scale plantation agriculture will likely increase. The relationship between plantation agriculture and water quality also warrants more critical attention to evaluate the impacts of the amount of water used, the types of agricultural inputs used, and the increased erosion. Furthermore, these agricultural activities need to be evaluated in relation to the impacts of sand mining on turbidity levels in the Mungo River, and on the diversion of tax income to the urban core rather than to the communities living on the river (Manga, Agyingi, & Djieto-Lordon, 2013), as well as the consequences of Douala shipping and industrial manufacturing activities on estuary zones and mangrove forests (Ndenecho, 2007), such as the area around Mudeka.

---

<sup>73</sup> Based on FAO calculations presented in Hoekstra and Hung (2002) for the following crops in Cameroon: Banana, barley, bean, cabbage, cotton, grape, groundnut, maize, mango, millet, palm, pepper, potato, sorghum, soybean, sugarbeet, sugarcane, sunflower, tobacco, tomato, vegetable, watermelon, and wheat.

**Construction and land rights.** Adding to water protection concerns is unchecked construction in catchment areas. Participants expressed concern about covert land sales and building practices. During the research activities in Bwitingi village, one group of women spotted a house not visible from the road while visiting their community catchment. Alice exclaimed: “You cannot see the house from the road! You cannot see it! But it has been sold by somebody; the catchment has been sold by somebody.” She had never seen this house before and questioned how permission was granted for its construction. In a context of legal pluralism, this conversation drew on ambiguities between traditional and government law. Alice explained:

The community [...] they log the catchment, they do not even know the limits. They don't even know the boundary. They don't even know the implications [...] by the end of the day, they know that land belongs to [them]. [But] since the text that governs all the land in Cameroon, all the land belongs to the government. But YOU in the Indigenous area, you are a caretaker of where you have been working [...] You see, there is a contradiction.

An implementing decree associated with the 1998 Water Law<sup>74</sup> established the terminology for a ‘protection perimeter’ around water sources. This decree established three different levels of protection zones, the terms and limits of government authority, and the banning of particular activities in the vicinity of water sources (such as boreholes, open quarries, waste disposal including household and radioactive waste, and the storage of hydrocarbons). However, as Folifac et al. (2009) noted, this law does not specify any distances. In the absence of precise dimensions, participants were concerned about *what* perimeters should be respected, and about the actions of traditional leaders and developers in the protection of water sources. This concern led to discussions about selling land. Some participants made allegations that traditional leaders sell the land in their communities. The Moderator drew an example from the nearby coastal city of Limbe, where waterfront property is in high demand:

This mad rush for the selling of land has created a lot of problems in some communities. For example, in Limbe, if you go to Limbe and buy land from the seaside, there is supposed to be a particular area that is owned by the government. But many people have lost millions because they went and bought from Chiefs and the Chiefs say ‘it's my land, come. It's my land.’ But when you buy [it], you see the government comes in and says ‘this is not your land.’

This statement illustrates the conflict between traditional and government laws in terms of land rights and ownership. However, the intentions of those buying and developing the land are also

---

<sup>74</sup> Decree No. 2001/163/PM (May 8, 2001)



viewed skeptically. Isabelle criticized their sense of entitlement, “You build your nice house... your water system. You are doing everything there. Born wicked!” The coastal land around Limbe is expensive real estate due to tourism, and is therefore occupied by restaurants, hotels, and resorts. Additionally, the presence of offshore oil around Limbe has led to the construction of an oil refinery in the vicinity of Limbe, and attracted oil exploration companies to the area. Thus much of the land around Limbe is seen to be owned by the urban elite as well as foreign corporations, whose profit-making intentions are deemed opportunistic.

Although participants did not raise the issue of gender and land rights, a gender perspective further complicates questions about land ownership and use. Fonjong, Sama-Lang, and Fombe (2012) explained that a variety of formal legal instruments, such as the 1996 Constitution, inherently give women the right to own and inherit land in Cameroon. However, these statutory laws are written using gender-neutral language and according to customary practices, land ownership has traditionally only been seen as the right of men. In this context of legal pluralism, these conflicts create uncertainties about land tenure, particularly for vulnerable groups. However, it was tensions about development and sustainability that became a point of contention as participants discussed how to protect water sources. As Alice concluded, “it is very, very alarming [...] I don’t believe that in the future, we are really safe.”

## **Conclusion**

Participants’ selections of key photographs, videos and topics of concern explain the daily struggles of water access and use, and the ways these struggles are gendered. Issues such as the embodied nature of water collection journeys, gender-based and sexual violence, the need to store water, and reliance on “doubtful” springs and streams are common to different community contexts, and water delivery models (both utility and community-managed systems). Working with only two urban and two rural communities allows for common challenges to be identified although it might limit broader generalization. A key finding is, that despite the presence of infrastructure for piped water networks, water services are often unreliable. While the *reasons* for unreliable water might be distinct in each context, the implications for end users are similar. In the negotiation of water *wahala*, residents regularly make decisions about how to source, contain, lift, carry, store, treat, share and protect water. As participants emphasize, these responsibilities are gendered and intersect with broader social structures, thus having more of an impact on women and youth.

These findings reflect women's specific concerns about women's labour, experiences, and well-being. In addition, they reflect women's more collective concerns about their families, communities and the environment more generally. Women's gendered concerns did not always specifically address concerns about themselves. The men participants diversified the discussion, helping to expand understanding. Together the participants expressed concerns about water access from diverse water sources, access technologies, and delivery models, including utility and community-managed systems, wells, springs and streams. This work also identifies how land use and sanitation issues intersect with individual and community water use practices, as well as competing political and development priorities.

Considering each issue separately risks not representing the complexity of the waterscape as depicted by participants. While I initially teased the issues apart to consider them individually, the issues are interconnected. These interconnections mean that any given issue is dependent on the others, constructing an interlinking chain of concerns related to water in its everyday use. This chapter has illuminated the multi-faceted complexities of water at the scale of everyday use. However, in teasing out the intersections of everyday water use, this chapter leaves a waterscape of problems. *Wahala* has negative connotations related to suffering, affliction and hardship, reflecting participant descriptions of their daily struggles negotiating water access. While exploring these connections offers critical insight, Ahlers et al. (2014) suggested that mapping out the complexities of water access is insufficient because it risks obscuring structural patterns that can be more difficult to identify from within the daily struggles. These authors identify the need to examine how everyday struggles intersect with the workings of authority, institutions, and government structures. Drawing on participant analysis about how to address water *wahala*, the next chapter connects everyday practice with broader questions about water governance. During the analysis, Hope exclaimed: "*Wata wahala di bring wahala!* [Water problems bring problems!]" Building on the struggles related to water, this assertion also spins a positive interpretation to the idea of trouble. *Wahala* can also shake up and unsettle routine, and provoke change. Depicting and articulating problems, as Hope noted, compels audiences to interrogate how to promote change.

## THE POLITICS OF INTERROGATING CHANGE

All of us here have suffered the pains of *wata wahala*. Today, we are here only to show our decision-makers ... the personalities we know will see, listen, and help push, give a push, so that after today there should be a change as far as this *wata wahala* is concerned. It is not impossible to make a change. It is very possible.

Hope, Buea

Inspired by Hope's conviction, I begin this chapter with the idea that change is possible. In many ways, this optimism revolves around the belief that the act of voicing hardship can spur collective change and that engaging community leaders in this conversation creates a "push," as Hope called it, for better living conditions. However, what also emerges in this chapter are the politics of power and the need to *also* consider the barriers that make change feel impossible. In this chapter, I shift my focus from identifying the waterscape problems to questions about how to address water *wahala*. In doing so, I reflect on my second Research Question about the politics of change: How do participants and communities envision and interrogate change? What possibilities and priorities are prioritized? What barriers restrict change? What are the politics of change? To explore these questions, I bring together the key ideas identified by community participants through their photos and videos, along with decision-maker responses to the work. Juxtaposing multiple and often diverging perspectives, this chapter discusses a range of changes that communities envision and some of the debate about how to make these changes happen.

To introduce this inquiry, one performance that has stayed with me is a scene from the video "Bwitingi Crisis" produced by five young women, the Adventurous Youths. In the Bwitingi workshop, a last minute scheduling conflict with a funeral in the village meant that we ended up with several university students from the nearby city of Buea. These participants positioned themselves as such in their video, which tells the story of a student from the city, Lovelyn, who goes home to visit her family. In the village, Lovelyn's parents tell her they are struggling for water, but have had little success obtaining support from government officials in the city. Lovelyn decides to take action and returns to the city to advocate on behalf of her

village. The following scenario depicts the interaction between Lovelyn and a male government official, played by Harriet:

Lovelyn enters an office, where the Official sits at his desk. The camera rests briefly on a sign on the door: MINISTRY OF SOCIAL WELFARE. Lovelyn approaches hesitantly, and says, “*Konk, konk, konk*” [Knock, knock, knock].

The Official does not move or look up from his computer but utters, “Come in.” Lovelyn curtsies and greets him, “Good afternoon, Sir,” as the man’s eyes flicker up at her for a moment before returning to his screen.

Waiting for the Official to acknowledge her presence, Lovelyn repeats her greeting, “Sir, I said ‘Good afternoon.’” The Official nods, and Lovelyn asks, “Can I...?” pointing to the chair. He nods again in silence and Lovelyn sits down.

Lovelyn then presents her case: “Sir... Sir, I just came because I have a problem. Sir, my villagers are really suffering. I’m from the village of Bwitingi. And we are really having a very big problem, Sir. Sir, if you can really help me with this water problem, I will be very, very pleased. Sir, I just came back. And I heard that for the past two weeks they have not had water.” She shifts in her chair to lower her body position: “Sir, please... I am down on my knees. Please, I really need your help. Please, Sir. Help us, please. I beg of you, Sir.”

The Official looks up dismissively and laughs, as if Lovelyn’s request is a joke. With his hands still on the keyboard and his chin in the air, he retorts, “Now, who is talking?” He raises his voice, “Women are meant to stay at home! Cook for their husbands, wash clothes for their children, and not come here and talk to me! Are you crazy?”

Lovelyn tries to reply, “Sir...” but the Official interrupts her: “This place is meant for men, and not for women.”

Again, Lovelyn speaks, “Sir....” But again he does not let her finish, raising his voice: “I will kindly ask you to leave my office now.”

Determined to make her case, Lovelyn pleads, “Sir, please I beg...” and the Official shouts: “Leave my office now!”

As Lovelyn stands up to leave, she tries one last time, “Sir...” The Official’s voice breaks as he yells, “Leave my office!” and Lovelyn hurries out of the room. The video then continues with a young man entering the office to be greeted by the Official with camaraderie: Smiles, handshakes, and assured promises of water for his village.

Portraying blatant sexism, this video focuses on the Adventurous Youths’ concern about gender discrimination with regards to accessing government resources. The video complicates ideas about urban and rural communities as bounded entities and suggests the important roles of social capital and mobilities in the ongoing connections between cities and villages. Yet this video also effectively illustrates the problems of bureaucratic authority more generally.

Lovelyn’s enthusiasm to take action and her persistent requests are repeatedly blocked by the Official. During the Bwitingi workshop, a member of my advisory committee stood in the doorway with me and watched this group film. He admired Harriet’s poignant portrayal of a

government official, because she did not smile, a demeanor my colleague also encountered often in his research with political leaders. In this chapter, Lovelyn's initiative combined with Harriet's commanding portrayal of patriarchal power frame discussions about opportunities but also constraints in the negotiation for change.

To develop this chapter, I draw on Sarah Whatmore's (2009) work mapping scientific knowledge controversies in the UK. In particular, I borrow her use of Callon's (1998) terminology to distinguish between the types of discussions that emerged. First, I describe some relatively uncontroversial participant suggestions about "what" can happen. Using Callon's (1998) terminology, these constitute *cold situations* where "agreement regarding [an issue] is swiftly achieved. Actors are identified, interests are stabilized, preferences can be expressed, responsibilities are acknowledged and accepted" (p. 261). Then, a more substantial part of the chapter outlines more tenuous conversations about the means and mechanisms for social and environmental change. Here, I refer to Callon's (1998) *hot situations* that indicate "the absence of a stabilized knowledge base, [and] usually involve a wide variety of actors [...] where facts and values have become entangled" (p. 260). In distinguishing between hot and cold conversations, I do not mean to dichotomize issues or diminish the importance of ideas that do not, in the moment, spark controversy. With this framing I suggest that hot issues, those which generate more concern, are indicators of inequitable politics of power and knowledge. This chapter does not propose comprehensive or definitive solutions to water *wahala*, but it offers deeper insights about the gendered nature of water governance in SW Cameroon.

Before I proceed, I offer a brief note about social categorization and language. In this chapter, participants position four main categories of stakeholders: 1) "Communities;" 2) "The government;" 3) "Chiefs;" and 4) "Women." Despite the impacts of water shortages on children and in particular on girls, as described in the previous chapter, I note how the category of "youth" disappeared from conversations about how to bring about change. This omission likely reflects the lack of youth participation in the research events. Also, despite differences within each category, participants tended to construct unified groups. While I have worked, as much as possible to value social difference, these categories nonetheless frame and significantly influence the findings.

## What Change?

As widely expressed by participants, different people have different roles to play; possibilities for action exist at multiple sites and levels. A number of clear and uncontested strategies emerged through participatory analysis, generating little debate. These solutions include the need for centralized infrastructure, improvements to accessible technologies, and changes in personal water storage and collection practices within households and communities.

### **More Taps, Tanks, and Boreholes**

First, water infrastructure needs to match demographic distributions. Participants wanted more public taps, especially in towns, neighbourhoods, and areas where there are none. Comfort said: “More taps should be constructed to match the population [...] The decision-makers, maybe they have to, like, increase the tanks or pipes so that the water can sustain the entire community.” Thierry urged: “More taps should be created and, in areas where there are no taps. [...] In *quartiers* where there are no taps to be able to reduce the long distance that people have to go, to go fetch water.” Participants did not distinguish between networked taps (connected to water systems) or individual taps (topping borehole wells). Critically, more access points would help reduce, for example, the long distances travelled, the risks of assault for girls and young women, the need to hire transportation, and crowds at busy taps. Participants also pointed out that several centralized networks (such as in Buea and in Bwitingi) needed additional storage tank capacity to accommodate increasing water demands from growing urbanizing populations. Alice reiterated that increased tap installations also requires additional tank storage capacity.

However, given the range of challenges identified by participants, infrastructural improvements only address a limited proportion of the issues. Taps, tanks, and boreholes alone cannot provide clean reliable water access and do little to address systemic gender inequalities. The Head of the Economic, Social, and Cultural Affairs Division from the Governor’s Office of the SW Region, the top government official involved in the study, acknowledged: “It is not enough to say, ‘OK, we need water here, connect pipes [...] to a source or whatever, and bring water.’ That will not probably solve our problems.” While important, improved access water technologies such as centralized networks and wells respond only partially to the water *wahala* elaborated in the previous chapter. Improved water access technologies are necessary but not sufficient.

Therefore, while appeals for infrastructural development underlie discussions about change, they did not dominate participant recommendations. More often, participants prioritized local and small-scale solutions that communities can implement independently. Many participants used the term “endogenous” to describe these strategies. Certainly, communities can install borehole wells and new tanks for community-managed systems without significant outside intervention or support. However, participants emphasized the need for changes to personal practice, as well as for neighbourhood and community initiatives to improve or protect public water sources. This does not undermine the criticality of improving infrastructure to increase community access to reliable protected water. However, participants broaden understandings of the waterscape beyond what Peter Gleick (2003) named *hard-path* water interventions (massive centralized technologies and infrastructure projects) to also consider complementary *soft-path* solutions that include lower cost, community-based, decentralized, and democratic options.

### **Improved Surface Wells**

Given the accessibility, prevalence, and concerns related to surface wells, many participants identified ways to improve these technologies. Better well construction and maintenance would ameliorate the safety of wells and protect water quality. Participants listed how wells should be: covered with a lid, constructed using concrete that provides both structural support and protection from pollution, dug during the dry season when water levels are low so wells are deep enough to avoid drying up seasonally, and cleaned and treated more regularly. Given the embodied labour required to haul water from surface wells, the image of a well with a pulley mechanism (see Figure 17) generated inspiration among women.



**Figure 17.** "Pulling mechanism (pulley system)" (Water is Life, Kumba)

Participants valued the inexpensive simplicity and low-tech accessibility of this labour-saving device. Veronique was impressed with what she described as a simultaneously “modern” but also “not really renovated” solution, and how pulley technologies do not require a complete or costly overhaul or rebuild of the water access point. Comparing the prices of different pulleys and the possibilities for local welders to make them, participants positioned pulleys as modest and accessible tools that could easily be attached to existing wells to help alleviate some of the gendered strain of hauling water. Pulleys were considered especially relevant for deeper wells, as portrayed in the video from Kumba that depicted a mother of quadruplets. Given how many surface wells are installed privately on family plots, the pulley and other well improvement recommendations offer feasible changes to implement at the household scale.

### **Rainwater Harvesting**

Participants also identified how rainwater harvesting could be popularized as a viable self-help practice. One young woman, Patience, observed:

Cameroon is not only blessed with water, but God also blessed us because we have the rain [...] So to help ourselves [...] when the rain is falling, we can bring out containers [...] and collect water [...] I’m an example: Every morning I go to school, I bathe with rainwater. I warm it and use it and nothing happens to my skin.

Indeed, during heavy rainfall, colorful collections of buckets, barrels, and containers can be seen gathered around the downspouts of buildings to catch roof runoff. Although only feasible for approximately half of the year, there are many possibilities for investing in and scaling up



rainwater harvesting and storage systems. The Paramount Chief of Kumba described the rainwater collection system on his ranch estate. He instructed his gardeners and grounds maintenance workers to install gutters and rainwater storage tanks on all his buildings and a channel system to direct rainwater to his flower gardens. He praised the use of this approach in other parts of the world, and wondered why the practice had not yet taken hold in Cameroon's SW Region. Reportedly more common in the neighbouring NW Region, households collect rainwater in greater quantities using tanks or use large plastic drums or reservoirs. Barring the problem of stagnant water as a breeding location for mosquitos, rainwater harvesting offers a mechanism for alleviating the pressure on busy springs and streams, providing an alternative to doubtful sources (with heightened water quality concerns during the rainy season), and improving access options when far from central grids.

### **Improved Household Storage and Treatment**

Given the central role of water storage practices in coping with an unreliable water supply, many participants identified a number of practical suggestions to improve household storage systems. First, water should be stored in closed plastic containers (with lids) to prevent organisms and dirt from falling into the water. Second, additional storage containers would enable those households connected to networks to store greater quantities of better quality water rather than relying on unprotected springs and streams. One photograph taken by Country People in Buea depicted a promising large black plastic tank, although characterized in the photo caption as an expensive privilege: "Windmill propelled water, storage facility for the rich." Third, many participants suggested developing more effective water conservation and management practices within the home. In larger households, many people have competing demands for limited supplies of stored water. Estelle recommended separating stored water and reserving portions for different uses:

You cannot struggle [to] carry water the very long distance and [...] allow the children to waste them. So you ration your water, you lock, put it somewhere. You remove it. The one for cooking, you will put [here]...The one for drinking, you will keep [there].

While new containers are relatively inexpensive, costs add up over time and are compounded the more people live and pass through each household.

Improved water storage also relates to water treatment and quality. Key prevention messages included Comfort's reminder: "We should treat water properly before drinking." Participants listed different options for treating water such as letting sediment settle out, filtering

water using a piece of fabric over the mouth of the container, boiling water, and using what participants referred to as “bleaching agents” like *eau de javelle* (liquid), powdered chlorine, or chlorine tablets. Additional considerations also include avoiding storing water for too long, boiling water in the evenings so it is cool enough to drink by morning, using a separate clean cup to dip into buckets of stored water, and ensuring the use of appropriate *quantities* of treatment chemicals, given how too little or too much can both induce bodily harm.

Water storage and treatment involves significant decision-making and maintenance. For me, water storage and treatment required a great deal of thought. While living in Buea, I consciously developed a fairly elaborate system to cope with an unreliable water supply (see Appendix E). Implicit in many participant suggestions, such systems and normalized routines construct everyday water use as a habit. While systems differ, each household and workplace likely has some sort of system. These daily practices vary according to the quality of the source, rate and purpose of water use, and time stored; water treatment and storage need to be responsive to context. Shove (2003) suggested that the study of the mundane nature of these routines and systems elucidates important social values that inform everyday decisions about resource use.

### **Soft-Path Possibilities and Constraints**

These suggestions—improving wells, harvesting rainwater, and improving household water storage and treatment—offer relatively low-cost and decentralized shifts in personal practice for households to adapt and improve their personal situations. Participants celebrated practical and feasible possibilities for improving their own circumstances, as well that of the community through a range of small-scale collective interventions. Many of these ideas constitute the types of decentralized solutions that alter how water is used (rather than how water is supplied) resonate with what Peter Gleick (2003) characterized as soft-path water management.

However, in the focus on soft-path solutions that involve behaviour change, a number of contradictions also emerged. The solution for one problem conflicted with the solution for another, contradictions that emerged in several different areas. To improve punctuality in relation to uncertain journeys in search of water, participants advocated going out earlier in the morning or at night. Yet, to address sexual violence, women and girls were urged to avoid these times of day (as I take up later, the perpetrators of sexual violence tended to escape accountability). To improve water storage, participants recommended using more containers to store greater quantities of water. Yet more containers also raises household costs. To facilitate farming, many

proposed that women farm near streams where water is more easily accessible for irrigation. At the same time, there was resounding agreement that people should stop farming near streams because it threatens water quality. To avoid broken pipes, participants advocated burying pipes deep enough to be protected from vehicles or construction activities. Yet, to detect leaks and enable repair, pipes should not be too deep. In hindsight, I wish I had asked more about these circular arguments. In the moment, these tensions did not stand out, nor did participants identify them as unresolved problems. The inherent constraints of these practical changes to personal behaviour likely represent larger systemic issues that are more difficult to identify and resolve.

While absolutely critical for coping with water shortages, individualized mechanisms such as collecting rainwater and building more wells tend to privatize water problems making them personal, rather than political matters. Suggestions to improve water storage and treatment through what participants called “personal initiative” risk positioning the responsibility for an unreliable water supply with individuals and households. Given gendered household dynamics, this means more work for women and children. While soft-path options are certainly accessible and in need of more scholarly attention, for the moment, I note only how these options sometimes conflict. Yet many options at the level of personal practice represent the daily decision matrices that women and youth in particular negotiate. Decisions about which household members collect water, as well as where and what time of day water collection takes place, constitute everyday routines. The findings suggest that water collectors regularly need to weigh one compromise against another, decision-making that is embedded within and constitutive of the broader waterscape. The next section shifts beyond the role of individuals to interrogate how to protect water resources more collectively.

### **Sanitation, Land, and Water Protection**

Deeply intertwined with water supply, sanitation plays a critical role in protecting water quality. The solutions below require more collective effort to negotiate land use decisions at the level of the community and the municipality.

**Planning: Toilets and graves.** Responding to images portraying people urinating and defecating in streams, participants advocated for more toilets. Emerging from this discussion, participants identified the need for landlords to build toilets for their tenants. In the video produced by Country People from Buea, Audrey collapses to the ground after drinking polluted

water. The video narrator, Hope, traces how landlords' decisions impact women's water responsibilities and pleads:

Landlords, you must build good toilets for your tenants to stop them from defecating in streams that women use for household chores. Please, this must stop [...] It cannot continue like this. No, it cannot! *Tsk, tsk, tsk*. Women and water *WAHALA!*

Connecting gender and decision-making related to toilets, Hope articulated how sanitation decisions by landlords (typically men) directly impact those who do household work with water (typically women). Framing toilets as a regulatory issue, participants wanted municipal councils to better evaluate household access to toilets and ensure that new buildings are equipped. Hannah pleaded to her council representatives:

Please, when people bring building permits, don't sign the building permits if you are not sure there are going to be toilets [...] Every building plan should have a toilet on the plan before those building permits are issued.

These proposals suggest more regulation and monitoring of toilets with regards to planning and development policies, with attention to the political relations between landlords and tenants, as well as between developers and municipal councils.

Adding to these sanitation-planning concerns, participants also addressed the spatial distribution of toilets as well as that of graves in relation to water sources such as wells and springs. As point sources of pollution, toilets and graves must be carefully placed. Many family compounds install toilets, graves, and wells long after homes have been constructed; changes in property layout and land management occur incrementally. Topography and hydrogeological considerations are critical for protecting wells from contaminated flows. Comfort explained:

We should take into consideration the water table [Murmurs of agreement from other participants: *Mm-hmm...*] Because if you have an area which is slanting, [and] you have the latrine up... you cannot come and dig a well down here. Because obviously, the water will wash away all that... the feces from there into your well, into your source of drinking water. So that would not be good. So, but if the well is up and the water table is high, while the toilet is down, it would be a good place for it.

While the size of a family plot influences household planning decisions about the location of wells, toilets, and graves, localized hydrogeological features also need to influence decisions.

Comfort elaborated:

And I guess that around your house, the levels would not all be the same. So, if you have a compound with that type of water table which is... maybe the latrine is up and the water is down... then ask your neighbour to put your well in your neighbours' compound. It is his, but you manage it together.

Comfort suggested that households also need to consider how groundwater flows relative to their property. Many advocated for neighbourhoods to work together, for case-by-case feasibility studies, and for the involvement of water technicians to provide communities with advice.

**Protecting catchment areas and regenerating forests.** For the protection of water sources, several participants at the final forum proposed returning to traditional methods and laws. A professor, Doctor, offered his perspective:

In the past, they used to protect some areas within the village. Shrines. It was not mystical, it was environmental protection [...] It's a watershed; that's where the water comes from. People should not construct houses within a particular area. So when you [...] create a shrine there, nobody will go there. I think we will have better water.

Others reminisced about their childhood memories, and how traditional practices operated as laws that disciplined water use. The Deputy Mayor from Buea Council recalled how a community law in the village where he grew up prevented the community from cutting trees down and children from playing around streams. The forum Moderator addressed how community laws were implemented and enforced in her village:

When I used to go the stream in the village, my mother... my mothers—because I came from a polygamous home—they built a kind of hutch and a stone kind of way, and protected some part of the stream where we used to go to [...] When you go to carry water, you come back and she asks 'Where did you go to carry that water, and what did you do?' And you said, [...] you carry the water, and then you wash your feet. She would beat me very well. Then I was wondering, why is she beating me? And now, I understand that she was telling me: 'When you go, that is where to carry water... go and wash your feet the other way [downstream]'. That was the message.

These memories suggested the effectiveness of traditional law and authority for protecting water sources, and that these laws are gendered in their implementation. Others wanted stricter government regulatory mechanisms. Victor said: "There should also be laws to enforce the policies because when we make policies without any laws, they are just [...] in writing and then they don't have any force in the society." In his view, laws have more clout as there is a system for enforcement.

Identifying how deforestation threatens water sources, participants also promoted reforestation. In the video created by Bwitingi's Peaceful Women, the group of elder women pass by the tanker truck, cross the creek and enter the forest. At the catchment area, Isabelle plants a tree and pleads:

*Wi really nit tris fo dis ples, odawais smol taim wi no go get drinking wata sef. So yi fain me wi get tris. Mek dem plant wi tris dem fo hia. Yes! Mek dem plant wi tris. Wi nit tris-o!*

We really need trees here, otherwise it won't be long before we don't even have drinking water. So it would be great to have trees. They should plant trees here. Yes! They should plant trees for us. We need trees!

This video prompted calls to develop regeneration schemes around catchment areas. Women wanted their leaders to identify and delineate catchment areas, so that these areas are well marked. Hannah also wanted to know what type of tree species would help protect water, noting the specific dangers of water-thirsty eucalyptus, and suggested liaising with, for example, the Ministry of Forestry and Wildlife (MINFOF) to seek advice.

### **Community Participation**

Participants also drew on traditional development practices for guidance on the protection and management of water sources. They identified what is called “community participation” as an important, feasible and accessible strategy, whereby residents come together to accomplish collective initiatives such as cleaning water access points, protecting water sources, and maintaining wells. While the nature of participation is widely debated in the literature, in this context, participation was often described as community labour for clearing the brush and garbage around springs, building protective fences around catchments, and removing the built-up sediments from streams and ditches. These forms of labour, locally called volunteerism, were identified as an expected responsibility or civic obligation. Hannah explained: “When we are called [upon] to work, on the days we are expected to work, we should come out.”

Community participation was also described as financial contribution, where community members pool resources to achieve a common goal. Justine used the example of wells:

Not everybody can dig a well but, if somebody, a neighbour has a well that everybody around that neighbourhood uses, then it would be good that when he is about to clean that well and to treat it, the others contribute maybe money so that the well can be cleaned and treated.

Communities may also contribute to pay for labour. Photos from Kumba depicted caretakers, men hired and paid for by neighbourhoods to maintain public springs. In addition to clearing and cleaning water access points, caretakers might also influence how water spaces are used. Estelle wanted caretakers to also serve as security guards to address “this hazard of rape, rumbling, fighting and the rest of it [...] At night, they guard the community while we are sleeping.”

Participants urged their neighbours and fellow citizens to take increased responsibility for water. The Regional Delegate from the Ministry of Women's Empowerment and the Family in the SW noted that everybody also has a role to play in terms of holding each other accountable:

All of us who are here should just take a decision. Each time I am passing where there is a water [source], I stop. Anything that is not going right there, I comment or I go to the right quarters and complain. If all of us decide to do that, we will make a difference in our community.

Justine drew attention to women's agency portrayed in her video, "Managing Water Crisis," by Friends of All from Mudeka, where women and girls work together to clean a spring in their village. She described the video:

When the daughter was sent to [...] fetch water, she came back and said, '*Mama, di wata deti*' [Mum, the water is dirty]. The woman did not say, '*go fo di oda wel*' [go to the other well]. She said, 'What are we going to do? Please look for neighbours. Let them come and help us to clean the water point so that we can have water.' [...] The idea that attracted me there is the solidarity of that quartier, because immediately the child went to look for the neighbours, they came out and gave a helping hand to that family.

Justine appreciated how these women helped each other to maintain a spring, rather than abandoning it for another source (as happened in Mudeka). These calls for more community participation emphasize solidarity with neighbours helping neighbours, community members providing labour and financial contributions, and community members holding each other accountable to water use protocols. Ultimately, community participation offers an immediate and accessible option when funding is unavailable or not available at the time. As Hope noted:

Do we need money to deal with this? We don't need money to keep our drainage [ditches] clean. We don't [...] Having looked at all the [research], I have seen that we can—on our own—make water available. Clean drinking water.

### **Awareness, Education, and Sensitization**

Another key mechanism was greater public awareness about the connections between water, sanitation, and public health. Faith attributed many of the problems identified in the previous chapter to a lack of awareness:

I think we face a very big problem with water crisis in Southwest Region, especially because the level of our awareness is very low. Looking at the case where somebody was urinating in the stream, somebody was brushing [their teeth] in the stream, and there was a picture, which was portraying the drainage [ditch]. The drainage was there; people have dumped their waste there. If you even go to the street, you see men just urinating everywhere. I think we need to do some awareness. You can keep your order, and somebody [will still] pass by and defecate or even spit inside the water. It's awareness! We have a very big problem with awareness.

Given these concerns, participants established education as an important strategy for addressing crosscutting issues related to gender, water, and development. Comfort explained:

Sensitization cuts across all the themes ... sensitizing people how to manage their water, regardless [of whether] the government is there or not. Sensitizing the parents on when to send their children to fetch water and when not to. Sensitizing the public how to manage their time, when to carry water so that, you know, this time you will not be late for work or late for school [...] So that [...] the tasks in the house should be distributed to all the children and not just a particular sex.

Often, this strategy was framed as better communicating public health information, through what participants called “education and sensitization” interventions. Participants advocated for this type of intervention to encourage the public to better store or treat drinking water, not to throw their trash in springs and streams, and to respect protocols about land use around water sources.

To implement education and sensitization activities, participants emphasized the need to use diverse communication tools to ensure accessible messaging. Several of the facilitators drew on their fieldwork experiences and described the difficulties they faced in effectively communicating information to the public. For example, door-to-door strategies are ineffective for reaching large numbers of people, and pose transportation challenges for accessing more rural and remote communities. Also, the facilitators expressed concern that many people had difficulties understanding and remembering public health messages that were communicated using traditional didactic educational methods. Instead, the facilitators called for different types of learning materials and modes of communication appropriate for varying literacy levels. They listed more effective education methods to include broadcasting health messages over local radio, demonstrating new practices in public and learning by doing (rather than only telling people to change their behaviours), training peer educators and community educator committees, and writing short articles in newsletters. Faith considered the use of visual learning materials:

If you look at the picture, you see a net [and] somebody sleeping under [it]. You don't need to tell somebody that you have to sleep under the net. The picture speaks for itself. Or if they show a pregnant woman taking medicine... when you see it, in-as-much as your vision is good, you will see it and you will be educated through that [...] For even if you have never gone to school, but when you see it, your memory will flash back: I am supposed to do like this, do like this...

Indeed, participants often used the photographs and videos they produced through the research activities as a forum to produce public health messages about water and sanitation.

These suggestions for different modes of communication and types of messaging acknowledge the limitations of didactic learning methods, and respond to an overwhelming sense



that communities lack access to accurate information and techniques for more sustainable water and waste management. The point is that education and sensitization interventions offer important opportunities for learning, for access to reliable information, and for skills training. Additionally, Alice insisted that communities become more aware of their rights. Participants expressed the desire for more dedicated opportunities for public dialogue and debate about gender and water issues. As I address more substantially later, participants appreciated our use of participatory visual methodologies precisely because they provided more accessible and democratic opportunities for learning and engagement about important community issues.

However, reflecting on participants' methodological concerns about education and sensitization, I suggest the need to also interrogate how the relationship between learning and behaviour change is conceptualized. Several urban NGO and government representatives considered learning as a passive and top-down transmission of information. NGO Director, Emeldine said: "The basics will be taught to the population. Remedial situations will be taught to the population on how to go about solving [problems]. It is very simple." The representative of the Regional Delegate for MINEPAT in the SW insisted: "You need to carry out a lot of sensitization in the communities, so that some of these consequences might be reduced if, you know, they try to do what they are supposed to do." These recommendations seem to reflect a series of assumptions about the relationship between knowledge, learning, and agency in the production of change: 1) the public acts in problematic ways because of a lack of education; 2) a group of experts knows definitively the proper way to fix the problem; 3) if the public is given this information, the public will act differently; and 4) behaviour change will improve water, sanitation, and hygiene practices. Yet the sentiment and type of learning reflected in the statements above resemble popular behaviour change approaches in the water, sanitation, and hygiene (WASH) sector. In their systematic review of the WASH literature in low-income countries, Dreibelbis et al. (2013) found that most WASH interventions were not informed by behaviour change theory and tended to focus primarily on psychological factors changing the behaviour of individuals. This review identified that WASH interventions need to better consider the role of contextual factors (such as gender and socio-economic status as well as policy and politics) and the material dimensions of the physical environment (including both the natural environment and technology factors). The relationship between knowledge and agency is complex. Constructive theories of learning have shown the limits of didactic methods that rely

on passive knowledge transfer; people are not blank slates or empty vessels who easily receive, accept, and assimilate new information. Learning and its relationship to change is much more complicated, and there needs to be space for multiplicity and contestation. For example, Dreibelbis et al. (2013) developed a multi-level integrated behavioural model for WASH interventions composed of social and structural, community, interpersonal and household, individual, and habitual levels as well as contextual, psychosocial, and technology dimensions. These discussions might also be enhanced by a deeper consideration of, for example, the role of learning alliances (multi-stakeholder platforms at various institutional levels aimed at scaling up successful interventions) within the WASH sector (Smits, Moriarty, & Sijbesma, 2007). Additionally, approaches to education that address environmental factors more explicitly can help to expand and promote public knowledge and engagement in decision-making about water and sanitation. For example, the Sister Watersheds collaborative project between universities and NGOs in Canada and Brazil focused particularly on low-income women, and promoted public dialogue and capacity building about water decision-making (see Perkins, 2011; Perkins & Walker, 2015). This project developed information and training materials about the connections between water management, health, community development, climate change, and public policy at a transnational scale. The potential for collaborative organizing and learning at multiple scales (from inter-community exchanges, to transnational initiatives) show great promise.

My immediate interest in participant discussions about education and sensitization is how they sparked more prominent questions about the politics of knowledge. Here, I recall Whatmore's (1998) work mapping knowledge controversies, as introduced earlier. Many of the strategies for improving water access identified in the first part of this chapter (such as more stand-taps and storage tanks, improved household water storage and treatment, and better source protection) were relatively undisputed. In Callon's (1998) terms, these are cold suggestions in that they did not generate controversy. Indeed, once these ideas had been presented, the conversation usually moved on. However, conversations about awareness, education, and sensitization sparked greater emotion and generated more controversy. Challenging the idea that the public is responsible for water *wahala*, Alice shifted the focus of the conversation to question the intentions of the government: "The problem is still our government [...] They are not educating the population." Reflecting on the situation in Kumba, where the municipal network had a problem with its water intake, Alice explained:

People are suffering today, but the problem did not start but today. The problem started [...] more than 15 years ago when I was still in Kumba. They had that problem [then], but nobody cares to educate the population, train them on how to manage the water [...] But today, they are crying ‘ohhhh, witchcraft’ and so on! But it is just ignorance and education...

Alice referred to the accusations circulating in Kumba at the time that the nearby villagers had used *juju* (magic or witchcraft) to muddy the water in the municipal network. Alice considered the belief in magic to indicate a lack of education resulting from government inaction to fund training and education in the area of water management. In juxtaposing education with the belief in witchcraft, Alice raised more challenging questions about the relationship between knowledge and power. Belief in witchcraft is fairly common in Cameroon, across all social classes and levels of education. Drawing on the work of Francis Nyamnjoh, Peter Geschiere, and others to assess the politics of power in relation to extractive capitalism and the Chad-Cameroon Oil Pipeline, Murrey (2015a) discussed witchcraft as being more than just belief but as being epistemologies that are part of life and existence. Positioning witchcraft as a form of social control, but also as a powerful critique against structural violence, Murrey wrote: “Witchcraft epistemologies are...widely shared and invoked, particularly in times of stress, misfortune and uncertainty” (p. 68). Murrey provided examples of how witchcraft epistemologies help provide explanations for misfortunes such as “sudden death, mysterious illness, financial insecurity, nightmare, natural disaster, climate change and failed harvest” (p. 68), for example. I also found that *juju* sometimes plays a powerful role in settling disputes or in fuelling distrust, especially in controversial situations where there are competing viewpoints, suspicions of malicious intent, or multiple or incomplete sources of information. While Alice’s comment is the only instance where *juju* entered participant discussions during the research activities, what I want to highlight is this: As conversations shifted to collective mechanisms for improving water access and gender equality, such as education and community participation, more elaborate, nuanced, and contentious debate emerged. The collective mechanisms in the next section represent hot situations, to use Callon’s (1998) term. These hot situations suggest the need to problematize the politics of power across traditional, patriarchal, and state structures of authority.

### **The Politics of Participation, Power, and Change**

The second more substantive section of this chapter explores the mechanisms for mitigating water *wahala*. Participants commonly interpreted the problems identified in the photographs and videos (such as water shortages, long distances travelled to collect water, and

poor water quality) as evidence of inaction, or the wrong type of actions. This interpretation reflects the commonly expressed concern identified in the previous chapter that Cameroon is behind in development. As a result, participants wanted *more* action and development, and sought explanations for *how* to go about implementing more equitable and sustainable changes and who would be accountable for such action. The conversations above about the importance of community participation and education as mechanisms for change highlight the need for increased public engagement in politics and in development. However, with these suggestions, participants also revealed some deeper challenges that constrain these processes. As introduced at the beginning of this chapter by Lovelyn's attempts to request government support and the Official's commanding display of patriarchal power, the following discussions drew sharper and more heated commentary than changes to personal practice that rely on more individualized ideas about change. Participant discussions about what it means to reflect on, transform, and influence collective change broached sensitive and controversial ideas about identity, social organization, and power.

### **Involvement in Decision-Making**

A key water management challenge identified by participants is the general lack of public involvement in decision-making. Although also a crucial dimension of water *wahala*, as elaborated in the previous chapter, I discuss social exclusion in this chapter because of its direct political implications. I first address community involvement in general and then the particular challenges that women face to influence or be included in decision-making. This layering of exclusion has important implications for participatory forms of water governance.

**Communities are not involved.** Despite Cameroon's long history of community participation in development and the conviction that community labour offers a meaningful mechanism to protect water access, this research provides a nuanced assessment of the nature, pervasiveness, and effectiveness of participation. Participants were concerned that communities are sometimes not involved in water projects. While it is difficult to assess in retrospect which community members were involved in different water projects, many participants discussed the legacies of their water infrastructure. It is clear that outside interventions initiated by government, NGOs, and diaspora have played an important role in shaping the development of public water infrastructure. Yet many of these water systems have, for the reasons described in the previous chapter, failed to provide community members with safe and reliable access to water. In Mudeka,

residents reported never being consulted about the piped water system that was installed and eventually failed. Justine recalled:

At one time [...] I am sure it is the government that came and built some taps there, but now the taps are very dry. The community was unable to manage it [...] They just came and imposed those things there. Nobody was involved. They didn't ask the community what they want, or where they could start drilling [...] The community was not involved in decision-making concerning water projects.

Subsequently, the community was also not consulted about the borehole well installed by an NGO, which was immediately abandoned due to high iron content in the water. Participants insisted that, had an appropriate feasibility study been carried out *with* the community, the groundwater quality would have been addressed in the design. Hannah, from Buea, explained how development projects often do not even inform communities: "People come from elsewhere and put projects without the knowledge of the people in the area. You just get up one day and you see something happening." Emeldine, who works with communities to implement development projects, elaborated on why projects fail: "You know, some projects which come to us... why are they not sustainable? Because they are not needs-based and demand-driven. They did not take into consideration the local realities of the population." Echoing the key principles of the participatory development movement, Emeldine stressed the importance of democratizing *how* water projects are conceived, planned, and implemented.

Critically, many participants considered this limited community involvement to be representative of patronage politics and a lack of transparency within the formal political system. Drawing again on the situation in Mudeka, one elder, Pa Eddy, recalled his initial excitement at the prospect of improved water in his community:

I remember around 1980 something, the government just sent out a company called CIACC without the knowledge of the inhabitants [...] I mean, things were coming in [...] We said... 'Hehn, this company has come to give us water!'

However, as he continued, Pa Eddy described the failure of the water system (now dry) and how he questioned officials up the chain of command, from the Mayor to the Divisional Officer (DO):

Then they went and dug a hole somewhere. [They] bored a hole [and installed an] engine. [But] if you use that water, it's as red as anything. We tried and tried and tried, asked the Mayor, 'Mr. Mayor, where have these people come from?' [We asked] the DO, ... 'Mr. DO, these people have come from where?'

Eager to work with the outside agency, the community struggled to find information about who was implementing the project. Others were cynical and felt that politicians and councils did not care about their well-being. As Father, the community priest, retorted:

People came to Mudeka and gave [us] water in 2 minutes. Yes! They wanted to be elected [Laughter]. Yes. Now ... the water is not functioning. We never saw them! [...] Even my Chief never knew what was happening. It is the truth.

These examples from Mudeka represent classic failed development projects, where the community was not involved and water projects were ineffective. While other projects have illustrated how communities can effectively initiate, fund, and manage water systems (see Njoh, 2003), participants explained how this is not always the case. In Kumbo (NW Region), Page (2003) identified the multiple narratives claiming ownership of the water system. These conflicting accounts reflect the difference in contributions to water projects from different groups (e.g. politicians, outside agencies, community members, and leaders). Each group has a different stake in the project. However, in Mudeka, the problem is not multiple ownership claims. Participants expressed concern about the elusive or lack of accountability for water projects, as nobody takes ownership of or responsibility for water projects and their failures.

***Water management committees.*** Participants considered water management committees (WMCs) as important mechanisms to increase community involvement in decision-making for community-led management of piped water systems and for protecting water resources more generally. Yet the effectiveness of WMCs varies widely from system to system and from community to community. In this study, specific WMCs were recognized as strong and successful examples (e.g. Great Soppo in Buea). However, complicating WMC effectiveness, committees are often synonymous with or answerable to traditional village councils. To illustrate this relationship, one colleague, Sophie—a graduate student from the University of Buea studying WMCs—sketched a pyramid depicting a hierarchy. She placed the Chief at the top, followed by the village council, then the WMC, and finally with the community members at the base (Figure 18). As Sophie explained, this hierarchy often constrains WMCs because budgets and the recognition for project successes are sometimes shifted up the pyramid, while decisions and blame for failures are delegated down.



**Figure 18.** Sophie's WMC pyramid (Adapted from fieldnotes, November 2013)

Sophie's schematic representation might simplify the complex relationships within communities, better represent more rural forms of social organization where traditional councils play a more significant role than in cities, and overlook the broader social context (such as the influence of formal government and CSOs). However, it provides helpful insight about the role of hierarchy in enabling and constraining change. WMCs are not independent committees, but embedded within and answerable to existing hierarchies. What is more, many communities, such as Mudeka, do not have a WMC at all. This absence came as a surprise to Hope, who had previously worked on water issues in this community. She admitted: "Frankly, I thought... when I came there the first time, I thought there was a water committee." Inspired to develop a plan with community members in her capacity as an NGO Director, Hope assumed a leadership role:

First, we will have a meeting and put a team in place. You are of the community, you know who they can trust. That team will serve as water committee [...] What we will do first, is to take care of those two springs. We see how we can protect the two springs. Then, [...] sanitize the wells, whether it is private or not. That, I want to say, should be our take-home from this workshop. We can do that without the government.

The assumption that WMCs exist, the shifting nature of community involvement in WMCs, the frequency of WMC meetings, and their access to government funding all influence the extent to which WMCs have the capacity and will to effectively provide water for communities. Others noted the possibilities for educational exchanges to help WMCs with problem-solving such as mitigating the iron content in groundwater, protecting catchment areas, and improving the capacity of the WMC to effectively address their water problems. Sophie proposed:

I want to suggest that if the other water committee members of other communities, if they could come together, like create a forum where they come together to learn about how each committee manages their water, the strategies they use. I'm sure they can apply that to their own various areas and it would improve on the water situation and our water will become sustainable.

The nature of participation and ownership within community-based approaches to water management has received much attention in the scholarly literature. However, it is noteworthy that the participants in this study rarely discussed the inner workings of WMCs. This omission is likely because, as the women note below, women are generally not involved in WMCs. While one participant was a member of the WMC in her community, she admitted not understanding what role she was supposed to play. WMCs are not a significant part of women's daily lives or responsibilities. Adding to the discussions above about the general lack of community involvement in water decisions, women identified how gender norms further produce exclusion. Alice summarized these various layers of exclusion:

[This] research has shown that some of those areas, they don't have water management committees. And even if they have a water management committee, they are not active. And even if the water management committee is there, women are not involved. The only woman that you will find in the water management committee is the treasurer. Apart of that, women are not really involved.

**Women are not involved.** A number of photos and videos addressed the exclusion of women from both traditional and government decision-making structures. In these discussions, many women expressed the point of view that because women do daily work with water, they are best positioned with knowledge and authority to address its challenges. Comfort questioned the status quo:

In most of our homes, mostly women are in charge of water management. The woman uses water to wash [clothing] at home. The woman needs water to prepare food for her husband, for the children. She needs water to take care of the home, herself [...] Why can they not involve women in deciding the policies on how to manage our water? Because [women] are better placed to tell us how to manage it. Because they know the difficulties they are facing in this society.

The Regional Delegate of MINPROFF in the SW stressed how gendered labour divisions limit men's perspectives, experience, and knowledge about daily water use:

Since women are more involved [in daily water work], it is easier for them to recognize when there is a problem and to address it [...] They are the ones carrying [water], they are the ones always there... the man is not always there at the tap. So if there is a problem, the man may not see it and identify it like the woman.



Participants decided to represent the problem of women's exclusion from decision-making with the following photo of two young women dressed as male elders in traditional caps and wrap-around gowns (Figure 19).



**Figure 19.** "Members of the traditional council in Bokova. There is gender bias, insensitive because only men are in the traditional council" (ANNCLOHANBET Youths, Bwitingi)

This photograph was provocative and evoked much laughter among community audiences. In the Bwitingi workshop, even the presenter Annie Spears laughed and had to stop and collect herself during her explanation of the photo. Perhaps this photo reflects women's traditional resistance in Cameroon, where women—often elders—don men's clothing as a form of protest to influence politics (Diduk, 2004), or the role of women's symbolic wearing of men's clothing within women's movements worldwide. Whereas most of the images in the study depicted familiar and everyday scenes and encounters, this image stands out because it transgresses normalized practices and presents a poignant disjuncture. The young women in the photo positioned themselves as leaders, looked directly at the camera and challenged norms about who can attend, speak at, and lead meetings. Certainly, women now hold more formal positions within Cameroon's state structure than ever before. However, this image emphasizes the particularity of traditional councils, which remain predominantly and often steadfastly male. Reflecting on the photo, Annie Spears explained her concerns about gender inequality:

*Dis kain crisis dat wuman dem di fes am fo dia kominiti. Fes of ol, yu go fo dia tradishonal kaunsil. Laik di tradishonal kaunsil dis. Yi bi med na onli of men. No wuman no de de. Wa dis wan di sho se weti? Wi get jenda bias fo dis wan hia. An agen, wi get jenda insensitive fo hia. An jenda ignorance agen as wel. We yi di mek development go lak fo dat vilech bikos, fo eksampul, aut of 400 inhabitants, 350 na wumen, [50] na men. An if di kaunsil bi med onli of men, we wi se decision-making, yi no go bi balans. Jenda inequality go bi fo dis wan.*

These are the types of crises women face in their communities. First of all, if you look their traditional councils... like, this traditional council consists only of men. There are no women there. So what does this photo show? That there is gender bias and a lack of gender sensitivity. And gender ignorance as well. This means that development will not move forward in that village because, for example, out of 400 residents, 350 are women, [50] are men. And if the council consists only of men, decision-making will not be balanced. It means we have gender inequality.

The photo evokes questions such as, ‘Why not us?’ and ‘We are ready!’ What could happen if more women participated in traditional councils? What could happen if more women were appointed as Chiefs? In 2010, Imbolo Mosoka from the district of Limbe was appointed to be the first woman traditional ruler in the SW Region (Gilbert, 2010), opening up possibilities. Justine considered this idea, and recalled the video mentioned earlier, “Managing Water Crisis,” by Friends of All from Mudeka where women joined together to clean a spring:

If you look at the problems in Mudeka, you will find out that you have abandoned wells, abandoned taps, abandoned boreholes... Abandoned, abandoned, abandoned! Because of carelessness, poor usage, continuous usage. But if a woman was made Chief of Mudeka [...] You saw that other [film] when they said they were suffering and decided [...] to go start cleaning a well? If a woman was made a Chief there, you think that that abandonment could have been carried out like that? They would have been taking care of all of those things so that they would not have this problem of water.

From Justine’s perspective, women would tackle rather than abandon water problems; communities and water sources would benefit from women’s leadership and initiative. Alice deconstructed the decision-making process and emphasized women’s limited involvement in multiple stages of project planning:

In development, you cannot succeed if all the actors, all the stakeholders are not involved from problem identification, planning, execution of the program or project [...] They wanted to construct a water tank. When they were identifying the area, women were not involved. When they wanted to make the small budget [by] writing appeal letters, women were not involved. When they have funding, women are not involved. But women are involved in cooking food for those people who have to construct. That is the role of a woman when planning is concerned.

Justine described the exclusivity of meetings:

When it comes to decision-making, it is only the men who sit. They just sit and they take their decisions. Nobody [says] ‘No, let us go and call a woman’ or ‘Let’s involve the women.’ They still make their decisions, they come and tell [us]: ‘This is what we have discussed.’

She argued that women are often informed of decisions once they have been made. Justine also identified how gender and age-based forms of discrimination intersect to produce particular forms of exclusion for girls. This intersectional perspective identifies how the involvement of *women* and *youth* within decision-making does not necessarily include girls: “Even if you want to involve youths in this decision, they would take but the boys. They hardly take the girls.”

Justine advocated explicitly for the participation of girls.

Ultimately, women, girls’ and boys’ lack of representation in decision-making impacts the whole community. Participants voiced concern that when women and youth are excluded, men benefit more from development projects and funding. Annie Spears exclaimed, “Development talks only of men. They think that if men take everything, they will pass it down to their wives and children. [But] that is not the case.” As she indicated, trickle down funding strategies inadvertently prioritizes men’s interests, and in many cases, pockets. In Victor’s point of view, “man” (quite literally) causes deforestation, industrial pollution and increasing numbers of cars on the road. Women, in his opinion, benefit the least from these development initiatives, yet suffer the most from their harmful impacts.

In summary, participants felt that women and in some cases the general population are not involved in the decisions that affect their communities. Participants describe how both formal structures of government and traditional councils rely on exclusionary practices. Participants wanted decision-making processes to be opened up to participation by women and youth. To represent the need for increased involvement, participants selected Women in Action’s video from Buea, titled “Women as Decision-Makers.” In this video, participants performed a protest about water decisions being made without their consent, holding placards reading, “WOMEN SUFFER MOST IN WATER CRISES,” “WOMEN AND YOUTHS ARE PART OF DEVELOPMENT IN THE COMMUNITY” and “WOMEN SHOULD BE INVOLVED IN DECISION-MAKING.” In this video, participants chanted over and over again:

We need to be involved!  
We need to be involved!  
We need to be involved!

This critical message advocating for women and communities to be more involved underscores the entire study. There was support for participation in community labour and solidarity initiatives, and for more democratic forms of decision-making.

### **Barriers to Participation**

Given participant concerns about access to decision-making, many explored why community involvement might be impeded or not occurring. This is not to overlook the important ways that communities are already participating in water management such as through household water practices, interactions at public water sources, as well as through labour and financial contributions. However, in the search for strategies to address water *wahala*, a great deal of conversation revolved around who should be responsible and how change should be implemented. These tensions are, in effect, part of the water *wahala* that women and communities negotiate, and play an important role in shaping gender-water relations. I characterize the exchanges below as barriers to participation that relate to the larger structures of power including patriarchy, the government, colonialism, and neoliberalism.

I organize these conversations as follows: First, I describe a *looking in*, or self-reflection, and how participants assessed themselves, their communities and their culture as barriers to participation; Second, I present a *looking up* social hierarchies to consider participant appeals to figures of authority for taking action; and third, in *looking around*, I highlight some prominent issues in the waterscape that participants did not address—these silences in the study are also meaningful indicators about the nature of the waterscape. While I present these three perspectives as separate narratives somewhat artificially, I would like to stress the complex nature of power and fundamental ways in which different forms of power intersect.

**Looking in: Addressing culture.** Many participants explained the current state of the water resources as being due to problems with culture. In these conversations, participants referred to culture as the accepted norms, standards, values, and practices that shape water use and sanitation norms, as well as how people interact with each other. Looking inward, participants sometimes blamed themselves for their current situation. According to this line of thought, cultural norms inhibit change. This was not a singular or homogenous narrative in the sense that all participants agreed, but a common perception that I encountered during fieldwork in Cameroon more broadly. Participants felt that their culture was a problem, a sentiment that I suggest was produced—in part—through the intersection of patriarchal, colonial, and dictatorial

state-society relations described earlier. These beliefs about *mentality* or *attitude* influenced participant concerns below about both the role of community, as well as that of women.

**Community.** First, participants explored the challenges with community participation as a mechanism for maintaining water spaces. Reflecting on the poor state of many springs and streams depicted in the photos and videos, many community members and leaders alike interpreted everyday practices as negligent, or indicating a lack of care. Faith exclaimed: “The problem is us!” She positioned water users as perpetuating the problem: “How long shall we continue to disinfect the water? How long shall we continue discard of our waste in water? How long shall we continue to mess in our streams?” Patrick from Mudeka shared his opinion about why his community’s oldest spring was abandoned:

This water is a spring that used to flow. But due to careless maintenance, people cannot manage the water [...] This is the best water Mudeka ever had. But due to some negligence, the water was abandoned.

As participants reflected on why communities faced water access and water quality challenges, many noted the challenges of working collectively. Comfort was concerned about communities “not working together as a team [...] It’s like they don’t see as if they themselves have a problem.” Reflecting on why her community has not dug a well or installed a tap on its own, Justine concluded: “We don’t stand up and take the initiative. I’m sorry, I’m not reporting anybody but that is the case.” Perhaps protecting and cleaning water sources is simply not a priority, or focus of community initiatives. Patrick continued, “Since the water was abandoned, I never [went back to] this water until the day this research came to Mudeka. That is when I went and looked, and I [thought] ‘is [this] how the water is?’” He had just never thought to go back and look at the abandoned spring.

Participants interpreted this inaction (or actions with negative consequences) in cultural terms, as an attitude or mentality which they labeled as ignorant, apathetic, neglectful, and even willfully destructive. Hope reflected how in her community, “There is so much *laissez-faire*... there is so much ‘I don’t care’ attitude. *We* add more to destroying our drinking systems, and [then] we turn around and complain.” She reflected on the pervasiveness of this problem across social class and level of education:

We have this culture of trashing our environment [...] I mean, why can’t we have places at home to put our trash and then carry the trash out neatly and put it in a dumpster? When something needs to be disposed [of], why must you trash? And this kind of attitude is common with everybody, from the educated to the uneducated.

Hannah addressed the role of the urban elite in development in their home villages, blaming them for their lack of initiative:

When we go for development meetings in our different villages... that is volunteerism. But that spirit is dying off. People are failing in their duty to carry out projects in their different communities. And we see the communities getting dirtier and dirtier...

Many attributed this attitude to community expectations of the government. Justine exclaimed: "It's just negligence. Ignorance! Because you think that everything must be given to us by the government. Yes, that kind of negligence." Faith drew rhetorically on the hierarchies of the State: "Do you want our quarterheads<sup>75</sup> to leave their houses, to come and do it for us? [...] Do we expect the Governor or the Mayor to leave his office and go and clean it for us?" Taking this line of questioning even further, Hope referred to the Head of State: "Should Paul Biya come and tell you not to throw trash? Should Paul Biya come and tell you not to take cows to go and drink [from the source]?" These participants accused people of waiting for government intervention.

To address the concern that "attitude" is the problem, participants called for cultural shifts at the grassroots level. Faith noted:

So we have seen that there is a real problem with us. We have to change our mentality... not the government to change it for us [...] If we do not change our mentality, it means the same situation will continue to be happening [...] We cry that we are not being developed, but we are the cause of our backwardness.

The Deputy Mayor of Buea Council relayed a similar message. He urged communities not to appeal only to the government for change and to take care of themselves:

And, if at all, we don't examine our consciences, it will still come back to our very person. That is why it is not only, like, looking on the government or looking on the authorities, traditional authorities or government. What have we done? [...] Health is something that is general, it is not only for a particular person or a group of persons [...] All of us have to put our heads together to make sure that the health issues are addressed accordingly [...] All of us should be very, very conscious to know when and what to do.

A number of women spoke up to encourage each other to fight for their rights and take ownership of their land, water, and labour. Hope encouraged her fellow workshop attendees: "*You own the community!*" Tracy called upon different communities to take action:

---

<sup>75</sup> Quarterheads are traditional leader who govern at the neighborhood level, under the authority of the Chief.

What have we done? Every day from January to December, we are talking [about] the same thing in Buea [...] Government is us. There is no other government [...] Decision-making is *you*! So, let's do something about it! Molyko – go to where the Molyko source is. Bomaka – go to where the Bomaka source is and see what the problem is. Not sitting every day, talking about 'we have to do this... we have to do...' Action. Now!

Responding to Tracy's call, the audience chanted, "Now! Now! Now!" the chorus of a common protest chant within the women's movement in the SW Region.

Following these conversations, it was generally understood that more equitable and active civic participation requires the transformation of hearts and minds. This goal reflects the very name and mission of my collaborating organization, CHAMEG (Changing Mentalities and Empowering Groups), and classic Freireian calls for critical consciousness. Through learning, engagement in critical issues, and self-reflection, communities can transform their own circumstances as evidenced by the number of promising endogenous solutions identified earlier. However, alternatively, these perspectives about mentality and attitude are a self-critique that interprets local culture as lazy or ignorant in a derogatory way. While the term ignorance can simply denote a lack of information, many participant narratives also implied an intentional or, at the very least, accepted destructiveness. The implication of this view is that communities are backwards because of their own doing, a perspective often accompanied by accusations that communities are waiting for the government. My concern is that these critiques of mentality reflect problematic colonial and patriarchal ways of thinking that denigrate the general public and leave little space for more active participation and the complicated ways that power operates.

**Women.** Parallel discussions about mentality were used to explain the lack of women's involvement in decision-making. Tracy raised questions about women's roles in advancing change, provoking critical reflection:

What have we done as women? Do we want the government to say, 'Oh, you are in a decision-making place,' before we take action? Have we ever gone to the catchment place to see what is happening there? What is our role as women? Because we are the ones really suffering.

In the context of earlier assertions about women's exclusion from decision-making, Hope challenged the assumption that women are not included. During the participatory analysis workshop, she interjected and redirected the discussion: "But, women, can I just ask a general question? Whenever a meeting is called in the community, do they always say, '*wuman dem, wuna no kam*' [women, don't come]?" She suggested that women are not always explicitly

excluded from meetings, creating an opening in the conversation to explore more critically the reasons why women are not involved in decision-making.

Women identified several barriers. First, to be more involved, women need to attend meetings. Estelle drew attention to the poor publicity of meetings: “At times, [the women] did not even hear that a meeting is being held somewhere.” However, in general, most agreed that women were not explicitly or overtly barred from meetings. As many participants concurred, attending meetings might not be a priority for women. Busy with many responsibilities, many women do not have the time or energy to attend. Estelle explained women’s priorities, from her perspective as a grandmother:

She is there to cater for little babies. The granddaughter is there, she has to prepare food for that one. She has to [bring her] to school. She has to come back and tidy what they have used and [keep] the house clean. She has to look for water. She has to prepare food... so they can eat [...] She has all of that work to do, before she [can] attend that meeting [...] She will not give up [caring for] the children in the household. She will forego that meeting.

Victor also elaborated how women’s primary responsibilities conflict with their availability to attend meetings:

Women’s schedules, at times will not permit them. Women have to, for instance, they have to work on the farm. After they come back from the farm, they have to keep the house clean, take care of the children, cook food, and then maybe do some washing. Maybe at the time that they are calling the meeting, she might say she wants to rest because very early tomorrow she might be going to the farm [...] And you will see now that there is a conflict between taking part in the meeting and her own role, which she knows that it’s her role [...] She cannot even take part in that meeting, and she has a reason.

Estelle suggested that if women were to attend meetings, they can only do so on their days off when their older children are at home to take over some of their workloads. These meetings would be in addition to the women’s attendance at and food preparation for numerous church and women’s association meetings every month. Meetings add to women’s already overloaded schedules.

Secondly, when women do attend meetings predominantly attended by men, participants described women encountering overt gender discrimination. One photograph taken by a group of young women in Bwitingi, the ANNCLOHANBET Youths, depicts a woman crouching down beside the two ‘men’ in traditional cap and gown (depicted in the photograph in Figure 19 above) seated on low stools. The caption reads: “This scene shows gender-based violence because



women are rough-handled if they try to interfere when their councillors are deciding on something.” Other women worried about being disciplined for speaking out publicly either by being confronted with hostility or by being infantilized for speaking up at the meetings, or later through domestic violence at home by a husband embarrassed at his wife for transgressing gender norms. Hope joked that when women speak up in meetings, some men say, “Sit down, you talk too much.” She addressed how domestic violence plays an ongoing role in preventing women from standing up and speaking out: “OK, you people want to strike. [When] you come home, they will teach you the lesson of your life. And tomorrow you will see this one will stand, this one will not stand.” Hope described how when women are too vocal or challenge men’s decisions, they are seen as misbehaving, and undisciplined. A woman speaking up reflects badly on her husband indicating that he has no control over her.

Lastly, what generated animated debate among women in the analysis workshop was how women’s attitudes shape their lack of participation. Some women blame themselves for holding each other back from more equitable representation in social positions and in access to power. In this conversation, the expression, “women’s problem is other women” resonated strongly with participants. Many women eagerly gave examples of when they had seen or experienced women teasing, provoking, or critiquing other women who want to be engaged in community work. Alice, who heads her own organization, agreed that she navigates this regularly:

I think a woman’s problem is a woman. Because if you are in a community, and maybe you are a bit literate, you are enlightened, you are very active... your friend woman will say, ‘You see that *pom-nos*? [Suck-up] *Sho-sho*! [Show off!]’ [...] They themselves will start criticizing you. But you don’t have any problem. But you are literate, at your own level. You are so active. You really want to know things. You contribute. [But] by the end of the day, you have a problem with your fellow women, but not the men. So at one point, although we are talking gender, gender, gender... discrimination, equality, and all around. But at the end of the day, if we sit down very carefully, we want to do a situation analysis; you will realize that a lot of [the] problem is woman.

Women from the two rural areas shared similar interactions between women in their communities particularly in relation to our research activities. In Bwitingi, some women did not want to attend the workshop because they were shy and worried that they did not know how to speak publicly. Isabelle explained:

When Sister Jennifer came with Ma Agi to sensitize [us] about this workshop [...] You know, those women are just dragging themselves behind. They said, ‘*No, A no go mi. A no no... A no wan tok. A no no mi fo tok. A no wan kam fo mi dat* [No, I won’t go. I don’t know... I don’t want to speak. I don’t know how to speak. I don’t want to attend that].’ They are just running behind...

In Mudeka, Justine was accused of joining the research because she wanted money (participants were not paid, however there was a small stipend for food). Not currently living in the village, Justine was from Mudeka and was invited to the workshop by the village elders one day when she was bringing her children to a school sports day. After the workshop, when Justine was on her way home, an older woman in the village taunted her. Justine felt offended, and reported how she replied to the woman:

*Wuna bel di rin, but a no no. Wai yu no di go, Mami? Or yu chus som particular pipul? Ye, chus som oda pipul fo go fo de. A jus di pas, dey tek di saim dat de. A no bin go laik se, a [wan moni]. A jus go, fil se gen wan ting or insait....*

Your announcement bell rang, but I didn’t know about it. Why didn’t you go, Mum? Or select some people? Yeah, choose some other people to go attend. I was just passing by, and registered that day. I didn’t go because I wanted money. I just went because maybe I would learn something, some insight...

Justine was curious, wanted to learn, and registered for our workshop. Yet she was challenged by women from her community. While this encounter might also reflect how Justine now lives out of Mudeka and the general difficulties we had recruiting participants in this village, Justine used her exchange with the older woman as an example of how women hold other women back.

The key message that women receive pushback from other women led to broader discussions about social norms related to femininity. Reflecting on the images, Faith identified how women’s roles as caregivers can sometimes act as a self-imposed barrier that prevents women from asking for more from others, and from themselves:

If you look at the first film we watched, you see that [...] the women were crying [for] water and in fact they needed water. But they did not take into consideration their own self, that they needed water for their own... purposes. They were all crying, like, ‘We need water, *good* water so that our children will have good water, our husbands will have water.’ So I think it is an inborn characteristic God put on every woman to have that caring spirit. You always think of others around you, then yourself last. So, I think there is an aspect of selflessness in us. We always want to live a sacrificial kind of life. You satisfy people and you can even displease yourself just to make others around you happy.

Considering how women have internalized inequitable social roles and positions as selfless caregivers, Victoria drew attention to self-love: “I think we should love ourselves and try to see how we should think of ourselves first when we have even little water.” This suggestion

challenges the assumption that women should only care for others, and prompts women to also care for themselves. Faith also described how this role is learned:

It's just a kind of mentality. Just like, it is a transfer of knowledge, from your parents. They don't even tell you. When you are in the house, you grow up and you see them [...] It's obviously inculcated, consciously or unconsciously. You just feel like you always have to remember it. And sometimes you even put your brothers [ahead of yourself] ... you were supposed to contribute something too. You are left behind but [...] you send the male to go ahead. It's just like that.

In these discussions, Hope was particularly vocal; her perspective stood apart. A prominent leader, mentor, and role model for many participants, Hope confidently and staunchly disagreed with and challenged the idea that women are the source of women's problems and provoked women to see their circumstances differently. To establish her perspective, Hope listed traditional practices such as female genital cutting, bride price, breast ironing, and widowhood as customs that discriminate against women and girls in Cameroon. Regarding widowhood mourning rituals, in which women stay with the body all night, Hope was exasperated: "This *wake keeping*; it is the women who keep wake! The men drink and sleep!" Reinforcing how gendered norms are internalized, Hope sought deeper causes:

I refuse to accept the fact that the woman is another woman's problem. Because that is the kind of mentality that men have stronghold and put into the heads of women [...] No! The problem of the woman is not the other woman! [...] The woman has just not got the courage. The woman has [an] inferiority complex [...] They have been complexed by tradition.

Here, conversations about "tradition" refer to specific customary practices and protocols governed by traditional rulers, as distinct from the broader use of the term tradition referring to the general passing on of customs or beliefs from generation to generation. Hope accused men of hiding behind tradition as a way to manipulate or intimidate women and maintain their own powerful positions:

Tradition was established [and implemented] by the man. The man knows that the woman is a weaker sex, and cannot come out to implement. So he uses another [...] older woman to make the other woman subject herself to tradition, because he himself cannot come out straight [and say it]. The man is using one woman to poke the other woman and cause problems.

Challenging *why* traditions are in place and the function that they serve, Hope insisted that women ask: "Why this tradition, why is it so strong?" Drawing on the example that female genital cutting is implemented by women, she elaborated her family situation:

Where I come from genital mutilation was so strong. My mother used to mutilate. But, believe me, all of my sisters, none of us is mutilated. Because we had one single sister who studied in Nigeria then, and she said: ‘*Mama, if yu open yu maut, A go tek yu, den go lok yu fo prisin.* [Mum, if you say anything, I will turn you in and they will put you in jail.]’ And my mother said, ‘But you see, this is [our] source of eating.’

For Hope’s mother, practicing genital cutting was a source of income. In Hope’s view, economic empowerment is critical for women to “stand on her own two feet” and make more independent decisions, without relying on men for financial support. As she noted: “Now, alternative measures have been taken to economically empower those women who use mutilation as their sources of [income]. And the tradition, frankly, is down.” Using a proverb that refers to dependency (how the head depends on the shoulders to stand tall), Hope noted men’s vested interests in maintaining gender hierarchies:

And if we know that it is affecting us women the more, let us find out. When we start nosing [around], the men are afraid-o! *No wori-o!* The head lies on the shoulder. Without this shoulder, the head drops. And they are aware of that no matter how they intimidate us.

Hope emphasized literacy as a critical component of women’s empowerment in calling out injustices. Getting women to ask questions and speak out destabilizes power:

If you are literate, it is like [...] you are treated differently. I want to tell you that if all women are educated, or the level of literacy goes up and matches that of the men, you will see wonders. People are beginning to be afraid [...] because women are beginning to talk, they are beginning to shout.

Hope insisted that when women join together in solidarity with other women and speak out, men’s positions of authority are unsettled:

And the men are beginning to be afraid because they know that they cannot come and manipulate the woman. So I want to say that the woman is not the other woman’s enemy.

Regarding teasing from other women, Hope proposed that women simply accept the insult *sho-sho* (show-off) and go ahead anyway. She drew on her own experiences to encourage women to see the wider impact that women can have:

I want to say that things are changing. [...] Why don’t you accept the *sho-sho*? [...] What I notice is the same people who call you *sho-sho*, when you get them involved, they are the first who want to [join]. But they don’t have the courage to *sho-sho*. But if you allow them to join your bandwagon, they will want to join your bandwagon. And by the time you know it, in your community, you will have many *sho-sho* women. And by the time you know it, the *sho-sho* team becomes a name that everybody wants and that everybody is asking [about].

Hope's critical perspectives, however, did not resonate widely with other participants. An urban elite who attended university in the United States, Hope spoke from a position of relative power and privilege among research participants. When Hope travels to her home village, she makes financial contributions to her Chief, which exempts her from traditional gendered subservient roles and expectations. This option is simply not accessible for many women. However, I highlight Hope's views here to reiterate how her assertion that women are *not* women's problems provided important openings in the dialogue between women about the complicated nature of gender and power.

In spite of concerns that women hold other women back, women encouraged other women to stand up and speak out for the changes they wanted to see. Faith insisted that there *is* space for women's voices, but women need to use this space: "Even if we are being relegated at the corner, to an extent, I don't even see any need to blame the men because if we push in front, they will also give us a chance to be heard." Many women wanted strong women as leaders and role models to take risks, open up avenues, and support larger scale change. Comfort said:

We should not be left behind. We should not just sit behind. But we should take action and see [...] that our voices should be heard so that something should be done. Like the case of Bwitingi, [...] the women have taken actions, and it is resulting [in...] the dispersing of people from the catchment area. So we should not be relocated to the background. We should voice out our cry and decisions will be taken.

Developing better opportunities for women's solidarity, education, and economic empowerment decreases women's dependence on men, and gives women more space to challenge discriminatory traditions. Through its predominant focus on *women*, the women's movement in Cameroon is already working on many of these issues through strong advocacy networks.

***Gender and men.*** In conversations about change, participants sometimes addressed men and masculinity. Some wanted men to take on more household work such as fetching water, cooking, and cleaning, a shift that requires combating stereotypes. One woman, the Secretary General from one of Kumba's Councils, responded to the video from Kumba, "Matters Arising," about the mother of quadruplets:

It keeps reminding me of the stereotype idea we have. Right from our homes and we take it to the communities, because they say 'this job is for a woman' and 'this one is for the man.' When I saw a woman with four children and a man beating her... I think it is time for the men to learn that when you have a family, there is no job for a woman and there is no job for a man. And we should also train our children. If men can cook soup, why not join? I think that is what we have to take home. We should change that idea in us... that this job is for a girl, and this job is for a boy.

Hope emphasized the need to include men in conversations about women's and gender issues:

When we are talking about gender, we always gather but the same people who are affected to talk to them. But we should include the people who are propagating the issue of gender. The men should always be there.

Revisiting the concept of culture, Victor went on to deconstruct how gendered norms also impact men:

As a man, maybe I will also say men are not to be blamed [...] I will also blame culture. Did men choose to take that responsibility? I will say no, because culture gave it to me. There are certain responsibilities, for instance, they say you have to take care of your family. It's also a burden, ah? For men. And, why could culture not say both the men and the women should take care of the family? When they give it to men, women stay at home and the men goes to labour. That's why at times, we have more widows than widowers [...] We have to look to the lapses with culture, because it's just that some of the men have not even come to realize this. They think they have a favorable position but it is also a burden to them [...] They should blame culture as well.

As a young man with the responsibility to support his family financially, Victor also felt burdened and constrained by gendered cultural norms. These conversations about stereotypes and gendered roles were helpful for identifying how gender relations are normalized.

Yet in these discussions about gender roles, there was also pushback. One Chief expressed his discomfort as both a leader and a man:

I have been sitting here, very, very uncomfortable. It's like I should just drop out because I have many stones on me [laughter]. Not only as a Chief but of course as a man [Laughter]. Because it is like women don't urinate [Laughter]. Yes, and the men are not harassed when they go to fetch water [Audience member interjects: 'No!']. So I think we are pushing this debate a bit, you know, too far. We want to say that, while [women] form the weaker sex, we should all work together to solve this situation.

He raised an important point about how some men (certainly he refers to men of a particular social status) sometimes face discrimination from women at water collection points, because water collection is not seen as a masculine activity. However, this leader was also reluctant to examine women's concerns about access to toilets and water collection activities. Claiming hyperbole, he explicitly positioned women as inferior to men, while at the same time announcing his readiness to work together. All of this indicates the complexity of coming up against and navigating gendered power structures. Skeptical about over-simplifying the nature of gender and water issues, Annie Spears assessed the potential impact of this study:

Even if they take these pictures to the Mayors or any of these big people [...] you will see that they will not satisfy everything in the society concerning this water crisis [...] Even if they increase the tanks or improve the hygiene and sanitation or whatsoever, you will still see that the women need economic empowerment [...] Women are limited just in their domestic sphere. They do just cooking and laundry. They don't go into the public sphere [...] Women are tied up with so many issues and they are not given the same opportunities as they give men. So you will see that women will still face some difficulties, even if water is available [...] If they increase the tanks, people will still open their private taps [...] They will still demand money from women [for repairs] even though women don't take part in decision-making. So when we are talking about the issue of decision-making, we should think of the people who are [in power]. Because [even] if only men cook, [even] if only men sit and take part in the decision-making, the issue of women and decision-making will still not be settled.

She suggested that gender inequalities cannot be resolved by improved water services and men's increased household responsibilities. Annie Spears raised larger questions about the nature of patriarchy, power, structures of authority, and systemic discrimination more generally.

To explain the lack of involvement of both communities and women in decision-making, participants tended to look inward, presenting openings for self-reflection and transformation. However, this perspective also generated discouraging critiques of community and of women. Hoping that the research might celebrate strength, agency, and possibilities, I found the explanations about culture and mentality challenging and discriminatory. I consider women and communities as *already* and *always* organized and making important contributions to water management and in decision-making platforms. In my analysis, I wondered if these ideas about mentality reflected the views of a few vocal community members, fieldworkers, and politicians whose voices were inadvertently privileged in the process of working up social hierarchies. However, these ideas were common; I regularly encountered similar perspectives in my daily life in Buea. As I explore next, I suggest that these beliefs are informed by ongoing histories of power, which have constructed particular relations between people and structures of authority. In addition to looking in, participants also "looked up" to seek accountability within the hierarchies of traditional and State government.

**Looking up: Appealing to authority.** Emphasizing the need for greater community involvement in water access and protection, participants appealed to their leaders to initiate, implement, support, and enforce these changes. Alice asked:

How are we going to redress this issue? First of all, we have to start by discussing with policy-makers. The policy-makers at village level. We have our Chiefs, we have our Mayors, we have our Parliamentarians. The government is there, the civil society is there...because we cannot address this issue on our own.

For community participation and water source protection initiatives to be more effective, participants asked their leaders and elders to formally invite communities and women to decision-making spaces. Communities sought support, permission, and an organizational structure to mobilize communities. Participants also wanted their leaders to better regulate water use by implementing stronger policies, rules, and laws. One young man, Thierry, proposed:

Communities should come together. Maybe the elders should come together and impose laws to govern the stream so that when somebody wants to throw dirt in the stream, they should at least caution the person or tell the person that what he or she is doing is not right.

The representative from the Governor's Office encouraged *all* leaders to take responsibility for water issues:

The Chiefs have promised, you know, implementing their own water. The Mayor, you know, is carrying a big burden. Political, religious authorities...all of us, we each have a role to play to implement the recommendation that we have arrived at here. So I am encouraging each and every one of us to make sure that we do what we can do to solve the many problems that we have [...] with water.

Appeals to authority were made to a wide range of political, traditional, religious, and civil society leaders. However, distinctions emerged between participant appeals to traditional leadership and appeals to formal government.

***Traditional leadership.*** At the forum, many participants looked to traditional leaders to take action at the community level. The forum Moderator stressed that community initiatives need to start with the Chief:

The Chief is the traditional ruler of the community, of the village. He should know at least what is happening within his community. So we are pleading [...] Any time you come to a village, the first place you go to is to the Chief to find out 'Papa Chief, what can we do?'

Many wanted traditional leaders to sensitize community members, organize community-based environmental management, and prevent citizens from dumping garbage, defecating in streams, or allowing animals in or near water sources. NGO Director, Emeldine said:

We are so happy that we have the Chiefs, who are here [...] They should go back and convey the message which they learned here to their population. They should summon the villages. And tell them that this is a problem, and that how [to] start.



Doctor said: “We should not wait for the government. You, the Chiefs, you can do it. You can say, ‘This particular area should be protected.’” These appeals were made to Chiefs, but also to quarterheads, who govern at the neighbourhood level, and to other traditional council members.

Women also directed their attention to the power of Chiefs, given their formal roles as the keepers of tradition. Women wanted traditional leaders to simply change gendered cultural protocols. For example, Chiefs can change the composition of traditional councils and include more women. The Section Head of the women’s wing of the CPDM, the political party in power, commented on the gendered nature of traditional leadership:

We are pleading that the Chiefs work with members of their community, the councillors...and of course they should include women in their councils [laughing]...they should work with their councillors and ensure that these streams are cleaned.

Chiefs can also implement other changes to tradition that affect gender inequality, such as reducing the amount of time that women are required to keep wake after a death. Yet Hope described the advocacy challenges the women’s groups face in getting their leaders to listen and respond:

I wrote a letter to the Southwest Chiefs [...] The deaths are too many [...] The women themselves are tired but they cannot say anything. If a Chief in any community in this country [...] stands up and says, ‘Today, no widowhood!’...it stops the same minute. But the women, they have to scream, they fight.

This frustration reflects women’s concerns discussed earlier addressing the limits of male leadership in representing women’s interests. Never-the-less, women and men alike placed enormous confidence in traditional leaders for taking responsibility and implementing many different types of changes related to water, land, and cultural tradition. In light of the conversations below, it is important to recognize that participants considered Chiefs to have credible authority for changing the hearts and minds of their constituents and communities.

Yet the authority of traditional leaders can be ambiguous in relation to the formal government and state apparatus. According to customary tradition, Chiefs are responsible for managing land and property rights. This role also involves negotiating statutory laws, which some participants suggested offered Chiefs more authority when resolving land conflicts and disputes. One water practitioner, Joseph, referred to Decree No. 2001/163/PM associated with the 1998 Water Law that established the terms for a protection perimeter around water sources:

I'm addressing this to Chiefs. There is a law of 2001 that was signed by the then Prime Minister protecting catchment areas of every village [...] Because there is always the issue of 'This is my farm, I cannot give it to you.' And it becomes a problem between the Chief and their subjects. So [...] if you have this law, you will always have something to show. This law shows that all catchment areas...are owned by the government. And we have this diameter or this circumference to protect that catchment area. The law is there, I have it in my office.

The forum Moderator also contributed:

There is a law that protects you [...] Quote that law! Nobody is above the law. And you know we have that problem because *na* real *trobulsum* [it is really troubling] in the villages. When they start from your neck, that 'This is my land'...They can even kill you. But show the law and you are free from that.

Despite supposedly parallel leadership structures between traditional leaders and formal government, these comments construct a hierarchy that integrates customary and state legal systems. Hope discussed this hierarchy more overtly:

So, do we have a Chief in that community? [...] Because when I say the Mayor must see, it's not that the Mayor will go and clean. But he will use his authority and call the Chief of that environment to call order.

These comments place Chiefs among the lower rungs of formal government hierarchies, as implementers and enforcers of State laws and regulations. This also has implications for access to funding. Traditional leaders often need to rely on formal government (as well as NGOs) for funding for community water projects, especially in rural areas. The Elder's Group from Mudeka addressed this topic in their video, "The Community Needs Potable Water." In this video, participants—themselves elders and village councillors—replicated a traditional council meeting about the need to write to their municipal council to request funding to improve their water access. Victor also advocated for bottom-up policy-making that *begins* with Chiefs:

Who are those to be considered when making the laws? [...] I decided to begin with bottom [to] top because [...] when we make policy at the top, coming down to meet the Chief, [...] they think that they have been neglected at a certain stage. At times, they will listen but they don't actually take it into effect. So this time, I began with the Chief because if the Chief sees a problem and thinks there should be a solution in that community, the Chief can consult the Mayor. Then the Mayor can talk with the DO, and the DO [can] also involve the various ministries [...] And then, we also meet the Governor [...] The Governor can now meet Civil Society Organizations that have been working with the community.

Victor's suggestion effectively reversed the chain of command to not only promote the inclusion of traditional rulers but to give them a preeminent role in representing their community. In the context of decentralization and the shift of power and resources to the lowest administrative level

of government (municipal councils), it is important that participants positioned traditional rulers as key voices and agents of change within communities. This suggests that more attention to the relationship between traditional councils and the formal government might be critical for improving collective efforts for water access and protection, particularly in rural areas.

**Formal government.** Participants' appeals to Mayors, the Governor, and the government more generally were often about access to funding. The government representatives who participated in the study acknowledged that while the government is working for change, there is still much work to do. Organizational structures, support, and initiatives—while imperfect—are available and ongoing. The Deputy Mayor of Buea Council promised: “If at all, you come up with projects or programs that need support, the Council is there. The government is there. NGOs are there to support.” As outlined in Chapter Two, forest and water protection laws are in place. With decentralization, power and resources are supposed to be devolved to municipal councils. Funding mechanisms are available at the council level. For example, Alice referenced the National Participatory Development Program (PNDP),<sup>76</sup> which is generally called the “Communal Development Plan” (in French, municipal councils are *communes*). Victor explained that the PNDP sponsors selected councils in each region and prioritizes development projects that support the decentralization process. Many participants perceived the government as having ample funding. Hope commented: “You people have rich councils! You have City Council!” Participants, therefore, wondered why water problems persist. The conversations below identify problems between the official intentions of laws, policies, and funding programs and the realities of practice.

**Communication.** Firstly, many participants asserted that communities and traditional leaders are simply not informed about government initiatives. Many people do not know what is happening within the government. My interviews with decision-makers supported this claim. When I asked leaders what policies impacted their decision-making practices, very few government officials named any policy or program. This suggests possibilities for improved communication about government initiatives. Water practitioner Joseph asked, “These laws are there but the problem is how do we vulgarize them?” There is similar lack of awareness about funding processes. The mechanisms for communities and traditional councils to access government support and programs are often obscure. Throughout the research activities, many

---

<sup>76</sup> Funded by the government of Cameroon, the World Bank, the French Development Agency, and others.

community participants sought advice from the research facilitators and those participants working for NGOs. A clear message from those with more experience in navigating funding processes was that communities need to write project proposals. Alice shared information about the process for the PNDP:

Concerning the Communal Development Plan – You know, in our local communities, not everybody is informed about that document [...] In each sector, there is a priority program, a priority project.

Hope also contributed:

It's just to write a small proposal [...] They should not go to his office without a write-up all ready. There should be a document. And then you go and table it.

She continued with both an appeal to participants, and offer of support:

You people are now serving like the leaders of your community. Go and provoke citizenship! [...] You will not call the whole village [...] because Rome was not built by all Romans. You will call the few persons who are like the soldiers of the community [...] And then go to the council. They want to see the documents, the development plan for the next three years [...] Call me. We will write the project. We will go and present [it]. And they will give you money, you will do your own things.

This suggests that there are a need for the government to improve communication about laws, policies, and programs to the public as well as to those within the government, and to develop strategies to assist communities in navigating funding processes.

*Sanitation initiatives.* Additionally, government programs may have limited effectiveness.

Participants discussed two particular initiatives related to urban sanitation in Buea:

1) Keep Clean is a government initiative implemented by municipal councils that relies on the principle of community labour. At the time of research, “Keep Buea Clean” took place weekly. Every Wednesday morning, all shops and offices had to remain closed until noon, during which time residents and workers were expected to clean their neighbourhood (sweep, clean ditches, pick up garbage, etc.). To enforce this initiative, the council often circulated and issued warnings and fines to shops and offices that had their doors open for business.

2) Hysacam is the private sanitation and recycling company contracted by some urban councils in Cameroon (including Buea, but not Kumba) to collect curbside waste. Providing relatively effective and dependable curbside collection, Hysacam trucks circulated through Buea's neighbourhoods several times every week.

Reflecting on the photographs and videos, many participants interpreted the current state of their water sources as evidence of the limited success of Keep Buea Clean and Hysacam. For the Keep Buea Clean initiative, participants were concerned that many citizens did not contribute the required labour. Faith noted: “Today was Keep Buea Clean. How many of us went out to work?”

But the stores and offices were closed. We were in our houses!” Also, although many businesses gave the impression of being closed on Wednesday mornings, many doors remained ‘ajar’ for business. This forum served as a platform for participants to address their concerns to the Governor’s Office. Hannah considered this initiative to be a joke:

How effective do you think the cleaning, Keep Buea Clean, is? For me, it is child’s play. It is not effective. So we should look for other means of getting the communities involved in cleaning their environment.

The forum Moderator also expressed her concerns:

Mr. Governor, we are glad you are here [...] What is the purpose of Keep Buea Clean when there is Hysacam in town? [...] This Keep Buea Clean is not worth the trouble. Let us do it some other way. Maybe they can [reserve] one day in the month and oblige everybody to do it, and they will do it. It would be better than locking up every Wednesday. Government is losing a lot of money. People lose their business...

The representative from the Governor’s Office responded to these concerns about the effectiveness of Keep Buea Clean by referring to the waste collection services provided by Hysacam:

I want to say that Hysacam cannot come and clean our backyard, *ehn?* They are there to collect garbage. You collect it, put it in front of your door, and they will come and collect. That is their role. And then, after that, they process it.

He also contextualized the development of Keep Buea Clean and explained that the frequency of cleaning was intensified strategically to prepare for the President’s impending visit to Buea:

Keep Buea Clean was well conceived. Initially, it was a monthly issue. But, you know, we are preparing to receive the Head of State. So the administration thought that in making it a weekly issue, you know, we would cultivate that habit of keeping our environment clean. And that by the time the distinguished personality arrived, Buea would be ready to receive that personality. So, maybe there are lapses, but you know we keep learning as we go along.

At the time (early 2013), the city of Buea was preparing to celebrate the 50-year anniversary of the reunification of the Anglophone and Francophone Regions of Cameroon in 1961 after having been divided under British and French colonial rule. While other countries celebrate independence from colonial rule, the Cameroonian State places more importance on reunification to emphasize national unity. While this anniversary occurred in 2011, Buea could not host this celebration until the President arrived in the city at the end of 2013, with little advance notice. During this two-year waiting period, Buea residents joked that the imperative to impress the President (to ensure continued funding for the SW Region) spurred more

development activities than had occurred in previous decades. This demonstrates how a municipal sanitation initiative is embroiled in paternalistic national politics.

*Histories of mistrust.* Conversations about funding need to consider the ongoing histories between communities and the government. An elder from Mudeka noted the following tensions in the funding process:

The policy-makers give us the momentum, that is, the confidence that if we draw up projects [they will support it]. Because we don't *wan beg yu moni* [we don't want to beg you for money]. We don't want money from you! Let us do something, so that you see we are serious. After this forum, let us draw up a budget of water and bring it to you. May you send us technicians! Experts! To tell us that 'This is how to clean this place and do this' and so on. We are not dull people. We are not dull! [...] We can do something about ourselves! There are very many catchments in Mudeka. After cleaning them, we cannot [fund] a project like that. We need a water pump, [and] this [and] this [and] this... Ask us to draw up those budgets so that you [...] sponsor them immediately! Because those are very serious things that we are going through. People are dying in the wells and we are drinking [water from] those wells [...] So you should give us what we need!

From this man's perspective, communities must prove to the government that they are capable and clever to be worthy of support. He constructed an image of the communities' need for funding and technical support, yet also being stuck *waiting to be asked* to "draw up budgets."

This view supports the idea that communities are waiting for the government to initiate projects, but also further nuances that they feel their demands are not taken seriously.

However, other participants complained that when funding meetings are called, traditional leaders sometimes do not show up. In the context where communities need to apply for and negotiate for government funding, some participants were concerned about the negative potential impacts stemming from the attitudes of community leaders. Hope and then Alice shared similar perspectives:

If they don't know it because of, this 'I don't care' attitude [...] There is first, community involvement. They call the community; it is the community that gives the projects. So when they call the meeting [...] That is the attitude. People don't come out. So what do we do?

If there is no follow-up, [it is] because of the *laissez-faire* attitude [...] They give priority for those communities that are active. They give priority to those, but they have identified their own, they have diagnosed the situation.

When community members and leaders do not attend funding meetings, opportunities are missed. Hope explained: "If you don't [show up], they will just take the money and give [it] to another community." Alice illustrated this concern with an example about education funding in Buea:

“They earmarked three schools, but since [for] one of the communities, the Chief was not present, the school was not sponsored.” Once funding has been dispersed, communities must wait to reapply to the next funding cycle. This emphasizes the important role that Chiefs play in negotiating funding processes and securing funding for water projects in their communities.

Lastly, participants expressed concerns about corruption and collective initiatives, ultimately raising questions about what it means to trust leadership. Previous water research in Cameroon identified mistrust within the water sector, and fear that powerful and influential actors, particularly those with access to media outlets would manipulate or appropriate collective efforts for personal gain (Folifac, 2012). This concern highlights the issue of how group successes are recognized and credited. In this study, similar concerns about trust developed through communities’ past experiences in making financial contributions for water projects. Justine explained that community members are suspicious about how their money might be used:

When we had the workshop in Mudeka, they were fidgeting behind. Some people were fidgeting there: ‘if we contribute money, *sum pipul go chop di moni*’ [some people will eat the money].

In Pidgin, the expression *chop moni* literally translates to “eating money.” Often used as an insult, eating money can refer to spending money excessively, frivolously or unwisely. The expression can also imply secrecy, dishonesty, and deception when questions about money are unanswered. In contexts of poverty, the idea that people might steal or misuse money signals disrespect for those in need. Discussing a general reluctance within communities to make financial contributions due to previous experiences of misuse of funds, Justine urged people to create new committees and develop trust between each other:

*If wi papa dem bin chop di moni from bifo, dem wan stand up nau? Yu ge fo trust sum pipul dem! Se, [yu fren] go bi treasurer, yu go trust di peson. Gi di peson moni. Wi go gi di moni fo yi. An wi go yus di moni wi sef-sef. Wi no go go fo gi am fo sum big man or fo papa or fo mami.*

If our fathers ate the money before, will they want to stand up now? You have to trust some people! Say that [your friend] will be treasurer, you will trust that person. Give that person your money. We will give it to the treasurer. And we will use the money ourselves. We will not go and give our money to some Big Man or Father or Mother.

Certainly, infrastructure projects around the world regularly run over budget. In contexts with limited financial resources, however, surpassing the budget means that projects are sometimes not completed. Justine expressed her view that communities struggle to overcome these histories of mistrust or lack of completion within collective community initiatives:

We can generate our income and we use the money so that *wi no go gi am fo nobodi* [We do not give it to anybody] [But] they just start to say...all the time, they did this in the past, they did this in the past. It will not go ahead. It will not change.

This skepticism also extended into the formal political realm. Questioning government priorities, Father suggested that the government opts to intervene when situations become crises rather than investing in prevention efforts:

[What happens] if an epidemic happens in Mudeka? The government will bring money, *puhn puhn puhn* so that like, people die instead of preventing the death from happening.

He continued with a reflection on the research process:

This is a very truthful forum. Everybody has to speak out. Why? Because the government also loves nice things, they love truth. They love truth. So this is where we air out our truth. And we know that the policy-makers, they are representing the mind of the President, who is truthful also.

Father's thinly veiled sarcasm about "truth" claims conveyed his mistrust. These conversations elicited some disenchantment about electoral processes. The forum Moderator critiqued the legitimacy of current municipal councillors, but believed that elections can bring change:

Councillors within various areas should be able to know their communities. We have councillors who don't even have areas in the councils. If you ask them [where their constituency is], they will not tell you because they don't know. Luckily, municipal elections are coming. So those councillors who do not have constituencies will not even be voted. Because they cannot stand like this without a community, they will not be voted.

Pa Eddy from Mudeka was more skeptical. He considered elections to obscure more immediate concerns:

Our policy-makers don't care for us! And then we go and vote! Tomorrow when I go and vote, they say 'that man is this and that' [...] I don't really understand. So you see, we don't have water! [...] Somebody came from nowhere to dig a borehole. We did not even know when he came to do that borehole. Oh! It is now just useless.

Other participants rejected the idea that elections make a difference. One journalist exclaimed: "*Les elections, c'est tout le temps la même chose*" [Elections are always the same thing]. She recounted that politicians go into communities and provide water (or hope for water) until they are elected, but then leave and are never seen again. This, she noted, does not solve water problems.

These conversations indicate the need for more attention to be paid to the relationship between access to funding and patronage politics. Hope insisted that leaders would personally support community projects:



If you stood today with a write-up of 200,000 CFA in front of the Mayor, even without him going to the coffers of the Council, he himself can remove 200,000 from his pocket because he has done more in that community than 200,000. He can move [the money] and give [it to] you people. And you say, ‘OK it will be there for cleaning.’

This assertion that leaders would contribute the equivalent of CDN\$400<sup>77</sup> of their own money complicates questions about the nature of political promises, embezzlement, patronage politics, and community expectations about what their leaders can do for them. Limited communication, a lack of transparency, and histories of mistrust in relation to funding processes combine in complex ways that risk enabling corruption and fuelling public beliefs about corruption. This has serious implications for community participation and mutual trust within water projects.

**Women in politics.** With respect to women’s access to decision-making, women also “looked up” to formal political structures and focused on women’s leadership. A cornerstone of the women’s movement in Cameroon posits that because women represent more than half the population (Republic of Cameroon, 2010), women should occupy at least half of all leadership positions. In short, women need to represent women. Many women accused male politicians of making false pretenses about listening to women to secure their votes. Hope exclaimed, “Anything that a woman talks, they will bend. After the election, nobody will listen to you again. *Den go se, yu tok tu mosh.* [They will say you talk too much] [Laughter].” Some participants referenced Cameroon’s policy commitment to 30% female political leadership, which helped women secure 31% of seats within national parliament (UNECA, AU, AfDB, & UNDP, 2015). However, despite expanding opportunities for women’s leadership, participants identified the difficulties women face when taking up formal positions. To meet gender parity quotas on electoral lists, considerable effort was required to get women to *want* to run for political office. Referring to challenges described earlier about some women’s ambivalence in entering politics, Alice explained:

Now they are encouraging women to be involved in politics [...] We have women back in the villages that are very strong. They are so active. They can stand. But, because of what we have been saying here... you see, you make like this [hides face behind hands]. You say ‘Oh! Maybe if I stand, the men will say, ‘We want to challenge [you].’

---

<sup>77</sup> Based on an exchange rate of approximately CFA 500 per Canadian dollar at the time of this research.

She recalled meetings in Meme and Fako Divisions to rally women candidates for electoral lists:

They have gone around, trying to identify those women that they think that can come out. [...] If you see, you know, the percentage of women involved in Parliament, involved in councils, involved in so and so and so [...] You realize that we are still [behind]. Yes. So they are moving out. They have identified some women and they will continue. [...] So I think the next parliamentary election, we will see *more* women! Even the senatorial list. They have rejected some lists because women are not there.

At the time, Hope was in the process of running in the upcoming parliamentary elections:

I was the head of a list. And I heard I am the only woman in the CPDM party in the whole country who headed a list. I was selected, yes [applause]. But [...] you know what somebody said? ‘*Yu ge wich, eh?*’ [You are a witch]. They said, ‘*Yu ge wich, eh?*’ because that is the tradition. But it’s as easy as anything [...] Let’s just keep standing [...] And women, we have more than 51% [of the population] [...] If we come out and want to say, ‘All women vote for women only!’ We don’t need to vote for the men. That’s right.

One young woman, Grace, looked up to women leaders to represent and voice her interests:

“Those big women like that, if they [stand up and] say, ‘Enough is enough!’ [...] They will listen to them. No matter what, they will listen to them.” Increasing the numbers of women in formal leadership positions is a central focus of women’s advocacy.

Within these discussions, several participants addressed the quality of women’s participation. Christine wanted women’s genuine involvement in WMCs:

Adding women into decision-making, it shouldn’t be just, you know... [...] Women should be *involved* in these committees. And more [than being] involved, they should really participate, you know? They should be in these committees, and it should be qualitative [...] They should] be there to handle the real part and do the real work [...] How come something concerning water, and women are not found in that committee? And I believe if they are found there, it should be quality and not quantity.

However, with the increasing influence of quota systems in formal politics, participants expressed concern about political maneuvering in the selection and construction of women leaders. Participants were interested in how political parties developed their electoral lists. Victor asked: “We are voting women, or we are putting women? Is it a substantive representation or is it a quantitative representation?” He recalled an incident in one Council:

The women thought maybe women should have a place in the Council. They said OK. On that day of the election, there was one woman in the society, because she also had economic influence. And then they said, ‘OK, we should put this Mama.’ And then they took the Mama, and they said OK, ‘You will be the first, the first [woman] Deputy Mayor.’ But she was not productive. [It was] quantitative representation [...] Nothing from the woman for the past 7 [or] 5 years. [When] they saw that this woman is not represent[ing] [...] they removed her, and now replaced [her] with another man, whom they think is a better.

Victor questioned the competence of women assigned to political positions. Overlooking parallel questions about the competence of male leaders, his perspective raised alarms. Comfort immediately challenged Victor's view: "What made you think she was not productive?! Maybe the team with which she was working with, they were not pushing her in front. They were not taking her to be involved in certain things. They were sidelining her!" Annie Spears also expressed concern that men "cover up" or claim credit for women's achievements:

Most of the time, women just vote for women because they want somebody to represent them, or to understand with them [...] We have competent women. But even if you are 100% productive, there is always a man above that will always want to control you below. So, whether you are productive or you are not productive... If the man above says, 'I will cover your work,' he will cover your work. And they will not see it [...] You see, this thing is just insubordination.

Annie Spears questioned the claims made by authority figures.

In these discussions, Hope's voice once again stood out prominently. Drawing on her experience in politics, she elaborated the political maneuvering involved:

We are not saying anything goes because you are a woman. That is not what we are saying! We are saying [we need] competent women. Believe me, the political men who are at the top don't want [...] the competent women. [...] They would rather [work] with the kinds of women you have voted. You understand? [...] Believe me, if you come to Buea and you wanted 100 competent women, you will find them! But when those ministers and politicians come, they would rather relegate those competent women [behind] because they think their eyes are too open. And they [choose] incompetent women! [But] we have competent women!

Hope characterized competence as not being complacent; a leader's ability or willingness to stand up with her "eyes open" means not looking the other way, speaking out against injustices, and holding other leaders accountable. In Hope's view, leaders in power do not want to work with women with their "eyes too open." Competence is certainly a complicated issue that needs to include parallel conversations about men in positions of power. However, this shifting political terrain spurs conversation about the need to interrogate and confront top-down patriarchal political structures. Hope believed that solidarity among women was a key mechanism for political change:

If we put our voices together and we scream... and we know how women can scream, you know how we can talk. When we *rrreign* in on them, they will say, 'Let's give them some peace' [...] That is the way to get what we want. Even [with] the government, that is the way. When you scream, that is when they listen!

Hope compared women's activism to the Anglophone activism in the neighbouring NW Region, the home of Cameroon's official opposition party, known for its active resistance. She critiqued Buea's preparations for the President's pending visit as being passive, polite, and subservient:

When you want to be the pampering type, the nice type, they just treat you [poorly] ... that is why they treat us Southwesterners like nothing. He is coming here, what has been done? When he had to go to the Northwest, the military [got involved]... Do you know the kind of development that went on there?! Why? Because the people were hostile. They were really hostile and demanding. And [the government] respected all that. We cannot keep all the time being the good guys. Being the good guys and the good girls is earning us nothing! So that is the strategy the women will take. These elections, we go there, we wear our shorts [...] And any man that tries ... can you imagine a woman fighting a man?

In calling on women to adopt the more active and hostile resistance tactics of political opposition in the NW, Hope connected what it means for various gendered and linguistic marginalized groups to navigate the patriarchy of government structures. These political struggles about voice and being heard shape the nature of power relations in the waterscape.

**Looking around.** I now 'look around' and discuss aspects of water governance that participants did not address significantly: The privatization of water, the role of ethnicity in the politics of power, the role of NGOs in water governance, and Cameroon's colonial history.

**CDE and the SNEC legacy.** Curiously, communities and leaders alike rarely held CDE, the consortium of private Moroccan companies contracted as a water utility in urban and semi-urban areas of Cameroon, accountable to provide more reliable water services. A few participant suggestions targeted utility services such as adjusting pipe depths and fixing broken and leaking pipes. Doctor also recalled the outcomes of a previous study, where the utility published the water schedule in Buea (for a time) to alleviate some uncertainty in knowing where and when water would flow (Folifac, 2012; Thompson, Gaskin, & Folifac, 2011). He reiterated some benefits of households knowing their water schedule:

If we say we want to ration water, we should be precise [...] If we are having water in this particular community on Tuesday, we should have the water at this particular time. That way, you will avoid children going, staying around water points, and being raped. Please, the Mayor should help us in that light and also the Chiefs should help us.

Reflecting the trends noted earlier, Doctor directed his appeals to government and traditional leaders, not the water utility. Very rarely did participants address CDE, or did the privatized

nature of water services enter participant narratives.<sup>78</sup> In some ways, CDE has managed to escape accountability in the public eye.

When the water utility was addressed, participants referred to CDE as SNEC, the former parastatal company that provided water services in urban areas of Cameroon between 1967 and 2007. While the PPP contract had been in place for over five years at the time of research, this change was not commonly publicly acknowledged. This silence raises a number of questions. Is the public aware that water has been privatized, that the motivation for profit has changed, and that many water decisions are not within direct government control? Is the 40-year SNEC legacy so embedded in public consciousness that its name persists? Perhaps, the monosyllabic acronym, SNEC simply rolls off the tongue more smoothly and memorably than the three rhyming syllables, C-D-E. Or, is the PPP agreement involving CDE, CAMWATER (a national asset-holding company), and the Ministry of Energy and Water Resources (the government body ultimately responsible for water) such a convoluted arrangement that it works to obscure accountability? Indeed, if the privatization arrangement adds additional layers of bureaucracy but keeps the same personnel in place, there is little change to the public face of the water services (with the exception with a different logo on water bills). During fieldwork, I often wondered if CDE was reluctant to develop a stronger public image, given how this would generate increased expectations for change. In Buea, a shiny new sign advertised the CDE logo at the roadside, but the old hand-painted signboard of customer service commitments located down the entranceway, right outside the office door, still bore the old SNEC name. In Kumba, when I visited the CDE office to invite the utility to our research forum, I observed that the office—where the entire city apparently pays its water bills—did not have any sign at all. The office was so generic that, other than a pile of water bills in a corner on the floor, no other evidence of the company was visible. Moving from government office to government office that particular day to deliver forum invitations with my colleague leading the way, I had not realized we were in the utility office:

There was only one employee working and she declined the invitation to participate, indicating they were short-staffed. Audrey chuckled as we walked out of the office, commenting that the SNEC people were hiding because of the water problems in Kumba (Fieldnotes, January 16, 2013).

---

<sup>78</sup> Additionally, despite the history of NGO water intervention in Cameroon, most notably involving the Swiss development agency, Helvetas, NGOs also featured very little in participant narratives.

As this excerpt shows, ‘SNEC’ dominates my fieldnotes as I recounted conversations with colleagues, participants, and friends. That the service arrangement had changed, that the terms of the contract had changed, and that CDE represents an international consortium was news to many participants, including some of my collaborators. The few instance when the PPP contract was addressed, it was with resigned dissatisfaction. Lamenting her trials to fix broken pipes, Hannah said: “Those people came here to reap money out of us. They are not willing to create infrastructure for us. It’s a pity, but we signed the contract.” One exception was the Mayor from one of Kumba’s Councils, who explicitly advocated in an interview against the privatization of water as an infringement on community rights to water. Despite our invitations, no representatives from the water utility participated in the research.

***Ethnicity.*** Given the vast linguistic and cultural diversity in Cameroon, I note how the conversations that emerged during the research activities did not address the idea of ethnicity. As described in Chapter Three, the government’s focus on national unity obscures how the relations between ethnicity, land, and traditional leadership have influenced national politics. From an intersectional perspective concerned with intersecting relations of power, this silence is significant and suggests an additional lens through which the gendered relations of water governance might be examined. However, that participants did not address ethnic difference might also represent the strategic focus of the women’s movement’s in the SW Region on solidarity – for women to advance gender equality, women need to band together across their differences in order to build strength and representation in numbers.

***NGOs.*** When participants appealed to outside agencies for support, NGOs were sometimes included as part of a list: “Chiefs, the government, NGOs...” However, the research activities did not elicit discussion about the role of specific NGOs in contemporary water governance in Cameroon (other than CIACC in Mudeka). Given the historical role of the Swiss NGO, Helvetas, and based on my interviews with individuals who have founded NGOs that actively work with both urban and rural communities in the development, installation, and management of community water schemes, NGOs have and continue to play a critical role in water governance in the SW Region. Yet these activities and initiatives were not widely addressed by the women or government representatives who participated in this study. Major international NGOs were not addressed at all. These silences raise questions about the role, recognition, and work of local and international NGOs in community-based water management.

*What about colonialism?* Lastly, I address Cameroon's colonial history. Concerned about the genealogies of contemporary structures of power, I have sought to reflect deeply on the role of colonization and neocolonial economic policies in relation to the research findings. Participants did not address colonial rule during the research workshops, and I was often constrained by having only a limited time to ask participants more about colonialism specifically. Therefore, I asked my peers, colleagues, and other students and academics about their perspectives on how Cameroon's colonial history shapes the waterscape today. I realize now that I sought evidence of resistance to colonial rule and neoliberal restructuring. Yet, my concerns about the negative impacts of colonization were regularly challenged. Overwhelmingly, I heard the opinion that life in SW Cameroon was better during colonial rule, and in particular during earlier German rule (between 1884 and 1916). Drawing on the work of Geschiere (1993), I had understood British indirect rule to be less invasive than the more direct and assimilatory strategies of France and Germany. But many people characterized indirect rule as neglect. The British governed from Nigeria, which signaled to many people that the British did not care about Cameroon. Many celebrated that the German colonial administration *lived* in Cameroon and built roads and infrastructure, much of which has been maintained and continues to remain in place.

In a region currently marginalized by the central government, these perspectives about Cameroon's colonial history are significant. In three of the four research communities, participants photographed or filmed springs, catchment areas, and infrastructure "built by the Germans" 100 years earlier. Despite the obvious repair and reconstruction of infrastructure, the collective memory of German intervention remained vivid. This perspective aligns with how—statistically—African cities that had longer periods of colonization have better contemporary access to improved water and sanitation facilities, owing to infrastructural developments by colonial administrations (Njoh & Akiwumi, 2011). This is not to suggest that colonialism be celebrated. However, these views complicate the experience of colonization. Some colonial projects, such as infrastructure, produced material change in the waterscape, thus these developments were more visible. Other colonial policies are more difficult to trace, such as how the different strategies for working with traditional leaders have produced change more slowly over long periods of time. I suggest that appreciation of the legacy of German colonial rule reflects a general discontent about current development achievements and marginalization of Anglophone Regions. It also challenges my assumption that those most affected by colonial and

neocolonial policies would be keenly aware of these policies, identify their negative impacts, and critique imposed and hierarchical forms of rule.

To conclude this section about the politics of participation, given the call for communities and women to be more involved in decision-making, participants reflected on some barriers that limit participation. Looking inward, participants reflected on cultural norms and the internalization of particular ways of being and thinking. Looking up, participants also appealed to authority figures, including traditional leaders and the government, to initiate community labour for communal projects, to implement water protection measures, and to support community-based water schemes. In so doing, participants identified challenges related to communication and access to information, existing government sanitation initiatives, histories of mistrust, and women's leadership. Lastly, public awareness about the privatized nature of water services in urban areas is low, limiting the water utility's accountability. The German colonial and SNEC postcolonial legacies in the area of water and development are strong.

### **The Possibilities of Participatory Visual Research**

As a final mechanism for collective change, many participants also celebrated and wanted more participatory research. Here, I describe the ways in which participants reflected specifically on the research process and outcomes. Inspired by intersectionality's both/and conceptual orientation, I am compelled to attend simultaneously to *both* celebration *and* critique.

**Celebrating engagement.** Overall, participants considered the research activities as an effective opportunity for broadening their access to decision-making and knowledge production. As described in the Fieldwork chapter, participants appreciated how much they learned and commented on the pedagogical and exploratory nature of the work. Through the fieldwork element of the workshops, many discovered parts of their communities they had never been to before. One young man, Kenneth, an employee at one of Kumba's municipal councils, visited his household's water source for the first time. Not responsible for collecting water in his household, he remarked that he had never seen the spring before. The workshops provided interactive spaces for exploring new ideas, such as the opportunity to interrogate new terminology and hydrological processes such as *water table* and *water catchment*. Comfort asked: "What is it really, what is it all about? What is the meaning of water catchment?" Participants discussed technical concepts and processes such as how pulleys work, the best materials for sustainable well construction, and how to clean wells. This language is critical for community members to engage in discussions



with decision-makers. The workshops also provided space to deconstruct and challenge normalized practices. While implicitly part of everyday life, many participants had never explicitly considering water as a gender issue.

The research facilitators also celebrated what they learned. While I did not conduct follow-up interviews with community participants, I had extensive debriefing conversations with each facilitator. Nancy was excited about participatory research because it exposed her to different, more democratic and inclusive ways of using workshop spaces such as displaying posters and photographs by hanging them on rope like a clothesline. Inspired by our conversations about tradition and the possibility to combine three topics (as with the original title of this study, *Women, Water, and Weather*), Faith confided how she was compelled to change her graduate studies application from a dual focus on gender and marriage to a three-way focus on gender, marriage, and tradition. Hope evaluated the participatory analysis workshop as an opportunity not only for generating important critique, but for provoking change:

So this workshop, I think Jennifer is giving us a very good opportunity for us to talk. And we know that, if we are criticizing, we should now act as the vanguards to go and start building the culture of people getting involved in community issues.

Leaders also appreciated the diversity of perspectives generated through the research activities, and affirmed the importance of participation in water governance. The Deputy Mayor of Buea Council stated simply: “This issue of water *needs* a participatory approach.” The Regional Delegate from the Ministry of Women’s Empowerment and the Family (MINPROFF) valued our participatory visual methodology as an experiential approach to education, learning, and community engagement:

These are problems that we go through. We are all facing them and we are experiencing it. I want to thank [Jennifer] for the very simple methodology that she used - like a teacher who is trying to teach students how to define a stone. There are stones all around you. Pick [up] a stone and show the students, and they know what a stone is. But most of the time, they will define: ‘A stone is a kind of thing that [...], this and that.’ I really thank her for her simple methodology. I think with that, all of us have understood. And the number of people involved in the pictures we saw, it’s a lot of sensitization. And all of us that are here [at the forum] added - that number is a bigger one.

Through the analogy of learning to define a stone, the Regional Delegate noted the worth of going out to look at, touch, and investigate particular issues *in situ*, rather than trying to understand them by rote or through textbook knowledge. She also appreciated the breadth of

perspectives and sheer number of people involved at various stages of the study. The Chief of Bwitingi reflected on what he learned in the discussion forum:

You see my book is full. I have been writing just too many things. I am going to build up something with all the things that I have heard. I will [...] read these things as a debate in front of the Chiefs in Fako [Division] [...] I want to think that if they all follow all what we have learned here today, we will join our words to say, '*Finally, Finally...*'

He trailed off with the infamous beginning of a gospel song, popular in the women's movement in Cameroon, "Finally the Lord has Done It," after which the women at the forum broke into song. The representative from the Governor's Office admitted:

The government actually alone is not enough. That is why, we always, you know, salute the efforts taken by the private sector, NGOs, the civil societies, and so on and so forth because they come to supplement the enormous efforts that the government is taking in this domain. So I want to say that in identifying the issues, the problem areas, CHAMEG and Madame Jennifer have done a lot for us because that is what we need.

Community participants, the facilitators, and political leaders all shared a strong sense of wanting more opportunities and space for participation, engagement, and learning.

**Celebrating achievements.** In addition, participants recognized several direct actions as distinct achievements resulting from our workshops. Women in Bwitingi mobilized the Governor's attention about construction in their catchment area. When the Peaceful Women group went into the catchment area, they noticed a house that was not visible from the road. While their photo of the house did not turn out (or it would have undoubtedly been selected as a key image), the women brought this concern to their Chief after our workshop. Alice explained:

After our seminar in Bwitingi, [... the] short role play that they did pushed to women to take up a strong decision to match what is happening today in Bwitingi. Because they themselves, they did not know that they even had a problem [...] When they [...] left the hall that day, they [went] to act their own film towards the catchment area, [...] they discovered that ... people are building. So they had to come back and inform the Chief, that we are here suffering for water. People are building in the catchment area [...] And with that action, they have sent people from the Presidency [in] just this short time. They have sent people from the Presidency. [...] It is a serious matter of demolishment.

For Alice, the research activities spurred discovery and action as forms of education and public engagement. While the outcomes of this action are difficult to trace, it was important for many women that their findings had achieved the Governor's attention. Additionally, the traditional leaders from each of the two rural communities implemented changes in their villages as a result of the study. In Bwitingi, the Chief invited more women to join his traditional village council. In Mudeka, the Chief organized community labour to reclaim an abandoned spring.

## German Spring: Before

Recall the abandoned German Spring from the previous chapter, photographed by all three women's groups and two of the three men's groups in the Mudeka community workshop:



"Abandoned underground spring"  
(Friends of All)



"Old drinking water" (Women with Action)



"This is the oldest stream, which was drinkable, but now is dry and polluted because of weather and hygienic condition  
(Faith Sisters)



"Main drinking water point abandoned and dried up because the trees are cut off" (The Elders' Group)



"The best potable water we ever had in Mudeka" (Youths of Hope)

**Figure 20.** Photographs of German Spring, Mudeka

### German Spring: After

After the research activities, I took the photos below on a follow-up visit to Mudeka (Figure 21). The Chief had organized the community to clear the brush around the spring, drain the collection pool, and dig an exit channel to encourage the flow of water. In addition, a new community land-use policy reportedly implemented a waste disposal ban in this area.



**Figure 21.** Photographs of German Spring after the research (Mudeka)

Ultimately, participants celebrated these commitments, achievements, and actions as examples of the types of changes they would like to see in their communities.

**The risk of romanticization.** While I do not want to take away from celebrating these achievements, I also do not want to romanticize participatory research. Exclusionary politics shaped participation in the study both in terms of who did not participate in the study, as well as the nature of participation of those who did. For example, in the widely attended image production workshops, participants emphasized the problems they faced. Discussions about change and the politics of participation emerged more significantly in the participatory analysis workshop and decision-maker forum. These were more exclusive events attended by fewer, more urban, and elite community representatives and leaders. The rich discussion about gender, tradition, and women’s barriers to participation occurred among women in the analysis workshop. Much of the conversation at the final forum attended by leaders focused in particular on water and how to spur community participation. It is important to acknowledge how my decision to focus the thesis on these later events privileges particular voices, perspectives, and concerns.

Additionally, I recognize that participant concerns about the study and community expectations about my role as a researcher might not necessarily have been vocalized—to me. One video from Mudeka, “Struggle to Survive” by Faith Sisters, addressed the role of the

researcher through its portrayal of me. While not selected by participants to represent community concerns, I describe this video here to complicate the narratives above:

In the video, a group of women disagree about how to use the small amount of water stored in an enamel basin on a verandah. When one woman dips a blue plastic cup into the basin and starts sharing it with the children in the yard, her neighbour comes over and tries to take the cup away from her. In the midst of the scuffle, other women call out: “*Wata no de! Wata no de!*” [There is no water! There is no water!].

Marceline enters the frame and pulls the arguing women apart: “*Dis wata palava fo dis kuntri! Man no go dai fo dis wata!*” [Water problems in this country! We won’t die for water!] She continues, reaching both hands out in front of her as she speaks to the women around her: “*Wuna no wori. Wi no se awa nem na ‘faith’, no? We wi ge faith... bikos if govmen fel wi, God no go fel wi.*” [Don’t you worry. We know our name is ‘faith,’ right? When we have faith... because if the government fails us, God will not fail us].

Marceline then lifts one hand in the air and snaps her finger, “*eh-heeeeehn!*” marking an idea: “*Wi ge sum sista, we yi ge sum fain wel. Wuna don hia? Wetin wi go do, se wi go go fo dat wel. Wi go mek ‘personal initiative’. Wi go wash am veri wel. Wi klin am, so dat yi go helep wi fo gi awa pikin dem, fo awa massa. Wuna don hia? So dat dis wahala fo dis wata go stop.*” [We’ve got a sister who has a good well. Do you hear? What we’ll do, is we will go find that well. We will take our own personal initiative. We will wash the well very well. We will clean it so that it will help us give water to our children, to our husbands. Do you hear? So that these problems for water stop.]

As Marceline speaks, the women around her respond with choruses of, “*Weeeeh!*” [an audible sigh], “*Yes, na tru!*” [Yes, it’s true!], and “*Amen-ooo.*”

Marceline then introduces another idea: “*Wetin wi go do now, wi go beg dis sista Jennifer we yi don kam to dis... fo dis palava, fo dis research. Se, me yi no awa trobul... awa trobul fo dis ground, fo dis Mudeka. Na wata. So now yi go go fo Kanada. As yi go rich Kanada, me yi sho wi se, wi de ova-sufa... fo sek of wata. So dat, yi go kam, yi go helep wi. Wuna don hia, na?*” [What we will do now, we will beg this sister Jennifer, who came to this... for these problems, for this research. Let her know our troubles... our troubles in this land, in Mudeka. It’s water. So she will go to Canada. When she gets to Canada, she will show that we are over-suffering... for the sake of water. So that she will come back, and she will help us. Do you hear?]

Looking down the road with hands outreached, Marceline smiles: “*Na wata palava-oooo! Sista!*” [It’s water problems! Sister!] Julie enters the frame as Jennifer, the researcher wearing a red and white Canada jersey with a maple leaf emblem. She says: “*Eh, no go dai fo wata!*” [Don’t die for water!]

At this point, the women speak over each other about their need for water and help accessing good water in their community. The video ends with the camera panning away from the group to follow Sally as she moves through a crowd of children, puts her hand on each child’s head, and brings the blue cup to their mouths for them to drink: “*Wata fo wash klos. Weh. Oooo sufa. Pikin, den no ge wata. Den no ge gud wata. Le Papa God helep wi, so dat govmen go helep wi. Wi di sufa.*” [Water to wash clothes. Weh. Oooo, suffer. Children, they don’t have water. They don’t have good water. Let Papa God help us so that the government helps us. We are suffering.]

When we screened this video in Mudeka, the audience burst out laughing when “Jennifer” walked into the frame. This unexpected portrayal, and yet at the same time this astute commentary about the research process, is one of the only times when participants explicitly took up my role in relation to the study. Yet there are so many questions about this video. What does it mean for women to come together and work to resolve water conflicts and access issues? What does it mean that this group of participants explicitly positioned me or perhaps researchers or “outsiders” more generally, as a source of assistance alongside the government and God? What does it mean that a Canada jersey was *already* there in this community? Did these participants want me to locate and/or develop their water system, or fund a water project? What does this mean, ethically, for water researchers? In the context of this particular community’s history and concerns about repeatedly being excluded from water projects, what are the implications for participatory water research?

According to customary protocol, the highest-ranking official at our decision-maker forum gave the final statement, which concluded the event. As part of his statement, he told a cautionary tale about participatory development:

I want to tell you a small anecdote on this issue of a participatory approach [...] There is this community [...] where the water crisis there had been identified by a number of well wishers. And, they had good intentions [...] They noticed that these people travelled long distances, more than 20 km to carry water. So one day they came to solve their problem, [and] dug the borehole within the community. And regrettably, the enthusiasm that marked, you know, the coming of this borehole lasted for two days. The third day, they noticed that the community, the children still went back to [the original source] to look for water. So, they were like, embarrassed. They cornered the parents, the fathers, the mothers, and asked ‘But what is happening? The borehole is producing water. Why is it that you people don’t send your children to carry water there? That is within the community.’ And it was easy: The parents preferred sending their children far away because they live in small, small huts. And within that period, you know, they mate. They make their children. They make children. They don’t have any other period to do that [Laughter]. Well, that was an oversight.

Certainly, there are multiple possible readings of this narrative. Perhaps advocating for greater community involvement in water decisions, this story might be interpreted as warning outsiders about providing communities with water without proper consultation. As exemplified by the situation in Mudeka, development projects implemented by outsiders often fail because communities have not been involved. However, this story might also contain more subtle cues. The story described communities as rural, living in “small, small huts,” and preoccupied with “mating.” In the moment, the story was well told, engaging, and funny; many people laughed. In

retrospect, I wonder if this story also risks dismissing participation, mocking or sexualizing citizens, and undermining communities' capacity for self-determination. Further, after viewing women's photographs and videos and discussing for over an hour how water shortages impact women, the official's focus on *parents* and *children* effectively de-gendered water collection. This overlooked one of the participants' key messages in the study – that women and communities need reliable water closer to home. At the same time, the issues of reproduction, childcare, and privacy in the home are implicitly a very gendered reference to women's spheres. Perhaps this narrative signals the very complex nature of gender-water dynamics, and the dire need for *more* dedicated spaces to have these conversations.

**Participation, empowerment, and power.** Considering these celebrations and critiques, I want to discuss briefly how power is contradictory; participatory research processes can be both empowering *and* disempowering at the same time. I suggest the need to attend carefully to dichotomous views of participation that either celebrate uncritically the agency and empowerment of marginalized people or raise critical alarm about the appropriation of participation to maintain the status quo. Almost 150 different people were involved at different stages of this study. Questions about participation need to consider the involvement of and my relationship with my colleagues at CHAMEG and the fieldwork facilitators, 96 community members from two villages and two cities, and many types of traditional, NGO, and government leaders across different events and moments within the study, including research planning and design, the facilitator training workshop, photovoice and participatory video workshops in each community, a participatory analysis workshop, public community exhibitions, and the decision-maker forum. A single shared experience of participation is unlikely. There is a need for space to consider participatory processes as messy, dynamic, and multi-faceted. From an intersectional perspective that stresses the complexities of social experience, a both/and conceptual orientation explains how different forms of discrimination (such as racism and sexism) operate at the same time. I want to stress that—because structures of power intersect—it is possible for participants to experience forms of privilege and forms of discrimination simultaneously.

These complexities of power (and therefore of empowerment) are important considerations within participatory research. In the Introduction, I established a participatory approach to research that promotes reflexive engagement and critical thinking as a way to change consciousness so that people see their own circumstances differently. This process is meant to

spur empowerment and ultimately transformative change. Reflecting on this idealized process, after the image production workshops, many women expressed feeling inspired, having increased awareness about water issues, and becoming more active and informed members of their communities as a result of activities we undertook together. The visual processes of going out, looking, documenting, and acting played an important role in bringing everyday water practices and gender norms into focus. These forms of engagement and knowledge production offered critical opportunities to ground the research in women's everyday realities.

At the same time, I want to note that this process was sometimes difficult. Photographing and videoing pollution, sanitation practices, and gender discrimination prompted participants to see their circumstances through a different lens, which identified problems. This was not necessarily empowering or transformative; it was sometimes unsettling. Questioning their everyday and normalized water and sanitation practices, many participants blamed themselves and each other for the poor state of water resources in their communities. Here, I am reminded of Ellsworth's (1989) question about critical pedagogy, "Why doesn't this feel empowering?" (p. 297). As many scholars have noted, participatory processes *also* risk replicating dominant hierarchies and ideologies. I ask, at what point do empowering processes of self-reflection become disempowering processes of self-critique? Our research conversations about mentality raised some difficult questions about the ways in which dominant power structures such as racism, sexism, and colonialism become internalized. Drawing on critical race research, Pyke (2010) argued that with a theoretical interest in resistance, the internalization of racism among racialized groups has almost become taboo. How do these ideas about the internalization of inequality contribute to participation, empowerment, and change? I suggest the need for more ongoing comprehensive *participatory* analysis about how empowerment and disempowerment intersect from an anti-oppression framework.

## **Conclusion**

In this chapter, I have added to the descriptive findings about the gendered nature of water *wahala* in Chapter Five and focused on participant discussions addressing the opportunities and politics of change. Here, hard-path infrastructural developments of water service networks are important for improving community access to water and sanitation. Many participants also identified a number of practical, feasible, and accessible ideas that households and communities could implement independently without major financial support or technical



expertise. These soft-path suggestions included improved surface wells, rainwater harvesting, storage and treatment practices, and community labour. Yet conversations about more collective mechanisms for change such as community participation, education, and more democratic forms of decision-making also revealed the politics of power. Ambiguities about how to initiate and implement these ideas led to tenuous conversations about responsibility, accountability, and *who* needs to change. These tensions spanned multiple sites including personal water and sanitation practices and internalized mentalities shaped by patriarchal structures of authority, as well as the relationships between traditional rulers and the State, histories of mistrust, and women's leadership. This chapter has described the politics that shape the gendered waterscape beyond the policy environment.

## MUTUAL ENTANGLEMENTS

There is no such thing as a single-issue struggle because we do not live single-issue lives.

Audre Lorde, 1984, p. 138

Through water we are mutually implicated with other humans, with more-than-human others, and with the fabric of the world.

Margaret Somerville, 2013, p. 83

In this chapter, I discuss how intersectionality—centering the entanglement of difference—offers an opportunity to explore the interplay between social relations and water. To incorporate the materialities of water and water infrastructure within intersectional thinking, I ask: What does intersectionality do? How does it work? What are the processes by which power, privilege, and discrimination are enacted and maintained? And as I asked in the Introduction, where is the water in this? To better account for the interactions between society and water within intersectional thinking, I explore what it means to incorporate material dimensions of the physical environment within intersectionality. Building on Sultana's (2009) reconceptualization of gender as a socio-spatial-ecological process, I revisit intersectionality theory and method and tease apart how it works. Drawing on the study findings, I examine the mutual entanglements<sup>79</sup> of gender and water. By highlighting how different social and material dynamics intersect, I show how these entities co-produce the waterscape. Expanding intersectional analyses to include materialities of water, I interrogate what it means to mainstream water within feminist thought.

In the two findings chapters, I focused closely on describing and bringing together participant concerns. In this chapter, my background in environmental engineering influences my analytical lens more significantly. For one, the idea of deconstructing a theory to identify parts mirrors a type of engineering, or systems thinking. Taking something apart can facilitate a particular understanding of its component parts, the relationship between these parts, how it functions as a whole, and how to go about modifying it. My hydrogeological training and experience also shapes how I think about the spatial organization of materials. Mapping rocks,

---

<sup>79</sup> I acknowledge that the concept of mutual entanglement emerged from quantum physics. The term, entanglement, was apparently first used by Erwin Schrödinger, although a full discussion of the concept as it was intended in the field of physics is beyond the scope of this thesis. My use of mutual entanglement reflects Margaret Somerville's (2013) use of the term to describe the relationship between water and society.

soil, and groundwater, and studying aerial photographs required me to think from above. Yet many hydrogeological features are not necessarily visible from the surface, requiring me to think about the underground. In my work assessing soil profiles by observing the drilling of boreholes and digging of trench pits, I demarcated the transitions between material layers such as surface fill material, natural layers of soil, and bedrock, as well as where the water table intersected with these layers. The material and spatial dimensions of geological difference were my central concerns; I needed to be able to distinguish a silty sand from a sandy silt and think three-dimensionally about how oil-contaminated groundwater moves through layers of soil. While I do not take up these analytical tools explicitly in this study, all of this means that when I travelled through various landscapes in SW Cameroon, I often thought about where the water was coming from and what it was doing. I noticed the material and spatial dimensions of hydrogeological difference. My interpretation of participant photographs, videos, and concerns is informed by this particular geological understanding of the relationship between water and land. Therefore I note this explicit influence in my analysis of the gendered politics and social relations of water.

### **Revisiting Intersectionality Theory: A Hydrosocial Framework**

To consider integrating the materiality of water within intersectional analyses, I propose four relevant aspects of how the theory works: 1) Simultaneity; 2) Situated specificity; 3) Relationality; and 4) Fluid consistencies. Elsewhere, I established these mechanisms and explored them in relation to the spatial and temporal dimensions of water (Thompson, 2016).<sup>80</sup> Drawing on the empirical work of Anne Coles (2005) in her historical case study about gender and geology in Sudan and Farhana Sultana (2007, 2009, 2011a, 2011b) regarding the gendered implications of arsenic-contaminated groundwater in Bangladesh, I demonstrated the ways in which difference in the physical world intersected with social relations.

In this chapter, I work with these four mechanisms as conceptual tools for *thinking through water* (Krause & Strang, 2016) and what it means to integrate the materiality and technologies of water within intersectional thinking. Drawing on foundational texts in the intersectionality literature, I first establish how each mechanism works. I then illustrate each mechanism with examples from the study, addressing the topics of violence, Mount Cameroon, everyday water decision-making, and the politics of tradition as they relate to gender and land.

---

<sup>80</sup> In this publication, I identified the fourth mechanism as fluidity. Inspired by the work of Veronica Strang (2014a), I have borrowed her term and complicate this fourth mechanism to be *fluid consistencies*.

Focusing on the influential role of water in constructing gendered hydrosocial relations, this chapter teases out some of the ways that water and society are mutually entangled.

### 1) Simultaneity

One cornerstone of intersectionality is that multiple forms of inequality operate simultaneously, i.e. *at the same time*. Power does not operate in isolated linear hierarchies but within complex and interlocking systems or what Collins (1990) termed a matrix of domination or oppression. Patriarchy, racism, and class structures, for example, operate simultaneously. People can be *both* included *and* excluded from groups, experiencing *both* the privilege of belonging *and* the discrimination of not belonging at the same time (Baca Zinn & Dill, 1996; Collins, 1990; Moraga, 1983; Narayan, 1997). This *both/and* orientation is a core concept of intersectional thinking (Baca Zinn & Dill, 1996; Collins, 1990). I offer simultaneity—that multiple frames or forces can coexist, and in contradictory ways—as a pillar of intersectionality.

Simultaneity also offers a mechanism to include water in intersectionality theory. Geographers examine how both social and material processes construct water-society relations. As Linton and Budds (2014) theorized within the hydrosocial cycle, entanglements between water and society include social relations as well as H<sub>2</sub>O in the environment and infrastructure. Following intersectionality's *both/and* orientation, lived experiences of water are *both* social *and* material. Social hierarchies operate simultaneously with materialities in the physical world. I suggest that feminist thinking about difference and power would be expanded if conceptualized with both social and environmental dimensions. At any given moment, mutual entanglements of social, environmental, and infrastructural systems act simultaneously to produce the waterscape and influence circumstances of privilege and discrimination. Hardly a new concept, simultaneity is often implied through discursive expressions such as “at the same time,” “simultaneously,” and “both... and...” that are used to describe the complexities of social relations, as well as the relationships between nature and culture. I suggest more explicit analytical attention to simultaneity as a methodological tool for thinking through intersectional relationships and pushing past either-or conundrums in water-society debates (see Strang, 2014a).

**Embodied intersections of violence.** To illustrate simultaneity with an example from this study, I consider the relationship between water and violence. Participants articulated different forms of violence as they relate to water and emphasized the critical role of the body in mediating violence. Violence is often conceptualized as an intentional use of force causing

physical or psychological harm or deprivation (WHO, 2002), which accounts for personal forms of violence that are directly observable. However, this definition excludes forms of violence that may not be intentional but that reflect structural inequalities. Structural forms of violence are often normalized or embedded such that they seem indirect, sometimes to the point of being difficult to identify (Farmer, Nizeye, Stulac, & Keshavjee, 2006; Galtung, 1969). Therefore, Galtung (1969) conceptualized violence more broadly as the *avoidable “cause of difference between the potential and the actual, between what could have been and what is”* (p. 168, italics added). Together, personal forms of violence (or what Galtung referred to as direct violence) and structural forms of violence are understood to cause bodily or psychological harm and negatively impact the well-being and potential of persons, groups, or communities to thrive. Drawing on Galtung, I suggest that the *cause of difference* between what is and what could be is not always or necessarily only social and that heterogeneities in the environment also construct difference. Materials and processes in the environment can also cause harm, and affect the human potential to succeed and flourish. Simultaneity offers a lens for examining how different forms of violence intersect as tools and expressions of oppression. Below I discuss the simultaneity of embodied intersections of social, environmental, and infrastructural forms of violence.

***Gender-based violence and water.*** From a conventional (social) approach to intersectionality, this study showed that unequal social relations shape water experiences at the intersection of gender, race, class, age, and marital status. Simultaneity helps to distinguish how different types of social violence intersect. For example, gender violence intersects with age hierarchies. In managing multiple water-related responsibilities, women face compounded forms of violence. In their roles as household water managers, many women navigate domestic violence from their husbands or perhaps other male household members. At the same time, in their roles as mothers and caregivers, women manage the risks and implications of sexual violence against girls and young women. Women also can and do experience sexual violence, but in this study women positioned girls and younger women as being more vulnerable to assault. These intersecting forms of violence were portrayed in Women of Faith’s video from Kumba, “Stress Women,” when Miranda *both* defended herself against conjugal violence from her belligerent husband *and* sought retribution for her daughter, who had been raped while out collecting water. This scene illustrated how women simultaneously negotiate different forms of embodied violence that cause both physical and emotional harm.

Further complicating these positions, carrying water is low status labour and many privileged women are in positions to inflict harm. Some women are hierarchically positioned within households with the status to assign and discipline water collection work according to age and class. Women with particular social status habitually task girls, boys, and house helpers with the arduous corporeal task of going out, finding, and carrying water, and use forms of corporeal punishment to discipline this type of work.

Yet I return to Michelle Fine's (2014) suggestion not to crop too close. It is important to also contemplate how a lack of access to improved water itself is a form of racialized structural violence (Farmer et al., 2006). Constructions of race have significantly influenced the development of a global order in which the groups and areas of the world without adequate access to improved water (or sanitation) are primarily racialized. The lack of access to improved water reflects global distributions of wealth and the uneven nature of development. Given gendered divisions of water labour, this means that racialized women bear the brunt of this structural violence. While the research participants did not address race explicitly, the relationship between gender and water cannot be understood without a critical analysis of race. Attention to simultaneity enables an analysis that brings together in one frame how interpersonal forms of gender-based and sexual violence intersect with forms of structural violence to produce specific subjectivities in relation to water.

***Environmental violence to and by water.*** At the same time, the experiences of violence depicted by participants are *also* shaped by the materiality of water. Here, I draw on the idea of environmental violence. Extending the need to consider the environment as a trigger for violence (such as conflicts over resources), Peluso and Watts (2001) asked, "What difference does environmental difference make?" (p. 25). A paucity of theoretical work brings together violence and the environment:

Violence stands awkwardly in respect to environmental concerns. The environment is increasingly present and yet frequently hidden by both the perpetrators and observers of violence alike. Very little work has explored explicitly the ways that environmental violence reflects or masks other forms of social struggle. In general, the ways different forms of violence systemically figure in environmental struggles remain seriously under-theorized. (Peluso & Watts, 2001, p. 6)

More recently, Indigenous feminist activism by the Women's Earth Alliance and Native Youth Sexual Health Network (2016) in North America defined environmental violence as:

the disproportionate and often devastating impacts that the conscious and deliberate proliferation of environmental toxins and industrial development (including extraction, production, export and release) have on Indigenous women, children and future generations, without regard from States or corporations for their severe and ongoing harm. (p. 38)

These calls for broader understandings of violence emphasized the need for greater attention to how social and environmental struggles connect. I offer the concept of simultaneity for thinking through the multiple forms of violence committed to and by water.

For one, avoidable harm is committed *to* water. Participants were concerned about the multiple uses and abuses of water within households and communities as well as through sanitation, agricultural, and development practices. Valuing conservation and sustainability, many participants characterized local waste disposal practices as “trashing” the environment, akin to abuse and neglect, and were troubled by the water extracted by tanker trucks and banana plantations. These forms of violence impact water itself.

Environmental violence might also encapsulate the harm committed *by* water. If violence relates to the *cause of difference* as Galtung (1969) theorized, consider the uneven spatial distribution of water on Earth. These hydrogeological distributions construct experiences of privilege and structural violence. For example, the SW Region of Cameroon receives among the highest annual rainfall rates on Earth. One student at a secondary school in Buea, where I conducted a follow-up research project about water (not reported on here), telephoned me to ask me why I did not conduct research in Cameroon’s Far North Region, where the desert climate significantly intensifies and exacerbates water struggles. This student identified the relative privilege of living in the SW Region, where there are more abundant water resources. The point is that too much or too little water also constructs violence. While it is also important to consider the ways in which extreme events such as floods and droughts are socially produced, climatic changes, hydrogeological processes, and weather events produce particular material conditions that act on and influence society.

When violence is defined as resulting in “injury, death, psychological harm, maldevelopment or deprivation” (WHO, 2002, p. 4), the materiality of water matters. First, water is dense, which makes it heavy to carry. Carrying water *produces* embodied physical strain, the sheer physicality of which requires appreciation. In photographs and videos, participants portrayed water carriers heading out on foot to carry water containers by hand or on their heads. For a relatively small household of four, for example, a woman or girl might feasibly carry 160

lbs of water daily.<sup>81</sup> As a liquid, water also shifts its weight in containers when moved. This movement creates additional force for water carriers to contend with. Water's weight affects the embodied experiences of water carriers, strain that is unevenly distributed according to social status. While labour is not necessarily a form of violence in and of itself, the findings showed that undue physical strain related to water carrying produces embodied and emotional discomfort as suggested in Water Strugglers' video title, "*Wata na Ches Pen*" (Water is Chest Pain).

Water quality also contributes to embodied forms of violence and harm. Regarding sanitation, people also mediate the materiality of water through bodily processes related to ingestion, contact, and expulsion. In the video "Water Nightmare" produced by Caring Friends at a spring in Kumba, women depicted how the chemical and bacteriological contents of the spring water *acted on* women's bodies in visceral ways that produced vomit, diarrhea, and skin rash. While poor water quality certainly impacts everyone, participants expressed particular concern for the more vulnerable bodies of children, elderly people, and people with existing illnesses. An intersectional lens that includes the heterogeneous distribution of water in the physical environment and questions about sanitation, as well as the social, political, and economic gendered inequalities of water, articulates a more comprehensive view of the gendered nature of water. While the uneven distribution of the benefits and burdens of water are significantly shaped by social hierarchies, the materiality of water matters *simultaneously*.

***Infrastructural violence.*** Third, the materiality of infrastructure and technology also shapes different forms of violence. Deeply embedded within and constitutive of everyday life, infrastructure plays an important role mediating water-society relations.

Infrastructure shapes how people relate to the city and to each other, affecting where and how people and things move across time and space. At the same time, infrastructure is also completely caught up within the workings of social, cultural, economic and political arrangements, structures and technologies. (Rodgers & O'Neill, 2012, p. 403)

Therefore, infrastructure plays an active role in operationalizing and sustaining social inequalities. Rodgers and O'Neill (2012) explained further:

Infrastructure is not just a material embodiment of violence (structural or otherwise), but often its instrumental medium, insofar as the material organization and form of a landscape not only reflect but also reinforce social orders, thereby becoming a contributing factor to reoccurring forms of harm. (p. 404)

---

<sup>81</sup> In Buea, research estimated an average daily water use of 20 L per capita (Folifac, 2012). Given that 20 L of water weighs approximately 40 lbs, small households of four people would therefore need to carry about 160 lbs of water per day.



The concept of infrastructural violence offers a way to “nuance our analyses of the relations between people and things that converge daily in urban life to the detriment of marginalized actors” (Rodgers & O’Neill, 2012, p. 401).

Infrastructural violence also manifests in rural environments. In the context of the Chad-Cameroon Oil Pipeline, Murrey (2015b) studied the experiences of people living in rural areas along the pipeline corridor. Adding to theories of structural violence, she expanded the various ways that structural or ‘slow’<sup>82</sup> violence is made visible, as i) tangible through the body in gendered ways, ii) connected to historic colonial and racist structures, and iii) spatially compounded (p. 15). Infrastructural violence involves complicated social relations, but also material embodied and spatial dimensions, which need to be maintained within a wide analytical frame. Murrey (2015b) explained: “By focusing the conceptual lens narrowly on one form of violence, we overlook mutually constituting forms that simultaneously configure landscapes and lifescapes” (p. 18).

Water infrastructure and technologies are significant sites where forms of violence converge. In this study, infrastructural violence was most readily apparent in the spatial disparities related to piped water distribution networks. The material distance between water taps shapes the nature of gender experiences walking, searching for, and carrying water long distances. Yet the nature of water access and related gendered dynamics vary according to the particular type of water access technology. For example, borehole and surface wells—point sources independent from piped networks—evoked different types of labour and aesthetic experience. In the video “Matters Arising,” produced by the Water is Life group from Kumba, the mother of quadruplets played by Melina strained to haul enough water from the surface well in her family compound. Surface wells require leaning forward over the edge of the well to lift water by the bucket, a strain that can be alleviated with an additional material technology—a pulley. In Mudeka, the Elders’ Group photographed a well where someone died, which elicited conversations about risk, fear, and safety related to vertigo and falling. Borehole wells produced different sets of concerns related to the cost of installation, and in Mudeka, specific aesthetic and sensory responses related to the rust in the deeper layers of groundwater in that community. Exploring the relationship between infrastructure and affect, anthropologist Brian Larkin (2013)

---

<sup>82</sup> Here, Murrey (2015b) refers to the work of Rob Nixon about ‘slow’ forms of violence that relate to the temporal complexities of violence that relate to, for example, climate change, deforestation, and the environmental impacts of war.

described infrastructures as producing aspirational responses such as fantasy, awe, and desire. I suggest it is also important to consider grittier responses to infrastructures that include frustration, discomfort, fear, and discouragement. The materialities of infrastructure intersect simultaneously with other forms of embodied violence to particularize gendered experience.

To include the materiality of water within intersectional analyses, I offer simultaneity as a conceptual tool for thinking through how power relations are produced *both* socially *and* materially. Using embodied violence as an example, I have discussed how social, environmental, and infrastructural forms of violence intersect and operate simultaneously. The materialities of water and water infrastructure play an important role in shaping gender-water relations. Given that “structural violence is perpetuated through analytic omission” (Farmer et al., 2006, p. 1690), I suggest that excluding these material dimensions of water from gender analysis risks perpetuating violence. Simultaneity can be helpful for thinking through more explicitly the social and material dimensions of water within intersectionality.

## **2) Situated Specificity**

A second dimension of intersectionality is the need to contextualize and particularize the construction of situated experience. That is, specific histories and cultural contexts shape people’s lived experiences of privilege and discrimination in particular times and locations (Baca Zinn & Dill, 1996). Early feminist expressions of intersectional thinking by Anna Julia Cooper (1998), Cherrie Moraga (1983), Kimberlé Crenshaw (1989), and Uma Narayan (1997) drew on very situated national, cultural, and political contexts to describe intersectional experiences. As I noted in the Introduction, Chandra Mohanty (1988) emphasized the important role of *historic specificity* to contextualize women’s experiences and attend to difference. Gendered social life does not unfold in a vacuum but within unique and situated historical, cultural, political, and economic times and places.

With this attention to situated specificity, I highlight the need for analytical attention to how social relations reflect and construct explicit *environmental* contexts. The hydrogeological configurations and processes of particular places have distinct and dynamic spatial and temporal dimensions. To *contextualize* lived experience also means considering, in some way, how material conditions related to the environment and infrastructure contribute to human engagements with water. I suggest the need to interrogate more deeply how gendered social struggles connect with the distinctive environmental and infrastructural configurations of

particular spaces, times, and locations. I offer situated specificity as a second tool for thinking through how water influences social experience.

**Situating Mount Cameroon.** To discuss the situatedness of water-society entanglements in this study, I contemplate how mountains produce water. Mount Cameroon exerts significant influence on the geographies of water in Cameroon's SW Region. One of the highest peaks in sub-Saharan Africa, Mount Cameroon rises up from the Gulf of Guinea and causes the moisture-laden tropical to affect the rainfall patterns<sup>83</sup> and general availability of water in the areas around the mountain.<sup>84</sup> In a basic sense, mountain geographies influence the spatial and seasonal distribution of water resources. In participants' words, water comes *from* the mountain. Water flows *freely* down the mountain. The mountain oozes with water, offering a kind of physical water subsidy. Several participants spoke about being "blessed" in reference to the privilege of living close to the mountain. This focus is not to overlook the influence of social, political, and economic relations of power in shaping which geographic regions donors and governments invest with infrastructure and technical expertise. However, I emphasize that Mount Cameroon *also* influences the nature, extent, and cost of intervention required to facilitate water access.

In this study, there was a correlation between the location of the research communities in relation to the mountain and the intensity of water access challenges. At the time of research, the two communities located on the mountain (Buea and Bwitingi) had better access to good quality water. The other two sites, located farther from the mountain (Kumba and Mudeka), were dealing with more acute water challenges. Many participants were surprised that water access can vary so drastically within such close geographic proximity. I do not mean to over-extrapolate the significance of this pattern; perhaps it was a coincidence that the two communities farthest from the mountain happened to be struggling the most in the early months of 2013. Indeed, Kumba's water intake issue was eventually resolved. However, this correlation prompted me to consider the role of topography in contributing to water vulnerabilities.

Very generally, the mountain's steep incline facilitates the distribution of water through gravity-fed piped systems. Communities located on the flanks of Mount Cameroon rely less on

---

<sup>83</sup> Orographic rainfall is the type of rain caused when warm moist air rises, cools, and forms clouds as air moves over mountain ranges. Most rain falls upwind of the mountains. For Mount Cameroon, the west and southwest parts of the mountain receive the highest amounts of rainfall. The city of Buea—located on the southeastern part of the mountain—is considered to be in Mount Cameroon's rain shadow and receives less rainfall than coastal towns.

<sup>84</sup> To further disaggregate the geography *on* the mountain, it would also be possible to distinguish its different microclimates, as defined by material particularities that include the mountain's shape, incline, number of peaks, vegetation, specific distribution of soil and rock types, and orientation in relation to the sea and air currents.

the politics and technologies of intervention because gravity—a force exerted by the Earth— influences the movement of water through piped networks. Communities located in the flatter plains farther from the mountain must rely on other means for pumping piped water such as generators, which are more expensive to maintain and require greater technical expertise.

The topography of the mountain also matters in the context of unreliable water network services, where communities rely on alternatives. On the steep sides of the mountain, the water table is closer to the surface such that springs and streams are more readily accessible with minimal technical intervention. The mountainside village of Bwitingi is renowned for how its water bubbles up out of the ground. When I first arrived in Cameroon, my colleagues brought me to Bwitingi so that I could see how the groundwater flows on the land, disappears underground, and then bubbles up again farther downhill. It was truly a sight to see! In Kumba and Mudeka, the topography is flatter and the water table is much deeper; there are simply fewer springs and streams. To cope with deeper water, communities dig wells. In participant photographs and videos, wells were only depicted in the flatter areas located away from the mountain (Kumba, Mudeka, and in Bomaka—the lower plain of Buea). This does not foreclose the installation of wells on the mountain. However, the bedrock on the mountain is shallow and requires more costly drilling equipment, making this option less accessible financially. The particularities of these hydrogeological features—incline, depth of water table, and depth (and hardness) of rock—do not determine water access, *per se*. However, they play an important role in shaping decision-making regarding water access.

In addition to these hydrogeological factors, I note the situated and specific ways that Mount Cameroon is also socially produced at the intersection of gender, race, ethnicity, and class. Considered a biodiversity hotspot with protection status according to the International Union for Conservation of Nature, Mount Cameroon was established as a national park in 2009 with plans, implications, and budget commitments to support ecotourism, conservation, and community development (Mount Cameroon Trekking, 2012). With this status, the mountain attracts international interest and invites particular social relationships. Promoted by the government as a tourist attraction, Mount Cameroon receives almost 1000 visitors annually (mostly resident expatriates and Cameroonians) to complete the popular three-day trek to the summit and lava fields (MINFOF, 2014). While a mountain access pass costs much less for Cameroonian nationals than it does for expatriates, this leisure expense is hardly affordable for many

Cameroonians. Apart from the guiding community, most mountain trekkers I met in Buea were White volunteers or tourists. Many of my Cameroonian friends and colleagues were afraid of the mountain, wary of its steep incline and unpredictable weather shifts, and revering the strength and power of its Gods. The mountain is considered to belong to Buea's Indigenous ethnic group, the Bakweri people. On my mountain tour in 2014, my guides explained that Bakweri people have special entitlement to guide visitors on the mountain. This shapes the construction of masculinity among Bakweri men, many of whom come of age first as luggage porters and then as trekking guides. This adventure culture constructs a particular bravado but also local pride about the mountain, and a livelihood that involves more interaction with and access to foreign visitors. These social dynamics of strength and power are also influenced by the annual Mount Cameroon Race of Hope, which was sponsored for many years by Guinness<sup>85</sup> before being taken over by local committees. During this gruelling race, the predominantly male competitors summit the mountain and return to Buea in one day, with the fastest times typically ranging between 4.5 and 5.5 hours. Two women, Sarah Etonge and Yvonne Ngwaya, have each won the women's title seven times, earned the mythic status of Queen of the Mountain.

The geography of the mountain has also played an important role in constructing the social, political, and economic dynamics in the SW Region. The Germans selected Buea as their colonial capital because of its cool and amenable mountain climate. Mount Cameroon is also one of the most active volcanoes in Africa (Suh et al., 2003),<sup>86</sup> which creates a genuine risk and danger in the area of potentially catastrophic eruptions. When the mountain last erupted in 1999-2000, the lava happened to flow away from Buea but my colleagues described ash and rock falling from the sky in town. Intensive seasonal rainfall also creates frequent landslides (Ayonghe, Ntasin, Samalang, & Suh, 2004), which move matter (lava, rocks, and mud) down the mountain. Over millennia, eruptions and landslides have created rich, fertile volcanic plains around the mountain that have enabled and sustained plantation agriculture, which shaped earlier colonial profits and the relative political and economic wealth and power of contemporary Buea.

It is compelling to study the relationship between intersectionality and water by thinking through the situated specificity of the mountain because this conceptual tool opens up so many

---

<sup>85</sup> Roberts (2010) described how successful Guinness marketing campaigns in Africa based on a fictional advertising character, Michael Power, have connected its Foreign Extra Stout beer with the construction of strong, Black, virile, and upwardly mobile African masculinities. Cameroon and Nigeria are amongst the top five consumers of Guinness in the world.

<sup>86</sup> According to Suh et al. (2003), Mount Cameroon has erupted seven times in the last 100 years.

different analytical avenues. Indeed, it is difficult to contain these possibilities. However, I suggest that this type of expansive thinking helps develop analytical frames that are wider and, as Kimberlé Crenshaw urged, more “capacious” in order to “to address all the ways that disadvantages and burdens play out for all members of a particular group” (Vasquez, 2016, para 2).<sup>87</sup> The social and material aspects of Mount Cameroon matter in developing a fuller understanding of, for example, the vastly different water situations in the two rural communities, Bwitingi and Mudeka. The village of Bwitingi could almost be considered a suburb of Buea; Bwitingi residents commute into Buea for work and Buea residents have been known to move out to Bwitingi for cheaper rent and water. This village benefits from both flows of water from the mountain and access to urban flows and capital. In comparison, the village of Mudeka struggles for access to good water and is in a more remote location. Nestled just off the highway at the border between the SW and Littoral Regions, Mudeka is in-between the urban administrative center of Buea, and Cameroon’s economic capital Douala (the main shipping port in Central Africa). The resources around Mudeka such as bananas and sand<sup>88</sup> flow away from the margins to support the center. Douala’s industrial sprawl approaches Mudeka, threatening its mangrove forest and the Mungo River. I suggest that the availability of water resources in each of these villages reflects their locations in relation to centers of power, and—relatedly—their specific locations in relation to the mountain.

While I did not set out to conduct a comparative study, an analysis of water *wahala* across four communities with attention to social difference provoked me to also consider environmental difference. I could not remove the mountain from my gender analysis. The physical distribution of water affects which technologies of water access are more feasible and accessible in different places. These situated and specific arrangements—entwined with the mountain—shape the gendered social relations of water access, use, and control. The materiality and biophysical configuration of the mountain play too important of an explanatory role. For socially and politically marginalized groups and communities, the geographies of the mountain are especially significant for water access. Much more than a contextual factor, the situated and specific socio-material dynamics of the mountain actively influence the gendered nature of the

---

<sup>87</sup> Please refer to footnote no. 9.

<sup>88</sup> Mined from the banks of the Mungo River to fuel urban construction.

waterscape. The second mechanism of intersectionality—situated specificity—helps to deepen understandings of power and oppression by attending to the hydrosocial relations of place.

### 3) Relationality

A third mechanism of intersectionality, interactions play an important role in producing difference and inequality. Davis (2008) defined intersectionality as “... the *interaction* between gender, race, and other categories of difference ... and the outcomes of these interactions in terms of power” (p. 68, italics added). Baca Zinn and Dill’s (1996) multiracial feminism focused on “the *relational* nature of dominance and subordination” (p. 327, italics added). McCall’s (2005) inter-categorical approach to intersectionality examined the *relationships* between identity categories and how these relationships are changing. Sociological theories of difference also emphasize the active work of contact and connection. For West and Fenstermaker (1995), difference is a situated ongoing *interactional* accomplishment, where identity categories such as gender, race, or class are constructed and maintained *relationally*. Risman (2004) also incorporated interaction in her sociological analysis of gender, race, and class, examining how social structures are embedded through *interactive processes*. Each of these explanations about how difference is socially constructed stress dynamics of exchange.

The concept of relationality is also widely vetted within socio-natures thinking that explores how societies and water interact. As introduced in Chapter Two, critical geographers have identified how capitalism influences hydrosocial relations; water does not flow independent from society but *in relation to* power, wealth, and capital (Linton, 2010; Loftus, 2007; Swyngedouw, 2004). Eric Swyngedouw’s (2004) influential work about the city of Guayaquil, Ecuador, theorized the central role of water in urbanization processes. Drawing on Marx’s thinking about historical materialism and Latour’s work on hybridity, Swyngedouw elucidated a hybrid relationship between nature and society. He described the mutually transformative relationship between the social and the material using the concept of metabolism: “‘nature’ is an integral part of the ‘metabolism’ of social life. Social relations operate in and through metabolizing the ‘natural’ environment and transform both society and nature” (p. 15). Water and society are *internally related* through metabolic processes such as “circulation, exchange and transformation” (Swyngedouw, 2004, p. 16).<sup>89</sup> For the purpose of this discussion about including

---

<sup>89</sup> Swyngedouw (2004) also distinguished between material metabolism (the material production of socio-natures involving material practices, social relations, and bio-chemical relations) and cultural metabolism (the representational production of socio-natures including cultural practices, language, and discursive constructions).

water within intersectionality, I emphasize that the production of ‘water’ depends centrally on interactions between the social and the material. Adding to Jamie Linton’s (2010) assertion that “water is what we make of it” (p. 1), I suggest that ‘we’ are also what water makes of us.

Further, theorizing about the metabolic relationship between water and society implicitly requires a consideration of built infrastructure. In particular, many have studied how water is produced through large-scale water infrastructures such as dams as well as urban water service and sewerage networks (Gandy, 2004; Kaika, 2006; Kaika & Swyngedouw, 2000; Swyngedouw, 2007). Increasingly, scholars focus on the infrastructure itself, not as a conduit or container for water, but as an important object of study. Recent reconceptualizations of infrastructure also emphasize its materiality and how infrastructures act *relationally*. Jensen and Morita (2016) considered infrastructures as ontological experiments that “integrate a multiplicity of disjunctive elements and spin out new relations between them” (p. 615) and that “do not mirror social relations, but rather reconfigure them... [producing] novel configurations of the world” (p. 618). Infrastructures play an active role in transforming social order and experience. For example, in the context of post-apartheid South Africa, Von Schnitzler (2013) traced how prepaid water meters operated not only as tools that regulate and charge for water use or as symbols of social control, but as political terrain for social struggle. Here, the government wanted the water meters to promote particular moral behaviours and citizenship ideals. Yet local residents regularly found innovative ways to adapt, reconfigure, and bypass the meters. In the perpetual process of redesigning these prepaid technologies, engineers in the meter industry needed to continually mobilize local knowledge and context to develop tamper-proof materials and technological configurations. The materiality of this technology (for example, the metal protective box around the meter) influenced how water meters were used (for example, selling scrap metal) which in turn influenced its redesign (for example, encasing the meter in less valuable material).

Within water-society interactions, ideas about the agency of water are also gaining momentum. Discussing the relationality of human engagements with water, Veronica Strang (2014a) maintained that while the idea that water might have feeling, consciousness, or intention is controversial, many scholars now explore the *agentic capacity* of things. She described cycles of interaction whereby water *acts* and *reacts* to human intervention with material consequence:



In looking at the archaeological evidence of human–river interactions in the past, a typical scenario is as follows. People make some material intervention in rivers, but this leads to an unexpected river response, which in turn requires some human reaction, which results in further unexpected river responses, and so on. Both human and non-human participants get drawn into a dynamic entanglement or enmeshment with each other – almost a kind of wrestle. (Strang, 2014a, p. 158)

These iterative wrestling matches (to borrow Strang’s concept of physical struggle) implicate human agency and social interaction. However, these social interactions also involve the properties, processes, and behaviours of water in the material world, which are influenced by larger planetary forces such as erosion, solar energy, gravity, and tides (Edgeworth, 2014; Strang, 2014a, 2014b). These interactions are important to consider for intersectionality because its current social framing overlooks how material dimensions complicate human experience.

To study the entanglement between water and intersecting social relations, I recall Krause and Strang’s (2016) proposal about “thinking relationships through water as a way to consider the materiality of social relations as well as the sociality of material relations” (p. 634). While human societies act on and transform material conditions, specific material configurations and agencies (of water in the physical world and of infrastructural arrangements) also shape social organization and experience. These co-constructions have implications for intersectional understandings about gender. I offer relationality as a third mechanism of intersectionality to account for this iterative nature of hydrosocial relationships.

**Relational water and sanitation decisions.** To illustrate the relationality of gender and water in this study, I discuss the nature of everyday water decisions about water and sanitation.<sup>90</sup> The study findings suggested that the presence of networked infrastructure and the partial reliability of water services have established expectations among residents that these water schemes can and should be functional. With the exception of Mudeka where the network is now defunct, the water access narratives depicted in participants’ photograph poster montages and videos often began at a tap. When not flowing, participants negotiated a series of relational choices, which shape the character of the waterscape.

In the images, women depicted their everyday water decisions as dynamic and multi-faceted, simultaneously social and material. Daily water access involves water users’ acts of negotiation, which I characterize as expressions of agency. Given the chronic uncertainty of

---

<sup>90</sup> I focus on everyday decisions about water and sanitation that occur at the household and community level, as distinct from broader decisions about water and sanitation systems that are made by governments, NGOs, and community leaders.

water services and the resulting regularity or repetitive nature of these negotiations, water decisions sometimes become implicit normalized practices. Water use becomes habit. Other times, routines are interrupted or disrupted and water decisions involve more explicit or intentional acts of adaptation, ingenuity, compromise, and resistance. Regardless of the level of conscious awareness in the moment, water use decisions incorporate social factors (such as household dynamics and crowds at water points) as well as material conditions (such as water quality and well depth). Choices about how and where to negotiate water access in turn alter the circumstances that factored into the decision. In a basic sense, water use decisions affect the quantity and quality of water available for use as well as the social dynamics of water access, which in turn affects water use decisions. This iterative cycle of water use decisions involves both social and material forms of intervention and produces particular social dynamics and material configurations of water. While decisions are enmeshed in a dynamic wrestle, I tease these interactions apart according to the three components of the hydrosocial cycle: 1) Social power; 2) Infrastructure and technology; and 3) H<sub>2</sub>O, water in the physical world.

***Social power.*** First, daily water access involves negotiating with other people. Studying agency and decision-making in water governance, Frances Cleaver (2004, 2007) called for the need to expand narrow ideas of agency related to deliberate civic participation in water institutions. Cleaver investigated how people participate in water decision-making in everyday life, and asked: “What does it mean, though, to be a good citizen at the waterfront, or at the market... in managing resources at the point of use?” (Cleaver, 2004, pp. 274-275). In this study, participants depicted interpersonal exchange through conversation, debate, quarrel, command, and both violent and non-violent physical interaction with different types of people including family members, neighbours, friends, strangers at the water source, water porters, *okada* drivers, community leaders, and government officials. These complex dynamics of exchange defy liberal conceptualizations of agency as tied to autonomous rational individuals motivated, as Cleaver suggested, by incentives, rules, and sanctions. Cleaver emphasized that agency is complex, situated, strategic, and partial, embedded within social systems. To illustrate, I refer to Kenneth’s analysis of a crowded spring in Kumba and the limited effectiveness of the ‘first come, first served’ rule. Kenneth explicitly raised the issue of power for accessing water in a crowd: “*If yu no ge powa, yu no go kari wata. Yu mos fait!*” [If you don’t have power, you won’t get water. You must fight!]. This comment can be interpreted as referring to both physical size and strength,

but also to social status. The expressions Big Man and Big Woman are fitting here. From an intersectional perspective about power, water use decisions are embedded within and produced by the relational production of social difference at the intersection of gender, age, class, and marital status, among others. Critically, Cleaver also distinguished between purposive and routine forms of agency. In light of assumptions about what Cleaver calls *purposive* human action (purposeful or intentional) as radical, empowering, or transformative, Cleaver cautioned against overly optimistic notions of agency. Indeed, purposive action can also be normative, violent, and compliant. Yet, Cleaver suggested that agency often overlooks more mundane or routine forms of human action related to everyday practices. Many participant narratives illustrate this type of everyday decision-making, embedded in and relational to the social power structures that intersectionality seeks to address.

***Infrastructure and technology.*** Second, daily water and sanitation decisions involve negotiating the material configurations of water and sanitation infrastructure. Here, I recall participant discussion in response to the photograph of a drainage ditch taken by the Country People group in Buea, and the video “Women and Water: Challenges and Possible Solutions” about the multiple uses of a stream produced by the group Victory in Molyko-Buea. These images elicited concern about gender norms and public urination *in relation to* infrastructure such as toilets and drainage ditches. Participants were concerned that men’s decisions to urinate publicly reflect both unequal gender norms and the absence of nearby toilets (or perhaps unpleasant existing facilities). A lack of improved sanitation infrastructure discriminates against women and enables forms of male privilege. Public urination, in turn, affects water quality and women’s water collection experiences at open water sources.

***H<sub>2</sub>O.*** Third, water access decisions involve negotiating the material environment. Hydrogeological features such as water table depth and soil type significantly influence where water travels and collects in the landscape, and therefore the availability of springs and streams. These circumstances are not uniform, but spatially and temporally differentiated; springs and streams can only be found in particular locations. Combined with water’s own vitality to move and flow, environmental heterogeneities influence water carriers’ decisions about how to navigate particular pathways across gulleys, hills, bushes, and neighbourhoods in both urban and rural landscapes. Conditions such as topography and the steepness of an incline, the extent to which vegetation constructs hidden environments, and slippery pathways muddied by rain also

shape water access decisions. In a context of unreliable piped water networks, the salience of these factors become more prominent. The material configurations of water also influence how water labour is allocated. The gendered responsibilities for water sometimes change when water needs to be carried over longer distances or more difficult terrain. These conditions justify a paid economy in water carrying, in which men are more involved, for example, as water porters, pushcart operators, and motorcycle drivers. Certainly, these paid roles are deemed unskilled and low status labour with class implications that differentiate which men in society are likely to take up this work. The point is that the materiality of water in the environment influences water access decisions and can work to reconfigure gendered experiences and social relations.

Water access and use decisions are complex – far more complicated than single-issue thinking can account for. Decisions are contingent upon multiple social and material factors. Adding to Cleaver’s (2004) work about the social embeddedness of agency, I suggest that agency is also informed by material considerations related to infrastructure and water itself. Relational water and sanitation decisions mutually reinforce the hydrosocial cycle in which H<sub>2</sub>O, technologies of access, and social power intersect to make and remake the waterscape in an iterative way (Linton & Budds, 2014). Within this cycle, intersectional thinking disaggregates social power with an emphasis on gender and other intersecting forms of difference. Yet the social roots of intersectionality risk limiting this analysis. I offer the concept of relationality to facilitate the expansion of intersectional theorizing into the realm of water. An intersectional reading of these dynamic socio-techno-ecological entanglements offers more concerted attention to the complexities of power in hydrosocial relations.

#### **4) Fluid Consistencies**

To establish a fourth mechanism of how intersectionality works, I borrow Veronica Strang’s (2014a) term *fluid consistencies* as a way to think through hydrosocial relations. Writing about human engagements with water, Strang explained that “material and social processes combine to provide both fluidity and consistency at every level of human-non-human engagement” (p. 133). This mechanism focuses on the role of change and stability in shaping intersectional relations. To discuss this idea, I first take up fluidity and then consistency.

**Fluidity.** Hydrosocial relations are fundamentally fluid. Building on understandings of social power as fluid, as well as insights that both gender and water are also fluid (Lahiri-Dutt, 2011b; Sultana, 2009), I suggest that fluidity is central to intersectional theorizing. Fluidity

encapsulates the dynamic and unstable nature of intersectional relationships. Social relations are “ongoing accomplishments” with dynamic outcomes (West & Fenstermaker, 1995) and therefore encompass elements of movement and flow. Part of the complexity of intersectional experience is its dynamic nature, as well as the need to resist or unsettle hard or firm categories. This is most clearly expressed within McCall’s (2005) anti-categorical methodological approach to intersectionality. McCall (2005) wrote: “Social life is considered too irreducibly complex—overflowing with multiple and fluid determinations of both subjects and structures—to make fixed categories anything but simplifying social fictions that produce inequalities in the process of producing differences” (p. 1773). Social relations, ecological systems, and the relationships between them continually shift and intersect, forming and reforming new and different configurations. Both social and ecological systems are processes that flow across space and time as well as across different scales and levels. This fluidity almost suggests that Patricia Hill Collins’ (1990) metaphor for intersectionality as an interlocking grid needs a softening, not to take away from the violence it represents but to acknowledge the changing and slippery ways that flows of social power and water shape and reshape intersectional hydrosocial relations.<sup>91</sup>

**Consistency.** At the same time, many elements of hydrosocial relations endure fairly consistently. Strang (2004, 2005b, 2014) described how water’s material properties remain distinctly stable over space and time. While water is fluid and inherently changing, it is also possible to anticipate its behaviour. Water consistently circulates, freezes, thaws, evaporates, takes the shape of its container, and transforms other materials. These characteristics play a formative role constructing the social meanings of water across different cultural contexts. For example, different cultural meanings of water consistently position water spiritually in relation to life and death. In many ways, there is a stability and predictability to water.

---

<sup>91</sup> Working with fluidity, it is also important to attend to interrupted flows. I acknowledge James Ferguson’s (2006) concern about the problematic ways in which the concept of flow has underpinned thinking about globalization: “We have grown accustomed to a language of global ‘flows’ in thinking about ‘globalization,’ but flow is a peculiarly poor metaphor for the point-to-point connectivity and networking of enclaves that confront us when we examine Africa’s experience of globalization (cf. Tsing 2001). Such language literally *naturalizes* globalization by making it analogous to the natural process of flowing water. Rivers really do flow. Like so many ecologically significant processes, a river’s flow works via spatial contiguity – a river goes from point A to point B only by traversing, watering, and connecting the territory that lies between the two points. But as the contemporary African material shows so vividly, the ‘global’ does not ‘flow,’ thereby connecting and watering contiguous spaces; it hops instead, efficiently connecting the enclave points in the network while excluding (with equal efficiency) the spaces that lie between the points. Ecological processes that depend on spatial contiguity are, to be sure, not exclusively ‘local’ – often they are regional and, indeed, sometimes even planetary. But neither the regional nor the planetary scale is easily addressed via today’s ‘globe-hopping’ political and economic reforms.” (p. 47-48)

Consistency is also discernable within social structures of power. While social power is constantly changing across time and place, definitive patterns of discrimination are also quite stable. Constructions of gender, race, and class, for example, remain stubbornly central pillars of social differentiation and discrimination. Intersectional theorizing is grounded in how these historical patterns of difference construct particular forms of oppression. Collins' (1990) metaphor of an interlocking matrix or grid suggests a stability that is difficult to dismantle. For example, Crenshaw (1989) identified the inability of the US legal system to understand and account for the specific discrimination of Black women based on both race and sex. The conceptualization of different forms of violence and power as *systemic* affirms their consistency. Yet as Audre Lorde wrote, "continuity does not happen automatically, nor is it a passive process" (p. 136). As an activist tool, intersectional thinking posits the political need to explicitly investigate what it means to change these inequalities, which are both fluid and consistent.

Dynamic and changing relationally, the waterscape is constructed by flows of people, water, technologies, capital, and power. These forces shift, interact, and react, constantly creating new arrangements and conditions. Yet fairly stable patterns of social inequality, such as gendered and age-based divisions of labour, as well as consistent material practices such as water storage and piped distribution networks also shape the waterscape. The very idea of the waterscape, which I defined earlier as "a produced socio-natural entity" (Loftus, 2007, p. 49), embodies *both* fluid consistencies *and* consistent fluidities. Intersectionality seeks to address this contradictory and messy nature of lived experience. I offer fluid consistencies as a fourth mechanism for examining hydrosocial relations.

**Gender, tradition, politics, and change.** Drawing on the study findings, I explore the fluid consistencies of hydrosocial relations in light of participant discussions about the gendered politics of tradition and change. It is significant that participants identified traditional rulers and cultural practices related to participation and water source protection as reliable mechanisms for addressing water *wahala*. In many ways, these established customs signal important forms of self-determination and community-led development. Popular understandings of tradition involve continuity with the past, convention, and sometimes ritual or at the very least a repetition or transmission of practice. Regardless of the ongoing nature of change, the *idea* of tradition endures as a powerful marker of culture. In many ways, colonization and the development of the formal State significantly altered ways of life. Amidst participant attempts to explain and address

the politics of water, the focus on tradition suggests a return or renewed focus on how things were before. In their formal role as the *keepers* of tradition, Chiefs maintain credible authority over a number of governance issues identified in the study. These mechanisms and forms of social organization include: water source protection, traditional village councils, and gendered traditional practices, many of which can be traced to precolonial Cameroon.

In other ways, the appeal to traditional rulers might also reflect civil society's ambiguous relationship with a largely centralized and often inaccessible formal government. On the one hand, traditional leadership could be seen as distinct from the fraught nature of national politics. Until recently, Chieftaincies have been predominantly voluntary positions.<sup>92</sup> Many Chiefs have full-time jobs and careers separate from the duties and responsibilities of their Chieftaincies. From this perspective, traditional leaders may not be *as* embroiled in the day-to-day workings of the State. Less accountable to State bureaucracy, traditional rulers may have more independence to implement change at the community level. As described earlier, the two traditional leaders who participated in the study—both from villages—incorporated what participants considered to be concrete and positive changes within their communities as a result of the research activities. Yet these responses might also reflect the exclusion of rural communities in the partial privatization of water services in urban and semi-urban areas. To what extent do traditional leaders from rural areas carry a disproportionate burden to provide water services for their communities, which might influence their interest in collaborative water research? The urban Chiefs that we invited to be part of the research process did not attend or show very much interest in the research activities. In cities, CDE and the State play more significant roles controlling water service provision.

On the other hand, it is much disputed that traditional leadership is independent from the government. The historical co-evolution of different forms of rule makes it difficult to delimit Chieftaincies as alternative sources of power. Peter Geschiere (1993), for example, traced how both the French and British invented or coopted Chieftaincy in Cameroon to implement colonial rule. Geschiere notoriously stated that Chiefs “seem to represent ‘tradition,’ but at the same time the State uses them to further ‘modern’ projects” (p. 152). Further, in the SW Region, traditional rulers are typically selected and appointed as royalty for life according to family heritage, which is inherently tied to ethnicity and land. As I elaborated earlier, there are concerns that the State

---

<sup>92</sup> Supported by gifts from visitors, and financial as well as in-kind contributions from citizens.

routinely uses conflicted politics related to traditional leadership, ethnicity, and land as a divisive tactic to prevent the strengthening of opposition in the Anglophone Regions. As mentioned earlier, a recent 2013 Presidential Decree committed to paying Chiefs government salaries.<sup>93</sup> This decree means that the holders of various levels of Chieftaincies need to be established more formally, which could provoke new forms of identity politics (Nwaco, 2013).

I note that Geschiere's (1993) work coincides with a pivotal time in the study of the relationship between culture and political change. Otto and Pedersen (2005) discussed the debates about the invention of tradition that emerged in the 1980s and early 1990s, in which the invention of tradition was attributed to contexts of rapid social change, the emergence of nation-states, and efforts to legitimize particular social identities, institutions and forms of authority. The idea that traditions can be constructed and used strategically for political or economic gain is controversial. Particular ethical concern is warranted when outside researchers take up questions about Indigeneity, as there is the risk of propagating colonial and racist views. In this discussion, I do not mean to suggest that the traditional practices participants discussed are invented. I do however stress the complicated ways that ideas about tradition have been entangled with colonial and State rule. Otto and Pedersen (2005) noted the danger of dichotomous thinking about what is 'traditional' and what is 'modern,' and gave examples of either/or positions within these debates: "genuine versus spurious traditions, authentic versus concocted, cultural continuity versus the invention or construction of all cultural expressions, reproduction versus politics" (p. 12). Such dichotomies obscure the ways in which there can be "substantial continuity and radical transformation at the same time" (p. 16) – a perspective consistent with simultaneity.

Many of these issues related to tradition, continuity, and change are relevant in Jude Fokwang's (2009) ethnographic research about the complicated relationship between Chieftaincy and democratization in Cameroon and South Africa. Fokwang wrote (2009):

---

<sup>93</sup> Decree No. 2013/332 (September 13, 2013) specified monthly salaries for the three levels or degrees of Chieftaincies in Cameroon: 200 000 CFA for 1<sup>st</sup> class Chiefs, 100 000 CFA for 2<sup>nd</sup> class Chiefs, and 50 000 CFA for 3<sup>rd</sup> class Chiefs (Approximately CDN \$400, \$200, and \$50, respectively, based on an exchange rate of approximately CFA 500 per Canadian dollar at the time of this study). This decree modifies Decree No. 77/245 (July 15, 1977) is known as the Chieftaincy Law in Cameroon, and Decree No. 82/241 (June 24, 1982).



The resurgence of chiefs – (when many thought their powers would diminish) has been described by some as evidence of ‘re-traditionalisation’ – interpreted possibly as the claim that Africa seems to be under a perpetual spell of tradition and lacks the capacity to dispose of its past [...] Similarly, others have argued that current dictatorships in Africa and the prolonged stay in power of some leaders such as Omar Bongo, Paul Biya, Robert Mugabe etc – is partly inspired by the monarchical structures embedded in chieftainship. (p. vi)

While some have argued and quite convincingly that chiefs have been corrupted by successive colonial, postcolonial and apartheid regimes and consequently should be excluded from local and national politics in the democratic area, there is strong evidence that chiefs remain and will continue to play influential roles in the lives of their subjects in rural and possibly in some urban areas across the continent ... [C]hiefs are ambivalent figures, located between the state and their local communities ... [C]hiefs do not necessarily contradict democracy nor do they enhance it, although they have the potential to serve as a bedrock on which democratic regimes can be built. (p. 20)

Rather than side with those who argue that Chieftaincies should be abolished or those who argue that Chieftaincies represent ‘genuine or authentic’ African tradition, Fokwang positioned Chiefs as social actors and explored how they drew on national and regional politics to establish their legitimacy. He emphasized that “Chiefs have not become outmoded by the introduction of democracy because they have yet again taken on a new role under the contradictory circumstances of neo-liberal democracy” (p.17). In the context of neoliberal forms of water governance, questions about traditional leadership are critical.

Clearly, there is much debate and public opinion about the nature of tradition and the role of traditional leaders. Critics characterize some Chiefs as figureheads; Cameroonian blogger Nwaco (2013) wrote scathingly about Chiefs who “[sit] all day with short knickers and flip-flops on a bench near a bar, playing some local chess and asking for beer tips from inhabitants of their bloc” (para 2). Some participants expressed concern that traditional rulers sometimes sell land in water catchment areas. At the same time, participants were concerned that traditional leaders and elders in general are becoming less respected, particularly in urban areas. Many participants acknowledged just how much communities rely profoundly on the initiative and motivation of traditional leaders, particularly in rural areas which are more marginalized in terms of funding opportunities. If saddled with what participants characterized as ‘inactive’ leadership, communities likely face more chronic and long-term challenges accessing funding and improving water access. This raises questions about the extent to which participant appeals to traditional leaders (in particular by government officials) reflect an ambiguous position of

traditional rulers *in relation to* the government, as both champions and scapegoats for the shared responsibility of protecting water resources.

From a feminist perspective, tradition has immense implications and many women in this study advocated for changes to the specific protocols that define tradition. For one, women asked Chiefs to change the traditions and cultural practices that discriminate against women such as female genital mutilation, widowhood, bride price, and breast ironing. Hope suggested that while many of these practices are “dying down,” these changes need to be recognized in a more official capacity. Second, traditional rulers in the contemporary Cameroonian context have been, until very recently, exclusively men. This leadership structure is inherently patriarchal. Yet as described earlier, prior to colonization women in many African contexts, including Cameroon, held accepted traditional leadership positions (Ardener, 1975; Diduk, 2004; Fallon, 2008). Colonial administrations changed these gender complementary structures and privileged patriarchal governance systems. Despite challenges, the rise of more democratic forms of governance, ongoing advocacy by women’s groups, and policy commitments have created significant changes in the critical mass of women representatives in formal politics. However, from an intersectional perspective that includes gender, class, and geographic location, for example, these leadership positions tend to privilege urban and elite women. There is a need to simultaneously hold onto and challenge tradition.

Within these discussions, I take up the specific materiality of water in relation to land. Fokwang (2009) emphasized the important role of land as a source of power for controlling people and resources, and cited Fisiy’s work about Chieftaincy in South Africa: “the control and management of land is at the heart of control over people” (p. 16). Yet not all land is the same. How do different types of land intersect with the circumstances of power, privilege, and oppression? Local leaders, councils, and water management committees must manage the very specific nature and configurations of water in landscapes particular to their area. As I described earlier, the mountain, geographic location, and hydrogeology all play important roles shaping the accessibility of water, which varies significantly from community to community. The village of Mudeka, for example, simply faces more physical challenges regarding water access as compared with the village of Bwitingi. To what extent does the current lack of a water management committee in Mudeka reflect the sheer material challenge associated with water access in that particular ecosystem? Whether traditional leaders inherit the responsibility for a

community located on the water-rich side of Mount Cameroon, along the sought-after coastal real estate in Limbe, or within the swampy in-land estuary where saltwater tides meet fresh river waters, the type of land significantly affects the type of water governance required.

Also, the environment is changing in new and unprecedented ways. What is the role of tradition in addressing environment change, and in adapting to climate change? Participants noted physical changes such as declining water levels in Bwitingi and saltwater intrusion in Mudeka, and how the use of chemical fertilizers on farms and plantations threatens water quality. These changes present new water governance and protection challenges. Traditional community-level mechanisms may be insufficient to address the complex interplay of actors, stakeholders, and the intensification of development. Coordination across communities and regions is critical, which is why, when the Chief of Bwitingi promised to bring the research findings to the Fako Division Forum of Chiefs, women at our final research forum rejoiced and sang. In the context of decentralization, where municipal councils are gaining increased power and authority, traditional leaders *also* gain increased responsibility for water. Attention to fluid consistencies as a mechanism for intersectional thinking can deepen the analysis of gender-water relations.

## **Conclusion**

In this chapter, I revisited intersectionality theory and discussed some of the key trends in the research findings in relation to the materiality of water and women's experiences and concerns in SW Cameroon. I deconstructed how intersectionality works and developed a framework for incorporating the materiality of water and water infrastructure within analyses of social power. The four mechanisms—simultaneity, situated specificity, relationality, and fluid consistencies—each work in different ways to facilitate an intersectional analysis of material and social difference together. Simultaneity helps a move away from either/or thinking. Situated specificity grounds analyses in the particularities of local environmental contexts, including historic specificity. Relationality reinforces how hydrosocial relations are an ongoing interaction by which social and ecological structures intersect in ways that allow for both the agency of people and of materials in the environment. Fluid consistencies investigates change by exploring the dynamic nature of intersecting hydrosocial relations, as well as the need to examine more deeply how traditions, lineages, and stable practices are desirable, problematic, and maintained. My assertion that the materiality of water matters is not meant to detract from the role of social

power in shaping water accessibility. In the project of *attending* to social power in water-society relations, I proposed this framework for deeper and more comprehensive intersectional analyses.

To incorporate gendered differences within water projects and thinking, intersectionality offers a critical analytical tool for complicating and disaggregating households and gender relations. An intersectional perspective helps to particularize and differentiate how social power influences water governance. In many ways, I consider systems of discrimination at the intersection of gender, race, and class, for example, help to *explain* the general failures in the area of improved water access in the Global South. However, I have also included in this discussion how gendered experiences are not solely social but intimately entwined with the materiality of water. Material environments *also* shape social structures of power. This is not a deterministic claim, but a more nuanced assertion about the need to investigate how the biophysical properties and processes related to entities such as rain, mountains, and pollution interact with experiences of power and oppression. Water's material characteristics and uneven distribution on Earth complicate the social dynamics of power, shaping human experiences of privilege, identity, burden, and discrimination. Water's unique properties present more significant challenges to manage and transport, as compared with other types of resources. Intersectionality offers an important framework for investigating hydrosocial privilege and discrimination. Considering the active and co-constitutive role of water and sanitation in gender and power can push feminist intersectional thinking and action beyond social analysis alone. Such hydrosocial understandings of the complexities of difference can deepen understandings of human experience, and help re-conceptualize and transform water-society relations in more equitable and sustainable ways.

## CONCLUSION

In my conversations about gender and water over the years, I have periodically confronted an idea about women's water interests that I have come to characterize as a myth. This perception, sometimes offered by development practitioners and academics, cites supposed study findings that found women *prefer* to collect water from sources located out of their villages rather than from taps in town. The argument often reasons that women enjoy leaving their homes, spending time together, and obtaining privacy away from their husbands and men in the community. The implication of this myth is that women need an 'escape' and are therefore happy to collect water away from their villages. In labelling this story as a myth, I do not mean to dismiss the idea that some women might indeed prefer using springs, in particular for certain water intensive tasks such as doing laundry. And many studies document water technology interventions that have failed because women's preferences, interests, and perspectives were not considered (see Van Houweling, 2014). Yet, it is difficult to locate definitive evidence in the gender and water literature to support this idea that women *prefer* walking further into the bush to collect water. The myth tellers never connect the story to a particular context; they just remembered hearing about it. I want to suggest that this myth conflates ideas. Wanting leisure time, mobility, friendship, privacy, and perhaps control over water spaces is significantly different from wanting to spend more time and labour to collect water. In this study, not one woman (or man) expressed a desire to spend more time or walk longer distances to collect water!

My concern is that this myth homogenizes what 'women' in the Global South want and need. Illustrating Chandra Mohanty's (1988) longstanding postcolonial concern about the monolithic construction of Third World Women, this myth assumes women to be rural, domestic, poor, and oppressed. This discursive construction neglects how the women from both urban and rural areas in this study depicted varied and busy lives and livelihoods working on farms, in schools, in markets and in shops, and within development organizations, as well as studying at the university or at vocational institutes. Additionally, the myth disregards forms of social organization based on solidarity, such as how women's group membership and association in SW Cameroon builds community through regular meetings and events among women. In fact, as one of the top issues expressed in the photographs and videos, the journey for water was depicted

as a problem because it added *extra* and *unnecessary* running around to women's already busy lives. Women did not need a reason to escape to the spring.

The suggestion that women are satisfied with their current water access options implies that women do not want or need improved water technologies closer to home; the status quo is maintained. The myth works to absolve its tellers and audience from any institutional, practical, or moral responsibility to act. This might not be the intention of those who shared this story with me and perhaps it was offered more as a way to spur conversation. However, I suggest that the very pattern, existence, and circulation of this perspective reflects deeply ingrained assumptions about women in the Global South and the real systemic challenges in relation to what it means to take women's concerns seriously. Additionally, the realities of contemporary water access are far more complex than a dichotomous choice between a spring in the forest and a tap in the village. In light of this myth and as I conclude this study, I highlight the importance of *asking* women about water in different contexts, of hearing *different* women's concerns, and of *continuing* to ask women about water over time in order to complicate the relationship between gender and water. I also raise questions about the circulation of gender and water research, and what is needed for wider dissemination and public engagement. In many ways, I offer this conclusion not as an ending but as an opening for continued debate about complexities of the gendered and spatial social relationships around water access and use.

### **Chapter Summaries**

In **Chapter One** of the thesis, I introduced my research focus on the relationship between gender and water in response to feminist calls for greater attention to the gendered dimensions of water use, access, and control. Given the need to also recognize the ways in which gender intersects with other forms of social difference, I took up intersectionality theory and method and posited bringing the social and material concerns about water together within intersectional thinking. Locating the study in the SW Region of Cameroon, I emphasized the need to think broadly and critically about this construction in light of contradictory trends within the global political economy such as democratization and the privatization of water. Describing a feminist, participatory, and visual approach to research, I positioned my involvement in the study through my collaboration with a research initiative between Canadian and Cameroonian researchers and CHAMEG, a women's organization in Cameroon's SW Region.

Reviewing the gender and water literature in **Chapter Two**, I addressed the major evolutions in gender and water thinking as informed by three broad overlapping areas. First, gender and development emphasizes gender as a socially constructed relation of power, and the need to change the structure of institutions by mainstreaming gender across all levels of policies, programs, and projects. Second, feminist political ecology highlights the gendered and political nature of environmental issues. Third, new theories of water challenge the idea that water is distinct from society and propose more complex and hybrid co-constitutive water-society relations. Given the critical role of water in shaping social experience and the strength of intersectionality for addressing complexities of gendered experiences, I combined these ideas as a theoretical lens for exploring women's experiences and gender-water relations.

In **Chapter Three**, I contextualized the study and explored the gender and water policy environment in Cameroon. In this analysis, I identified very little overlap between the gender and water sectors. In light of calls for broader understandings of water governance, I traced the historic specificity of this policy environment in relation to contemporary arrangements of power, social organization, and control. This meant locating the gender and water sectors with regard to development, national politics, and the women's movement and the ways in which these politics of power relate to the wider forces of the global political economy, which are often difficult to identify in the everyday. These forces included the influence of colonialism as well as neocolonial economic policies. In this chapter, I identified privatization and decentralization as two key policy trends that affect contemporary water management, and discussed the relationship between patriarchy and a centralized, authoritarian State.

In **Chapter Four**, I described my methodological approach to data collection and analysis, and my ethical commitment to working collaboratively. Naming my approach to participatory visual methodologies as a Workshop Model, I explained how we selected four communities, recruited women and men, and used photovoice and participatory video in each community. I also addressed our efforts to broaden analysis and outreach processes through a participatory analysis workshop and final forum with local leaders. These events considered the data across all four communities, the implications of the research for practice, and questions about social and environmental change. In this chapter, I also reflected on method and discussed some ethical tensions in relation to participant ownership of the research process, my positionality as a researcher, and the use of visual methodologies in public water spaces.

In the first findings chapter, **Chapter Five**, I identified the key concerns addressed by the study participants with a focus on water *wahala* (troubles or problems) and everyday water access and use. Reporting on the participatory analysis of the major themes depicted in the participant-produced photographs and videos, this chapter includes a wide range of issues: The different ways that water services are unreliable, how water uncertainties shape intra-household relations, how communities rely on diverse modes and technologies of water access to cope with water uncertainties, and concerns about the impact of development on water resources. Highlighting but also expanding on women's and men's concerns, I explored the gendered nature of the waterscape as well as how gender intersects with other forms of social difference. I drew particular attention to how intersections of gender, age, class, and marital status particularize divisions of water labour, which distributes the embodied stresses of water *wahala* disproportionately among the lowest status members of households and communities. When describing their daily struggles for water, participants emphasized the role of the materiality of water and water technologies in shaping embodied gendered social relations.

In **Chapter Six**, the second findings chapter, I interrogated the debate among participants about how to address water *wahala*. Participants identified a number of practical, feasible, and accessible recommendations about what could change within households and communities, many of which would involve greater awareness of the links between water and sanitation and changes to personal practice. However, more elaborate discussions stressed challenges in *how* some of the more collective mechanisms for change such as public awareness and community participation could be implemented. This focus drew attention to the politics of power. Amidst concerns that women and communities in general were excluded from water decision-making and the need for women and communities to be more involved, participants also emphasized a number of barriers to participation. These debates involved self-reflection and the consideration of a need for shifts in public consciousness and accepted cultural norms in relation to water and sanitation. These conversations also deliberated the role of traditional leaders in making decisions about traditional cultural protocols and community water management policies, how communities could access government funding, histories of mistrust in relation to previous community water initiatives, and the need for more women to *want* to take up leadership positions. In the context of urban water privatization and the tenuous progress of decentralization,



these intersectional politics disaggregated the experiences of different women, the uneven relations between men, and how water issues differ from community to community.

In **Chapter Seven**, I discussed the mutual entanglement of gender and water in the study and examined the implications for intersectional thinking. Revisiting intersectionality theory, I explored the feasibility of integrating the materiality of water more systematically within an intersectional framework. To do so, I offered a deconstruction of the theory and identified four key mechanisms of how intersectionality works: Simultaneity, situated specificity, relationality, and fluid consistencies. Juxtaposing some key patterns that emerged in the two findings chapters, I discussed each mechanism in relation to the intersectionality literature.

Together, the findings and discussion chapters describe the gendered politics of the waterscape and illustrate the connections between multiple layers of social and material difference. Working with the hydrosocial cycle as a method of analysis, I explored how the waterscape is produced through the interaction of social, technological, and ecological systems. I explicitly added a gender lens to this cycle and highlighted how social hierarchies of power based on gender, age, and class shape the daily experiences of women, girls, boys, and men through embodied and material relationships with water, labour, and violence. These social hierarchies also construct exclusion within water decisions and governance processes. Further, the partial privatization of urban water services on a national scale raises questions for rural water provision and the implications of who is ultimately responsible for water access and protection at the community level. Yet, these social, political, and economic dynamics are further complicated by the materiality of water. Environmental differences and the material configurations of infrastructure could not be separated from participant accounts. Intersecting forms of gender-based and sexual violence were *simultaneously* complicated by environmental and infrastructural violence. Gendered water struggles were underpinned by the social and material *situated specificity* of water around Mount Cameroon. Daily water decisions involve the *relational* negotiation of social structures of power but also of material configurations of water and water technologies. Lastly, the *fluid consistencies* of gendered leadership structures relate intimately to land. An intersectional lens that considers both the social and material dimensions of water offers a more comprehensive understanding of water *wahala*.

## Answering my Research Questions

### Question 1

*What are women's concerns about water use, access, and control in the Southwest Region of Cameroon? In what ways is this waterscape gendered?*

Water access is a daily struggle that involves the negotiation of intersecting social, ecological, and technological systems. While infrastructure for centralized water supply was installed decades ago in each of the four research communities, these networks are—for varying reasons—not consistently reliable. In Mudeka, the network is not functional at all. Yet these installations and the partial reliability of water services have produced expectations that water access can and should be easier. To cope, communities rely on multiple technologies of water access, including borehole wells, surface wells, springs, and streams. The journey to collect water from these sources is embodied, strenuous, and uncertain as it is difficult to know when and where water will be flowing. Further, each water access mode elicits a different set of concerns and is gendered in its own way. With springs and streams as important coping mechanisms for water shortages, women were concerned about water quality, the impact of development activities such as deforestation, farming, and construction on water resources, and the protection of water sources.

While these water access challenges affect entire communities, it was undisputed in the research that water *wahala* has the greatest impacts on women and youth. Gendered and age-based relations and divisions of labour significantly shape daily water access, use, and control in the research communities. In addition to the time spent working with water (for example, cooking, cleaning, and laundering), women spend enormous amounts of time, labour, and emotional energy thinking about water, finding water, assessing water quality, transporting water, traversing difficult topographies, negotiating social dynamics and conflict, and managing stored water. Yet it is important that many participants had never considered the gendered nature of water prior to the research; the gendered waterscape is implicit and normalized. An intersectional reading of participant concerns also draws attention to intersecting social relationships and how young people, particularly girls and young women, and lower status members of society are impacted differently as compared to women.

Women were concerned that decision-making processes about the control of water are inaccessible with women, youth, and the wider communities often excluded from the formal spheres of water governance. Tensions in this regard focused on access to information about

planning meetings, gendered dynamics about who can speak and be heard at meetings, and the willingness of communities and women to participate in meetings. Given that many women who participated in this study do not participate in Water Management Committees, traditional village councils, or other more formal water institutions, the waterscape described in this study does not significantly address this aspect of water decision-making and governance.

## **Question 2**

*How do participants and communities envision and interrogate change? What possibilities and priorities are prioritized? What barriers restrict change?*

Social change or change is often taken up in the literature very broadly and there is a need to pay closer attention to what is meant by change. Participants predominantly envisioned change locally at the scale of household and community with a focus on accessible ideas that do not require large investments or interventions. A number of practical, feasible, and accepted water and sanitation interventions are accessible for communities, traditional leaders, the government, and NGOs to implement. Ideas included both recommendations for individuals and for groups or communities. Changes to personal practice focused on better well construction and maintenance, the use of pulley technologies for wells, and improved water storage and treatment practices at the household level. Ideas about collective change included sanitation interventions such as installing more toilets, organizing community labour and cleaning initiatives, implementing new community sanitation policies, and preventing developers from building in catchment areas. Building on new forms of awareness and information sharing facilitated through the research activities, participants advocated for more public health education and space for debate about gender-water issues.

In addition to identifying *what* needs to change, there is a need for concerted space and dialogue to continue negotiating *how* to implement mechanisms for change. More contentious conversations emerged about *how* to bring about change. Central to these debates are questions and at times accusations about who should accept responsibility for the current water situation. Participants reflected on the capacities and limitations of their own communities and problematized dominant gendered and cultural norms and attitudes. Participants also looked to their leaders to regulate, govern, and establish initiatives to promote change, yet expressed frustration and a lack of trust that leaders would take action. While participants appealed up the hierarchies of formal government (from municipal councils and Mayors, to divisional officers and the regional governor), particular attention was given to traditional rulers and councils owing

perhaps to their specific accountability to their communities, which is less hindered (although not completely unhindered) by government bureaucracy. It is important to build dialogue and trust among diverse groups of people and their leaders in ways that enable access to information, appropriate technical expertise, and deliberation and debate. Given these hierarchical politics of power, many participants drew on solidarity and coming together as critical tools for advocating and working for more coordinated and reliable water access and improved sanitation practices. The more acute the water challenges, the stronger the need for solidarity.

### **Question 3**

*How can participatory visual methodologies deepen an understanding of gender and water research?*

Some methodologies for gender-water research include overviews of the ideological trends in policy or existing research (see Harris, 2009; Zwartveen & Boelens, 2011), historical or archival research (see Coles, 2005; Page, 2005a; Strang, 2005a), case studies of NGO programs (see Mahon & Fernandes, 2010; Wallace & Wilson, 2005), household surveys or questionnaires (see Acey, 2010; Bull, 2009; Fonjong & Ngekwi, 2014), and combinations of ethnographic observation, focus group discussion, and formal and informal interviews (see Arku & Arku, 2010; Braun, 2011a, 2011b; Sultana, 2007, 2009, 2011a; Van Houweling, 2014). In many studies, the research methodologies are unclear or unstated. There has been some incorporation of visual and arts-based analysis within gender-water research (see Bolitho, 2011; Bull, 2009; Goodall, 2011; Somerville, 2013) and a number of publications include photographs taken by the author as documentary evidence (see O'Reilly, 2006; Van Houweling, 2014). Very little gender-water research investigates the use of participatory visual methodologies. To discuss the ways in which participatory visual methodologies can enhance gender-water research, I draw on Gillian Rose's (2012) critical visual framework that identifies three sites for studying meaning-making: 1) the site of the image, 2) the site of image production, and 3) the site of audiencing. These sites are inter-related and it is important to think about the relationships between them.

**1) The images as research products: Expanding representation.** Participatory visual research enables more diverse and complex representations, perspectives, and voices about what matters in participants' lives. Photographs and videos include multiple ways of knowing and being such as the visual, sound, spontaneous dialogue, interpersonal exchange, the opportunity to act and perform, and the in situ representation of water points. Participatory visual

methodologies offer opportunities to further the study of gender-water relations through the close description of women's labour, experiences, and concerns in a more inclusive, diverse, complex and expansive way that includes rather than structures out the complexities of social relations and contexts. Participants described the gendered complexities of the waterscape with many different types of water challenges, as well as the ways in which this *wahala* constructs daily life and relations profoundly. Combining visual, aural, spatial, material, and embodied expressions through photography and video-making, participatory visual methodologies expand the analytical space for greater amounts of detail and complexity about women's and men's everyday struggles for water.

**2) The research as process: Democratizing research.** The disaggregation of household and community water generated new insight about the gendered waterscape in Cameroon. The research process unsettled taken-for-granted norms and created opportunities for participants to explore, document, discuss, and contest daily water and sanitation practices. Community access to and engagement in gender-water research is important. Gathering groups of people together and intentionally seeking diverse perspectives provides opportunities for moments of learning, shifts in perspective, new social connections, as well as enabling forms of dialogue and exchange, which all constitute forms of social change. In positioning participant agency as central for identifying, representing, analyzing, and addressing critical issues in their lives, participatory visual methodologies also create more space for community engagement and action within the research process and for questions about the difference research makes in participants' lives.

**3) Audience and context: Participation in contexts of questionable democracy.** Participant engagement in the research process, public debate about the research findings, and the broader dissemination of photographs and videos among community audiences adds another layer of meaning to gender-water research. As I contextualize participant concerns and the contributions of this study, I reflect increasingly on what it means to do participatory research and seek public opinion in contexts of questionable democracy. Public access to information, trust in the democratic process, and belief in the transparency of political processes all shape how people engage in processes that are meant to be participatory. Given how participatory visual methodologies draw fundamentally on ideas about democracy, rights, and voice, not enough research investigates participatory visual processes in authoritarian contexts. This is not to devalue the methodological possibilities of participatory visual methodologies, but to reiterate

the degree of ethical consideration and critical care that is required in the use of participatory visual methodologies to do water research in different contexts.

As I entered this research process, I assumed that some participants would speak out against or speak back to imposed colonial and neo-colonial policies related to water, such as privatization. Yet I found a critical participatory analysis of the broader policy environment to be limited. Many participants, including community leaders and government employees, did not know very much about government policies; for example, most people were not aware that urban water services were privatized in Cameroon. Other participants whole heartedly supported colonial and paternalistic forms of rule and social organization – beliefs that entered into the research process and findings through, for example, discussions about the ways particular roles and beliefs systems have been internalized. With strong government control, particularly over the media<sup>94</sup> and with limited information available on government websites,<sup>95</sup> it is difficult to engage with policy issues in an informed and critical way. Indeed, so many participants appreciated a participatory visual approach precisely because this process elicited critical discussion and the sharing of information across sectors and communities. While it is difficult to assess the extent to which discussion is constrained, I suggest that all of this raises questions about what it means to use participatory methodologies in contexts where there is public apprehension and concern about the consequences of speaking critically about the government.

### **Contributions to Knowledge**

#### **Area 1: Gender and Water in Cameroon – Asking Women about Water**

This study is, to my knowledge, the first empirical, qualitative study to address gender and water in Anglophone Cameroon that explicitly asks women about their experiences, concerns, and priorities about water. Seeking, documenting, and discussing many different women's and men's concerns contributes significantly to understanding contemporary water issues and gender relations in SW Cameroon. Adding to Page's (2005a) archival work about women's roles in the social production of water from precolonial times until the 1990s, and Fonjong and Ngekwi's (2014) recent survey about divisions of labour, this study offers a

---

<sup>94</sup> In response to strikes by teachers and lawyers that shut down schools and law courts, in early 2017 the government of Cameroon shut down the internet in the two Anglophone Regions for 93 days to quell protest and the mobilization of dissent. There is ongoing unrest in these regions and journalists in particular are persecuted for their critiques of the government.

<sup>95</sup> This is in the context of Buea being recently dubbed "Silicon Mountain," as Africa's next high-tech hub, given the prolific and successful number of tech start-up companies in the city (Ford, 2016).

comprehensive description of the gendered politics and struggles of water use, access, and control. This descriptive project offers a broad base to build on, elaborate, contest, or refocus through further scholarship and action.

### **Area 2: Democratizing Research in the Cameroon Context**

This study contributes research about Anglophone Cameroon from a participatory and visual approach. Adding to Folifac's participatory research about water governance (Folifac, 2012; Thompson, Folifac, & Gaskin, 2011), this study specifically identifies women's concerns about water, challenging dominant hierarchical norms about who can know, who can speak, and who can do research. The study also raises questions about the role of Pidgin in participatory forms of knowledge production and governance in this context. A key message advocated through the activities is that women's voices matter. The study generates insights about participatory visual practice in this context, which responds directly to participant recommendations that women and communities need to be involved in decisions that affect them, as well as the general need for education and awareness about gender and water issues. In the context of decentralization and yet questionable democracy, efforts to democratize the research process through visual methodologies helped to bolster the shift of power and knowledge by facilitating a wider engagement in, debate about, and sharing of the research findings across more diverse audiences than typically have access to research.

### **Area 3: Participatory Visual Research about Gender and Water**

A plethora of gender-water research discusses participation in *water management*, yet few studies adopt participatory approaches to *water research* or explore the methodological implications of knowledge production and dissemination processes. Methodology shapes how gender-water relations are understood. The use of participatory visual methodologies in this study provides understanding about the messy complexities of gender-water issues. In an era with such dire concerns about the future of water, methodology needs to be a critical component of deepening and complexifying how gender-water relations are understood, and by whom. This adds to more diverse understandings because diverse modes of knowing and being tend to be structured out through more traditional qualitative methods such as observation, interviews, and surveys. Adding to recent work in feminist political ecology about the embodied, emotional, material, and spatial relationship between gender and water in Bangladesh (Sultana, 2009, 2011a) and India (Truelove, 2011), this study augments these understandings.

#### **Area 4: Feminist Theory – Intersectionality and Water**

This study contributed the idea that intersectionality has theorized privilege and oppression predominantly in the social realm. Foundational texts about difference and intersectionality have focused on gender, race, and class as *social* structures of power (see Collins, 1990; Crenshaw, 1989; Davis, 2008; McCall, 2005; West & Fenstermaker, 1995). The study offers a deconstruction of how intersectionality works in order to bring social and material concerns together. This study adds to intersectional thinking the idea that the materiality of water also matters in the construction of social life and experience (Bakker & Bridge, 2006; Linton & Budds, 2014; Strang, 2004, 2014a). I have proposed four mechanisms for thinking through water within intersectionality: 1) Simultaneity refers to intersectionality's 'both/and' theoretical orientation, and how *both* social *and* material processes operate at the same time; 2) Situated specificity centers the importance of social and material context in shaping intersectional dynamics; 3) Relationality emphasizes the specific role of interaction in the production of difference; and 4) Fluid consistencies (a term I borrow from Veronica Strang, 2014a) accounts for both the fluid or dynamic nature of hydrosocial relations, but also the consistencies in terms of how the behaviours of particular materials (such as water) and of social structures of power can be relative stable over time. Grounding intersectional analyses solely in the social realm risks missing the important ways that environmental difference also intersects with social life, power, and identity. For intersectionality to maintain its critical ability to examine, expose, and address the intricacies of oppression, inequality, and social relations, I suggest that there are opportunities for the theory to also consider the complexities of eco-social relations. In light of the methodological challenges posed by the complexity of intersectionality (McCall, 2005), this framework also provides ways of thinking about and applying intersectional theory.

However, my interest in intersectionality also connects with questions about feminism in African contexts. Certainly gender discourses are well established in Cameroon's development sector and the University of Buea Women and Gender Studies Department was established in the early 1990s (fieldnotes, 2013). Yet when I was in Cameroon, rarely did I hear women's movement leaders, gender studies students, or women refer to *feminism* as a topic, lens, or tool for change. One of the few instances where feminism was addressed was in a follow-up interview with a male leader who, defensive about the number of women who attended the final forum, characterised the event as feminist and implied that he experienced hostility. (Indeed, the



women who attended this event held their leaders accountable!) More commonly, I encountered ideas about gender equality that focused on *women* and the need for action *for women, by women*. It might be that women's avoidance of the term feminism reflects the (until very recently) negative reputation of feminism in Western contexts (see Valenti, 2013), as well as the colonizing potential of Western feminisms. Perhaps the term feminist risks being a liability in gender equality work. Although, following Cameroonian gender and language scholar Lilian Lem Atanga's (2013) dismissal of the essentialist idea of "African Feminism," I also posit the importance of considering multiplicity within "Feminism(s) in Africa" (p. 302). Nonetheless, I am aware of the possible concerns about the extent to which an intersectional framework reflects the nature of women's activism in the contemporary Cameroon context.

### **Study Limitations**

#### **Focus on the Anglophone Region**

This study is limited in its focus on Cameroon's SW Region characterized by abundant water resources, and draws primarily on English-language scholarship about the SW and NW Anglophone Regions. Therefore the gendered waterscape presented does not address issues related to water scarcity, Cameroon's different climates and ecosystems, or perspectives from the Francophone Regions. Perhaps reflecting the marginalized status of Anglophone Regions, most of the major infrastructure development projects currently taking place in Cameroon are based predominantly in Francophone Regions: The Chad-Cameroon Oil Pipeline traverses multiple Francophone Regions; the construction of the Kribi Deep Sea Port involves the Southern Region; and the hydroelectric dams such as the Lom Pangar Dam and the Maga Dam focus on the Eastern and Far North Regions, respectively.<sup>96</sup> The impacts of such projects and deeper analysis of how the Anglophone-Francophone dynamics shape the politics of gender, water governance, and development in Cameroon were not explored in this study.

#### **Moving On: The Sustainability of Collaboration**

To integrate sustainability into the project, one of my main strategies was to collaborate with a research collective (the BWRRG) and a local organization (CHAMEG) who were already engaged in development work in Cameroon. However, the life paths of those involved affect the nature of collaborative relationships. Most of the Canadians who have conducted research in

---

<sup>96</sup> While a deep-sea port is also proposed for Limbe in the SW Region, the progress on this project is uncertain and was not addressed by participants in this study.

Cameroon have been graduate students with limited means to continue the collaboration after they complete their degrees. My colleagues in Cameroon also faced similar career constraints. One colleague changed his career focus and now works with the UN elsewhere in Africa. Another colleague was transferred away from Buea to the NW Region. A third colleague was elected as a Parliamentary representative in a constituency several hours away from Buea. Some of the leaders we worked with have also moved on. One leader was elected into Cameroon's first Senate. Another leader who participated in this study died several years after the fieldwork. Building relationships and working with individuals is critical for developing interventions that are responsive and sustainable. However, the reality is that people move on in life, and in death.

### **Study Implications**

Participatory visual methodologies are often effective for identifying a wide range of issues and establishing a baseline needs assessment. Therefore a study of this broad and extensive nature can have many implications. Below, I distinguish between implications for practice and implications for future research.

### **Implications for Practice**

This section amalgamates and summarizes the recommendations made by research participants during the research events and through their visual productions about changes that could be implemented locally. Many of these recommendations were technical, practical, or advocacy-oriented in nature. They are therefore not necessarily 'new' contributions to the literature but they are proposed by communities themselves and as such have an added value. I consider many of these recommendations to have implications that might be particularly relevant for local leaders as well as NGOs and CSOs. However, it is also important to consider the context of these recommendations and the ways in which they also raise questions about existing practices and implementation challenges. Given that this study did not investigate the inner workings of institutions, some recommendations may already be in place but lacking in practice. I organize the implications for practice in the following four broad areas: 1) Improving water access, 2) Protecting water resources, 3) Mainstreaming gender in decision-making, and 4) Promoting knowledge-sharing and participatory decision-making.

#### **1) Improving Water Access**

**Sustain multiple modes of water access.** Given the uncertainty of water networks, households rely on multiple types of water sources. These include private network connections,

public taps, paying for water delivery, surface wells, borehole wells, springs, streams, storing water, and bottled beverages. The diversity of these modes of access is important; having options provides resilience to ease water stress and cope with unreliable water in times of crisis.

**Ensure the maintenance of public taps.** Public taps increase the resilience of water supply in contexts of water scheduling. In urban areas served by centralized systems where many households have private connections, public taps increase the number and density of available water sources. The water utility needs to continue to maintain and repair public taps for public use. Community schemes also need to maintain public taps in urban and rural areas.

**Develop rainwater harvesting.** Given the high rainfall rates in the SW Region during the six-month rainy season and the popularity of rainwater collection and storage in other parts of Cameroon, rainwater harvesting offers an accessible opportunity to improve water access in the SW Region. This could be developed at the household scale or more systematically across neighbourhoods and communities, and would allow for increased access to higher quality water in the rainy season when the quality of surface water is less safe. Rainwater harvesting also decreases the need to carry water over long distances.

**Improve wells.** Wells are an important water source even in contexts where there are piped networks. Increased attention should be paid to the construction, use, and maintenance of wells. Well construction and maintenance methods need to be improved to protect the quantity and quality of water in wells. This includes conducting feasibility studies, providing covers for surface wells, digging wells deep enough to sustain dry season water levels, and cleaning and treating wells regularly. While wells facilitate access to groundwater, these openings also create pathways for debris and animal droppings from the surface to enter and pollute the groundwater. More secure well construction also needs to promote public safety. For example, one or two bars across the top would still allow buckets to be lowered but prevent people from falling in. Pulleys mounted on a bar above the well would make it easier to haul water from deeper wells. Lastly, wells are typically installed by individual households but their careful placement away from toilets and graves is also important for the wider neighbourhood and community.

**Improve water utility performance.** Improving the performance of the water utility is a critical area for providing more reliable water services water access. For example, more efficient responses to fix broken and leaking pipes would prevent avoidable water losses from the network and improve water pressure. Also, public distrust about metering and billing mechanisms

suggests these practices need to be communicated more transparently. Given the inadequate performance of CDE, the government of Cameroon recently announced its decision not to renew CDE's contract, which ended August 31, 2017 (Mbodiam, 2017). The implications of this decision are uncertain, although questions about the performance and accountability of the future water utility are imminent.

## **2) Protecting Water Resources**

**Improve sanitation facilities.** More toilets are needed, particularly for women and girls. A lack of toilets, or improved toilets, means that people look for alternatives, which often include waterways such as streams and drainage ditches. Very little research documents the use and state of sanitation facilities, and what is needed to improve them. Participants identified landlords as key players in ensuring that adequate improved sanitation facilities are built for existing buildings, and the importance of municipal council permits in ensuring that building plans include toilets.

**Assess the impact of graves.** Graves may pose a risk to water quality, particularly in contexts where cremation is not common. This risk is primarily due to the leaching of toxins and heavy metals related to embalming practices. There are few cemeteries in Cameroon and it is common to bury the dead within family compounds. Therefore, there is the need for more attention to the impact of household graves on drinking water wells, which are also installed within family compounds. More research is needed to examine the possible impact of graves on water quality, with particular attention to urban-rural dynamics and how bodies are often transported to rural areas to be buried in their home villages.

**Protect water sources.** The practices and value of traditional mechanisms related to water source protection needs to be considered in relation to formal regulations and legislation. Policy development is needed to establish and ensure minimum distances around water sources and catchments are protected. Catchment areas should be more clearly delineated. Deforestation needs to be more closely monitored, and forest regeneration schemes using appropriate tree species are important for protecting water and natural habitats.

**Coordinate planning and development.** The spatial distribution of toilets, graves, and wells is important, particularly in relation to the locations of springs, streams, and catchment areas. For example, communities might develop inventories that map existing wells, toilets, and graves, which would facilitate a more coordinated approach to groundwater protection at the

local level. Development activities such as building and construction need to be monitored with closer attention to the protection of water sources.

### **3) Mainstreaming Gender in Decision-Making**

While a gender lens was the starting point for this study, that *gender matters* is also a key recommendation. While the relationship between gender and water is seemingly well documented in the global water sector (for example, through Dublin-Rio Principle III about women's primary responsibilities for water), this relationship was quite new to many women's organizations in Cameroon. Participants identified the need for continued advocacy work about gender equality at all levels. This includes the need for a gender focus within water policy and practice, as well as gender advocacy more broadly across interpersonal relations and various levels of society.

Specifically, several participants made recommendations related to gender mainstreaming. These included implementing gender focal people<sup>97</sup> responsible for advocacy and coordination of gender within various systems and structures of the formal government, and implementing gender-responsive budgeting<sup>98</sup> to ensure that adequate funding is allocated to support marginalized and vulnerable sections of the population. The implication of these recommendations for practice is that more attention needs to be paid to what is happening with gender mainstreaming.

### **4) Promoting Knowledge-Sharing and Participatory Decision-Making**

**More inclusive decision-making.** Participants identified the need for more inclusive decision-making specifically about water, but also in general regarding the decisions that impact them. In this study, there was a particular focus on women and how there is a lack of gender parity in all stages of decision-making. The women's movement in Cameroon advocates that

---

<sup>97</sup> According to the UN Women Training Centre (2016) Glossary: "Gender focal points are change agents whose overriding role is one of advocating for increased attention to and integration of gender equality and women's empowerment in his or her agency's policy and programming and in the related work of development partners. Gender focal points serve as a hub for new information on gender equality and as a conduit for information on what has worked well in the organization. The role of gender focal points differs somewhat from country to country and agency to agency, depending on where she or he is placed within the organization and what kind of gender architecture the organization has in place. A gender focal point is not, however, intended to serve as a substitute for a full-time institutional gender specialist. The focal point's role is often more one of advocacy and facilitating communication and connections related to gender equality and women's empowerment, but may at times involve providing gender expertise or assisting colleagues and development partners to identify potential national or international consultants or organizations that have this expertise." (n.p.)

<sup>98</sup> "A gender responsive budget ensures that the needs and interests of individuals from different social groups (sex, age, race, ethnicity, location) are addressed in expenditure and revenue policies." (UNFPA & UNIFEM, 2006, p. 14).

since women represent more than 50% of the population in Cameroon, women need to represent at least 50% of leadership positions—a campaign which has achieved much success within the formal government, however, less so with traditional councils.

Critically, women's concerns about their involvement in water decision-making mirrors a wider concern about the exclusive nature of decision-making in general. The research findings indicated that many men and youth can also be excluded, leaving questions about who, then, *is* involved in water decisions? When communities are not involved in development projects, the projects risk failing because decisions are made without local knowledge and ownership. In theory, having a more diverse knowledge base can inform more robust decisions, but also ensure that specific groups' interests are taken into account. This includes, for example, women but also youth. In the context of communities asking for better mechanisms for accessing grants, development funds, and appropriate technical expertise, it might be that the sharing of information occurs among a relatively small circle. Yet participants also identified a lack of trust as a barrier to wanting to be involved. Significant questions need to be asked about how to achieve this broadening of knowledge- and power-sharing in practice.

**Improve access to information.** To facilitate more participatory forms of governance, the public needs access to relevant information in order to be able to deliberate in an informed way. Communities noted a general lack of access to information, including information about government policies, budgets, and decisions. This also includes general information related to human rights, public health, and the environment. More attention is needed to assess how the public accesses information, and what sources of information are considered reliable. Strategies for improving public access to education might include: the development and circulation of more books and printed visual materials, more critical and independent media reporting, and more detailed and updated information on government websites.

**Ensure access to public health education.** Participants identified a lack of public awareness in the area of water, sanitation, and hygiene (WASH) and the need for more public health education. This suggests opportunities for the water sector to coordinate with the public health sector, and to evaluate the effectiveness of current public health announcements and interventions in the areas of the transportation, storage, and treatment of household water, and the use of waterways as toilets and for waste disposal. Recognizing the complexity of this area,

this means identifying the impacts of different types of information and messaging, but also the factors that limit the implementation of change in water, sanitation, and hygiene practices.

**Provide more opportunities for participatory research.** Participants recommended more participatory research. This study documented the breadth and depth of participants' experience and knowledge in areas that are critical for more comprehensive understandings of the water situation and more informed water decision-making and solution development. A participatory approach also addresses the general sense of exclusion from decision-making that participants identified by seeking and valuing a diversity of viewpoints. Participants celebrated the number of people and broad scope of perspectives included, the sharing and learning that occurred at each research event, the opportunity to meet new people and discuss critical issues affecting their lives, and our efforts to reach out to decision-makers.

### **Implications for Research**

In this section, I discuss some implications of the study for research. I group these implications in four broad areas: 1) Further disaggregating water labour; 2) Particularizing water and sanitation practices; and 3) Broadening the lens of gender-water research.

#### **1) Further Disaggregating Water Labour**

In addition to the need to continue disaggregating water use, access, and control by gender, more work is needed from an intersectional perspective. To disaggregate, particularize, and distinguish different social relationships with water within households and communities, research needs to further investigate how gender intersects with age, class, ability, marital status, and other markers of social difference. This research might focus specifically on who is actually charged with carrying water (as opposed to women's general responsibility for water provision), and how these processes are negotiated and changing. Such research might explore more deeply the role of issues such as privacy, mobility, livelihoods, gender-based violence, leisure, friendship, and play within current water access practices.

**Girls, girlhood, and water.** As women often assign work with water to girls, the specific experiences of girls requires attention. As described in the thesis, girls' experiences were depicted, represented, and acted out by women in their photographs and videos. This suggests a critical need to ask girls themselves about their experiences with water. How does work with water shape girls' daily lives and physical and emotional well-being and relationships? In what ways are the experiences of girls different from those of women? Research might consider girls'

agency in negotiating this role, parental discipline and gender violence, and the implications for girlhood studies and what it means to be a girl in various contexts.

**Domestic workers and water.** Domestic workers are normalized and accepted aspects of many middle-class but particularly urban elite households. While many house helpers are women, oftentimes younger women from rural areas, house helpers are also sometimes men.

Intersectionality and water research needs to consider the role and experiences of domestic workers. There is virtually no literature about ‘house help’ from Cameroon and a limited consideration of domestic workers within the gender and water literature in general. What are the experiences of house helpers? What are the implications of house help for water governance? This research should take into ethical consideration the vulnerable and often precarious situations of house helpers who are either remunerated or working for room and board as extended family members from rural areas, foreign workers, or undocumented migrants or refugees.

**Men, boys, masculinities, and water.** While some men participated in this study, the focus was on women’s experiences. Further research also needs to unpack the water experiences of boys and men in Cameroon. This means moving beyond the implicit privileging of men’s interests through gender-biased processes and priorities, to using the lens of masculinity to explicitly explore men’s experiences and concerns *as men* in relation to identity and dominant gender norms. While gendered norms that influence men’s behaviours and attitudes emerged as a concern in this study, ideas about masculinities were rarely discussed. What do men have to say about how different types of masculinities enable and constrain them, and how these masculinities intersect with, for example, class, age, marital status, and ability? Evidence suggests that boys in Cameroon also play a significant role collecting water. Yet very little is known about boys’ experiences with water, and how this related to boyhood. How do boys negotiate water access? What transition processes occur as boys get older and stop carrying water, and in what ways do different types of masculinities factor into these processes? A stronger analytical focus on gender and class would explore the paid manual labour of predominantly male water carriers such as porters as well as *truk* and *okada* drivers, all of whom play an important role responding to the uncertainty of water access. What are these men’s experiences? How did they come into this work? What challenges do they negotiate? What is the role of different types of transportation technologies (pushcarts, motorcycles, cars)? What might it look like if women took up this work? What factors differentiate between delegating unpaid



water labour to lower status household members and paying for water carrying labour? Conversely, what enables men to engage with water labour within the home?

## **2) Water and Sanitation Practices**

The following areas of research require a closer focus on water and sanitation practices as well as the relationships between them in both quantitative and qualitative terms.

**Multiplicity.** Water research often prioritizes access to and control of centralized water service networks. Yet this study suggests that decentralized technologies such as surface wells, borehole wells, and springs provide resilience. There is a need to better theorize the role of multiplicity in water governance. When centralized water networks are unreliable, in what ways do diverse technological options supplement daily water access? What are the risks, benefits, and implications of decentralized water sources? How are multiple modes of water access helpful for water use for different purposes and how do these modes of water access relate to sanitation practices? This area requires a holistic analysis that includes the complexities of decision-making, social power, technologies of water access, and the relationship between water, people, and land.

**Labour, the body, and the ergonomics of water carrying.** This study emphasized the embodied physicality of carrying water. Given the centrality of this water labour for survival in many, many parts of the world, shockingly few studies examine this impact of this work on the human body. Apart from early calculations by White, Bradley, and White (1972) of women's caloric needs for fetching water and a brief ergonomic study by Page (1996) comparing different load-carrying devices, a paucity of contemporary research examines the ergonomics of carrying water. In an exploratory study that evaluated the impact of carrying water by head loading in South Africa, Geere, Hunter, and Jagals (2010) reported significant incidences of spinal pain and suggested the critical need for more research about the risk of musculoskeletal disorders for women and children. Also in South Africa, Lloyd, Parr, Davies, and Cooke (2011) compared women's head and back loading practices, although not specifically in relation to water. At the same time, extensive bodies of scholarship have explored the loading impacts of children's school bags, hiker's backpacks, and military equipment (Lloyd et al., 2011). Notably, this research focuses predominantly on populations in high-income countries, overlooking the compounding impacts of systemic poverty and chronic disease that are often endemic in contexts where water must be carried by hand (Geere et al., 2010). Ergonomic studies will not necessarily transform gendered divisions of water labour. However, greater attention to the embodied use of

water raises many questions about the complex dynamics of, for example, head-loading, lifting water from wells, and the use of water in squatting and forward bending positions. Such studies would provide more evidence and different types of data to help recognize and validate the nature of this labour for *different* bodies. Further, what might a critical disabilities framework add to intersectionality and water research? In what ways might new wearable technologies that track steps, incline, and heart rate offer useful tools for better understanding the ergonomics of water carrying, for developing ways to alleviate strain, and for particularizing how this physical labour contributes to the health, fitness, and well-being of water carriers?

**Household water storage and treatment.** Given the significance of water storage at the household level to cope with unreliable water services, more quantitative and qualitative research is needed to better understand and improve water storage and treatment as both social and material practices. What are current water and storage practices and what factors impact these practices? How do practices vary across households and communities? How might ethnographic, participatory, and visual research approaches help to deepen understandings about the cultural implications of water storage? How might more participatory approaches to the analysis of water quality testing and health statistics from local medical clinics complement and expand WASH research? This area aligns with growing research about point-of-use (POU) water treatment technologies (such as ceramic and biosand filters) (see Sobsey, Stauber, Casanova, Brown, & Elliott, 2008), as well as questions about the effectiveness of scaling up water storage capabilities (including from networked systems and rainfall) and how to inform public health education.

**Water and sanitation at work and at school.** Gender research needs to explore how different people negotiate access to water and sanitation in and around schools and various types of workplaces. This includes the impact of unreliable water at home on school and work attendance, but also the particularities of water collection, toilet access, as well as cleaning and hygiene practices arrangements within both private and public schools, as well as within different types of workplaces (markets, street vending, NGOs, shops, and government offices).

Given the sensitive nature of menstruation, it is not surprising that women did not address menstrual health in the photographs and videos. It is well documented in the gender and water literature as well as in the WASH sector that women and girls have specific water and sanitation needs to manage their menstrual cycles (Joshi & Fawcett, 2005; Mahon & Fernandes, 2005). More research needs to explore menstrual hygiene management in Cameroon.

### 3) Broadening the Lens

The following research areas require expanding the focus of gender-water research to better understand broader environmental and structural factors, including policy and discourse.

**Climate change adaptation.** In this study, participants focused primarily on the immediacy of water in their daily lives. The climate aspect of the original study, “Women, Water, and Weather,” elicited less direct concern. This suggests the need for more research about gender and climate change adaptation in Cameroon, and how to address climate change in a participatory way. Why was climate change of less interest to participant communities? Was our focus on ‘weather’ misleading, and in need of better definition at the outset? Are other research methodologies better suited for climate change research? Indeed, our research prompt focused specifically on ‘challenges’ and ‘solutions’ related to water, not explicitly interrogating climate change. Climate change tends to be a more obscure concept, and more difficult to grasp as impacting daily life, particularly in urban areas where livelihoods tend to rely less closely on weather systems. To what extent does public discourse (or lack thereof) about climate change shape how these connections are understood? Given how uncertainty is now an accepted condition within water governance, trends are shifting to explore more adaptive decision-making (Brugnach et al., 2008). How might the study findings about the relational nature of water decisions be taken up in gender and climate change research? In what ways does relationality create possibilities for adaptation and for emerging practices to develop?

**Materiality of the environment.** With my suggestion to include the environment in intersectionality, a more comprehensive intersectional approach might quantify and qualify how these environmental dimensions shape and are shaped by social relations. In this study, participants identified how water levels are changing, although it was unclear if these changes were resulting from over-extraction or climate change or a combination of factors. We did not measure or map these changes. More research is needed to evaluate these changes in the material environment (water levels, water quality, rainfall patterns, etc.) and establish better baseline data. For example, longitudinal research by Fraser et al. (1998) that presents detailed and localized data about rainfall in the areas around Mount Cameroon needs updating. More systematic and longitudinal research would help to delineate, quantify, and qualify these changes. Additionally, drawing on scholarship about materiality, more theoretical research is needed to examine the

implications and potential downfalls of including materiality as a dimension of intersectionality. The framework and mechanisms that I have proposed require further consideration and critique.

**Gender, water, and decentralization.** This study suggests the need for more research about decentralization across different authority structures in Cameroon. With the formal devolution of power to municipal councils, local communities are, in theory, gaining resources and higher levels of autonomy to manage their water resources. Yet, this progress is unclear. What is happening with decentralization? Mbuagbo (2012) described how, in Limbe (also in the SW Region), the ambiguous and confusing terms of decentralization have fuelled conflicts between appointed government officials, the city council, and the sub-divisional councils. Yet Mbuagbo does not address the role of traditional rulers in decentralization. There is a need to study how decentralization processes are enacted in different communities, across different structures of authority, and how this relates to water governance. How do communities negotiate the shared but at the same time ambiguous responsibility for water? In what ways does increased autonomy create structural isolation and how do decentralization experiences differ across urban and rural areas in different ecological and hydrological contexts? What leadership characteristics are critical for successful water management in the context of decentralization? Adding to the general need for more critical analysis of the policy landscape in Cameroon, further water research needs to explore the relationships between different structures of authority, gendered structures of power, and the relationship between statutory and customary rights to water as they relate to land. This area needs to look beyond the formal policy and justice systems to include deeper analysis of decision-making practices both locally and informally, as well as how water decisions in the context of decentralization are influenced by broader trends within the political economy, which local communities have very little control over.

**Gender, language, discourse, and change.** In the multilingual context of Cameroon, what might research about gender and water governance look like with greater attention to language, knowledge, and experience, and the relationship between Pidgin, English, French, and Indigenous languages? The British Broadcasting Corporation (BBC) recently launched a news service in Pidgin targeting audiences in West and Central Africa. In contexts where there is a *lingua franca* such as Pidgin, what is the role of this language in bridging difference and democratizing regional water governance? Drawing on the work of Foucault, visual researcher Gillian Rose (2012) defined discourse as "groups of statements that structure the way a thing is

thought, and the way we act on the basis of that thinking" (p. 190). How might a critical discourse analysis enhance understandings of the visual data? How do competing, local, and dominant discourses about gender and development enable or restrict change in the area of water governance? For example, how do the discourses of blame and cultural critique relate to the internalization of racist, sexist, and colonial structures of power? In what ways can discourse analysis be conducted in participatory ways to offer new insights about social transformation?

## A Reflection: Seeing Aminata, Seeing Water



Figure 22. SNEC logo

On a visit to the Ministry of Forestry and Wildlife, the Chief Financial Controller asked me if I had heard about the story of Aminata and the water company. ‘Aminata,’ he told me, ‘is the woman on the SNEC logo carrying a calabash on her head. She is said to have been from the North. One day when she was out fetching water, walking long distances, a lion ... (he motioned with two hands pouncing). So SNEC came and helped women so that they wouldn’t have to walk far and be exposed to danger.’ I asked if that logo was still around, and was assured that it was on old water bills somewhere.

(Fieldnotes, November 15, 2012)

In many ways, the idea that women play a primary role in daily water management is old news, as illustrated by this story about the woman, ‘Aminata,’ depicted on the logo of the former water utility, SNEC (Figure 22). At the same time, the gendered nature of water use is so normalized that it is also quite radical to emphasize this relationship. Shared with me during my first week in Cameroon, this story was the only time that I heard about the SNEC logo, which was presumably a staple image on bills in many urban households. Has Aminata been forgotten? Gender continues to be a critical lens for making women’s work with water more visible within the water sector. Mainstream and technical approaches to water management continue to overlook the gendered nature of water use, access, and control. Returning to the words of Ma Sara, whose question about “drinking light” introduced the thesis, I ask the other question: What does it mean to *see water*? In drawing attention to women’s roles with water, I also wondered if the explicit positioning also risks framing water as a *women’s issue*. In a world that systematically discriminates against women, does this framing diminish the urgency of improving reliable water access? In many developing contexts, improved water access progress cannot be celebrated to the same extent as access to basic services such as roads, electricity, and telecommunications (all coincidentally vital for many men’s lives and livelihoods). Does emphasizing the gendered nature of water use then add water to the long list of issues that women must fight for? Thinking through and picturing water in this study, it is my hope that women’s concerns and solidarity remain central to understanding the gendered waterscape. I also hope that in striving for more diverse and participatory engagements in public debate about gender and water, more complex and intersectional understandings inform the types of action required for more sustainable and socially just water governance.

## Works Cited

- Abena Ondo, M.-T. (2010). 15-year review of the implementation of the Beijing Declaration and Platform for Action (1995) and the outcomes of the twenty-third special session of the General Assembly (2000). New York, NY: United Nations.  
[http://www.un.org/womenwatch/daw/beijing15/general\\_discussion/Cameroon.pdf](http://www.un.org/womenwatch/daw/beijing15/general_discussion/Cameroon.pdf)
- Acey, C. (2010). Gender and community mobilisation for urban water infrastructure investment in southern Nigeria. *Gender & Development*, 18(1), 11-26. doi: 10.1080/13552071003599970
- Adams, M. (2007). 'National machineries' and authoritarian politics. *International Journal of Feminist Politics*, 9(2), 176-197. doi: 10.1080/14616740701259846
- Advocates for Human Rights. (2014). Cameroon: Committee on the elimination of discrimination against women (57th session). Minneapolis, MN: Advocates for Human Rights.  
[http://www.theadvocatesforhumanrights.org/uploads/cameroon\\_cedaw\\_political\\_participation\\_women\\_february\\_2014.pdf](http://www.theadvocatesforhumanrights.org/uploads/cameroon_cedaw_political_participation_women_february_2014.pdf)
- African Development Bank. (n.d.). Country financing parameters - Cameroon (pp. 7): AfDB.  
<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/30732378-EN-CAMEROONCFPNOTE.PDF>
- African Development Bank. (2010). Rapport d'évaluation de projet: Projet d'alimentation en eau potable et d'assainissement en milieu rural. Pays: Cameroun. Retrieved from [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Cameroun\\_-\\_Projet\\_d%E2%80%99alimentation\\_en\\_eau\\_potable\\_et\\_d%E2%80%99assainissement\\_en\\_milieu\\_rural\\_-\\_Rapport\\_d%E2%80%99%C3%A9valuation.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Cameroun_-_Projet_d%E2%80%99alimentation_en_eau_potable_et_d%E2%80%99assainissement_en_milieu_rural_-_Rapport_d%E2%80%99%C3%A9valuation.pdf)
- African Development Bank and Organisation for Economic Cooperation and Development. (2007). Cameroon. *African Economic Outlook* (pp. 161-175): AfDB and OECD.  
<http://www.oecd.org/countries/cameroon/38561786.pdf>
- Agarwal, B. (1992). The gender and environment debate: Lessons from India. *Feminist Studies*, 18(1), 119-158. doi: 10.2307/3178217
- Ahlers, R. (2005). Gender dimensions of neoliberal water policy in Mexico and Bolivia. In V. Bennett, S. Dávila-Poblete & M. N. Rico (Eds.), *Opposing currents: The politics of water and gender in Latin America* (pp. 53-71). Pittsburgh, PA: University of Pittsburgh Press.
- Ahlers, R., Cleaver, F., Rusca, M., & Schwartz, K. (2014). Informal space in the urban waterscape: Disaggregation and co-production of water services. *Water Alternatives*, 7(1), 1-14. <http://search.proquest.com/docview/1565514724?accountid=12339>
- Ahlers, R., & Zwartveen, M. (2009). The water question in feminism: Water control and gender inequities in a neo-liberal era. *Gender, Place, and Culture*, 16(4), 409-426. doi: 10.1080/09663690903003926
- Ako Ako, A., Eyong, G., E., T., & Nkeng, G., E. (2010). Water resources management and integrated water resources management (IWRM) in Cameroon. *Water Resources Management*, 24, 871-888. doi: 10.1007/s11269-009-9476-4
- Ako Ako, A., Shimada, J., Eyong, G. E. T., & Fantong, W. Y. (2010). Access to potable water and sanitation in Cameroon within the context of Millennium Development Goals (MDGs). *Water, Science & Technology*, 61(5), 1317-1339. doi: 10.2166/wst.2010.836.

- Akoh, A. L. (2009). *A physico-chemical and microbiological analysis of some drinking water sources in Buea, Southwest Region of Cameroon [unpublished Master's thesis]*. University of Buea, Buea.
- Albaugh, E. A. (2011). An autocrat's toolkit: Adaptation and manipulation in 'democratic' Cameroon. *Democratization*, 18(2), 388-414. doi: 10.1080/13510347.2011.553361
- Alston, M. (2011). Gender implications of water management in Australian agriculture. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 246-257). Kolkata: STREE.
- African Minister's Council on Water. (2010). Water supply and sanitation in Cameroon: Turning finance into services for 2015 and beyond (pp. 32). Nairobi, Kenya: World Bank Water and Sanitation Program. Retrieved September 8, 2012 from <http://www.wsp.org/wsp/sites/wsp.org/files/publications/CSO-Cameroon.pdf>
- Amnesty International. (2012). Cameroon annual report 2012. Retrieved September 18, 2012, from <http://www.amnesty.org/en/region/cameroon/report-2012>
- Amungwa, F. A. (2011). The evolution of conflicts related to natural resource management in Cameroon. *Journal of Human Ecology*, 35(1), 53-60. <http://www.krepublishers.com/02-Journals/JHE/JHE-35-0-000-11-Web/JHE-35-1-000-11-Abst-PDF/JHE-35-1-053-11-2054-Amungwa-F-A/JHE-35-1-053-11-2054-Amungwa-F-A-Tt.pdf>
- Anyangwe, C. (2011). *Criminal law in Cameroon: Specific offences*. Bamenda: Langaa Research and Publishing.
- Ardener, S. (1975). Sexual insult and female militancy. In S. Ardener (Ed.), *Perceiving women* (pp. 29-53). New York, NY: John Wiley & Sons.
- Arku, F. S., & Arku, C. (2010). I cannot drink water on an empty stomach: A gender perspective on living with drought. *Gender & Development*, 18(1), 115-124. doi: 10.1080/13552071003600091
- Atanga, L. L. (2013). African feminism? In L. L. Atanga, S. Ellece, L. Littoselitti & J. Sunderland (Eds.), *Gender and language in sub-Saharan African contexts: Tradition, struggle, and change* (pp. 301-314). Amsterdam: John Benjamins.
- Ayonghe, S. N., Ntasin, E. B., Samalang, P., & Suh, C. E. (2004). The June 27, 2001 landslide on volcanic cones in Limbe, Mount Cameroon, West Africa. *Journal of African Earth Sciences*, 39, 435-439. doi: 10.1016/j.jafrearsci.2004.07.022
- Baca Zinn, M., & Thornton-Dill, B. (1996). Theorizing difference from multiracial feminism. *Feminist Studies*, 22(2), 321-331. <http://www.jstor.org/stable/3178416>
- Baden, S. (1999). Practical strategies for involving women as well as men in water and sanitation activities (pp. 27). Brighton, UK: Institute of Development Studies, University of Sussex.
- Bakker, K. J. (2003). *An uncooperative commodity: Privatizing water in England and Wales*. Oxford and New York, NY: Oxford University Press.
- Bakker, K. (2009). Water. In N. Castree, D. Demeritt, D. Liverman & B. Rhoads (Eds.), *A companion to environmental geography* (pp. 515-532). Chichester, UK: Wiley-Blackwell.
- Bakker, K. J. (2010). *Privatizing water: Governance failure and the world's urban water crisis*. Ithaca, NY: Cornell University Press.
- Bakker, K., & Bridge, G. (2006). Material worlds? Resource geographies and the 'matter of nature'. *Progress in Human Geography*, 30(1), 5-27. doi: 10.1191/0309132506ph588oa
- Banks, M. (2001). *Visual methods in social research*. London, UK: Sage.



- Banlilon, T. V., Abangma, J. A., & Bruno, A. M. (2012). The dilemmas of implementing decentralization policies in a centralized state construct: Evidences from some municipalities in the North West Region of Cameroon. *African Journal of Social Sciences*, 3(2), 97-112.
- Bayliss, K., & Fine, B. (Eds.). (2008). *Privatization and alternative public sector reform in sub-Saharan Africa: Delivering on electricity and water*. New York, NY: Palgrave MacMillan.
- Bayliss, K., & McKinley, T. (2007). Privatizing basic utilities in sub-Saharan Africa: The MDG impact. UNDP policy research brief. Brasilia: International Poverty Centre, UNDP.
- Bennett, V. (1995). Gender, class, and water: Women and the politics of water service in Monterrey, Mexico. *Latin American Perspectives*, 22(2), 76-99. doi: 10.1177/0094582X9502200205
- Bennett, V., Dávila-Poblete, S., & Rico, M. N. (Eds.). (2005). *Opposing currents: The politics of water and gender in Latin America*. Pittsburgh, PA: University of Pittsburgh Press.
- Bolitho, A. (2011). In the running for water authority. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 352-361). Kolkata: STREE.
- Boserup, E. (1970). *Women's role in economic development*. New York, NY: St. Martin's Press.
- Bratton, M., & Van de Walle, N. (1994). Neopatrimonial regimes and political transitions in Africa. *World Politics*, 46(4), 453-489. doi: 10.2307/2950715
- Braun, B. (2009). Nature. In N. Castree, D. Demeritt, D. Liverman & B. Rhoads (Eds.), *A companion to environmental geography* (pp. 19-36). Chichester, UK: Wiley-Blackwell.
- Braun, Y. A. (2011a). The reproduction of inequality: Race, class, gender and the social organization of work at sites of large-scale development projects. *Social Problems*, 58(2), 281-303. doi: 10.1525/sp.2011.58.2.281
- Braun, Y. A. (2011b). Left high and dry: An intersectional analysis of gender, dams and development in Lesotho. *International Feminist Journal of Politics*, 13(2), 141-162. doi: 10.1080/14616742.2011.560037
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi: 10.1191/1478088706qp063oa
- Brown, R. (2010). Unequal burden: Water privatisation and women's human rights in Tanzania. *Gender & Development*, 18(1), 59-68. doi: 10.1080/13552071003600042
- Brungnach, M., Dewulf, A., Pahl-Wostl, C., & Taillieu, T. (2008). Toward a relational concept of uncertainty: About knowing too little, knowing too differently, and accepting not knowing. *Ecology and Society*, 13(2), 30. <http://www.ecologyandsociety.org/vol13/iss2/art30/> (online)
- Buea Council. (2005). Gestion de l'eau de la commune de Buea: Rapport de la mission ECTI de juin 2005 (pp. 26). Buea: ECTI.
- Buechler, S. (2005). Women at the helm of irrigated agriculture in Mexico: The other side of male migration. In V. Bennett, S. Dávila-Poblete & M. N. Rico (Eds.), *Opposing currents: The politics of water and gender in Latin America* (pp. 170-189). Pittsburgh, PA: University of Pittsburgh Press.
- Bull, J. (2009). Watery masculinities: Fly-fishing and the angling male in the South West of England. *Gender, Place, and Culture*, 16(4), 445-465. doi: 10.1080/09663690903003959
- Burawoy, M. (2003). Revisits: An outline of a theory of reflexive ethnography. *American Sociological Review*, 68, 645-679. <http://www.jstor.org/stable/1519757>

- Bustamante, R., Peredo, E., & Udaeta, M. E. (2005). Women in the 'Water War' in the Cochabamba Valleys. In V. Bennett, S. Dávila-Poblete & M. N. Rico (Eds.), *Opposing currents: The politics of water and gender in Latin America* (pp. 72-90). Pittsburgh, PA: University of Pittsburgh Press.
- Butler-Kisber, L. (2010). *Qualitative inquiry: Thematic, narrative, and arts-informed perspectives*. London, UK: Sage.
- Cairncross, S., & Valdmanis, V. (2006). Water supply, sanitation, and hygiene promotion. In D. T. Jamison, World Bank & Disease Control Priorities Project (Eds.), *Disease control priorities in developing countries, 2nd edition* (pp. 771-792). New York, NY: Oxford University Press.
- Callard, F. (2004). Doreen Massey. In P. Hubbard, R. Kitchin & G. Valentine (Eds.), *Key thinkers on space and place* (pp. 219-225). London, Thousand Oaks, and New Delhi: Sage.
- Callon, M. (1998). An essay on framing and overflowing: Economic externalities revisited by sociology. *The Sociological Review*, 46(S1), 244-269. doi: 10.1111/j.1467-954X.1998.tb03477.x
- CameroonWeb. (2016a, June 7). Camwater to erect 50 water tarpaulins in Douala. *CameroonWeb*. Retrieved September 10, 2017, from <https://www.cameroonweb.com/CameroonHomePage/business/Camwater-to-erect-50-water-tarpaulins-in-Douala-375206>
- CameroonWeb. (2016b, August 12). Pas de renouvellement de contrat pour la Camerounaise des Eaux. *CameroonWeb*. Retrieved September 29, 2017, from <http://www.cameroonweb.com/CameroonHomePage/business/Pas-de-renouvellement-de-contrat-pour-la-Camerounaise-des-Eaux-384359>
- Cameroon Development Corporation. (2014). Banana. Retrieved September 18, 2017, from <http://cdc-cameroon.net/new2014/products/banana/>
- Carney, J. A. (1988). Struggles over crop rights and labor within contract farming households in a Gambian irrigated rice project. *Journal of Peasant Studies*, 15(3), 334-349. doi: 10.1080/03066158808438366
- Carney, J. A. (1998). Women's land rights in Gambian irrigated rice schemes: Constraints and opportunities. *Agriculture and Human Values*, 15(4), 325-336. doi: 10.1023/A:1007580801416
- Castree, N., & Braun, B. (Eds.). (2001). *Social nature: Theory, practice and politics*. Malden, MA: Blackwell.
- Camerounaise des Eaux. (2009). Actors of the water sector. Retrieved August 2, 2012, from <http://www.la-cde.com/en/sectors-actors.html>
- Chambers, R. (1994). The origins and practice of participatory rural appraisal. *World Development*, 22(7), 953-969. doi: 10.1016/0305-750X(94)90141-4
- Chambers, R. (1997). *Whose reality counts? Putting the first last*. London: Intermediate Technology Publications.
- Changing Mentalities and Empowering Groups. (2014). Changing Mentalities and Empowering Groups. Retrieved June 1, 2017, from [www.chameg.org](http://www.chameg.org)
- Chancellor, F. (2005). Enabling women to participate in African smallholder irrigation development and design. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 155-172). New York, NY: Berg.

- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, application, and praxis. *Signs*, 38(4), 785-810. doi: <https://doi.org/10.1086/669608>
- Cleaver, F. (2004). The social embeddedness of agency and decision-making. In S. Hickey & G. Mohan (Eds.), *Participation: From tyranny to transformation?* (pp. 271-277). London and New York, NY: Zed Books.
- Cleaver, F. (2007). Understanding agency in collective action. *Journal of Human Development*, 8(2), 223-244. doi: 10.1080/14649880701371067
- Cleaver, F., & Elson, D. (1995). Women and water resources: Continued marginalisation and new policies. Gatekeeper Series No. SA49. (pp. 15). London, UK: International Institute for Environment and Development.
- Cleaver, F., & Hamada, K. (2010). 'Good' water governance and gender equity: A troubled relationship. *Gender & Development*, 18(1), 27-41. doi: 10.1080/13552071003599996
- Clifford, J. (1990). Notes on (Field)notes. In R. Sanjek (Ed.), *Fieldnotes: The Makings of Anthropology* (pp. 47-70). Ithaca, New York: Cornell University Press.
- Coles, A. (2005). Geology and gender: Water supplies, ethnicity, and livelihoods in Central Sudan. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 75-93). New York, NY: Berg.
- Coles, A., & Wallace, T. (Eds.). (2005). *Gender, water, and development*. New York, NY: Berg.
- Collins, P. H. (1990). Toward an Afrocentric epistemology *Black feminist thought: Knowledge, consciousness, and the politics of empowerment* (pp. 201-219). New York, NY: Routledge.
- Commonwealth Foundation. (2013). National report: Cameroon. A civil society review of progress towards the Millennium Development Goals in Commonwealth countries (pp. 25). London: Commonwealth Foundation. [http://commonwealthfoundation.com/wp-content/uploads/2013/10/MDG%20Reports%20Cameroon\\_FINAL\\_2.pdf](http://commonwealthfoundation.com/wp-content/uploads/2013/10/MDG%20Reports%20Cameroon_FINAL_2.pdf)
- Cooke, B. (2008). Participatory management as colonial administration. In S. Dar & B. Cooke (Eds.), *The new development management: Critiquing the dual modernization*. London and New York, NY: Zed Books.
- Cooke, B., & Kothari, U. (Eds.). (2001). *Participation: The new tyranny?* London, UK and New York, NY: Zed Books.
- Cooper, A. J. (1998). A voice from the South. In P. M. Lengermann & G. Niebrugge (Eds.), *The women founders* (pp. 184-189). Long Grove, IL: Waveland Press.
- Cornwall, A. (2000). Missing men? Reflections on men, masculinities, and gender in GAD. *IDS Bulletin*, 31(2), 18-27. doi: 10.1111/j.1759-5436.2000.mp31002003.x
- Cornwall, A. (2003). Whose voices? Whose choices? Reflections on gender and participatory development. *World Development*, 31(8), 1325-1342. doi: 10.1016/S0305-750X(03)00086-X
- Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science & Medicine*, 41(12), 1667-1676. doi: 10.1016/0277-9536(95)00127-S
- CountrySTAT. (2017). Cameroon. Retrieved September 18, 2017, from <http://cameroon.countrystat.org/>
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory, and antiracist politics. *University of Chicago Legal Forum*, 1989, 139-168.

- Crenshaw, K. (2016). Kimberlé Crenshaw: The urgency of intersectionality [Video file, 18:49]. Retrieved September 7, 2017, from [https://www.ted.com/talks/kimberle\\_crenshaw\\_the\\_urgency\\_of\\_intersectionality](https://www.ted.com/talks/kimberle_crenshaw_the_urgency_of_intersectionality)
- Crow, B. (2001). Water: Gender and material inequalities in the Global South. *CGIRS Working Paper Series*. Santa Cruz, CA: Center for Global, International and Regional Studies, University of California.
- Crow, B., & Sultana, F. (2002). Gender, class, and access to water: Three cases in a poor and crowded delta. *Society and Natural Resources*, 15(8), 709-724. doi: 10.1080/0894192029006930 8
- Davidson, J., & Stratford, E. (2011). Economic globalization, sustainability, gender, and water. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 29-47). Kolkata: STREE.
- Dávila-Poblete, S., & Rico, M. N. (2005). Global water and gender policies: Latin American challenges. In V. Bennett, S. Dávila-Poblete & M. N. Rico (Eds.), *Opposing currents: The politics of water and gender in Latin America* (pp. 30-49). Pittsburgh, PA: University of Pittsburgh Press.
- Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist Theory*, 9(1), 67-85. doi: 10.1177/1464700108086364
- deGrassi, A. (2008). 'Neopatrimonialism' and agricultural development in Africa: Contributions and limitations of a contested concept. *African Studies Review*, 51(3), 107-133. doi: 10.1353/arw.0.0087
- de Lange, N., & Mitchell, C. (2012). Building sustainability into work with participatory video. In E. J. Milne, C. Mitchell & N. de Lange (Eds.), *The handbook of participatory video* (pp. 318-330). Plymouth: AltaMira Press.
- de Lange, N., Mitchell, C., & Stuart, D. J. (2007). *Putting people in the picture: Visual methodologies for social change*. Rotterdam, Netherlands: Sense Publishers.
- Delgado, J. V. (2005). Irrigation management, the participatory approach, and equity in an Andean community. In V. Bennett, S. Dávila-Poblete & M. N. Rico (Eds.), *Opposing currents: The politics of water and gender in Latin America* (pp. 109-122). Pittsburgh, PA: University of Pittsburgh Press.
- Derrida, J. (1985). Des tours de Babel (J. F. Graham, Trans.). In J. F. Graham (Ed.), *Difference in translation* (pp. 165-207). Ithaca, NY and London: Cornell University Press.
- Dey, J. (1981). Gambian women: Unequal partners in rice development projects? *Journal of Development Studies*, 17(3), 109-122. doi: 10.1080/00220388108421801
- Diduk, S. (1989). Women's agricultural production and political action in the Cameroon grassfields. *Africa*, 59(3), 338-355. doi: 10.2307/1160231
- Diduk, S. (2004). The civility of incivility: Grassroots political activism, female farmers, and the Cameroon state. *African Studies Review*, 47(2), 27-54. doi: 10.1017/S0002020600030845
- Donkor, S. (2003). Development challenges of water resource management in Africa. *African Water Journal, Pilot edition*, 1-19. [http://new.uneca.org/Portals/3/documents/African\\_Water\\_Journal\\_rev.pdf](http://new.uneca.org/Portals/3/documents/African_Water_Journal_rev.pdf)
- Dowling, J. (2011). Fishing for power? Women in the fishing industry in Australia. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 138-149). Kolkata: STREE.

- Dreibelbis, R., Winch, P. J., Leontsini, E., Hulland, K. R. S., Ram, P. K., Unicomb, L., & Luby, S. P. (2013). The Integrated Behavioural Model for Water, Sanitation, and Hygiene: A systematic review of behavioural models and a framework for designing and evaluating behaviour change interventions in infrastructure-restricted settings. *BMC Public Health*, *13*(1015), 1-13. doi: 10.1186/1471-2458-13-1015
- D'Souza, R. (2006). Framework for analysis. *Interstate disputes over Krishna Waters: Law, science and imperialism*. (pp. 24-43). New Delhi: Orient Longman.
- Easterly, W. (2010). Democratic accountability in development: The double standard. *Social Research: An International Quarterly*, *77*(4), 1075-1104. <http://www.jstor.org/stable/23347120>
- Eckert, A. (1998). Slavery in colonial Cameroon, 1990s to 1930s. *Slavery & Abolition*, *19*(2), 133-148. doi: 10.1080/01440399808575243
- Edgeworth, M. (2014). On the agency of rivers. *Archaeological Dialogues*, *21*(2), 157-159. doi: 10.1017/S1380203814000166
- Eisner, E. (2008). Art and knowledge. In J. G. Knowles & A. L. Cole (Eds.), *Handbook of the arts in qualitative research* (pp. 3-12). Los Angeles, London, New Delhi, Singapore: Sage.
- Elmhirst, R. (2011). Introducing new feminist political ecologies. *Geoforum*, *42*(2), 129-132. doi: 10.1016/j.geoforum.2011.01.006
- Elson, D. (1993). Gender-aware analysis and development economics. *Journal of International Development*, *5*(2), 237-247. doi: 10.1002/jid.3380050214
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago, IL: University of Chicago Press.
- Endeley, J. B. (2001). Conceptualising women's empowerment in societies in Cameroon: How does money fit in? *Gender & Development*, *9*(1), 34-41. doi: 10.1080/13552070127728
- European Forest Institute. (2010). EU-Cameroon trade agreement ensures timber legality from one of Africa's biggest exporters of tropical timber. Retrieved June 2, 2016, from [http://www.efi.int/portal/news\\_\\_\\_events/news?bid=510](http://www.efi.int/portal/news___events/news?bid=510)
- Faisal, I. M., & Kabir, M. R. (2005). An analysis of gender-water nexus in rural Bangladesh. *Journal of Developing Societies*, *21*(1-2), 175-194. doi: 10.1177/0169796X05054623
- Fallon, K. M. (2003). Transforming women's citizenship rights within an emerging democratic state: The case of Ghana. *Gender & Society*, *17*(4), 525-543. doi: 10.1177/0891243203253657
- Fallon, K. M. (2008). *Democracy and the rise of women's movements in sub-Saharan Africa*. Baltimore, MD: The Johns Hopkins University Press.
- Food and Agriculture Organization. (2012). Country fact sheet: Cameroon: AQUASTAT, FAO. <http://www.fao.org/nr/water/aquastat/main/index.stm>
- Food and Agriculture Organization. (2015). FAO statistical pocketbook 2015. Rome: FAO.
- Food and Agriculture Organization. (2017). Gender and land rights database: Cameroon. Retrieved September 18, 2017, from [http://www.fao.org/gender-landrights-database/country-profiles/countries-list/general-introduction/en/?country\\_iso3=CMR](http://www.fao.org/gender-landrights-database/country-profiles/countries-list/general-introduction/en/?country_iso3=CMR)
- Farmer, P. E., Nizeye, B., Stulac, S., & Keshavjee, S. (2006). Structural violence and clinical medicine. *PLoS Medicine*, *3*(10), 1686-1691. doi: 10.1371/journal.pmed.0030449
- Ferguson, J. (2006). *Global shadows: Africa in the neoliberal world order*. Durham, NC: Duke University Press.

- Figueiredo, P., & Perkins, P. E. (2013). Women and water management in times of climate change: Participatory and inclusive processes. *Journal of Cleaner Production*, 60, 188-194. doi: 10.1016/j.jclepro.2012.02.025
- Fine, M. (2014). *Critical participatory action research in revolting times*. Paper presented at the American Educational Research Association 2014 Annual Meeting, Qualitative Research SIG Business Meeting and Egon Guba Lecture, Philadelphia, PA.
- Fisher, M., Madsen, E., Shields, K., Williams, A., Liang, K., Fechter, A., & Cronk, R. (2017). Operational definitions for WaSH monitoring and evaluation (pp. 26). Chapel Hill, NC: The Water Institute, University of North Carolina.  
<https://waterinstitute.unc.edu/files/2014/10/Operational-Definitions-3.14.2017.pdf>
- Fokwang, J. (2009). *Mediating legitimacy: Chieftaincy and democratisation in two African Chiefdoms*. Oxford: African Books Collective.
- Folifac, F. (2012). *Towards improving knowledge management and collaborative action in potable water delivery at the local level: case of Buea, Cameroon*. Doctor of Philosophy, McGill University, Montreal. Retrieved from [http://digitool.Library.McGill.CA:80/R/?func=dbin-jump-full&object\\_id=116982&silolibrary=GEN01](http://digitool.Library.McGill.CA:80/R/?func=dbin-jump-full&object_id=116982&silolibrary=GEN01)
- Folifac, F., & Gaskin, S. (2011). Joint water supply projects in rural Cameroon: Partnership of profiteering? Lessons from the Mautu-Cameroon Development Corporation (CDC) project. *Water Science & Technology: Water Supply*, 11(4), 409-417. doi: 10.2166/ws.2011.061
- Folifac, F., Lifongo, L., Nkeng, G., & Gaskin, S. (2009). Municipal drinking water source protection in low income countries: Case of Buea municipality - Cameroon. *Journal of Ecology and Natural Environment*, 1(4), 73-84.  
<http://academicjournals.org/jene/PDF/Pdf2009/July/Folifac%20et%20al.pdf>
- Fombad, C. M. (2004). Cameroon's emergency powers: A recipe for (un)constitutional dictatorship? *Journal of African Law*, 48(1), 62-81. doi: 10.1017/S0021855304481042
- Fonchingong, C. (1999). Structural adjustment, women, and agriculture in Cameroon. *Gender & Development*, 7(3), 73-79. doi: 10.1080/741923241
- Fonchingong, C. C. (2005). Negotiating livelihoods beyond Beijing: The burden of women food vendors in the informal economy of Limbe, Cameroon. *International Social Science Journal*, 57(184), 243-253. doi: 10.1111/j.1468-2451.2005.00548.x
- Fonjong, L. (2004). Challenges and coping strategies of women food crops entrepreneurs in Fako Division, Cameroon. *Journal of International Women's Studies*, 5(5), 1-17.  
<http://vc.bridgew.edu/jiws/vol5/iss5/1>
- Fonjong, L. N. (Ed.). (2012). *Issues in women's land rights in Cameroon*. Oxford: African Books Collective.
- Fonjong, L. N., & Ngekwi, M. A. (2014). Challenges of water crisis on women's socio-economic activities in the Buea Municipality, Cameroon. *Journal of Geography and Geology*, 6(4), 122-131. doi: 10.5539/jgg.v6n4p122
- Fonjong, L. N., Ngwa, N. E., & Fonchingong, C. C. (2004). Rethinking the contribution of indigenous management in small-scale water provision among selected rural communities in Cameroon. *Environment, Development and Sustainability*, 6(4), 429-451. doi: 10.1007/s10668-005-0501-3
- Fonjong, L., Sama-Lang, I. F., & Fombe, L. F. (2012). Implications of customary practices on gender discrimination in land ownership in Cameroon. *Ethics and Social Welfare*, 6(3), 260-274. doi: 10.1080/17496535.2012.704637

- Fonow, M. M., & Cook, J. A. (1991). Back to the future: A look at the second wave of feminist epistemology and methodology. In M. M. Fonow & J. A. Cook (Eds.), *Beyond methodology: Feminist scholarship as lived research* (pp. 1-15). Bloomington and Indianapolis, IN: Indiana University Press.
- Fonow, M. M., & Cook, J. A. (2005). Feminist methodology: New applications in the academy and public policy. *Signs*, 30(4), 2211-2236. doi: 10.1086/428417
- Fon Rene. (2011, July 3). Mayor bans commercial bike circulation in Buea. *Fon Rene's Blog*. Retrieved May 25, 2015, from <https://miramax1234.wordpress.com/2011/07/03/mayor-bans-commercial-bike-circulation-in-buea/>
- Ford, T. (2016, April 15). Cameroon's drive to become the new home of innovation. *BBC News*. Retrieved September 19, 2017, from <http://www.bbc.com/news/av/business-36054263/cameroon-s-drive-to-become-the-new-home-of-innovation>
- Fotue, L. A. T., & Sikod, F. (2012). Determinants of the households' choice of drinking water source in Cameroon. *Journal of Sustainable Development in Africa*, 14(3), 86-97. [http://www.jsda-africa.com/Jsda/Vol14No3-Summer2012A/article14\\_03.htm](http://www.jsda-africa.com/Jsda/Vol14No3-Summer2012A/article14_03.htm)
- Frank, A. G. (1971). Foreign investment in Latin America. *Capitalism and underdevelopment in Latin America* (pp. 309-346). Harmondsworth: Penguin.
- Fraser, P. J., Hall, J. B., & Healey, J. R. (1998). Climate of the Mount Cameroon Region: Long and medium term rainfall, temperature and sunshine data. (*School of Agricultural and Forest Sciences Publication Number 16*). University of Wales, Bangor: Mount Cameroon Project and Cameroon Development Corporation.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Continuum International Publishing Group.
- Galega, S. D., & Tumnde, M. (2004). Reversing decades of gender injustice in Cameroon. In J. M. Mbaku & J. Takougang (Eds.), *The leadership challenge in Africa: Cameroon under Paul Biya* (pp. 235-266). Trenton, NJ and Asmara: African World Press.
- Galtung, J. (1969). Violence, peace, and peace research. *Journal of Peace Research*, 6(3), 167-191. doi: 10.1177/002234336900600301
- Gaventa, J., & Cornwall, A. (2006). Power and knowledge. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Concise paperback edition* (pp. 71-82). London, Thousand Oaks, New Delhi: Sage.
- Gandy, M. (2004). Rethinking urban metabolism: Water, space, and the modern city. *City*, 8(3), 363-379. doi: 10.1080/1360481042000313509
- Geere, J.-A. L., Hunter, P. R., & Jagals, P. (2010). Domestic water carrying and its implications for health: A review and mixed methods pilot study in Limpopo Province, South Africa. *Environmental Health*, 9(52), 1-13. doi: 10.1186/1476-069X-9-52
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York, NY: Basic Books.
- Gender Empowerment and Development. (2010). Beijing +15: The reality of Cameroon and the unfinished business (pp. 79): Friedrich Ebert Stiftung. <http://library.fes.de/pdf-files/bueros/kamerun/08018.pdf>
- Geschiere, P. (1993). Chiefs and colonial rule in Cameroon: Inventing Chieftaincy, French and British style. *Africa: Journal of the International African Institute*, 63(2), 151-175. doi: 10.2307/1160839
- Geschiere, P. (2005). Funerals and belonging: Different patterns in South Cameroon. *African Studies Review*, 48(2), 45-64. doi: 10.1353/arw.2005.0059

- Geschiere, P., & Nyamnjoh, F. B. (2000). Capitalism and autochthony: The seesaw of mobility and belonging. *Public Culture*, 12(2), 423-452. doi: 10.1215/08992363-12-2-423
- Giarracca, N., & Del Pozo, N. (2005). To make waves. In V. Bennett, S. Dávila-Poblete & M. N. Rico (Eds.), *Opposing currents: The politics of water and gender in Latin America* (pp. 91-106). Pittsburgh, PA: University of Pittsburgh Press.
- Gilbert, K. (2010, November 16). Cameroon traditional rulers - first woman traditional leader of Limbe village. *Cameroon Today*. Retrieved September 19, 2017, from <http://news.cameroon-today.com/cameroon-traditional-rulers-first-woman-traditional-leader-of-limbevillage/1785/>
- Gleick, P. H. (2003). Global freshwater resources: Soft-path solutions for the 21st century. *Science*, 302(5650), 1524-1528. doi: 10.1126/science.1089967
- Global Conscience Initiative. (2016). Legal System. Retrieved May 1, 2016, from <http://gci-cameroon.org/about-cameroon/legal-system/>
- Global Water Partnership. (2000a). Integrated water resources management. Stockholm: Global Water Partnership.
- Global Water Partnership. (2000b). Towards water security: A framework for action (pp. 10). Stockholm, Sweden and London, United Kingdom: Global Water Partnership.
- Goheen, M. (1996). *Men own the crops, women own the fields: Gender and power in the Cameroon Grassfields*. Madison, WI: University of Wisconsin Press.
- Goodall, H. (2011). Gender, race, and rivers: Women and water in Northwestern NSW. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 287-304). Kolkata: STREE.
- Green, C., Joeques, S., & Leach, M. (1998). Questionable links: Approaches to gender in environmental research and policy. In C. Jackson & R. Pearson (Eds.), *Feminist visions of development: Gender analysis and policy* (pp. 259-283). London, UK and New York, NY: Routledge.
- Gubrium, A., & Harper, K. (2013). *Participatory visual and digital methods*. Walnut Creek, CA: Left Coast Press.
- Hall, D., Bayliss, K., & Lobina, E. (2002). *Water privatisation in Africa*. Paper presented at the Municipal Services Project Conference, Witwatersrand, Johannesburg. [www.psir.org](http://www.psir.org)
- Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575-599. doi: 10.2307/3178066
- Harding, S., & Norberg, K. (2005). New feminist approaches to social sciences methodologies: An introduction. *Signs*, 30(4), 2009-2015. doi: 10.1086/428420
- Harris, L. M. (2008). Water rich, resource poor: Intersections of gender, poverty, and vulnerability in newly irrigated areas of Southeastern Turkey. *World Development*, 36(12), 2643-2662. doi: 10.1016/j.worlddev.2008.03.004
- Harris, L. M. (2009). Gender and emergent water governance: Comparative overview of neoliberalized natures and gender dimensions of privatization, devolution, and marketization. *Gender, Place and Culture*, 16(4), 387-408. doi: 10.1080/09663690903003918
- Hassan, R. (2006). Vulnerability of water resources in North Cameroon to climate change. *Climate change and African agriculture* (pp. 1-8). Pretoria, South Africa: Center for Environmental Economics and Policy in Africa (CEEPA). <http://www.ceepa.co.za/docs/POLICY%20NOTE%2033.pdf>



- Hawkins, R., Ojeda, D., Asher, K., Baptiste, B., Harris, L., Mollett, S., . . . Sultana, F. (2011). Gender and environment: Critical tradition and new challenges. *Environment and Planning D: Society and Space*, 29(2), 237-253. doi: 10.1068/d16810
- Hawkins, R., & Seager, J. (2010). Gender and water in Mongolia. *The Professional Geographer*, 62(1), 16-31. doi: 10.1080/00330120903375852
- Head, L., & Muir, P. (2011). Women, men, and water in Australian backyards. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 185-201). Kolkata: STREE.
- Health Canada. (2014). Drinking water and wastewater. Retrieved September 20, 2014, from <http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-eau-eng.php#res>
- Helvetas. (2010). Helvetas project experience: What we left behind (pp. 4): Helvetas. <https://assets.helvetas.org/downloads/helvetasissuesheetwhatweleavebehindfinal.pdf>
- Hickey, S. (2002). Transnational NGOs and participatory forms of rights-based development: Converging with the local politics of citizenship in Cameroon. *Journal of International Development*, 14, 841-857. doi: 10.1002/jid.929
- Hill, M. (2013). A starting point: Understanding governance, good governance, and water governance. In *Climate change and water governance: Adaptive capacity in Chile and Switzerland* (pp. 17-28). Dordrecht and New York, NY: Springer.
- Hoekstra, A. Y., & Hung, P. Q. (2002). Virtual water trade: A quantification of virtual water flows between nations in relation to international crop trade. *Value of Water Research Report Series No. 11*. Delft, The Netherlands: IHE Delft. <http://waterfootprint.org/media/downloads/Report11.pdf>
- House, S. (2005). Easier to say, harder to do: Gender, equity, and water. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 209-225). New York, NY: Berg.
- Howitt, R., & Suchet-Pearson, S. (2011). Changing country, telling stories: Research ethics, methods, and empowerment in working with Aboriginal women. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 48-63). Kolkata: STREE.
- Huston, A. (2015). *Investigating 'improved drinking water': The service reliability of public standtaps, the central utility, and community water in Buea, Cameroon*. M.Sc., McGill University, Montreal. [http://digitool.library.mcgill.ca/webclient/StreamGate?folder\\_id=0&dvs=1507231554491~499](http://digitool.library.mcgill.ca/webclient/StreamGate?folder_id=0&dvs=1507231554491~499)
- Hutchings, A., & Buijs, G. (2005). Water and AIDS: Problems associated with the home-based care of AIDS patients in a rural area of Northern KwaZulu-Natal, South Africa. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 173-188). New York, NY: Berg.
- Hysacam. (2013). Mots du President Directeur Général. Retrieved May 11, 2016, from <https://www.hysacam-proprete.com/node/4>
- Ifeka-Moller, C. (1975). Female militancy and colonial revolt: The women's war of 1929, Eastern Nigeria. In S. Ardener (Ed.), *Perceiving women* (pp. 127-157). New York, NY: John Wiley & Sons.
- International Foundation for Electoral Systems. (2016). Election guide: Democracy assistance & election news. Retrieved May 12, 2016, from <http://www.electionguide.org/elections/?inst=&cont=Cameroon&yr=>
- International Institute for Democracy and Electoral Assistance. (2016). Voter turnout data for Cameroon. Retrieved May 12, 2016, from <http://www.idea.int/vt/countryview.cfm?id=46>

- International Monetary Fund. (2003). Cameroon: Poverty Reduction Strategy Paper (pp. 235). Washington, DC: IMF.
- International Monetary Fund. (2010). Cameroon: Poverty Reduction Strategy Paper. Growth and Employment Strategy Paper: Reference framework for government action over the period 2010-2020 (pp. 173). Washington, DC: IMF.
- International Monetary Fund. (2017). Factsheet: Debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative. Retrieved September 7, 2017, from <http://www.imf.org/external/np/exr/facts/hipc.htm>
- Investment Promotion Agency Cameroon. (2014). Why Invest in Cameroon? Retrieved June 2, 2016, from <http://investincameroon.net/en/>
- Jackson, C. (1998). Gender, irrigation, and environment: Arguing for agency. *Agriculture and Human Values*, 15(4), 313-324. doi: 10.1023/A:1007528817346
- James, D. (2011). Re-sourcing the sacredness of water. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 85-104). Kolkata: STREE.
- Jensen, C. B., & Morita, A. (2016). Introduction: Infrastructures as ontological experiments. *Journal of Anthropology*, 82(4), 615-626. doi: 10.1080/00141844.2015.1107607
- Joshi, D. (2005). Misunderstanding gender in water: Addressing or reproducing exclusion. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 135-154). New York, NY: Berg.
- Joshi, D., & Fawcett, B. (2005). The role of water in an unequal social order in India. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 39-56). New York, NY: Berg.
- Kabeer, N. (1994). *Reversed realities: Gender hierarchies in development thought*. London, UK and New York, NY: Verso.
- Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third Millennium Development Goal. *Gender & Development*, 13(1), 13-24. doi: 10.1080/13552070512331332273
- Kaberry, P. M. (1952). *Women of the Grassfields: A study of the economic position of women in Bamenda, British Cameroons*. London, UK: Her Majesty's Stationary Office.
- Kah, H. K. (2011). Women's resistance in Cameroon's Western Grassfields: The power of symbols, organization, and leadership, 1957-1961. *African Studies Quarterly*, 12(3), 67-91. <http://www.africa.ufl.edu/asq/v12/v12i3a4.pdf>
- Kaika, M. (2006). Dams as symbols of modernization: The urbanization of nature between geographical imagination and materiality. *Annals of the Association of American Geographers*, 96(2), 276-301. doi: 10.1111/j.1467-8306.2006.00478.x
- Kaika, M., & Swyngedouw, E. (2000). Fetishizing the modern city: The phantasmagoria of urban technological networks. *International Journal of Urban and Regional Research*, 24(1), 120-138. doi: 10.1111/1468-2427.00239
- Katte, V. Y., Fonteh, M. F., & Guemuh, G. N. (2003). Domestic water quality in urban centres in Cameroon: A case study of Dschang in the West Province. *African Water Journal, Pilot edition*, 43-50. [http://new.uneca.org/Portals/3/documents/African\\_Water\\_Journal\\_rev.pdf](http://new.uneca.org/Portals/3/documents/African_Water_Journal_rev.pdf)
- Kimengsi, J. N., & Gur, A. S. (2015). Water rationing in the Buea municipality: Patterns, effects, and coping strategies. *African Journal of Social Sciences*, 6(3), 1-13. [https://www.researchgate.net/profile/Jude\\_Kimengsi/publication/289184428\\_Water\\_Rationing\\_in\\_the\\_Buea\\_Municipality\\_Patterns\\_Effects\\_and\\_Coping\\_Strategies\\_African\\_Journal\\_of\\_Social\\_Sciences\\_Vol6\\_No\\_3\\_2015\\_Jude\\_N\\_Kimengsi\\_Amawa\\_Sani\\_G/links/568a1d2208aebccc4e19241b/Water-Rationing-in-the-Buea-Municipality-Patterns-Effects-](https://www.researchgate.net/profile/Jude_Kimengsi/publication/289184428_Water_Rationing_in_the_Buea_Municipality_Patterns_Effects_and_Coping_Strategies_African_Journal_of_Social_Sciences_Vol6_No_3_2015_Jude_N_Kimengsi_Amawa_Sani_G/links/568a1d2208aebccc4e19241b/Water-Rationing-in-the-Buea-Municipality-Patterns-Effects-)

- and-Coping-Strategies-African-Journal-of-Social-Sciences-Vol6-No-3-2015-Jude-N-Kimengsi-Amawa-Sani-G.pdf
- Kindon, S. (2003). Participatory video in geographic research: A feminist practice of looking? *Area*, 35(2), 142-153. doi: 10.1111/1475-4762.00236
- Kindon, S., Pain, R., & Kesby, M. (2007). Participatory action research: Origins, approaches, and methods. In S. Kindon, R. Pain & M. Kesby (Eds.), *Participatory action research approaches and methods: Connecting people, participation, and place* (pp. 9-18). Abingdon: Routledge.
- Koczberski, G. (1998). Women in development: A critical analysis. *Third World Quarterly*, 19(3), 395-409. doi: 10.1080/01436599814316
- Konde, E. (2005). *African women and politics: Knowledge, gender, and power in male-dominated Cameroon*. Lewiston, NY, Queenstown, ON and Lampeter, Wales: The Edwin Mellen Press.
- Konings, P. (1996). Privatisation of agro-industrial parastatals and Anglophone opposition in Cameroon. *The Journal of Commonwealth and Comparative Politics*, 34(3), 199-217. doi: 10.1080/14662049608447731
- Konings, P. (2003). Religious revival in the Roman Catholic Church and the Autochthony-Allochthony conflict in Cameroon. *Africa: Journal of the International African Institute*, 73(1), 31-56. doi: 10.3366/afr.2003.73.1.31
- Konings, P. (2008). Privatisation and labour militancy: The case of Cameroon's tea estates. *Journal of Contemporary African Studies*, 26(1), 51-70. doi: 10.1080/02589000701782653
- Konings, P., & Nyamnjoh, F. B. (1997). The Anglophone Problem in Cameroon. *The Journal of Modern African Studies*, 35(2), 207-229. doi: 10.1017/S0022278X97002401
- Konings, P., & Nyamnjoh, F. B. (2003). *Negotiating an Anglophone identity: A study of the politics of recognition and representation in Cameroon*. Leiden: Brill.
- Kothari, R. (1988). Foreword. In V. Shiva (Ed.), *Staying alive: Women, ecology, and survival in India* (pp. vii-xi). New Delhi: Kali for Women.
- Kouega, J.-P. (2008). *A dictionary of Cameroon Pidgin English usage: Pronunciation, grammar, and vocabulary*. Munchen: Lincom Europa.
- Krause, F., & Strang, V. (2016). Thinking relationships through water. *Society and Natural Resources*, 29(6), 633-638. doi: 10.1080/08941920.2016.1151714
- Kuitcha, D., Ndjama, J., Tita, M. A., Lienou, G., Kamgang, V. B. K., Ateba, H. B., & Ekodeck, E. G. (2010). Bacterial contamination of water points of the upper Mfoundi watershed, Yaoundé, Cameroon. *African Journal of Microbiology Research*, 4(7), 568-574. <http://www.academicjournals.org/AJMR/PDF/Pdf2010/4Apr/Kuitcha%20et%20al.pdf>
- Kumar, A. (2011). Understanding the emerging role of motorcycles in African cities: A political economy perspective. SSATP Discussion Paper No. 13. *Urban Transport Series: Sub-Saharan African Transport Policy Program*. <https://www.ssatp.org/sites/ssatp/files/pdfs/Topics/urban/DP13-Role-Motorcycles%5B1%5D.pdf>
- Lahiri-Dutt, K. (Ed.). (2011a). *Fluid bonds: Views on gender and water* (2nd ed.). Kolkata: STREE.
- Lahiri-Dutt, K. (2011b). Introduction. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. xxi-xlvi). Kolkata: STREE.

- Lahiri-Dutt, K. (2011c). *Nadi O Nari*: Representing the river and women of rural communities in the Bengal Delta. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 387-408). Kolkata: STREE.
- Larkin, B. (2013). The politics and poetics of infrastructure. *Annual Review of Anthropology*, 42, 327-343. doi: 10.1146/annurev-anthro-092412-155522
- Laurie, N. (2011). Gender water networks: Femininity and masculinity in water politics in Bolivia. *International Journal of Urban and Regional Research*, 35(1), 172-188. doi: 10.1111/j.1468-2427.2010.00962.x
- Leach, M. (1992). Gender and the environment: Traps and opportunities. *Development in Practice*, 2(1), 12-22. doi: 10.1080/096145249100076511
- Leach, M. (2007). Earth Mother myths and other ecofeminist fables: How a strategic notion rose and fell. *Development and Change*, 38(1), 67-85. doi: 10.1111/j.1467-7660.2007.00403.x
- Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for data analysis triangulation. *School Psychology Quarterly*, 22(4), 557-584. doi: 10.1037/1045-3830.22.4.557
- Lewis, P. M., Simons, G. F., & Fennig, C. D. (2016). *Ethnologue: Languages of the world*, nineteenth edition. Retrieved June 2, 2016, from <https://www.ethnologue.com/statistics/country>
- Liamputtong, P. (2011). *Focus group methodology: Principles and practice*. London, UK: Sage.
- Linton, J. (2010). *What is water? The history of a modern abstraction*. Vancouver, BC and Toronto, ON: UBC Press.
- Linton, J., & Budds, J. (2014). The hydrosocial cycle: Defining and mobilizing a relational-dialectical approach to water. *Geoforum*, 57, 170-180. doi: 10.1016/j.geoforum.2013.10.008
- Lloyd, R., Parr, B., Davies, S., & Cooke, C. (2011). A kinetic comparison of back-loading and head-loading in Xhosa women. *Ergonomics*, 54(4), 380-391. doi: 10.1080/00140139.2011.558636
- Loftus, A. (2007). Working the socio-natural relations of the urban waterscape in South Africa. *International Journal of Urban and Regional Research*, 31(1), 41-59. doi: 10.1111/j.1468-2427.2007.00708.x
- Loftus, A. (2009). Rethinking political ecologies of water. *Third World Quarterly*, 30(5), 953-968. doi: 10.1080/01436590902959198
- Lorde, A. (1984). Learning from the 60s. In A. Lorde (Ed.), *Sister outsider: Essays and speeches* (pp. 134-144). Trumansburg, NY: Crossing Press.
- Loucks, D. P., & van Beek, E. (2017). *Water resource systems planning and management: An introduction to methods, models, and applications*. Cham, Switzerland: Springer.
- MacEntee, K., Thompson, J. A., & Fikreyesus, S. (Writers). (2012). Gender and enset: A documentary film. In Jimma University & Post-Harvest Management to Improve Livelihoods Project (Producer). Ethiopia.
- MacEntee, K., Thompson, J. A., Fikreyesus, S., & Jihad, K. (2013). Enset is a good thing: Gender and enset in Jimma Zone, Ethiopia. *Ethiopian Journal of Applied Science and Technology, Special Issue No. 1*, 103-109. [http://www.ju.edu.et/ejast/sites/all/themes/wilderness/images/paper/11.Katie\\_et\\_al.\\_final\\_May\\_2013\\_R.pdf](http://www.ju.edu.et/ejast/sites/all/themes/wilderness/images/paper/11.Katie_et_al._final_May_2013_R.pdf)
- Maguire, P. (1987). *Doing participatory research: A feminist approach*. Amherst, MA: The Center for International Education, University of Massachusetts.

- Maguire, P. (2006). Uneven ground: Feminisms and action research. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Concise paperback edition* (pp. 60-70). London, Thousand Oaks, New Delhi: Sage.
- Maharaj, N. (1999). Mainstreaming gender in water resources management: Why and how. Background paper for the World Vision Process. Retrieved September 6, 2012, from <http://www.un.org/womenwatch/daw/forum-sustdev/francis%20paper.pdf>
- Mahon, T., & Fernandes, M. (2010). Menstrual hygiene in South Asia: A neglected issue for WASH (water, sanitation, and hygiene) programmes. *Gender & Development*, 18(1), 99-113. doi: 10.1080/13552071003600083
- Makia, W. E. (2015). *Pieces of dreams: A memoir*. Bloomington, IN: AuthorHouse.
- Manga, V. E., Agyingi, C. M., & Djieto-Lordon, A. E. (2013). *In-channel sand extraction in River Mungo, Cameroon: Nature effects and concerns*. Paper presented at the 6th International Conference on Water Resources and Environment Research, Koblenz, Germany. [http://www.water-environment.org/proceedings\\_pdf/ICWRER2013\\_Proceedings\\_p011-028.pdf](http://www.water-environment.org/proceedings_pdf/ICWRER2013_Proceedings_p011-028.pdf)
- March, C., Smyth, I., & Mukhopadhyay, M. (1999). *A guide to gender-analysis frameworks*. Oxford: Oxfam GB.
- Marin, P. (2009). *Public-private partnerships for urban water utilities: A review of experiences in developing countries*. Washington, DC: The International Bank for Reconstruction and Development and the World Bank.
- Matsuda, M. J. (1991). Beside my sister, facing the enemy: Legal theory out of coalition. *Stanford Law Review*, 43(6), 1183-1192. doi: 10.2307/1229035
- Mauger, J. (2017, February 21). Gestion des ressources en eau: La politique nationale lancée. *Cameroon Tribune*, from <https://www.cameroon-tribune.cm/articles/5770/fr/>
- Mayoux, L. (2001). Tacking the down side: Social capital, women's empowerment, and micro-finance in Cameroon. *Development and Change*, 32, 435-464. doi: 10.1111/1467-7660.00212
- Mbaku, J. M., & Takougang, J. (2004). General introduction: Biya and the promise of a better society. In J. M. Mbaku & J. Takougang (Eds.), *The leadership challenge in Africa: Cameroon under Paul Biya* (pp. 1-28). Trenton, NJ and Asmara: Africa World Press.
- Mbella, G. (2015, January 26). Cameroon: National gender policy now available. *AllAfrica*. Retrieved May 12, 2016, from <http://allafrica.com/stories/201501280925.html>
- Mbembe, A. (1992). Provisional notes on the postcolony. *Africa: Journal of the International African Institute*, 62(1), 3-37. doi: 10.2307/1160062
- Mbodiam, B. R. (2017, June 8). Drinking water: President Biya orders the launch of the process to terminate the concession contract with Moroccan CDE. *Business in Cameroon*. Retrieved September 19, 2017, from <http://www.businessincameroon.com/public-management/0806-7184-drinking-water-president-biya-orders-the-launch-of-the-process-to-terminate-the-concession-contract-with-moroccan-cde>
- Mbuagbo, O. T. (2012). Cameroon: Flawed decentralization and the politics of identity in the urban space. *Global Journal of Human Social Science*, 12(11-C), 15-25.
- McCall, L. (2005). The complexity of intersectionality. *Signs*, 30(3), 1771-1800. doi: 10.1086/426800

- McDonough, K. (2014, May 12). "Some of the worst racist tragedies in history have been perfectly legal:" Kimberlé Crenshaw on Eric Garner, Broken Windows and police impunity. Retrieved September 28, 2017, from [https://www.salon.com/2014/12/05/some\\_of\\_the\\_worst\\_racist\\_tragedies\\_in\\_history\\_have\\_been\\_perfectly\\_legal\\_kimberle\\_crenshaw\\_on\\_eric\\_garner\\_broken\\_windows\\_and\\_police\\_impunity/](https://www.salon.com/2014/12/05/some_of_the_worst_racist_tragedies_in_history_have_been_perfectly_legal_kimberle_crenshaw_on_eric_garner_broken_windows_and_police_impunity/)
- McNally, D. (2002). The colour of money: Race, gender, and the many oppressions of global capital. *Another world is possible: Globalization and anti-capitalism* (pp. 97-146). Winnipeg, MB: Arbeiter Ring.
- Memfih, N. M. (2008). A balance sheet of economic development experience since independence. In E. Y. Vubo (Ed.), *Civil society and the search for development alternatives in Cameroon* (pp. 35-45). Dakar, Senegal: Council for the Development of Social Science Research in Africa (CODESRIA). [http://www.codesria.org/IMG/pdf/Chapter\\_1.pdf](http://www.codesria.org/IMG/pdf/Chapter_1.pdf)
- Miller, F. (2011). Risks, responses, and rights: Gender dimensions of water excess and water scarcity in the Mekong Delta, Vietnam. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 202-226). Kolkata: STREE.
- Milne, E. J., Mitchell, C., & de Lange, N. (Eds.). (2012). *The handbook of participatory video*. Plymouth: AltaMira Press.
- Ministry of Energy and Water, & Global Water Partnership. (2009). DRAFT Plan d'action national de gestion intégrée des ressources en eau (PANGIRE). Etat des lieux du secteur: Cadre législatif, réglementaire, institutionnel et ressources humaines (pp. 78). Yaoundé: Republic of Cameroon. [http://www.gwpcameroon.org/bibliotheque/file/rapport\\_provisoires/CADRE\\_LEGISLATIF\\_REGLEMENTAIRE\\_INSTITUTIONNEL\\_ET\\_RESSOURCES\\_HUMAINES.pdf](http://www.gwpcameroon.org/bibliotheque/file/rapport_provisoires/CADRE_LEGISLATIF_REGLEMENTAIRE_INSTITUTIONNEL_ET_RESSOURCES_HUMAINES.pdf)
- Ministry of Forestry and Wildlife. (2014). The management plan of the Mount Cameroon National Park and its peripheral zone, 2015-2019 (pp. 108). Yaoundé: Republic of Cameroon. <http://documents.worldbank.org/curated/en/290571468007177234/pdf/E23260V30REPLA00Box391426B00PUBLIC0.pdf>
- Ministry of Women's Empowerment and the Family. (2012). Femmes et hommes au Cameroun en 2012: Une analyse situationnelle de progrès en matière de genre (pp. 33). Yaoundé: MINPROFF et l'Institut National de la Statistique.
- Mitchell, C. (2006). Visual arts-based methodologies in research as social change. In T. Marcus & A. Hofmaenner (Eds.), *Shifting the boundaries of knowledge*. Pietermaritzburg: UKZN Press.
- Mitchell, C. (2008). Getting the picture and changing the picture: Visual methodologies and educational research in South Africa. *South African journal of education*, 28(3), 365.
- Mitchell, C. (2011). *Doing visual research*. New York, NY and London, UK: Sage.
- Mitchell, C., & de Lange, N. (2011). Community-based participatory video and social action in rural South Africa. In E. Margolis & L. Pauwels (Eds.), *The SAGE handbook of visual research methods* (pp. 171-185). Los Angeles, CA: SAGE.
- Mitchell, C., & de Lange, N. (2013). What can a teacher do with a cellphone? Using participatory visual research to speak back in addressing HIV & AIDS. *South African Journal of Education*, 33(4), 1-13. doi: <http://www.scielo.org.za/pdf/saje/v33n4/10.pdf>

- Mitchell, C., de Lange, N., & Moletsane, R. (2016). Me and my cellphone: Constructing change from the inside through cellfilms and participatory video in a rural community. *AREA*, 48(4), 435-441. doi: 10.1111/area.12142
- Mitchell, C., de Lange, N., Moletsane, R., Stuart, J., & Buthelezi, T. (2005). Giving a face to HIV and AIDS: On the uses of photo-voice by teachers and community health care workers working with youth in rural South Africa. *Qualitative Research in Psychology*, 2, 257-270. doi: 10.1191/1478088705qp042oa
- Mitchell, C., Stuart, J., Moletsane, R., & Nkwanyana, C. B. (2006). "Why we don't go to school on Fridays:" On youth participation through photo voice in rural KwaZulu-Natal. *McGill Journal of Education*, 41(3), 267-280. doi: <https://search.proquest.com/docview/202689288?accountid=12339>
- Moletsane, R., de Lange, N., Mitchell, C., Stuart, J., Buthelezi, T., & Taylor, M. (2007). Photo-voice as a tool for analysis and activism in response to HIV and AIDS stigmatisation in a rural KwaZulu-Natal school. *Journal of Child and Adolescent Mental Health*, 19(1), 19-28. doi: 10.2989/17280580709486632
- Moletsane, R., & Mitchell, C. (2007). On working with a single photograph. In N. de Lange, C. Mitchell & J. Stuart (Eds.), *Putting people in the picture: Visual methodologies for social change* (pp. 131-140). Rotterdam, Netherlands: Sense.
- Moletsane, R., Mitchell, C., de Lange, N., Stuart, J., Buthelezi, T., & Taylor, M. (2009). What can a woman do with a camera? Turning the female gaze on poverty and HIV/AIDS in rural South Africa. *International Journal of Qualitative Studies in Education*, 22(3), 315-331. doi: 10.1080/09518390902835454
- Mohanty, C. T. (1988). Under Western eyes: Feminist scholarship and colonial discourses. *Feminist Review*, 30, 61-88. <http://www.jstor.org/stable/1395054>
- Molyneux, M. (1985). Mobilization without emancipation? Women's interests, the state, and revolution in Nicaragua. *Feminist Studies*, 11(2), 227-254. <http://www.jstor.org/stable/3177922>
- Molyneux, C. S., Wassenaar, D. R., Peshu, N., & Marsh, K. (2005). 'Even if they ask you to stand by a tree all day, you will have to do it (laughter)...!': Community voices on the notion and practice of informed consent for biomedical research in developing countries. *Social Science & Medicine*, 61, 443-454. doi: 10.1016/j.socscimed.2004.12.003
- Moraes, A., & Perkins, P. E. (2007). Women, equity and participatory water management in Brazil. *International Journal of Feminist Politics*, 9(4), 485-493. doi: 10.1080/14616740701607986
- Moraga, C. (1983). From a long line of Vendidas: Feminism and Chicanas. In C. Moraga (Ed.), *Loving in the war years* (pp. 82-108). Boston, MA: South End Press.
- Moser, C. (1993). *Gender planning and development: Theory, practice, and training*. London, UK and New York, NY: Routledge.
- Moser, C. (2005). Has gender mainstreaming failed? *International Journal of Feminist Politics*, 7(4), 576-590. doi: 10.1080/14616740500284573
- Moser, C., & Moser, A. (2005). Gender mainstreaming since Beijing: A review of success and limitations in international institutions. *Gender and Development*, 13(2), 11-22. doi: 10.1080/13552070512331332283
- Mount Cameroon Trekking. (2012). Mt. Cameroon National Park. Retrieved September 19, 2017, from <http://www.mountcameroon-trekking.com/en/site/showPage/5>

- Mukhopadhyay, M. (2004). Mainstreaming gender or 'streaming' gender away: Feminists marooned in the development business. *IDS Bulletin*, 35(4), 95-103. doi: 10.1111/j.1759-5436.2004.tb00161.x
- Munteh, Y. N. (2016, March 3). Cameroon: Acute water scarcity hits Douala. *AllAfrica*. Retrieved September 11, 2017, from <http://allafrica.com/stories/201603041598.html>
- Murrey, A. (2015a). Invisible power, visible dispossession: The witchcraft of a subterranean pipeline. *Political Geography*, 47, 64-76. doi: 10.1016/j.polgeo.2015.04.004
- Murrey, A. (2015b). Narratives of life and violence along the Chad-Cameroon oil pipeline. *Human Geography – A New Radical Journal*, 8(1), 15-39.
- Nader, L. (1972 [1999]). Up the anthropologist: Perspectives gained from studying up. In D. Hymes (Ed.), *Reinventing anthropology* (pp. 284-311). Ann Arbor, MI: University of Michigan Press.
- Narayan, U. (1997). Contesting cultures: 'Westernization,' respect for cultures, and Third-World Feminists. In L. Nicholson (Ed.), *The second wave* (pp. 396-414). New York, NY: Routledge.
- Ndenecho, E. N. (2007). Economic value and management of mangrove forests in Cameroon. *International Journal of Sustainable Development and World Ecology*, 14(6), 618-625. doi: 10.1080/13504500709469759
- Ndjama, J., Kamgang, V. B. K., Sigha, L. K., Ekodeck, G., & Tita, M. A. (2008). Water supply, sanitation, and health risks in Douala, Cameroon. *Journal of Environmental Science and Technology*, 2(12), 422-429. <http://academicjournals.org/AJEST/PDF/pdf%202008/Dec/Ndjama%20et%20al.pdf>
- Ndong, N. G. K., & Nguo, V. L. (2015). Focus on the World Bank safeguard policies and the Chad-Cameroon oil and pipeline projects. In P. N. Nkwi (Ed.), *The anthropology of Africa: Challenges for the 21st century* (pp. 101-110). Bamenda: Langaa.
- Neba, A. n. N., Chibaka, E. F., & Atindogbe, G. G. (2006). Cameroon Pidgin English (CPE) as a tool for empowerment and national development. *African Study Monographs*, 27(2), 39-61. doi: 10.14989/68249
- Nforngwa, E. (2014, February 24). Cameroon capital suffers water shortage. *VOA News*. Retrieved May 25, 2015, from <https://www.voanews.com/a/cameroon-capital-suffers-water-shortage/1858215.html>
- Ngekwi, M. A. (2013). *The effects of local water management on women's socio-economic activities in Buea*. Master of Science in Women and Gender Studies, University of Buea, Buea.
- Ngnike, M.-P., Banseka, H., Fonteh, M. F., & Simalabwi, A. (2010). Integrated water resources management planning process in Cameroon: Experiences, results, and lessons learned (pp. 21). Yaoundé: Global Water Partnership Cameroon. [http://www.gwptoolbox.org/images/stories/cases/en/cs\\_375\\_pawd\\_cameroon.pdf](http://www.gwptoolbox.org/images/stories/cases/en/cs_375_pawd_cameroon.pdf)
- Ngome, I., & Foeken, D. (2012). 'My garden is a great help': Gender and urban gardening in Buea, Cameroon. *GeoJournal*, 77, 103-118. doi: 10.1007/s10708-010-9389-z
- Nguiffo, S., & Watio, M. S. (2015). Agro-industrial investments in Cameroon: Large-scale land acquisitions since 2005. London: IIED. <http://pubs.iied.org/pdfs/17571IIED.pdf>
- Njoh, A. J. (2003). *Self-help water supply in Cameroon: Lessons on community participation in public works projects* (Vol. 19). Lewiston, NY, Queenstown, ON, and Lampeter, Wales: The Edwin Mellen Press.



- Njoh, A. J. (2006). Determinants of success in community self-help projects: The case of the Kumbo water supply scheme in Cameroon. *International Development Planning Review*, 28(3), 381-406. doi: 10.3828/idpr.28.3.5
- Njoh, A. J. (2009). Self-help, a viable non-conventional urban public service delivery strategy: Lessons from Cameroon. Case study prepared for Revisiting Urban Planning: Global Report on Human Settlements 2009 (pp. 17): UN Habitat.  
<http://hq.unhabitat.org/downloads/docs/GRHS2009CaseStudyChapter03Cameroon.pdf>
- Njoh, A. J. (2011a). Citizen participation and sustainability: Lessons from Cameroon. *Development*, 54(3), 376-383. doi: 10.1057/dev.2011.55
- Njoh, A. J. (2011b). Municipal councils, international NGOs and citizen participation in public infrastructure development in rural settlements in Cameroon. *Habitat International*, 35(1), 101-110. doi: 10.1016/j.habitatint.2010.04.001
- Njoh, A. J., & Akiwumi, F. A. (2011). The impact of colonization on access to improved water and sanitation facilities in African cities. *Cities*, 28(5), 452-460. doi: 10.1016/j.cities.2011.04.005
- Nkwi, P. N. (1997). Rethinking the role of elites in rural development: A case study from Cameroon. *Journal of Contemporary African Studies*, 15(1), 67-86. doi: 10.1080/02589009708729603
- Nsom, Y. K. (2016, June 3). 3 ministers grilled over corruption. *Cameroon Postline*. Retrieved September 10, 2017, from <http://www.cameroonpostline.com/3-ministers-grilled-over-corruption/>
- Nting, R. T. (2009). The scramble for mineral resources in Cameroon: How can the government learn from previous conflicts and social responsibility failures? *African Security Review*, 18(2), 107-115. doi: 10.1080/10246029.2009.9627533
- Nwaco, N. (2013, September 16). Cameroon government to put Chiefs on salary. Retrieved September 19, 2017, from <https://chiefnwaco.wordpress.com/2013/09/16/cameroon-government-to-put-chiefs-on-salary/>
- O'Reilly, K. (2006). 'Traditional' women, 'modern' water: Linking gender and commodification in Rajasthan, India. *Geoforum*, 37(6), 958-972. doi: 10.1016/j.geoforum.2006.05.008
- Orlove, B., & Caton, S. C. (2010). Water sustainability: Anthropological approaches and prospects. *Annual Review of Anthropology*, 39, 401-415. doi: 10.1146/annurev.anthro.012809.105045
- Orosz, K. J. (2011). An African *Kulturkampf*: Religious conflict and language policy in German Cameroon, 1885-1914. *Sociolinguistica*, 25, 81-93. doi: 10.1515/9783110236262.81
- Otto, T., & Pedersen, P. (2004). Disentangling traditions: Culture, agency, and power. In T. Otto & P. Pedersen (Eds.), *Tradition and agency: Tracing cultural continuity and invention* (pp. 11-49). Aarhus, Denmark and Oakville, CT: Aarhus University Press.
- Page, B. (1996). Taking the strain: The ergonomics of water carrying. *Waterlines*, 14(3), 29-31. doi: 10.3362/0262-8104.1996.010
- Page, B. (2003). Communities as the agents of commodification: The Kumbo Water Authority in Northwest Cameroon. *Geoforum*, 34(4), 483-498. doi: 10.1016/S0016-7185(03)00049-6
- Page, B. (2005a). Naked power: Women and the social production of water in Anglophone Cameroon. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 57-74). New York, NY: Berg.
- Page, B. (2005b). Paying for water and the geography of commodities. *Transactions of the Institute of British Geographers*, 30(3), 293-306. doi: 10.1111/j.1475-5661.2005.00172.x

- Page, B. (2007). Slow going: The mortuary, modernity, and the Hometown Association in Bali-Nyonga, Cameroon. *The Journal of the International African Institute*, 77(3), 419-441. doi: 10.1353/afr.2007.0059
- Pahl-Wostl, C. (2007). The implications of complexity for integrated resources management. *Environmental Modelling & Software*, 22, 561-569. doi: 10.1016/j.envsoft.2005.12.024
- Pahl-Wostl, C. (2009). A conceptual framework for analysing adaptive capacity and multi-level learning processes in resource governance regimes. *Global Environmental Change*, 19, 354-365. doi: 10.1016/j.gloenvcha.2009.06.001
- Pahl-Wostl, C., Sendzimir, J., Jeffrey, P., Aerts, J., Berkamp, G., & Cross, K. (2007). Managing change toward adaptive water management through social learning. *Ecology and Society*, 12(2), 30. <http://www.ecologyandsociety.org/vol12/iss2/art30/> (online)
- Panda, S. M. (2007). Mainstreaming gender in water management: A critical view. *Gender, Technology, and Development*, 11(3), 321-338. doi: 10.1177/097185240701100302
- Pandey, U., & Moffatt, M. (2005). Gender and poverty approach in practice: Lessons learned in Nepal. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 189-207). New York, NY: Berg.
- Pavia, T. M., & Mason, M. (2001). Exploring water consumption using a gender continuum: The case of the American West. *Academy of Marketing Science Review*, 2001(10), 1-14. <http://citeseerx.ist.psu.edu/viewdoc/download?rep=rep1&type=pdf&doi=10.1.1.198.4222>
- Pearson, R., & Jackson, C. (1998). Introduction: Interrogating development. In C. Jackson & R. Pearson (Eds.), *Feminist visions of development: Gender analysis and policy* (pp. 1-16). New York, NY: Routledge.
- Peluso, N. L., & Watts, M. (2001). Violent environments. In N. L. Peluso & M. Watts (Eds.), *Violent environments* (pp. 3-38). Ithaca, NY: Cornell University Press.
- Perkins, P. E. (2011). Public participation in watershed management: International practices for inclusiveness. *Physics and Chemistry of the Earth*, 36, 204-212. doi: 10.1016/j.pce.2010.02.004
- Perkins, P. E., & Walker, P. F. (2015). International partnerships of women for sustainable watershed governance in times of climate change. In S. Buechler & A.-M. Hansen (Eds.), *A political ecology of women, water, and global environmental change* (pp. 118-140). Abingdon, Oxon and New York, NY: Routledge.
- Pink, S. (2001). *Doing visual ethnography: Images, media, and representation in research*. Thousand Oaks, CA: Sage Publications.
- Pink, S. (2011). Images, sense, and applications: Engaging visual anthropology. *Visual Anthropology*, 24(5), 437-454. doi: 10.1080/08949468.2011.604611
- Pring, C. (2015). People and corruption: Africa survey 2015 (pp. 49): Transparency International. [http://africastudygroup.ca/wp-content/uploads/2014/08/2015\\_GCB\\_SubSaharanAfrica\\_EN\\_Transparency-Intl.pdf](http://africastudygroup.ca/wp-content/uploads/2014/08/2015_GCB_SubSaharanAfrica_EN_Transparency-Intl.pdf)
- Raby, N. (2011). Stella Mendoza: A 'water warrior' in the Imperial Valley, California. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 305-316). Kolkata: STREE.
- Rathgeber, E. M. (1990). WID, WAD, GAD: Trends in research and practice. *The Journal of Developing Areas*, 24(4), 489-502. <http://www.jstor.org/stable/4191904>
- Razavi, S., & Miller, C. (1995). From WID to GAD: Conceptual shifts in the women and development discourse. Geneva: UNDP.

- Reason, P., & Bradbury, H. (2006). Introduction: Inquiry and participation in search of a world worthy of human aspiration. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Concise paperback edition* (pp. 1-14). London, Thousand Oaks, New Delhi: Sage.
- Regmi, S. C. (2005). Gender mainstreaming in the water sector in Nepal: A real commitment or a token? In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 95-113). New York, NY: Berg.
- Republic of Cameroon. (1996). Constitution of the Republic of Cameroon. Yaoundé: National Assembly. <http://confinder.richmond.edu/admin/docs/Cameroon.pdf>
- Republic of Cameroon. (2007). *Lettre de politique sectorielle de l'hydraulique urbaine*. Yaoundé: Republic of Cameroon. Retrieved August 17, 2012 from [www.era-cameroun.com/download.php?num=31](http://www.era-cameroun.com/download.php?num=31).
- Republic of Cameroon. (2009). Cameroon vision 2035 (pp. 72). Yaoundé: Ministry of Economy, Planning, and Regional Development. [http://www.platform2035.com/images/pdf/Cameroon\\_VISION\\_2035.pdf](http://www.platform2035.com/images/pdf/Cameroon_VISION_2035.pdf)
- Republic of Cameroon. (2010). 3e Recensement General de la Population et de l'Habitat: La Population du Cameroun en 2010. Yaoundé: Institut National de la Statistique du Cameroun. [http://www.statistics-cameroon.org/downloads/Rapport\\_de\\_presentation\\_3\\_RGPH.pdf](http://www.statistics-cameroon.org/downloads/Rapport_de_presentation_3_RGPH.pdf)
- Risman, B. (2004). Gender as a social structure: Theory wrestling with activism. *Gender & Society, 18*(4), 429-450. doi: 10.1177/0891243204265349
- Roberts, J. (2010). Michael Power and Guinness masculinity in Africa. In S. Van Wolputte & M. Fumanti (Eds.), *Beer in Africa: Drinking spaces, states, and selves* (pp. 29-52). Hamburg, Germany: Lit Verlag.
- Rocheleau, D. (1991). Gender, ecology, and the science of survival: Stories and lessons from Kenya. *Agriculture and Human Values, 8*(1-2), 156-165. doi: 10.1007/BF01579669
- Rocheleau, D. (1995). Gender and biodiversity: A feminist political ecology perspective. *IDS Bulletin, 26*(1), 9-16. doi: 10.1111/j.1759-5436.1995.mp26001002.x
- Rocheleau, D., & Ross, L. (1995). Trees as tools, trees as text: Struggles over resources in Zambrana-Chacuey, Dominican Republic. *Antipode, 27*(4), 407-428. doi: 10.1111/j.1467-8330.1995.tb00287.x
- Rocheleau, D., Thomas-Slayter, B., & Wangari, E. (Eds.). (1996). *Feminist political ecology: Global issues and local experiences*. London, UK and New York, NY: Routledge.
- Rodgers, D., & O'Neill, B. (2012). Infrastructural violence: Introduction to the special issue. *Ethnography, 13*(4), 401-412. doi: 10.1177/1466138111435738
- Rodney, W. (1974). Africa's contribution to European capitalist development - the pre-colonial period. *How Europe underdeveloped Africa* (pp. 73-91). Washington, DC: Howard University Press.
- Rogers, P., & Hall, A. W. (2003). Effective water governance. *TEC Background Papers* (Vol. 7, pp. 48). Sweden: Global Water Partnership.
- Rose, G. (1997). Situating knowledges: Positionality, reflexivities, and other tactics. *Progress in Human Geography, 21*(3), 305-320. doi: 10.1191/030913297673302122
- Rose, G. (2012). *Visual methodologies: An introduction to researching with visual materials* (3rd ed.). London, Thousand Oaks, New Delhi, Singapore: Sage.

- Roy, J., & Crow, B. (2004). Gender relations and access to water: What we want to know about social relations and women's time allocation. Santa Cruz, CA: Center for Global, International and Regional Studies, University of California.
- Ruiz-Casares, M., & Thompson, J. A. (2014). Obtaining meaningful informed consent: Preliminary results of a study to develop visual informed consent (VIC) forms with children. *Children's Geographies*, 14(1), 35-45. doi: 10.1080/14733285.2014.971713
- Sally, Z., Gaskin, S. J., Folifac, F., & Kometa, S. S. (2014). The effect of urbanization on community-managed water supply: Case study of Buea, Cameroon. *Community Development Journal*, 49(4), 524-540. doi: 10.1093/cdj/bst054
- Schatz, M., & Walker, R. (1995). *Research as social change: New opportunities for qualitative research*. London and New York, NY: Routledge.
- Seager, J. (2010). Gender and water: Good rhetoric, but it doesn't 'count'. *Geoforum*, 41, 1-3. doi: 10.1016/j.geoforum.2009.07.006
- Seager, J. (2015). Sex-disaggregated indicators for water assessment monitoring and reporting. Technical paper. *Gender and Water Series*. Paris: UNESCO.
- Shepler, S. (2010). Child labour and youth enterprise: Post-war urban infrastructure and the 'bearing boys' of Freetown. *Anthropology Today*, 26(6), 19-22. doi: 10.1111/j.1467-8322.2010.00771.x
- Shiva, V. (1988). *Staying alive: Women, ecology, and survival in India*. New Delhi, India: Kali for Women.
- Shove, E. (2003). *Comfort, cleanliness, and convenience: The social organization of normality*. Oxford and New York, NY: Berg.
- Sikod, F. (2007). Gender division of labour and women's decision-making power in rural households in Cameroon. *Africa Development*, 32(3), 58-71. doi: 10.4314/ad.v32i3.57192
- Simonovic, S. P. (2002). World water dynamics: Global modeling of water resources. *Journal of Environmental Management*, 66, 249-267. doi: 10.1006/jema.2002.0585
- Simonovic, S. P. (2009). *Managing water resources: Methods and tools for a systems approach*. Paris and London: UNESCO and Earthscan.
- Simpson, J. (2009). *Everyone belongs: A toolkit for applying intersectionality*. Ottawa, ON: Canadian Research Institute for the Advancement of Women.
- Smits, S., Moriarty, P., & Sijbesma, C. (Eds.). (2007). *Learning alliances: Scaling up innovations in water, sanitation, and hygiene*. Delft, The Netherlands: IRC International Water and Sanitation Centre.
- Sobsey, M. D., Stauber, C. E., Casanova, L. M., Brown, J. M., & Elliott, M. A. (2008). Point of use household drinking water filtration: A practical, effective solution for providing sustained access to safe drinking water in the developing world. *Environmental Science & Technology*, 42(12), 4261-4267. doi: 10.1021/es702746n
- Social Watch. (2010). Cameroon: Bill pushes for gender mainstreaming in development policies. Retrieved August 15, 2012, from <http://www.socialwatch.org/node/11981>
- Somerville, M. (2013). *Water in a dry land: Place-learning through art and story*. New York, NY and London, UK: Routledge.
- Star, S. L. (1999). The ethnography of infrastructure. *American Behavioral Scientist*, 43(3), 377-391. doi: 10.1177/00027649921955326
- Strang, V. (2004). *The meaning of water*. New York, NY: Berg.

- Strang, V. (2005a). Taking the waters: Cosmology, gender, and material culture in the appropriation of water resources. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 21-38). New York, NY: Berg.
- Strang, V. (2005b). Common senses: Water, sensory experience, and the generation of meaning. *Journal of Material Culture*, 10(1), 92-120. doi: 10.1177/1359183505050096
- Strang, V. (2006). Turning water into wine, beef, and vegetables: Material transformations along the Brisbane River. *Transforming Cultures eJournal*, 1(2), 9-19. doi: 10.5130/tfc.v1i2.258
- Strang, V. (2008). Wellsprings of belonging: Water and community regeneration in Queensland. *Oceania*, 78(1), 30-45. doi: 10.1002/j.1834-4461.2008.tb00026.x
- Strang, V. (2014a). Fluid consistencies: Material relationality in human engagements with water. *Archaeological Dialogues*, 21(2), 133-150. doi: 10.1017/S1380203814000130
- Strang, V. (2014b). Tributaries. From confusion to confluence in the matter of water and agency. *Archaeological Dialogues*, 21(2), 165-174. doi: 10.1017/S1380203814000191
- Suh, C. E., Sparks, R. S. J., Fitton, J. G., Ayonghe, S. N., Annen, C., Nana, R., & Luckman, A. (2003). The 1999 and 2000 eruptions of Mount Cameroon: Eruption behaviour and petrochemistry of lava. *Bull Volcanol*, 65, 267-281. doi: 10.1007/s00445-002-0257-7
- Sultana, F. (2007). Water, water everywhere, and not a drop to drink: *Pani* politics (water politics) in rural Bangladesh. *International Feminist Journal of Politics*, 9(4), 494-502. doi: 10.1080/14616740701607994
- Sultana, F. (2009). Fluid lives: Subjectivities, gender, and water in rural Bangladesh. *Gender, Place, and Culture*, 16(4), 427-444. doi: 10.1080/09663690903003942
- Sultana, F. (2011a). Suffering for water, suffering from water: Emotional geographies of resource access, control, and conflict. *Geoforum*, 42(2), 163-172. doi: 10.1016/j.geoforum.2010.12.002
- Sultana, F. (2011b). Gendered waters, poisoned wells: Political ecology of the arsenic crisis in Bangladesh. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 362-386). Kolkata: STREE.
- Swiss Agency for Development and Cooperation. (2017). Integrating gender into water - A practical guide: Swiss Agency for Development and Cooperation.
- Swyngedouw, E. (1999). Modernity and hybridity: Nature, regeneracionismo, and the production of the Spanish waterscape, 1890-1930. *Annals of the Association of American Geographers*, 89(3), 443-465. <http://www.jstor.org/stable/2564492>
- Swyngedouw, E. (2004). *Social power and the urbanization of water: Flows of power*. Oxford and New York, NY: Oxford University Press.
- Swyngedouw, E. (2007). Technonatural revolutions: The scalar politics of Franco's hydro-social dream for Spain, 1939-1975. *Transactions of the Institute of British Geographers*, 32(1), 9-28. doi: 10.1111/j.1475-5661.2007.00233.x
- Tamasang, C. F. (2007). *The right to water in Cameroon: Legal framework for sustainable utilisation*. Paper presented at the Legal Aspects of Water Sector Reforms, Geneva, Switzerland. [http://www.ielrc.org/activities/workshop\\_0704/content/d0725.pdf](http://www.ielrc.org/activities/workshop_0704/content/d0725.pdf)
- Tanyi-Tang, A. (2001). Theatre for change: An analysis of two performances by women in Mundemba Sub-Division. *Research in Drama Education*, 6(1), 23-38. doi: 10.1080/13569780020031771

- Tennant-Wood, R. (2011). Silent partners: The fluid relationship between women and dammed rivers in the Snowy Region of Australia. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 317-334). Kolkata: STREE.
- Thompson, J. (2009a). *How we see this place: An intergenerational dialogue about conservation using photo-voice around Tiwai Island, Sierra Leone*. Master of Arts thesis, McGill University, Montreal.
- Thompson, J. (2009b). "I am a Farmer": Young women address conservation using photovoice around Tiwai Island, Sierra Leone. *Agenda*, 79, 65-69. doi: 10.1080/10130950.2009.9676224
- Thompson, J. (2011). Picturing gendered water spaces: A textual approach to water in rural Sierra Leone. *Agenda*, 25(2), 43-53. doi: 10.1080/10130950.2011.575996
- Thompson, J. (2013). Picturing consent: Using photographs in a visual consent form. In A. Graham, M. Powell, N. Taylor, D. Anderson & R. Fitzgerald (Eds.), *Ethical research involving children* (pp. 141-144). Florence: UNICEF Office of Research - Innocenti. www.childethics.com
- Thompson, J. A. (2014). On writing notes in the field: Interrogating positionality, emotion, participation, and ethics. *McGill Journal of Education*, 49(1), 247-254. doi: 10.7202/1025781ar
- Thompson, J. A. (2016). Intersectionality and water: How social relations intersect with ecological difference. *Gender, Place & Culture*, 23(9), 1286-1301. doi: 10.1080/0966369X.2016.1160038
- Thompson, J., Folifac, F., & Gaskin, S. (2011). Fetching water in the unholy hours of the night: The impacts of a water crisis on girls' health and sexualities in semi-urban Cameroon. *Girlhood Studies*, 4(2), 111-129. doi: 10.3167/ghs.2011.040208
- Thompson, J. A., Gaskin, S., & Agbor, M. (2017). Embodied intersections: Gender, water, and sanitation in Cameroon. *Agenda*, 31(1), 140-155. doi: 10.1080/10130950.2017.1341158
- Thompson, J., Porras, I. T., Wood, E., Tumwine, J. K., Mujwahuzi, M. R., Katui-Katua, M., & Johnstone, N. (2000). Waiting at the tap: Changes in urban water use in East Africa over three decades. *Environment and Urbanization*, 12(2), 37-52. doi: 0.1177/095624780001200204
- Tiafack, O., Chretien, N., & Emmanuel, N. N. (2014). Development polarisation in Limbe and Kribi (Littoral Cameroon): Growth challenges, lessons from Douala and options. *Current Urban Studies*, 2, 361-379. doi: 10.4236/cus.2014.24034
- Transparency International. (2016). Corruption by country. Retrieved April 15, 2016, from <https://www.transparency.org/country/#CMR>
- Troy, T. J., Konar, M., Srinivasan, V., & Thompson, S. (2015). Moving sociohydrology forward: A synthesis across studies. *Hydrology and Earth System Sciences*, 12, 3319-3348. doi: 10.5194/hessd-12-3319-2015
- Truelove, Y. (2011). (Re-)conceptualizing water inequality in Delhi, India through a feminist political ecology framework. *Geoforum*, 42(2), 143-152. doi: 10.1016/j.geoforum.2011.01.004
- Tuan, Y.-F. (1977). *Space and place: The perspective of experience*. Minneapolis, MN: University of Minnesota Press.
- Twyman, C., Morrison, J., & Sporton, D. (1999). The final fifth: Autobiography, reflexivity, and interpretation in cross-cultural research. *Area*, 31(4), 313-325. doi: 10.1111/j.1475-4762.1999.tb00098.x

- Udas, P. B., & Zwarteven, M. Z. (2010). Can water professionals meet gender goals? A case study of the Department of Irrigation in Nepal. *Gender & Development*, 18(1), 87-97. doi: 10.1080/13552071003600075
- United Nations. (1997). A/52/3 Report of the economic and social council for 1997. New York, NY: UN General Assembly.
- United Nations. (1999). CEDAW initial report: Cameroon (English ed., pp. 101). New York, NY: UN. <http://www.un.org/womenwatch/daw/cedaw/cedaw23/cameroon.pdf>
- United Nations. (2008). Gender-disaggregated data on water and sanitation: Expert group meeting report. J. Seager (Ed.). Bonn, Germany: UN-Water Decade Programme on Capacity Development.
- United Nations. (2012). The Millennium Development Goals report 2012 (pp. 70). New York, NY: UN.
- United Nations. (2015). Sustainable Development Goal 6: Ensure access to water and sanitation for all. Retrieved September 7, 2017, from <http://www.un.org/sustainabledevelopment/water-and-sanitation/>
- United Nations Development Programme. (2003). Mainstreaming gender in water management: A practical journey to sustainability: A resource guide. New York, NY: United Nations Development Programme.
- United Nations Division for the Advancement of Women. (2005). The role of national mechanisms in promoting gender equality and the empowerment of women: SADC experience. Rome: UN Division for the Advancement of Women. <http://www.un.org/womenwatch/daw/egm/nationalm2004/docs/EGM%20final%20report.26-jan-05.pdf>
- United Nations Economic Commission for Africa, African Union, African Development Bank, & United Nations Development Programme. (2015). MDG report 2015: Assessing progress in African toward the Millennium Development Goals (pp. 112). Addis Ababa: UNECA.
- United Nations Children's Fund. (2016). Cameroon: Background. Retrieved 2017, September 12, from [https://www.unicef.org/infobycountry/cameroon\\_2250.html](https://www.unicef.org/infobycountry/cameroon_2250.html)
- United Nations Population Fund, & United Nations Development Fund for Women. (2006). Gender responsive budgeting in practice: A training manual. New York, NY: UNFPA and UNIFEM.
- UN-Water. (2006). Gender, water, and sanitation: A policy brief: Inter-agency Task Force on Gender and Water. <http://www.unwater.org/publications/gender-water-sanitation-policy-brief/>
- UN-Water. (2008). Status report on Integrated Water Resources Management and Water Efficiency Plans: UN-Water. <http://www.unwater.org/publications/status-report-integrated-water-resource-management-water-efficiency-plans-csd-16/>
- UN-Water. (2016). Why is data disaggregation so important? Retrieved September 29, 2017, from <http://www.sdg6monitoring.org/news/2016/8/8/why-is-data-disaggregation-so-important?rq=gender>
- UN-Water. (2017, July 14). Integrated monitoring guide for Sustainable Development Goal 6 on water and sanitation - Targets and global indicators. <http://www.unwater.org/publications/sdg-6-targets-indicators/>

- UN Women. (2015). Facts and figures: Economic empowerment. Retrieved September 7, 2017, from <http://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures>
- UN Women Training Centre. (2016). Gender Equality Glossary. Retrieved August 1, 2017, from <https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36>
- Valentine, G. (2007). Theorizing and researching intersectionality: A challenge for feminist geography. *The Professional Geographer*, 59(1), 10-21. doi: 10.1111/j.1467-9272.2007.00587.x
- Van Houweling, E. (2015). Gendered water spaces: A study of the transition from wells to handpumps in Mozambique. *Gender, Place, & Culture*, 22(10), 1391-1407. doi: 10.1080/0966369X.2014.970140
- van Koppen, B., Khumbane, T., de Lange, M., & Mohapi, N. (2011). Gender and agricultural productivity: Implications for the revitalization of Smallholder Irrigation Schemes Programme in Sekhukhune District, South Africa. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 335-351). Kolkata: STREE.
- Vanner, C. (2015). Positionality at the center: Constructing an epistemological and methodological approach for a Western feminist doctoral candidate conducting research in the postcolonial *International Journal of Qualitative Methods*, 14(4), 1-12. doi: 10.1177/1609406915618094
- Vasquez, A. (2016, October 27). The urgency of intersectionality: Kimberlé Crenshaw speaks at TED Women 2016. Retrieved September 20, 2017, from <http://blog.ted.com/the-urgency-of-intersectionality-kimberle-crenshaw-speaks-at-tedwomen-2016/>
- Viterna, J., & Fallon, K. M. (2008). Democratization, women's movements, and gender-equitable states: A framework for comparison. *American Sociological Review*, 73, 668-689. doi: 10.1177/000312240807300407
- Von Schnitzler, A. (2013). Traveling technologies: Infrastructure, ethical regimes, and the materiality of politics in South Africa. *Cultural Anthropology*, 28(4), 670-693. doi: 10.1111/cuan.12032
- Wallace, T., & Coles, A. (2005). Water, gender, and development: An introduction. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 1-20). New York, NY: Berg.
- Wallace, T., & Wilson, P. (2005). The challenge to international NGOs of incorporating gender. In A. Coles & T. Wallace (Eds.), *Gender, water, and development* (pp. 115-133). New York, NY: Berg.
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369. doi: 10.1177/109019819702400309
- Wang, C., Yi, W. K., Tao, Z. W., & Carovano, K. (1998). Photovoice as a participatory health promotion strategy. *Health Promotion International*, 13(1), 75-86. doi: 10.1093/heapro/13.1.75
- Wang, C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, 8(2), 185-191. doi: 10.1089/jwh.1999.8.185
- Water Governance Facility. (2014). Mainstreaming gender in water governance programmes: From design to results. WGF report no. 4. Stockholm: Stockholm International Water Institute. <http://watergovernance.org/resources/gender-practice-in-water-governance-programmes-from-design-to-results/>



- West, C., & Fenstermaker, S. (1995). Doing difference. *Gender & Society*, 9(1), 8-37. doi: 10.1177/089124395009001002
- Whatmore, S. J. (2009). Mapping knowledge controversies: Science, democracy, and the redistribution of expertise. *Progress in Human Geography*, 33(5), 587–598. doi: 10.1177/0309132509339841
- White, G. F., Bradley, D. J., & White, A. U. (1972). *Drawers of water: Domestic water use in East Africa*. Chicago, IL and London, UK: The University of Chicago Press.
- World Health Organization. (2002). World report on violence and health: Summary. (pp. 54). Geneva: WHO.
- World Health Organization. (2011). *Guidelines for drinking-water quality* (4th ed.). Geneva: WHO.  
[http://www.who.int/water\\_sanitation\\_health/publications/2011/dwq\\_guidelines/en/](http://www.who.int/water_sanitation_health/publications/2011/dwq_guidelines/en/)
- WHO/UNICEF. (2006). Core questions on drinking-water and sanitation for household surveys (pp. 25). Geneva: WHO.
- WHO/UNICEF Joint Monitoring Programme. (2008). Progress on Drinking Water and Sanitation: Special Focus on Sanitation. New York, NY and Geneva, Switzerland: UNICEF and WHO.
- WHO/UNICEF Joint Monitoring Programme. (2012). Progress on drinking water and sanitation: 2012 update. New York, NY: UNICEF and WHO.
- WHO/UNICEF Joint Monitoring Programme. (2015). Progress on sanitation and drinking water - 2015 update and MDG assessment (pp. 82). Geneva: WHO and UNICEF.
- Willis, K. (2005). Theories and practices of development (pp. 1 - 31). London: Routledge.
- Women's Earth Alliance, & Native Youth Sexual Health Network. (2016). Violence on the land, violence on our bodies: Building an Indigenous response to environmental violence (pp. 116). <http://landbodydefense.org/uploads/files/VLVBReportToolkit2016.pdf>
- World Bank. (1986). Employment in agriculture (% of total employment). Retrieved September 18, 2017, from <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=CM>
- World Bank. (1996). The World Bank participation sourcebook. Washington, DC: World Bank. <http://go.worldbank.org/R3WF0ID3N0>
- World Water Assessment Programme. (2009). The United Nations World Water Development Report 3: Water in a changing world. Paris and London: UNESCO and Earthscan.
- World Water Assessment Programme. (2009). The United Nations World Water Development Report 3: Case study volume – Facing the challenges (pp. 88). Paris: UNESCO.
- World Water Assessment Programme. (2012). The United Nations World Water Development Report 4: Managing water under uncertainty and risk. Paris, France: UNESCO.
- World Water Assessment Programme. (2016). The United Nations World Water Development Report 2016: Water and jobs. Paris: UNESCO.
- Yufeh, B. (2010, October 14). Cameroon: Giving women the place they deserve. *AllAfrica*. Retrieved August 2, 2012, from <http://allafrica.com/stories/201010150720.html>
- Zwarteveen, M. (1995). Linking women to the main canal: Gender and irrigation management. *Gatekeeper Series No. SA54* (pp. 14). London, UK: International Institute for Environment and Development.
- Zwarteveen, M. (1996a). A plot of one's own: Gender relations and irrigated land allocation policies in Burkina Faso. IIMI Research Report 10. (pp. 20). Colombo, Sri Lanka: International Irrigation Management Institute.

- Zwarteveen, M., & Neupane, N. (1996b). Free-riders or victims: women's nonparticipation in irrigation management in Nepal's Chhattis Mauja Irrigation Scheme. IIMI Research Report 7. (pp. 21). Colombo, Sri Lanka: International Irrigation Management Institute.
- Zwarteveen, M. Z. (1997). Water: From basic need to commodity: A discussion on gender and water rights in the context of irrigation. *World Development*, 25(8), 1335-1349. doi: 10.1016/S0305-750X(97)00032-6
- Zwarteveen, M. (1998). Identifying gender aspects of new irrigation management policies. *Agriculture and Human Values*, 15(4), 301-312. doi: 10.1023/A:1007576700507
- Zwarteveen, M. (2008). Men, masculinities, and water powers in irrigation. *Water Alternatives*, 1(1), 111-130. <http://www.ibcperu.org/doc/isis/8849.pdf>
- Zwarteveen, M., & Boelens, R. (2011). Rights, meanings, and discourses: Gender dimensions of water rights in diverging regimes of representation in the Andes. In K. Lahiri-Dutt (Ed.), *Fluid bonds: Views on gender and water* (2nd ed., pp. 2-28). Kolkata: STREE.
- Zwarteveen, M., & Meinzen-Dick, R. (2001). Gender and property rights in the commons: Examples of water rights in South Asia. *Agriculture and Human Values*, 18(1), 11-25. doi: 10.1023/A:1007677317899

## **Appendix A: Informed Consent Form – Community Workshops**

### **Consent Form**

#### **Research study:**

Women, water and weather: A participatory visual approach to address the water crisis in Cameroon

My name is Jennifer Thompson. I am a doctoral student from McGill University in Canada. I am visiting Cameroon to do research about gender and water. I am working with Dr. Kometa, from the University of Buea and Mrs. Magdaline Agbor, the Director of CHAMEG. Right now, I am going to give you information about my research project and invite you to be part of this research. Please feel free to ask questions at any time.

I am interested in learning more about the gendered experiences of water management – what you know about water, the types of challenges you face, and also the solutions you have developed to deal with these problems, as men or as women. If you agree, you are invited to participate in:

#### **Stage 1: Workshops (2 full days)**

The workshops will take place [*at the CHAMEG office/in your community*]. During these workshops, you will learn how to take photographs and make a short film. You will work in small groups to take photographs and make films to identify the water problems you face, and discuss how you deal with the problems. Lunch and transportation will be provided for the workshops. The research team will keep one copy of the photographs and films. You will receive copies of the photographs and films you make.

#### **Stage 2: Decision-maker meeting in Buea**

The research team will take the photographs and films and host a meeting with water decision-makers in Buea Town. Representatives from your group may be invited to Buea to present your work on behalf of your group. Food and transportation will be provided for this event.

#### **Stage 3: Follow-up interviews**

One follow-up interview should last approximately 1 to 2 hours.

If you decide to participate in this project, you might be asked by community members why you have a camera and have to explain the research and you might also feel discomfort about sharing their experiences through photography and film. We will discuss these risks and provide training about how to deal with them in the workshops. You might also a) learn new skills and ideas about photography, film-making, advocacy and water management; b) feel good about sharing their thoughts and experiences (having your voice heard); c) enjoy working as a team to look for solutions to a problem; and e) have fun!

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. You do not have to take part in this research if you do not wish. You are free to withdraw from the research at anytime, even after the research activities are completed. Withdrawing from the research will have no negative consequences for you, your work, or your participation in the methodology training. Furthermore, you are welcome to ask questions and present your concerns at any time. Does this process seem clear to you? Do you have any questions about this research project?

The information gathered in this research is confidential, and no one else except me will have access to the data. However, because we will be working in groups, your participation cannot be guaranteed anonymous. I will do my best to keep your identity private but recognize that because of the group discussions and public nature of the work, this may not be possible. In the future, I might want to use the photographs and films produced through the research and write about the research process and findings. This writing might be published in academic journals and/or books, presented at academic conferences and workshops, or published online.

We would like to note that the research project will not directly provide water infrastructure or funding to your town. However, your participation in this research might give you new ideas about the nature of water problems and help contribute to the development of strategies for equitable sustainable

solutions to the water problem in Buea. Your participation will also help water planners and decision-makers in many different countries better understand the relationship between gender and water.

Do you have any questions about this research project?

Thank you for your cooperation, and I look forward to our work together.

**Primary Researcher:**

Jennifer Thompson

Department of Integrated Studies in Education, McGill University, Canada

Mobile: 72 50 63 55

**Research Collaborators:**

Mrs. AGBOR, Magdaline, Changing Mentalities and Empowering Groups (CHAMEG)

Mobile: 77 72 72 76

Dr. KOMETA, Sunday, Department of Geography, University of Buea

Mobile: [*Anonymized for publication in thesis*]

An ethics committee at my university, McGill University, has reviewed this research project. This committee's job is to make sure that research participants are protected from harm. If you wish to find out more about this ethics committee, or if you have any questions or concerns regarding your rights or welfare as a participant in this research study, please contact the McGill University Ethics Officer in Canada:

Lynda McNeil

Research Ethics Officer, McGill University

845 Sherbrooke Street West, James Administration Bldg, Room 429

Montreal, QC, CANADA H3A 0G4

Office telephone number: 001-514-398-6831

Email: [lynda.mcneil@mcgill.ca](mailto:lynda.mcneil@mcgill.ca)

Sincerely,

Jennifer Thompson

In signing this form, I consent to participate in the *Women, water and weather* research project. I understand that I am free to ask questions or leave the project at any time.

Please check the following that apply:

- I feel informed about the research project
- I agree to participate in this research project
- I agree to be audio taped for research purposes
- I agree to be photographed for research purposes
- I agree for photographs of me to be shown at public events related to the research
- I agree to be video taped for research purposes
- I agree for videos of me to be shown at public events related to the research

**For future publications:**

- I would like my name to be used
- I would like to have a different name used (name: \_\_\_\_\_)
- I would like my name to be anonymous

**Participant Signature**

Name	
Organization	
Age	
Date	
Signature	
Contact information	

## Appendix B: Invitation Letter and Program for Decision-Maker Forum



**Letter of Invitation**  
***Women, Water and Weather* research project**  
**DECISION-MAKER FORUM**

April 8, 2013

Dear \_\_\_\_\_,

As a follow-up to the 5-month doctoral research of Jennifer Thompson from McGill University (Canada) in collaboration with CHAMEG Cameroon and Dr. Kometa from the University of Buea, you are invited to attend a final Decision-Maker Forum Discussion.

The *Women, Water and Weather* research project explores the relationship between gender relations, water management and climate change, with a particular focus on the water experiences of women and girls.

Five workshops took place in January and February of 2013, involving approximately 150 women, men and youths from four communities: **Kumba, Buea, Bwitingi and Mudeka**. In these workshops, the participants were trained in participatory visual methodologies (photovoice and participatory video). The photographs and films produced by the participants identify the issues, challenges and potential solutions to water and gender in the participating communities.

The objectives of the Decision-Maker Forum are as follows:

- To present the field findings and key photographs and films; and
- To facilitate an interactive dialogue about the policy- and decision-making implications for the region.

**Venue: MINEPAT Conference Hall, Court Premises, Buea**

**Date: Wednesday, April 17, 2013**

**Time: 2:00-6:00 pm**

Your presence would be highly appreciated. Petrol will be provided for your attendance at this event.

Sincerely,

Jennifer Thompson  
PhD candidate  
McGill University, Canada  
72 50 63 55

Mrs. Agbor Magdaline  
Director  
CHAMEG Cameroon  
77 72 72 76

*NB: As per the requirements of McGill University Research Ethics Review Board, a consent form is attached for your signature.*



**Programme for the  
*Women, Water and Weather* research project  
DECISION-MAKER FORUM**

**Venue:** MINEPAT Conference Hall, Court Premises, Buea

**Date:** Wednesday, April 17, 2013

**Time:** 2:00 – 6:00pm

2:00 pm Arrival of invited guests and viewing of photo exhibition

2:30 pm Program Introduction by Forum Moderator, Madame Anne Munjong

- Opening Prayer
- Refrain of National Anthem
- Welcome Address by Lord Mayor, Buea Municipality
- Remarks by Madame Agbor Magdaline
- Screening of Photographs and Films by Jennifer Thompson
- Interactive Dialogue (Moderated by Anne Munjong)
- Concluding Statement by Jennifer Thompson and Dr. Kometa of University of Buea
- Closing Remarks by the South-West Governor's Representative
- Group Photograph/Refreshments

## **Appendix C: Informed Consent Form – Decision-Maker Forum**

### **Consent Form**

#### **Research study:**

Women, water and weather: A participatory visual approach to address the water crisis in Cameroon

My name is Jennifer Thompson. I am a doctoral student from McGill University in Canada. I am visiting Cameroon to do research about gender relations and water management. The objective of the research is to identify how girls and women's experiences with water can come into water decision-making. I am working in collaboration with Dr. Sunday Kometa, a professor in the Department of Geography at the University of Buea and Mrs. Magdaline Agbor, the Director of the civil society organization, CHAMEG (Changing Mentalities and Empowering Groups) Cameroon.

In the interest of learning more about the experiences of girls and women managing water – what they know about water, the types of challenges they face, and also the solutions they have developed, I conducted 2-day participatory research workshops with women, youth and men in January and February 2013 in 4 communities: Buea, Kumba, Mudeka and Bwitingi. In these workshops, we trained workshop participants to take pictures and make short films to discuss their experiences.

I am also interested in the knowledge and experiences of water policy- and decision-makers, such as yourself. You are being invited to participate in an interactive forum discussion as part of this research because I feel that your experiences as a person who makes decisions about community, gender or water issues can add much to our understanding of water problems and how to develop sustainable and equitable solutions.

If you agree to participate in this research, you are invited to attend this decision-making forum discussion event with other decision-makers where the research photographs and films will be exhibited and discussed (details in the attached invitation letter). Your transportation costs would be provided, and refreshments will be served at the event. Finally, I might request a follow-up interview with you.

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. You do not have to take part in this research if you do not wish. You are free to withdraw from the research at anytime, even after the research activities are completed. Withdrawing from the research will have no negative consequences to your work, or your self or your family. Furthermore, you are welcome to ask questions and present your concerns at any time.

The information gathered in this research is confidential, and no one else except me will have access to the data. However, as the event in Buea is a group seminar, your participation cannot be guaranteed anonymous. I will do my best to keep your identity private but recognize that because of the group discussions and public nature of the work, this may not be possible. In the future, I might want to use the photographs and films produced through the research and write about the research process and findings. This writing might be published in academic journals and/or books, presented at academic conferences and workshops, or published online.

We would like to note that the research project will not directly provide water infrastructure or funding to your town or community. However, your participation in this research might give you new ideas about water problems and help contribute to solving water problems in your community. Your participation will also help water planners and decision-makers in many different countries better understand the relationship between gender and water.

Thank you for your cooperation, and I look forward to our work together.



Please check the following that apply:

- I feel informed about the research project
- I agree to participate in this research project
- I agree for the interviews to be audio taped
- I agree to be photographed for research purposes
- I agree to be video taped for research purposes

**For future publications (please check one):**

- I would like my name to be used
- I would like to have a different name used (name: \_\_\_\_\_)
- I would like my name to be anonymous

**Participant Signature**

Name	
Position	
Community	
Date	
Signature	
Contact information	

**Primary Researcher:**

Jennifer Thompson

Department of Integrated Studies in Education, McGill University, Canada

Mobile in Cameroon: 72 50 63 55

Email: [jennifer.thompson4@mail.mcgill.ca](mailto:jennifer.thompson4@mail.mcgill.ca)

**Research Collaborators:**

Mrs. AGBOR, Magdaline

Changing Mentalities and Empowering Groups (CHAMEG)

Mobile: 77 72 72 76

Dr. KOMETA, Sunday

Department of Geography

University of Buea

Mobile: [*Anonymized for publication in thesis*]

An ethics committee at my university, McGill University, has reviewed this research project. This committee's job is to make sure that research participants are protected from harm. If you wish to find out more about this ethics committee, or if you have any questions or concerns regarding your rights or welfare as a participant in this research study, please contact the McGill University Ethics Officer in Canada:

Lynda McNeil

Research Ethics Officer, McGill University

1555 Peel Street, 11<sup>th</sup> floor, Montreal QC Canada H3A 3L8

Office telephone number: 001-514-398-6831

Email: [lynda.mcneil@mcgill.ca](mailto:lynda.mcneil@mcgill.ca)



# Connect Cameroon

Issue 1

April 2013

## Special First Edition: Women, Water & Weather



Abandoned tap in Mudeka  
Water is too rusty to use



A pulley mechanism in Kumba  
One woman's efforts to facilitate lifting well water

### Director's Note

The water wahala in the South West Region has brought untold hardship on families and women in particular who are charged with the responsibility to secure water, food and fuel for cooking. The 6-months research on Women, Water and Weather between a PhD research student, Jennifer Thompson from McGill University in Canada, CHAMEG Cameroon and Dr. Kometa from the University of Buea highlights the aching experiences women and girls in our communities go through to provide water in their homes. The capacities of over 120 women, girls and youths from four communities (Kumba, Buea, Bwitingi and Mudeka) were built using innovative participatory visual methodologies (photovoice and participatory video). The photographs and films produced by the participants identify issues, challenges and potential solutions to water and gender in the participating communities. My prayer is that our decision-makers will be moved by this work to support actions planned to ameliorate the water wahala in these communities in particular and in the South West Region in general. My sincere thanks and appreciation go to the very hard-working and dynamic Jennifer Thompson for the smooth and fruitful collaboration with CHAMEG and to Professor Susan Gaskin and Dr. Fidelis Folifac who all linked CHAMEG and my humble self to this project. Regards!

**Mrs. Agbor Magdaline, C.E.O. CHAMEG Cameroon**



# W O M E N , W A T E R

## Training of Trainers

The research kicked off in early 2013 with a 2-day facilitator training workshop at the CHAMEG office in Buea. Fifteen representatives from civil society organizations, government training centers and graduates from the University of Buea were trained in the participatory visual methodologies, **photovoice** and **participatory video**.



## Community Workshops

Two-day photovoice and participatory video workshops took place in two urban communities **Kumba** and **Molyko-Buea**, and two rural communities, **Mudeka** and **Bwitingi**. The workshops involved diverse groups of over 120 women, youths and men including students, farmers, teachers, journalists, housewives and business-women.



Learning and practicing digital photography and film in Mudeka



Fieldwork: Taking photos and making short films in Bwitingi



Using a portable photo printer in Bwitingi



Making, sharing and presenting posters in Kumba



"No Editing Required" films: Same day screening in Molyko



Community dialogue in Mudeka

# R & W E A T H E R



**Participatory Community Analysis**  
 Two representatives from each community, and selected facilitators participated in a 2-day participatory analysis workshop in March 2013 to identify the key issues and themes arising in the research.



## Some Key Issues and Themes

Illegal dumping of waste in flowing streams (Buea)



Dried up farms due to changes in season (Bwitingi)

Due to shortage of water, people have to go long distances to fetch water (Buea)



Gender bias & insensitivity in traditional council because there are only men (Bokova/Bwitingi)

Village well abandoned because someone died in it many years ago (Mudeka)



Deforestation (Bwitingi)

A mob of people scrambling to carry water (Kumba)



A lady drinking water directly from the broken pipe (Buea)

## **Making the social aspects of water management more visible**

Water is not only a technical issue but a political, economic and social issue. The most sustainable and equitable solutions to water problems involve community participation. When there is a water problem, the whole community feels the pinch. However, because of divisions of labor and community perceptions about gender, how water problems impact society varies amongst women, girls, boys and men. Women struggle to find enough good quality water to manage their daily work. Arguments erupt between husbands and wives, between mothers and daughters. Workers and students are late for their responsibilities or have to leave during the day because of water. Crowding at water points can result in aggression, affecting those charged with the task of collecting water. Girls in particular are exposed to rape and sexual harassment when trekking long distances to collect water. Men and boys are involved too. Okada drivers and truck pushers generate income, providing water delivery services in cities. Gender is a water issue, and water is also a gender issue. A gender-sensitive project means consulting and involving all community members, including women and girls. This project has created awareness linking gender, water, deforestation, family, agriculture, economy, climate change, politics and development. I am grateful for the generous support and contributions of my collaborators, the enthusiasm and dedication of the participating communities, and those decision-makers who are working with communities to take action.

Jennifer Thompson, PhD student, McGill University, Canada



## **Communities Taking Action** as a result of the workshop activities...



In Bwitingi, the women started making noise about toilets and agricultural crops such as these palm trees threatening their catchment area, alerting the attention of the Governor



In Mudeka, a community cleaning activity was organized to rehabilitate the village's oldest drinking water spring, long ago abandoned

## **Decision-Maker Forum**

Wrapping up the research, a forum with key decision-makers in the region shares the key findings of the research and facilitates an interactive dialogue about the implications of the research for the South West Region. While there are concrete actions and activities that the communities can take, there is an identified need for water collaboration across various levels of decision-making structures, from the grassroots to the upper levels of government. Feedback about this event, taking place in April 2013, will appear in the next newsletter.

## **Contact CHAMEG**

Box 493  
Bomaka-Buea  
South West Region  
Cameroon  
(237) 77 72 72 76  
chamegsbi@yahoo.com  
www.chameg.org

This research was carried out with the financial support of research grants from the International Development Research Center (IDRC), Fonds de recherche sur la société et la culture (FQRSC), and the Jackie Kirk Fellowship (McGill University)

Page 4

## Appendix E: My Water Storage System

While I was living in Buea, one of my main coping strategies for an unreliable water supply was to develop an elaborate storage and treatment system in my *mini-cité* apartment. I relied on a system of containers and storage practices, which changed over time and varied depending on the circumstances and water use purpose. Such water storage and treatment practices are not part of my everyday life in Montreal, Canada, where I have access to a reliable water supply of clean drinking water 24/7. As such water storage and treatment practices were not (initially) routine for me during my time in Buea. I had to actively think and make decisions about these practices, adapting my system until I found a pattern that worked and eventually became habit. In the following passage, I look in closer detailed at my own practices storing and treating water to cope with unreliable piped water. This interlude is inspired partly by the work of Harold Riggins (1994), who painstakingly described his mother's living room as a way to explore material dimensions and practices related to objects, space, and culture. Moving back and forth between systematic description and personal reflection, focusing on objects and space as texts, provides a lens for better understanding ourselves and culture more generally. I focus specifically on how I used water in my living space.

In my kitchen, I had about one square meter to stand and work –the same size as (or perhaps a little bit smaller than) my kitchen in Canada. I stored water in a large 70 L plastic garbage pail container with a lid. This container sat on the floor, tucked halfway under the kitchen counter. On top of this container, I rested a small cup with a handle upside down for scooping water out. I used this water primarily for sink use, such as washing dishes and rinsing vegetables that were still covered with mud from the farm. Often, when I had the lid off this container while preparing food or washed dishes, bits of soap, dirt, or food fell into it. If this water sat for too long, a collection of floating particles gathered at the bottom of it, and I imagined a host of bacteria as well. This container was too heavy for me to carry from the bathroom (where there was the right kind of tap for filling it) to the kitchen. As I did not want to waste stored water, I often refilled this container too many times without emptying it completely and washing it, which also impacted the quality. Therefore, I only used this stored water for cleaning. For cooking, I used water stored in four smaller 1.5 L containers that I saved from having bought bottled water. This water had a higher turnover and, because of the narrow shape of the bottle and lid, food scraps, bugs, and dirt were less likely to fall inside. These bottles were also lighter and easier to pour into my cooking pot. However, while I rinsed these bottles before refilling them by giving them a good shake, I could never get right inside them to wash the inside. Therefore, I periodically replaced them with fresh ones that I bought. To 'retire' older bottles, I donated them to my neighbour. She sold these bottles to local vendors, who scoured them using sand as grit, and used them to sell palm oil, cooking oil, or honey.

For drinking water, at first, I bought 10 L jugs of bottled water from a vendor just a short distance up the road. These jugs were sold by Supermount, the only bottled water company that sold water in such large quantities. These jugs were heavy and had plastic handles for carrying, but I often found that the veins in the inner crooks of my fingers would break when I carried them, leaving me with sore, swollen knuckles. To pour from these heavy containers, I bought a simple pump that screwed onto the opening of the jug. Each jug would last me about one week. I used the empty containers to store water in my bathroom, or I shared them with my neighbours, who also used them to store water. Concerned about my plastic consumption and the cost of buying water every week, I eventually invested in a combined carbon and ceramic candle filter. In theory, this type of filter should have been enough to catch most bacteria. However, I was

unsure if it could catch smaller viruses. Also, I did not buy the best quality filter and often found little black pieces of carbon in my filtered water. Eventually, I removed the carbon insert and relied only on the ceramic candle. Therefore, I boiled water (from the bottles where I stored cooking water) in the evenings and in the mornings when it was cool, poured it into the filter. I stored this drinking water in the filter because it had a tap, which was convenient for refilling small water bottles. I also kept a couple of cold 1.5 L bottles of drinking water in my mini bar fridge. If I ran out of boiled and filtered drinking water, I bought bottled water at the shop up the street. When going out in the city, I often carried water with me in my bag. However, when I was out for longer periods of time or in contexts where bottled water was not available, I brought chlorine tablets that I had purchased at an outdoor equipment store in Canada. I learned to also carry packets of powdered juice crystals to mask the taste of chlorine.

My bathroom contained a sink, showerhead, sit-down toilet, floor drain, and wall tap. Without a designated shower space, bathing or running the hip-level tap meant that water spilled all over the bathroom, and into the floor drain. I stored water in about eight or ten 10 L bottled water containers that I had bought. This was the most that I could fit in this small space. These bottles lined the sidewalls and along the back wall under the toilet tank. I used this water for bathing, doing laundry, and flushing the toilet. I rinsed and filled these containers using the hip-level tap in the bathroom. Because of the small mouth of the containers, I could not scrub inside them. I used a small brush to wash the outside, in particular to scrub the narrow indented ridges around the bottle. I also bought a low wide-lipped blue plastic pan for doing laundry and I often saved the soapy laundry water to flush the toilet or wash the floor. I also always kept water in another open bucket (35 L, green) with a dipping cup for bathing and hand washing after using the toilet. While the showerhead in the bathroom was functional, I preferred to bathe using the water in this bucket when water was flowing, as the stored water was room temperature and much warmer than the water from the tap. Finally, I had a smaller open bucket (15 L, white) that was a recycled food container that used to contain chocolate hazelnut paste. This was helpful for washing dirtier things, like dusty shoes or flip-flops, my front verandah, or for days when I was “deep cleaning” into the neglected corners of my apartment. Most of the time, I paid my neighbour to do my laundry (with the exception of my undergarments, or what my Grandmother used to call her ‘smalls’). The time, labour, and skill involved in laundering by hand should not be underestimated and I recognized my limitations. The burden for my laundry water was therefore shifted to another household.

With this strict system, I typically had enough water for four to five days, a timeframe within which I could reasonably expect water to flow again. However, sometimes water would not flow for over a week, or it flowed during the day when I was out working. In these times, my stored water ran out. I coped with these water shortages and quality issues by spending money (on bottled water, extra storage containers, a filter, chlorine tablets, prepared food, and laundry services). I also made compromises by sometimes waiting periods of time to do more water-intensive activities such as laundry, flushing the toilet, washing my hair, and cooking.

Describing my water storage and treatment system here risks being a mundane and detailed passage about containers and the minutiae of my decision-making. The system and my decision to share it here in this way certainly says a lot about me, my concerns about health and water quality, having grown up in a hyper anti-bacterial culture, and knowing that my stomach was not robust with local water flora. This system also reflects my lifestyle, my understanding of bacteria, and my past experiences being quite sick from consuming unsafe water in other developing contexts. Living alone, I could exert a fairly rigid my level of control over this

system in terms of amounts of water used or where I chose to make compromises. I recognize my relatively privileged access to a budget that supported my stay in Cameroon, in particular given that I was well-funded to do this research and could afford to pay for water and water-related services. This system developed, maintained and paid for by me was unique, and many of my household visitors thought my measures to be curious and perhaps excessive.