

**Education for Sustainable Development Integration Plan in Vision 2030 in Saudi Arabia:
A Critical Discourse Analysis of Media and Government Policy Documents.**

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Table of Contents

List of Figures	4
List of Tables	5
List of Abbreviations	6
Dedication	7
Acknowledgement	8
Abstract	9
Résumé.....	10
Contribution to Original Knowledge	11
Contribution to Co- Authors	11
Chapter 1: Introduction	12
1.1 Sustainability and Sustainable Development.....	12
1.2 Education as a Tool for Sustainable Development	14
1.3 Different Terms - One Broad Concept.....	15
1.4 Education for Sustainable Development in the Saudi Context.....	16
1.5 Expected Contributions of the Study	17
1.6 Outline of the thesis structure	17
Chapter 2: Background and Literature Review	18
2.1 Saudi Arabia Overview	18
2.2 Climate Change and Sustainability Concerns and Responses	20
2.3 Education and National Development in Saudi Arabia	22
2.4 Environmental Challenges and Vision 2030.....	23
2.5 Environmental Education (ESD) and Saudi Arabia.....	24
Chapter 3: Methodological Framework	26
3.1 Discourses, Documents, and Document Analysis.....	26
3.2 Discourse Analysis and Critical Discourse Analysis.....	28
3.3 Fairclough's Model of CDA	28
Chapter 4: The Manuscript	36
4.1 Introduction.....	36
4.1.1 Climate Change, Sustainability and National Development Pathways in Saudi Arabia	37
4.1.2 Vision 2030.....	39
4.1.3 Education as a Means for Sustainable Development in Saudi Arabia.....	40
4.2 Methodological Framework.....	41

4.3 Materials and Data Collection	43
4.4. Results.....	48
4.4.1 Co-occurrences and Intensity of Engagement	48
4.4.2 Thematic Analysis	49
4.4.3 More about Education and Sustainability in 2030	50
4.5 Discussion	54
4.6 Conclusion	56
Chapter 5: General Conclusions and Recommendations.....	58
Recommendations.....	59
References.....	60
Appendices.....	70
Appendix A.....	70
Appendix B	72
Appendix C.....	75

List of Figures

Figure 1 Map of Saudi Arabia	18
Figure 2 Saudi Arabia Age Breakdown	19
Figure 3 Fairclough's CDA Mode	29
Figure 4 Saudi Arabia's Annual CO2 Emissions	51
Figure 5 Other Education-Related Topics in News Articles	50
Figure 6 Other Education- Related Topics in Policy Documents	51
Figure 7 CDA Interpretation of the Analysis.....	55

List of Tables

Table 1 The Collected Policy Document	29
Table 2 ESD Integration Plan Scale	32
Table 3 The Selected Policy Documents	43
Table 4 ESD Inegration Plan Scale	47
Table 5 Number of Instances on the Integration Plan Scale	48
Table 6 Themes and Co-ocurnace Numbers Emergaed from the Analysis	49
Table 7 Citaion of the Collected Policy Document	68
Table 8 Collected Articles, Full Citations and Number of Co-occurrences	70
Table 9 Identifies Instances (Highlighted) in News Articles and the Integration Plan Scores.....	74
Table 10 Identifies Instances (Highlighted) in News Articles and the Integration Plan Scores...	76

List of Abbreviations

ESD	Education for Sustainable Development
CDA	Critical Discourse Analysis
MBS	Mohammed Bin Salman
SDG	Sustainable Development Goal
CEDA	Council of Economic Development Affairs

Dedication

To the soul of my father,
 who passed away throughout the process this master's degree,
 you are there in every single word.
 I miss you!

إلى أبي الحبيب... وإن غيبك القبر ...
 أنت معي في كل نجاحاتي ...
 وهي ملكك..
 أفنتقدك!

إلى أختي.. وصديقة روعي...إسراء
 إلى أمي ... أنت ظهري ...
 إلى إيمان. ...صديقتي للأبد..
 إلى الرفيق الجديد...أحمد..

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Abstract

This study is a qualitative research that aims at examining the policy of integrating Education for Sustainable Development (ESD) in the Saudi education system as presented in the government's official documents and news articles. The study specifically asks: how is the policy of integrating ESD in the Saudi education system presented in the discourses of the Saudi government policy documents and the written media in Vision 2030?

The study examines two types of documents, namely official policy documents published by the governmental entities involved in the planning and/ or the execution of the ESD integration policy, and newspaper articles collected from the three top-ranked Saudi newspapers (Arab News, Asharq Al-Awsat and Al Riyadh). A thematic coding is used to identify themes and sub-themes in the collected documents. In addition to that, Norman Fairclough's model of critical discourse analysis (CDA) is employed to investigate the collected data and to offer a deeper understanding of whether Saudi Arabia meaningfully aims at integrating sustainable development into its education planning in Vision 2030.

The results of the study suggest that Vision 2030 does not consider ESD as a main tool to achieve sustainability and preserve the environment. The analysis reveals that there are very limited instances of the discussion of ESD integration in Vision 2030 in the media coverage as well as the government official documents.

Moreover, the CDA of the collected data shows there is a great generalism in the use of the language in presenting the road map taken to implementing ESD policy plan which led to a considerable vagueness on how-to procedure to integrate ESD into the Saudi education. Consequently, there is a lack of a comprehensive strategic plan with pre-determined steps. The findings of the study suggest that the message presented and conveyed through the analyzed documents is that the government is not taking the plan of ESD integration into education seriously.

Résumé

Cette étude est une recherche qualitative qui vise à évaluer la politique d'intégration de l'Éducation au Développement Durable (EDD) dans le système éducatif saoudien tel que présenté dans les documents officiels du gouvernement et les articles de presse. L'étude pose spécifiquement la question suivante : comment la politique d'intégration EDD dans le système éducatif saoudien est-elle présentée dans le message officiel que l'on observe dans les documents politiques du gouvernement saoudien ainsi que dans les médias écrits au sein du Vision 2030 ?

L'étude examine deux types de documents, à savoir les documents politiques officiels publiés par les entités gouvernementales impliquées dans la planification et/ou l'exécution de la politique d'intégration de l'EDD, ainsi que les articles de journaux recueillis auprès des trois journaux saoudiens les mieux classés (Arab News, Asharq Al-Awsat et Al Riyadh). Un codage thématique est utilisé pour identifier les thèmes et sous-thèmes dans les documents recueillis. De plus, le modèle de Norman Fairclough de l'analyse critique du discours (CDA) est utilisé pour enquêter sur les données recueillies et pour offrir une compréhension plus approfondie afin de savoir si l'Arabie Saoudite vise réellement à intégrer le développement durable dans sa planification de l'éducation dans Vision 2030.

Les résultats de l'analyse de l'étude suggèrent que le plan Vision 2030 ne considère pas l'EDD comme un outil principal pour atteindre la durabilité et préserver l'environnement. L'analyse révèle que les exemples de discussions sur l'intégration de l'EDD sont très limités au sein de Vision 2030, tout comme dans la couverture des médias et dans les documents officiels du gouvernement.

Par ailleurs, le CDA des données recueillies démontre un grand généralisme dans l'utilisation du langage dans la présentation de la feuille de route employée pour la mise en œuvre du plan politique de l'EDD, ce qui a conduit à une imprécision considérable sur la procédure à suivre pour intégrer l'EDD dans l'éducation saoudienne.

Par conséquent, on peut constater l'absence d'un plan stratégique global avec des étapes pré déterminées. Les conclusions de l'étude suggèrent que le message présenté et véhiculé au travers les documents analysés est que le gouvernement ne tient pas compte du plan d'intégration de l'éducation de l'EDD.

Contribution to Original Knowledge

On reviewing the literature in this paper, I found out that the focus of research papers discussing sustainability and Vision 2030 in the Saudi context is the socio-economic growth (Allmnakrah, & Evers, 2020 and Alshuwaikhat, & Mohammed, 2017). This was also obvious even through the educational lens. Moreover, the on-going dialogue on environmental sustainability does not practically involve education. This research paper is highlighting the existing gap between the Saudi educational system and the sustainability goals, in relation to education, of Vision 2030. It explores the implementation framework of Education for Sustainable development (ESD) in Vision 2030 as a critical tool to achieve the Saudi sustainability objectives. This paper does not only contribute to the knowledge about ESD in a Gulf and oil-producing milieu, but it also provides an analytical approach to understand the Saudi governmental policies reflected by the policy documents and written media.

Contribution to Co-Authors

As a manuscript- based style thesis, this thesis is constructed around a one publishable article. I conceived of the presented idea, developed the research question, methodological framework, preformed data collection, analysis and interpreted the results. Although I wrote the entire thesis, Professor *Blane Harvey*, my thesis supervisor, provided extensive and valuable guidance on the development of each section of this thesis. His positive feedback and critique have substantially contributed to this final product. Chapter four is planned to be published in collaboration with Professor *Harvey* as a co-author.

Chapter 1: Introduction

Growing up in one of the Gulf countries in the Arab world made me, for a long time, unaware of the concepts of climate change and sustainability. Twelve years of elementary, middle, and high schools, even being a student of science-math major in high school, had not offered me a deeper understanding of how harmful we are, as human beings, to our planet. Studying science and learning about the universe, the planet Earth, and the different types of pollution failed to enrich my knowledge about the way to preserve our planet and fulfil our needs in a friendly manner.

I have been abroad for the last 7 years working in the US and then studying in Canada, this has introduced me to concepts like recycling, eco-friendly ways, reusable shopping bags, etc. Since then, every time I travel back to my country, I start noticing that there is a lack of awareness about environmental sustainability-related issues. This has raised an important question in my mind regarding the development of the pre-university curricula; are there any future intentions or plans to educate younger generation about environmental topics and concerns in detail?

I must admit that I was illiterate about the environmental risks people are exposed to during their daily life activities. In an attempt to further educate myself, I reached out to my supervisor, Professor Blane Hervey, and he suggested a summer reading course to provide me with a better understanding of the environmental challenges around us. The course offered me a great opportunity to explore, realize, and learn more about the relation between education and environmental sustainability issues.

The final paper of the summer reading course tackled some facts about the Educational for Sustainable Development (ESD) in the Saudi context, which motivated me to expand my knowledge about that topic through presenting this thesis project.

1.1 Sustainability and Sustainable Development

According to Campbell and Mollica (2016), sustainability has various applications; it is a broad concept that can be used in multiple contexts. They have added that sustainability, in the recent decades, has been receiving more attention, particularly in the economic, social and environmental arenas – the three ‘pillars’ of sustainable development.

The Cambridge dictionary defines sustainability, if mentioned in the context of environment and business industry, as “the idea that goods and services should be produced in ways that do not use resources that cannot be replaced and that do not damage the environment” (Sustainability, n.d). Another definition for sustainability is the “utilization and development of natural resources in ways which are compatible with the maintenance of these resources, and with the conservation of the environment, for future generations” (Campbell & Mollica, 2016, p.xvii). As stated by the United Nations (UN) (2015), sustainable development aims at fulfilling today’s needs as well as achieving state targeted economic growth with neither jeopardizing the future of younger generations nor exhaustion of natural resources. Sustainable development as a term was first introduced to the public in 1980 World Conversation Strategy (UNESCO,2016). However, the Brundtland Report, published in 1987, has presented the most common contemporary definition of that term: “development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (UNESCO, 2016, p.4).

Emas (2014) has mentioned that integrating the three pillars (environmental, social, and economic) into all facets of decision-making is the core of sustainable development process. It means that achieving the required “socio-economic development” should be “in line with ecological constraints” (Klarin, 2018, p. 68). In other words, reaching the right balance between the environmental sustainability, the social prosperity and the economic growth is what sustainable development strives to accomplish.

Since the 1940s, the international community and UN have been working on developing an international agenda that addresses the three pillars of sustainable development. However, the efforts were disjointed and fragmented (Kumar, Kumar & Vivekadhish,2016). Yet, with the beginning of the new millennium, the international community led by the UN signed the Millennium Development Goals (MDGs) declaration and set 2015 as the target year to achieve the eight MDGs (Millennium Development Goals, n.d). These eight goals were realistic, measurable, and monitorable; they have contributed towards public concerns like extreme poverty and hunger, gender equality and women empowerment, environmental sustainability, etc. Still, the achievement of these goals by the international community was uneven

(Millennium Development Goals, n.d). This initiated an international dialogue on how to create a post-2015 progress and a more even global success.

In 2012, seventeen global goals were developed based on the eight MDGs by the United Nations General Assembly to establish more prosperous sustainably-developed societies as well as preserve the environment (The global goals, n.d). Those goals are known as the Sustainable Development Goals (SDGs) and “intended to be achieved by 2030” (UN, n.d). They are considered a “shared blueprint” for governments, firms, businesses, civil organizations, and the public to create partnerships and corporations to put the goals into action. The core of the SDGs is to urgently deal with environmental problems and issues as well as ensure the improvement of other aspects in societies like health, education, and economic growth (UN,n.d).

Education has been always a significant part of the MDGs and later the SDGs. Actually, it has become a more integral part of all the SDGs; it is not only one of the goals, namely SDG 4, but also a part of all the rest of the goals. As stated by UNESCO (2021): “Every goal in the 2030 Agenda requires education to empower people with the knowledge, skills and values to live in dignity, build their lives and contribute to their societies” (SDG4-Education 2030, 2021, par.1).

1.2 Education as a Tool for Sustainable Development

Education should not aim only at developing literacy or equipping learners with just the needed skills for the job market, but it also has to have a more central role in their lives and future. (Ki-moon 2012 as cited at Laurie et al. 2016). Education can be utilized as an effective tool to build more sustainable societies (Ki-moon, 2012 as cited at Laurie et al. 2016). Gadotti (2008) has declared that we, human beings, need to establish a quality education that promotes the care for our planet and addresses the issues of sustainable development, besides our need to work on replacing the current systems of education. To put it another way, it is believed that education is, and has the power to be, a crucial factor in creating a change towards sustainable development (Ki-moon 2012, as cited at Laurie et al. 2016; UNECE, 2009). In fact, as authors like, Gadotti (2008) argue societies should orient educational priorities towards a sustainable life and not only sustainable development. Wals and Benavot (2017) have stated that sustainable lifestyles and “environmentally – friendly decisions” (p.405) considered by individuals or governmental institutions have a great impact on the local and the global environmental scene. Thus, education can be a resourceful tool to generate a transformation in behavior and internalize

new planet-friendly concepts (Gough& Scott 2006, cited in Faidi, 2016) if an optimistic future for people is desired.

Education for Sustainable Development (ESD) as defined by United Nations Economic Commission for Europe (UNECE), is a way to “build the capacity of individuals, communities and society as a whole to make informed judgements and choices in favour of sustainable development” (2009, p.iii). Another definition, given by the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2009), is that ESD is an educational vision directed to accomplish the required balance between economic prosperity, cultural traditions, and the sustainability of natural and environmental resources in order to obtain a better life for the future generations and preserve our planet at the same time. According to UNESCO (2019), ESD provides learners with long-life learning skills, competencies, and the capabilities to “take informed decisions and responsible actions for environmental integrity, economic viability and a just society” (par.1). UNESCO has considered ESD as a “holistic” educational vision which attends to societal transformation through different pedagogical aspects, namely content and outcomes of learning, as well as the environment. ESD is not meant to initiate local societal changes, but it aspires to enable people, as learners, to be “global citizen” to help both locally and globally (UNESCO,2019).

1.3 Different Terms - One Broad Concept

The idea of educating students about nature/environment and how to preserve our planet has started in the late 19th/ early 20th century (Wals and Benavot, 2017). The aim of the “Nature Conservative Education” (NCE) was to connect students with their natural surroundings and develop their environmental understanding and awareness of the different issues related to preserving our living planet (Wals and Benavot, 2017, p.406). By the mid-20th century (1960s to 1970s), the term “Environmental Education” (EE) has appeared, with a specific focus on raising awareness about the various types of pollution and environmental harms that were becoming more prevalent (Wals and Benavot, 2017). The intended impact of this kind of education is to help adopting a more positive behavior towards protecting the environment and to create a community and organizational support for new “environmental legislation” (Wals and Benavot, p.406, 2017).

Later, the concept of “Sustainability Education” emerged in the late of 20th/early 21st century with a wider and more holistic approach regarding the students’ environmental awareness. It aims at motivating the members of society to be more engaged and involved in issues related to sustainably and sustainable development. Not only that, but it seeks to broaden citizens’ understanding of the different mutually interacting factors that affect sustainability, including economy and culture, besides environment and ecology. The “Sustainability Education” concept can also help in accumulating a stronger knowledge of the influence of our daily practices on the future of the earth and younger generations. (Wals and Benavot, 2017).

In conclusion, the current concept of “Environmental and sustainability Education” (EE) or (ESE) or “Education for Sustainable Development” (ESD) centres on “rethinking humanity’s place in the world and global citizenship” (Wals and Benavot, 2017, p.406). It targets altering the way the society views its relationship with the world based on adopting values and principles towards a more sustainable lifestyle. Both ESD and EE co-exist and sometimes are used interchangeably. Cartea (2005) has expressed the relationship between both concepts; ESD is “a stage in the evolution of EE” (p.9), yet they overlap, and some consider EE as part of ESD and vice versa.

1.4 Education for Sustainable Development in the Saudi Context

Saudi Arabia is one of the Gulf countries where citizens are often associated with unsustainable lifestyles (Sillitoe, 2014); and where the country itself faces very hazardous environmental challenges (Taher & Hajjar, 2013), which need to receive an immediate attention from the government. Thus, it is argued that Saudi Arabia is in urgent need to develop a certain level of awareness, knowledge and understanding of sustainability issues to create and promote positive changes (Faidi, 2016). To change public lifestyles and develop a more environmentally caring behaviours and attitudes, as well as work on properly handling environmental hazards, ESD should be considered as an important tool (Faidi, 2016). ESD should be part of the education system to equip individuals with the needed knowledge to “act and contribute” positively to the environment (Faidi, 2016, p.20). However, critics argue that little progress has been made to date in integrating ESD into the Saudi educational system.

1.5 Expected Contributions of the Study

This study, as a qualitative research, aims at assessing the integration of ESD concepts into the Saudi educational system as reflected in the discourses of the government's official documents and in national print media. More specifically, this study asks: "How is the policy of integrating ESD in the Saudi educational system reflected in the discourses of Saudi government and the written media?"

The findings reached through this paper may assist the decision- and policy-makers, as well as educators, in the Saudi education sector to become aware of the need for integrating ESD in the current educational plans and curricula. Hence, it may contribute to a better understanding of how an education policy can help in supporting ESD initiatives and strategies. The broad objective of this study is to support the maturation and advancement of Saudi education system to specifically implement a potential road map for ESD integration in that system.

1.6 Outline of the thesis structure

The organization of this manuscript-based thesis contains five main sections. This first section, the introduction (chapter one); has provided readers with a background of my personal connection to this paper and gives definitions of the concepts used here, namely sustainable development and education for sustainable development, and introduced the importance of ESD. The second section (chapter two) presents the context of the research paper and a review of key literature. The third section (chapter three) highlights the methodological framework of the paper as well as the data collection and analysis methods. Chapter four is the manuscript formatted for submission to be published. The last section (Chapter five) delivers the final concluding thoughts and recommendations. It is also important to note that since chapter four is meant to stand alone as a publishable manuscript, there will be some unavoidable repetition between chapter four and the other sections in this thesis- for example, the overall literature review and methods sections and the ones found inside the manuscript.

Chapter 2: Background and Literature Review

2.1 Saudi Arabia Overview

Figure 1:

Map of Saudi Arabia



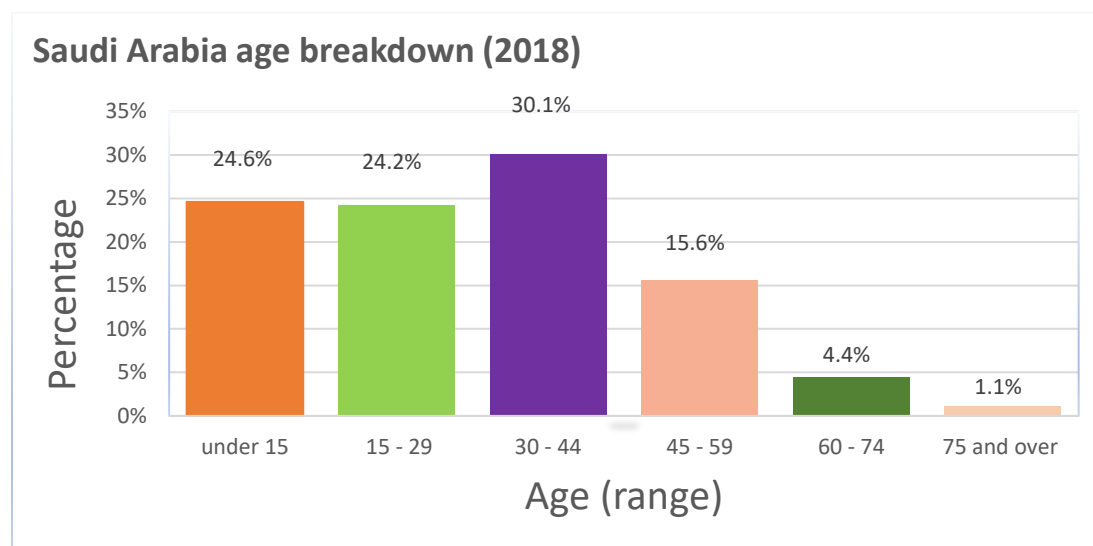
Note: Adopted from Mahmoud, E. (2018). A composition about Saudi Arabia in English [image]. Almrsl. <https://www.almrsl.com/post/716090>

The Kingdom of Saudi Arabia is located in the south of west Asia. The largest country in the Arabian Peninsula, it consists around four-fifths of the area as illustrated in Figure 1 (Ochsenwald & Teitelbaum, 2020). It extends from the Red Sea on the west to the Persian Gulf on the east with a total land area of 2,150,000 km² (830,000 sq mi) (Saudi Arabia, 2020, para 1). The Kingdom is considered one of the young countries in the Arab world, and it can be divided into three important regions; Najd “the highland”, geographically the center of the kingdom, and is where the capital (Riyadh) is located. “Hijaz”, the second region, lies along the Red Sea (the Western part). This is the mecca of all Muslims around the world, with two Holy Mosques and many other holy places. The third part is the eastern province where many oil fields are located. These fields, “since the 1960s, have made Saudi Arabia synonymous with petroleum wealth” (Ochsenwald & Teitelbaum, 2020, para1). Those three regions along with the north province

were united into one country by Abdul Aziz bin Sau'ud (Saudi Arabia, 2020, para 1), in 1938 (Ochsenwald & Teitelbaum, 2020). This young nation was built on a very conservative Islamic ideology (Wahhabism) and tribalism, in which competing family groups vie for resources and status, which has made Saudi society difficult for many outsiders to comprehend (Ochsenwald & Teitelbaum, 2020, para 2). This young state in the process of embracing the modern world characteristics and labels took the shape of absolute monarchy.

As stated by the General Authority of Statistics of Saudi Arabia, the total population of Saudi Arabia in 2018 was 33,413,660. The kingdom is considered a young nation with a young population, in which large families are promoted, with a birthrate that is above the world average and a death rate below the world average. (Ochsenwald & Teitelbaum, 2020) Almost half of the nation is below the age of 40 (see Figure 2). The percentage of population enrolled in pre-collage education as well as higher education is considered high in Saudi Arabia. The percentage of primary school enrolment in 2018 was 99,77% (Index mundi, 2019). Similarly, the percentage of secondary school enrollment in 2013 was 117.84 (Index Mundi, 2019). In 2019 Saudi Arabia was ranked the 10th out of 46 OECD countries with one of the highest percentage of people who have tertiary education and age 25- to 64-year-old (Education GPS-*OECD*, 2021, Saudi Arabia: educational outcomes sec.).

Figure 2



Note: Adapted and reproduced from Ochsenwald & Teitelbaum (2020).

The discovery of oil in the early 1940s introduced the country to an abundant type of wealth which has shaped the economic, urban, and educational development of this young nation in many ways (Saudi Arabia, 2020). According to Ochsenwald & Teitelbaum (2020):

Enormous oil wealth has fueled huge and rapid investment in Saudi Arabia's infrastructure. Many citizens have benefited from this growth, but it also has supported lavish lifestyles for the scions of the ruling family (para2).

Since its discovery, the Kingdom has been ranked as the world's second largest producer of oil (11.62 million barrel per day), after the USA. It is also known for having the second largest oil reserves in the world (Saudi Arabia, 2017). Being the world's second largest oil producer has paved the way to the Kingdom to be the only Arab country in the G-20, and to be "categorized as a World Bank high-income economy" (Saudi Arabia, 2020, para 4). Today eighty-seven percent of the Saudi economy depends on the petroleum industry. This represents 42% of GDP (Gross Domestic Product), and 90% of export earnings (Economy of Saudi Arabia, 2020, para 1). In addition to that, the Kingdom has been a leading member in other international organizations, namely the Organization of the Petroleum Exporting Countries (OPEC), the International Monetary Fund, the World Bank and the World Trade Organization (Saudi Arabia, 2020). This dependency on petroleum for national revenue has important implications for the country in terms of developing strategies to address sustainable development goals, as I will discuss below.

2.2 Climate Change and Sustainability Concerns and Responses

Saudi Arabia has been facing environmental challenges since its establishment, due to both its geographical position and its environmental behavior. The fact that 98 percent of Saudi land area is a desert and only 1.6% is available for agriculture poses some of the biggest environmental and sustainability challenges, viz. desertification, deforestation, and food and water security, not to mention waste management, overexploitation of natural resource, and loss biodiversity (Taher & Hajjar, 2013 & Al- Dosary, 2016). Furthermore, in order to provide potable water, the Saudi government uses the process of sea water desalination which pollutes the sea with high concentrations of salt (Taher & Hajjar, 2013). Being one of the largest oil-producing countries in the OPEC, causes another big sustainability issue which is air pollution. Taher & Hajjar (2013) argue that those environmental challenges, among many others, keep escalating; therefore, they need to receive the immediate attention of the Saudi government.

Altawti (2012) states that in order for Saudi Arabia to properly handle some of the environmental problems, it needs to take into consideration the reality of its ecological footprint, which is simply defined as “the amount of the environment necessary to produce the goods and services necessary to support a particular lifestyle” (World Wildlife Fund, n.d., Ecological footprint section). According to the footprint network organization (2020), the average Saudi ecological footprint in 2017 was 5.9 global hectares per person, which means that Saudi Arabia is using its natural resources much faster than they are generated (Altawti, 2012). The ecological footprint is not the only indicator of global negative participation of Saudi Arabia in the battle of climate change. As reported by the World data atlas (2019) Saudi carbon dioxide (CO₂) emissions reached 614.6 million tonnes in 2019. Since 1970 the CO₂ emissions have been gradually increasing at an average annual rate of 5.85% (Kenoma, n.d., World data atlas section).

Despite these trends, Saudi Arabia is a signatory country to the 2015 Paris Agreement. Under this agreement the country has created the first nationally determined contribution (NDC) which is a national plan aimed at reducing the CO₂ emissions as a way of decreasing air pollution and warming trends nationally and globally. Additionally, it is argued that Saudi has been trying to improve its national policies to preserve and protect the environment by participating in global agreements and conversations (Alshuwaikhat & Aina, 2005 as cited in Rana & Alayed, 2018). Thus, in 2019, Ministry of Environment, Water and Agriculture and the UN Environment Program has “signed a strategic cooperation agreement” to protect and preserve the country’s natural resources (UN environment program, 2019, par.2).

While that may be true, Cooke (2019) states that Saudi Arabia’s overall performance in the battle against climate change is quite an embarrassment. Saudi Arabia was named “as the worst-performing country on a number of climate change indicators in the annual Climate Change Performance Index” (Cooke, 2019, para2). Moreover, according to Climate Action Tracker (2020) Saudi has still not “published the baseline corresponding to its Paris Agreement target”. (Saudi Arabia: Country Summary, 2020, par7). Further, it seems that there is huge uncertainty about the stance and commitment of the Saudi government toward the Paris Agreement due to the fact that “the national emissions projection” of the country is vague. (Saudi Arabia: Country Summary, 2020, par7).

2.3 Education and National Development in Saudi Arabia

It is believed that Saudi Arabia did not have a formal type of education until the 1920s. Until then, they had what is called “alkuttab”, which is a nonformal traditional type of education usually focuses on teaching Qur’an, Qur’anic studies, and Arabic either in the mosques or in the teacher’s own house (Thomas, 1968 as cited in Wiseman et al. 2008). Teachers of this type of education were, most often, Islamic scholars. This system was replaced by a more formal and organized school-based system in 1925, since the “public, government-sponsored schools in Saudi Arabia began to expand” (Wiseman et al, 2008, p. 2).

To provide this new schooling system with qualified Saudi teachers, in 1928 the first institution for teachers’ education was established, in addition to that to excel in qualifying more teachers, Saudi students were sent to Egypt to study abroad (Wiseman et al. 2008). Nevertheless, the lack of a national educational curriculum was quite a huge challenge for the educational system at the beginning (Wiseman et al, 2008). Between 1932 and 1935 the Kingdom started to develop a clearer vision and curriculum development plans, which focused on religious and Arabic studies, but this plan changed two times in three years (Wiseman et al, 2008). According to some critics, the Saudi educational system still lacks a clear national curriculum and “Saudi educational policymakers” need “to think carefully about the direction the Kingdom of Saudi Arabia educational system is headed” (Wiseman et al, 2008, p3). Since the very beginning, the Saudi educational system has been very centralized and state dependent. All schools must use the same “methods of instruction, textbooks, evaluation techniques, and educational policy” (Saudi Education System, 2019, para4). The Ministry of Education is the only authority, besides royal decrees, that can initiate and supervise any educational change.

Al-Soudeir (2019) mentions that the Ministry of Education has recently introduced philosophy and law as two new subjects into the school curricula, however some Saudi educators believe that the current educational system lacks the adequate environment, foundation, clear vision and objectives to create a real evaluation and reform. Bunaiyan (2019) states that Saudi educational system has been under a huge external pressure to adapt a more “modernized” curricula planning and to “integrate elements of liberalism” into education (Habbash, 2011 as cited in Bunaiyan, 2019, p.6). Moreover, Alhammad (2010) argues that the Saudi educational system does not give enough attention to promote some of the 21st century most important learning skills,

like critical, and independent thinking. On the contrary, it still promotes memorization and spoon-feeding students in ways that does not challenge their mental capabilities or create a real behavior change.

2.4 Environmental Challenges and Vision 2030

Vision 2030, a national development plan for the country, was launched on the 25th of April 2016 under the supervision of Mohamed bin Salman - The Saudi Crown Prince, Defense Minister and Head of the Council of Economic and Developmental Affairs - with the aim to reduce the economic dependency on oil returns and to work on improving health, education, tourism...etc. (Hubbard, 2016). The vision is described as a “bold yet achievable blueprint for an ambitious nation” (Vision 2030, n.d. home sec) built upon three themes. As stated by Mohamed bin Salman in the opening chapter of the Vision 2030 document:

Our vision is built around 3 themes a vibrant society, a thriving economy and ambitious nation. This first theme is vital to achieving the Vision and a strong foundation for economic prosperity. We believe in the importance of a vibrant society, members of the society live in accordance with the Islamic principles of moderation, are proud of their national identity and their ancient cultural heritage, enjoy a good life in a beautiful environment, are protected by caring families and are supported by the empowering social and health care system. In the second theme, a thriving economy provides opportunities for all by building an education system aligned with market needs and creating economic opportunities for their entrepreneur, the small enterprise as well as the large corporation. Therefore, we will develop our investment tools to unlock our promising economic sectors diversify our economy and create job opportunities. Our third theme is built on an effective, transparent, accountable, enabling and high performing government. We will also prepare the right environment for our citizen, private sector, and non-profit sector to take their prosperity and take the initiative in

facing challenges and seizing opportunities. (The Council of Economic and Development Affairs, 2016, p.9).

The Vision has the same timeframe as the Sustainable Development Goals (SDGs), and aims at integrating the 17 SDGs into its programs and plans, which are going to be realized in partnership with all ministries, sectors (private and public), and organizations (governmental and non-government) (Alghamdi, 2017 as cited in Rana & Alayed, 2018). In order to achieve the 2030 Vision goals the National Transformation Program 2020 has been launched as an action plan to help all the involved governmental institutions, organizations and ministries to establish the needed tools and capacities and to build new partnership with non-government organization and sectors (Rana & Alayed, 2018). However, Alshuwaikhat & Mohammed (2017) reported that it will be more challenging for the Saudi government to achieve the 2030 agenda in goals pertaining to the oil-production and gas sectors. They argue that Vision 2030 seems to lack clear, “comprehensive and periodic assessments” as a step to ensure the achievement of SDGs (Alshuwaikhat & Mohammed, 2017, p. 15). Moreover, having a national periodic and systematic evaluation of the implementation of SDGs goals is crucial to ensure that Vision has the adequate “balance in the achievement of environmental, social and economic goals” (Alshuwaikhat & Mohammed, 2017, p. 15).

2.5 Environmental Education (ESD) and Saudi Arabia

Reviewing the documents under investigation and the literature, the term used to refer to ESD in Saudi Arabia is typically “environmental education”. However, for the purpose of this paper, I will use ESD to refer to environmental education.

The Arab Forum for Environment and Development (AFED) recently published a report entitled *Environmental Education for Sustainable Development in Arab Countries* (2019) which explores the role of ESD in empowering new generations with the needed skills and knowledge to properly face and handle the current environmental challenges. AFED (2019) reports that ESD has been recently integrated into many programs in Arab higher education. Saudi Arabia has been found to have the second highest number of ESD-related programs in the region. Saudi post-graduate research-oriented programs are ranked the highest in number of researchers, studies and publications in environmental-related issues in general and in ESD-related issues in

particular (AFED, 2019). Regarding the K-12 education in the Saudi system, concepts like the ecosystem, biodiversity, soil, and water are mainly discussed—in the early grades—in the science curriculum without providing any further practical activities. Other topics such as pollution, energy efficiency, and climate change are either not-well discussed, or even worse, ignored. Generally speaking, “some topics are insufficiently discussed, and the distribution among various courses and grades is not balanced” (AFED, 2019, p.115).

Many scholars believe that ESD should be viewed as an important tool in, not just, delivering the required environmental- related knowledge, but also in internalizing it and promoting a real behavioral change (Al-Dosary, 2016 & Faidi, 2016). However, Al-Dosary (2016) argue that the Saudi educational system, in public schools, lacks a clear, well organized ESD curriculum. In addition to that even curriculum that discusses some environmental issues, they are not represented in a comprehensive manner and does not cover the environmental challenges related to Saudi environment. He adds many of the Saudi public-school curriculum need to be redesigned to enable the integration of ESD. He, also, notes that the plans of integrating ESD into the educational system show the absence of a comprehensive strategic plan.

In sum, Saudi Arabia faces serious and hazardous environmental issues, and is one of the countries, as a large oil-producer, that has been contributing negatively to the crisis of climate change. Although that the Saudi government consider education as one of their main tools to achieve Vision 2030 goals and handle environmental challenges, the role and applications of ESD seem not clear. The study attempt to find out how much details are produced by the government of the ESD integration plan into the Saudi education system, as one of the 2030 Vision objectives and as an environmental enabler.

Chapter 3: Methodological Framework

The aim of this research is to analyse, interpret and understand how Saudi Arabia presents its goal of integrating ESD into education curricula as part of the state's Vision 2030 strategy. It does so by critically examining official policy documents published by Saudi government and the news articles featured in Saudi press which may describe that integration. These two different types of documents are chosen to grasp a more complete picture of what the government actual integration plans. On one hand, the policy documents reveal the real actual proposed plan by the involved government bodies; while on the other hand, the news coverage shows what the government tries to present to the global community as well as to national audiences.

In this study I used critical discourse analysis (CDA) to study how the texts under investigation “construct the representations” (Taylor, 2002) of the framework and the timeline of the integration plan. It is believed that CDA provides a set of tools that can be used effectively in examining education and education policy (Rodgers et al., 2016). CDA is a particularly appropriate method to analyze both policy documents and news articles and scan how the language works in the educational setting as a “social process” (Kress, 2011, p.205). Moreover, Kalifah (2017) has stated that CDA helps in understating and examining the role of media, newspapers in particular, in shaping the public perception of educational reform and policy.

This chapter offers a concise background about the terms: discourse, discourse analysis and the critical discourse method. The section explains the steps taken to collect data and how CDA is going to be used in the analysis.

3.1 Discourses, Documents, and Document Analysis

Discourse is defined as the message conveyed through texts, and the different perceptions of the different readers from the same texts (Widdowson, 2007). According to Worrall discourses are not only texts and they should be considered as a way “to embrace all aspects of a communication - not only its content, but its author (who says it?), its authority (on what grounds?), its audience (to whom?), its objective (in order to achieve what?)” (Worrall 1990, p.8, as cited in Jupp, p. 274, 2003). Fairclough (2003) argued that discourse is a way of acting and interacting as well as a way of representation. He adds, thus, different types (genres) of

discourses may represent the same concept or idea differently “from different perspectives or positions” (p.26).

One of the media types commonly used to analyse discourse is documents. Gross (2018) has defined documents as a type of discourse that might include more than words, like images, statistics, graphs...etc. When analysing any document, a researcher should take into consideration the fact that documents are always created within a specific context whether it be “social, economic, political” and/or “cultural” and even the time and the place where this document is made affect the meanings and the points of view presented by this document (p. 545-546). Documents can be of different types and genres; they can include policy document, legal papers, bills, newspaper articles, magazines, and more (Zeegers, M., & Barron, D., 2015).

Document analysis is widely known as a qualitative research method (Bowen, 2009 & Gross, 2018), it is used by researchers as a “systematic procedure” to find evidence to answer the research questions (Gross, 2018, p. 553). Gross (2018) has clarified that document analysis as a research method can be applied through many epistemological or ontological research approaches, such as “content analysis, discourse analysis, ..., or grounded theory” (p.543). Therefore, document analysis is considered a valuable resource and tool to provide evidence for educational research contexts (McCulloch, 2004). Furthermore, Gross (2018) and Bowen (2009) have highlighted the fact that document analysis should not be viewed only as a supplementary method but as valuable one that can stand alone.

Kutsyuruba (2017) has described document analysis as an effective methodology for conducting studies to investigate reforms and policy changes in the educational context of Post-Soviet Ukraine. He has added that this methodology granted him a deeper understanding of certain examined policy issues; it enabled him to view, inspect, comprehend, and interpret the reality of educational system presented in, and through, documents. McKenzie (2021) states that analyzing policy international reports about climate change education and communication (CCEC) give a more profound view of the educational, civil, and governmental content of the CCEC delivered in the different sectors. It helped in identifying the gap in the CCEC initiatives and, thus, in improving the global quality of CCEC through providing a better monitoring channel (McKenzie, 2021). Similarly, Bieler et al. (2017) reported that the policy document analysis of 13 provincial action plans highlighted the limitations in education policies covering

the climate change situation in Canada. This analysis served to prove how educational policy on climate change is shallow in many Canadian provinces.

3.2 Discourse Analysis and Critical Discourse Analysis

Discourse analysis is an “analytical technique” (Adolphus, n.d.) that can be applied in document inquiry to explore and study how certain documents are created to present a specific agenda and to disclose the real purpose of them. Discourse analysis, according to Schneider (2013), can be used effectively to reveal writers’ beliefs and values in constructing an argument and how this argument fits into a bigger social reality.

There are many approaches to discourse analysis. Yet, most of these approaches, if not all of them, stress that researcher should never treat language as a fixed entity. It is a means to shape the different realities within a certain social context and can “in turn build up a picture of the world which is unique to the author of the discourse” (Adolphus, n.d). Applying discourse analysis on texts implies taking into consideration the context in which this discourse is created. According (Jankowicz, 2005; Herasymovych and Nørreklit, 2006 cited in Adolphus,n.d) discourse analysis should always be viewed and examined within its original context: political, social, and economic.

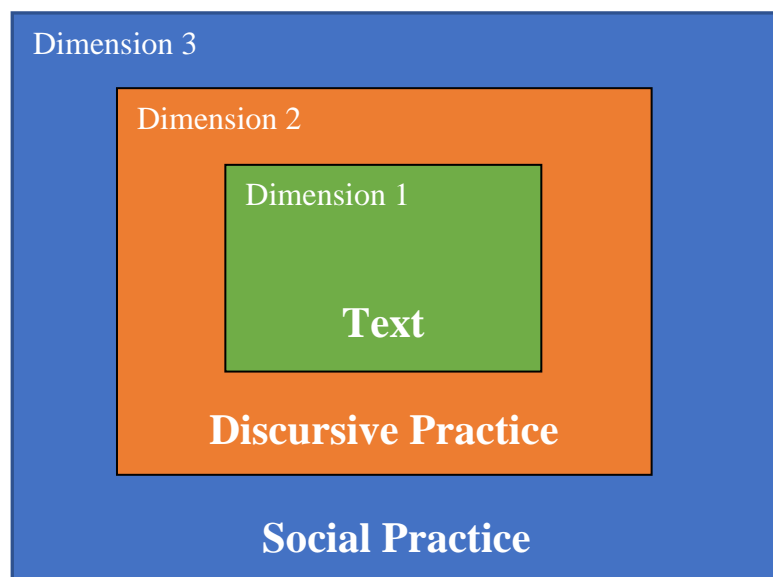
By extension, Critical Discourse Analysis (CDA) demands that language be viewed as a carrier of the writer’s values, attitudes, assessment and believes (flixabout.2017). CDA is considered a “different field of study from Discourse Analysis” (Hermawan, p.154, 2012). As a research methodology CDA is an analytical method that links between “the micro scale”, the language in use, and the “macro scale”, the social practices and norms (Phillips, Sewell, & Jaynes, 2008, p.771).

3.3 Fairclough’s Model of CDA

Norman Fairclough introduced and revised his model of critical discourse analysis in 1989 and 1995, respectively (Sabir & Kanwal, 2018). Fairclough has developed his specific approach to the application of CDA as a way to widen the capacity. “His model is considered a hub around which the wheel of critical discourse analysis revolves” (Sabir & Kanwal, 2018, p.89).

Figure 3

Fairclough's CDA Model (adapted from Flixabout,2017)



Fairclough's model views CDA as a process with three interrelated dimensions (Figure 3):

The first dimension is the text which includes the analysis of words and linguistic features that are used to compose this text; what type of words are used, and what kind of impression they gave to their targeted audience? The second dimension is the discursive practice, focuses on the form of produced text (written or spoken); whether it has any reference to any other discourses or borrowed words or passages from other documents, and why and what does it mean, and who are the targeted audience of this text. The third dimension is the social practices which includes the reflected ideologies, power relations, hierarchy, certain sets of beliefs and social structure through a specific text (Flixabout, 2017 & Husseine, 2017).

3.4 Data Collection and Analysis

As mentioned above, the main objective of this paper is to explore how the Saudi policy documents and news articles under investigation are produced and represented in a certain way to create certain impressions and meanings. This focus has led me to consider CDA in general and the Fairclough's model in specific, to fulfill this task. This study employed CDA to explore

how far is the implementation of ESD into education plan reflected on governmental document and in written media, news articles.

Two categories of documents were examined in relation to Vision 2030, namely official and unofficial ones. The official documents covered the policy documents published by the governmental entities involved in the planning and/or the execution of the ESD integration in education including: the Ministry of Education, the Ministry of Economy and Planning, The Council of Economic and Development Affairs, and Vision 2030 Committee. The unofficial sources were newspaper articles, and the Saudi News Agency (SNA). Three newspapers were chosen for the purpose of this research paper are Arab News, Asharq A-l Awsat and Al Riyadh (newspaper). I chose to examine policy documents as well as news articles as two different representations and types of discourses to get a more comprehensive idea of the ESD integration plan into education in Vision 2030.

The analysis followed the steps to document analysis proposed by Bowen (2009), which included coding of the documents under investigation, and defining and naming themes to be able to understand the content and producing an analysis. The study examined the context in which each document was created to illustrate what each document presented. CDA was employed in the analysis to figure out how those documents were positioned in relation to the Saudi Vision 2030 agenda and ESD implementation plan.

3.4.1 Policy Documents

Selected Documents. Six main official documents, presented in Table 1, published by different Saudi authorities were inspected. The documents were chosen based on their importance to the subject matter under investigation and on their alignment with Vision 2030 goals as they were published after April 25th, 2016 — when the Vision's objectives were first announced.

Table 1

The Selected Policy Documents

Document Title	Assigned Code	Publisher	Publication Date
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Education and Vision 2030	P1	Ministry of Education	Last modified 23/3/2019
National Transformation Program	P2	Vision 2030 Committee	Updated in 2018
1st Voluntary National Review Kingdom of Saudi Arabia	P3	The Council of Economic and Development Affairs (CEDA)	2018
The National Environmental Strategy	P4	Ministry of Water and Agriculture	2017
Vision 2030	P5	CEDA	2016
KSA Vision 2030 Strategic Objectives and Vision Realization Programs	P6	Vision 2030 Committee	n.d

Background information on the selected documents.

P1: Education and Vision 2030: This document was published on the Ministry of Education website to present the 2030 Vision objectives and mission intended to be achieved through education (Vision 2030, 2019).

P2: National Transformational Program: As explained the Vision 2030 website: “This program was launched in 2016 to achieve government operational excellence and establish the necessary infrastructure to improve economic enablers and raise the standard of living through its eight strategic themes” (Vision 2030 Committee, 2021, National Transformation Program, para.3). The document describes the different initiatives of the program as well as it identifies the governmental bodies involved in their execution. It sets the “general principles, outcomes, ...expected impact” and “the strategic objectives, key performance targets and benchmarks...involved in the program (Vision 2030 Committee, n.d. p.7).

P3: First Voluntary National Review Kingdom of Saudi Arabia: This document was submitted by the Saudi government in 2018 to the United Nations High-Level Political Forum on Sustainable Development. It is a review report that assesses the “status of the SDGs, their

alignment with Vision 2030 and actions taken” to ensure an effective application of the SDGs and achievement of 2030 Sustainable Development Agenda by the different Saudi entities-- governmental, and non-governmental (Saudi Arabia, 2018).

P4: *The National Environmental Strategy*: This is an executive report summary prepared by the Ministry of Environment, Water and Culture in 2017. It presents the ambition and the agenda this environmental strategy aims at achieving by 2030. It provides a brief on the strategy comprehensive framework and the private/ public stakeholders involved in the implementation of this strategy.

P5: *Vision 2030*: As mentioned above, Vision 2030 is a strategic framework was proposed and announced by the current Saudi Crown Prince. The document explains the objectives, expected outcomes of the Vision in relation to three main themes: vibrant society, thriving economy and ambition nations (CEDA, 2016, p.7).

P6: *KSA Vision 2030 Strategic Objectives and Vision Realization Programs*: This document sets the strategic objectives of Vision 2030 plan. It highlights how the action plan needed will be developed and the realization programs implemented to achieve these objectives (KSA Vision 2030 Strategic Objectives and Vision Realization Programs, n.d).

2.4.2 Coding Policy Documents

Two cycles of coding were used in studying the documents under investigation. The coding of the data in the first cycle focused on identifying the co-occurrence of the term ‘education’ with any of these terms ‘sustainability’, ‘sustainable development’, ‘environmental’, ‘climate change’, or ‘SDGs’ under the umbrella of Vision 2030. I applied the following steps to identify and count the co-occurrence instances:

- 1- Searching the document mechanically.
- 2- Reading, manually, the paragraph in which the term ‘education’ was mentioned to identify any of the other investigated terms.
- 3- Any appearance of the other terms (sustainability, sustainable development, environmental, climate change and / or SDG) would be counted as one instance.

Then I conducted a second cycle of magnitude coding. Magnitude coding is usually used with data to “indicate its intensity, frequency, ...presence and evaluative content” (Saldana, 2013). I adopted a rating scale from Bieler *et al.* (2017) for the second cycle coding to indicate the presence or absence of details in terms of ESD integration policy in vision 2030. This scale was used by Bieler *et al.* (2017) to assess the level of engagement each of the Canadian provincial educational policies in the Climate Change Education.

Table 2

ESD Integration Plan Scale

0	No mentioning of Education for Sustainable Development
1	Very general information about Education for sustainable development or sustainable development in vision 2030
2	Mentioning of very limited details about the plan used in integrating ESD in the educational system
3	Providing elaborate details like the strategic plans or steps regarding the integration of ESD in Education

This scale was applied to the whole document as well as the instances that were collected in the first coding cycle to evaluate how detailed is each document in relation to ESD integration plans.

2.4.3 Newspaper Articles.

Newspapers were chosen to be examined as type of discourse that represent the ESD integration plan in Vision 2030 to the public audience in a different manner from policy documents, as Fairclough (2003) states that different discourses provide different perspectives and views of the same issue. Exploring news articles helped me capture a wider picture of what the Saudi government attempt to publicize about their ESD integration plan in Vision 2030 to both the local and international community.

The three top ranked newspapers according to Top Newspaper in Saudi Arabia (2020), besides the Saudi News Agency (SNA), were chosen for examination for the purpose of this

paper. I choose to include SNA which the official Saudi Agency. It is the official source of news – about Saudi Arabia- to many local and international newspapers. Arab News was ranked as number one in 2019 Saudi Arabian web newspaper, then comes Asharq Al-Awsat and Al Riyadh (newspaper) in the second and third places, respectively. Arab News is the first daily English - language newspaper in Saudi Arabia; it was established in 1975 and published by the Saudi Research & Publication Company (Arab News, n.d). Al- Riyadh is a pro-governmental newspaper which was found in 1965; it is based and named after the capital of Saudi Arabia Riyadh (Al- Riyadh, n.d). Al- Riyadh is an Arabic speaking newspaper supplemented by an English version (AL Riyadh daily). Since it is published by a private company, which is Al Yamamah Press, it is claimed to be an independent newspaper. However, it basically reflects the views of King Salman, the current king in power (Saudi Arabia: Media Market Description, 2008). Finally, Asharq Al-Awsat (the Middle East in Arabic) is the “pioneer” regional and international newspaper that is based in London (Asharq Al-Awsat (n.d); It is the first “pan-Arab” daily newspaper (1978) owned by the Saudi Research and Publishing Company (About us, n.d). It provides Arab readers around the World and “objective” and “in-depth” coverage and analysis of news in the Arab world and in the Western as well (About us, n.d). Yet, it is known for its support to the government and the Royal Family in Saudi Arabia (Fattah, 2005).

I used McGill’s ProQuest International Mainstream that includes newspapers from outside the USA and Canada. The ProQuest provides archives since 2008, 2011 and 2015 of Arab news, Asharq Al-Awsat, and Riyadh daily, respectively. It, also, contains archives of SNA since 2009. For the Arabic-language searches, I used the Arabic version archives of the newspapers under investigation, namely Al-Riyadh and Al-Sharq Al-Awsat.

I used the given below search terms and in different combinations to account for all the articles that discusses or simply mentions ESD or EE and vision 2030.

English search terms,

"Sustainabl*" AND "Saudi Arabia" OR "Saudi" AND "Vision 2030" AND "Education
 "Saudi Arabia" AND "Education" AND "Climate change"
 "Education" AND "Sustainable development" AND "Saudi Arabia"
 "Sustainabl*" "Education"AND "Saudi" AND "Vision 2030"

Arabic search terms,

"السعودية" و " التعليم البيئي" و"رؤية 2030"
 "المملكة" أو "المملكة العربية" و"التعليم" و "التغير المناخي"
 "التنمية المستدامة" و "رؤية 2030" و "المملكة" أو " المملكة العربية"
 السعودية و" التنمية المستدامة" و "التعليم"
 " التعليم" و"التنمية المستدامة" و "رؤية 2030"

I limited my search range date starting on August 1, 2016, to February 29, 2020, which reflects the date of the announcement of the Vision 2030 on the 25th of April 2016 until the date of this research starts. August 1st was chosen as a start date parameter to exclude all the publicity about the launch of Vision 2030. Search results were then screened manually to exclude duplicates and articles that did not meet the inclusion criteria. A total of 27 articles were retained for analysis. These were all in written English, for the Arabic search I found only two articles that I considered as duplicate of English ones. Then, the same two coding cycles as policy documents are followed with the collected news articles. (See Appendices B and C)

Chapter 4: The Manuscript

4.1 Introduction

During the 70th session of the United Nations' General Assembly in September 2015, 195 nations gathered and adopted the UN Sustainable Development Goals (SDGs). The United Nations Educational, Scientific and Cultural Organization (UNESCO) announced that, demonstrating its active participation, the international community should aim at accomplishing those goals by the year 2030 (UNESCO, 2015). To effectively ensure achieving these goals, an emphasis was placed on the full cooperation and commitment of the international community and the participation of its respective states' public sectors (government and education), private sectors (businesses), media and NGOs.

In December 2015, 196 countries signed and adopted, by consensus, the Paris Agreement on Climate Change. Through the agreement, parties committed themselves to establish local and national policies as a path to achieve a set of long-term goals. These goals include the commitment to limit climate change's impact on the environment by limiting global warming to less than 2 degrees Celsius and aiming to limit warming to less than 1.5 degrees Celsius (Paris Agreement, n.d). Saudi Arabia as a signatory country to the agreement, has promised to make a great effort to reach an annual avoidance; "up to 130 million tonnes of carbon dioxide (CO₂) equivalent emissions ... by 2030" (Wagon, Carey, & Cooke, 2019, p. 5).

Achieving these environmental goals requires a significant investment in educational transformation. For policy makers to effectively accomplish economic goals as well as "restore the Earth's balance", they need to focus on education as their main tool (why education is the key for SD, 2015, par.2). Nevin (2008) states that the education of a good is the real essence of creating a more sustainable world. Ozturk (2008) asserts that education is a fundamental tool to assist individuals to enrich and improve their understanding of themselves, as well as their surrounding environment. Consequently, education is an enabler of not only economic growth but also environmental sustainability. "Education is a fundamental driver of personal, national and global development" (Jong-Wha, 2014).

It is essential that global and local policy makers and leaders ensure the education quality and efficiency and invest in providing the needed resources to achieve sustainable economic

development and reduce human-made environmental risks (Jong-Wha, 2014 and Nevin, 2008). Regarding the Saudi context, in order to achieve the objectives of 2030 economic vision, the Saudi government needs to give the appropriate attention to the current educational policies because education is the hope for a better sustainable economy and future. (Allmnakrah & Evers, 2020).

However, it is not clear how Saudi Arabia, as a signatory state to both the SDGs and the Paris Agreement, can reconcile these aims with the government's national economic development strategies. The Kingdom has promised to take many steps, as a part of its green initiative for Vision 2030, and towards reducing CO₂ emission to 4% of the global emission (Saiyid, 2021). Nevertheless, it seems that the country has not made a meaningful progress on this issue. According to Braun (2020), regardless the rhetoric of Vision 2030, the Kingdom has very weak "CO₂ reduction targets" and that the country's "actions have failed to live up to the rhetoric". He adds that the Kingdom continues to block and hinder any dialogue about "fossil fuel subsidy removal that the G20 plans to implement by 2025" (par.1,5).

This study sought to better understand to what extent Saudi Arabia meaningfully aims at integrating sustainable development into its education planning as they are represented in national policy documents, as well as coverage of major written media outlets. To help doing so, this study was designed to probe these two types of documents (the policy documents, and the news articles) in order to draw a more complete picture of the actual plans and policies for integrate ESD into education.

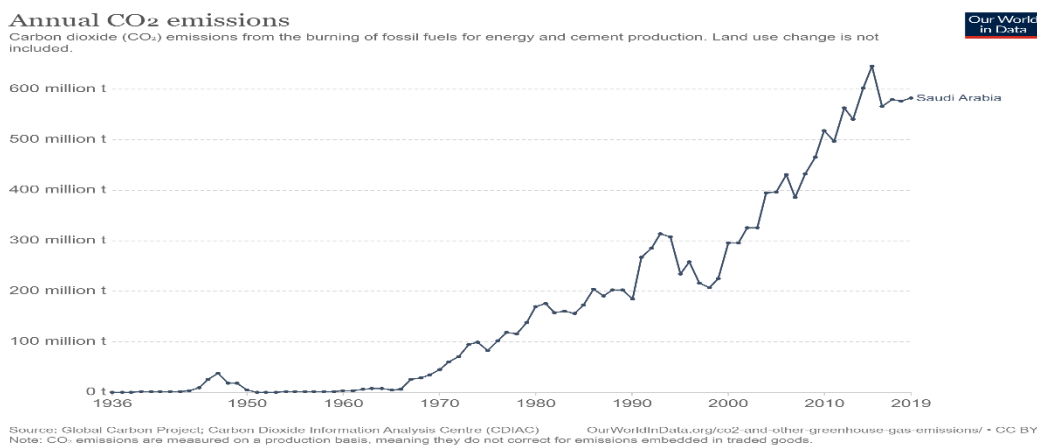
4.1.1 Climate Change, Sustainability and National Development Pathways in Saudi Arabia

As reported by the World Data Atlas (2019), since the booming of the oil-industry in the 1970s, the carbon dioxide (CO₂) emission has been gradually increasing with an average of annual rate of 5.85% where the (CO₂) emissions reached 614.6 million tonnes in 2019 (Kenoma, n.d., World Data Atlas section). Figure 1 illustrates Saudi Arabia's annual emissions since 1963. As the second largest oil-producer (Saudi Arabia, 2017 & Saudi Arabia, 2020), 87 % of the Saudi economy depends on the petroleum industry which approximately represents 42% of GDP (Gross Domestic Product) (Economy of Saudi Arabia, 2020, para 1). As a result of this industrial oil-dependency, the country's per-capita CO₂ emissions ranks the 9th in the world, at 17.5 metric tons per person in 2017, three times the global average (Ritchie & Roser, 2020). The country's

overall ecological footprint in 2017 is 5.7 global hectare per person, as reported by footprint network organization (2020). This high ecological footprint of Saudi Arabia indicates the high consumption of the natural resources, the low efficiency of using energy and the limited expansion of the country's biocapacity (Saab, 2012).

Figure 4

Saudi Arabia's Annual CO₂ Emissions (source: Ritchie & Roser, 2020)



At the same time, the fact that 98% of the Saudi land is a desert, where only 1.6% is available for agriculture, poses some of the greatest environmental and sustainability challenges for the country. These challenges are desertification, deforestation, and food and water security, not to mention poor waste management, overexploitation of natural resource, and loss of biodiversity (Taher & Hajjar, 2013 and Al- Dosary, 2016). Taher & Hajjar (2013) argue that these environmental challenges keep escalating, which requires an immediate consideration at the Saudi government side. However, Cooke (2019) states that the performance of Saudi Arabia concerning climate change is quite an embarrassment; being named one of the worst countries according to the climate change performance index. The Climate Action Tracker initiative seconded rating Saudi Arabia's commitments under the Paris Agreement as "critically insufficient", noting that "Saudi Arabia has put few climate policies in place, and diversification away from an oil-based economy has been slow" (Climate Action Tracker (Saudi Arabia), 2021, para.4). Cooke (2019) adds that Saudi Arabia has been among the countries which are attempting to deny acknowledging the threat of climate change as well as disrupting any actions to contain

it. He notes that Saudi spare no efforts to block dialogue in multilateral negotiations, and by repeatedly censoring discussions on fossil fuel subsidies domestically. Not only that, but it is also claimed that Saudi has a history of hindering any international efforts to “reduce carbon emission” for about 30 years (Fang and Lerner ,2019, para.9).

4.1.2 Vision 2030

In the face of these sustainability challenges, Saudi Arabia has recently implemented a national strategy for sustainable development, named Vision 2030. On the 25th of April, 2016, the Saudi’s 2030 Vision was launched under the supervision of Mohamed bin Salman (the current Saudi Crown Prince, Defense Minister and Head of the Council of Economic and Developmental Affairs) as a strategic road map to achieve a more sustainable future. This vision was inspired by and shared the same timeframe of the UN General Assembly’s 2030 Agenda and its Sustainable Development Goals (SDGs).

As expressed on the Vision 2030 official website (n.d):

Vision 2030 is a bold yet achievable blueprint for an ambitious nation. It expresses our long-term goals and expectations, and it is built upon our country’s unique strength and capabilities. It guides our aspiration towards a new phase of development- to create a vibrant society in which all citizens can fulfill their dreams, hopes and ambitions to succeed in a thriving economy. (par.3)

The groundbreaking agenda of Vision 2030 is built on three pillars: a vibrant society, a thriving economy and an ambitious nation- that draw on the country’s intrinsic strengths to help the Kingdom’s citizens realize their aspirations. (par.4) Based on these three pillars the vision has set 96 objectives to be achieved by 2030 (Vision 2030, n.d)

The vision aims at reducing the economic dependency on oil returns (Hubbard, 2016) and integrating the 17 SDGs into the state’s programs and plans with the partnership of all ministries, sectors (private and public), and organizations (governmental and non-governmental) (Alghamdi, 2017 as cited in Rana & Alayed, 2018). However, Alshuwaikhat & Mohammed (2017) report that

having not only having not only clear strategic plans but also a “comprehensive and periodic assessments” of performance of these plans remains a very critical step to ensure the achievement of the SDGs (Alshuwaikhat & Mohammed, 2017, p. 12).

4.1.3 Education as a Means for Sustainable Development in Saudi Arabia

By the end of the sixties and beginning of the seventies of the 19th century the term “Environmental Education” (EE) appeared with a focus on raising the awareness of the different types of pollution (Wals, 2017). The goal of this education was to create a more positive behavior towards the environment, and to mobilize a communal and organizational support for new “environmental legislation” (Wals, p.406, 2017). Then the “Sustainability Education” (SE) concept emerged in the late twentieth of the last century to offer a wider and more holistic approach than EE. SE targets the engagement of the society members in issues related to sustainability and sustainable development. Not only that, but it also broadens the understanding of the different, yet mutually interacting factors, such as economy and culture or ecology and environment. It also focuses on building a stronger knowledge as well of how our daily actions affect both the future of the earth and younger generations. However, some consider EE as part of ESD and vice-versa. In the documents under investigation for the purpose of this study, I have noticed that EE and ESD are used interchangeably as synonyms. Thus, for the goal of this paper, I will use ESD to refer to both ESD as well as EE.

The need to create quality educational curricula that care for our planet and address the issues of sustainable development is urgent (Gadotti, 2008). All societies should aim at achieving an education for sustainable life, and not only for sustainable development (Gadotti, 2008). It is believed that Education for Sustainable Development (ESD) plays a crucial role in empowering new generations with the required skills and knowledge to properly face and handle the current environmental challenges (The Arab Forum for Environment and Development (AFED), 2019).

The United Nations Economic Commission for Europe (UNESE) (2009) and UNESCO office in Beirut (2008) identified three phases for ESD implantation framework to encourage and help countries manage an effective implementation of ESD in all levels in their educational systems. The first phase is stocktaking and planning which includes “a review of current policies, legal and operational frameworks, financial mechanisms, and educational activities, and would also include identification of any obstacles or gaps” (UNESE, 2009, p. 23). The second phase is

creating and implementing an ESD policy, and the final phase is the assessment and evaluation of the ESD plan and its implementation ((UNESE, 2009 and UNESCO, 2008).

According to its First Voluntary National Review on Sustainable Development, delivered to the UN High-Level Political Forum in 2018, Saudi Arabia has always believed in the power of education giving all the needed attention and resources to utilize the education sector as an enabler. Therefore, a “Royal Order was issued to include the SDGs into education curricula” (The Council of Economic and Development Affairs, 2018, p23) to enable the achievement of the Saudi 2030 vision by raising awareness and understanding of the sustainability concepts and issues in the field of education.

Vision 2030 aims at integrating ESD into the public education curricula, beyond what is offered now in the public schools. The current Saudi K-12 education system presents concepts like the ecosystem, biodiversity, soil, and water, mainly—in the early grades—in the science curriculum, without providing any further practical activities. Other topics such as pollution, energy efficiency, climate change ...etc. are either not-well discussed or ignored altogether (Al-Dosary, 2016). Al-Dosary (2016) states that the Saudi public educational system lacks a clear ESD curriculum. He adds that even the curriculum that discusses some environmental issues, tends to be neither presented in a comprehensive manner nor cover the environmental challenges related, in particular, to the Saudi environment. He adds that there is no clear ESD implementation strategy.

The study aims at examining the clarity of the ESD integration roadmap into education curricula as part of the state’s Vision 2030. It seeks a better understanding of the integration plan, as presented in the Saudi policy documents and the written news media.

4.2 Methodological Framework

The aim of the investigation is to analyse, interpret and understand how Saudi Arabia presents its educational goal of integrating ESD into education curricula as part of the state’s Vision 2030. The aim can be reached through critically examining official policy documents published by Saudi government and the news articles featured in the Saudi press that discuss the government’s plans for integrating ESD. These two different types of documents are chosen to draw a more complete picture of the actual integration plan set by the Saudi government; on one hand, the policy documents can reveal the real undertaken plans and policies to integrate ESD

into education. On the other hand, the news coverage can reflect the government's related effort, if any, exerted for the global as well as the local community.

More specifically, the analysis in this study addressed the following question: How is the policy of integrating ESD in the Saudi educational system presented in the discourses of the Saudi government policy documents and the written media? In an attempt to answer this question, I looked at the occurrence of the concepts: sustainability, climate change, and sustainable development in the context of education in both type of investigated documents. These occurrences were examined to frame these concepts in education in Vision 2030.

In this paper I used critical discourse analysis (CDA) as a method to study how the texts under investigation "construct the representations" (Taylor, 2002) of the Vision 2030 framework and the timeline of the integration plan. In CDA, language is never viewed as a "neutral" entity, but as a carrier of the writer's values, attitudes and assessment and beliefs as well as a reflection of social practices. (Fairclough & Wodak, 1997). This makes CDA an approach that can be used effectively in examining education strategy and policy (Rodgers et al., 2016). In addition, Kalifah (2017) states that CDA is one of the most suitable methods that help in understating and examining the role of media, newspapers in particular, in shaping the public perception of educational reform and policy. As such, CDA serves as an appropriate method to particularly analyse both the policy documents and news articles. This method can examine how the language works in the Saudi context and its educational setting as a "social process" (Kress, 2011, p.205).

The analysis followed the steps proposed by Bowen (2009), which include coding of the documents under investigation, then naming themes to be able to understand the content and produce an analysis. The study explored the context in which each document was created to illustrate what each document attempted to present. CDA was employed in the analysis to inspect how these documents are positioned in relation to the Saudi Vision 2030 agenda and ESD implementation plan. The analysis interpreted the collected data using Fairclough's model (2003). Using the Fairclough's three stages of CDA, the analysis studied the language used in the discourse under investigation (stage one), the context in which the texts are produced, and the interpretation perceived by the researcher as an audience (stage two). In stage three, the texts were studied in light of the ideology of the Saudi leadership system as an absolute monarchy

4.3 Materials and Data Collection

Two types of documents were examined in relation to the Saudi 2030 Vision, namely official and unofficial ones. The official documents cover the policy documents published by governmental entities involved in the planning and/ or the execution of the ESD integration process such as: the Mistry of Education, the Mistry of Economy and Planning, The Council of Economic and Development Affairs, and Vision 2030 Committee. The unofficial sources are newspaper articles collected from three newspapers. The three chosen newspapers are Arab News, Asharq Al-Awsat and Al Riyadh Daily. These are discussed in more detail below.

4.3.1 Policy Documents.

Selected Documents: Six main official documents, presented in Table 3, published by different Saudi authorities were inspected. The documents were chosen based on their importance to the subject matter under investigation and on their alignment with Vision 2030 goals as they were published after April 25th, 2016 — when the Vision’s plans and objectives were first announced.

Table 3

The Selected Policy Documents

Document Title	Assigned Code	Publisher	Date
Education and Vision 2030	P1	Ministry of Education	Last modified 23/3/2019
National Transformation Program	P2	Vision 2030 Committee	Updated in 2018
1st Voluntary National Review Kingdom of Saudi Arabia	P3	The Council of Economic and Development Affairs (CEDA)	2018
The National Environmental Strategy	P4	Ministry of Water and Agriculture	2017
Vision 2030	P5	CEDA	2016

KSA Vision 2030 Strategic Objectives and Vision Realization Programs	P6	Vision 2030 Committee	n.d
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Background information on the selected documents

P1: Education and Vision 2030: This document was published on the Ministry of Education official website; it presents the 2030 Vision objectives and mission intended to be achieved through education. (Vision 2030, 2019).

P2: National Transformational Program: As explained on the Vision 2030 website: this program was launched in 2016 “to achieve governmental operational excellence and establish the necessary infrastructure to improve economic enablers and raise the standard of living through its eight strategic themes” (Vision 2030 Committee, 2021, para.3). The document describes the different initiatives of the program as well as it identifies the governmental bodies involved in the execution. It sets the “general principles, outcomes, ...expected impact” and “the strategic objectives, key performance targets and benchmarks...involved in the program (Vision 2030 Committee, n.d. p.7).

P3: First Voluntary National Review Kingdom of Saudi Arabia: This document was submitted by the Saudi government in 2018 to the United Nations High-Level Political Forum on Sustainable Development. It is a review report that assesses the “status of the SDGs, their alignment with Vision 2030 and actions taken” to ensure an effective application of the SDGs and achievement of 2030 Sustainable Development Agenda by the different Saudi entities-- governmental, and non-governmental ones (Saudi Arabia, 2018).

P4: The National Environmental Strategy: This is an executive report summary prepared by the Ministry of Environment, Water and Culture in 2017. It sets the ambition and the agenda for this environmental strategy that to be achieved by 2030. It provides a brief on the strategy comprehensive framework and the private/ public stakeholders involved in its implementation.

P5: Vision 2030: As mentioned above, Vision 2030 is a strategic framework that was proposed and announced by the current Saudi Crown Prince. The document explains the objectives, expected outcomes of the Vision in relation to three main themes: vibrant society, thriving economy and ambition nations (CEDA, 2016, p.7).

P6: *KSA Vision 2030 Strategic Objectives and Vision Realization Programs*: This document describes the strategic objectives of Vision 2030 plan. It highlights the development stages of the needed action plan; and identifies the realization programs implemented to achieve these objectives (KSA Vision 2030 Strategic Objectives and Vision Realization Programs, n.d).

4.3.2 Newspaper Articles.

Newspapers were chosen to be examined as a type of discourse that presents the ESD integration plan in Vision 2030 to the public audience differently from policy documents. As Fairclough (2003) states that different discourses provide different perspectives and views of the same issue. Exploring news articles helped me capture a wider picture of what the Saudi government attempt to publicize about their ESD integration plan in Vision 2030 to both the local and international communities.

The three top-ranked newspapers in Saudi Arabia, besides the Saudi News Agency (SNA), were chosen for examination (Top newspapers in Saudi Arabia web ranking, 2020). Arab News was ranked as number one in 2019 Saudi Arabian web newspaper, then comes Asharq Al-Awsat and Al Riyadh in the second and third places, respectively (Top newspapers in Saudi Arabia web ranking, 2019). Moreover, I choose to include SNA which is considered the official source of news about Saudi Arabia to many local and international news agencies.

- 1- Arab News was the first daily English-language newspaper in Saudi Arabia. It was established in 1975 and published by the Saudi Research & Publication Company (Arab News, n.d). It is considered the most widely read newspaper in English in Saudi Arabia and the third most widely read in the Gulf region (Arab News is most widely read English daily in the Arab world: Survey, 2015).
- 2- Al-Riyadh (newspaper) is a pro-governmental newspaper; was founded in 1965. It is based in, and named after the capital of Saudi Arabia, Riyadh (Al- Riyadh, n.d). Al-Riyadh is an Arabic language newspaper accompanied by an English version (Al Riyadh daily). Although it is published by a private company, Al Yamamah Press, and alleged to be an independent newspaper, it basically reflects the views of the current Saudi royal ruler, King Salman (Saudi Arabia: Media Market Description, 2008).
- 3- Finally, Asharq Al-Awsat (the Middle East in Arabic) is a “pioneer” regional and international newspaper based in London (Asharq Al-Awsat (n.d). It is the first “pan-

Arab” daily newspaper (established in 1978) and is owned by the Saudi Research and Publishing Company (About us, n.d). It promises its Arab readers around the world an “objective” and “in-depth” coverage and analysis of local Arab and international western events as well (About us, n.d). Yet, it is known for its support to the government and the Royal Family in Saudi Arabia (Fattah, 2005).

Collected Articles: Searches for news articles were conducted using the ProQuest International News stream database, which includes newspapers from outside of the USA and Canada. This database includes all the three selected newspapers. It provides archives since 2008, 2011 and 2015 of Arab news, Asharq Al-Awsat, and Riyadh daily respectively. It, also, contains archives of SNA since 2009. For the Arabic-language searches, I used the archives of the Arabic version newspapers, namely Al-Riyadh and Al-Sharq Al-Awsat, available on their websites.

In terms of search parameters, I used different combinations of search strings to account for all the articles that discuss, or simply mention terms related to education for sustainable development and Vision 2030.

In English, I used

- *"Sustainabl*" AND "Saudi Arabia" OR "Saudi" AND "Vision 2030" AND "Education"*
- *"Saudi Arabia" AND "Education" AND "Climate change"*
- *"Education" AND "Sustainable development" AND "Saudi Arabia"*
- *"Sustainabl*" "Education" AND "Saudi" AND "Vision 2030"*
- *" Environmental Education" AND "Saudi Arabia" OR "Saudi"*

In Arabic, I used

"السعودية" و " التعليم البيئي" و" رؤية 2030"
 "المملكة" أو "المملكة العربية" و"التعليم" و "التغير المناخي"
 "التنمية المستدامة" و "رؤية 2030" و "المملكة" أو " المملكة العربية"
 "السعودية و" التنمية المستدامة" و "التعليم"
 " التعليم" و"التنمية المستدامة" و "رؤية 2030"

I limited my search range date starting on August 1, 2016, to February 29, 2020, which reflects the date of the announcement of the Vision 2030 on the 25th of April 2016 until the start date of this research. August 1st was chosen as a start date parameter to exclude all the publicity about the launch of Vision 2030. Search results were then manually screened to exclude duplicates and any article that did not meet the inclusion criteria. A total of 27 articles were retained for the analysis. These were all in English, for the Arabic search I found only two articles that I considered as duplicate of English ones. Then, the same two coding cycles as policy documents were followed with the collected news articles. (See Appendices B and C)

4.3.3 Data Coding

Two cycles of coding were used in studying all documents under investigation (both policy documents and news articles).

Co-occurrence (first cycle of coding): In this cycle I focused on mechanically searching and identifying the co-occurrences of the term ‘education’ with the terms ‘sustainability’, ‘sustainable development’, ‘environmental’, ‘climate change’, or ‘SDGs’. This mechanical searching method was used with both policy documents and news articles, However, regrading news articles, I searched using both Arabic and English search terms to make sure that I capture the international as well as the domestic views.

Magnitude (second cycle of coding): This type of coding is usually used with data to show “its intensity, frequency, ...presence and evaluative content” (Saldana, 2013, p. 73). I adopted the rating scale shown in table 4 from Bieler et al. (2017) as a second cycle coding. This scale was used to indicate the presence or absence of details in terms of ESD integration policy in the educational system within Vision 2030 framework.

Table 4

ESD Integration Plan Scale

0	No mentioning of Education for Sustainable Development
1	Very general information about Education for sustainable development or sustainable development in vision 2030

2	Mentioning of very limited details about the plan used in integrating ESD in the educational system
3	Providing elaborate details like strategic plans or steps regarding the integration of ESD in Education

4.4. Results

4.4.1 Co-occurrences and Intensity of Engagement

The number of the co-occurrences of education with terms ‘sustainability’, ‘sustainable development’, ‘environmental’, etc. were very limited in both the news articles and policy documents. In policy documents only seven instances of co-occurrence were identified while only fourteen co-occurrences were found in the news articles. The seven co-occurrences in policy documents appeared in only two of them, namely the 1st Voluntary National Review Kingdom of Saudi Arabia (P3) and The National Environmental Strategy (P4). It seems that the news articles were more engaged in providing some details in relation to the ESD integration plan in Vision 2030. As shown in table 3, based on the second cycle of coding, three policy documents and news articles gave some limited details about the ESD integration plan. Moreover, only one news article was coded (3) as it provided more elaborate details of how to integrate ESD in classroom curriculum. On the other hand, none of the policy documents reached this level of engagement (see Appendices B and C to view the identified instances and their assigned engagement score).

Table 5

Number of Instances on the Integration Plan Scale

Engagement Score	Number of Policy Documents	Number of News Articles
0	1	0
1	3	8
2	3	5
3	0	1

4.4.2 Thematic Analysis

The identified co-occurrences were categorized into two main themes: actions taken by the government in order to integrate ESD into education as a part of Vision 2030, and actions taken by other non-governmental bodies. Table 4 shows that following grouping the collected instances under common themes, only few sub-themes had emerged through the analysis. The first sub-theme-- under governmental actions—was the national government policy, which cover initiatives and committees created by the different governmental bodies to encourage or assist in the implementation of ESD plans in education. The second sub-theme (ESD policy) referred to the mentioning of specific applicable strategic steps to integrate ESD into education in Vision 2030. For example, as stated in P3, part of the outcomes section of the environmental strategy is to “Raise environmental awareness throughout: the KSA society, generalize environmental education, innovate in environment and meteorology” (Ministry of Water and Agriculture, p.66. 2017). The third sub-theme consisted of specific examples and cases of ESD integration policy in private schools or universities. Theme Two compiled discussion of the non-governmental actions initiated by either youth organizations or/ and non-governmental organizations (NGO) to promote the importance and contribute to the implementation of ESD.

Table 6

Themes and Co-occurrence numbers Emerged from the Analysis.

Themes: Subthemes	Number of Co-occurrences	
	Policy Documents	News Articles
Theme 1: Governmental Actions	8	6
1. National government policy	4	3
2. ESD Policy	4	0
3. ESD integration case studies and examples	0	3
Theme 2: Non- Governmental Actions	2	2

It should be noted that the most commonly appearing themes and sub-themes in both the news articles and the policy documents involved governmental actions; that is to say a Saudi government's bodies create policies and / or committees to integrate ESD into education in Vision 2030. In addition, only news articles showed concrete examples or cases of ESD integration in practice. Conversely, only policy documents provided instances that contain guidance on specific steps for integrating ESD into Education. However, both news article and policy documents equally displayed instances of non- governmental actions promoting the integration of ESD into education in Vision 2030.

4.4.3 More about Education and Sustainability in 2030

Given the very small number of co-occurrences that were identified in the analysis, it seemed that ESD is not the main focus of educational policy under Vision 2030. There were other topics that appeared to be more central to the focus of Vision 2030 regarding education, as illustrated in Figures 5 and 6. According to these two charts, women's education and improving educational facilities were the two top issues discussed in relation to education in Vision 2030 in the news articles. Once Again, improving educational facilities came as the second-most-mentioned priority in education of Vision 2030 in the policy documents section.

Education for labour market needs was the first top-mentioned subject in Vision 2030 in the policy section, followed by higher education, child education and vocational education. Additionally, it was obvious through the analysis of the collected policy documents and news articles that only certain SDGs matter the most in tackling the concept of sustainability in Vision 2030. Urban sustainability, diversifying and creating a sustainable economy, creating a sustainable industrialization, promoting sustainable agriculture to create sustainable food availability are the most mentioned issues in the discussion of sustainability in 2030 Vision. In other words, Saudi government has given more attention to these goals SDG 1 (no poverty), SDG 8 (sustainable cities and communities), and SDG 8 (decent work and economic growth). On the contrary, responsible consumption and production and climate action, SDG 13 and 14 respectively, were the least mentioned in this discussion.

Figure 5

Other Education- Related Topics in in the Collected News Articles

1. Education for Women.

2 Improving Educational facilities,
and services.

3 Funding and Investment in
Education.

4 Special Education

5. Digitalized Education

6 Higher Education

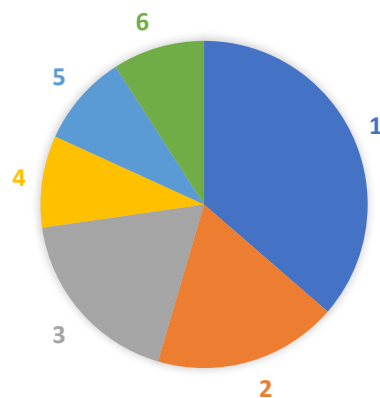


Figure 6*Other Education- Related Topics in Policy Documents*

1 Education for Labour Market

2 Improving Facilities, Services,
Scholarships (includes Teachers'
Education)3 Higher Education (includes women
education)

4- Child Education

5 Vocational Education

6 Traffic Education

7 Education Equality

8 Special Education

9 Digitalized Education

10 Education for National and Cultural
Heritage

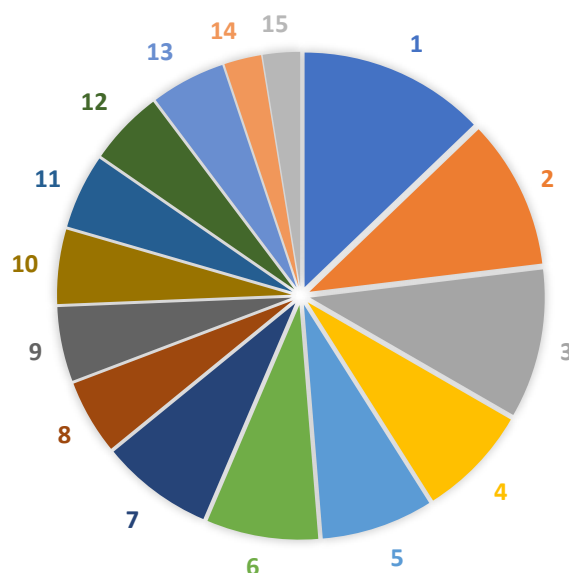
11 Education for Economic Growth

12 Reduce Illiteracy in Rural Areas

13 Funding Education

14 Financial Literacy Education

15 Drug Awareness

**4.4.4 Critical Discourse Analysis**

Fairclough's CDA of the identified instances showed that the type of language used, in the policy documents as well as the media articles, was very broad and lacked specificity. The used language was imprecise, in terms of word choice, and thus made it vague. Phrases such as 'raising awareness' and 'promoting/ improving people's lives' were mentioned frequently in the documents with reference to ESD. Repetition was another major observation, both within the same document and between the different documents; the same exact phrases are repeated with the same structure and even with the same wording. (See Appendices B and C)

In addition, the analyzed documents deployed different types of discourses. The use of authoritarian discourse was very evident, either directly as in “a Royal Order was issued to include the SDGs into education curricula” (CEDA, p.3 ,2018), or indirectly through the use of many references to royal sayings, quotes, and actions in the documents. For example:

In order to preserve the unique environmental character of the region, environmental sustainability laws and mechanisms will be developed. Natural resources will be conserved in accordance with the best practices and standards in place globally. Crown Prince of the Kingdom of Saudi Arabia Mohammad bin Salman. (P3, p.5)

“King Salman had specifically arrived in Madinah during the holy month to follow up on service delivery and review the implementation of important projects, which were vital for the region’s sustainable development.” (N9, par.2).

Reference to UN, UNESCO, Paris Agreement, and the global sustainable development agenda prevailed throughout the analysed documents, more frequently in the news articles. I called this the international discourse, for example:

Today, we see the Kingdom’s Vision 2030 objectives coincide with UNESCO’s mission through the Kingdom’s keenness to support educational, cultural, and scientific projects around the world because of its regional and international status, and its roles in strengthening relations between Arab and Islamic countries and the global agenda for sustainable development in the organizations educational. (N3, par.4).

“Saudi Arabia has adopted the goals of the landmark Paris accord of 2015 that sparked an important change in countries’ sustainable development agendas” (N11, par. 11).

“Asheikh stressed that Saudi Arabia and other countries in the region are committed to the fourth objective of the UNESCO 2030 agenda, and to the top priority policies in the Arab regions” (N5, par.2).

Finally, the collected policy documents displayed more use of the authoritarian discourse, while news articles had more of the international discourse.

4.5 Discussion

The focus of this study is to critically analyze some of the most important policy documents as well as written media about ESD integration plan into education in Vision 2030. These two different genres were chosen for the investigation to capture a more comprehensive description of the intended integration plan.

As mentioned in the Vision 2030 document that the Saudi government has stated its commitment to achieving environmental sustainability:

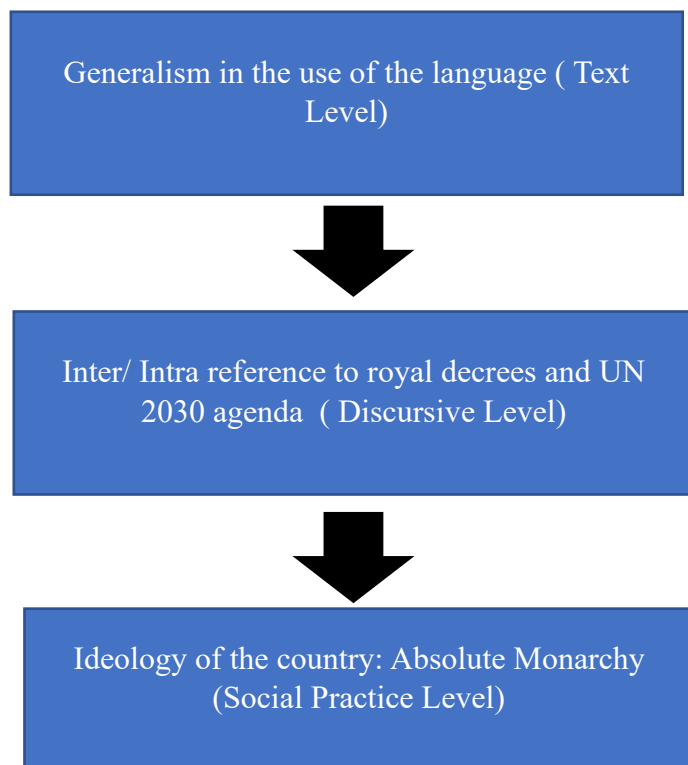
By preserving our environment and natural resources, we fulfill our Islamic, human and moral duties. Preservation is also our responsibility to future generations and essential to the quality of our daily lives. We will seek to safeguard our environment by increasing the efficiency of waste management, establishing comprehensive recycling projects, reducing all types of pollution, and fighting desertification. We will also promote the optimal use of our water resources by reducing consumption and utilizing treated and renewable water (CEDA, 2016, p. 23).

The three levels of the Fairclough's CDA model, as illustrated in figure 7, of the collected data showed that at the textual level the language was very general in presenting the roadmap taken to implement an ESD plan which led to a great vagueness on the strategic planning level. The details of how-to procedure to integrate ESD into the Saudi education is minimal. The absence of a comprehensive strategic plan with a pre-determined step was obvious. This vagueness in communicating the message of ESD integration policy convey the attitude of unseriousness of the government in carrying out or even simply creating an ESD integration plan.

The language used also reflected the norm and the culture of Saudi government leadership type, which is the ultimate Monarchy. This justifies the fact that since the very beginning of the Saudi educational system, in the 1950s, it has been strictly centralized and exclusively funded by the state. All schools must use the same a unified curriculum, "methods of instruction, textbooks,

evaluation techniques, and educational policy” (Saudi Education System, 2019, para4). Thus, any changes or reforms in the educational system should be initiated, funded, and supervised closely by the Ministry of education (Saudi Education System. 2019). Importantly, even when special committees were created to support or supervise any planned educational reform, the development was still very slow and uncertain (Al-Essa,2009, as cited in Tayan,2017). This was the case, for example, with Tatweer-- an educational development holding company created by the government from 2007 to 2013 to be “the executive arm of the Ministry of Education” and work with the Ministry of Education to comprehensively develop the educational system in the Kingdom of Saudi Arabia” (Tatweer, n.d., About us). However, according to Al-Essa (2009, as cited in Tayan, 2017) seven years after its establishment there was little of improvement in the education system and no achievement in relation to its set goals. According to Allmnakrah and Evers (2019), it seemed that Tatweer was a complete failure since it had not account for the voices and needs of the involved teachers and schools at the time. Allmnakrah & Evers (2019) described this situation as “It appears clear that unfortunately words like ‘partnership’ and ‘cooperation’ seem to be an anthem for the reformers” but not practically applied (p.31).

Based on Fairclough’s third level, given that Saudi Arabia is a state under authoritarian leadership, change should always initiated, supervised, and even excelled by the government only. As it was the case with the above-mentioned example, Tawteer, changes sometimes are not meant to be realized, and they are only superficial. I see that this might be the case here with the ESD integration plan into Vision 2030, it seemed that the Saudi government only publicize concepts such as ‘sustainability’, ‘sustainable future’ and ESD in Vision 2030 as an “anthem for the reformers” (Allmnakrah and Evers ,2019, p.31). Yet, in reality, the analysis indicated no clear or actual comprehensive plan of how the integration will be carried out.

Figure 7*CDA Interpretation of the Analysis*

In sum, the findings of this study suggests that Vision 2030 does not consider ESD as a main tool to achieve sustainability and preserve the environment. The analysis revealed that there were very limited instances of the detailed discussion of ESD integration in Vision 2030 in the investigated documents. The absence of this discussion and the lack of detailed descriptions of the role of ESD in achieving the educational and sustainability goals of Vision 2030 pointed to the fact that the government is not generating enough content about their ESD integration policy. This made it harder to the media to present a very detailed understanding of this integration plan.

4.6 Conclusion

It is well-established that climate change and environmental degradation pose major threats to development on both the global scale, and nationally in countries like Saudi Arabia. These urgent environmental challenges call on all countries to take actions, as reflected in international agreements like the SDGs and the Paris Agreement. Integrating Education for sustainable development into education is consistently a major component of these recommended actions.

It is very true that Saudi Arabia have policy documents that seemingly discuss the concept of sustainability in Vision 2030 in alignment with the UN sustainable developments agenda. Nevertheless, ESD was not a major component of this discussion as it might be expected. The information given on ESD in these documents were limited, and superficial; and the prime focus in these documents were on other- education related topics such as: education for labour market, improving facilities, services and scholarships, higher education (including women's education), child Education, vocational education, and even traffic education. The news articles focused on women's education which could be seen as a response to the criticism made internationally about Saudi Arabia and gender-based discrimination on access to education (Saudi Arabia: Give women equal opportunities to education, 2011& Alsuwaida, 2016).

Also, much of what the Saudi government was presenting in terms of discourse about sustainability and the SDGs is on SDG4, which addressed issues such as improving the efficiency, effectiveness and the quality of education and the teaching and learning processes. (Towards Saudi Arabia's sustainable tomorrow, 2018). According to the Arab News (2019) the Saudi UN envoys have stressed the full commitment of government, as part of Vision 2030, to fully implement the Paris Agreement to preserve the environment by "strengthening measures on climate change" (Saudi Arabia committed to achieving SDGs, para.4). Although Saudi publicised its interest in sustainability and sustainable development actions and goals in the analyzed data, it seemed that the government focuses on certain SDGs and ignore others.

A recent study by Huang et al. (2021) concludes that the Taiwanese government promote ESD initiatives and program as a way to achieve other political gains other than an actual implementation of ESD. The case may be the same here. It seems that what the Saudi government doing is to publicize words more than taking real actions.

Chapter 5: General Conclusions and Recommendations

This study aimed to investigate the plan for integrating ESD into the Saudi education system in Vision 2030. CDA was used as an analytical lens to scan the presentation of this plan in the government's official policy documents and news articles.

The thematic analysis of the selected policy documents and the collected news articles show different results in terms of the focus and details. The focus of the sampled news articles was more on the NGOs that will provide support to the government in their ESD integration policy plan in Vision 2030; as well as on the cases or examples where ESD is already integrated in education in the private schools/ universities. On the other hand, the focus of the policy documents was on initiatives and committees created by the government to support the ESD integration policy plan in Vision 2030. However, both types of documents have provided very little details about how this integration will be carried out.

The CDA show a fair amount of repetition and vagueness in the use of the language at the text level. The repetition, in particular, was obvious across all documents and created rather inter-referencing between the policy documents and the news articles. Additionally, there was a use of the same royal decree in both type of documents. Consequently, all this created uncertainty and skepticism of what the strategic plan taken to integrate ESD in education in Vision 2030.

I used the third level of Fairclough's model to help me explain my results. It seems that ideology of the country and the education system plays a big role in providing this very vague plan of integration. Saudi education is strictly centralized system, where micromanaging is always applied in all type of reforms. This education system is part of a very authoritarian governing atmosphere where "royal decrees can overrule any judicial or administrative decision" (Politics of Saudi Arabia, 2020, para 3). This lack of clarity in the ESD integration plan might reflect the ideology of the country as it might seem hard for a micromanaging state to have a comprehensive strategic plan. On the other hand, the excessive referencing to

Another explanation is that this result echoed the Saudi stance of the climate change crisis. According to Fang and Lerner (2019) Saudi Arabia is in denial of the global warming

effects and climate change crisis, not only that but also it keeps “pushing back” and looping against any global move that puts any constraints on the oil- production industry (par.15).

It can be argued that this result points to the fact that the government is less interested educational reforms in general, and the ESD integration plan in particular. It is believed that the prime focus of Vision 2030 is to the construction and execution of mega-large projects. According to Grand & Wolff. (2020) for the Saudi government to be able to achieve the goals and objectives of Vision 2030, it “should turn away from megaprojects and a completely top-down approach and make serious commitments to education and human capital development” (p.3).

Recommendations

There is an obvious need for a clear and comprehensive strategic plan for the implementation of ESD integration strategy into education in Vision 2030. Not only that but also having a comprehensive national periodic and systematic evaluation of the implementation of SDGs goals is crucial to ensure that Vision 2030 has the adequate “balance in the achievement of environmental, social and economic goals” (Alshuwaikhat & Mohammed, 2017, p. 15). The Saudi education system can make use of many available resources that can help in creating a comprehensive ESD integration strategic plan, such as: UNESCO for the integration of ESD into Education (UNESCO, 2008). There are few private schools and universities examples of successful ESD integration in the Saudi education system which can be used to guide an ESD integration plan.

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Appendices

Appendix A

The Collected policy documents, their full citations and assigned codes.

Table 7

Citation of the Collected Policy Documents

Document Title and	Assigne d Code	Citation
Education and Vision 2030	P1	Ministry of Education. (2019). <i>Education and Vision 2030</i> . Retrieved 12 January from https://www.moe.gov.sa/en/Pages/vision2030.aspx
National Transformati on Program	P2	Vision 2030 Committee. (2018). <i>National Transformation Program</i> . http://www.arabia-saudita.it/files/pages/2014/05/ntp_en.pdf
First Voluntary National Review Kingdom of Saudi Arabia	P3	The Council of Economic and Development Affairs. (2018). <i>First Voluntary National Review Kingdom of Saudi Arabia</i> . https://bit.ly/3hjYNzs
The National Environment al Strategy	P4	Ministry of Water and Agriculture. (2017). <i>The National Environmental Strategy</i> . https://rb.gy/u07u4m
Vision 2030	P5	The Council of Economic and Development Affairs. (2016). <i>Vision 2030</i> . https://www.vision2030.gov.sa/media/rc0b5oy1/saudi_vision203.pdf

KSA Vision 2030 Strategic Objectives and Vision Realization Programs	P6	Vision 2030 Committee.(n.d). <i>KSA Vision 2030 Strategic Objectives and Visio Realization Programs</i> . Retrieved 20 March 2021 from https://bit.ly/2DcYIyM
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Appendix B

Collected articles their coding and full citations

Table 8

Collected Articles, Full Citations and Number of Co-occurrences

Article title and citation	Assigned code	Number of Co-occurrences
Custodian of the Two Holy Mosques Chairs Cabinet's Session. (2018, December 4). <i>Al Riyadh</i> . https://bit.ly/3gPpDC9	N1	0
UNESCO NGO Global Forum to be hosted in Saudi Arabia by MiSK.(2017, April 12). <i>Al Riyadh</i> . https://bit.ly/35PsvZu	N2	2
Saudi Arabian delegation holds UNESCO reception in Paris. (2019, November 14). <i>Arab News</i> . https://www.arabnews.com/node/1584216/saudi-arabia	N3	1
Vision 2030 will take Saudi Arabia into the future, standing on the foundations of the past. (2017, September 23). <i>Arab News</i> . https://www.arabnews.com/node/1165901/saudi-arabia	N4	0
We seek to improve quality of teaching, Saudi education minister tells UNESCO meeting.(2019, November 14). <i>Arab News</i> . https://www.arabnews.com/node/1583821/saudi-arabia	N5	0

Saudi Arabia determined to meet development goals Vision 2030, UN SDGs. (2018, October 18). <i>Arab News</i> . https://www.arabnews.com/node/1692721	N6	0
MiSK Global Forum to explore youth entrepreneurship, innovation. (2016, November 14). <i>Arab News</i> . https://www.arabnews.com/node/1010416/saudi-arabia	N7	1
Campaign launched against plastic pollution in Saudi Arabia. (2018, November 6). <i>Arab News</i> . https://www.arabnews.com/node/1405981/saudi-arabia	N8	1
Big education push for Madinah. (2016, June 24). <i>Arab News</i> . https://www.arabnews.com/node/944251/saudi-arabia	N9	1
Awareness drive to update Saudi students over water scarcity. (2018, August 31). <i>Arab News</i> . https://www.arabnews.com/node/1364871/saudi-arabia	N10	2
UNESCO forum concludes with an eye on sustainable development. (2017, May 5). <i>Arab News</i> . https://www.arabnews.com/node/1094676/saudi-arabia	N11	3
Saudi Arabia confirms its achievement of UN sustainable goals. (2017, May 29). <i>Arab News</i> . https://www.arabnews.com/node/1106786/saudi-arabia	N12	0

Vision 2030's alignment with UN goals bodes well for future. (2018, October 18). <i>Arab News</i> . https://www.arabnews.com/node/1389701	N13	1
Saudi girl scouts attend 24th US jamboree. (2019, July 31). <i>Arab News</i> . https://www.arabnews.com/node/1533706/corporate-news	N14	1
Saudi Arabia committed to achieving sustainable development goals, says envoy to UN. (2019, July 21). <i>Arab News</i> . https://www.arabnews.com/node/1528436/saudi-arabia	N15	0
Saudi Arabia 'meets key goals in sustainable development'. (2018, April 15). <i>Arab News</i> . https://www.arabnews.com/node/1285346/saudi-arabia	N16	0
KSA's first national review of sustainable goals. (2018, July 14). <i>Arab News</i> . https://www.arabnews.com/node/1338971/saudi-arabia	N17	0
Saudi Arabia's Misk partners with UN on youth empowerment. (2018, September 26). <i>Arab News</i> . https://www.arabnews.com/node/1378091/saudi-arabia	N18	1
A Saudi school with top marks for sustainability. (2019, April 04). <i>Arab News</i> . https://www.arabnews.com/node/1477426/saudi-arabia	N19	3

Saudi Arabia: Good Quality Education Is Core for Achieving Sustainable Development. (2017, October 11). <i>AlSharq Al-Awsat</i> . https://bit.ly/3gR36VR	N 20	1
Custodian of the Two Holy Mosques Chairs Cabinet's Session. (2019, November 19). <i>Saudi Press Agency</i> . https://bit.ly/2TSpOUp	N21	1
Significance of Sustainability and Sustainable Development Goals (SDGs) in the Kingdom of Saudi Arabia. (2018, July 13). <i>Saudi Press Agency</i> . https://bit.ly/3qkia16	N 22	0
Saudi Press: KSA's Vision 2030 In Education. (2019, August 1). <i>Saudi Press Agency</i> . https://bit.ly/3j7OOI7	N 23	0
Crown Prince addresses the UN general assembly 3 New York. (2016, September 21). <i>Saudi Press Agency</i> . https://bit.ly/3xQCZUm	N 24	0
Saudi Press: Saudi Arabia and Sustainable Development Goals 2030. (2020, February 19). <i>Saudi Press Agency</i> . https://bit.ly/2UtfFOd	N 25	1
Kingdom of Saudi Arabia's address at Economic and Social Council Forum. (2017, May 28). <i>Saudi Press Agency</i> . https://bit.ly/3zSvSwy	N 26	0
Kingdom confirms that it will always work in partnership with UN and international community to achieve 2030 Sustainable Development Goals. (2020, February 14). <i>Saudi Press Agency</i> . https://bit.ly/3gZfeD0	N 27	0

Appendix C

The identified instances, and the assigned engagement score in policy documents and news articles.

Table 9

Identified Instances (Highlighted) in Policy Documents and the Integration Plan Scores

P #	Identified Instances	The assigned score
P3	A Royal Order was issued to include the SDGs into education curricula. (p.24).	1
	Since the official launch of the 17 SDGs and the 2030 Agenda for Sustainable Development , Saudi Arabia has been keen to build national frameworks to achieve the goals. SDG 4 features prominently in the Ministry of Education strategy and in related initiatives and projects (p.25).	0
	The following is an overview of key efforts by the Ministry of Education to implement SDG 4: A National Committee has been set up to track the implementation of SDG 4. The committee leads efforts, develops plans and implements initiatives. It also supports competent agencies in implementing other education –related sustainable development goals (p.53).	1
	Structure of Education Curricula Standard: Curricular Priority: <ul style="list-style-type: none"> - Responsible citizenry - Kingdom’s stature and leading role - Sustainable development 	1

	<p>Values:</p> <ul style="list-style-type: none"> Responsible citizenry - Kingdom's stature and leading role - Sustainable development (p. 59) . 	
P4	<p>Strategic Initiatives: (of (the National Environmental Strategy)</p> <ul style="list-style-type: none"> - Raising Environmental Awareness in the Kingdom - Development of Environmental Education - Development of a Reliable Network of Environmental NGOs - Development and Roll Out of an Environmental R&D Strategy - Operational Excellence in Biodiversity and Wildlife Research Centers (p. 63). 	2
	<p>Main outcomes from the strategy (the National Environmental Strategy)</p> <ul style="list-style-type: none"> - Awareness, Education, Innovation - Raise environmental awareness throughout: <ul style="list-style-type: none"> - the KSA society - Generalize environmental education - Innovate in environment and Meteorology. (p.64) 	2
	<p>Roadmap for strategy implementation:</p> <p>1-Build the foundation of the environment sector: (Year 1 till Year3)</p> <p>Implement the initiatives aiming to:</p> <p>apply the new institutional setting, develop comprehensive environmental regulations and meteorology regulations, enable environmental compliance monitoring, build an environmental database and define the baseline, restructure work procedures, develop human capabilities, adopt state-of-the-art technologies for environmental monitoring, initiate the development of KSA's wildlife and vegetation cover, raise awareness, drive environmental education, and enhance meteorological services</p> <p>(p.66)</p>	2

Table 10

Identified Instances (Highlighted) in News Articles and the Integration Plan Scores

N #	Identified Instances	The Assigned Score Value
N2	Through keynote speakers, panel discussions and breakout sessions, the forum will focus on skills and knowledge necessary to prepare young people to live in globalized societies, youth volunteering at local and international level, youth, media and new technologies: enabling critical thinking and skills for young people's active participation, social networks: are they an asset or risk, education for sustainable development provided by youth organizations, including climate change, protection and conservation of cultural heritage: youth engagement in the protection and conservation of tangible and intangible cultural heritage.	2
N3	Today, we see the Kingdom's Vision 2030 objectives coincide with UNESCO's mission through the Kingdom's keenness to support educational, cultural and scientific projects around the world because of its regional and international status, and its roles in strengthening relations between Arab and Islamic countries and the global agenda for sustainable development in the organization's educational, cultural and scientific fields, Al-Asheikh said in his speech	1
N7	the two-day forum will focus on entrepreneurship and innovation issues covering 16 areas including education , leadership and planning, human development, sustainable development , PR, media,	1

N8	<p>MiSK Global Forum (MGF 2016), an initiative to empower the Arab youth to become global citizens and to lead the way for the sustainable development of the Kingdom will open here on Tuesday</p> <p>Al-Humaidan said: “Jeddah University accords a great deal of attention to environmental education as a promoter of quality of life.”</p>	2
N9	<p>Minister of Education Ahmed Al-Issa said King Salman had specifically arrived in Madinah during the holy month to follow up on service delivery and review the implementation of important projects, which were vital for the region’s sustainable development.</p>	1
N10	<p>The NWC signed a Memorandum of Understanding (MoU) with Tatweer for planning an awareness campaign and educational program to create a water conservation culture among Saudis</p> <p>Al-Zughaibi said the partnership will succeed in achieving the aims and objectives of this initiative. “There will be an educational program for preventing counter-productive water habits,” he added.</p>	2
N11	<p>Addressing forum participants, Ahmad bin Muhammad Al-Essa, minister of education, said that Saudi schools and universities have made direct initiatives that made a difference in supporting the educational process, while depending on individual efforts filled with ambition to achieve a bright future for the present and future generations.</p> <p>Al-Essa noted the positive role of these initiatives that coincide with the ministry’s plans and policies that focus on issues that are of interest to the society such as the environment, water resources, desertification and sustainable development.</p> <p>He said the environment of education is adequate to research many of the issues that are of concern to the international community. He expressed the ministry’s readiness to cooperate with NGOs in seeking solutions to the issues related to environment and sustainable development within the framework of the Kingdom’s efforts in that regard.</p>	2

N13	<p>Additionally, the Kingdom has always focused on the development of education, so a royal order was issued to bring the SDGs into education curricula. Work is in progress toward this end, led by the Ministry of Education, in partnership with public and private stakeholders.</p>	1
N14	<p>We are pleased to see contingents from Saudi Arabia, the GCC, and around the world participating in the jamboree, and for the support of Alwaleed Philanthropies to engage young people in education for peace and sustainable development</p>	1
N18	<p>The Saudi-UN partnership aims to reach and mobilize about 50 million young people around the world in support of the sustainable development goals (SDG), via a series of meetings and forums as part of the UN's Strategy for Youth.</p> <p>The UN's SDG program is a set of targets for future development, ranging from the elimination of hunger and poverty, through education and gender equality, to action on climate change and energy. It coincides with Saudi Arabia's own Vision 2030 strategy in many respects.</p>	2
N19	<p>From solar panels to recycling water, a Saudi school is instilling vital sustainability practices in its students from a young age.</p> <p>uses the approach of an "integrated education for sustainability, As such, we've established a student-led committee that's empowered to implement sustainability strategies, supported by a ring-fenced budget that students themselves are responsible for using."</p> <p>arlier this year, a group of five Year 11 students came up with an innovative proposal to create sustainable energy sources for BISR. Their entry was chosen, as part of the Zayed Sustainability Prize, in the top 18 out of 2,101 worldwide entries.</p> <p>There are in fact several sustainability projects rather than just one, as the students are working on several fronts including recycling, energy, water and biodiversity</p>	3

N 20	Ghunaim said that Saudi Arabia pays great attention to education and the provision of good quality of education for all as a basis for improving people's lives and achieving sustainable development .	1
N21	Minister of Media, Turki bin Abdullah Al-Shabanah, said in a statement to the Saudi Press Agency that the Cabinet pointed to the Kingdom's affirmation at the meeting of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris, of its commitment with other countries in the region on the agenda of 2030 UNESCO, through the fourth goal of sustainable development in education, ...	1
N 25	Saudi Cabinet affirmed yesterday the importance of achieving the sustainable development goals 2030 for a prosperous present and bright future for next generations, reviewing Saudi Arabia's providing of solutions in housing programs, education and healthcare..	1

Note: Only instances with score 1 or higher are included in this table.