

**Urban Transportation Issues of the Poor in
South Asia**
Case Study: Islamabad, Pakistan

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Executive Summary

The purpose of this research was to understand the urban transportation issues of the poor in South Asia by conducting a literature review and an ethnographic study of daily travel experiences of the poor in Islamabad, Pakistan. In the South Asian context, the urban poor can be defined as citizens residing in dilapidated conditions and living under or a little over the minimum local wage. Depending on the mode of transportation used and length of distances travelled, the poor face different challenges with respect to urban transportation. Commonly used modes of transportation by the poor in South Asia are walking, cycling, auto-rickshaws, mass public transit, paratransit and motorcycles.

The literature review of this study showed that walking by the urban poor is primarily used as a transportation mode out of compulsion rather than out of choice. Citizens with the lowest levels of income lack the financial resources to access local transport or to purchase motorcycles. Walking is also characterized as being unsafe during the night, more for women than for men, and limited public finance is allocated to make walking more convenient. Like walking, cycling is also an inconvenient mode of transportation in South Asia although the urban poor must use it to access employment opportunities. Exposure to heavy vehicular traffic make cycling a dangerous mode of transport, reflected by the fact that a large majority of fatal accidents on roads involves cyclists. Researchers also attribute the under-usage of cycling to the lack of segregated cycling tracks.

In South Asian urban areas, especially cities with more than five million inhabitants, auto-rickshaws serve as 'first and last mile connectivity' and 'door-to-door alternatives to private vehicles'. Auto-rickshaws are particularly used in areas where public transport is lacking, such as urbanized villages, old congested areas and illegal colonies. Similarly, paratransit services are used to connect places that are not connected by mass public transit.

Mass public transport is a necessity for the urban poor in South Asia although its use comes with numerous issues. Several studies show that mass public transport is often unreliable, overcrowded, over-priced, offers infrequent service and reaches limited destinations. To overcome the challenges associated with the use of mass public transport, the urban poor are increasingly resorting to investing in motorcycles as they are becoming more affordable than ever before. The increasing use of motorcycles can be seen in cities such as Islamabad, the case study area of this research, especially since the city was designed for motorized transport.

The ethnography on the daily travel experiences of the poor in Islamabad highlighted that over fifty percent of households were using motorcycles as one of their modes of transportation. For motorcyclists, minor collisions with other vehicles or road infrastructure were described as common occurrences and even major accidents did not act as disincentives for them to stop using motorcycles for daily commuting. Accessing employment opportunities to make ends meet was the participants' primary motivation to use any mode that they used. In general, participants were far less concerned about the state of urban transportation in the city than they were concerned about issues such as the poor quality of the education system, lack of affordable and formal shelter, lack of access to electricity, natural gas and water, unemployment, low wages and unhygienic surroundings. They referred to travelling as a compulsion even if a transportation mode was highly inconvenient to use.

The participants of the ethnography were mostly slum dwellers and low-wage earners residing in subsidized government housing in sector G-8 of Islamabad. They complained of having limited access to the recently implemented Bus Rapid Transit (metro bus), poor quality and unreliability of local transport services besides the metro, reckless driving by van drivers, limited destinations accessible by public transport, high costs of using taxi services and risk of harassment while walking and on public transport.

Unlike walking, cycling, public transit (BRT or other), motorcycles and taxi services, paratransit was one of most appreciated modes of transportation by all the participants who were using it. As compared to non-motorized modes of transport, paratransit offered the advantage of taking participants to their destinations in a shorter amount of time with limited exposure to dangerous traffic. Paratransit was also better than other motorized transportation alternatives for the poor as it was more demand responsive, reliable in terms of arriving on time and was practically free of cost. A limitation associated with the use of paratransit was that it was only offered to government employees, students of public universities, schools or colleges, and in some cases, to employees working for private organizations. Informal wage labourers did not have the option of using paratransit as an alternative to public transit.

Participants made a number of recommendations to improve the transportation system for the urban poor and to address other critical issues neglected by the government. Following are their recommendations with respect to urban transportation:

- 1) More frequent and improved quality of local transport
- 2) Greater access to services like the Bus Rapid Transit (metro bus)
- 3) More walking paths to reduce exposure to vehicular traffic
- 4) Adjustment of local transport fares to benefit both local transport operators and passengers
- 5) Public education on traffic laws and drivers' training

Sommaire Exécutif

Le but de cette recherche était de comprendre les problèmes de transport urbain des personnes défavorisées en Asie du Sud. Cela a été fait en menant une revue de la littérature et une étude ethnographique des expériences de voyages quotidiennes de ces personnes à Islamabad, au Pakistan. Dans le contexte sud-

asiatique, les personnes défavorisées urbaines sont des citoyens résidant dans des conditions délabrées et qui vivent sous ou un peu au-dessus du salaire minimum local. Selon le mode de transport utilisé et la longueur des distances parcourues, ces personnes font face à différents types de défis. Les modes de transport les plus couramment utilisés par elles en Asie du Sud sont la marche à pieds, le vélo, les auto-rickshaws, le transport en commun, le transport adapté et la moto.

La revue de la littérature a montré que la marche à pieds est principalement utilisé comme un mode de transport par contrainte plutôt que par choix. Les citoyens à bas salaires n'ont pas les ressources financières nécessaires pour accéder aux transports locaux ou pour acheter des motos. La marche à pieds est également un mode de transport dangereux à utiliser pendant la nuit, s'autant plus pour les femmes que pour les hommes. En plus, des finances publiques limitées sont allouées pour rendre la marche plus commode. Comme la marche, le cyclisme est aussi un mode de transport peu commode en Asie du Sud, même si les citoyens défavorisés doivent l'utiliser pour accéder à des opportunités d'emploi. L'exposition au trafic de véhicules lourds rend le vélo un mode de transport dangereux, reflété par le fait qu'une grande majorité des accidents mortels sur les routes impliquent des cyclistes. Les chercheurs attribuent également le sous-usage du vélo à l'absence de pistes cyclables isolées.

Dans les zones urbaines d'Asie du Sud, en particulier les villes de plus de cinq millions d'habitants, les auto-rickshaws servent de «connectivité du premier au dernier kilomètre» et de «porte-à-porte alternatives aux véhicules privés». Les auto-rickshaws sont particulièrement utilisés dans les zones où il y a un manque de transport en commun, tels que les villages urbanisés, les anciennes zones congestionnées et les colonies illégales. De même, les services de transport adapté sont utilisés pour relier des endroits qui ne sont pas reliés par le transport collectif. Le transport en commun est une nécessité pour les citoyens pauvres en Asie du Sud bien que son utilisation comporte plusieurs problèmes. Plusieurs études montrent que le transport en commun est souvent peu fiable, surpeuplé, trop cher, offre peu

de services et atteigne des destinations limitées. Pour surmonter les défis liés à l'utilisation du transport collectif, les personnes défavorisés urbains utilisent de plus en plus de motos, car ils deviennent plus abordables. L'utilisation croissante de motos peut être vu dans des villes comme Islamabad, la ville choisie pour l'étude de cas pour cette recherche, ceci surtout parce que la ville a été conçue pour le transport motorisé.

L'ethnographie sur les expériences de voyage quotidiennes des pauvres à Islamabad a mis en évidence que plus de cinquante-cinq pour cent des ménages utilisaient les motos comme un de leurs modes de transport. Pour les motocyclistes, les collisions mineures avec d'autres véhicules ou avec l'infrastructure routière ont été décrites comme des événements courants. Même les accidents majeurs n'ont pas agi comme des dissuasifs pour que les gens cessent d'utiliser la moto pour les déplacements quotidiens. L'accès aux possibilités d'emploi pour joindre les deux bouts était la motivation principale des participants à utiliser n'importe quel mode de transport. En général, les participants étaient beaucoup moins préoccupés par l'état du transport urbain dans la ville que par la mauvaise qualité du système éducatif, le manque de logements abordables et formels, le manque d'accès à l'électricité, au gaz naturel et à l'eau, le chômage, les bas salaires et l'environnement insalubre. Pour les participants, les déplacements quotidiens étaient une nécessité malgré les inconvénients liés à l'utilisation d'un mode de transport.

Les participants de l'ethnographie étaient, pour la plupart, des habitants des bidonvilles et des bas salariés résidant dans des logements subventionnés dans le secteur G-8 d'Islamabad. Ils se sont plaints d'avoir un accès limité au Bus Rapid Transit récemment mis en place, de la mauvaise qualité et du manque de fiabilité des services de transport locaux en dehors du métro, de la conduite imprudente par les conducteurs de fourgonnettes, des destinations limitées qui sont accessibles par le transport en commun, le risque d'harcèlement pendant qu'ils marchent ainsi que dans le transport en commun. Contrairement à l'usage de la marche, le vélo, le transport en commun (BRT ou autres), la moto et les services de taxi, le transport

adapté était l'un des moyens de transport les plus appréciés par tous les participants qui l'utilisaient. Comparativement aux modes de transport non motorisés, le transport adapté offrait l'avantage de prendre les participants à leur destination dans un laps de temps plus court avec une exposition limitée au trafic dangereux. Le transport adapté était également meilleur que les autres modes de transport motorisés pour les personnes qui se trouvent dans des conditions non privilégiées, car il était plus sensible à la demande, fiable en termes d'arriver à l'heure et était pratiquement gratuit. Une restriction liée à l'utilisation du transport adapté était qu'il était offert qu'aux employés du gouvernement, aux étudiants des universités publiques, des écoles ou des collèges et, dans certains cas, aux employés travaillant pour des organisations privées. Les travailleurs salariés informels n'avaient pas l'option d'utiliser le transport adapté comme alternative au transport en commun.

Les participants ont formulé un certain nombre de recommandations pour améliorer le système de transport pour les citoyens pauvres et pour aborder d'autres questions cruciales négligées par le gouvernement. Voici leurs recommandations concernant le transport urbain:

- 1) Qualité plus fréquente et améliorée du transport local
- 2) Un meilleur accès aux services comme le Bus Rapid Transit (le metro bus)
- 3) Plus de sentiers pédestres pour réduire l'exposition au trafic routier
- 4) Adaptation des tarifs de transport locaux au bénéfice des opérateurs locaux de transport et des passagers
- 5) Éducation publique sur les lois de la circulation ainsi que la formation des conducteurs.

1. Introduction & Motivation

The first time I ever sat on the back seat of a cycle was at the age of eight. Kashif, Guddo Baji's son, was taking me from C-type housing, where I lived, to the Laal Quarters in the Pakistan Air Force Base Islamabad (E-9). It was *Eid-ul-Fitr* and my first time sitting on a cycle for a purpose other than recreation. I was going to visit Guddo Baji's home to put on henna and to see how her family celebrated *Eid*.

The Laal Quarters were a place of residence for the low-income working class families of sector E-9. Their primary modes of transportation were walking and cycling. Guddo Baji, like many other women in her compound, would travel to work on the back seat of her son's or husband's bicycle. Or if you were as bold as Sadia Baji and had a drug-addict for a husband, you could be riding a cycle to work by yourself, despite being a woman.

Sitting on the back seat of a cycle being a woman in South Asia means you are probably also dressed in either shalwar qameez, a saree, lehnga skirt or an abaya. Along with the risk of getting your attire entangled into the wheels of your ride, you sit sideways with your two feet dangling towards the same side. Every time the cyclist makes a turn, you realize how sitting sideways is actually creating enough imbalance for the cycle to tip over. If you're lucky enough to be cycling on practically empty and neatly carpeted roads in E-9, tipping over your cycle can be less fatal than falling over in a busy boulevard in Saddar, Rawalpindi. Fortunately or unfortunately, cycling is a captive mode of transportation for several thousand inhabitants of South Asia. Over thirteen percent of India's population commutes using a bicycle, the share being greater in megacities such as Chennai and Delhi (Rukmini, 2015).

A combination of different factors shapes people's choice of transportation mode. As in the case of Guddo Baji, the cultural inappropriateness associated with a woman riding a bicycle was a greater constraining factor than the ability to afford a

bicycle. Perhaps, even if her household could afford to buy a car, she wouldn't have been allowed to drive. In other cases, the need to feed your family, being the sole male or female breadwinner, can cause people to break cultural barriers if they must.

In South Asia, besides non-motorized modes of transport including walking, cycling and, in some places, cycle-drawn rickshaws, a variety of urban public transport and paratransit services exist to get people moving in their daily lives. Depending on how much you earn, how much you've saved over the years or how much you've inherited, your household might be able to afford a motorbike or two or even a car. The objective of this report is to focus on the urban transportation issues of low and lower-middle socio-economic classes in South Asia, thereby disregarding households who are not likely to be captive users of non-motorized, paratransit, public or cheaper private motorized modes of transportation. The report will bring forth literature and personal accounts of people's daily travel experiences and the needs, priorities, motivations, choices and concerns that shape these experiences. While the literature review section will cover urban transport issues of the poor across South Asia, personal accounts of people's daily travel experiences will be drawn from the capital city of Pakistan, Islamabad.

2. Purpose & Approach

"This is a brutal city, Aman bhai. This is a city that eats you raw – *kaccha chaba jati hai*. For you, all this is research: a boy tries to sell his kidney, you write it down in your notebook. A man goes crazy somewhere between Delhi and Bombay, you store it in your recorder. But for other people, this is life...I've heard people selling their eyes, kidneys, bits of their liver – practically anything. Once they get into Delhi, people see the roads, the crowds, the cars, the madness; people lose their balance in this city." - Ashraf in *A Free Man* (Sethi, 2011).

Research, whether qualitative or quantitative, cannot possibly capture the depth of someone's experience as an urban dweller, but it can certainly attempt to uncover hidden complexities and to simply voice the unheard. To some extent, it can help articulate trends and patterns by looking at people's collective behaviour and the context within which they spend their lives. The reluctance of real humans, such as Ashraf in Aman Sethi's ethnographic study, to participate in research is understandable. It is understandable because participation in research or research findings alone cannot pull people out of the harsh realities of their lives. Research has to be followed by the right set of actions; actions that policy-makers hope can be taken at the institutional level.

Assuming research can be followed by action, ethnographic research is a particularly effective way of discussing the complexities and contradictions present in real life (Flyvbjerg, 2006). A glimpse into someone's daily travel experience can tell you about the person's needs and their motivation to be doing whatever it is that they do on a regular basis. Combined with some numbers, the magnitude of any given problem can be understood more clearly. Therefore, the purpose of this report is to present accounts of the daily travel experiences of the urban poor, using Islamabad as the case study area. Findings extracted from these accounts will be complimented by a literature review on urban transportation issues for the poor in the rest of South Asia. This in turn will help urban planners and policy-makers understand what needs to be done to improve the daily lives of low and lower-middle income urban dwellers in South Asia.

Ultimately, the goal of most urban planners and policy-makers is to recommend ways to improve people's quality of life. Urban transportation is only one factor out of many others that affects how well people live in urban environments. Other factors include: quality of housing, access to clean water, food, electricity and gas, employment opportunities, access to healthcare and education, and other services that modern life has to offer (such as access to the internet). In addition to understanding people's concerns and choices with respect to urban

transportation, this research also tried to gain insight on people's relative level of concern for urban transportation issues as compared to their concern for other problems such as electricity shortages and the poor quality of education.

3. Who are the urban poor in South Asia, what do they do and where do they live?

According to the Asian Development Bank, South Asia's urban population is increasing faster than any other region in the world. From 2010 to 2030, its population is projected to grow from 549 million to 875 million, of which a large portion is expected to consist of the urban poor. Currently, about thirty-five percent of South Asia's population lives in slums and squatter settlements, which the ADB uses as an indicator of poverty (Asian Development Bank, 2013). But being a resident of a squatter settlement or slum does not have to be the only indicator of poverty. For example, you could be the resident of an illegal home in a slum for which you don't pay rent, and be earning as much as a resident of subsidized government housing who does need to pay rent. In fact, it is quite possible for a slum dweller to be saving more earnings than a citizen eligible for subsidized housing, but in exchange of poorer housing conditions. This research intends to look at urban transportation issues of the poor while taking into account the complexities associated with defining poverty.

The World Bank proposes two different poverty lines to identify the poor, 1) people living on less than US\$ 1.90 per day, and 2) people living on less than US\$ 3.10 per day (The World Bank Group, 2016). Let us take into consideration the second poverty line to see what it means in the context of Islamabad, Pakistan. Living on US\$ 3.10 per day means you are living (not necessarily earning) on the equivalent of PKR 325 per day at the current rate of exchange. Contrastingly, the local minimum wage for unskilled workers in Islamabad is higher than the one set by the World Bank. In February 2016, the minimum wage for unskilled workers was

approved to be PKR 13,000 per month (The Gazette of Pakistan, 2016) or about PKR 500 per day for twenty-six days of the month. The ethnography portion of this research will use 'living on less than the local minimum wage' as the definition or parameter to describe the poorest of the urban poor in Islamabad, but will also aim to look at those earning slightly higher than the minimum wage; that is, households falling under the lower-middle income category. The reason to be including both low and lower-middle income households is that their living conditions and transportation choices are expected to be similar.

Another way of identifying the urban poor is to look at informal employment opportunities. Informality is often seen as a challenge for productive growth in capitalism like in the words of a Work Bank blogger: "The third major challenge in South Asia is the issue of 'informality' in employment that leads to low earnings, less skills and little access to formal social protection systems. Informal workers include all workers performing informal jobs in agriculture, casual laborers, family enterprises workers and self employed workers with less than senior secondary education in the non agricultural sectors" and that, "Nearly a third of workers in India and a fifth of workers in Bangladesh and Pakistan are casual laborers (who incidentally have the highest poverty rates)" (Likhi, 2013). From this definition, it can be deduced that the urban poor tend to be less literate, have limited skills and work as casual labourers. However, not all less literate individuals with limited skills have to be working as casual workers. Low-skilled and less literate individuals can very much be employed by the government and are likely to be living in poverty, as was found during the field research part of this study. Furthermore, 'casual' workers in a city like Islamabad can include contract based construction workers, house servants, taxi drivers, van conductors etc., all of whom earn very little. More will be discussed on where the urban poor of Islamabad reside in the section on Islamabad's Context.

4. Methodology

The methodologies used for this research were a literature review on urban transportation issues of the poor in South Asia and an ethnographic study of daily travel experiences of the poor in Islamabad, Pakistan. Both methodologies involved taking a close look at the needs, priorities, motivations, choices and concerns of the poor in order to fully understand the extent of urban transportation issues. Twenty-three journal articles and fourteen reports and newspaper articles were some of the key resources used in the literature review.

The literature review provided essential background information to conduct an ethnographic study in Islamabad. Sector G-8 was chosen as the case study area as most low and lower-middle income households reside in the sector. A semi-structured interview guide (Appendix B) was prepared to conduct door-to-door ten to twenty minutes long interviews with thirty-three participants, some residing in the slums of the sector and others residing in subsidized government apartments. The interviews were voice recorded with permission from the participants, acquired through the signing of participant consent forms (Appendix C). The language in which the participants were interviewed was Urdu, and the responses received were often in a mixture of Urdu, Punjabi and English. The participant consent form was translated in Urdu, although it was later realized that those participants who could read and write almost always knew both English and Urdu. The approval for participation by unlettered participants was acquired verbally and the consent forms were signed by myself with the participants' permission. A copy of the participant consent form was given to all participants.

The voice recordings were first transcribed in Roman Urdu and later translated into English. One out of the thirty-three interviews was deleted as one of the participants called back to withdraw from the research. They asked if another member of their household could participate instead and that over the phone, but

their proposition was denied. Since seven pilot interviews were conducted before the approval of McGill's Research Ethics Board, re-consent for participation (Appendix C) had to be acquired for the pilot interviews.

In the consent forms, participants were asked to confirm that their participation in the research was voluntary and were assured that any identifying information, including their names and addresses, would be kept confidential. They were informed, "I will only use the voice recordings from the interview for transcription purposes and not disseminate them in any other way. Your answers will not be identifiable: I will not use your name or address in anything I publish, and anything with that information in it will be stored securely, seen only by myself".

A methodology abandoned during the first phase of this research was a survey at metro bus stations in Islamabad. Twentysix commuters and non-commuters were approached at the stations Secretariat, Potohar, IJP, Stock Exchange and Chaman Road and given a short questionnaire to answer verbally (Appendix D). Only comments on how the metro bus has affected the daily travel experiences of people were included to compliment this research. The survey was abandoned, as it was not representative and not adequately answering questions on peoples' needs, motivations, priorities, choices and concerns with respect to urban transportation.

5. Overview of Urban Transport in South Asia

Approximately thirty-six percent of the world's poorest people live in South Asia – a region that includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka (Jain, 2013). Although the region is incredibly vast, commonalities can be found in how the urban poor travel across different South Asian cities. The need to earn a livelihood for survival is undoubtedly the greatest

reason why the urban poor must step out of their shelter everyday and travel to a certain destination. This phenomenon, the concept of travelling for livelihood on a daily basis, is not as visible in rural areas where earning a livelihood doesn't necessarily depend on travelling. In other words, the urban poor are wage labourers whose income can come from any source possible, whereas the rural poor tend to be subjects of agrarian economies that require working on agricultural land. The point of this discussion isn't to compare and contrast the needs of the urban and rural poor, but to simply stress on the importance of daily travelling to earn a living in an urban environment.

For the urban poor, having quick access to employment with minimum transportation costs is of great importance. This is reflected by the fact that the urban poor will settle in illegal slums, at the cost of facing hostile authorities, to easily access employment opportunities. Most urban poor use walking or cycling as their primary modes of transportation because using other modes, including public transport, can be too expensive. Sadhu and Tiwari (2016) conducted a study to understand activity patterns and transport choices of the low-income in South Asia using Delhi as the case study area. The authors argue that the usage of public transport by the poor has been limited as it places burden on their finances. Unlike higher income households, low-income households in urban areas prefer living close to their employment opportunities in order to minimize their expenditure on travelling. While higher income groups can afford motorized transport, the urban poor must rely on slower or non-motorized modes of transport. Slower travelling also means that covering large distances is not only time consuming but can be a significant source of physical fatigue – resulting in a cycle of low output, low earnings and low levels of material welfare (Sadhu & Tiwari, 2016). The authors also questioned the utility of expensive metro rail systems in providing accessibility for large sections of the population, mostly constituting the urban poor. Keeping the need of the urban poor to seek employment opportunities in mind, this section will provide an overview of the transport choices and concerns of the urban poor in

South Asia and will also take a look at some emerging trends in urban transportation.

5.1 Transportation Choices and Concerns

5.1.1. Walking

A large proportion of urban dwellers in South Asia are captive walkers. In Dhaka, for example, about sixty-two percent of daily trips are conducted by walking. Shumi et al (2015) discuss how most of these captive walkers include women who are unable to afford travelling by other transport modes, while also living in conditions with poor access to essential goods and services. The authors suggest that even though women are unwilling to walk due to time constraints, the lack of financial resources leaves them with no other choice (Shumi et al, 2015).

Jain (2013) raises a number of concerns associated with the use of non-motorized modes of transport by the poor. One of the concerns is the absence of dedicated corridors for non-motorized transport. Trip studies on Delhi showed that although fifty percent of trips are made via walking, forty percent of roads do not have any sidewalks. It was also found that footbridges were not used by fifty percent of the people since they involved climbing, descending and long detours. The author also discussed how women are more negatively impacted by the lack of adequate infrastructure than men. Poor lighting, overcrowded or deserted streets can make walking unsafe for women during the night. A study showed that the usage of non-motorized modes of transport by women at night could also affect a woman's reputation (Tara and Ilavarasan, 2012).

Apart from safety concerns, the appalling state of infrastructure for non-motorized transport can even be a source of mental and physical stress (Shumi et al, 2015). In fact, Thynell (2009) sheds light on how the increasing exposure of captive urban walkers to dangerous traffic situations can become an impediment for people

to access sources of livelihood. One can argue whether mental stress is a result of self-created fear or perceptions of lack of safety based on the actual risk of getting hit by oncoming traffic. Barua & Tay (2010) mention how most crashes on the roads in Dhaka involve pedestrians, illustrating that walkers are indeed at a risk. The authors suggest that reducing speed of oncoming traffic, including both public transit and private vehicles, can be an effective way of reducing the severity of crashes. They also recommend driver training, public education and the separation of motorized and non-motorized traffic as ways to reduce the vulnerability of pedestrians and cyclists on the roads. Unfortunately, “with tremendous competition for space and speed, cyclist and pedestrians are losing out”, comments Jain et al (2013). The author suggests that public finance is hardly earmarked for non-motorized modes of transport although they can also play an important role in complimenting public transport as key feeder services.

Walking can be seen as a great form of exercise, but accessing healthcare via walking instead of a motorized mode of transport can sometimes have life-threatening consequences. In a literature review, Starkey & Hine (2014) found that reliance on walking and the lack of access to motorized transport, due to insufficient financial resources, was a major cause of pre-natal mortality in Nepal. This suggests that it is important to distinguish between those who use walking as a mode of transport out of compulsion from those who use it by choice, especially when studying people’s transportation choices.

5.1.2. Cycling

Verma et al (2016) did a study to understand the factors influencing cycling in Bangalore City. They reported that in Indian cities, cycling is not a popular transportation choice amongst commuters. The authors found that the lack of segregated cycling lanes, long trip distances of commuters, unfavourable weather conditions and extreme traffic conditions act as impediments to cycling. These barriers, in turn, cause commuters to develop a negative attitude towards cycling.

The study found that during childhood, people had a more positive perception about cycling. As they grew older, the availability of motorized modes and difficulty cycling due to inadequate infrastructure caused them to stop cycling. People also had the false perception that shifting to motorized vehicles was a sign of prosperity (Verma et al, 2016). Although these findings cannot be applied to low-income urban-dwellers, as they might not have the luxury of switching over to motorized transport, the findings do give us an idea about the obstacles low-income residents face when choosing cycling as a mode of transport.

Bicycling is also an unpopular mode of transport in Dhaka, Bangladesh, according to Hoque and Alam (2002). Even though cycling can offer four to five times greater speed than walking and is cheaper than public transport, its usage as a mode of transport has still been below desirable levels, accounting for nearly 1% in metropolitan Dhaka in 2002 (Hoque & Alam, 2002). The under-usage of bicycling, as a mode of transport for daily commuting, can be explained by the fact that the built environment in most South Asian cities is much more conducive for the use of cars than non-motorized transport. In addition, Munshi (2016) outlines that areas with a greater mix and more equal distribution of activities near residential areas help encourage higher walking, cycling and rickshaw trips. This suggests that a lack of mixed land-use in South Asian cities can be attributed to lower modal shares of cycling.

5.1.3. Auto-Rickshaws

In South Asia, the auto-rickshaw is usually a three-wheeler powered by an engine, fixed to a cabin large enough to fit three passengers at the back and a driver at the front. Millions of auto-rickshaws run on the streets of large and medium-sized South Asian cities. Auto-rickshaws are mostly seen as an informal transport service although they can be legally registered to operate on the roads. In India, there are about ten million rickshaw drivers, most of whom are urban poor men. Bangladesh also has a large number of rickshaw drivers, with 280,000- 400,000 out of two

million operating in Dhaka alone (Starkey & Hine, 2014). But how useful are auto-rickshaws as modes of urban transport for the poor, is the question. A study on transportation in Colombo found that three-wheelers, possibly including auto-rickshaws, were mostly used by the urban poor in emergency situations (SEVANATHA, 2003). According to a report on Indian cities, auto-rickshaws were also found to be used for trip purposes such as education and work. They were particularly useful as 'first and last mile connectivity to public transport' and 'door-to-door alternatives to private motor vehicles' (Mani et al, 2012). The report, however, did not discuss the use of the auto-rickshaw by the urban poor in specific.

In general, smaller Indian cities have a higher percentage of trips made via rickshaws as they lack public transport or have narrow streets inaccessible by mass transit buses (Jain et al, 2013). Jain et al (2013) assert that rickshaws are useful transportation modes for people living in old congested areas, urbanized villages, illegal colonies and peri-urban localities or physically segregated neighbourhoods. In some South Asian cities, policy-makers have tried phasing out the use of auto-rickshaws for environmental reasons, but Rahman, Glen and Jonathan (2008) argue in favour of letting auto-rickshaws operate as they can serve neglected areas.

5.1.4. Mass Public Transit

The bigger a city, the greater becomes its need for public transport. Jain et al (2013) reported that the biggest cities in South Asia had a higher proportion of people using public transport, whereas non-motorized transport was mostly used to cover the first and last mile. This was illustrated by the fact that in cities with a population of more than five million, only eight percent cycled while forty-four percent used public transport. However, mass public transport comes with its own set of issues. Public transport issues of the poor in South Asia can be reviewed by looking at service quality, availability and access to public transit.

A number of factors can affect the service quality of public transport. Rahman et al (2016) used the following factors to understand people's level of satisfaction with public transport: Waiting Time, Travel Cost (Fare), Travel Time, Cleanliness, Comfort, Driver Kindness, Bus Occupancy, Service Frequency and Reliability. Other studies also used similar factors to study public transport issues. It was found in a survey on urban transportation in Karachi that people mostly had problems with the lack of public transport services after nine in the evening, absence of schedules, thirty to sixty minutes waiting time at bus stops, inadequate seating (for the elderly as well as others), lack of safety, limited destinations and pollution (Starkey & Hine, 2014). Starkey and Hine, in a literature review, also mentioned how public transport can be very expensive for the low-income. In Kolkata, for example, low-income households were spending up to fifteen percent of their income on transportation.

Reliance on mass public transit by the urban poor was illustrated in a study by SEVANATHA (2003) on three low-income settlements in Colombo, Sri Lanka. The households interviewed had their primary livelihood activities located in the city centre and were engaged in both skilled and unskilled work. Most of the respondents (ninety percent) were found to be using public transport buses for daily commuting. Although public transit buses were the most widely used transport mode, respondents raised concerns about unnecessarily long waiting times and long travel times due to congestion on the roads (SEVANATHA, 2003). The findings of the study suggested a greater need for public transit and the need to relieve congestion on roads.

The limited availability, and therefore use, of mass public transit and over-reliance on the use of the private auto-mobile also means that more fossil-fuels are being burnt. Reddy & Balachandra (2012) analyzed urban mobility patterns across twenty-three metropolitan Indian cities. They found that petrol consumption for the use of transportation in Delhi was three-times higher than in Mumbai. This difference can be attributed to the fact that Mumbai has a greater modal share of

mass public transport than Delhi. The combustion of petrol by private vehicles in Chennai was also found to be high (Reddy & Balachandra 2012).

In fact, Srinivasan & Rogers (2005) highlighted how Chennai is considered to be the 'auto' capital of India as several auto-mobile related industries are located there. The authors pointed out that the number of private vehicles registered in Chennai from 1996 to 2000 grew at an annual rate of ten percent whereas public transport saw an increase of less than two percent. The study conducted by the authors looked at the travel behaviour of low-income residents of Chennai. They found that ninety-five percent of surveyed households had problems with public transport. Specifically, respondents had issues with high bus fares, poor frequency of buses, poor quality of bus and train services and lack of pedestrian safety while accessing public transport.

In Karachi, public transport mostly consists of privately operated buses and mini-buses. Although city authorities regulate these transportation services, they can be highly unreliable, unsafe, unclean and inconvenient to use (Jain et al, 2013). Jain et al (2013) suggests that the continuous decline in the quality of public transport in Karachi implies that it is a mode primarily used by the urban poor.

5.1.5. Paratransit

According to Rahman et al (2016), paratransit is widely used in areas where mass public transit is lacking. In fact, the authors highlight that more than half of total public transportation demands are met by paratransit in South Asia and Southeast Asia. Paratransit services are special in the sense that they are more demand responsive, provide shared trips and offer greater flexibility. They are particularly popular in Dhaka, Bangladesh, where they are known as 'becak' and have thirty-two different routes defined for their use (Rahman et al, 2016). Sadhu and Tiwari (2016) highlight how the absence of reliable public transport causes many low-income households to rely on paratransit for their commuting.

5.1.6. Motorcycles

According to Reddy and Balachandra (2012), motorcycles have emerged as major forms of personal mobility, while walking and bicycling have become less common. The authors claim that even though public transport offers a competitive service, its market share is constantly declining as compared to the share of motorcycles. Starkey and Hine (2014) explain that motorcycles are becoming an attractive means of employment for young men and more affordable than ever before. In 2007, motorcycles manufactured in China and India could be purchased for as little as USD 500-600, less than half their cost in 1997 (Starket & Hine, 2014).

5.2. Trends & Potential Solutions

Sadhukhan et al (2016) claims that higher vehicle ownership in South Asia is gradually causing commuters to shift away from using public transportation. The study conducted by the authors proposes that non-motorized and public transport modes of travelling should be made more attractive, not only for the low-income but also those who are able to afford cars. Improving pedestrian facilities and reducing access time to public transport can be effective ways to prevent people from using private cars. The study showed that high-income commuters around metro stations in Kolkata had a high Willingness-to-Pay to reduce access time to reach public transport. Similarly, P.V. et al (2014) conducted a survey to assess people's willingness to shift from cars to cycles and forty-five percent of respondents under the age of twenty-five were willing to make cycling their primary mode of transportation given that segregated cycling tracks could be constructed.

To encourage greater use of public transport, by both low and high-income urban dwellers, city governments have been experimenting with different urban transportation schemes such as the Bus Rapid Transit (BRT). The BRT system tends to include bus-way infrastructure, stations, buses and technology systems to collect fares and passenger data. The capital cost of a BRT can be as high as USD 12 million

per kilometer but its implementation does not always produce expected results (Carrigan et al, 2013). For example, in Ahmedabad, a Bus Rapid Transit (BRT) system was implemented in 2009. Verma and Priyadarshee (2015) suggest that the Ahmedabad Municipal Corporation was able to successfully implement the BRT as it was able to create strong partnerships between different stakeholders including the citizens. Although the BRT in Ahmedabad was built without enough priority given to infrastructure for non-motorized modes of transport, it still ended up attracting high ridership (Verma & Priyadarshee, 2015). On the other hand, the BRT in Delhi had to be dismantled (The Times of India, 2016) despite the fact that priority was given to the integration of infrastructure for non-motorized transport - including a dedicated high quality bicycle lane and footpaths running along both sides of the corridor. In Delhi, car users were adversely affected as car lanes were narrowed to create segregated lanes for the BRT and non-motorized transport (Rizvi & Sclar, 2014). One might argue that adversely impacting car users is necessary to reclaim land for the use of non-motorized transport (Tiwari, Jain and Rao, 2016) by the urban poor, but some degree of public and political acceptance is probably still necessary to do so. In any case, whether successful or unsuccessful, the implementation of BRT systems is becoming increasingly popular in the developing world to meet the transportation needs of the urban dwellers.

6. Islamabad's Context

6.1. History

Islamabad, the capital city of Pakistan, was planned from 1959 to 1963 by the Greek architect and urban planner Constantinos A. Doxiadis and entered its implementation phase in 1961 (Doxiadis, 1965). At the time of its conception, planners failed to give attention to building affordable housing, let alone urban transportation, for the very people who were going to construct the city. This problem continues to exist today, where the working class of Islamabad mostly lives

in informal settlements (Sajjad, 2015). The chief planner, Doxiadis, recognized the possibility of such a failure in 1965 by stating,

“A process often used, especially for capital cities, is to start with the governmental buildings, the monumental areas and the high income dwellings. This process cannot lead to success for it is imperative that the lower income groups - those which can build a city - are settled first. If this is overlooked, the result is a composite settlement consisting of a central monumental part and several other non-coordinated areas, including several with slums. There is only one way to avoid this danger, and that is to follow the natural process of first building for the builders, who will then build the city. This means proper conception and creative control of the overall development - not a negative attitude toward real needs, but full recognition that we must start by covering needs, and not by building monuments” (Doxiadis, 1965).

Although Doxiadis recognized the need to build a city that focused on ‘real needs’, his design for Islamabad was inherently flawed, not only in the sense that it lacked affordable housing, but also that it was promoting the use of the private automobile. The implemented plan greatly undermined the use of walking, cycling and public transport as significantly important modes of transportation. Over twenty-six percent of Islamabad’s land was dedicated to the construction of roads and streets forming a grid-iron pattern. A hierarchy of 1200, 600 and 300 feet wide roads intersecting at right angles divided Zone-2 of the city into two by two square kilometers large sectors. Each one of these sectors is now characterized by a main *markaz* (market) and households of different incomes (Maria & Imran, 2006). One of these sectors is sector G-8, the case study area of this research.

6.2. Population & Transportation Choices

Today, Islamabad's population is 1.3 million and is increasing at a rate of four percent per year (CDA, 2012). Together with its neighbouring twin city Rawalpindi, Islamabad is part of an urban agglomeration of over four million inhabitants (Map 1 on page 27). In 2012, it was estimated that 700,000 daily trips take place within Islamabad and an additional 500,000 daily trips originate from or head towards adjoining areas (CDA, 2012). Population growth is further inducing more daily travelling, causing roads to become more and more congested. To relieve congestion on the roads, the government recently introduced a Bus Rapid System (BRT) that runs between Islamabad and Rawalpindi. This has created another transportation mode choice for daily commuters, along with privately operated local transport services.

A study by Adeel et al (2016) looked at the modes of transportation (walking, personal automobile, public transport, bicycle/other) used for different trip purposes (work, education, religious, shopping, healthcare, cultural, socializing and recreational) by four low, middle and high-income areas in Islamabad and Rawalpindi. The authors found that the modal share of public transport for both men and women was similar for the trip purposes examined (Figure 1). They also found that women had greater modal shares of personal automobile than men, possibly because non-motorized modes of transport expose women to greater harassment.

6.3. Case Study Area: Sector G-8

At the heart of Islamabad exists sector G-8 (Map 2 on page 28), one of the rare sectors with a mix of housing for middle and low-income households. Most low to lower-middle income households in the sector are located in the quadrants G-8/2 and G-8/4, both of which consist of subsidized flats for government employees. G-8/4 is also home to one of the biggest slums of Islamabad, the Christian Colony.

Although named 'Christian', the slum is home to households associated with different religions and castes. The sector also has two hospitals, ten government primary schools and four government secondary schools. The case study portion of this research will focus on the low to lower-middle income households of quadrants G-8/2 and G-8/4.



Map 1. Islamabad and Rawalpindi Metropolitan Area (Source: Google Maps)

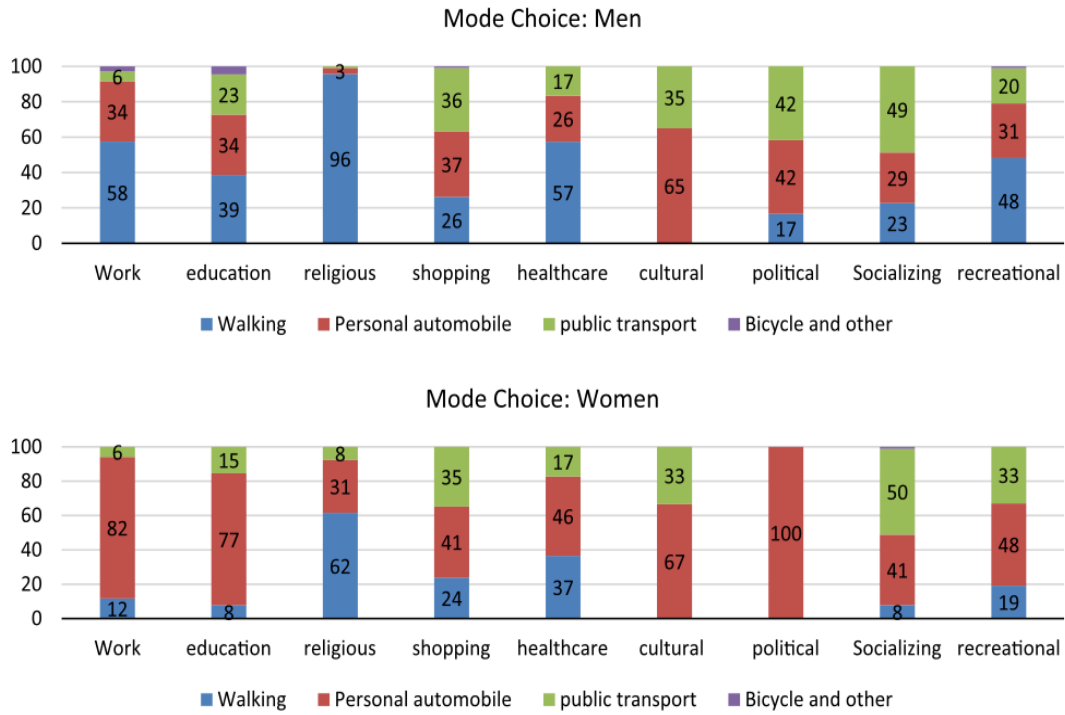


Figure 1: Mode Choice by Activity in Rawalpindi and Islamabad (Adeel et al, 2016).



Map 2. Case Study Area: Sector G-8 Islamabad (Source: Google Maps)

7. Daily Travel Lives of the Urban Poor in Islamabad

7.1. Needs & Motivations

Needs change with the passage of time. Respondent No.19 has lived his entire life in Islamabad since 1972. Like his father, he has been an employee at a national telecom company and has been allotted a flat by the government. Over the years, Respondent No.19 has seen Islamabad grow into a city conducive for cycling into one dominated by the use of cars. He states, “Well, although the times have changed, distances were never any shorter. It’s just that our needs have grown over the years. The good old days when I used to cycle in and around my neighbourhood; I cycled for recreational purposes, not for important travelling. I later bought a motorbike for daily travelling. There wasn’t that much traffic in those days. So a motorbike was a convenient mode to use. But the roads are getting more and more congested with the passage of time and my needs have grown, it’s no longer safe to ride a motorbike”. Respondent No.19 is now married, a father to three children and the sole breadwinner of his family since his father got a retirement. His travelling needs have changed with time and he has fortunately been saving enough money to keep upgrading to more convenient modes of transportation with his growing needs. He earns a little over PKR 40,000 and ends up spending about fifteen to twenty percent of his income on travelling. Although he earns more than most other households in his surrounding area, he understands the importance of saving money on transportation to be able to spend on other essential needs. He says that the introduction of relatively cheaper modes of transportation, such as the metro bus, can help people save PKR 2,000 to 3,000 per month on daily travelling, which can be quite a significant amount for a low-income household.

But what exactly are the needs of low and lower-middle income households in Islamabad? According to Respondent No.14, “How can we know what we need? This is not for humans to determine. Only Allah knows what we need”. Respondent

No.14 was not the only participant from the G-8/4 slum to believe that only a divine entity could truly know what people need and how their needs can be met. The participants were asked what they need, why they travel and what can be done to improve their daily travelling experiences. Questions on 'needs' elicited more abstract answers than were expected. "These are matters for men of stature to think about!" said Respondent No.13. Another participant, Respondent No.12, became rather confused when inquired about her needs. To the point that she had to be given suggestions about what she could possibly need by one of her neighbours who was actively listening to the conversation. She finally claimed, "We have no problems. Praise be to the *Malik*, the Master of the Universe, we're grateful for whatever He has bestowed upon us".

My interview session with Respondent No.12 was one that is well engrained in my memory. Her home consisted of a roofless veranda and a six by four square meters large room. As I knocked on her partially open metal door, I got a glimpse of her washing clothes in the veranda. She wiped off her soapy hands to greet me and invited me in without letting me explain why I was there. I told her why I was there despite her lack of inquiry as she escorted me into the single room in her house. I took off my shoes before stepping into the room, something I had not done in the home previously visited. Respondent No.12's home was the cleanest space I had entered throughout my time interviewing residents of the slum. We sat on the floor in the middle of the room and Respondent No.12 finally turned her full attention towards me with a big smile on her face. After giving consent, she began by stating how she is a simple human being - *mein saada jiya bunda hun*. Her material conditions and socio-economic status were not any different from other slum dwellers. Respondent No.12 and her husband both worked for the city's Capital Development Authority as sweepers hired through private contractors. They had four school-going children and were the owners of a motorbike and a *kacha* home. They had been residents of Islamabad for twelve to fourteen years and had been residing in the Christian Colony for four years, with no hope of moving into a *pakka* home. Living in a *kacha* home meant Respondent No.12 and her husband did not

have to pay rent. It meant that they could save enough to feed their children well and to put fuel in their motorbike. Respondent No.12's workplace was not located too far away from her house, so she could walk every morning for 10 minutes to reach her workplace by 7:00 AM. Her husband used a motorbike on a daily basis to get to work. Respondent No.12 could certainly benefit from having access to potable water, electricity to light her home and gas to cook her food, but these were not needs she insisted on mentioning.

Respondent No.20 also had a difficult time defining what her household needed. She replied, "Needs...I'm not sure what we need. We need whatever the government can give. Or, we want whatever we need". She added after some thought, "We need everything. We need clothes for our children, we haven't even bought bedcovers yet, and it's getting cold. We don't have anything. We're barely surviving. We have one carpet and two charpoys". Respondent No.20's husband was the breadwinner of the family, earning PKR 16,000 per month and living in a subsidized flat in G-8/4. With eight household members and only one breadwinner, Respondent No.20's household was barely making ends meet.

The majority of households interviewed, however, had a clearer understanding of their needs. "Everyone wants to have their own car, everyone wants good services, everyone wants more money to meet their needs", said Respondent No.9. People's motivations to travel on a daily basis for different purposes became clear when they were asked why they had moved to Islamabad. Respondent's No.13, husband and wife, revealed that they came to Islamabad in search of work when one of their daughters became ill. The wife stated, "We came here job hunting. We all came together. In our house, we have five daughters, three of them are in their youths and two are small. One of them became really sick; we've been in greater poverty since then. My eldest daughters started working when my daughter got sick. That's also when we came to Islamabad. We still haven't found good work. None of use has been able to get an education. Whatever we earn, we end up spending on food mostly". Her husband added that their *kacha* home was

their only asset and that without it they'd be at the mercy of God. He fears the CDA's threats to demolish their house because he does not have the financial resources to buy another home. He further admitted that, "Our biggest problem is the lack of electricity, we want electricity, we want water. One cannot live without water. The system that we have in place for water is that of a bore installed over there. We pay 1500 to 2000 per month for it. They fill it up for us. If you ever fail to get hold of the man who fills up the bore, you have to get water filled from the taps. Problems upon problems. These are *kachi* colonies, *yeh kachi colonian jo hain*. No gas. The government doesn't do anything besides making false promises". When asked about his daily travelling experiences and needs with respect to urban transportation, he repeated that all his household cares about is getting electricity. "*Baaki traam trumm, sanu ki pata* – what do we know about this transportation business/what do we know about these complicated things", implying that commenting on urban transportation is a matter beyond the understanding of people like him. The two respondents were also concerned about the fact that they have to rely on their daughters to make a living and are unable to get them married. "It's our daughters who work. But we're always concerned about them, concerned about their prospects of getting married. Our lives are full of problems. My daughters are young. We want to have enough to be able to get them married – *inni taaqat howay kay bachion nu utha laiway*. We don't sleep at night because of these worries".

Respondent No.14 also came to Islamabad six years ago in search of a job. He came looking for a job but still hasn't found one. Instead, he does labour work, *mazdoori*. He explains the instability associated with working as a *mazdoor*: "Sometimes you find *mazdoori ka kaam* and sometimes you don't. It seems like unemployment has been pre-written for us. There are no jobs. If you ever find some work, then good, if not, then you just deal with it". He says he wants to prosper in life and his children to acquire good education. "We need light, we need gas", he adds. Respondent No.14's neighbour, walking past his front door and overhearing our conversation, interjected by saying, "Everyone wants something or another! Whether he's rich or poor, he wants absolutely everything. Gas and water are

essential needs for everyone. The most important thing is for children to go to school, to get a good education. Look at us poor, we're running one generator after another to survive. And these people come and shut them down! What can destitute people like us do! We have to make use of whatever life has to give. That's how we're living, that's how we're surviving".

Not many participants saw urban transportation as being as critical of a need as shelter, employment, electricity, water and gas, but some did recognize it as being a facilitating factor for people to meet all their other needs. Respondent No.16, an employee at a radio company, stated that, "Transportation is a critical issue. No matter where you have to go, you need transportation. If you're going out for *mazdoori*, even then you need transportation. If you're kids are going to school, they need transportation. If you're getting vegetables and groceries from Itwaar Bazaar, you need transportation. Transport is, therefore, a major issue". Similarly, Respondent No.18 explained how people travel out of compulsion to earn a living for food, regardless of which mode of transportation they end up using. She stated, "Travelling...well we travel by walking, and the problem is that it takes a lot of time. I'm sure you understand how tiring walking is. But we're compelled, we have to get to work, no matter what the mode of transportation, we need to fill our stomachs. When we have cash, we take a wagon, when we don't, we walk. So that's the thing".

7.2 Choices & Concerns

The urban transport choices discussed in this section are walking, cycling, local transport, paratransit, the metro bus, motorbike, taxi and car. Although both operate as public transport services, local transport and the metro bus have been discussed separately as they differ significantly in their quality of service and in terms of accessibility. Local transport mostly constitutes Hiace vans with sliding doors (Figure 2) and Suzukis open from the back (Figure 3). The cost of travelling in local transport is PKR 12 to 15 for a one-way trip, where as a one-way trip on the metro bus costs PKR 20.



Figure 2. Hiace Van – Local Transport in Islamabad
(Source: Visitpak, 2012)



Figure 3. Suzuki – Local Transport in Islamabad
(Source: Taken by the author)

7.2.1. Walking

People's choice of transportation mode can vary based on their compulsions or needs, gender, age, availability of financial resources, access to a mode of transportation and purpose of travel. Walking is a popular mode of transportation amongst the lowest income residents of Islamabad as they are often compelled to use this mode. Especially in the case of slum dwellers, without walking, residents

would not be able to get across the narrow, unpaved and unlevelled alleys around which their homes are built. In other words, within their neighbourhoods, slum dwellers are captive walkers due to a lack of adequate infrastructure for cycling and motorized vehicles. Beyond their neighbourhoods, captive walking ends up being a result of lack of access to public transport or other motorized vehicles. 'Lack of access', in turn, could be a consequence of limited financial resources, absence of public transport within a walking distance, or inadequacies in the infrastructure needed to reach public transport.

Two of the participants stated that walking is the only mode of transportation they ever use on a daily basis. Respondent No.14 claimed to never have taken public transport within Islamabad since his arrival six years ago. "I go around walking, in search of work. We don't even have a cycle. Takes up to one to two hours until I get to work or to find work [or even five hours]...No, no. Traffic isn't a problem. We walk on unpaved paths. We hardly walk on roads...Well, Madam, we walk on roads only if work requires us to. I've never used a van in Islamabad... No, never ever, not even once. We walk everywhere we have to travel. Why make use of local transport when we don't need to use it. Madam, other people must be using the metro and other local transport, but we don't". It appeared from Respondent No.14's response that he has, for some reason or another, convinced himself not to need cycling or motorized modes of transportation to travel. What appears to be captive walking could, in fact, be a combination of choice and compulsion. Although Respondent No.14 did not mention anything about lacking financial resources to use any other mode of transport to travel, his material conditions reflected that he was living in abject poverty with his four children. Unlike some of the other residents in the slum who were able to afford solar panels for electricity, Respondent No.14's household was surviving without electricity. "We stay in the dark at night. We light a candle. We stay awake for as long as it keeps burning, when it burns out, we go to sleep. We have no TV, no radio, no nothing to listen to any news", he explained. In contrast, Respondent 20's family lived in subsidized housing with access to electricity, but still depended on walking as their

primary mode of transportation for all purposes. Respondent No.20 was returning from Itwaar Bazaar when I met her at the entrance of her apartment building. She was carrying two bags full of groceries and was greeting her neighbours in Pashto. Although my conversation with her did not last very long, it was enough for her to tell me that her husband walks to his office near Shakarparian and that she walks for one to two hours to get groceries from the Itwaar Bazaar. Four of her children walk to school while the other two are still too young to be in school. Otherwise, her family does not need to step outside for any other purpose. The only time they ever go out for recreational purposes is to the park on Eid when visited by their relatives from Dir. They sometimes need to use a taxi, but it is not something they do on a regular basis. When asked if she uses the taxi or any other mode besides walking, Respondent No.20 answered, “No, we don’t take the taxi. Only when we have to get something important for the children do we ever take the taxi. We’re poor, so we have to make the best out of whatever we have”.

Most households interviewed used walking as a mode of transportation when they had short distances to cover, sometimes out of choice, and at other times out of compulsion. Respondent No.1, the son of a former telecom company employee, now driving a taxi for a living, takes local transport in the mornings to go to college, but walks in the evenings to get to work. Although his father has a taxi, Respondent No.1, unlike his younger siblings, does not get to travel in it. If he could afford a motorbike, Respondent No.1 would have purchased one for sure as he dislikes using local transport. “You know what the state of the local buses is like, it’s a hassle to use them”, he said to justify his need to buy a motorbike. He added that walking at night is inconvenient and unsafe because people get robbed. Mobile snatching has been a problem in his neighbourhood, he added.

Respondent No.9, also a resident on G-8/4, felt safer walking in her neighbourhood than Respondent No.1. Her sense of safety may have been shaped by the fact that her family had been living in the same flat for over twenty-five years and had good relations with their neighbours. Her husband walks to work even

though the household owns a motorbike. Respondent No.9 stated, “We have a motorcycle. But my husband’s workplace isn’t too far, and he’s diabetic, so he walks when the weather is good. Whatever is convenient at the time. Also, all of us in the neighbourhood know each other well, so we take each other’s car if we ever need to”. In general, participants had varying opinions about how safe they felt from crime and vehicular traffic while walking. Respondent No.10, a resident of the G-8/4 slum, reported harassment to be a major problem of concern for women travelling in and out of their residential area, especially at night. The respondent’s neighbour joined the interview to recount the story of a little girl in their neighbourhood who had gotten murdered recently. “There was a girl my age, someone ripped out her heart. This is how they did it; they slit open her chest from here and here, like this [enacting the act of someone slitting someone’s chest open]. They really torture people - *itna zulm kartay hain*. They chop off the hands of mothers. *Itna bura kartay hain* – that’s how horrible they are...”, said the neighbour. Respondent No.10 admitted her neighbour was telling the truth and that such atrocities were often committed in their area. “Yes, that’s why we don’t get out at night. Only if we’re all together do we go out”. Respondent No.11, a married woman with four children, also felt unsafe walking outside. She stated, “I don’t go out [farther than the *khokas* in the slum], not during the day, not at night. It’s also difficult to handle the kids outside. If I go out then I have to take them with me”.

Whether for daily commuting to work or for weekly grocery shopping trips, participants also walked for more than ten minutes for the purpose of catching local public transport or the metro. On average, it took G-8/4 residents between twenty to thirty minutes to walk to the nearest metro station and ten to fifteen minutes to catch local transport. Respondent No.3’s mother answered how she goes to the metro station, “We walk to the metro. A person who doesn’t have money has no option but to walk to places”. Respondent No.3 added that they walk up to the Chaman Station on the 9th Avenue. “We walk on the roads. Our dad tries to get us to walk on footpaths, but otherwise, you know that yellow line along the roads, we walk behind that line”. Another participant (Respondent No.8), living in subsidized

government housing in G-8/2, only ten minutes away from the metro station, commented, “There’s this one dangerous intersection in this area. When we go towards the metro, we have to walk across several main roads and cars come from everywhere. So walking to the metro is quite risky. You have to cross one road, look around, cross another road, and then look around again”. Besides needing to walk to the metro station, the Respondent No.8’s younger brothers used to take tuition classes in G-9. They had to stop taking classes for the very reason that it was difficult to cross the roads, unless an elder could accompany them. Similarly, Respondent 28 talked about her experience walking to the Centaurus Mall in sector F-8, adjacent to G-8/3. “Travelling to a place like the centaurious is also another story. You have to cross like 10 roads. There’s no doubt it isn’t too far away, but we have to cross 10 main roads. So, for us...I mean we can just look at it from a distance. *Kay yeh centaurrious hai* – We look at it and say, ‘this is the centaurrious’”.

Respondent No.21 stated that nobody in her household used walking as a mode of transportation on a daily basis for work or to get groceries. She explained, “No, we don’t walk that much. I mean we don’t need to. There aren’t any big markets here. There is a small market; my brother only walks there to get little things. And there’s no main stop for local transport either for us to walk to one. This road, this highway, it’s a problematic road. There’s a bridge farther down the road, but otherwise it’s impossible to cross the road. Cars have just taken over the roads in recent years”. Although Respondent No.21’s family members did not own a cycle or any form of motorized vehicle, they did not have any reason to be using walking as a mode of transport. Paratransit and taxi services were meeting most of their transportation demands.

Walking proved to be a useful choice for G-8 residents needing to go to a hospital or to a dispensary. G-8 is one of the few sectors in Islamabad with two hospitals located in the area. Respondent No.5 stated, “A few days ago, I was feeling unwell. At around 10:00 or 11:00 PM, I needed to go to the hospital. My daughter said, ‘let’s take a taxi’. But we just ended up walking on the footpath. We have the

good fortune of living close to the hospital”. Respondent No.3, residing in the same building as Respondent No.5, also mentioned frequently walking to a dispensary in the area.

7.2.2. Cycling

None of the respondents were found to use cycling as a mode of transport. According to Respondent No.22, “Frankly speaking, I am not satisfied in this regard. We don’t have a system appropriate enough for cycling. We don’t have cycling tracks. My children do know how to ride a cycle, but I don’t give them the permission. We don’t have a system that can enable people to cycle easily. When my children cycle on the road, cars come charging from everywhere; I mean there should be tracks dedicated for cycling. I got them a cycle, but when it broke down, I didn’t get it repaired out of fear that they’ll get hit by a car”. Respondent No.22’s concern for her children’s safety when cycling on the roads is valid as hundreds of cyclists and pedestrians get killed or injured (Tetali et al, 2016) on the streets of South Asia every year. In fact, fifty-five percent of the total road traffic deaths in Delhi, India, include pedestrians and cyclists. The percentage is almost as high in Colombo, Sri Lanka, where forty-five percent of road traffic deaths involve pedestrians and cyclists (The World Bank Group, 2015).

Respondent No.21 tragically lost her father in a cycling accident over thirteen years ago. She claimed, “I’ve never gotten into any accident on the motorbike. But my father, he had an accident when riding his cycle. That’s also how he died. It happened because of the local vans. Two local vans were racing one another, my father was crossing the road. He got a head injury. And then, yeah...He died exactly thirteen years ago – in this month. It happened close to here, at Noori Chowk”. Respondent No.21 was generally dissatisfied with the state of the transportation system. When asked if she sees any potential for improvement, she bluntly stated that change is impossible. Being a private school teacher, Respondent No.21 herself relies on a paratransit service to get to her school. Her family once owned a

motorbike, but they decided to sell it off so they could buy a brand new one in a better condition. They still have not been able to purchase one, however. Her brothers are using paratransit services for now, and if all seven of her family members - including herself and her brother's two little toddlers - have to travel together, they rent a taxi.

Similarly, there was a time when Respondent No.5 used to ride a cycle to work but had to stop using it because of dangerous traffic conditions. Although Respondent No.5 never got into an accident like Respondent No.21's father, his need and motivation to work in Islamabad tell us about the lives of people who tend to travel using a cycle or local transport out of compulsion. In 2004, Respondent No.5 was allotted a flat in Islamabad as he found a job as a clerk at a research centre. Respondent No.5 was going to become in charge of managing a photocopying machine and serving VIP guests. He left his family behind in Muzaffarabad to move to Islamabad for work. But in 2005, an earthquake of magnitude 7.6 shook northern Pakistan, killing at least 86,000 people, injuring 69,900 and displacing thousands (National Centers for Environmental Information, 2016). Respondent No.5 was visiting his family at the time of the earthquake. His household was amongst the lucky families who survived with only a few injuries. He had to rescue his second youngest daughter whose hand had gotten stuck under a fallen wall. While the rest of his family waited for roads to get cleared to travel out of Muzaffarabad, Respondent No.5 and his daughter with an injured hand were flown to Islamabad in a helicopter, where he joined his parents. Many of his relatives lost their lives in the earthquake and their families were rehabilitated in *khaima bastis*, also known as tent cities. Respondent No.5 was grateful for the flat he had been allotted only a year before the earthquake. For the next two years, his children would live with him and attend school in Islamabad until they decided to move back to Muzaffarabad. He explained, "My children stayed with me for 2 years after the earthquake. We had to reconstruct our home, and someone had to supervise the reconstruction process, so my family members said that we need to go back to get our house reconstructed. So they left, they went back. They got admission in local schools there. This one

[pointing towards his daughter] has two younger sisters and two brothers. One of her brothers is older. After finishing his matric, he got an admission into a Federal College in Quetta, Balochistan. And this one came back after completing grade 8, she completed her matric from here. She is my darling, my favourite. She said, 'I'm going to stay with my father' ". Respondent No.5 abandoned cycling not too long after starting his career at the research centre. He did so because of his deteriorating health and worsening traffic conditions. "Yes, when I started working, I used to cycle. I had a cycle then. My health isn't very good anymore, so I stopped cycling. I would ride on the roads, on the presidency road. It used to take up to twenty-five minutes to get to work. The roads aren't safe enough to ride a cycle anymore", said Respondent No.5. He now relies on local transport to get to work five times per week. He occasionally takes the metro, but it costs him more than the local van.

It is unusual for the common Pakistani woman to ride a cycle in public spaces or to travel long distances. Respondent No.11 became rather amused when asked if she knew how to ride a cycle. "*Cycle kithon chalani aandi hai* – No way, how on earth would I know how to ride a bicycle!" A younger girl, who was listening to our conversation, added that she rents a bicycle from her neighbours sometimes, for ten rupees per hour. Respondent No.11 acknowledged that young girls in their slum rent bicycles, but it's not something she could ever consider doing. Respondent No.2, living in subsidized housing, also thought that the idea of a woman cycling was somewhat absurd. She said, "I don't know how to cycle. But I do walk. Yeah, I do go for walks. In general, people hardly cycle in this area. But its true that walkers and cyclist should be made to feel secure enough to cycle around, especially if you've just started cycling, you need to feel secure enough to keep using cycling as a mode of transportation". She then added, "But why do people try to be extra smart anyway, there's no need for them to be cycling", laughing at the prospect of people bicycling. Respondent No.2's daily travelling involved riding on the back seat of her husband's motorbike to get to work. She didn't feel the need to use any other mode on a regular basis.

The lack of adequate infrastructure for cycling is a major reason why people do not use cycling as a mode of transport in Islamabad. If you do intend to cycle, you have to be bold enough to cycle along heavy traffic on the roads. Respondent No.23 thought that cycling requires a lot of effort. He said, "I don't think its possible for people to cycle to most places. Not possible. It's highly impossible! People also don't want to be putting in the effort required for cycling". Respondent No.16 explained why cycling in Islamabad is close to being impossible, "*Baita*, cycling is vey good. One, its cheap, secondly its good exercise. But to ride a cycle in Islamabad is close to impossible. If a *wagonwala* passes by you, he's likely to hit you on his way. You never know. And then the roads are unlevelled. Cycling is not possible. It's possible in other cities. It's possible in Western countries". Contrastingly, Respondent No.1 objected that riding a cycle in Islamabad was unsafe. Although he does not cycle himself, his younger siblings use it for recreational purposes. They ride on the roads without feeling unsafe. When asked if any of them has ever fallen into a pothole, Respondent No.1 stated as a matter of fact, "You know very well that there are no potholes in Islamabad" (not a factually correct statement).

The participant's perceptions on the state of transportation infrastructure in Islamabad varied. Respondent No.14 and Respondent No.26 were both residents of the slum, but one thought cycling was impossible whereas the other believed Islamabad was the best place to ride a cycle. Respondent No.14's perception was based on the difficulty riding a cycle within the slum area itself, whereas Respondent No.26 was thinking of Islamabad at large. "When it rains, the roads get filled with water. Who can think of cycling here! You can't even walk on these streets when it rains, let alone cycling. Take a look at them yourself ", replied Respondent No.14. On the other hand, Respondent No.26 stated, "Oh, cycling here is a piece of cake. But I don't cycle". He added, "Actually, the only problem is the traffic. But once the cars have already driven by, it becomes easy to cycle", meaning to say that its easy to cycle on empty roads, which is not usually the case. He also thought that in general, "All of Islamabad is a great place to live; an excellent place". His aunt agreed by saying, "Why should we complain if Islamabad hasn't done us any harm".

Another woman intervened and added, “Yes, as long as Allah can give us good health, that’s all that matters”.

Respondent No.24’s little son was one to have gotten into an accident while riding his cycle. The accident has impaired his vision and disfigured his nose. The respondent described the incidence in the following words, “Yes, they had a cycle. Their grandfather had gifted it to them. They used to cycle. Other kids would use it too, and not use it well. The other kids wouldn’t give my kids their turn. But one day someone on a motorbike was driving by, I was watching, and he hit my kid on his cycle. He had to get a surgery done. His vision is still impaired; his nose is still healing. We couldn’t tell exactly how it happened. I was at home and he was playing outside, downstairs. Bilal, go put on your glasses, you haven’t put on your glasses since this morning”, instructing her child, “His eyesight is very weak. His lenses are this thick...”

7.2.3. Paratransit

Paratransit was found to be one of the popular modes of transport amongst the participants. By definition, paratransit is “any type of public transportation that is distinct from conventional transit, such as flexibly scheduled and routed services such as airport limousines, carpools etc” (Dictionary.com, 2016). In Islamabad, it mostly constitutes college buses and office transport services for government employees and university buses for all students. According to Respondent No.4, a mass communication undergraduate student at a public university, “The University service is wonderful. I mean it’s really good. Pretty much all the girls use it; ninety-eight percent of the people in our university use the service. It goes to several places. So its good, you know. We have a facility and we make full use of it. But then the University is also located in an isolated corner of the city. No public transport can take you there. Only taxis can take you there. And the metro doesn’t [take you there either]...as you already know. Yeah, local transport doesn’t go there or else people would have used it”.

Respondent No.16 uses his office transport service since he works at odd hours for a radio company. He says, “We have office transport. Because we work in shifts and the shifts take place at odd hours when you work for the radio. There are times during the day when local transport isn’t available. It’s not available at 5:00 in the morning, at 11:00 at night, so for such odd hours, we have a transport service by the office. When we’re not working at odd hours, we use our private transport [car] or local transport sometimes”. Although Respondent No.16 did not know how to drive a car himself, his eldest daughter owned a car and was able to drive her family members around the city when necessary. But when his daughters were still in college, they would travel on their college bus, and when they were in school, they would take the school bus. Similarly, Respondent No.16, a schoolteacher, uses a school van to go to work. Comparing paratransit services to local transport, the respondent stated, “I’m a teacher, I go back and forth on a school van, that’s the only conveyance I use. So, I don’t have any personal issues with respect to transportation. But when using local vans, people obviously face problems. You have to wait a lot. And then it stops everywhere so the route becomes really long”. Similarly, Respondent No.30 and some of his neighbours were found to be using office transport to get to work in Rawalpindi. He preferred using his office conveyance over the metro since it took less time. “I work for a telecom company. My office is in Satellite Town. We have an office van. It picks us up in the mornings and drops us off in the evenings...No, no. Only a few staff members from that office live here. For example, I’m one serving at the Satellite Town office, not everyone here works in Satellite Town. People like me take the office van”, explained the respondent. In total, fifty percent of the households were found to be using transport services provided by their institutions for daily travelling to work and/or school/college. None of the participants expressed any concerns with regards to using paratransit services.

7.2.4. Local Transport

Risk of harassment, lack of safety due to reckless driving, over-crowding, over-pricing and unreliability in schedules were all found to be issues of concern for users of local transport services. Respondent No.2 pointed, “We take the Hiace vans. Yeah, safety is a bit of an issue, its not that safe. Especially because they drive them so rashly, and young girls as old as you tend to feel insecure, they keep toppling over the driver. They’re often seated right at the front, close to the driver or conductor. So that’s a problem”. One of the participants, Respondent No.17, who happened to be a school van driver, also concurred to the fact that local transport drivers and conductors tend to drive recklessly and women can be subjects of harassment as their passengers. Respondent No.7 also explained how women end up getting harassed even though they tend to be seated away from the men, “I mean what happens is even if women have separate seats to sit on, they still have to enter using the same door as men. Men can still get close to women”. She added, “We travel using whatever we can find. Wagons and taxis. It’s well understood; local transport is not convenient”.

Respondent no.7 and his mother became defensive when asked if any of their family members has ever felt uncomfortable using local transport. They were further asked if they think women get bothered on local transport. “No, thank God, I’ve never felt uncomfortable on local transport being a woman”, said Respondent No.7’s mother. The respondent thought he should explain why women get bothered or harassed in case they ever do in the following words: “Let me add a point here. The women who get harassed, well that’s because they want all that attention. Otherwise, nobody can dare look at a woman; touching them is out of the question. You can’t stand there and look at a woman, *sawal hi nai paida hota* – that’s out of the question. Those who get harassed invite others to do so”. His mother agreed, further insisting on how harassment is directly proportional to what a woman is wearing, “Obviously, if girls are going to go out looking like models, to get displayed, you can’t expect people not to look at them. Why, don’t you think so? Why shouldn’t such girls

be looked at...". When asked why they think burqa-clad women also become victims of harassment, the respondent's mother reassured me that none of the female members in her family has ever been bothered by men on local transport, "Anyway, we've never been bothered. My daughters always wear the burqa when they step outside, nobody has ever harassed them". My conversation with Respondent No.7 and his mother made me wonder if there was any other way I could have asked this question or if I should have inquired about it at all. Perhaps the household was reluctant to acknowledge that women do get harassed on public transport because they did not want their pre-conceived notion of attributing harassment to the victims' dress code to be contested. It is also possible that the mother did not want to address the subject in front of her young son – who was already blaming women for attracting attention.

Respondent No.13, mentioned how she does not get bothered on local transport but that her young daughters do, "No, I haven't ever gotten bothered, *kisi nai kabhi nahin chaira*. But my daughters tend to face some situations. They are young". All of her four daughters and herself use local transport to get to work, spending between PKR 100 to 200 per day on daily travelling. Respondent No.23 found travelling on local transport to be expensive. He said, "You could say the fares are somewhat high. The *wagonwalas* don't reduce prices or give back money. If you give them twenty rupees, they'll keep twenty. They don't reduce the price". He also complained about the unreliability of local transport in terms of reaching stations on time. "You can't ever catch local transport on time. I mean, a local van cannot be caught on time", stating as a matter of fact. "It first takes half an hour to get to the stop, and then you have to wait. Yes, this happens every time, in our daily experience. If transportation services were better, we could reach on time. They should run more vans. There aren't enough of them. One has to wait so much. It's problematic". Respondent No.25, expressed similar concerns. Her household, consisting of eight members, had to sell-off their motorbike to invest in a piece of land. Since then, they have been more reliant upon using local transport. She explained, "No, we don't have a motorbike these days. We get one and then we sell it

off. We end up needing money so we sell it off. The last time we sold it was because we needed money to invest in a plot. There's some issue every time. I mean transportation is quite an issue for us. You know, these *wagonwalas*, they always overcharge. They don't charge at the rate set by the government. They don't follow rules. We've had so many fights with them at stops, with the *wagonwalas*, on how they charge too much. I always argue with them! I say, 'why do you charge so much?!' The entire family altogether spends PKR 4000 to 5000 per month on transportation. My father in law uses local transport. His daily travel to work takes one hour, one way. Other workers and staff on the van also have to get dropped off, so it takes time. That's the issue. It's a long trip to work. He works for a research institute. My husband works in Bahria Town. So his workplace is located quite far away. The office transport comes at times and other times it just doesn't [so he has to catch local transport when his office van doesn't come]. For schools and colleges, we also use local transport".

Out of all the participants, it took Respondent No.29's husband the longest time to get to work. His workplace was located in the outskirts of Islamabad, two to three hours away from his home. Although the respondent herself walked to her workplace in G-8 Markaz and reported not to face any problems, she was deeply concerned about how much her husband needed to travel. Her husband transfers from one Suzuki to another to finally reach his destination and come back home by spending a total of PKR 300 to 400 per day. They household would prefer working closer to home, "But what can we do. He has to go to work. It's his duty", said the respondent. Participants were mostly dissatisfied with the state of local transport but were using it because they had no better option. In the words of Respondent No.30, "Local transport is definitely over-crowded, but at least it takes people where they need to go".

7.2.5. Metro Bus

The metro bus was not a popular mode of transport amongst the participants even though they found it to be the best available service. One of the concerns raised was the fact that metro stations were inaccessible by walking or not located close enough. Sector G-8 was specifically chosen for this study due to its proximity to two metro bus stations. It is one of the few residential sectors in Islamabad whose residents can benefit from using the metro bus, and yet most participants in the research had a difficult time reaching the stations. Respondent No.24 explained, “Yes, it’s great that the metro has been implemented, but it’s of no use to us. It’s too far. People’s say it’s been helpful, obviously, whoever lives close to it must be benefitting. But the rest of us still have to using vans or motorbikes”. The question this concern brings forward is that who lives closer to the metro stations if not the residents of G-8? Even G-8/2 residents, living closer to the stations than G-8/4 residents, found main roads to be an obstacle when accessing metro stations. A father of four young daughters, Respondent No.16, commented on the issue by saying, “It’s true that the government has created this facility, but there should be another facility for us to get to it. They don’t seem to be working on this. And then the other thing is that, the existing stops, they aren’t situated well, looking at it from the perspective of approaching [accessing] them. Take the complex [PIMS] stop, for instance, you have to cross an entire jungle to reach it. There are many other similar stops; I don’t think you would’ve visited those stops. One way of getting to the complex [PIMS] stop is to take the two kilometer long route, the clean and paved way, but if you take the shortcut, you meet animals on your way, you’ll come across stray dogs. Now, young girls can’t possibly take such routes”.

Respondent No.28 very bluntly expressed her dissatisfaction with the metro. “It’s of no use us! The metro. No, no, not to us. Had they introduced something close to us! I mean think about it. It takes 200 rupees just to get to the station. We have to give that much to the *taxiwala*. So, no! The metro is not for us! There’s nothing for us, girl – *humaray liyay kuch nai hai bhai*. We might as well travel all the way up to

Pindi in 200 rupees”. Respondent No.31 (living in subsidized housing unlike Respondent No.28, who was the resident of a slum) also said something very similar, “As far as transportation is concerned, I would say the metro stops should be closer to people’s homes. I mean if they’ve introduced a service, we should at least be able to access it. It makes no sense to spend 20 rupees to get to the stop [via local transport] and then have to pay another 100 or 150 rupees once you get off. So it’s not useful. They’ve just created another business for themselves”. Some other participants were simply afraid of using the metro because of stories they had heard of other people getting caught in the automatic doors of the bus. Although her son used the metro on a daily basis, Respondent No.10 thought the metro was dangerous to use: “No, we’re not benefitting from the metro. People actually get hurt from using it. They get hurt because they run to catch the bus and the glass doors close up on them. So the problem is, once the doors close, you just stay stuck. It happened to one of us in the *abadi*. Something also happened to this one poor woman. Her hand got stuck and the doors wouldn’t open”. Respondents No.15 and No.21 complained that the metro bus is over-crowded and that it does not even take commuters to their final destinations. In fact, Respondent No.21 concluded that the metro bus was not any different from local transport since they were both equally crowded. She said that during the two times she had used the metro, she had to be standing right at the door. She also wondered why the metro bus authority is not running more buses when there is a demand for it.

However, most other respondents had positive reviews of the metro even though they were not necessarily making use of it to travel on a daily basis. Respondent No.2 saved a significant amount of money when she used the metro to travel for a twenty-three days Montessori course she was taking in Rawalpindi. She said,

“I mean local transport, the vans, taxis and all, can be quite expensive. If I ever use the taxi, it takes me three-hundred rupees one-way, or even more. But this motorway [metro], I find it very convenient. Metro I mean. This metro has

saved me a lot of money. I asked the taxiwala and he said that for twenty-three days it would have cost me 6,000 rupees, for going and coming back. So you can see for yourself that the metro is the best. To get to the metro station, well my husband would drop me to the station in front of Centaurus Mall, it would take ten to fifteen minutes. And then, another thirty minutes on the metro itself. And then from there, we would walk to catch a rickshaw.... The metro bus station was fifteen minutes away in a rickshaw from the school [Montessori]. The rickshaw ride cost fifty rupees. Two of us girls would share a rickshaw. We'd spent fifty rupees in one-direction; fifty to get to school and fifty to get to the station. And then my husband would pick me up again from the station here".

Respondent No.2's experience illustrates how most metro bus commuters travel. Another typical travel log of a daily metro bus user was that of Respondent No.22, a woman who worked at the secretariat, located right at the end of the metro bus line. She recounted, "I'm a working woman myself. I take public transport to work. My experience with daily travelling is that since the metro, travelling has been better. Local transport used to stop every where, I wouldn't reach work on time. Public transport in Pakistan is not that advanced. You can't reach your office at the right time. From G-8/4 to the secretariat, it takes one hour at least. That's too much, shouldn't be this way. One should be able to reach their workplace in no longer than twenty minutes. I've started using the metro now, *MashAllah* – Praise be to Allah. I've been saving up on time. I'm in my office within twenty minutes".

Some participants were of the opinion that the metro was benefitting their community. Respondent No.6, a non-user, stated that the metro was beneficial for women who could previously not travel alone. "Yeah, the community has benefitted from the metro bus. This Sunday Bazaar, many women can go to it easily now. Before they had to wait for their husbands to take them, but now they can go on their own, they carry the groceries themselves. People used to take a cab to the Itwaar Bazaar before". She added, "People are also thinking of getting admission in different universities now, in Rawalpindi or Islamabad, if it's on the metro route,

because they can travel more easily now”. An undergraduate student, Respondent No.8, wished the metro could take her to her own university also, even though the paratransit service she was already using was not inconvenient to use. Her claim was further confirmed by Respondents No.9 and No.7. Respondent No.9’s daughter has been considering finding a job in Rawalpindi upon graduating. She told her mother that she has a place in mind where she would like to work and that commuting would not be difficult because of the metro. Similarly, two of Respondent No.7s friends found jobs in Rawalpindi soon after the metro was implemented. Although they had to quit their jobs within a week since they had to end up working later than eleven at night - after which time the metro stops operating - their experience indicates that the metro is possibly connecting people to a greater range of employment opportunities.

7.2.6. Motorcycle

Over fifty percent of the households interviewed used a motorbike for daily travelling. According to most participants, it was the most convenient mode of transportation to use in terms of enabling door-to-door access to desired destinations. As compared to walking, motor biking appeared to be a more life-threatening mode to use due to greater exposure to traffic – four of the participants had family members who had gotten into major motorbike accidents. Respondent No.2’s husband had gotten into at least four major motorbike accidents since the two got married twelve years ago. She talked about them as frequent occurrences, knowing what to do each time she gets a call telling her that her husband has been in an accident. She elaborated,

“Yes, my husband has gotten into several motorbike accidents. Since I’ve been with him at least, he’s had a couple. I don’t know if he got into accidents when he lived with his father, before we got married. My husband’s been in Islamabad for twenty years now. He has a lot of experience here. He’s gotten into at least four accidents since we’ve gotten married. Yeah, that’s a lot. He

rides fast himself, but the ones he gets into accidents with are also to blame. Once he hit a car, another two times he collided with other motorbikes, and he crashed into a footpath once. It was quite a severe one. So once an accident happens, people from his office tend to take him to the hospital. They take him to Shifa Hospital because he has insurance with Shifa from his workplace. And then they call me, saying 'bhabi, come now'. And so I go. When I look at him, I burst into tears. The next thing that happens is that he gets discharged. He doesn't get back to riding his bike right away; it takes some time to recover. He goes to work using the office conveyance when he's injured. Actually, people in Islamabad benefit from office transport facilities quite a bit".

Respondent No.9's oldest son and youngest daughter also got into motorbike accidents. She remembered the two times when they had been into accidents. The first time it happened, her son was dropping his sister off to college on the day she had a practical exam. Although his sister normally went to college using a college bus, she was using private conveyance on the day of her exam. "My youngest daughter was with him and wearing the *abaya*, she had a practical exam that day, can't recall for which subject. Her *abaya* got stuck into the wheel. The motorbike went rolling down the road. The entire *abaya* got ripped apart but their lives were saved. Thank God they got saved", she explained. "The second time my son was going straight on the highway and a car suddenly opened its door. He crashed straight into it. It was the car's fault. There were cars coming from behind too, but Allah saved him. I always pray for him, it worries me a lot", recounting the second incidence. Respondent No.4 also expressed concern over the danger of riding a motorbike, but since her brother's motorbike got stolen, she does not have to worry about his safety anymore. Respondent's No.23 and No.24 also had family members who got into accidents, but they reported them to be very minor ones. Bumping into security barriers and other vehicles on congested roads sounded like common incidences for motorcyclists.

Respondent No.15 thought Islamabad was a much safer place to ride a motorbike than a place like Rawalpindi. He explained, “The advantage we have of living in Islamabad is that the traffic police here is strict. If you break any rules or regulations, you have to pay a fine. In Pindi, you’ll find thousands of people without helmets. In Islamabad, you’ll think a thousand times before going out without a helmet because you might get caught by the traffic police. The system here is working well; you’ll get stopped for over-speeding”. Ironically, the participant was later seen leaving his building on his motorbike without a helmet. Despite the traffic police’s attempts to fine motorcyclists riding without helmets, it is not uncommon to see motorcyclists without helmets in Islamabad. Respondent No.22’s husband got into an accident when he was wearing a helmet but had not buckled it properly. The accident also happened in a place that the respondent could not reach on her own, so her husband had to call 1122, an emergency ambulance service, to be rescued. He got injuries in three places on his head, but his life was saved. In addition to being careless about buckling his helmet, Respondent No.22’s husband takes his three little children to school on his motorbike, with their heavy school bags inclusive. Although the children’s school is at a walking distance, the parents prefer dropping them off to school on the motorbike.

Most participants seemed to make trips to get groceries using local transport or a taxi. They would take local transport to a grocery store in Karachi Company or to the Itwaar Bazaar, and return on a taxi with hands full of groceries. Respondent No.9’s family was one of the few families who made grocery-shopping trips to the Itwaar Bazaar on their motorbike. They got milk delivered to their home and got meat from Peshawar (the city, not Peshawar More) once or twice a month. According to Respondent No.9, meat in Peshawar was of a much better quality and not as expensive as in Islamabad.

Motorbikes were also a useful mode of transport for families with small children. When compared to the times they did not have the luxury of owning a motorbike, respondents thought having a motorbike made it easy for them to get

things for their children in case of an emergency. In fact, Respondent No.24 even put together a committee (crowd financing system) to collect funds to buy a motorbike for her household. A committee system in Pakistan is a traditional method of pooling funds to create access to interest-free loans for the members of a community. These loans can be used for a variety of purposes, including household consumption, businesses and other projects (Dar, 2013). Respondent No.24 talked about how her family transitioned from using local transport to using a motorbike: “Well at first he [husband] used to take local transport. Now, it’s been sometime, two to three years since we’ve bought a motorbike - a second hand motorbike. The problem with local transport was that if something or another ever happened to our children, if someone got hurt, or if we needed anything else for them, we had to take a taxi, and taxis would charge a lot. So we got a motorbike by putting together a committee. It was a second hand motorbike. So Praise be to Allah, now, when we have to go somewhere, if we ever have to make a quick trip to Karachi Company, we just get on the bike and go get what we need. Taking a taxi is just too expensive”.

The average household size of the participants was 6 people; which meant that a single motorbike was not always enough to meet the daily travel demands of all household members. Local transport and paratransit services were used by households who owned motorbikes, almost as much as households who did not. But households seemed to avoid using local transport if they could. Respondent No.26’s father preferred using his motorbike over local transport in order to save money. His aunt explained, “His father is an exceptionally hard working human being. Instead of spending ten rupees on something [local transport], he’ll put in the effort himself. He’s very hard working. He’s at the store at the moment. He could teach you a few things about life; he’s illiterate but he knows more than you do. That’s the kind of person he is”. Respondent No.27 also preferred his motorbike instead of local transport. He explained that he might as well ride his own motorbike for fifty rupees than give fifty rupees to local transport. When asked how much Respondent No.26’s father spends on travelling using a motorbike, both aunt and son did not have a definite answer. In general, female participants were unaware of how much their

families were spending on transportation. Respondent No.2 highlighted her reason for not knowing, “The exact expenditure, my husband would know. I don’t know how much it costs to put fuel in the motorbike since my husband doesn’t take money from me”. Similarly, Respondent 10, a G-8/4 slum dweller, confessed that it’s her husband’s responsibility to provide for the family. Although she was a working-woman herself, she stated that if ever her family ends up spending too much on transportation or anything else, her husband deals with the situation himself.

7.2.7. Taxi

“Groceries, we get from Karachi Company. We take the 120 [local van] to Karachi Company. If we have too much to carry then we take the taxi back home, if its not that much then we just take the van back”, claimed Respondent No.5. As mentioned earlier, low and lower-middle income households in Islamabad make use of taxis to bring back groceries. Another respondent explained why people end up using a taxi, especially when they have to come back from the Itwaar Bazaar, “Obviously, its quite inconvenient to carry groceries in local transport. We have to get a taxi on our way back. Since local vans don’t stop right in front of the Itwaar Bazaar, we have to take a taxi out of compulsion. Vans tend to be overcrowded. It’s difficult to get to the van stops from the bazaar. They’ve built this underpass; you have to walk across the underpass to catch a van. We walk across the underpass on our way to the Itwaar Bazaar, but not on our way back. Catching local transport at night is even more difficult. We take a taxi when we need to go out”, said Respondent No.25. The *taxiwalas* charge more when passengers are carrying more weight. As one respondent (No.28) mentioned, “They [*taxiwalas*] charge more by saying ‘*hunr wazan barr gaya hai* - there’s more load now, the car is heavier”.

Limited access to local transport near residential areas is also another reason why people end up taking taxis instead. According to Respondent No.28, “Not many vans run along here. No, nothing. Just the 105 [local van]. But it comes so infrequently that we end up taking a taxi instead. So we travel according to

whatever is available to use. We end up taking a taxi from home, knowing we're going to have to waste half an hour to one hour waiting for a van that's not going to come anyway. So we just pay hundred rupees to get on a taxi from here". Some participants tried not to use taxis even when it was needed. Respondent No.3 talked about how her household would prefer using a taxi to go to a dispensary or hospital sometimes, but since taxi drivers charge a lot, they end up walking to access health care. She also compared the cost of using local transport versus using a taxi. Her entire family of six members can go to the Golra station in PKR 90 in local transport, whereas the same trip costs them PKR 600 in a taxi.

Some participants used taxis for recreational purposes. Respondent No.8 stated, "We take a taxi to the Fatima Jinnah Park sometimes. The boys keep playing and the rest of us walk. That area is nice. There is a big ground over there". None of the participants were using taxi services for daily commuting.

7.2.8. Car

The purpose of focusing on subsidized government housing and informal settlements in Islamabad was to filter out households who were able to use a private car for daily travelling. Three households were still found to be using a car, however. These households were relatively more affluent than other participants and had monthly incomes of over PKR 40,000 per month (participants ended up telling me what their monthly incomes were even though I only asked them about the percentage of income they spent on transportation). Respondent No.15's family appeared to be the most affluent, as they owned three motorbikes in addition to owning a car. Twenty-one year old Respondent No.15 talked about his views on why people rely on cars even though cars can be a source of atmospheric pollution, "The truth is, it has become trendy to have a car now. There's a person in our block who has two cars, and one just stays parked all the time. Using cars does have environmental impacts. All the smoke and the pollution, but its also a necessity". I further asked him if he sees potential in the society to shift from using cars to using

public transport, cycling and walking instead, and he replied, “No, I don’t foresee such a change. I can’t see people shifting to using more public transport and cycling around. No, it’s just not possible. I mean had we done it since the very beginning, when nations are developing, we could have done something then. If someone were to offer you a ride in their car when your other option is to get to a place by walking, you’re going to let the car driver drop you off. And cycling is hard work! No, no. There’s no way we can stop using cars...Actually, I don’t know, everything is possible...but no, not in Pakistan; as far as I know”. Another participant, Respondent No.16, whose daughter knew how to drive and owned a car, expressed some problems faced by car users. He said, “The biggest problem today is that of these barriers, the check-posts/security-posts. The purpose of having them placed everywhere isn’t getting met. The security guards tend to be sitting four miles away from the check posts, day and night – *subah, dupehr, sham* – while car drivers cross them under stress. And there are so many places in our Islamabad where we don’t need signals. They can build underpasses or overheads. But they’ve deliberately placed signals in such places. And these signals are long, I tell you, they last for a good two to three minutes. *Pohancho tou ishara khatam honay ka naam hi nai laita* – when you get to the signals, they just take forever to turn green. Morning hours are a bit difficult, and when office workers get off work”. He further added that his family spends PKR 10,000 per month, about fifteen to twenty percent of his income, on transportation.

Respondent No.24 and her children wished they had a car, but when I asked one of her children if he thinks cars cause pollution, he admitted that they do and went on to explain the science behind how pollution affects the atmosphere, “True. Pollution creates a hole in the atmosphere. Yes, air population [pollution] happens. All the smoke goes up and prevents it from raining”. He also thought that he sees greater potential for cycling in Lahore than in Islamabad. His mother added, “These people, all people want these days is a car. Nobody gives a thought to the possibility of cycling. But I say cycling is a good mode of transportation. It’s wonderful. One ends up exercising also. My son says, ‘lets get a cycle’, and I say no, don’t think about

it again. Once we're able to pay back our committee, we'll start another one. He wants a cycle now, I said we'll get one at another point in time".

Respondent 32 stated that her household has no problems with respect to urban transportation. Her family owned a car as well as a motorbike. They used all other modes of transportation for pleasure only, if at all. "We use the metro sometimes, when we have to visit our brother. But we use the car otherwise. We take the metro for the pleasure of our children. Otherwise, you know, when one has their own car, they don't want to use anything else, using one's own car is much easier".

7.3. Priorities

To understand the significance of urban transportation issues in the daily lives of low and lower-middle income households, participants were asked what they thought were the most important issues the government needs to address in general. They were subsequently asked how important it is for the government to address transportation related issues given the existence of other problems they were mentioning.

According to several respondents, *mehangayi* was the greatest problem that needs to be addressed. *Mehangayi* is the colloquial term used to describe a condition in which basic necessities, as well as other consumable goods, are too expensive. The word does not literally translate to 'expensive', 'inflation', 'poverty' or 'unaffordability', but it – the condition of *mehangayi* – can definitely make life more unaffordable for poorest of the poor. In other words, it is a condition that results from a combination of people's wages being low and consumable goods being over-priced.

Respondent No.3 described how her family has been affected by *mehangayi* in the following words: "Things here [in Islamabad] are really expensive. We have

low wages. We hardly make our ends meet. Our pockets are tight. We have to cut down on how much we eat. We don't earn much. The government should help the poor and needy somehow. Our children should be able to get their education. If only they could help us with our income, if only they could raise our salaries..." Similarly, Respondent No.2 insisted how resolving the problem of *mehangayi* will solve everything. She said that urban transportation needs of the poor in most places are already being met and that even Multan and Lahore have the metro bus now. "So, the thing is, *mehangayi* is the greatest problem we face. *Mehangayi* is just getting out of control, and it's the poor who are suffering the most", she commented.

The second set of problems that should be given priority by the government, according to the participants, was access to affordable and formal shelter, electricity, water and gas. This was especially true for the participants of the slum, who had built their homes on properties they did not legally own. A resident of subsidized government housing (Respondent No.31), who was required to vacate her flat within two years following the death of her husband, also complained about shelter being unaffordable. She expressed her frustration by saying,

"Poor people like us already don't have secure shelter. Now we have to vacate this house in two years. Where will we go after that? Resolving this problem has never been a matter of concern for any of our governments. My grandparents, great grandparents, from both my parents' side, who migrated to Pakistan, they left all of their properties and wealth behind. The same goes for people who left Pakistan for India. We're still standing where we were standing when our families first migrated. We, the poor, do anything it takes to put food on our tables; we don't have time for anything else. We struggle - Mushkil se dou waqt ki roti hoti hai. Although we struggle, we still barely have enough to eat. These magar mach - crocodiles - who are sitting at the top [referring to politicians/those in power], why don't they do something for the poor? No amount of food is enough to fill their bellies - kha kha kay pait nahin bharta

inka. These magar mach need some guidance in life, to think of others besides themselves”.

Respondents No.11, No.23 and No.32 highlighted that the education system needs to be given the greatest priority. Respondent No.32 elaborated, “We need good teachers in schools. They just come to school to do nothing, even though they get paid. But they don’t teach the kids anything. If our children can be well educated, our environment could be better. Our country will progress in this way”. Respondent No.11, also wished for her children to have a bright future. “What I want is for my kids to have a good life, I want them to be educated, I want them to be good Muslims, I want them to become professionals, *koi doctory shoctory parhein* – I’d like them to study something like medicine. Parents can only hope for the best and pray. The rest depends on how much the children get blessed”. Respondent No.23 claimed that he has personally been affected by the poor quality of the education system. He had graduated from college and was now unemployed and searching a job. He spoke about the state of the education system with a tone of disappointment in his voice, “If you look at systems, pretty much all systems here are malfunctioning. If you look at education, government schools don’t offer good quality education”. Resuming after a pause, “Because we [him and his siblings] attended government schools...the education system wasn’t that great. People who study in private schools have stronger foundations, as compared to us... So, they should do something to improve the education system first”. He later added how improving the transportation system is also important by saying, “Both transportation and education are important. If someone has to go study, they need to travel. With the right transportation system, you’ll be able to reach your school on time. You won’t stress out because you’re unable to reach on time”.

About three participants also expressed concerns over the state of hygiene and cleanliness in their surrounding area. Respondent No.8 asserted, “The first thing that should be done is that all this garbage should get picked up. All the drums are full, but no one comes to collect the garbage. The garbage just rots there. What

people do is throw the garbage in the canal – the *nala*. They know nobody's going to collect anything from the overflowing drums. It's getting worse day by day. Nobody comes on a regular basis. Nobody even knows when they come, so waste just keeps collecting". Respondent No.30 complained about the same issue,

"If something had to be given priority, well, take a look around yourself. You'll realize that this place isn't habitable for human beings at least. I mean our area is incredibly unclean! All these rampant illnesses and diseases, they exist because of these unhygienic conditions. There are so many mosquitos. Take a look at this gutter. It's open. Look at the pipes, they're rusting and corroding. Any outsider must think that these buildings have no owners to keep up with their maintenance. There's no system to keep the area clean... You'll find trash everywhere. We feel guilty when outsiders visit is. People must think we don't keep our area clean".

Most other participants answered that more than one issue needs to be prioritized by the government at the same time. Respondent No.17 thought, "There's not just one single problem that needs to be given priority. Basically, our country has all sorts of problems. Transportation is a problem. Healthcare too. These are all basic responsibilities of the government. There are a lot of basic things, people have basic needs". Upon my insistence, Respondent No.19, ranked issues based on how much priority should be given to each one of them. He responded by saying, "The greatest investments should be made in the field of education. Healthcare is the second most important area of concern. Transportation can be given the third priority, and also the issue of providing shelter - accommodating people. But health is very important. Healthcare is very expensive. God forbid, if anything happens to a poor person, healthcare is just not affordable". Respondent No.16, was of the view that conducting a census could help resolve several issues. He said, "The Mayor of Islamabad, he doesn't even know the population size of Islamabad...Yes, so they need to conduct a proper census. Once that is done, we'll know how populated are each one of the sectors, how many roads they have, how many schools, how the

children in each sector are doing. Even the people of Islamabad don't have access to water. And if they do get access to water, they find it mixed with gutter water". In general, transportation was not the most pressing issue for most of the participants.

7.4. Recommendations by Participants

1) *More frequent and improved quality of local transport*

Respondent 28: We want something right here. An improved local van system so we can benefit from something for once. In general, the metro service is not for the residents of Islamabad itself.

2) *Greater access to services like the Bus Rapid Transit (metro bus)*

Respondent 19: The poor will benefit from any kind of transportation facility you can provide. Take travelling in wagons as an example. Travelling in wagons is stressful. The way one gets shoved around or pushed in a wagon is horrible. One doesn't come out of a wagon looking the same as when one gets in. You go in with clean and neatly ironed clothes and come out not looking the same! Do you know what I mean? *Aapka huliya tight ho jaata hai*. This is to say that there should be more services like the metro.

3) *More walking paths to reduce exposure to vehicular traffic*

Respondent 19: Travelling experiences can be improved if the government could implement more projects. In addition, footpaths should be built for pedestrians. If someone needs to walk, they should be able to do so easily, without any danger, with a reduced risk of getting hit by traffic. There should be walking paths along roads.

4) *Adjusting local transportation fares based on petrol prices so that local transport drivers can maintain good service*

Respondent 22: Travelling experiences. Hmm, let me tell you something. You know these...I'm not just thinking about myself here...these drivers, I'm

thinking from the perspective of local transport drivers. The drivers say that the government has reduced transport fares. But petrol prices have gone up, while fares are too low. They consequently go into a loss. The drivers are at a loss. So the government should adjust fares based on petrol prices, so that, you know...so they can improve their service.

5) Keeping local transportation fares low for passengers

Respondent 25: Transportation...mmm...I'm not sure how daily travel experiences can be improved. Well, the government can probably do something. They can be strict with *wagonwalas*. Because people who have to commute to work everyday, they experience turmoil, the fares are an issue. People like me, we only travel sometimes, so it's not a problem for people like me. But those who are extremely poor, its an even bigger problem for them. *Wagonwalas* don't obey the laws set by the government.

6) Driving schools and other institutions should train people how to behave on the roads

Respondent 7: The crux of the problem is that everybody is always in a hurry, no matter what they are doing. We want to get things done faster and faster. People are always trying to overtake. For no reason, people just want to get through the signal without waiting. Signals are abrogated. But I've heard that before driving schools didn't focus on traffic rules, now they teach more traffic and driving rules.

Respondent 17: Everyone has their own mindset, people have different personalities based on those mindsets; they behave according to their personalities. In humanity, people have complaints. With respect to transportation, yes, they complain about vans being inconvenient for women. This is true to a very large extent. It's true that drivers don't behave well with children and women, public drivers I mean. The government should do

something about it. Drivers should have training classes, they should be taught basic rules on how to behave.

6) Cars, motorbikes, property and money to marry-off daughters...

Respondent 17: Also, the government should provide motorbikes and cars to those who need them, that'll make a significant difference.

Respondent 18: The first thing the government should do is to give us property/land. What else can one want? And our girls are in their youths, we'd like the government to give us money so we can get them married. That's all we want. We want to be property owners. We want our daughters to be married. We want to fulfil this obligation. People don't take interest in our girls because we don't have our own home. Nobody wants girls whose parents don't have their own home.

7) No change is required; Islamabad has a great urban transportation system

Respondent 2: As far as the transportation problem is concerned, we have access to taxis here. People use them even if they are expensive. They use them out of necessity obviously, not everyone has their own conveyance. But relatively speaking, Islamabad, as compared to other countries [cities], has better transportation. People have cars here, and if they don't have a car, they can be taxi drivers; they take their families around in their own taxis. I'm originally from Sialkot; and Sialkot has a lot of issues. Every time we go there we want to come back within a day or two; we just get fed up of all the traffic. The roads are terrible. They haven't been constructed properly. Broken roads, noisy and expensive rickshaws. The rickshaws charge way too much. *MashAllah*, Islamabad is a lot better.

Respondent 4: You know, when we didn't have the metro, people were still travelling. It's not like people weren't able to meet their travel needs without it. I don't think improvements in transportation are that much of a need.

Respondent 26: Praise be to Allah. We have no problems

8) Ending corruption and unemployment

Respondent 4: If we can end corruption and end unemployment, and end all kinds of crimes, we'll begin to see progress. Great progress. If an educated person can find a job, and if corruption can be ended, our country can be the best country in the world.

9) Controlling mehangayi

Respondent 4: If they can't raise wages, they should make living more affordable – they should control *mehangayi*. A person should be able to live a good life once they get employed and are paid well.

10) Elected officials should remain in touch with the public

Respondent 4: The government should keep track of all the educated people. It should stay in touch with the public. Elected officials should revisit people who vote for them.

11) Controlling population growth

Respondent 5: You know, no matter what we do, take the metro for example, or any other government transportation project or scheme, the rush, the traffic will always be there. Our population is increasing so fast. The other day, someone passed away and we had to go to his funeral. We thought there wouldn't be much traffic on the way, but the traffic was still there. In fact there is more traffic now than ever before. Even though they've constructed double roads and the metro runs separately, there's still so much traffic. There's no control over population growth. Something needs to be done to control this growth.

12) Adequate supply of natural gas for cooking

Respondent 16: They should move on to solving the Sui Gas problem now. People should be able to cook their food on time at least. As the weather is changing, we're seeing more gas shortages.

13) Fixing the education system

Respondent 21: We need to fix our education system first; the transportation system can be fixed later.

Respondent 25: Some people don't acquire education because of fees issues. They'll complete high school, but not go for higher education. Education is the greatest challenge the government should focus on.

14) More electricity production

Respondent 22: In my opinion, the government should build dams in Pakistan! Absolutely, dams. That's my suggestion. Dams are the key to success for any country. They are necessary to produce electricity. Once we'll have electricity, we'll prosper...do you know what I mean? Pakistan produces so many things with the help of electricity. Our water just goes to waste every year. Which is why they need to make use of it and produce electricity, that's how we'll progress.

Respondent 28: Once again, we have no electricity here – we need electricity. There are many other places that are not electrified. Nobody else here uses the metro. Nothing is ever done for the poor.

8. Reflections & Limitations

An ethnographic approach to research in transportation planning is one that has been underused. The idea of understanding urban transportation problems from the perspective of the urban poor can be useful in developing policies that bring neglected issues to the forefront. For example, contrary to the Capital Development Authority of Islamabad's perception that a Bus Rapid Transit system between Islamabad and Rawalpindi would benefit the most marginalized members of the society (CDA, 2012), the ethnography indicated that this was not completely true. The interviewed residents of Islamabad insisted on the importance of having an improved intra-city transportation network instead. Additionally, the perceptions of the urban poor, captured in this research, can be useful in informing transportation policy-makers to integrate neglected or undervalued areas of development in key policies.

Once the decision to conduct an ethnographic study was made, I was a little reluctant to visit the G-8 slum and subsidized government housing in the area without anyone accompanying me. A family friend and my mother accompanied me during my first and second visits respectively, but after deconstructing my own perception of lack of safety, I completed all other interviews on my own. In fact, participants were exceptionally welcoming and not once did I feel unsafe interacting with any of the men or women. Some of the little girls residing in the G-8 slum volunteered to give me a survey of the slum, telling me which alleys to avoid and which ones not to avoid.

One limitation during the literature review portion of the research was the lack of studies focusing on the urban poor. Multiple articles discussed urban transportation concerns and choices of people in South Asia, but few focused on the urban poor. The behaviour of the urban poor had to be deduced from literature that looked at all socio-economic classes.

9. Conclusion

South Asian cities are rapidly urbanizing and with it generating more daily travelling for activities such as work, education, healthcare and essential shopping. Daily travelling for work is particularly important for the urban poor who rely on weekly or monthly wage labour to feed their households. The needs of the urban poor of Islamabad are no different than the needs of the urban poor in the rest of South Asia, except that they have somewhat different transportation choices available for daily commuting. The auto-rickshaw, which provides services equivalent to those provided by a taxi but at a lower cost, has been banned in Islamabad. Unlike cities such as Mumbai, Islamabad is much less accommodating for the use of public transit and the infrastructure necessary to reach public transit. Although the city has a Bus Rapid Transit (metro bus) service, it is incredibly difficult for the urban poor to access it as they often have to cross wide main roads, walk through forested areas for up to thirty minutes, or have to pay between PKR 15 to 200 to taxi drivers or local transport services to get to a metro bus station.

Walking is a captive mode of transportation for most of the urban poor who use it for daily travelling. Islamabad is no exception in that its streets and roads lack pedestrian sidewalks. Another problem faced by the urban poor in Islamabad is that most destinations are not within a walkable distance. This can be attributed to the fact that the city was designed for the private automobile and infrastructure for walking and cycling was deliberately neglected. The ethnography portion of this study showed that the urban poor do not rely on cycling as a reliable mode of transport for daily commuting nor do they foresee much potential for Islamabad to become more conducive to cycling. The urban poor of Islamabad want local transport services to improve their quality of service and to run more frequently on underserved routes. They do not want to be relying on non-motorized modes of transport for door-to-door journeys as much as they would like motorized public transport to become more convenient to use. The distances that the urban poor

must travel are too long for them to be dependent on slow modes of transport such as walking or cycling. Many low and lower-middle income households in Islamabad rely on office or school/college paratransit services to meet transportation needs that are unmet by the public transportation system. Although access to paratransit services is mostly limited to government employees and public school, college or university students, it is a mode of transportation that is widely appreciated.

More than being concerned about urban transportation problems, the urban poor worry about the lack of affordable and formal housing, lack of access to electricity, water and gas, poor quality of the education system, low wages, overpriced essential goods and lack of garbage collection. The urban poor would like the government to give priority to resolving problems that affect the poor instead of further developing sectors that are already doing well. Participants of the ethnography mostly held the opinion that the metro bus system is a great service, but that it is one that has not done much to improve the lives of the urban poor of Islamabad. It has surely connected professionals and students, men and women, in both Islamabad and Rawalpindi to a wider range of job and educational opportunities, but the working labour class of Islamabad does not seem to have benefitted. One reason for the lack of benefit of the metro bus to the poor is that it does not take them to their desired destinations. Residents of slums often do labour work within Islamabad, making an inter-city public transit service irrelevant to their actual daily travelling needs.

Young men, almost exclusively, in Islamabad are beginning to rely more and more on motorcycles for daily travelling. This trend is also visible in the rest of South Asia as the cost of purchasing a motorcycle has been on the decline for over a decade. The urban poor see owning a car as a sign of prosperity and if they could choose between non-motorized modes of transport, public transport, a motorcycle and a car, they would opt to use a car. The participants of the ethnography had a hard time visualizing Islamabad as a city that could be more pedestrian and cycling friendly. The inability of Islamabad's urban poor to aspire for a city that is not

dominated by the private automobile is understandable. The urban poor's primary concern is to reach employment opportunities in the most convenient way, even if one must ride an inefficient petrol-powered motorcycle to do so.

The responsibility of providing adequate transportation services for the urban poor while keeping socio-economic, environmental and sustainability concerns in mind, therefore, lies in the hands of decision-makers. Attention must be given to the daily travelling needs of the urban poor to understand where they travel to and how local transport services can be improved to facilitate travelling. More than an inter-city metro bus, Islamabad needs a well-developed local transportation network that can take people to a wider range of destinations within Islamabad.

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Appendix A

Terms & Definitions

(not explained/translated in text)

Eid-ul-Fitr: Muslim religious holiday to mark the end of the month of Ramadan.

Shalwar Qameez: Traditional sub-continental outfit typically consisting of a long shirt and loose trouser.

Saree: “a female garment from the Indian subcontinent that consists of a drape varying from five to nine yards (4.5 metres to 8 metres) in length and two to four feet (60 cm to 1.20 m) in breadth that is typically wrapped around the waist, with one end draped over the shoulder” – Wikipedia.

Lehnga: A traditional long skirt with a lot more flare than a typical long western skirt.

Abaya: A cloak or loose garment often worn by Muslim women.

Abadi: Settlement

Pakka: Literally means ripe/strong but is used to refer to formal constructions.

Kacha/Kachi: Literally means unripe/weak but is used to refer to informal constructions. A kachi abadi is an informal settlement with kacha homes.

Mazdoori: Manual labour work. A mazdoor is a person who does mazdoori. In urban areas, working as a construction worker or a sweeper/cleaner makes you a mazdoor.

Khoka: Small stand-alone shop located with or without permission from the local authority. Often found where no other shops are found. Sells small grocery items, tea, chips, chocolate, cigarettes, juices etc.

Wagonwala: Van or Suzuki (local transport) driver

Taxiwala: Taxi driver

Baita: Literally means ‘son’, but also used to say ‘daughter’ or to refer to someone like a son or daughter.

Bhabi: To refer to the wife of someone who is your brother or like a brother (i.e. close friend, relative or cousin)

Appendix B

Semi-Structured Interview Guide

Introduction & Consent

Asalam O Alaikum/Hi/Hello...[Explain research and have consent form signed]

Daily Travel Experience for Different Trip Purposes, Mode Choices & Needs

- 1) For how long have you been living here?
- 2) What caused you to move here?
- 3) How many other people are there in your household?
- 4) Are you currently working? Where do you work?
- 5) What is your daily travel experience like on work days? How do you get to work?
Please describe your mode of transport.
- 6) What about your other family members? Do they work? Do they go to school?
- 7) Where is their school located? How do they go to school?
- 8) Besides work, what other purposes do you travel for? What about your family?
- 10) Which modes of transport do you use for these travel purposes?
- 11) Where do you get your meat, vegetables, milk, eggs and other groceries from? Do you go to the park? What about accessing other places such as the bank, postal office, hospital, shopping areas etc?
- 11) What is the percentage of your household expenditure on transportation?
- 12) For how long do you travel for different trip purposes?

Motivations

- 1) You said you use X, Y, and Z modes of transport for A, B and C purposes. How come you use these modes over other modes available? What affects your choices?
- 2) Do you own a car or motorbike?
- 3) Has the metro bus affected yours and your community's travel experiences? Has it opened up livelihood opportunities for you and your family? Where do you go to using the metro?

Priorities

- 1) Out of all the different purposes that you travel for, which one is the most important?
- 2) If the government could make interventions to improve any system, which system should it worry about first? What should it give priority to next? Relatively speaking, how important/necessary would be improvements in the sector of public transportation? What kind of interventions should it make to improve travel experiences for people? Why are these interventions important?

Concerns

- 1) Which mode of transport is the most convenient to use?
- 2) Do you ever feel unsafe while travelling for different purposes?
- 3) Which mode of transport do you find the most unsafe? Do you feel safe from traffic? And crime? If you don't mind telling, have any of you ever been harassed

while travelling?

4) Do you walk to many places? Why or why not? And your family?

6) Do you cycle to many places? Why or why not? And your family?

7) Have any of you ever been into an accident while travelling? How did it happen?

Which mode of transport were you using?

8) If you use a car or motorbike, has parking ever been an issue? Is it an issue most of the time?

9) How different is travelling when it is dark outside? Do you avoid making certain trips when it is dark outside? Why?

Suggestions

1) How can daily travel experiences for yourself and your family be improved?

Appendix C

Participant Consent Forms

Participant Consent Form (English)

Exploring Urban Transportation Issues for G-8 (Islamabad) Residents
School of Urban Planning – McGill University

Researcher: Maryam Akhtar Khan, Candidate for Master's of Urban Planning (McGill)

E-mail: maryam.akhtarkhan@mail.mcgill.ca

Phone: 03249028744 (Pakistan), 00-1-514-398-3183 (Canada)

Supervisor: Dr. Madhav G. Badami, Email: madhav.g.badami@mcgill.ca

Purpose of Study: You are being requested to participate in a study to understand urban transportation issues for residents of G-8 (Islamabad). The findings of the research will be used to write a report as part of the researcher's final master's project and possibly a journal article publication.

Study Procedures: The study involves in-depth interviews with residents of G-8/2 and G-8/4. The interviews will be voice recorded so they can later be used to write a research paper.

Voluntary Participation: You are under no obligation to participate. If you do not have time, do not want to reply to a question, or if you want to stop at any point, please say so. I will also be recording the interview. The recording will be stored in password-protected electronic form, only accessed by the main researcher (Maryam), and destroyed once it is no longer needed.

Potential Risks: There are no anticipated risks to you by participating in this research.

Potential Benefits: Your participation in this research could be useful to those working to improve the transportation system of Islamabad.

Confidentiality: I will only use the voice recordings for this interview for transcription purposes and not disseminate them in any other way. Your answers will not be identifiable: I will not use your name or address in anything I publish, and anything with that information in it will be stored securely, seen only by myself. If you have any ethical concerns or complaints about your participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 001-514-398-6831 or lynda.mcneil@mcgill.ca".

Please sign below if you have read the above information and consent to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities. A copy of this consent form will be given to you and the researcher will keep a copy.

I confirm that I have been informed, I am under no obligation to participate in this interview,

and I have chosen to respond anyway. I understand that I can withdraw from the study at any point, the recording of my interview will not be disseminated and transcriptions of my interview will not be identified by my name and/or address.

Consent to be voice recorded: YES ☐ NO ☐

Participant's Name (please print): _____

Participant's Signature: _____

Date: _____

If oral consent was given, researcher initials: _____ Date: _____

Participant Consent Form (Urdu)



اجازت نامہ برائے تحقیق

PHONE: 0324-902-8744, 001-514-398-3183
MARYAM.AKHTARKHAN@MAIL.MCGILL.CA
MADHAV.G.BADAMI@MCGILL.CA

G-8 کے رہائشیوں کی پبلک ٹرانسپورٹ پر تحقیق۔ مگلے وینیورسٹی۔ کینیڈا

محقق:- مریم اختر خان۔ امیدوار برائے ماسٹر آف آرٹس پلاننگ

نگران:- ڈاکٹر مادھو۔ جی۔ بادامی

مقصد:- شہریوں کے ٹرانسپورٹ کے مسائل پر سائنسی طریقے سے مقالہ لکھ

طریقہ کار:- اس میں G 8 کے باسیوں کے انٹرویو لیے جائیں گے اور یہ ریکارڈ کیے جائیں گے تاکہ ان کو پسورڈ
نویس استعمال کیا جاسکے۔

رضاکارانہ شرکت داری:- اس تحقیق میں آپ کی شرکت بالکل رضاکارانہ ہوگی آپ کسی بھی وقت انٹرویو

کے دوران یا بعد میں علیحدہ ہو سکتے ہیں۔ علیحدہ ہونے کے لیے آپ کے پاس پندرہ دن ہوں گے۔

امکان زیاں:- اس تحقیق میں حصہ لینے سے آپ کو کوئی جانی، مالی، یا ذہنی نقصان کا احتمال نہیں۔

فوائد:- حصہ لینے سے ہو سکتا ہے کہ آپ کی سفری سہولیات میں بہتری آئے۔

راز داری:- آپ کی ٹیپ ریکارڈنگ نقل نویسی (TRANSCRIPTION) کے علاوہ کسی بھی اور مقصد کے لئے استعمال نہیں ہوگی۔

نوٹ:- اگر انٹرویو کے دوران کوئی ناخوشگوار واقعہ پیش آجائے جو غیر قانونی ہو، تو اس کی اطلاع صرف حکومتی اداروں کو دی جاسکتی

ہے۔

اجازت نامہ برائے۔

ریکارڈنگ: ہاں ☐ نہیں ☐

اگر آپ کو اس تحقیق میں حصہ لینے سے کوئی بھی اخلاقی پریشانی یا شکایت ہو تو پھر آپ مگلے وینیورسٹی کے شعبہ اخلاقیات سے رجوع کر

Phone 514-398-6831

E-mail: lynda.mcneil@mcgill.ca

سکتے ہیں۔

اگر آپ نے تمام شرائط پڑھ لیے ہیں اور ان پر راضی ہیں تو برائے مہربانی نیچے دستخط کر دیں۔ اس اجازت نامہ کی ایک کاپی اور دوسری

کاپی محقق کے پاس رہے گی۔

شرکت دار کا نام:

شرکت دار کا دستخط:

تاریخ:

If oral consent was given researchers initials:

Date:

Participant Re-Consent Form

Exploring Urban Transportation Issues for G-8 (Islamabad) Residents
School of Urban Planning – McGill University

Researcher: Maryam Akhtar Khan, Candidate for Master's of Urban Planning (McGill)

E-mail: maryam.akhtarkhan@mail.mcgill.ca

Phone: 03249028744 (Pakistan), 00-1-514-398-3183 (Canada)

Supervisor: Dr. Madhav G. Badami, Email: madhav.g.badami@mcgill.ca

Purpose of Study: You are being requested to give re-consent to participate in a study to understand urban transportation issues for residents of G-8 (Islamabad). The findings of the research will be used to write a report as part of the researcher's final master's project and possibly a journal article publication. Your official consent is being requested after your interview has already taken place. The researcher had not received approval from McGill's Research Ethics Board (REB) at the time of your interview, hence creating the need to acquire your re-consent following the REB's approval.

Study Procedures: The study involves in-depth interviews with residents of G-8/2 and G-8/4.

Voluntary Participation: You are under no obligation to provide consent. If you do provide consent, please remember that you can withdraw at any time.

Potential Risks: There are no anticipated risks to you by participating in this research.

Potential Benefits: Your participation in this research could be useful to those working to improve the transportation system of Islamabad.

Confidentiality: I will only use the voice recordings from the interview for transcription purposes and not disseminate them in any other way. Your answers will not be identifiable: I will not use your name or address in anything I publish, and anything with that information in it will be stored securely, seen only by myself. The recording will be stored in password-protected electronic form, only accessed by the main researcher (Maryam), and destroyed once it is no longer needed.

If you have any ethical concerns or complaints about your participation in this study, and want to speak with someone not on the research team, please contact the McGill Ethics Manager at 001-514-398-6831 or lynda.mcneil@mcgill.ca.

Please sign below if you have read the above information and consent to participate in this study. Agreeing to participate in this study does not waive any of your rights or release the researchers from their responsibilities. A copy of this consent form will be given to you and the researcher will keep a copy.

Please sign below if you permit the researcher to use the previously collected interview data for this research study.

Participant's Name (please print): _____

Participant's Signature: _____

Date: _____

If oral consent was given, researcher initials: _____ Date: _____

Appendix D

Metro Station Survey (Questionnaire & Comments)

Questionnaire

Final Destination: _____

Travelling from: _____

Purpose: Work ☐ Education ☐ Health ☐ Shopping ☐ To Visit a Friend ☐

1st part of the trip	2nd part of the trip	3rd part of the trip	4th part of the trip
Van/Suzuki <input type="checkbox"/>	Van/Suzuki <input type="checkbox"/>	Van/Suzuki <input type="checkbox"/>	Van/Suzuki <input type="checkbox"/>
Motorbike <input type="checkbox"/>	Motorbike <input type="checkbox"/>	Motorbike <input type="checkbox"/>	Motorbike <input type="checkbox"/>
Car <input type="checkbox"/>	Car <input type="checkbox"/>	Car <input type="checkbox"/>	Car <input type="checkbox"/>
Metro Bus <input type="checkbox"/>	Metro Bus <input type="checkbox"/>	Metro Bus <input type="checkbox"/>	Metro Bus <input type="checkbox"/>
Cycle <input type="checkbox"/>	Cycle <input type="checkbox"/>	Cycle <input type="checkbox"/>	Cycle <input type="checkbox"/>
Walking <input type="checkbox"/>	Walking <input type="checkbox"/>	Walking <input type="checkbox"/>	Walking <input type="checkbox"/>
Taxi <input type="checkbox"/>	Taxi <input type="checkbox"/>	Taxi <input type="checkbox"/>	Taxi <input type="checkbox"/>
Cost: _____	Cost: _____	Cost: _____	Cost: _____
Time: _____	Time: _____	Time: _____	Time: _____
Issues: _____	Issues: _____	Issues: _____	Issues: _____

Frequency: Everyday ☐ 5 times/week ☐ 2-4 times/week ☐ Once a week ☐ Once/month ☐ Rarely ☐

Occupation: _____

How can you overall journey be improved? _____

How did you complete this journey before the implementation of the metro bus? _____

Income: _____ **Gender:** _____ **Age:** _____

Commuters' Comments

Respondent 1 (Potohar Station): The metro bus is a great service; other forms of public transport are also convenient as long they arrive on time. Used to travel in a van before; paid 20 PKR.

Respondent 2 (Potohar Station): Satisfied with current system. Used to take Van 180 all the way to Karachi Company; took over an hour.

Respondent 3 (Potohar Station): The metrobus is a great service even if it's crowded and if you have to stand. As compared to other public transport services, which are not air conditioned, the metro is good. Used to travel on motorbike but I also worked some where else at the time, not along the metrobus line. I am a government servant.

Respondent 4 (Potohar Station): The metro is good because of its low fare. Maximum benefits at the lowest cost. Used to take a van.

Respondent 5 (IJP Station): All the services are great, alhamdullilah.

Respondent 6 (IJP Station): The metro is good; other public transport should be like the metro.

Respondent 7 (Stock Exchange Station): We need better public transport. The fare costs should be listed on the vans.

Respondent 8 (Stock Exchange Station): Used a motorbike before metro was implemented. I am a PhD student at PIDE.

Respondent 9 (Stock Exchange Station): The metro is great "bohat achi". Used to take a motorbike or car.

Respondent 10 (Stock Exchange Station): Other public transport is getting worse day by day. Used to take a Hiace (van), which took 1.5 to 2 hours. I work for Nayatel (internet/phone service provider).

Respondent 11 (Secretariat): To get to G-10 from Committee Chowk in a van would take 1 hour and PKR 20. "Ghoornay phirnay aaye hain".

Respondent 12 (Secretariat): The government should have built a hospital or schools instead of the metro bus. It has taken too much loan for this bus. Needs to run more buses at rush hour. Too crowded in the mornings, the frequency needs to increase. I used to carpool before; PKR 40 per day.

Respondent 13 (Secretariat): Used to travel in Van 36, it would take 20 minutes, it now takes 12 to 15 minutes. I don't use any other form of public transport since the metro bus.

Respondent 14 (Secretariat): Took 1 hour 15 minutes by car before.

Respondent 15 (Secretariat): Used to take a Hiace, would take 30 minutes.

Respondent 16 (Secretariat): Metro is a good service. Used to take the van all the way, took PKR 50.

Respondent 17 (Secretariat): Too crowded. The metro isn't directly linked to enough places. I take a taxi to most other places. Used to carpool before; PKR 5000 per month. Would take a van sometimes.

Respondent 18 (Stock Exchange Station): Metro isn't too bad, but its crowded and doesn't have many destinations within reach. Used to take the car.

Respondent 19 (Stock Exchange Station): Women should have separate buses. Used to take Van 120 from Melody Market.

Respondent 20 (Chaman Road Station): If I didn't have to take a taxi, my journey would have been better.

Respondent 21 (Chaman Road Station): Great service, taking it for the first time. I'm a retired government officer – superintendent.

Respondent 22 (Chaman Road Station): My journey is satisfactory.

Non-Commuters' Comments

Respondent 24 (Chaman Road Station): When there's no seat on the Hiace we have to wait for another one. We need holidays, we don't even get a day off on Eid. The Metro Authority should pay for our commute to the station. I earn PKR 14,000, PKR 6,000 goes into transportation.

Respondent 25 (Chaman Road Station): The commute to work should be free. Spend PKR 4,000/month out of PKR 4,000 from my salary on transportation. We should get a raise. The duty times are good though.

Respondent 26 (Chaman Road Station): Using the metro bridge only. Walking with friends. The metro is better than all other forms of transport but it should have more seats for women.