

Report No. 54788-MNA

Gender and Transport in the Middle East and North Africa Region

Case studies from the West Bank and Yemen

December 2011

Middle East and North Africa Region
Transport and Energy Unit



World Bank Report

Currency Equivalents

(Exchange rates effective on April 30, 2010)

Currency Units = Yemeni Rial (YR) and Israeli Sheqalim (NIS)

1 USD = 206.25 YR

1 USD = 3.729 NIS

Fiscal Year: January 1 – December 31

Abbreviations and Acronyms

FGD	Focus Group Discussion
IMT	Intermediary Means of Transport
MENA	Middle East and North Africa
NIS	Israeli Sheqalim
PCBS	Palestinian Central Bureau of Statistics
USD	United States Dollar
YR	Yemeni Rial

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FOREWORD

The present report was financed by the Gender Action Plan trust fund and the Middle East and North Africa Region's Transport and Energy Unit. The report consists of three studies of the interaction between gender and transport: one in rural Yemen, one in urban Yemen, and one in the West Bank.

The studies were managed by Ms. Lamis Aljounaidi, Junior Professional Associate, under the guidance of Messrs. Jean-Charles Crochet, Senior Transport Economist, and Ibrahim Dajani, Senior Operations Officer. The final report was reviewed and edited by Mr. Vincent Vesin, Transport Specialist. The assessment of the interaction between gender and transport in rural Yemen was conducted by the Yemeni Center for Social Studies and Labor Research, under the leadership of Mr. Khalil Mansour Al-Shargabi. The assessment in urban Yemen was conducted by the Yemeni Center for Social Studies and Labor Research, under the leadership of Mr. Mohamed Sallam Noaman. Finally, the assessment in the West Bank was conducted by Riyada Consulting and Training Center, under the leadership of Mrs. Shuaa Marrar.

Yemen and the West Bank were selected for these studies because they represent two special cases. On one hand, Yemen is the poorest country of the region and the least urbanized one. The strong social norms guiding women's participation in economic and social life, the high poverty rates, and the challenges represented by the country's extraordinary geography make Yemen a particularly interesting place to study gender and transport issue. On the other hand, the West Bank society is one of the most open in the region: social norms guiding women's participation are not as heavy as in most other countries. However, the negative economic growth, and strong restrictions to mobility make for a different, yet as interesting, case to study the interaction between gender and transport.

The World Bank team and its consultants present their thanks and appreciation to the authorities in Yemen and the West Bank who supported and collaborated to this study. They also thank all the women and men who shared their experiences and ideas by participating in the focus group discussions or by filling out the questionnaires, and all those who contributed to these studies in many different ways.

Gender and Transport in the Middle East and North Africa Region

Case studies from the West Bank and Yemen

MAIN FINDINGS

The Present Studies

Mobility is a major factor of access to economic resources, education, health, and other key elements influencing women's empowerment. In the Middle East and North Africa's countries, like in many other developing economies, women's mobility is constrained not only by the limited, sometimes unaffordable transport supply but also by social and cultural factors that frame women's access to the outside world and exacerbate the supply problem.

1. Objectives

The studies aim at: (i) understanding better how transport infrastructure and services are meeting women's transport needs, and more specifically, how they are facilitating or constraining women's access to resources, markets, training, information, and employment; and (ii) identifying priority areas for governments' actions to improve women's mobility and thereby enhance their access to economic opportunities and contribute to their economic empowerment.

2. Methodology

The three studies were carried out from September 2008 to September 2009 in Yemen and the West Bank. All studies used a similar methodology in three steps:

- First step: areas that best represent the population under study and the challenges it faces are selected. In the West Bank, multiple locations in the northern West Bank were selected to represent the different types of human settlements (urban, rural, and refugee camps), and the challenges faced in the West Bank (location vis-à-vis the wall and checkpoints, diversity in population density, and access to public transport). In urban Yemen, nine neighborhoods, out of the 90 Sana'a has, were selected to represent the different types of urbanization in the capital (historical areas, planned city center, and informal peripheral neighborhoods), and the different levels of access to resources (employment, markets, basic infrastructure, and services). In rural Yemen, the selection took into account the regional diversity in terms of social norms, economic resources, and topography, as well as road availability (existence of an asphalt road and the number of years it has been available).
- Second step: in each area a number of randomly selected men and women were interviewed with a structured questionnaire. Interviewees were also asked to fill in a transport log that described their transport activities for a certain number of days and for different types of activities. Focus groups were also held with men, women, and transport providers.
- Third step: the collected data was analyzed to correlate quantitative indicators with testimonies given during the focus group discussions.

Conceptual Framework

Researchers¹ who have focused on the interaction between gender and transport conclude that, without a special attention to the gender issue, transport systems will not adequately serve women's needs. The rationale behind this conclusion is that transport planners often neglect poverty and the gender distribution of roles in families, two important factors that influence mobility needs and access to resources.

Women play multiple roles in society: they work outside home, but they also need to fulfill family needs and to access education and health services for themselves and their children. Women's multiple roles imply that they need to reach different places at different times. Lack of understanding of these roles leads to design transport services that only provide regular transport to go to work based on a regular schedule; this means that the transport schedules are arranged according to the beginning and end of the working day. However, women need transport services with schedules different than those emphasized by planners because of the variety of their roles.

In most societies, whether in the Middle East and North Africa or in other parts of the world, women usually control less resources and thus have less control and ownership of private transport means. This leads women to use public transport with all its challenges in terms of cost, timing and routing.

Poor families usually live on the outskirts of towns, far from public transport routes. In these families, women control even less resources and mostly work in the informal sector. These women are unable to reach transport means and services. As a result, they are forced to look for jobs and other opportunities in a restricted geographical area around their homes, which gives them a lesser chance to access better living conditions.

When transport is not well designed to serve the needs of men and women, it tends to hinder, rather than facilitate, the country's economic and social development.

Findings

Although the West Bank and Gaza have the highest female literacy rate in the region (over 90%) and Yemen has the lowest (less than 30%), female participation in the work force is the lowest in the West Bank and Gaza (ranked 19 out of 19), and closer to the region's average in Yemen (10 out of 19). These rates could be explained by the local political situation in each of the countries and their interaction with social constraints on women's access. Nevertheless, the present studies show similarities and highlight the effect on women's access of providing pedestrian facilities, transport infrastructure, and transport services.

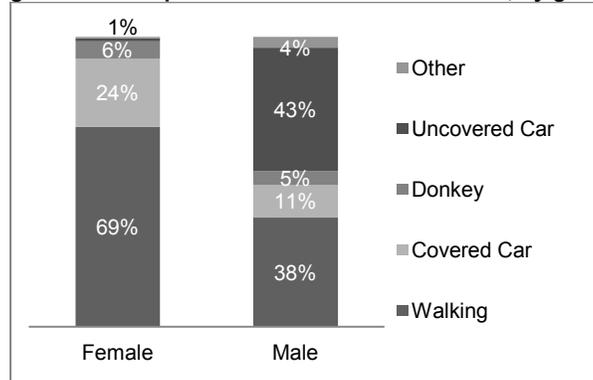
1. The Special Case of Rural Yemen

Social constraints imposed on women's mobility in rural Yemen are so high that providing them with transport infrastructure and services has limited and indirect impact. In rural Yemen, women's mobility is mostly restricted to areas they can reach on foot. The use of motorized transport is basically restricted to accessing health facilities. And even then, women have to ride a covered car while accompanied by a male family member. Women are allowed to ride pick-up

¹ Venter, C.; Mashiri, M.; Denise, B.; Levy, C.; Overton, K.; Chant, S.; Gomez, L.

trucks, by far the most common type of vehicles, only if they can be seated next to a male family member and in the covered part of the truck. Women’s use of intermediary means of transport is also greatly restricted by social norms: they can’t ride bikes, motorbikes, and donkeys. The use of the latter is only allowed for carrying loads.

Figure 1 – Transport means used in rural Yemen, by gender

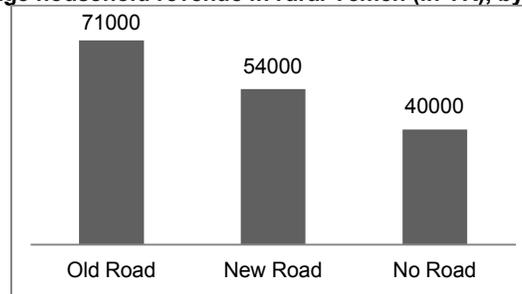


In traditional rural Yemen, most women do not deal with money matters (selling, buying, getting remittances, credits, etc.), which are all considered as men’s concerns. Although women contribute to the production of resources, their control over these resources is limited. Transport costs are higher for women because they need special seating conditions, or they have to travel with a male family member. The combination of these two factors makes transport costs high and often unaffordable for women: 70% of interviewed women find transport costs too high and 65% of them are not willing to pay for these costs.

How did the provision of roads impact women’s access?

In rural Yemen, a rural road is an asset to the neighboring villages: men can travel further distances, they access better employment opportunities and better pay. Goods reach the village at a lower cost. The data collected showed two tendencies in villages that have had a road for a long period: household’s income is higher than in other villages and households tend to buy basic goods (such as water or firewood) that otherwise women have to collect from the neighboring hills and valleys. This lowers women’s burden and frees time for them. There is evidence that some use this time to engage in literacy classes or in productive activities.

Figure 2 - Average household revenue in rural Yemen (in YR), by road availability²



² Road availability is defined by the existence of an asphalt road and the number of years it has been available:

- Old Road = more than 15 years
- New Road = between 2 and 5 years

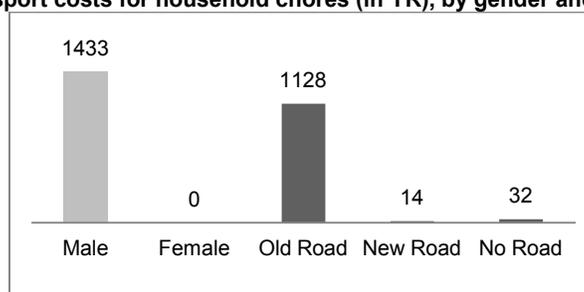
Table 1 - Transport tariffs for selected items in Taiz villages (in YR)

	Al-Shiabi Jaher	Al-Maqasher Aloum	Marat Al-Shawifa
<i>Road availability:</i>	<i>more than 15 years</i>	<i>2-5 years</i>	<i>no road</i>
Health Emergencies	1,500-2,000	2,000-2,500	4,000-5,000
To Market	100	100-200	400
Water Tanker	2,000-3,500	Water network	1,500-3,500
Gas Cylinder	100	N/A	800-1,000

Table 2 - Transport tariffs for selected items in Shabwah villages (in YR)

	Al-Jawl	Al-Hawta	Satnan
<i>Road availability:</i>	<i>more than 15 years</i>	<i>2-5 years</i>	<i>no road</i>
Health Emergencies	500-1,000	6,000-10,000	12,000-15,000
To Market	(by bus) 0-40	100	free
Water Tanker	(drinking) 8,000 (other use) 2,500-5,000	Water network	(drinking) 4,000-6,000 (other use) 3,500-4,000
Gas Cylinder	1,000	550	By skidding

Figure 3 –Transport costs for household chores (in YR), by gender and road availability



With roads also come schools, health care centers, and maybe even water and wastewater networks. Even if schools and health care centers are not located in the village, they are within walking distance of the village and therefore accessible to women. The study found that villages with roads have a higher female literacy rate and higher access to mother and child care.

Figure 4 - Level of education, by gender and road availability

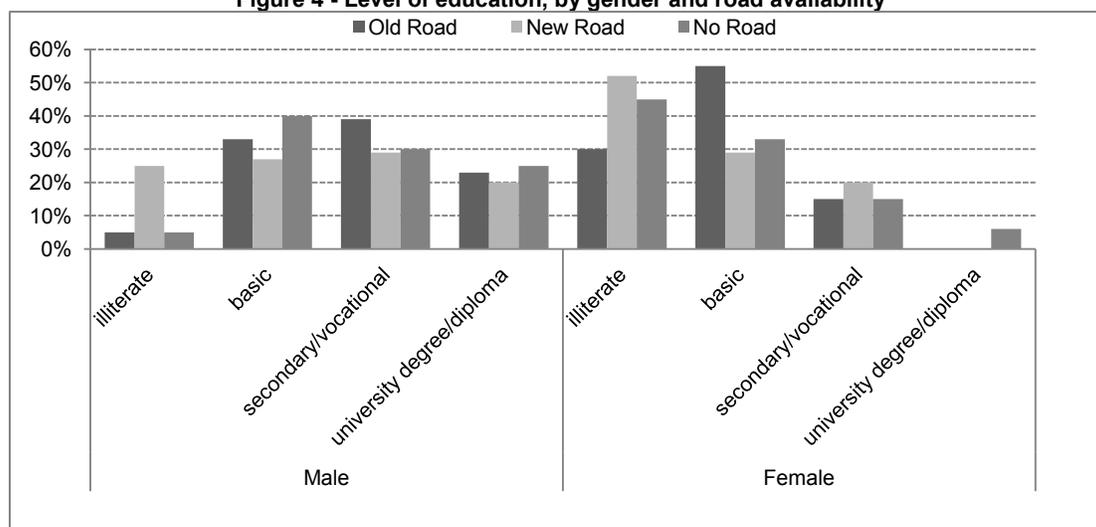
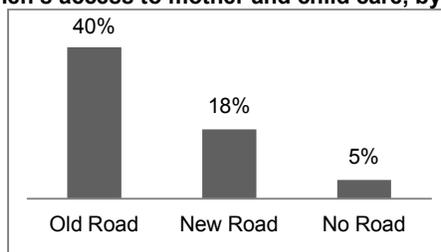
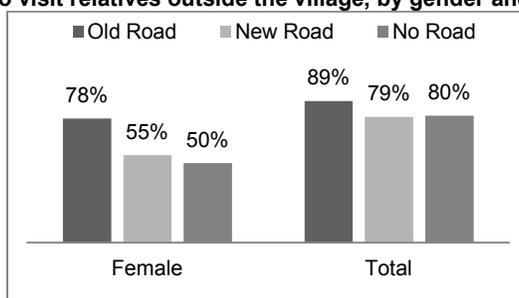


Figure 5 – Women’s access to mother and child care, by road availability



Finally, roads make the outside world closer. Women in villages that have had a road for a long period are more able to maintain their social networks outside their village. They also have better access to communication services, especially cell phones. A minor shift in mentalities concerning women’s mobility was noticed in such villages.

Figure 6 – % who visit relatives outside the village, by gender and road availability



And what could be done in this area?

Rural roads have a positive impact on men and women. It is therefore important to sustain the efforts in providing Yemeni villages with roads.

The study shows that social norms are a huge constraint to women’s access in rural Yemen. It is thus essential to actively seek a shift in this area. Schools, media and mosques can be used to send a message about women’s mobility needs and the positive impact of increased mobility on the family. The campaign can also present transport systems that are compatible with the local culture and give women better mobility. In Sana’a for example, women tend to move in groups. They rent a car together and use it for their travels. This gives women the opportunity to move securely, without the presence of a male family member. Similar solutions could be used in rural Yemen.

The study also notices that donkeys are important to women: they help them carry out household chores with less pain and more efficiency. Any measures to increase the availability of donkeys and, more generally, non-motorized means would have positive impacts on women.

2. Interaction between Transport Infrastructure and Services and Women’s Access in Urban Yemen and the West Bank

Women walk or use public transport to move.

The combination of social constraints and low economic resources result in a low female access to private and intermediary means of transport. Thus, women rely mainly on walking and public transport to get from one point to another. In the West Bank, public transport is by far the most important means, and covers more than 70% of women’s transport needs versus 20% for walking. In urban Yemen, walking is more important and covers 55% of women’s trips, while public transport covers 25% of women’s movements. The remaining trips are mainly covered by private cars and marginally by alternative transport means (tractor, motorcycle, bicycle, animal-driven cart, etc.).

Figure 7 - Use of transport means in the West Bank, by gender

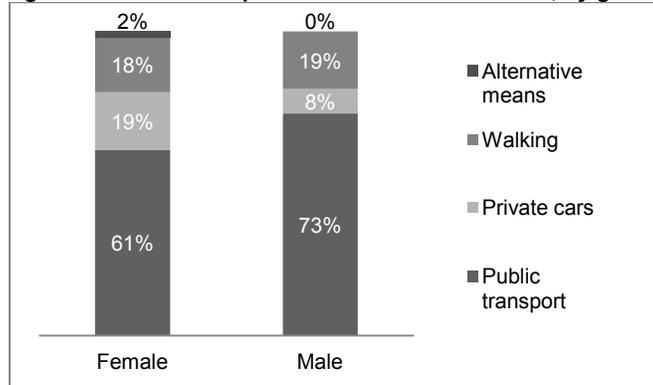
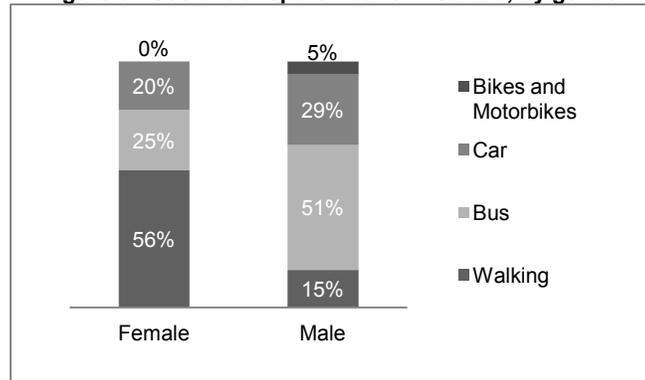


Figure 8 - Use of transport means in Sana’a, by gender



Women access a wider range of opportunities when transport is available, safe, and secure.

Public transport’s availability, affordability, and adequacy of schedule are major factors enhancing women’s mobility and access to resources. When public transport is available and affordable, when women feel safe and secure walking to their destination or waiting for public transport, when they can plan their transport activities with respect to their household chores, women will move to access higher education levels, jobs, and markets; or they will commit to productive activities, such as buying raw materials to transform them into knitted wear or embroidered goods and selling them in shops.

In urban Yemen, the study concluded to a direct correlation between provision of transport infrastructure and services and women’s economic empowerment. In the West Bank, because of the conjunction of political constraints (separation wall and checkpoints), social constraints, and

limited public transport in some areas, educated and ambitious women often give up on their ambition to get a job.

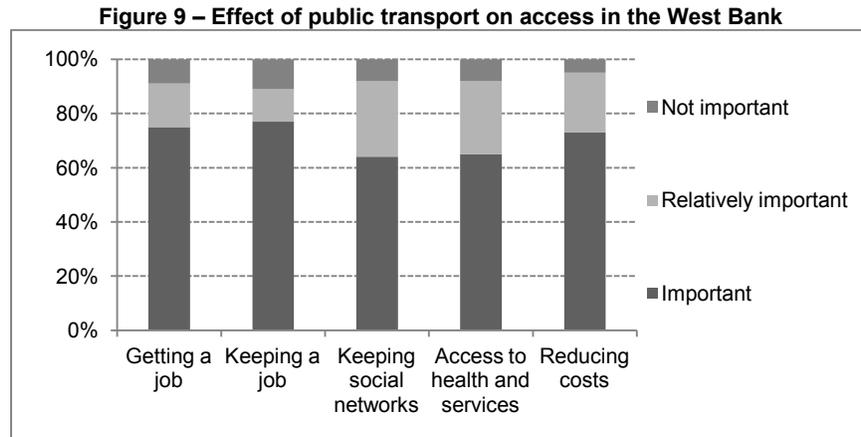
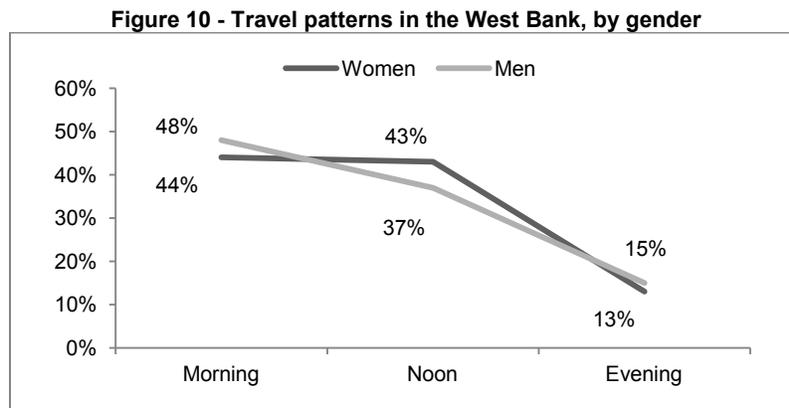


Table 3- % of workers in Sana'a's households, by gender and zone of study

Zone	Male	Female	Total
Old and Historical Sana'a (Best Provision of Transport Infrastructure)	43%	15%	29%
City Center	41%	13%	27%
Peripheral zone (Worst Provision of Transport Infrastructure)	38%	7%	24%
Total	41%	12%	27%

Women face multiple constraints when moving.

First, although their transport needs occur at different times than men's, women have to arrange their days to access public transport when these are available: early in the morning or at noon time.



Second, the lack of fare integration leads to higher transport costs for women and people who live at the outskirts of towns, in refugee camps in the West Bank or in the informal peripheral neighborhoods of Sana'a. Indeed, they are forced to take two, or three different transport means to go from their origin to their destination. On average, women pay 15 to 20% more than men for public transport.

Figure 11 – Average transport cost per trip in the West Bank (in NIS)

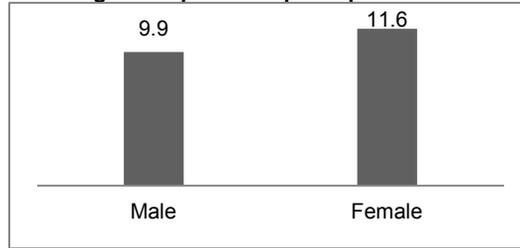
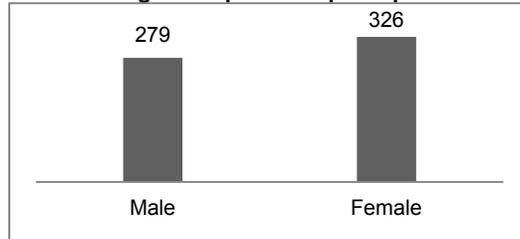


Figure 12 – Average transport cost per trip in Sana'a (in YR)



Third, security is a major constraint for women in the West Bank as well as in urban Yemen. Walking or using public transport means might be hazardous: thefts and verbal or physical harassments are not uncommon, and women are an easier target for all three. As a consequence, women usually don't wait for the most adequate public transport means: they would rather take the one that comes first, because they might be verbally or physically harassed while waiting in the streets. When public transport has a random schedule, women would rather not move: they would give up work or involvement in productive activities. Street lighting protects women from aggressions or thefts. When it is unavailable, as in the peripheral neighborhoods of Sana'a, women feel unsafe even walking the shortest distance. In West Bank women are at risk from harassment at flying and fixed checkpoints. Delays at checkpoints prevent access to health facilities for emergencies and to deliver babies.³ According to UNFPA and UNIFEM, an estimated 2,500 births encounter difficulty accessing delivery facilities annually in West Bank and Gaza.⁴

Fourth, safety is also a concern for women, especially those who travel with their children. In the studied areas, safety is jeopardized by the lack of pedestrian facilities: sidewalks and pedestrian crossings are rare, and seldom respected by drivers. In urban Yemen, safety is also a concern for public transport riders, as drivers rarely respect safety regulations, drive aggressively, neglect buses' maintenance, or even leave doors open when moving at high speed.

³ Palestinian National Authority, Ministry of Transport (PNA MOT) 2011..Written Comments on Videoconference Workshop on Gender and the Transport in the Middle East, 30 November 2011;

⁴ UN High Commission of Human Rights.2008. Annual Report of the UN High Commissioner for Human Rights. Report of the Office of the High Commissioner and the Secretary Genera: Issue of Palestinian Pregnant Women Giving Birth at Israeli Check Points. Tenth Session; Agenda Item 2.

Figure 13 – Incidents faced by female interviewees or their relatives in the West Bank

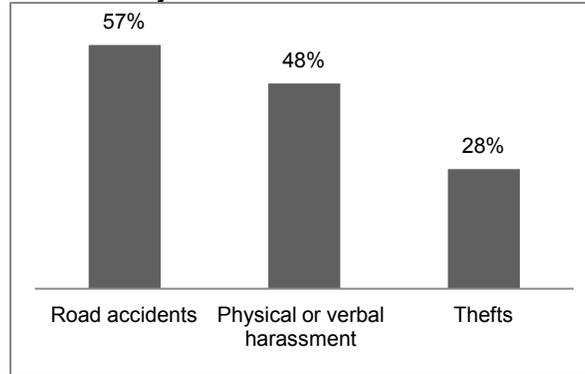


Figure 14 – Major security issues identified for women in Sana'a, by gender

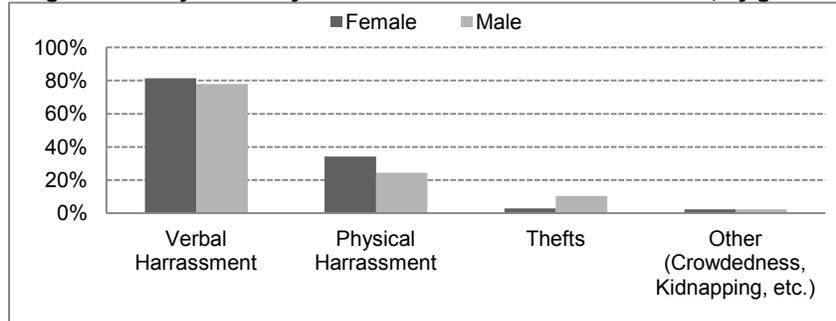
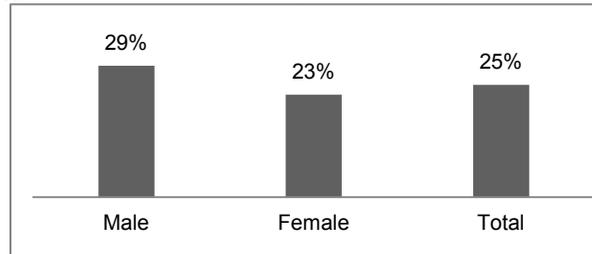


Figure 15 – % of interviewees who have been victims of road accidents in Sana'a



Simple actions can reduce these constraints and enhance women's mobility.

Because women rely mainly on public transport to move, **improving public transport's organization** will enhance women's mobility:

- **Predictable schedules** will reduce waiting time: women will not have to wait random time in the streets, where they feel insecure.
- **Integrated fares** will allow riders to pay one fare if they are moving in a limited area but with different transport means. For women, who tend to take different transport means to reach their destination, this will reduce transport costs.
- **Bus stops** on bus routes should provide protection, from the weather, but also from misconceptions that can be formed when a woman is seen waiting in a random area on the bus route.
- **Better managed public transport terminals**, including clean bathrooms would enhance women's travel experience. This is especially true because women tend to travel with children.

- Moreover, designing *bus routes closer to peripheral neighborhoods* and enforcing the provision of bus services on these routes will give men and women who live there better access to public transport and resources available in the city centers, enhancing this population's chances to move upward in the society.

As walking is a major way for women to get from one point to the other, **better provision of pedestrian infrastructure** will enhance women's mobility:

- *Street lighting* will improve safety at all times, allowing women to return home after sunset, or be able to go out in case of emergency.
- *Good and continuous sidewalks and pedestrian crossings* should make travel easier and faster and reduce traffic accidents to which women and children are subject in crowded cities like Sana'a.

Executive Summary

The present study was undertaken in order to gain a gender differentiated understanding of the mobility situation in the West Bank, with a focus on mobility constraints and access to transport options for both women and men.

The study is based on fieldwork conducted in three governorates in the north of the West Bank (Nablus, Jenin and Tulkarem). Quantitative and qualitative methodologies were used as well as a desk review of relevant local, Arab and international literature. Nine focus group discussions were held with women, men, and drivers from areas that were selected on the basis of certain political, economic and social characteristics. In addition, a quantitative survey was conducted by means of a Two Stage Stratified Cluster Sample that included 385 women and men aged 16 years and above, yielding a confidence interval of 95% and margin of error of +/-5%. In addition, a weekly transport log covering 2505 trips was analyzed.

The research was designed within the framework of gender studies and mobility options, based on the widespread recognition that women and men often have substantially different patterns of demand for transport services, means of transport used, and time of use, in developing countries.

Gender and transport issues have not been systematically studied in the countries of the Middle East and North Africa (MENA) region. Although such research has been conducted internationally, the impact on planning and policy-making remains generally limited in MENA. Globally, planning in the transport sector typically does not recognize the differing patterns in women and men's needs and demand for transport. The results of international studies clearly highlight the fact that the transport sector is generally oriented toward serving men's demand for transport: reaching their workplace in the morning and going back to their residence in the afternoon. Consequently, planning typically focuses on one-way, single-destination routes, which often are not compatible with women's needs for multi transport means to various locations at different times throughout the day.

The present study finds that the characteristics of the transport system in the West Bank are consistent with the general trends outlined above. Moreover, the study highlights the added value and importance of public transport in the West Bank context, due to the severe restrictions on people's movement (such as the extensive network of checkpoints, concrete barriers, earth mounds, and the separation wall) which force the majority of the population to use public transport. 97% of participants in the present research reported using public transport in varying degrees. They also spend a relatively high level of income (19%) on transport. The main findings of the study are described in the following paragraphs.

Use of Public Transport

According to the weekly transport log analysis, more women (73%) depend on public transport than do men (61%). It is almost certain that this situation will persist for the foreseeable future, as 77% of women respondents do not have a driving license, and 55% do not intend to have one. Men use private cars, as well as alternative means of transport (tractor, motorcycle, bicycle, animal-driven cart, etc.) more than women.

In addition, men's and women's purposes for using transport differ. The majority of men (52%), compared to only 22% of women, use transport to reach the work place. A primary reason for that is women's weak participation in the labor force due to the unstable labor market resulting from the political and economic situation in the occupied area.⁵ Women are more likely to use transport for social and health-related reasons. 36% of women, compared to 17% of men, use transport for family-related and other social activities, and 8% of women, compared to 3% of men, use it to access health services.

The differences in the transport use based on gender roles are not reflected in transport planning, which focuses principally on providing single-destination routes to reach work or education centers, without taking women's needs into account.

Gender-Specific Daily Practical Transport Needs

83% of respondents use a single means of transport, but 1 in 5 women, compared to 1 in 10 men, use two or more means of transport. 47% of respondents use transport during the morning, compared to 39% around mid-day, and 15% during the evening. The most significant difference between men and women was noon time. Indeed, 43% of women compared to 37% of men need transport during the middle of the day, a time at which transport is scarce.

Women noted during focus group discussions that they are often forced to change their schedule to match with what is available, or use a taxi (especially in times of emergency), which puts an added financial burden on the women and their families.

Evaluation of Transport Means

Many respondents found that public transport means are not child-friendly or comfortable. 48% of respondents mentioned that means of transport are not child-friendly with an insignificant difference between women and men. Only 32% of women and 41% of men believed that transport means are comfortable for women. More than half of the respondents felt that transport means are safe (60%) and modern (58%), again with little difference between genders.

Evaluation of Public Transport Terminals

Public transport terminals face many challenges, which negatively affect passengers as well as the quality of service offered. In the view of many respondents, most terminals lack sanitary facilities (93% of the respondents), or information and complaints centers (91% of respondents). Most terminals are far from population centers (according to 81% of respondents), lack waiting chairs (81% of respondents) or umbrellas (79% of respondents), and are not clean (66% of respondents).

Because men and women travel accompanied by children, family members, elderly, disabled, etc. (typically one to three dependents for women and four to six dependents for men), and because the journey's duration is unpredictable because of checkpoints and other barriers, there is a greater need for basic services at public transport terminals.

Mobility Challenges Faced by Women and Men

⁵ Zidan, Einan. 2009. Woman Participation in the Palestinian Labor Market. Presented for the Palestinian Central Bureau of Statistics at the UN Global Forum on Gender Statistics. Accra Ghana 26-28 January. ESA/STAT/A6.168/35.

Organizational and Regulatory Aspects: Many respondents (59%) believed that drivers do not comply with the official fare. 64% of women held this view, compared to 54% of men. The assessment showed that the average transport cost per trip was higher for women respondents (NIS 12) than for men (NIS 10). Women respondents highlighted the importance of regulation and monitoring, and complained about unregistered public transport providers, drivers who do not comply with the official fare, and lack of information about complaint processes.

Social and Cultural Constraints: Women's mobility via public transport is challenged by cultural barriers. In small rural communities it is generally difficult for women to use private taxis, unless the driver is known by the community. This limits mobility options available for women. The percentage of women who use private cars is small (8%), compared to that of men (19%).

Infrastructure: The results showed that road infrastructure challenges include road bumps (mentioned by 84% of respondents), unpaved areas (71%), slides and water-filled holes (70%), and road works (50%). Maintenance, repair and new road construction have been hindered by requirements for permission from the Israeli authorities which is rarely granted as well as road damage caused heavy Israeli military vehicles.

Main Recommendations⁶

Recommendations to Planners

- Ensure that women's needs, based on their multiple roles, are taken into account and incorporated into national development plans.

Recommendations to Operators

- Integrate fares through coordination between bus routes to serve vulnerable groups, such as women, the elderly, people with special needs, and refugees, who are forced to use more than one means of transport.
- Make the routes and schedules of public transport vehicles clear and predictable, to reduce waiting time.
- Commit to safety regulations and prevention of harassment of and by passengers and ensure drivers' commitment.
- Make the vehicles more comfortable and adopt a broader strategy to improve transport services, making passengers the center of the service.

Recommendations to General Directorate for Transport at the Ministry of Transport

- Expand coordination between stakeholders including the police and the municipalities led by the Monitoring and Inspection Department.. Better law compliance was noted in areas having active presence of the police.
- Regulate public transport routes in coordination with operators to provide service at different times, thus increasing mobility for the public at large, and for women in particular.

⁶ It is hoped that, in addition, the many physical restrictions to the mobility of the West Bank population (men and women) will soon be removed.

- In accordance with the Palestinian traffic Law No. 5. Regulating pricing under the Traffic Controller, expand monitoring of the sector's compliance with official fare, safety standards, registration and operations, and information provision about drivers.
- Respond to transport user's perception of the need to improve vehicle quality control (cleanliness, safety of the vehicle's windows, doors, air conditioning...etc). Provide incentives for informal, unlicensed service providers to join the formal system and comply with regulations,
- Increase public awareness of complaint mechanisms for transport service quality issues, increase consultations with transport users and raise public awareness about actions taken to improve quality of service.
- In response to user perceptions of the need to improve comfort, review the producer's technical specifications for size, number and comfort of bus seats, to ensure that they are adequately wide to provide space between male and female passengers.
- Ensure that all buses specify seats with priority access for the elderly, disabled, and other people with special needs, in line with regulations and laws issued by the Ministry of Transportation protecting the rights of these groups.
- In response to some women's discomfort sitting next to male strangers on public transport, where possible delimit a seating area with priority access for women, and train all public and private transport personnel how to monitor and prevent harassment of women and men (as a part of the required training to obtain and renew licenses).
- Continue and increase MOT encouragement of female entrepreneurship in the transport sector in driving schools, taxi companies, licensing departments and other public transport.

Recommendations to Municipalities

- Re-consider the locations and specifications of terminals to ensure better service for a wider part of the population, in coordination with the Ministry of Transport.
- Ensure proper management of terminals by forming full-time administrative bodies that supervise all routes, identify and address problems, and receive complaints and follow them up.
- Enhance public safety and comfort by providing basic services such as shelters to protect customers from sun and rain, seats in the public transport terminals and compounds, clean sanitary facilities, and wide pavements that can be used by carts, or wheelchairs.
- The Municipal Development and Planning Fund, a semi-governmental organization, which invests 70 percent of its budget in road construction and safely uses, could provide the means to better integrate gender considerations into urban transport.

Part I - Enhancing Women's Mobility in the West Bank

Chapter One: Conceptual Framework

1. Gender and Transport

1.1 The global literature on gender and transport explains inequalities between women and men in accessing transport by way of three primary interlinked variables. Those are: (i) gender-neutral norms of planning and policy making for transport sector, which fail to distinguish between the needs of women and men; (ii) a patriarchal social system and its impact on power relations and division of labor between women and men, and manifestations on their different roles and needs; and (iii) poverty and its effects on women's access to and control of resources, which limits women's options, both in terms of owning means of transport or paying for public means of transport.

Planning for Transport and Gender (Analytical View)

1.2 Transport planning has tended to focus primarily on facilitating access to employment, thereby addressing the travel needs of regular commuters while paying limited attention to non-work travel, which may encompass social interactions, fulfilling various family needs, as well as access to health and other services.⁷

1.3 According to Karen Levy, planners in the transport sector based their projects on the assumption that men are the head of households, with a clear division of labor whereby men are responsible for work outside the home, and women's role is to take care of the family inside the home. Another assumption is that the family is in agreement on its priorities; thus there is equality in access to and control over resources inside the family.⁸ According to Levy, the challenges to these assumptions are the following:

- Generally speaking, the focus in planning for transport sector was and still is on efficiency of the transport system, service provision and public safety, away from its connection to economic, social, cultural and political context.
- Transport infrastructure is usually based on making sure that the husband gets to his work place using private vehicle, and ultimately generalizing this priority to all families. The effect is most profound on low-income families and female-headed households, as they utilize low-cost means of transport to reach work place and other places.
- For women, the assumption is that their primary role is domestic and home-centered; thus their need for and use of transport is assumed to be less. It is also thought that women's other roles are simply a continuation of their primary role; consequently women's demands become unforeseen and are not taken into account in the planning process.
- Women's multiple roles mean the need to reach different places to fulfill their needs. This is usually unforeseen by planners.

⁷ Vantor, C. Mashiri, M. Denise, B. "Engendering Mobility: Towards Improved Gender Analysis in the Transportation Sector." University of Pretoria Press, 2006.

⁸ Levy, Karen. "Transport" in Ostergaard, L (ed), Gender and Development: A Practical Guide, Routledge, 1992.

- Lack of understanding of women's multiple roles by planners leads to the design of transport service that focuses on men's needs for regular transport mainly to go to work based on their regular schedule. It means that the transport times are arranged according to the beginning and end of the working day. Due to the varied roles of women, and the fact that there is no specific or known time for the need to use transport, women need transport services at different times than those emphasized by planners.
- Despite the fact that planners study transport needs of the target group, the general standards they utilize are connected primarily to access to the job market, vehicle ownership, and income. These are all standards disproportionately relevant to men, and do not apply to many women whose work is mostly informal, and who neither control access to resources nor use a private vehicle. The end result is that planners pay more attention to men's needs than to women's needs.
- For planners, the head of the household is the source of information. This in itself is a trap as the assumption is that the family is a homogenous unit with agreement on its priorities. The family is not a homogenous structure and there are variations between its members according to age, gender, and different potentials in access to resources. Participation in decision-making is based on power and authority of its members. Men also do not know as much as women do about the details of family's daily needs.

Poverty⁹

1.4 Poverty is linked primarily to the family's economic structure, and usually women have less capacity to access and control resources. This is most apparent in poor families, who live primarily at the outskirts of towns, or in slums usually far from public transport routes. It is reflected in women's inability to reach means of transport and services, and is linked to women's economic role, as women's participation in the formal labor market is lower than men's, especially among poor households. As a result, women are forced to live near the work place or vice-versa, to avoid paying for expensive transport, or walking long distances.

1.5 The following are important conclusions from previous studies, which constitute the basis for the current study:¹⁰

- Mobility and travel patterns differ significantly between women and men, and transport networks are often not equally appropriate for both, especially in light of women's multiple roles.
- The above necessitates planning modifications in acknowledgement of women's different activities.
- Passengers' personal safety and security is a central and crucial issue which tends to be overlooked; yet it merits more attention from transport planners.

⁹ See: Chant, Sylvia. "Gender, Cities, and the Millennium Development Goals in the Global South," Gender Institute. Issue 21, November 2007. UK.

URL: <http://w.lse.ac.uk/collections/genderInstitute/pdf/CHANT%20GIWP.pdf>

And see: Peters, op. cit. 2.

¹⁰ See: Vantor, op. cit. 4. And see:

Gomez, Lara. Gender Analysis of Two Components of the World Bank Transport Projects in Lima, Peru: Bikepaths and Busways. (Draft August 2000) Washington DC: The World Bank. URL: www.worldbank.org/gender/transport

Levy, Caren. "Transport" in Ostergaard, L (ed), Gender and Development: A Practical Guide, Routledge, 1992.

World Bank. Sustainable Transport: Priorities for Policy Reform. Washington, D.C. World Bank, 1996.

2. The West Bank and Gaza Context

Transport Sector Planning in the West Bank and Gaza

1.6 The Israeli occupation divided the West Bank into three areas: Area A under the Palestinian National Authority security and civil affairs control; Area B under Israeli security and right to restrict free movement; and Areas C under Israeli control, including matters relating to land, planning and building. Areas B and C comprise 80 % of the West Bank, including its main roads, enabling restriction of movement over most of the Palestinian Territories.¹¹ Despite these restrictions, initiatives by the Palestinian National Authority are in place to develop the general infrastructure in areas under its jurisdiction and to organize the transport sector specifically. The Palestinian Ministry of Transport cooperates with a number of international partners. The World Bank currently provides technical assistance to develop and regulate the transport sector. In 2007, the Ministry developed a transport sector strategy with the primary objective of regulating the sector, improving service provision, and reducing the cost paid by the beneficiaries.

1.7 The main challenges addressed by the transport sector strategy were those related to the fleet conditions, network and route optimization, and the impacts of access restrictions, closures and the separation between the West Bank and Gaza. The strategy also addressed the need to reform and to develop the transport sector within a general context of efficiency and quality service provision, supported by the legal framework. Reform of the sector is crucial but must be rooted in the social and economic context in order to be efficiently implemented. The Ministry plans to implement a rehabilitation and damage repairs program to improve the road network condition, design and develop a road maintenance management system to enable relevant agencies to better plan and identify resources for systematic maintenance of the network, develop a comprehensive master road and transport plan to guide development of the sector on national and regional levels, and further develop the ministerial and municipal cadre to take on the challenges of the sector.¹²

1.8 Currently, the mobility of people and goods is severely curtailed because of the presence of more than 500 checkpoints and physical barriers¹³ (at the end of 2008), both fixed and temporary.¹⁴ Movement permits are required from Israeli Coordination for travel between urban centers as well as refugee camps to urban centers.¹⁵ There have been reports of Israeli settlers attacking Palestinian farmers and public transport passengers to prevent them from using roads adjacent to Israeli settlements.¹⁶ Thus, many communities in the West Bank and Gaza lack access to basic services. For example, 9% of the population need more than one hour to reach health services at times of emergency, and 7% of patients with chronic diseases need more than one hour to reach health services. This has obvious links to transport sector infrastructure and the availability of suitable vehicles for ensuring access to health and social services.¹⁷ The many checkpoints and barriers, the separation wall, and the disconnection between the West Bank and

¹¹ PNA MOT 2011

¹² PNA MOT 2011

¹³ According to the PNA MOT, the barriers include trenches (3%), earthworks (7%); road blocks (11%); road barriers (12%); road gates (16 %); earth mounds (36%), check points (12%) and partial checkpoints (3%). PNA MOT 2011.

¹⁴ UN OCHA. URL: www.ochaopt.org.

¹⁵ PNA MOT 2011

¹⁶ PNA MOT 2011

¹⁷ Palestinian Central Bureau of Statistics (PCBS). "Access to Health Services Survey. 2003.

Gaza make it difficult to plan advanced means of transport such as railways. It might however be possible to use other simpler means.

1.9 The services provided by public transport, particularly buses, have been deteriorating over the past few years because the restrictions imposed by the Israelis on movement between urban centers and rural communities have increased travel cost and reduced demand. The shared taxi sector is over-supplied. Some shared taxis are operating on routes that could be better served by buses. They take revenues away from the bus companies, reducing their ability to finance fleet replacement and sector development. Bus operators indicate that Israeli bus specifications limit their choice of vehicles for purchase both new and used. They also state that the Israeli bus industry dumps surplus buses in Palestine; leaving Palestinian companies little choice but to buy from this market. The Palestinian Ministry of Transport restricts the age of buses to 18 years. Companies with buses older than 18 years are given three years to replace them with newer buses.¹⁸

1.10 To ensure high quality buses and sufficient operating capacity for available areas, the Ministry of Transport is facilitating a bus company consolidation process, working with the Union of Bus Operators. It will be up to the bus company operators to select the legal form of consolidation into an entity that can mobilize physical, human, financial resources needed to provide targeted services, and is accountable for service performance. It is expected that the entire fleet of buses and minibuses will be renewed in the next three years, along with new or rehabilitated depots, maintenance, terminals and parking facilities with women and disabilities friends sanitary services as well as ramps and space for people with disabilities.¹⁹

Introduction to Transport in the West Bank and Gaza

1.11 According to the Palestinian Central Bureau of Statistics (PCBS), paved road area in the West Bank and Gaza²⁰ was 5,000 square kilometers, out of which around 2,700 square kilometers are bypass roads, to which Palestinians do not have access. The number of vehicles reached 117,000 in the West Bank in 2007, 19,000 fewer than in 2005. These cars were distributed as follows:²¹ 67% private cars; 19% commercial vehicles; 9 % taxis; and 4 % other.

1.12 Public transport consists of buses, shared taxis (including vans) and taxis. There is illegal operation of private and shared taxis in Area C which is under the control of the Israeli occupation. Mass transport in certain cities and on longer distance routes is provided by medium and full sized buses, supplemented by shared taxis. All public transport companies are owned by the private sector.²² Surveys of the informal transport sector in the West Bank and Gaza have shown that the total number of operating vehicles is 10,000, of which 9,500 are for passenger transport, and 500 vehicles for freight transport by road. 76% of those are public vehicles, 19% private, and 5% are for freight transport. 11,000 people are engaged in this sector.²³

1.13 The PNA government role is that of regulator and facilitator. Buses and taxis are allowed to provide services according to a franchise system regulated by the MOT. Every bus and public

¹⁸ PCA MOT 2011

¹⁹ PNA MOT 2011.

²⁰ The West Bank and Gaza excluding Jerusalem (lack of data).

²¹ PCBS. "Annual Transportation Survey." 2006.

²² PCA MOT 2011

²³ PCBS. "Press Release on the Main Results of the Thirteenth Round of the Transport Survey - The Informal Sector in the Palestinian Territory," 2009.

taxi company must obtain a permit, which specifies the route it operates, the number of stops, vehicles and fares. Bus permits specify the frequency of trips and schedule. Private taxi licenses specify the city.²⁴

1.14 Several organizations responsible for the administration and operations of the transport sector.²⁵ Their roles and responsibilities are summarized below; yet more information is needed regarding the nature of coordination among the various bodies:

- *Ministry of Transport*: is responsible for administration of this sector including determining number of lines for public transport, number of vehicles per line, and registration for vehicles.
- *Municipalities*: are responsible for the design and supervision of stops and terminals for those lines, in coordination with the Ministry of Transport. Municipalities are also in charge of developing, upgrading, and rehabilitating roads.
- *Traffic Police*: are responsible for monitoring vehicles' movement internally and on outside roads, ensuring efficient transport, and guaranteeing all necessary documents and papers relating to vehicles' registration and insurance are in place.
- *Traffic Committees*: The Ministry of Transport has lately re-activated the role of those committees in the different governorates. Committees include representatives from the Ministry of Transport, Municipalities, transport syndicates, traffic police, and Governorates. They coordinate with the Ministry of Transport with regard to any issue relating to the public transport sector.
- *Higher Traffic Safety Council*: This newly created Council has a legal mandate to improve road safety in order to reduce road deaths and injuries. The Council is chaired by the Ministry of transport, and includes members from the Ministry of the Interior, Ministry of Public Works and Housing, Ministry of Justice, Ministry of Health, Ministry of Education, and Ministry of Local Government.²⁶

Gender Indicators in the West Bank and Gaza

1.15 Women have very low levels of formal labor force participation. PCBS labor force surveys show that women's participation was only 15% in the first quarter of 2009 (compared to 67% for men).²⁷ The rate of women participation was 16% in the West Bank and 14% in Gaza. The highest rate of participation was in rural areas 17%, followed by women in urban areas 15%, and finally refugee camps 13 %.

1.16 The rate of unemployment among women is 24%, with the highest percentage among those who had finished 13 years and more of schooling, at 31%.²⁸ Homemaking is the main reason for women staying outside the labor force: 65% of women reported this to be the case, compared to only 0.5% of men. The above percentages reflect rather static division of labor between women and men, which is also reflected by their demand for transport services.

1.17 Women's formal labor force participation is largely segregated by sectors. Women are employed in services (62%), agriculture (19%), followed by manufacturing (9%), then

²⁴ PNA MOT 2011

²⁵ Background paper prepared by engineer Ranya Dowleh – Nablus Municipality for this research.

²⁶ PNA MOT 2011

²⁷ PCBS, op. cit. 15.

²⁸ Ibid.

commerce, hotels, and restaurants (8%). 19% of women work without compensation, compared to only 5% of men.²⁹

1.18 The Ministry of Transport encourages entrepreneurship opportunities for women in the transport sector in driving schools, licensing bureaus, taxi companies and in supervision in licensing departments. The Ministry reports a higher level of female participation in the transport labor force than other countries in the region.³⁰

1.19 The poverty rate reached 61% among female-headed households in comparison to 57% of male-headed households, in 2007. Poverty rates among female-headed households that include 7 children and more reached 80%.³¹

1.20 Female education is an essential social right and a leading indicator of equality between women and men. In the West Bank and Gaza, female education levels are comparable to those of men in terms of enrolment, although there are some differences in terms of achievement. During 2008, 24% of females and 22% of males aged 15 years and older were enrolled in the education sector, and 15% of females have finished sixth grade compared to 17 % of males. Females are less likely to hold bachelor's degrees (8% of females versus 15% of males), and they are three times more likely to be illiterate (9% of females 15 years and older versus 3% of males).

Chapter Two: Methodology

2.1. Area Selection in the Three Northern Governorates (Tulkarem, Nablus and Jenin)

2.1.1 The three governorates were selected for this study for several reasons including geographic, social, economic, and political variation offered by these governorates at different levels:

- *Political level:* extensive presence of military checkpoints, enclaves, settlements, and bypass roads.
- *Economic level:* the three governorates are considered economically active with the availability of industries. Tulkarem and Jenin have economic activities at the regional level (including Israel). The three governorate centres, especially Nablus, are considered important commercial centres for the villages and nearby communities.
- *Social level:* the three governorates enjoy varying social characteristics, yet they are clearly distinct from the middle and south of the West Bank. Also, the presence of many organizations, government institutions, universities and colleges creates a certain societal movement in the governorate centres.
- *Agricultural level:* this area is considered agriculturally active and thus provides some indicators about mobility issues for agricultural communities.
- *Area:* the three centres are representative of big West Bank towns and consequently reflect the integration between towns, surrounding areas, and villages.

²⁹ PCBS. "A Press Release Issued by the Palestinian Central Bureau of Statistics on the Occasion of the International Women's Day," March 2008.

³⁰ PNA MOT 2011

³¹ Ibid.

2.1.2 The population of the three northern governorates (Jenin, Tulkarem and Nablus) is 735,000. Nablus is the largest one of the three. The table below provides some basic information about the three towns.³²

Table 4- Population of the three governorates

Governorate	Nablus	Tulkarem	Jenin
Total Population	321,000	158,000	256,000
Male	162,000	80,000	130,000
Female	159,000	78,000	126,000
Urban	177,000	106,000	147,000
Rural	113,000	35,000	99,000
Refugee Camp	31,000	17,000	10,000
Average Family Size	5.4	5.3	5.4

2.1.3 The three towns are the hubs of the public transport system within their respective governorates, as well as for transport to and from town centres in other governorates. Each municipality manages a bus terminal (compounds) or more for the purpose of regulating public transport.³³ Details concerning transport facilities and fleets are as follows:

- *Nablus Governorate:* There are two area compounds managed by Nablus Municipality. They cover the needs of more than 50 communities through 510 vehicles. Due to continuous closures, many lines had to be moved to surrounding areas. Around 630 taxis serve Nablus city and an additional 89 buses distributed over 15 companies serving 29 lines in and outside Nablus Governorate.
- *Tulkarem Governorate:* there is one compound managed by the Municipality for Tulkarem city and environs. There are two bus companies with 46 small and big buses providing services to 16 lines inside and outside Tulkarem Governorate. In the area franchise there are taxis serving 34 lines within Tulkarem Governorate as well as outside the Governorate.
- *Jenin Governorate:* There are three compounds managed by a private operator. Taxis serve 25 lines inside and outside the Governorate. There are 19 bus companies serving 34 lines with 128 small and big buses.

2. Sample Selection

- *Population:* includes females and males 16 years of age and above who normally reside in the three governorates.
- *Research Sample:* two-stage stratified sample, which included (385) women and men aged 16 years and above. The confidence interval was 95%, and the margin of error +/- 5%.

2.1.4 In the first stage, areas' selection was done to ensure geographic distribution and representation of the three governorates according to population size and urban, rural, and camp distribution. In the second stage, the selection of individuals was done ensuring equal representation among women and men. Sample distribution was as follows:

Table 5 - Sample distribution

No.	Community	Governorate	Type	Nb of Households	Sample Size
1	Zbouba	Jenin	Rural	354	14
2	Yabad	Jenin	Urban	2484	11

³² PCBS. Census 2007.

³³ Dowleh, Rania, op. cit. 16.

3	Toura Gharbieh	Jenin	Rural	195	14
4	Arraneh	Jenin	Rural	356	14
5	Deir Abu Daif	Jenin	Rural	962	15
6	Kufr Ra'i	Jenin	Rural	1357	16
7	Arrabeh	Jenin	Urban	1779	11
8	Jenin Camp	Jenin	Camp	2015	6
9	Qabatya	Jenin	Urban	3476	13
10	Jenin	Jenin	Urban	7296	18
Jenin Subtotal					132
11	Jaroushieh	Tulkarem	Rural	187	15
12	Atteel	Tulkarem	Urban	1703	14
13	Tulkarem	Tulkarem	Urban	9718	18
14	Beit Leed	Tulkarem	Rural	930	16
15	Bala'a	Tulkarem	Urban	1202	12
16	Nour Shams Camp	Tulkarem	Camp	1211	9
Tulkarem Subtotal					84
17	Nisf Jubeil	Nablus	Rural	84	10
18	Nassarieh	Nablus	Rural	263	11
19	Qaryout	Nablus	Rural	383	12
20	Boureen	Nablus	Rural	430	12
21	Beit Dajan	Nablus	Rural	644	9
22	Salem	Nablus	Rural	860	11
23	Ein Beit El Ma'a Camp	Nablus	Camp	767	8
24	Huwarrah	Nablus	Urban	987	25
25	Til	Nablus	Rural	776	12
26	Balata Camp	Nablus	Camp	2800	8
27	Nablus	Nablus	Urban	26085	51
Nablus Subtotal					169
Total					385

3. Research Implementation Phases

2.1.6 The research comprised three main components as outlined below:

- i. *Preparatory Phase*: Literature review of available relevant studies, and reports on the West Bank and Gaza context, as well as review of available global literature about transport and gender.
- ii. *Focus Group Discussions*: 9 Focus Group Discussions (FGDs) were held in the three Governorates attended by 96 participants (females and males). One FGD was held with each of the following groups: men, drivers, and university students. In addition, six FGDs were held with women. The FGDs aimed at understanding means of transport available in the three governorates, gender-differentiated transport needs and use of available transport means, and challenges and restrictions facing both women and men using public transport. In addition, participants discussed measures and standards relating to gender-differentiated transport demands. The following table provides detailed information on the FGDs, locations and participants.

Table 6 - Distribution of Focus Group Discussion Participants

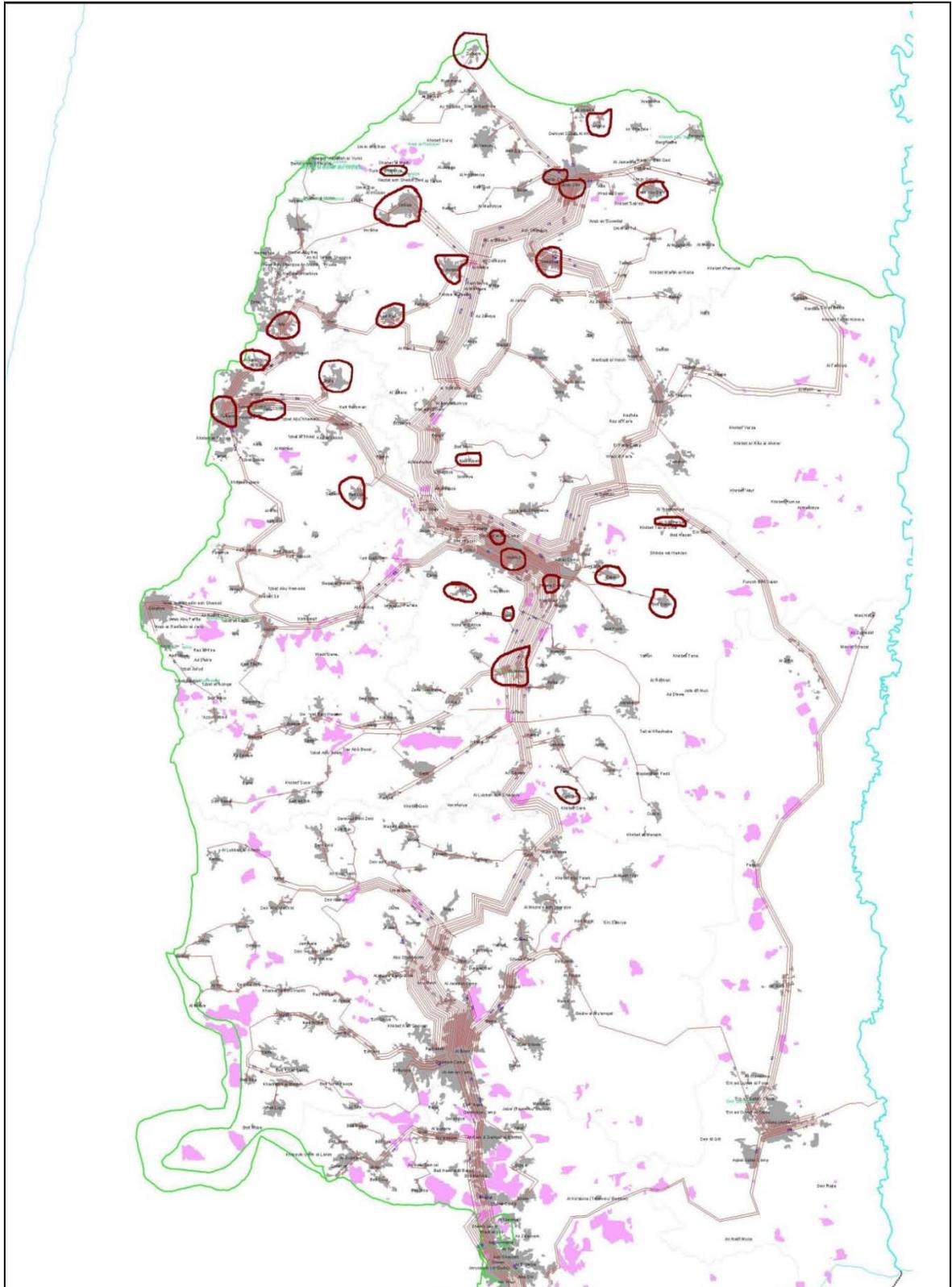
Target Group	Location	Location Characteristics at the time of the survey	Number of Participants
Women	Nablus City	Large urban centre (city) Governorate Centre including all services and government institutions. Educational center: Al Najah University and other colleges. Large number of employees who commute daily to other Governorates. Presence of checkpoints: Huwarrah and Beit Eiba	10
Men	Jenin City	Large urban centre (city)	10

		Governorate Centre Large number of citizens who commute daily to other Governorates for work and education. Presence of health, education and government services. Heavy traffic to and through Jenin to reach schools and the American University.	
Women	Tulkarem City	Large urban centre (city). Governorate Centre. Large number of citizens who commute daily to other Governorates for work and education. Presence of all basic services. Transport available for all purposes and destinations.	10
Female and male students	Nablus City	As mentioned previously	14
Women	Yitma Village	Small village between Ramallah and Nablus. Facing checkpoints of the three cities. Surrounded by bypass roads (connecting settlements). Limited availability of transport	10
Women	Boureen Village	Small village in Nablus Governorate. Suffering from the presence of checkpoints. Surrounded by settlements and bypass roads (connecting settlements). Limited availability of transport	13
Women	Thaher Al Maleh Village	Remote village in Jenin Governorate surrounded by separation barrier. Extreme difficulties in getting in and out of the village. People outside the village need permits to get into the village.	10
Women	Nassarieh Village	Agricultural village in the Jordan Valley area. Difficulties in availability of transport Jordan Valley checkpoints hinder movement	9
Men drivers	Tulkarem City	As mentioned previously.	10

iii. *Quantitative Survey*: The field work was done as follows:

- Field researchers arrive to the site according to the sample.
- Field researchers select a starting point.
- Random selection of houses by counting the 10th house.
- Filling-out the questionnaire.

Map 1 - Northern West Bank (Selected Communities and Public Transport Routes)



Chapter Three: Findings (Analysis from a Gender Perspective)

1. Transport Means: General Trends

Availability and Use

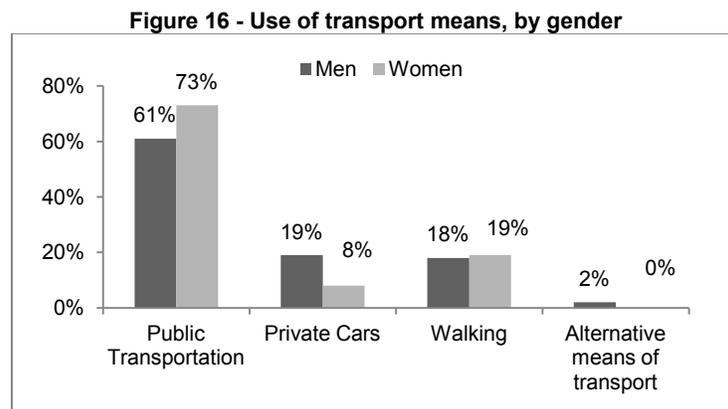
1.21 Different means of transport are available in the communities under study. Public transport means are available for 97% of respondents; bicycles are available for 75% of them; tractors for 72%; private cars for 67%; animals for 57%; motorcycles for 55%; and animal-driven carts for 49%. Nearly all respondents (97%) use public transport, while about half (49%) use private cars. Other means of transport used in lesser degrees include tractors (6%), bicycles (4%), animals (4%), motorcycles (2%), and animal-driven carts (2%). Overall, 7% of respondents mentioned that they use one of these alternative means of transport.

1.22 Women participants in Boureen Village highlighted the primary constraints on transport in their village:

- Transport is only consistently available early in the morning, from 7-9 am, primarily serving university students. After that transport becomes much scarcer.
- Delays at the checkpoint cause drivers to spend the day awaiting the passengers who had left with them in the morning. Due to the delays, the driver does not return to the village after 9 am.
- Non-registered and non-insured cars abound
- Bad economic conditions don't allow for buying private cars, or using taxis.
- Taxis lack in the village, especially in the afternoons due to limited movement.
- Everyone moves in the morning; thus limiting movement at other times.

Strong cultural determinants govern the use of alternative means of transport, and the degree to which they are used. One of the men in a FGD in Jenin says:
"It is true that bicycles are environmentally friendly, but they are not appropriate to our culture and habits, especially for women. In addition, they are not appropriate for the person's social status. Imagine a government or private sector employee wearing his suit and riding on a bike going to work. We are not living in China or Norway. Our environment, habits, and community wouldn't allow this. Let's assume, for the sake of argument, that this suggestion is implemented. Who can ride a bicycle from Jenin to Nablus or even to the suburbs? Roads are not safe due to the conditions we live in."

1.23 It was noted that means of transport used differ according to gender: women use public transport more than men (73% of females compared to 61% of males). Men use private cars more than women (19% of males compared to 8% of females).



Frame 1 - Available public transport and checkpoints restrictions

In some of the small West Bank villages, people rely mainly on simple means for the mobility needs. In **Nassarieh village** for example, women mentioned that they generally walk to go to schools or for visits inside the village. Some use animals, tractors and if they want to leave the village, they use shared taxis.

In **Tulkarem City**, one of the women participants in FGDs said: “Generally speaking we use taxis because public transportation is not always available, especially in the suburbs. We use buses from Tulkarem for interurban transport.” Another participant said: “In Shuwikeh District (Tulkarem) there are public cars from 7 am until evening. After those hours, we use taxis. There is no public transportation in the camp due to its proximity to the city.”

In **Thaher Al Malih Village**, one woman participant said: “Taxis serve the route linking Barta’a to Thaher Al Malih through the gate. Generally, people walk through the checkpoint, and 200 meters after that, there is a big tree everyone knows, which serves as a bus stop. From there, passengers leave in shared taxis from Toura Village to Jenin, and vice-versa. Security checks are extensive. Large items, such as a large bag of flour, are not allowed through the checkpoints; the owner of a large item is forced to leave it in Toura Village and to bring small quantities with him or her every day. Villagers rarely use any means of transport, except this taxi working on Barta’a line; they walk. And those who own private cars use them sometimes, although only the owner of the car can drive it out of the village, no one else, not even his closest family members are allowed to drive the car. Even animals such as donkeys and horses are not allowed to pass through. Bicycles are also not allowed either.”

1.24 In focus group discussions, men compared their use of various transport means highlighting advantages and disadvantages of each. One of the male participants from Jenin said: “Private cars are limited these days due to their high price and running cost. It was affordable some years ago. Most people such as students and employees prefer to use big buses especially for trips outside the city as they are affordable. Even if a person owned a private car, she uses it for short distances. If she wants to go to Ramallah and other governorates, she prefers public transport means such as buses and taxis. Public transport means are available in Jenin around the clock, but to a lesser extent on Fridays.”

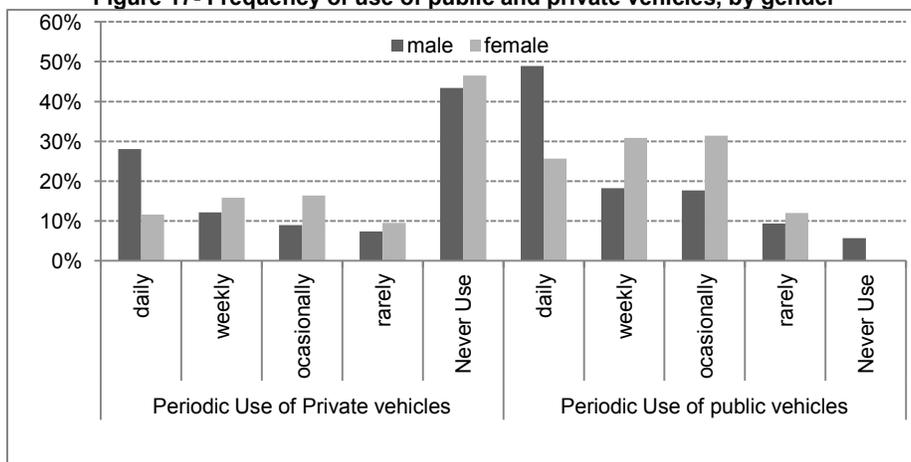
Frequency of Use

1.25 A sizable minority of respondents (37%) use public transport on a daily basis (49% of males compared to 26% of females). Another 25% use it on a weekly basis (31% of females and 18% of males), and 25% use public transport infrequently (31% of females and 18% of males).

1.26 20% of respondents use private cars on a daily basis (28% of males and 12% of females), 14% use private cars on a weekly basis (16% of females and 12% of males), 13% infrequently, and 9% hardly ever.

1.27 As for other means of transport mentioned previously (bicycles, motorcycles, etc.), their use does not exceed 1% on a daily basis, whereas 8% of respondents—all women—mentioned that they use other means of transport on at least a weekly basis.

Figure 17- Frequency of use of public and private vehicles, by gender



Availability and Use of Public Transport Means

1.28 20% of respondents said big buses (50 passengers) are available in their areas of residence, whereas smaller buses (20 passengers) are available in 38% of respondents' areas of residence. Shared taxis (7 passengers) are the most available (in 79% of respondents' areas). Smaller shared taxis (4 passengers) are available upon request to 55% of respondents. Table 7 provides further information on availability of public transport means:

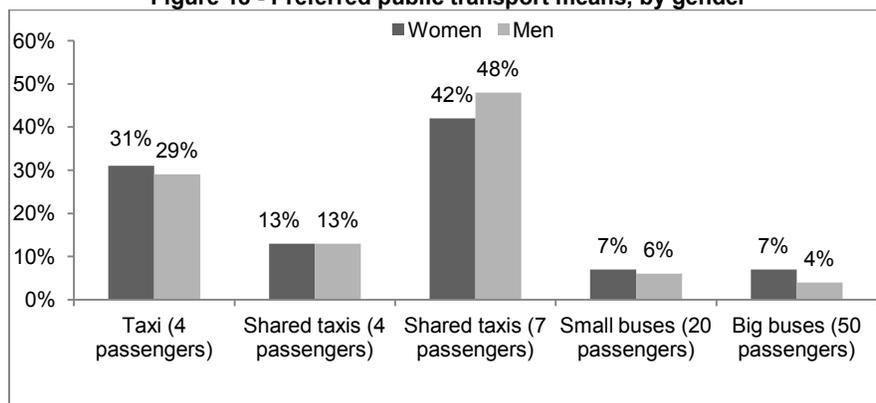
Table 7 - Availability of public transport vehicles, by type (number of seats)

	Buses (50)	Buses (20)	Shared cars (7)	Shared cars (4)
Always available	7%	24%	54%	45%
Limited and do not fulfill citizens' needs	3%	4%	2%	2%
Available in certain hours only	13%	14%	25%	10%
Not available	77%	59%	19%	43%

1.29 Transport terminals are available and in use by 50% of respondents, while 45% said they are not available. Another 5% said that terminals are available but that they do not use them.

1.30 45% of respondents considered shared taxis (7 passengers) to be their preferred mode of transport, followed by the smaller shared taxis (30% of respondents). 13% preferred taxis upon request, followed by small buses (20 passengers) at 7%, and lastly big buses (50 passengers) at 5%.

Figure 18 - Preferred public transport means, by gender



1.31 The focus group discussion in Boureen Village revealed the most important reasons why smaller taxis are preferred by women (and maybe men) to 7-passenger vehicles. Participants acknowledged that there is no price difference between those two transport means; smaller taxis are much faster; the drivers are from the village, and their cars are registered and insured. Finally, there are fewer passengers in the smaller taxis which reduce waiting time at checkpoints.

1.32 Most men who participated in Jenin’s FGD agree that women have special needs while traveling. Some mentioned that this specificity stems out from society and men’s appreciation of women’s role, and their endeavor to provide them [women] with the most comfortable mode of transport, especially in 4-passenger or 7-passenger taxis. As for 50-passenger buses, they are comfortable and have large seats.

One of the women participants from Nassarieh said: “A man can take a private taxi despite the cost. He can also take more than one transport mode. A woman sometimes is forced to wait for more than an hour until a driver she knows comes. The culture, habits and environment all affect the woman’s ability to take a private taxi.”

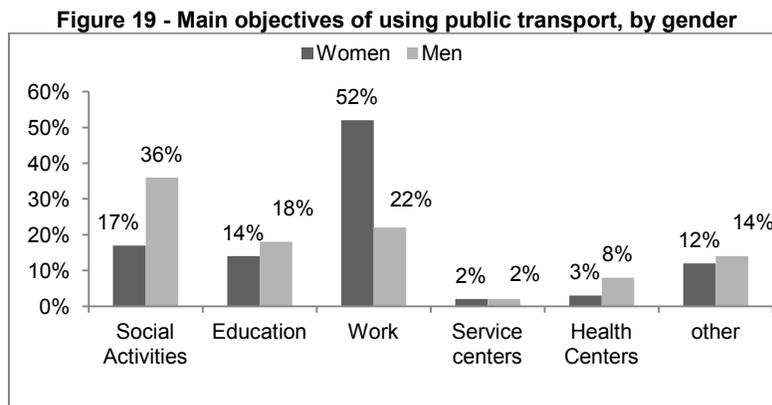
1.33 50% of respondents who have private cars expressed their preference for using public transport for long distances (59% of women compared to 43% of men). 39% mentioned that they do not use their private cars in travel between towns and villages because of the checkpoints and the separation wall. 51% of private cars owners cite bad road conditions as the reason why they prefer to use public transport. 86% said they use their private cars for work and family travel, while 14% use them for other family purposes (19% of males and 8% of females).

One participant from Thaher Al Maleh said: “Private cars are used because public transport is lacking due to the small area of the village and its location behind the wall. In many instances, we as women need to go to Toura Village or Jenin City for shopping, treatment, vaccination or birth delivery.”

2. Travel Patterns

Purpose

1.34 The majority of men use public transport primarily in order to reach their workplaces (52% of males compared to 22% of females). In contrast, women are more likely to use public transport for social activities related to family needs (36% for females compared to 17% for males), and for accessing health services (8% for females compared to 3% for males).

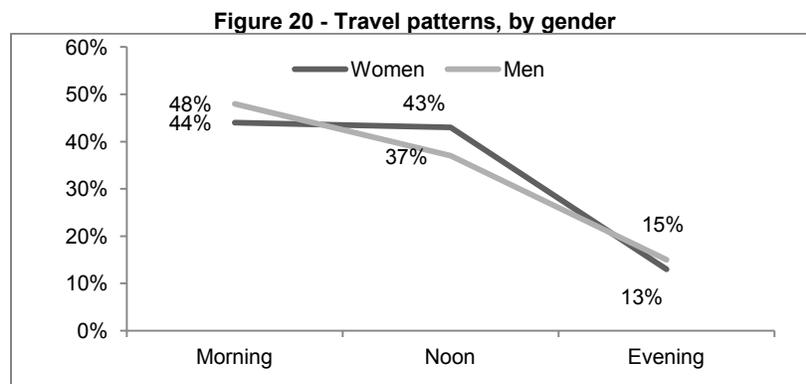


1.35 Women FGD participants discussed their objectives in more detail. Women from Nassarieh Village said: “Usually mobility is for work, education, buying items for the house that are not available in the village, going to the doctor, buying clothes, taking children to the schools since it is far, bringing needed pesticides, and moving crops from the village to the city.”

1.36 Focus Group Discussions suggested that women feel that their reproductive role creates special movement needs. Women need to consult the doctor when pregnant or about to deliver, or for their children’s treatment.

Schedule

1.37 Most interviewees use transport services in the morning, due to work and education schedules. 47% of respondents said that they travel in the morning, compared to 39% at noon time followed by 15% in the evening. Figure 20 shows trips’ schedules for men and women.



1.38 Women in FGDs discussed examples of the links between transport services and women’s activities, including the nature of their work and studies. Women’s use of transport begins early in the morning, especially for working women and university and school students. They primarily use public transport, which is available in the morning from 7:30 to 8 am. The period between 8 am and 1:30 pm is a quiet time for transport providers, although it is a time when many women need to move in order to access services. In many cases, women are forced to wait for hours before any car passes, or are forced to use private taxis.

1.39 Availability of shared taxis generally resumes from 1:30 to 3 pm, the period during which employees and students need to go home. Most women use public transport during this time, if available. After 3 pm, public transport ceases to be available, and both women and men rely on private taxis.

1.40 One of the woman participants from Tulkarem said: “In rare instances, women walk to nearby areas such as Shweikeh, Thinabbeh and Irtah. Roads are not always safe because there are areas which are empty and because of the presence of the occupation army. In Tulkarem Camp everyone walks due to proximity to the town. In Al Jaroushieh area for example, from 9 am to 1 pm it is quiet, and also on Fridays till after the prayers in all areas. People use private taxis if need be for both women and men.”

One woman participant from Boureen Village said: “After 9 am there is no easy transportation available. I have to order a private taxi although it is very expensive, or leave early with university students. Sometimes, I organize my trips outside of the village with relatives who own private cars.”

1.41 As for the time of use of transport modes for both men and women, one of the men participants from Jenin said: “There are different times for women’s use of public transport according to the nature of their jobs. For example, women working in retail trade leave home early between 6:30 and 7 am. Generally speaking taxis take them from home to work and back. The same can be said about employees and students from the city or surrounding villages. Housewives usually go shopping or to the doctor at about 10 am. Transport becomes less between 11:30 am to 1:30 pm. Sometimes, employees from the city walk, and so do students except in heavy rain and hot weather conditions. Transport becomes active from 1:30 to 3 pm when employees and students want to go back home. Women use public transport during these times if available. During evenings, people use private taxis and also on Fridays.”

In Thaher Al Maleh, one of the women participants said: “Students leave their homes early in the morning to the gate using cars. They pass the gate on feet to the school in Toura Village. This is from 7 to 10 am where women and men leave the village through the gate. After this time, if there is not a car to take them to the gate, they are forced to walk or arrange their schedule to fit with a relative who owns a private car and plans on leaving the village. When all these means are not available and the gate is about to close, women wait until it re-opens in the afternoon, or they **go back home and cancel their trip**. In most cases, it would be the second option.”

Duration

1.42 The time spent in daily travel is divided into two intervals; the first is waiting time that people spend at bus stops or inside the vehicles waiting for the vehicle to be filled. The second interval is the average time needed to reach the destination. On average, waiting time is 13 minutes for both women and men. Travel time is on average 21 minutes (18 minutes for men, and 24 minutes for women).

Number of Used Transport Means

1.43 The analysis of a weeklong transport log (over 2500 travels) shows that most interviewees (81%) use one means of transport to get from their departure point to their arrival point. Many however are obliged to use more than one and up to four transport means because there is no direct routing from their start to their end point. These represent 15% of men and 27% of women. They pay more for their trips because there is no fare integration and customers pay a full ticket whenever they ride a bus or a taxi, no matter how long they stay in it. They also spend more time in transport because they have to wait for their connections.

Table 8 - Number of transport means used for one trip, by gender

Number of Means of Transport	Male	Female	Total
1	85%	73%	81%
2	11%	23%	15%
3	4%	3%	3%
4 and above	0.2%	1.1%	0.5%

Company

1.44 Only 38% of the trips analyzed were done by an individual. In a majority of cases, men and women travel accompanied. Women tend to travel in smaller groups (2 to 3 people) while men tend to travel in larger groups (4 to 6).

Table 9 – Number of travelers, by gender

Number of travelers	Males	Females	Total
1	38%	38%	38%
2-3	27%	37%	32%
4-6	34%	21%	27%

3. Evaluating the Transport Sector

1.45 Towns and large urban centers offer a higher quality of transport services than small remote communities and those faraway from city centers, such as those in the Jordan Valley, behind the separation wall, or near settlements and checkpoints. The availability and quality of transport services in large centers is generally good compared to that in the small communities, where transport services are weak and face many challenges.

1.46 Women in Nassarieh, for example, note that the transport services are bad in their village and receive no attention from the village council, despite the presence of one woman representative. The council cannot address the village’s problems in light of limited financial resources and the absence of Palestinian National Authority’s jurisdiction in the area.

A FGD participant says: “The priority in Nassarieh is the availability of a school bus. Students walk 6 km back and forth to school and many students don’t want to go to school anymore. During winter, the situation becomes very bad as the area floods which makes it dangerous for children.”

Comfort and Safety

1.47 48% of respondents felt that transport means are not comfortable for children (51% of females and 45% of males). In addition, 58% of respondents said that transport means are generally modern (61% of males and 55% of females). 60% said that transport means are safe. Males find public transport more comfortable than women do: 41% of males said it is comfortable, compared to only 32% of females.

1.48 As for vehicles’ specifications and their impact on women’s comfort, women participating in FGDs mentioned that close proximity to male strangers on public transport means, due to small seats and benches, makes them uncomfortable.

A woman from Tulkarem mentioned: “Some men take advantage of close proximity to women on public transport mean, which disturbs women travelers. Women are uncomfortable when seated among men. Interurban buses are not well equipped and are even less comfortable. Some seats should be specifically allocated for women on public transport means. This is even more important on shared taxis. Allocating vehicles for women’s transport is however a bad idea. Indeed, men travel more than women and this action would reduce women’s mobility. The availability of equipped buses for all lines would be

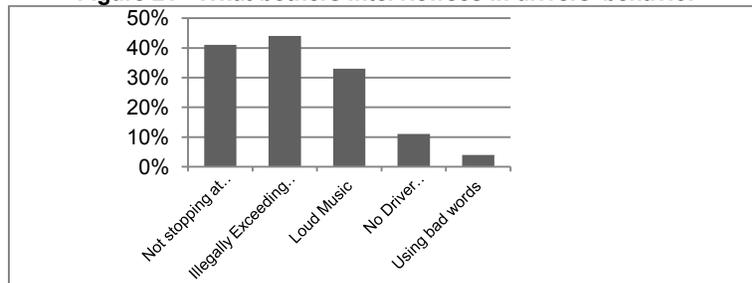
Drivers’ Behavior

1.49 On the positive side, 72% of respondents believed that drivers generally have experience and qualifications, and 70% said that the drivers’ behavior is good (75% for females compared to 63% for males).

1.50 More critically, 44% of interviewees mentioned that they are bothered by the increase in number of passengers beyond the allowed number. 41% said that drivers do not comply with speed limits or traffic lights, and 33% cited loud music as one of the negative aspects. The

Ministry of Transport noted that drivers are exceeding speed limits and ignoring traffic lights in the area C where the PNA has no control.³⁴

Figure 21 - What bothers interviewees in drivers' behavior



Frame 2 - What makes a driver popular (according to Al-Najah University students)

1. The driver's reputation and the degree to which he abides by ethics and good behavior are extremely important. Some drivers scream at women getting out of the cars to hurry up, or for not closing the door quietly, etc.
2. The driver should respect speed limitation.
3. The driver should not play loud music.
4. Drivers should be courteous and specifically avoid swear words
5. Drivers should use air conditioning in hot weather, and inner lights at night.
6. Drivers should not smoke in the car.
7. Seats should be comfortable and in good condition.
8. Drivers should not exploit the passengers by taking too much money.

1.51 From the drivers' perspective, the key challenges they face are: 1) the high cost of insurance and registration, 2) the presence of checkpoints, 3) their relations with the passengers; females and males, and 4) the presence of large numbers of unregistered cars or drivers working illegally. The FGD with a group of drivers from Tulkarem Governorate yielded more detailed information about the challenges and problems the drivers face in the course of their work, as summarized in Frame 3 below.

³⁴ PNA MOT 2011

Frame 3 - The Drivers' Perspective: Main Challenges

Registration and Insurance - "Huge amounts of money are requested for the car insurance and registration. We have to provide unnecessarily detailed information. Last year, I paid NIS 3,000 (750 USD) for my car's insurance; and this is a big amount for me." "The issue of having to pay for the insurance and registration at the same time is a problem as drivers have to pay a big amount of money at once. I have to pay NIS 10,000 or 15,000 (2500 USD – 3750 USD) for insurance and registration. If only payments were separated...."

Falling Value of Fares - "The biggest problem for me is the fare. A long time ago it was 10 Jordanian Dinars or about NIS 60 (passenger's fare from Tulkarem to Jericho). Now it became NIS 45 due to exchange rate fluctuation and despite inflation and the increase in the cost of fuel and diesel."

Checkpoints - "There are two major checkpoints (Innab and Beit Iba) in addition to the flying checkpoints. The road to Nablus used to take 20 minutes, and now it takes us more than an hour. This delays the students and all passengers." "The checkpoints are slow and cause delays in reaching Nablus. Sometimes, they randomly select some cars, order some passengers to get out which delays all the passengers in the vehicle. We naturally cannot move without all the passengers back to the vehicle."

Police - "One of the problems I face is with the police. They stop us more than once a day asking for our driving license and other papers. They also search the car, and this causes delays." "We face problems with the police as is very picky on us. One time, they pick at the horn, at other times at an extra passenger, and also at the seatbelt...."

Passengers - "Sometimes, some women insist not to pay their children's tickets. Thus, those children don't have assigned seats and travel as extra passengers, and this causes problems with the police." "Harassment, whether by the drivers or any of the passengers, is rare. The community here is small and no one can bypass the general norms of behavior."

Competition and Illegal vehicles - "Some buses and taxis operate our line illegally and compete with us, the legally registered drivers of the line." "Unregistered cars operate inside town and in some of the villages. Lately, their numbers have decreased due to the campaign against illegal cars implemented by the police." "One of the most important challenges we face is the excess of public transport vehicles. Supply of those exceeds the needs. I heard from one of the employees of the Taxi Drivers' Syndicate that there are 5,000 cars more than needed."

Transport Terminals

1.52 The table below summarizes the most important challenges related to transport terminals.

Table 10 - Evaluation of public transport terminals

Interviewees think that	% of interviewees who expressed this view
Terminals lack sanitary facilities	93%
Terminals lack information and complaint centers	91%
Terminals are far away from the centre	81%
Terminals lack waiting chairs	81%
Terminals lack shades	79%
Terminals are unclean	66%

1.53 A woman from Tulkarem said: "In Thinnabeh, Shweikeh and Tulkarem Camp there are no bus stops, so women (and men) are forced to stand by the side of the road waiting for a car. This is not comfortable and in some cases unsafe."

Fares

1.54 The World Bank provided technical assistance and participated in consultation meetings with key stakeholders, from civil society, private sector and public institutions, to guide the

development of a computerized tariff system. The Ministry of Transport has established fares for routes of each type of public transport based on cost plus profit. The cost per kilometer was calculated for each public transport type based on fuel (diesel) consumption, driver's wage, cost of maintenance, value of vehicle, and depreciation. The police are responsible for monitoring compliance. The Traffic Controller Directorate conducts inspections to monitor fares and respond to complaints.³⁵ Many respondents to the survey, conducted before this system was implemented, considered the fares burdensome. Women were particularly concerned about the costs and over-charging: 59% of the respondents believed that the drivers do not comply with the specified fare (64% of females compared to 54% of males). Women noted that they generally have less capacity than men to negotiate fares with male drivers, due to cultural and social constraints. 47% of respondents agreed that fares are proportional to the traveled distance, whereas 53% believed otherwise. 68% of respondents said that transport fares were an economic burden. Because the female respondents took more than one means of transport to go from their start to their end points, and because they have to pay each time they change vehicle, the cost of a trip was on average higher for them than for men (12 NIS for women versus 10 NIS for men).

4. Transport and Access

1.55 Most interviewees think that public transport is important, whether to get a job (75%, identical for both genders), keep a job (77%), reduce economic costs (73%), or access health and economic services (65%). Interestingly, more women (67%) think public transport is important to connect with social networks than men (60%).

A participant from Thahir Al Malih Village says: "I finished my bachelor's degree in Arabic language. My dream was to be a teacher. Due to mobility restrictions, I opted to stay home and raise my kids."

Frame 4 - When Social Constraints Combined with Mobility Restrictions Challenge Girls' Access to Education

A number of girls in Al Nassarieh Village were forced to drop out of school for several reasons related to limited access to transport, according to FGD participants. Schools in the village do not offer classes beyond the 9th grade, so girls (and boys) must go to Nablus in order to continue their education. Parents worry for their daughters traveling long distances to Nablus, especially with the presence of checkpoints and the general feeling of lack of security that forces women to plan their trips to Nablus ahead of time. Moreover, there is no specific bus for high school children. Parents prefer sending their daughters with familiar drivers from the village but this is not always possible. The girls themselves are afraid and embarrassed when riding a car with an unknown driver.

In Thahir Al Malih Village, women suffer from an inability to work outside the village due to mobility restrictions.

5. Mobility Constraints

Constraints and Restrictions Related to the Political Situation

1.56 The political and security situation severely impacts the transport sector in the West Bank, especially in the areas outside urban centers. Citizens suffer from restrictions placed on the use of infrastructure and, in some cases, from insecurity when travelling. As a result, many parents in isolated villages such as Thahir Al Malih described above, have taken their girls out of school and deprived them from continuing their education.

³⁵ PNA MOT 2011

1.57 40% of respondents mentioned that checkpoints hinder their mobility, and 9% mentioned that the separation wall restricts their mobility. When asked to prioritize the constraints on mobility, 53% mentioned the checkpoints, and 42% cited various sorts of harassment.

1.58 Moreover, all women agreed their journeys are not safe, and even more so when they pass through the gates where women undergo body searches.

Frame 5 – Checkpoints, Settlers and Health Services

Checkpoints and other movement restrictions also negatively impact women's access to health services, even when there is a medical emergency. One woman from Boureen said: "There are several women who gave birth at the checkpoint, and elderly people died before reaching the hospital. My own father died before the ambulance was able to reach him. We had to take him to the hospital in a private car, but we were delayed at the checkpoint. It was too late when we reached the hospital in Nablus."

Another woman from the same village; Boureen said: "My sister-in-law was in labor when she arrived at the checkpoint. The soldier asked her to step out of the car and passes through the checkpoint walking. After she passed, she rode on a cart to reach the Ambulance a few meters away."

1.59 Harassment, aggressions, or denial of access at checkpoints affected 38% of respondents (40% of men and 37% of women), and 6% had experienced personal aggression outside checkpoints (9% of men and 3% of women). Those who face these problems face them regularly. Indeed, of those who declared having been harassed at checkpoints, 15% faced the problem only once, while 40% face it often and 45% face it regularly. 30% of the respondents experienced repeated harassment outside of checkpoints..

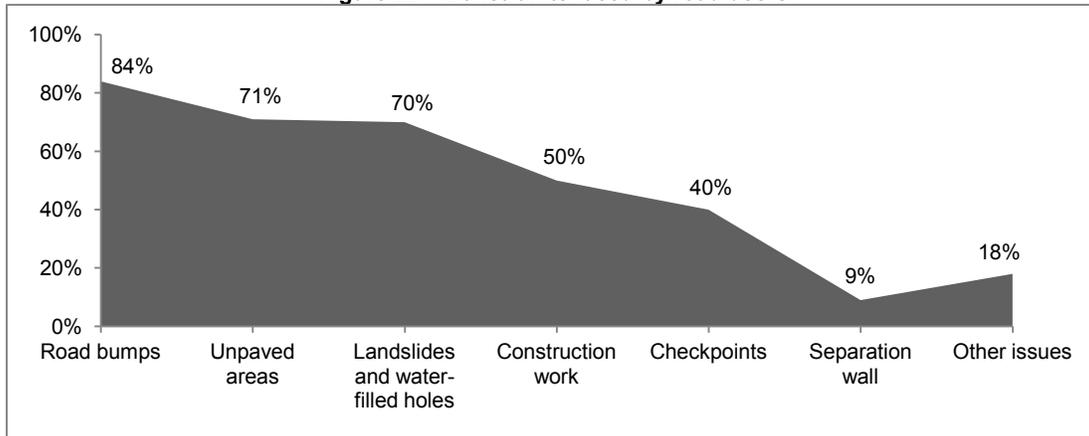
1.60 These physical barriers make remote villages hard to access and result in high transport costs for villagers, and for travelers between urban centers.. FDG participants from Yitma and Boureen declared that the village being located behind two checkpoints (Huwarrah and Za'atara), passengers have to pay NIS 5 to the checkpoint, and then an additional NIS 3 to the city (a total of 8 NIS or 2 USD for a typical daily commute).

Constraints and Restrictions related to the Economic and Social Context

a) Constraints Related to Transport Infrastructure

1.61 The results show that transport infrastructure challenges include: road bumps, mentioned by 84% of respondents, unpaved areas (71%), water filled holes (70%), road works (50%), and other unspecified problems (18%). These constraints impact private car users, yielding higher maintenance costs.

Figure 22 – Constraints faced by road users



The Palestinian Ministry of Transport reported that progress made in rehabilitating roads and constructing new roads, and transport facilities has been erased by political instability. Maintenance, rehabilitation and reconstruction of roads outside of the Palestinian National Authority self-rule areas requires permission from the Israeli side which is rarely granted. Israeli military forces have destroyed sections of rural main, regional, and access roads. Israeli military vehicles and tanks have damaged roads, especially in urban areas. Secondary roads have been damaged by diversion of traffic to them because they were not designed to accommodate the traffic load or types of vehicles using them.³⁶

b) Challenges Related to Public Transport

1.62 According to 82% of interviewees, high transport cost is a major problem. For 74% of them delays and unpredictable schedules are also important constraints. One woman from Tulkarem said: “In some suburbs there is no specified schedule for shared taxis except in morning time, and women are forced to leave early if they want to catch one. Any delay means taking a private taxi, which is very costly for students and employees.”

1.63 Harassment from drivers or other passengers are also seen by 38% of interviewees, as constraints facing public transport users. Significantly, there was no major difference between men and women’s responses. However, when 15% of respondents declared having been verbally harassed by a driver or other passengers, only 1% declared having been sexually harassed. Some women might have been subject to sexual harassment but did not declare it. Indeed, there is a belief that women can provoke sexual harassment by the way they dress or behave.

1.64 Other constraints faced by public transport users include illegal public transport providers, mentioned by 32% of respondents, and thefts (32%). 6% of interviewees were robbed on public transport means, and 14% were in an accident because of high speed.

³⁶ PNA MOT 2011

Frame 6 – What Gives Women a Feeling of Safety

Women in Yitma and Boureen Villages summarized factors giving them a feel of safety while traveling.

- The presence of the car's insurance, its registration, and the driver's license;
- Good ethics and positive decent attitude from the driver;
- A familiar driver (preferably from the village);
- Comfortable seating;
- Respect for safety rules inside the car, which should not be overloaded by passengers or standing children;
- Respect for speed limits; and
- Absence of road bumps.

1.65 Men share the same opinion when it comes to car insurance and registration. One of the male participants in Jenin said: "More than 90% of cars are insured and registered and are being monitored by the police. Before, there were illegal cars. After the latest campaign to eliminate illegal cars, we do not see them anymore."

Frame 7 – Challenges Faced by Students

Students at Al-Najah University discuss the challenges they face:

- Random taxi fares: some drivers ask for NIS 2 whereas others ask for NIS 2.5 for the same trip. Fares are even higher at night as drivers take advantage of students.
- Lack of traffic lights in some areas where they are needed.
- The location of the vehicles' stops is not appropriate.
- Lack of shade at stops.
- Traffic jams, especially at times when students go to school and come back.
- Drivers' frequent stops for additional passengers.

c) *Social constraints facing women's mobility*

1.66 Women's access to transport means is limited. Alternative means of transport such as bicycles, motorbikes, tractors and carts are socially prohibited for most women and only 5% of female interviewees declare using them (versus 17% for male interviewees). Although 25% of interviewees declared that their household owns a car, the number of women who can drive these cars is much smaller. Indeed, only 13% of women have a driving license (versus 45% of men) and a large number (55%) doesn't even intend getting one (22% for men). Only 8% of women's analyzed trips were done using private cars (19% of men's trips). This leaves the majority of women with only one option: public transport. Unfortunately, even the use of public transport is socially constrained: most FGD participants from small communities mentioned that women should only ride with drivers from their own villages. The use of buses is socially preferred for women, and use of shared taxis is accepted, although not when all other riders are men. However, use of private taxis is not easily accepted.

Chapter Four: Conclusion and Recommendations

1. Conclusion

1.67 Mobility is a major determinant of access to economic resources, education, health and other key prerequisites for women's empowerment. In the West Bank and Gaza, an area in conflict since 1967, mobility is dramatically reduced for both men and women because of checkpoints, the separation wall, and other physical barriers to movement, economic closures, as well as lack of physical infrastructure and underperforming public transport providers.

1.68 The restrictions on mobility of people and goods generate adverse impacts on the broader functioning of society and the economy. Transport is expensive relative to men's and women's incomes, and waiting time is unpredictable and often protracted. As a result, the market for travel, and hence the economic viability of the transport sector, have been greatly reduced. The security measures and road closures mean that operators provide transport services in sub-optimal conditions (long diversions, lengthy delays at checkpoints, unreliability), while incurring higher costs and attaining lower productivity.

1.69 The impacts of the conflict and these higher transaction and financial costs do not fall equally on men and women, however. Because men have better social networks and trade links outside their community, they have greater access to more sophisticated and flexible means of transport, particularly private cars.

2. Recommendations³⁷

Recommendations to Planners:

- Ensure that women's needs, based on their multiple roles are taken into account and incorporated into national development plans.

Recommendations to General Directorate for Transport at the Ministry of Transport

- Expand coordination between stakeholders including the police and the municipalities led by the Monitoring and Inspection Department.. Better law compliance was noted in areas having active presence of the police.
- Regulate public transport routes in coordination with operators to provide service at different times, thus increasing mobility for the public at large, and for women in particular.
- In accordance with the Palestinian traffic Law No. 5. Regulating pricing under the Traffic Controller, expand monitoring of the sector's compliance with official fare, safety standards, registration and operations, and information provision about drivers.
- Respond to transport user's perception of the need to improve vehicle quality control (cleanliness, safety of the vehicle's windows, doors, air conditioning...etc). Provide incentives for informal, unlicensed service providers to join the formal system and comply with regulations,
- Increase public awareness of complaint mechanisms for transport service quality issues, increase consultations with transport users and raise public awareness about actions taken to improve quality of service.
- In response to user perceptions of the need to improve comfort, review the producer's technical specifications for size and number of bus seats, to ensure that they are adequately wide and comfortable.
- Ensure that all buses specify seats with priority access for the elderly, disabled, and other people with special needs, in line with regulations and laws issued by the Ministry of Transportation protecting the rights of these groups.
- In response to some women's discomfort sitting next to male strangers on public transport, where possible delimit a seating area with priority access for women, and train

³⁷ It is hoped that, in addition, the many physical restrictions to the mobility of the West Bank population (men and women) will soon be removed.

- all public and private transport personnel how to monitor and prevent harassment of women and men(as a part of the required training to obtain and renew licenses).
- Continue and increase MOT encouragement of female entrepreneurship in the transport sector in driving schools, taxi companies, licensing departments and other public transport.

Recommendations to Municipalities:

- Re-consider the locations and specifications of terminals to ensure better service for a wider part of the population, in coordination with the Ministry of Transport.
- Ensure proper management of terminals by forming full-time administrative bodies that supervise all routes, identify and address problems, and receive complaints and follow them up.
- Enhance public safety and comfort by providing basic services such as shelters to protect customers from sun and rain, seats in the public transport terminals and compounds, clean sanitary facilities, and wide pavements that can be used by carts, or wheelchairs.
- The Municipal Development and Planning Fund, a semi-governmental organization, which invests 70 percent of its budget in road construction and safely uses, could provide the means to better integrate gender considerations into urban transport.
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PART II - GENDER AND TRANSPORT IN URBAN YEMEN, THE EXAMPLE OF SANA'A

Executive Summary

Sana'a is divided into three zones: old and historical Sana'a, the city center and the peripheral zone. The three zones enjoy different levels of infrastructure provision. Old and historical Sana'a zone is provided with the best transport infrastructure, including asphalted roads, street lighting, some pedestrian facilities, and bus terminals. The peripheral zone suffers from extremely poor infrastructure: streets are rarely asphalted, most are not evened, and some of them are too narrow for cars. Lighting is inexistent. Public transport routes are far from the neighborhoods, and costs of transport are higher because of the poor infrastructure.

Generally speaking, better infrastructure lowers the distance and costs of access to education, services, job market, economic opportunities and social life. It also frees time for women to engage in educational, social or economic activities. Women in old and historical Sana'a take advantage of their position, as some take one or even two jobs; others take up remunerated activities such as handcrafting. On the other hand, women in the peripheral zone might abandon school because of the high cost of transport and the insecurity inherent to walking to schools. Because water networks are absent on the zone; water tankers charge high for bringing water on bad roads; and households' income are limited, women have to walk long distances to bring water from cheap water sources.

Women in Sana'a are less educated than men; they have less access to paid jobs and less control over the household resources and especially means of transport. This is accentuated in the peripheral zone, where low skills combined to high costs of transport and low economic activity in the area hinders women's access to the job market.

Data shows that women move less than men. This is accentuated in the peripheral zone. Accessing economic opportunities is the primary purpose of people's movement. This purpose is however more important for men than for women. Women also move to access services or to participate in social activities. Because of the difference in their destinations, and their role in the household, men and women tend to travel at different times of the day. Men concentrate their travels in the mornings and afternoons, while women travel equally in the mornings, the afternoons and the evenings.

Women tend to wait less for transport means because of the discomfort inherent to waiting in the street. Transport means they are "allowed" to ride are essentially limited to buses and taxis and exclude shared taxis which are cheaper and more frequent. Most women have to be accompanied by a male family member for their motorized movements. This leads women to pay more for their trips (on average) than men. It should be noted that the average man's transport expenditure is 37 USD and because women control less resources, their transport budget is half that of men (18 USD). This leads women to move less and walk more.

Travel time is shorter for women than for men. Considering that half of women's trips are done on foot while men use more motorized means of transport, the study concludes that the average woman have access to a much smaller area, delimited by the short distance she can walk in 25

minutes. This significantly limits opportunities for women, whether in terms of education, work or entrepreneurship .

Sana'anis face numerous challenges in their transport activities: traffic is poorly managed, resulting in traffic jams and a high rate of road accidents; public transport is poorly organized, resulting in long waiting time and unnecessarily long travel time; public transport means are poorly maintained, which leads to even less safety. Insecurity is also a big issue: thefts are not rare, and women face all types of harassment on a regular basis.

Challenges faced by women are amplified since the society does not allow them to walk long distances, use bikes or motorbikes, or drive all means of transport except cars, which is accepted by a small fringe of the society.

The field research and the review of best practices allow presenting some recommendations to reduce mobility constraints faced by men and women in Sana'a.

Infrastructure Provision

Enhancing urban streets through upgrading, rehabilitation and maintenance is an important step towards improving mobility for all and especially for women. The study shows that low road quality results in increase of transport costs and prices of basic goods such as water. Women tend to move less, and thus access fewer opportunities.

Providing an adequate pedestrian infrastructure, including sidewalks and appropriate pedestrian crossings on highways would greatly enhance pedestrian safety in Sana'a. This would positively impact women who walk for more than half of their transport activities. It would also reduce the isolation of the peripheral zone and thus better access to opportunities to those who need it the most.

Lighting streets, especially those of the peripheral zone, would allow women to move securely for a longer part of the day which would help them getting a second job or go to evening schools.

Extending water and wastewater networks to areas that are currently deprived from these services will positively impact the quality of the roads' infrastructure. Indeed, currently, streets in the peripheral zone are periodically flooded with sewage from sewage holes. This not only hinders residents' movement and creates a public health issue but also deteriorates roads.

Exploring public private partnerships for the provision of specific urban infrastructure like lighting: this was done in Nairobi (Kenya), a city facing similar institutional challenges to Sana'a and could be done in Sana'a as well.

Organization of Public Transport

Setting bus stops will enhance traffic circulation in Sana'a in general as buses will stop in specified stops where they least trouble traffic, instead of stopping everywhere without respect to other cars' or passengers' safety. They will also allow women to wait in a protect environment.

Identifying and enforcing bus routes will ensure better distribution of public transport means on the different neighborhoods in the capital. It will oblige operators to serve the peripheral zone. It will also reduce crowdedness on the most profitable portions of the routes.

Wide seats or a separate seating zone for women on public transport means and especially shared taxis will help women avoiding physical contact with men. This will encourage families sending their daughters on public transport means without a muhram.³⁸ It will also widen the range of vehicles that women are allowed to ride.

Monitoring maintenance of public transport means and the operators' abidance by safety measures is necessary to enhance riders' safety. Authorities should particularly pay attention to the number of passengers that operators load on their vehicles and to simple safety measures such as riding with closed doors.

"Girls' Cab Company" might provide middle class women with a secure transport option. Such company is popular in Lebanon and Iran and might appeal to Yemeni families as well.

Street Life

Confine street vendors to areas where their impact on traffic is minimal.

Enact the Ethics' Police role in protecting women from all types of harassment, whether verbal or physical.

³⁸ A muhram is the husband or any other male family member that the woman can not marry, such as her father or brothers.

Part II - Gender and Transport in Urban Yemen, the Example of Sana'a

Chapter One: Introduction

2.1 Gender is an important issue to which governments, international organizations and NGOs pay great attention. Indeed, it is a sensitive issue related to social beliefs and cultural heritage in many developing countries. Gender reflects, among other, in the disparity of ways people use to access services including transport. Because men and women have different roles and responsibilities, they move differently, have different paths, and need the transport services at different times of the day. They face different cultural and physical barriers which require them to behave differently in their use of transport means. This study focuses on the Transport sector from a gender perspective because of the centrality of transport that gives access to social and economic resources and thus helps empowering men and women.

2.2 Urban transport in Yemen was thoroughly studied in the last two years but the studies did not take into account the gender dimension of the transport system. They focused mostly on technical or institutional aspects such as regulation of traffic or infrastructure but did not indicate the relationship of these aspects to gender. Moreover, gender segregated data on transport was very limited.

2.3 The objectives of this study on gender and transport in urban Yemen are to gain a better understanding of how Yemen's transport system in urban areas is meeting women's transport needs, and more specifically, how it is facilitating or constraining their access to resources, markets, training, information, and employment; and to identify priority areas for Government actions to improve urban women's access to economic opportunities and thereby contribute to their economic empowerment.

2.4 The study area was limited to the city of Sana'a because of the importance of the city, as it is the country's most important urban agglomeration, grouping 9% of the Yemeni population and 31% of the country's urban population. It also concentrates economic activities and accelerated housing expansion. Moreover, this study complements the technical studies in transport that were conducted in the last few years in Sana'a.

Chapter Two: Methodology

2.5 This study was conducted from November 2008 to August 2009 in a number of selected areas in Sana'a city. This period includes the preparation, implementation and final report writing. The methodology used combined quantitative and qualitative aspects.

1. Preparation

2.6 Secondary information on gender, population and transport was collected from reports or through interviews with officials in relevant administrations. This information was used to select the study sample as described below and to draft preparatory documents of the study including a review of urban transport in Sana'a, questionnaires, a guide to conduct focus group discussions, a manual for the use of data collectors and a training guide. Competent male and female data

collectors were selected and trained on the specific needs of the study. This was followed by field visits and qualitative and quantitative information collection from the selected study areas.

2. Sample Selection

2.7 Sana'a is administratively divided in 90 areas. On top of the administrative division, Sana'a is composed of three distinct zones: the old and historical city, the city center, and the peripheral zone. These zones have different provision of basic infrastructure, and are composed of different socio-economic groups. To best represent the city's diversity, 10% of the city areas were selected for the study: three in each zone, with a total of 9 target areas. The areas' selection criteria were: the availability of transport means, the distance from the city center, the level of access to basic services (education, health, etc.), and the socio-economic groups represented. The areas selected are listed in the table below.

Table 11- Study areas

Zone	Area	Harat (neighborhoods) in the area
Peripheral zone	Sudus-Ahdaq	Lower Judr, Wadi Ahmad
	Al-Furuseyya	Chabareq, Assalam
	Haziz	Haziz, Al-wehda
Old and historical Sana'a	Old Sana'a	Attabari, Al-Horqan
	Athawra hospital	Atta'awon, Akamat-Al-Zabib
	Nogom	Asselm, Ammar Ibn Yasser
City center	Ma'in	Addagig, Al-Khayr Wa-Salam
	Al-Jeraf Al Sharqi	Bir Zayed, Nawbat' Al-Nuss
	Bir 'Abid	Annur, Sharqi Dar Arri'aya

2.8 In each selected area, 20 males and 40 females were randomly selected among employees, students, traders, housewives, and jobless people, totaling 180 respondents in each zone and 540 respondents in total. Interviews were conducted at the place of work or study (universities, training centers, community college, factories, government and private offices, and medical care centers) and in randomly selected houses. The following table indicates the sample distribution.

Table 12 - Sample size, by zone and gender

	City center	Old & historical Sana'a	Peripheral zone	Total
Male	60	60	60	180
Female	120	120	120	360
Total	180	180	180	540

3. Data Collection

2.9 Quantitative information was collected through 540 interviews based on the prepared questionnaires. Moreover, interviewees were helped to fill in a transport log covering their transport activities for 4 days.

2.10 Qualitative information was collected through focus group discussions (FGD). In each selected area, four FGD were held, two with females and two with males. 8 to 10 respondents participated to each discussion.

2.11 Drivers, members of the local councils, officials from the traffic department in the area, in addition to a sample of the residents, employees and workers participated in males' focus groups. As for female focus groups, women were selected from different categories in terms of

education, cultural and social backgrounds. The field team also made sure that influential women were present in the discussions.

4. Data Analysis

2.12 Each questionnaire was coded and entered in a Statistical Package for the Social Sciences database. Results tables were generated. Minutes of FGD were prepared. Minutes and results tables were used in the analysis developed in chapter three below.

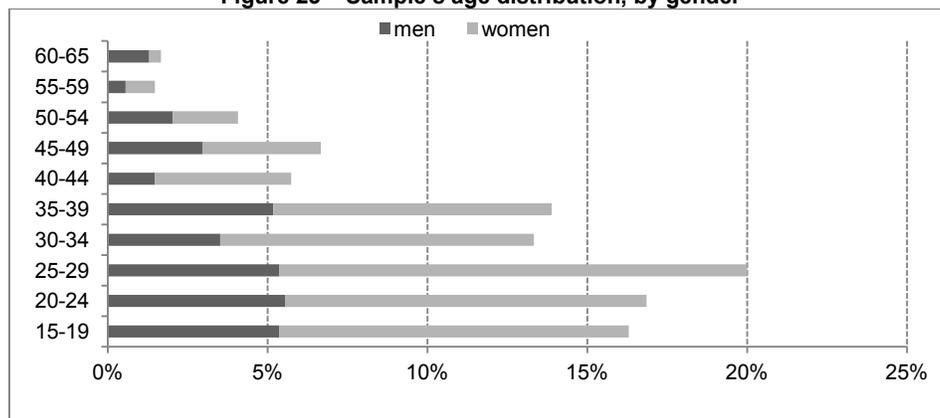
Chapter Three: Transport in Sana'a - Infrastructure, Paths, and Constraints

1. Who Are the Interviewees?

Age

2.13 The interviewees are aged 15 to 65 years. The age distribution is similar to the national³⁹ one where younger generations outnumber the older ones and where those aged 15 to 29 represent 58% of the population (53% of the sample); those aged 30 to 44 represent 22% of the population (26% of the sample); and those aged 45 to 65 represent 7% (11% in the sample).

Figure 23 – Sample's age distribution, by gender



Education

2.14 The studied sample is substantially more educated than the Yemeni population⁴⁰. Indeed, illiterates represent only 17% of the sample while they represent 45% of Yemen. Those who gained basic reading and writing skills represent 14% of the sample and 35% of the Yemenis. Finally, university graduates represent 18% of the sample and only 2% in Yemen. Data about education in Sana'a is unavailable but it is reasonable to assume that urban Yemenis and especially people living in big cities where education is available would be more educated than the average.

³⁹ Yemeni Population Census, 2007

⁴⁰ Yemeni Population Census, 2007

2.15 The general trend observed in Yemen and confirmed in the sample is that women are less educated than men. Indeed, 87% of Yemeni women are either illiterate (62%) or gained only basic reading and writing skills (25%).

Table 13 - Sample's level of education, by gender

	Male	Female	Total
Illiterate	5%	23%	17%
Read and write	11%	16%	14%
Basic education	21%	23%	22%
Secondary education	33%	24%	27%
Vocational training	3%	1%	1%
University degree	27%	14%	18%

Employment

2.16 51% of interviewees declare holding a job. The percentage of males is much higher in this category (80%) than females (36%), most of whom (45%) declare being housewives. The number of those who admit being unemployed (2%) is much lower than the actual unemployment rate in Yemen⁴¹ (6%).

2.17 Interviewees were also asked whether male and female family members work. We notice that overall, only 27% of the studied population held a job. The percentage of female workers is much lower than that of male workers (12% to 41% overall). This is similar to the general Yemeni trends⁴², where only 10% of women, compared to 68% of men participate to the formal economy.

Table 14- % of workers in households, by gender

Zone	Male	Female	Total
Old and historical Sana'a	43%	15%	29%
City center	41%	13%	27%
Peripheral zone	38%	7%	24%
Total	41%	12%	27%

2.18 We notice that old and historical Sana'a has the highest number of workers, followed by the city center and finally the peripheral zone. In the latter, only 7% of women work, which is less than half the rate in old and historical Sana'a. This divergence is linked to the level of provision of transport infrastructure and services in each of the zones as detailed below.

2. Provision of Basic Infrastructure

2.19 Roads infrastructure is an important indicator for the level of transport services available. Interviewees in the different study areas were asked to qualify their neighborhoods' provisions of basic roads infrastructure.

Old and historical Sana'a

⁴¹ Yemeni Population Census, 2007

⁴² Yemeni Population Census, 2007

2.20 Quantitative data indicates that good infrastructure services are available in the old city zone. 94% of the respondents indicated that the roads leading to their residences are asphalted and about 90% pointed out that the road's condition is good. This is clear through the charts below. This is felt by interviewees, as 80% find that their needs are fulfilled and 17% somewhat fulfilled with the existent roads.

Figure 24 – Type of roads in old and historical Sana'a

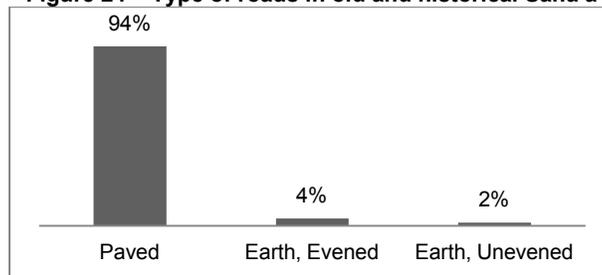
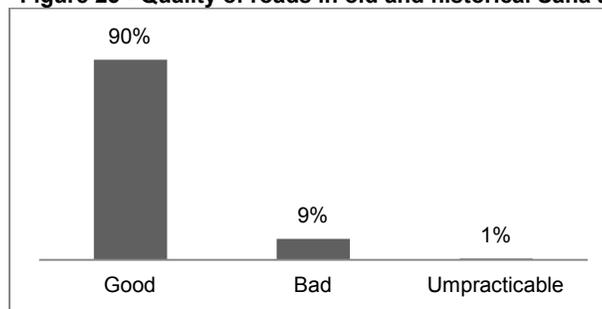


Figure 25 - Quality of roads in old and historical Sana'a



2.21 FGD confirmed that old and historical Sana'a enjoys better infrastructure than the other zones, but indicated some differences between neighborhoods. The discussants clarified that this zone is located in the heart of the capital, close to commercial companies, banks and hotels. It is considered a historical zone, attracting tourists. There is also a popular market (Bab Al Sabah) in which, in addition to food and clothes, traditional arts and crafts can be found. In this area, basic infrastructure and all other services are available and of good quality. The area is also well served by all transport means.

2.22 In old and historical Sana'a, water, phone, and sanitation networks, in addition to health and education centers are available. Moreover, roads are available as the main streets are asphalted whereas sub-streets and alleys of the neighborhood are stone-paved and cemented. Because the buildings are old-fashioned and urban planning is characterized by the closeness of the buildings, roads are narrow and sometimes are simple alleys through which motorbikes pass with difficulty. Therefore, residents may park their cars outside the neighborhood as they cannot drive them inside. However, there is no problem in transport for both men and women because the area is surrounded by large streets from all sides (Al Qyadah Street, Al Saylah Street, Sho'ob road). Public transport terminals are also available. Street lighting is available in this area.

2.23 In Al Thawra area, services and infrastructure are available but not of the same quality as in old and historical Sana'a. The participants confirmed that all streets are asphalted but the internal roads are narrow. Dig-ups resulting from sewage, water, electricity and phone networks, and manholes, are widespread. The geography of the area characterized by hills and rocky heights, constrains public transport movement. However, in general, transport infrastructure and services such as schools for boys and girls, hospitals, and clinics are available. Street lighting is

available but suffers from long cut-offs, especially at night. Water is available but is sometimes disconnected. When this happens, water is supplied by water tankers who charge up to YR 1200 (USD 6) for a tank or an average family's consumption for 5 days.

2.24 In Nogom area, transport infrastructure and public services are available but are of far lesser quality than those in old and historical Sana'a or A-Thawra areas. Power disconnects very often and for long periods lasting up to 6 hours a day. Water is scarce leading residents to buy it for YR 1500 (7.5 USD) per tank. The sewage system is not good as network is old and badly maintained. Breaking of pipes and overflow of sewage water onto roads is not uncommon. Some neighborhoods of the area are randomly constructed. They do not have a sewage network. In the rainy season, the neighborhood is flooded. This severely constrains men and women's movement. The central hospital is relatively far. The phone is the only good service.

2.25 Pedestrian facilities are somewhat available in old and historical Sana'a as there is the project of conversion of the Saylah (water flow) to a road through paving. This road passes through Sana'a from the south to the north and separates Al Tabri and Al Hargan neighborhoods from the original old Sana'a area. It is the only project that took pedestrians into consideration as pedestrian bridges crossing from Al Tabri and Al Hargan to old Sana'a and a pedestrian tunnel at the western side of Bab Al Sabah are foreseen.

City center

2.26 The studied areas in this zone vary largely in terms of availability of services, general infrastructure or those related to transport system. This variation exists also within the same area, i.e. between neighborhoods (Harat) as we will see in the quantitative and qualitative analysis.

2.27 On the quantitative side, interviewees were asked about the type and the quality of the main roads leading to their residences. As illustrated in the chart below, 57% of the respondents have an asphalted road leading to their residences, while 36% have an evened – but not asphalted – road leading to their houses. A large percentage of the sample (60%) said that the main road is full of ditches and potholes. This indicates that on average, the road quality is bad.

2.28 This is felt by interviewees as 23% of them find that existent roads don't fulfill their needs, while 33% find that their needs are somewhat satisfied and 45% find that their needs are satisfied with the existent infrastructure.

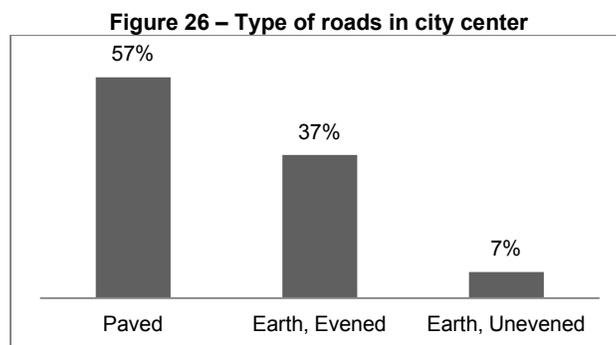
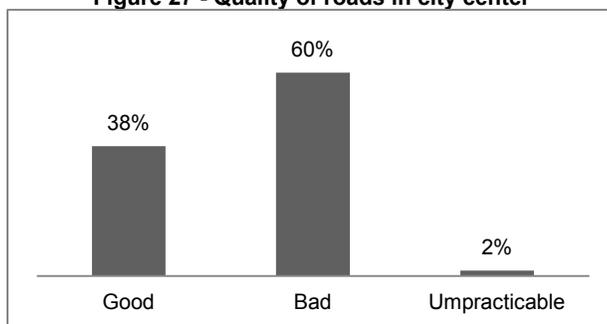


Figure 27 - Quality of roads in city center



2.29 The results of the focus groups confirmed this information but highlighted some differences between neighborhoods in the zone. It was noticed that the neighborhoods of Al Dagig and Al Khair wa Al-Sallam in Ma'in area; and Nawbat Al Nus neighborhood are closer to peripheral Sana'a in terms of (lack of) provision of roads infrastructure and the low quality of the available one. These neighborhoods share a common history, are home to similar social groups, and face similar geographical obstacles that increase their isolation. In general, these neighborhoods are a mix of random housing and poverty spots. In Ma'in area, most of the houses were built randomly without building permits or plans and mainly at night. Most respondents of this area are small employees, street vendors, soldiers, and immigrants who returned from Gulf countries after the Gulf war. In the neighborhood of Nawbat Al Nus in the Eastern Al Jeraf area, respondents noticed that the lack of urban planning led to random constructions with little room to improve roads.

The chief of the neighborhood of Al-Alkair-wa-Al-Salam explains that the problem lies in the responsiveness of the urban planning system. The old plan shows main roads and sub-streets. When it became ready, it was not applicable as most planned streets have been blocked by houses and it was very difficult to remove them due to their density. Later on, the plan changed so as to have less losses but it was too late in terms of deployment. Indeed, in between plans, people bought construction land based on the first plan. When the second plan was released, they found that they would incur losses because of it. In order to make the second plan ineffective, inhabitants built houses in the middle of the planned streets.

2.30 In Ma'in area, the hills in the western side formed a natural extension for the growth of this neighborhood. The area extended randomly on this side. The lack of planning made it difficult for service providers to serve this area with roads, water and waste water networks, and garbage collection trucks. Rain water flows from the heights, covering houses with water and deteriorating roads.

The chief of the Nawbat Al Nus neighborhood says: "most buildings of the neighborhood are not concrete and are built randomly because of the lack of planning. The inhabitants of this neighborhood are income-limited or poor which reflects in the quality of the roads, mainly narrow allies most of which are blocked, unpaved and un-evened. They are also full of sewage, ditches and construction waste. During the rainv season, the streets in the neighborhood turn into swamps full of staagnant water."

2.31 Testimonies, quantitative data and the team's observations show that the roads' infrastructure is relatively weak in many neighborhoods of the city center. As for other services, they are available in some areas in the city center and absent in other areas. There is no street lighting in the whole zone.

A FGD participants from Nawbet-Al-Nus says: “The existence of the Saylah (water canal) to the east and the Central Prison Building to the south are natural barriers that disconnect the neighborhood from the main streets. As a result it is deprived of all basic services, infrastructure in general and roads’ infrastructure in particular. This negatively reflects on the residents in general and women in particular. Movement is very limited, which negatively influenced the residents’ access to basic services, otherwise available in neighboring areas. The situation increased the levels of poverty and illiteracy, and made it harder for residents to access job opportunities. In addition the overflow of sewage and stagnant water in the neighborhood as well as in the Saylah impacts negatively the residents’ health. The residents suffer even more during the rainy season. The closest public hospital is about 4-5 km far from the neighborhood. The boys and girls’ school is available in Bir Zayed neighborhood which is about 30 minutes walk. The isolation of the area leads to high transport costs, unaffordable for most residents.”

Peripheral zone

2.32 The peripheral zone represents a junction point between rural and urban ways of life. Indeed, in most neighborhoods, residents maintain some forms of agricultural activities. This is more apparent in Hezyaz, Jader, and Wadi Ahmed. These neighborhoods, including Wadi Ahmed and Forosyah, developed randomly before any urban plans ever covered the area. Therefore, this zone is characterized by lack of services and infrastructure in general and transport infrastructure in particular.

2.33 Only 24% of the respondents in this zone indicated that the main road leading to their residence is asphalted. For 36% of them, the road is non-asphalted but evened. Finally, for 40% it is nor asphalted nor evened. A large percentage of the sample (67%) indicated that the road is full of ditches and potholes.

2.34 This is felt by interviewees as only 19% think the roads’ fulfill their needs and more than 50% think that the roads are not sufficient. Here, the disparities between men and women are the greatest. Indeed, only 10% of women think that the roads fulfill their mobility needs (37% of men) and 60% think that the roads don’t satisfy their needs at all (33% of men).

Figure 28 – Type of roads in peripheral zone

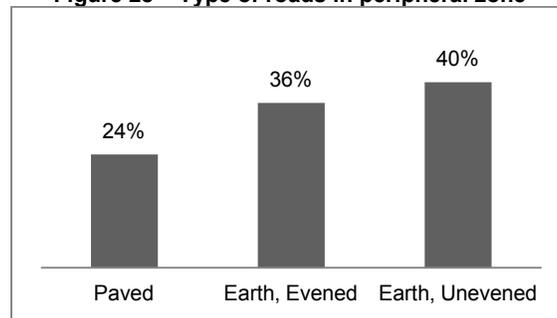
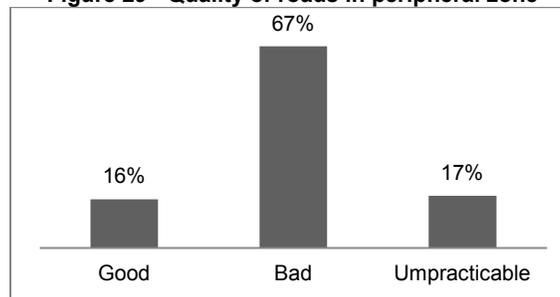


Figure 29 - Quality of roads in peripheral zone



2.35 FGD show that most roads are of bad quality, and impracticable for most transport means. Transport from and to the neighborhoods constitutes a big problem, particularly for women. Because of the bad roads' infrastructure, public transport providers refuse to enter the neighborhoods. They rarely go beyond the nearest main road, or when they do so, they double the fare, making it unaffordable for the poor residents of these neighborhoods. Thus, men and women have to walk great distances from their homes to the main streets where they can find transport means. However, even on the main streets, public transport is hardly available because these areas are not attractive to transport operators.

2.36 Electric power is available in houses but for limited hours and black outs occur regularly, especially in the evenings. The inexistence of street lighting worsens things as it turns these neighborhoods into sheer darkness in the evenings and nights (after 6 p.m.). This is considered a huge problem for women who fear kidnapping or harassment and helps all of them from going anywhere unless accompanied by male family members.

2.37 Most basic services, especially water and sanitation, are not available. FGD indicate that residents have to fetch water from far areas or buy it from the water tankers. Because the roads' infrastructure is bad, tank owners charge a high price: up to YR 1800 (9 USD) for a tank, compared to 1200 YR in other zones. Sewers are not linked to the general sewage network. Residents dig a sewage room when they construct their houses. These rooms overflow when filled up and run to the middle of the streets forming swamps. This problem worsens at the rainy season and favors the spread of diseases and constrains movement.

2.38 FGD indicate that health and education facilities are either totally absent or only available in nearby areas, 30 to 45 minutes walk from the study areas. This is the case in Wadi Ahmad where girls have to walk 30 minutes to Dares to go to school. In Al-Forosyah, the school lacks of the basic furniture and most students have to sit on the ground. For some neighborhoods, the nearest medical facilities are located in the center 10-15 km away.

3. Impact of Infrastructure on Access

2.39 Levels of access to infrastructure impact on the interviewees level of access to all kinds of services and economic resources. The data collected showed great divergences between zones and sometimes between areas in the same zone. For example, in the Ma'in area of the city center zone, transport was deemed affordable as the area is close to a main street (Assettoun Street) where transport means and education centers are available. In this area, men and women don't face constraining mobility issues when they look for jobs. On the other hand, in Nawbat Al Nus neighborhood, in Al Jorf A-sharqi area, in the same zone, transport costs are deemed unaffordable. This is due to a succession of things: the area lacks of education and health facilities; it is also isolated and underserved with transport infrastructure; finally, it is relatively far from main centers of activities where jobs are available. The high cost of transport combined with the low level of skills (because of the difficulty of access to education) increase unemployment and poverty.

2.40 Similar divergences are observed in old and historical Sana'a zone but on a different level. Indeed, in Old Sana'a area, good quality of roads' infrastructure, associated with existence of pedestrian facilities and street lighting, availability of public transport means and proximity to the commercial zones helped men and women access opportunities such as work and education. Because they know that they can move securely and efficiently at a relatively low cost, women seek one or even two jobs. The availability of markets helped some women buying sewing

supplies and selling products to storekeepers. In Nogom area however, bad road quality and lack of pedestrian facilities deprive women from access to the same services and economic opportunities.

2.41 Most areas in the peripheral zone face similar constraints in terms of access. Bad road quality and lack of street lighting negatively impact the ability of women to access even the most basic service. Focus Group discussions (FGD) in the peripheral zone show that lack of infrastructure in general and transport infrastructure and social services (health and education) in particular; and the low quality of existent ones negatively impacts women's access to education. Therefore, the percentage of illiteracy and unemployment is high among women. On the other hand, the scarcity of public transport means, the low educational level of men and the isolation of the peripheral zone negatively influenced men's access to well paid jobs or evening jobs. Therefore, most men in this zone are poor. Transport cost is thus a main issue for the residents of the peripheral zone.

2.42 The link between infrastructure and access is felt by the interviewees, among whom 58% think enhanced roads' infrastructure and availability of public transport means would greatly enhance women's situation; 36% think these factors would somewhat enhance women's situation; while only 6% don't see any impact of better infrastructure on women's situation. The latest category is mainly composed of women who think that social constraints won't fade even if transport infrastructure was available.

A female FGD participant from the Old Sana'a city area says "I'm a teacher in a school in Aser neighborhood. After the school, I give lessons in Al Zubairi neighborhood. I am able to do so because the availability of buses and roads that helped me traveling easily".

4. Travel Patterns

Frequency

2.43 The transport logs allowed collecting information about more than 1800 trips. The analysis of this information shows that women tend to move 20% less than men. In the peripheral zone, the difference is even more important as women travel 26% less than men.

Purpose

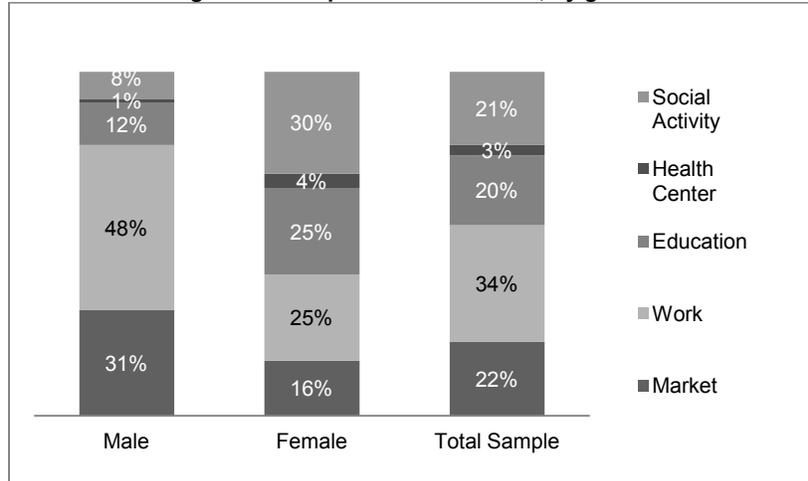
2.44 Interviewees were asked whether transport means are important to perform listed economic and social activities. They answered that it is very important to go to work, to the health care center or to buy food. It is also considered important for other activities: shopping, accessing education, visiting relatives and friends, and participating in social activities.

2.45 FGD confirmed that women use transport means, mainly buses, to go to work, universities, and schools. They walk or use buses to go to the markets where they shop for food items and sewing supplies or sell products to storekeepers. In the afternoon, transport means, mostly taxis or buses, are used to exchange visits or go to an afternoon job. At night, women might share taxis to wedding halls. Some working women are transported to and from work by a special bus allocated by their employer.

2.46 The analysis of transport logs shows that economic activities such as work or access to markets is the primary reason for people's movement, whether men or women. This represents

79% of men’s reasons to travel and 41% of women’s reasons. Social activities such as visits to family and friends represent 30% of women’s movements, while access to services such as education and health represent 29% of women’s purpose of travel.

Figure 30 - Purposes of movement, by gender



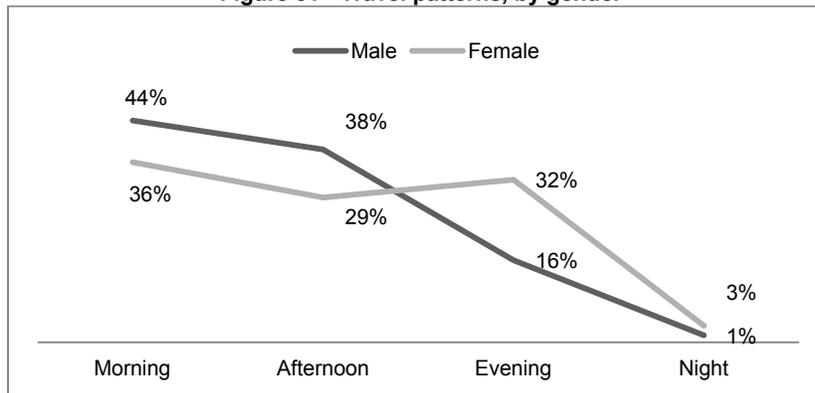
Duration

2.47 The duration of trips can be divided into waiting time and travel time. On average, people wait 10 minutes. Average women’s waiting time is 9 minutes and is 16% less than that of men: 10.5 minutes. The average travel time is 30 minutes: 24 minutes for women and 38 minutes for men.

Schedule

2.48 Because of the difference of their roles, men and women have different schedules. In the morning and afternoons, men tend to travel more, while women travel more in the evenings.

Figure 31 - Travel patterns, by gender



Expenditure, Costs and Affordability

2.49 Interviewees were asked about their average monthly expenditure on transport. It appears that on average, interviewees spend 5000 YR (25 USD) per month for transport. Men’s

expenditure is the double of that of women in all neighborhoods. Residents of old and historical Sana'a are the highest spending population, with an average of 8000 YR for men (40 USD) and 4000 YR for women (20 USD). Residents of the peripheral zone spend the least on transport: 6600 YR (33 USD) for men and 3500 YR for women (17.5 USD).

Table 15 - Average monthly expenditure for transport, by gender (in YR)

	Male	Female	Total
City center	7800	3900	5200
Old and historical Sana'a	8000	3900	5300
Peripheral zone	6600	3500	4500
Total	7500	3800	5000

2.50 The transport log analysis shows that on average, the sample spends 300 YR (1.5 USD) per trip. However, when an average male's trip costs 280 YR (1.4 USD), the average female's trip costs 325 YR (1.6 USD). Women spend 17% more per trip than men.

2.51 31% of the interviewees think transport cost is too high; this rate is even higher in the peripheral zone, where 47% of males complain about costs of transport.

2.52 During FGD it appears that public transport operators double their rates in areas that are poorly served with roads' infrastructure, which is the case of the peripheral zone. To reduce transport costs and be able to participate in social gatherings such as weddings, some women share a taxi and the total fare.

Company

2.53 While 89% of men travel unaccompanied; because of social pressure, women tend to travel in groups. Only 49% of women's trips are done by the interviewee alone. For most trips, women are accompanied by a male family member (9%), a family member (22%) or a friend (20%).

5. Transport Means

Ownership

2.54 Interviewees were asked whether their household owns a means of transport. 65% of the households don't own any, while 33% own a car. 2% of the households own a bus, a bike or a motorcycle. Old and historical Sana'a residents are those who enjoy the highest ownership rate (43%).

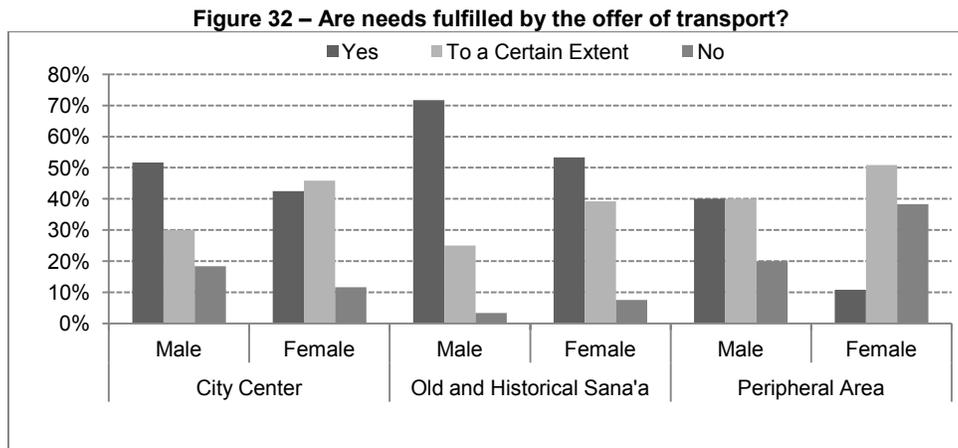
2.55 Interviewees were also asked whether they personally own transport means. Only 3 women in the sample own a transport means (a car), two of them live in old and historical Sana'a and the third in the peripheral zone. As for men, 25% of them own a transport means. The rate is the highest in old and historical Sana'a where 33% of interviewed men own a car and the lowest in the peripheral zone where only 15% of interviewees own a means of transport.

2.56 Interviewees were finally asked whether they own a driver's license. Only 2% of women have one, and half of them live in old and historical Sana'a. 22% of men own a driver's license and half of these live also in old and historical Sana'a.

Availability and Efficiency

2.57 Interviewees were asked about the biggest available means of transport in their area of residence. Overall buses (without specification of size) are available in 68% of the researched areas. 16% of the areas are served by shared taxis. Some areas can be reached by smaller cars (10%), motorcycles (3%) or feet (3%) only.

2.58 42% of the sample feel that the available transport means fulfill their transport needs, and 41% feel that their transport needs are fulfilled to a certain extent. Residents of old and historical Sana'a are the most satisfied ones, as 94% of them feel their needs are satisfied with the existent offer. The least satisfied are residents of the peripheral zone, among whom only 21% feel their needs are totally fulfilled. Women's needs tend to be less fulfilled than men's, with 80% of women feeling that their transport needs are fulfilled, at least to a certain extent, compared to 88% of men.



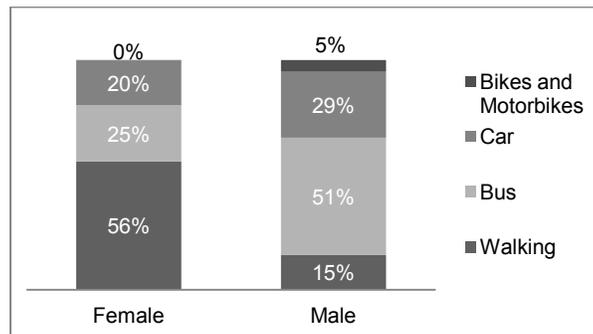
2.59 When asked whether transport means are available when needed, most interviewees (64%) complained about delays, or great delays (10%).

2.60 FGD participants explained these delays by the weak public transport management added to the inefficiencies of traffic management and the roads' crowdedness in Sana'a.

Use

2.61 The analysis of over 1800 travels performed by interviewees over a four days period and collected through transport logs shows that for their transport activity, men use mostly buses, while women walk. Although some neighborhoods are only accessible to small means of transport such as bikes and motorcycles, these are not used by women at all, while they are used for 5% of men's transport activities. Finally, cars, whether privately owned or hired (taxis and shared taxis), are used for 23% of travels, covering 29% of men's trips and 20% of women's.

Figure 33 – Use of transport means, by gender



2.62 No matter what zone they live in, feet is the primary means of transport for women. Women in the peripheral zone are those who rely most on this means. In the opposite end of the scale, men in old and historical Sana’a are those who rely most on cars (whether hired or owned).

Table 16 – Use of transport means, by gender (in %)

	City center		Old and historical Sana’a		Peripheral zone		Total Sample
	Male	Female	Male	Female	Male	Female	
Car	24	17	42	27	23	15	23
Bus	56	31	36	28	59	13	34
Motorbike	5	1	1	0	7	0	2
Bike	2	0	0	0	0	0	0
Walking	13	52	21	45	12	72	40

2.63 Focus group participants indicated that the peripheral zone is poorly served by means of transport that would be socially acceptable for women. Shared taxis and motorcycles are the most available means, and those are not socially preferred for women. Women have to walk long distances to their destination or to the nearest bus station and then wait inside the bus till it fills up.

2.64 In an area where the market is about 2 to 3 km far (30 minutes walk), women have to walk the distance, while men can jump on cars owned by “Qat” growers.

“Dababs”, which are 7-passenger minibuses, became the preferred transport option for both men and women because they can move easily in narrow roads. Women can ride in the back in designated seats, without fearing physical contact with men.

6. Mobility Constraints

Social and Cultural Aspects

2.65 To investigate the impact of social constraints on women’s mobility, interviewees were asked whether society accepts or constrains women’s use and drive of different transport means. It appears that it is totally unacceptable for women to drive any means of transport but private cars, which are rather accepted. Interviewees believe that women are not physically able to drive; some also believe that tradition and religion forbid women from driving; finally, it is believed that women drivers will face greater insecurity.

Women's views about their ability to drive diverge. For some "driving cars, just like men, is no good for women". The educated ones however protest: "give me a car, show me how to drive, and I will drive. What do you think will happen if I did?"

2.66 Women's ridership of motorcycles and animals is totally unacceptable, while their ridership of shared taxis, although constrained is allowed. Finally, taxis' ridership is accepted under certain conditions, while walking or riding buses is totally accepted by the Sana'a society. 45% of interviewees indicated that a woman has to travel with a muhram⁴³, whether riding a bus or a shared taxi. Walking is accepted, although walking long distances is not preferred, as interviewees feel it exposes women to harassment.

A FGD participant tells: "A female doctor visited this neighborhood for an emergency. She was driving her car. When she entered the valley, everyone gazed at her in surprise. Every time she moves the car, men, children and young girls run after her in surprise".

2.67 When interviewees are asked about major constraints facing women's mobility, 56% of them list the inappropriateness of some transport means to women's movement; and 61% list the necessity for women to travel with a muhram. 72% feel the weight of traditions that hinder women's mobility.

Traffic Management

2.68 Interviewees were asked about the main constraints that face men and women when moving in Sana'a. Issues pertaining to traffic management came on top of interviewees' concerns. 86% listed "delays due to traffic jams" and 82% listed "weak application of traffic rules" as major concerns. Men and women living in the Peripheral zone suffer the most from traffic management constraints, identified as a major issue by 97% of men, and 89% of women.

2.69 FGD participants see the weak capacities of the traffic management authorities as a major problem that results in many constraints to movement in Sana'a. Poor presence of the traffic management authority results in lower safety for road users. Traffic jams are aggravated by cars parking everywhere in the streets; public transport means pulling anywhere, sometimes in the middle of intersections to load or unload passengers; and street vendors displaying their merchandise on sidewalks and in the middle of the streets.

Pedestrian Facilities

2.70 Lack of pedestrian facilities such as pedestrian crossings and sidewalks is listed among the major constraints facing men and women. 74% sees it as a major constraint for women and 65% as a constraint for men as well. Men are more sensitive to this issue, as over 90% of them see it as a major concern to both men and women. On the other hand, only 50% of women think it is a constraint for men, and 65% see it as a constraint for women.

2.71 The lack of bus stops where men and women can wait for public transport means to pick them up is listed as a major constraint to peoples' mobility by 94% of men and 45% of women.

Management of Public Transport

⁴³A muhram is the husband or any other male family member that the woman can not marry, such as her father or brothers.

2.72 The absence of the public transport regulation authority gave room to operators of transport means and public transport terminals to impose their ways on users. Movement of Public transport means and organization of bus terminals are done so as to maximize benefits with no respect to quality of service. Bus terminal operators are remunerated proportionally to the number of bus passengers that leave the terminal. Lines of buses would wait inside the terminals for more than 20 minutes in order to load passengers even though men and women are waiting on the bus routes for buses to pick them up.

2.73 FGD indicate that in spite of the high number of buses and taxis, public transport means are rare in rush hours because of traffic jams. Users of public transport means explain the difficulties they face with public transport means by the lack of routes enforcement and absence of bus stops on the routes. Because the routes are not enforced, operators avoid sections that they consider non profitable, or they don't serve the final portion of the route in order to go back faster to the terminal and load more passengers, increasing the number of trips and their income. Absence of bus stops leads operators to stop frequently, sometimes in the middle of traffic to load or unload passengers. Competition between operators on passengers leads to even more confusion on the streets.

Safety

2.74 Interviewees were asked whether they had road accidents. 25% of the respondents faced such a problem: 29% of men and 23% of women. The accidents range from collisions between different means of transport, bus or car rollover (59%), or cars hitting pedestrians (37%).

2.75 Interviewees were hit while on a public transport means (35%), on a private transport means (35%) or while walking (25%). Women are more likely to get hit while walking than men: 5 out of 7 pedestrians hit are women. Women are as likely to be involved in a traffic accident while riding public transport means as men. However, men are more likely to be involved in a traffic accident while riding private transport means: 5 out of 7 accidents involving private cars happen to men.

“Once, when I was going to work, one of the passengers fell off the bus. The door was open, and the speed too high. The driver made a sudden turn, and the passenger fell.” says Hisham, a FGD participant.

2.76 FGD indicated that all public transport means lack in safety because operators take more passengers than what they should. Public transport means are also poorly maintained, which jeopardizes the riders' safety. It is common to ride on a vehicle that has broken seats and windows, or even broken floors and doors. Smoke from the engine chronically invades the cabin and intoxicate riders. Some people might also drop from buses riding with open doors.

2.77 Pedestrian safety is particularly challenged in the Peripheral zone. Holes full of sewage are not rare. There is no street lighting. Highways where there are no pedestrian crossings surround the zone. No signs or traffic agents warn vehicles about the possibility of pedestrians crossing the highways. This environment is dangerous, especially for women, children and elderly.

Security

2.78 Interviewees were asked whether they feel that public transport means are secure for women. Most respondents (68% of the total sample, 74% of women and 54% of men) feel that these are secure to a certain extent. Generally, men and women think that women would be better off traveling with a muhram.

2.79 The feeling of security is higher in residents of Old and Historical Sana'a where 20% of residents feel that public transport means are totally secure (15% in the City center and 11% in the Peripheral zone). The feeling of insecurity is the highest in the Peripheral Zone where 24% of residents feel that women are totally insecure in public transport means (12% in Old and historical Sana'a and 16% in the city center).

2.80 Women's insecurity is a big concern in Sana'a, and even more so in the Peripheral Zone. FGD participants explain that women traveling alone can be subject to harassment in the streets or on buses, that they can also be kidnapped by taxi drivers. In the peripheral zone, the bad economic situation of most residents does not allow muhrams to accompany their daughters and sisters to schools and universities on a regular basis which constrains women's access to education. Insecurity and absence of street lighting lead families to restrict females' movement after sun set, at 6 p.m.

Security of belongings

2.81 57% of interviewees are concerned about thefts targeting women while walking. Men and residents of Old and Historical Sana'a are the most concerned ones (68% and 64%, respectively). 44% are concerned about thefts targeting women on public transport means. Men and residents of the Peripheral Zone are the most concerned ones (70% and 46% respectively).

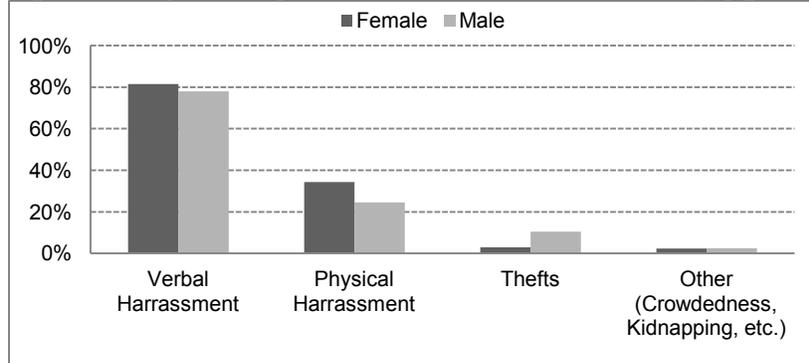
2.82 55% of interviewees are concerned about thefts targeting walking men. Women and residents of Old and Historical Sana'a are the most concerned groups (57% of both groups). 58% are concerned about thefts targeting men on public transport means. Men and residents of the Peripheral zone are the most concerned groups (62% and 61%, respectively).

Security of people

2.83 Harassment from drivers is seen by 80% of interviewees (85% of men and 75% of women) as a major constraint facing women's mobility. Harassment from pedestrians is seen by 83% of interviewees as a major constraint to women's mobility. The rate is even higher among City Center residents (87%) and women (85%).

2.84 Interviewees were asked how often women face harassment when riding public transport means. They answered regularly (26%), often (55%), rarely (13%) or never (7%). Women might be verbally or physically harassed. They might also be subject to thefts or even kidnapping. The latter is however believed to be rare.

Figure 34 – Major security issues identified for women in Sana’a, by gender



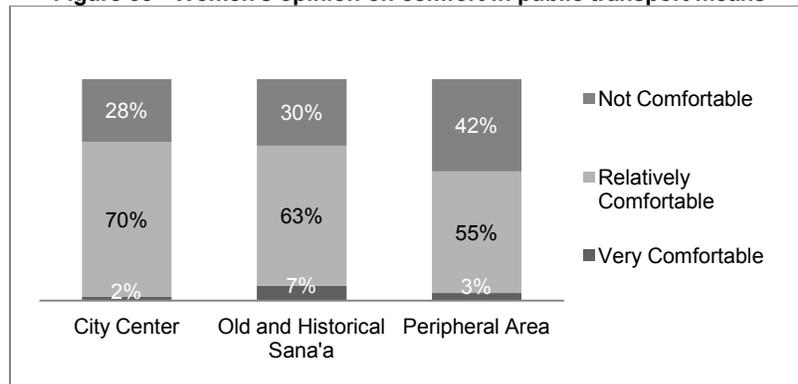
2.85 FGD show that public transport riders’ security is a major concern in all study zones. Some women reported that taxi drivers attempted to kidnap them. More often, female discussants complained about men initiating body contact with them on public transport means. Some women reported that male passengers intentionally burned small parts of their gowns using cigarettes.

Taqeyya, a resident of Old Sana’a area says: “Women and girls can walk the streets of the area without any fear: most people of the area know each other and the streets are lit and full of life and activity. If a stranger tries to harass one of us, we can be saved by our neighbors.”

Comfort

2.86 Regarding comfort, the quantitative results showed that interviewees feel that public transport means are relatively (56%) or not comfortable (40%).

Figure 35 - Women's opinion on comfort in public transport means



Chapter Four: International Best Practices

2.87 Although Sana’a and the Yemeni society have their own specificities, some of the challenges faced by Yemen are faced elsewhere. This chapter reviews best practices adopted in other countries to address challenges similar to those faced in Yemen.

2.88 In **Nairobi (Kenya)**, public private partnerships were used to provide the city with street lighting. The private partner installs street lights which include an advertisement surface. The private partner is remunerated through advertisements. The company installed over 185 street lights in main roads and poor neighborhoods.

2.89 In **Egypt**, women were allowed to drive public buses because qualified men started refusing these jobs for better paid ones with the private sector. Qualified women effectively started taking up these jobs.

2.90 In **Dhaka (Bangladesh)**, sidewalks were widened as part of an urban transport project financed by the World Bank. This reduced crowdedness and gave a higher sense of security to women. Demonstration corridors that separated motorized means of transport flows from non motorized means of transport succeeded in reducing travel time and increasing road safety.

2.91 In **Colombia**, public awareness campaigns aiming at increasing road safety targeted drivers and showed them how to adopt a safer driving attitude.

2.92 In **Beirut (Lebanon)**, a small enterprise specialized in women's transport was created. The company, called "Banat Taxi" (Taxi girls) employs women drivers who work on pink taxis. It was welcomed warmly by costumers. The company started with three pink and attractive cars and looks now to buy three other cars. It sets a number of conditions for the taxi driver who should all be women above thirty years old; and should wear the company's uniform. Families have trusted the company with transporting their daughters.

2.93 In **Tehran (Iran)**, a similar idea was established, but on a larger scale. The company, "Taxis for women" affiliates 700 women drivers. Most of them acquired cars through a five years lease-purchase plan established by the company. In Tehran also, one can find a separate seating area for women on buses.

Chapter Five: Recommendations

2.94 The field research and the review of best practices allow presenting some recommendations to reduce mobility constraints faced by men and women in Sana'a.

Infrastructure Provision

2.95 **Enhancing urban streets** through upgrading, rehabilitation and maintenance is an important step towards improving mobility for all and especially for women. The study shows that low road quality results in increase of transport costs and prices of basic goods such as water. Women tend to move less, and thus access fewer opportunities.

2.96 **Providing an adequate pedestrian infrastructure**, including sidewalks and appropriate pedestrian crossings on highways would greatly enhance pedestrian safety in Sana'a. This would positively impact women who walk for more than half of their transport activities. It would also reduce the isolation of the peripheral zone and thus better access to opportunities to those who need it the most.

2.97 **Lighting streets**, especially those of the Peripheral zone, would allow women to move securely for a longer part of the day which would help them getting a second job or go to evening schools.

2.98 **Extending water and wastewater networks** to areas that are currently deprived from these services will positively impact the quality of the roads' infrastructure. Indeed, currently,

streets in the peripheral zone are periodically flooded with sewage from sewage holes. This not only hinders residents' movement and creates a public health issue but also deteriorates roads.

2.99 **Exploring public private partnerships for the provision of specific urban infrastructure like lighting:** this was done in Nairobi (Kenya), a city facing similar institutional challenges to Sana'a and could be done in Sana'a as well.

Organization of Public Transport

2.100 **Setting bus stops** will enhance traffic circulation in Sana'a in general as buses will stop in specified stops where they least trouble traffic, instead of stopping everywhere without respect to other cars' or passengers' safety. They will also allow women to wait in a protect environment.

2.101 **Identifying and enforcing bus routes** will ensure better distribution of public transport means on the different neighborhoods in the Capital. It will oblige operators to serve the Peripheral zone. It will also reduce crowdedness on the most profitable portions of the routes.

2.102 **Wide seats or a separate seating zone for women** on public transport means and especially shared taxis will help women avoiding physical contact with men. This will encourage families sending their daughters on public transport means without a muhram. It will also widen the range of vehicles that women are allowed to ride.

2.103 **Monitoring maintenance of public transport means and the operators' abidance by safety measures** is necessary to enhance riders' safety. Authorities should particularly pay attention to the number of passengers that operators load on their vehicles and to simple safety measures such as riding with closed doors.

2.104 **"Girls' Cab Company"** might provide middle class women with a secure transport option. Such company is popular in Lebanon and Iran, and might appeal to Yemeni families as well.

Street Life

2.105 **Confine street vendors** to areas where their impact on traffic is minimal.

2.106 **Enact the Ethics' Police role** in protecting women from all types of harassment, whether verbal or physical.

Executive Summary

Objective

The present study aims at gaining a better understanding of how Yemen's transport system in rural areas is meeting women's transport needs, and more specifically, how it is facilitating or constraining their access to resources, markets, and employment; and at identifying priority areas for Government actions to improve rural women's access to economic opportunities and thereby contribute to their economic empowerment.

Approach

Using a number of social, economic and access to services' indicators, two governorates, Shabwa and Taiz, were selected for the execution of this study. These governorates are representative of the Yemeni diversity in terms of topography, climate, economic resources, cultural norms, literacy and poverty. Three villages from each governorate were selected based on road availability (existence of an asphalt road and numbers of years it has been available) and population indicators. Quantitative and qualitative data were collected, using interviews and focus group discussions with men, women, and transport operators. The survey sample included 360 randomly selected individuals, 60 from each village, and 180 from each governorate; half of them were men.

Findings

The data collected shows that men and women move differently: they move as much but while women remain mainly in the confines of the village, men tend to go further and use motorized means of transport more. Walking is the main transport mode in rural Yemen for both men and women. Motorized means of transport are used by men for transport outside the village to the market or the district center. Women use them on exceptional basis, and mainly to reach health care facilities or in case of health emergencies. Pick-up trucks are the preferred, most used, most available, and most convenient means of motorized transport in rural Yemen. However, this means is not socially acceptable for women, who prefer to use passenger cars. Travel times are comparable for men and women.

Transport tariffs are similar for men and women. However, transport costs are 50% higher for women who usually need special seating conditions and are accompanied by a muhram.⁴⁴ Men spend almost three times more on transport than women, mainly because they use motorized means of transport more frequently and because they travel further distances. Because women don't have control over the household resources, their ability to pay for transport is also lower.

Women's mobility is greatly constrained by social pressure: women can hardly move outside their village, and only when they are accompanied by a muhram. Women have to ride covered

⁴⁴ A muhram is the husband or any other male family member that the woman can not marry, such as her father or brothers.

cars (instead of the more common back of the pick-up trucks) and be seated next to other women or a male family member. They cannot use bicycles or motorbikes, and can't ride donkeys. However, the use of donkeys to transport heavy loads is common and helps women reducing household chores' burden.

Roads have an indirect, but positive impact on women's access. Because of the social pressure, the availability of roads marginally expanded women's mobility. However, roads usually bring schools or health care facilities either to the villages or to more accessible locations, giving women higher access to basic education and mother and child care. Roads also bring the outside world closer, allowing women to visit their relatives outside the village, and giving them better access to cell phones. An evolution in men's views about women's mobility was noticed, albeit limited, in villages that have had a road for a long time. Finally, roads have a positive impact on household revenues and on the price of basic goods in the villages. With their existence, households start buying household basic needs, such as water or firewood, instead of asking women to spend hours fetching them from local sources. This frees time for women, and the study findings show that some use this time to attend literacy classes or get involved in productive activities.

Recommendations

The study recommends three actions to enhance women's access to resources and their empowerment. The first is to promote the availability of intermediary means of transport (IMTs), and specially donkeys and handcarts. The second action is to create awareness about women's mobility needs. This could be done using traditional and modern channels (mosques, television, schools, etc.). The campaign can present smart ways allowing women to move more easily while respecting to the limitations imposed by the local culture. The last recommendation is to identify and mitigate constraints delaying development projects in rural Yemen.

Part III - Gender and Transport in Rural Yemen

Chapter One: Introduction

3.1 70% of the Yemeni population lives in rural Yemen, where access to basic services is constrained by low density of service providers. As a result, rural Yemenis have to travel long distances to access basic services. However, moving requires time and efforts especially in the rural areas and more particularly in a mountainous country like Yemen where transport infrastructure and services are not yet well developed.

3.2 In rural Yemen, men are expected to work outside and deal with money matters while women are expected to respond to the household needs, and thus bring water, fire wood, cooking fuel, etc. Movement burden is high on men and women, and diverts time from empowerment activities such as education, literacy classes, and social activities. Access to resources and services is a basic requirement to achieve development and eliminate poverty. It is thus important, for rural Yemenis, but also for the country, to ease access to resources and free time for empowerment.

3.3 In this perspective, the present study aims at gaining a better understanding of how Yemen's transport system in rural areas is meeting women's transport needs, and more specifically, how it is facilitating or constraining their access to resources, markets, and employment; and identifying priority areas for Government actions to improve rural women's access to economic opportunity and thereby contribute to their economic empowerment.

Chapter Two: Methodology

1. Selection of Governorates

3.4 The study targeted Taiz and Shabwah governorates who are representative of the Yemeni regional diversity in terms of poverty rates, economic development, social norms and access to services.

3.5 *Poverty* - Yemeni governorates are stratified in five poverty levels. Shabwah and Taiz are in the second and third levels, with poverty levels close to the overall Yemeni average. However, food poverty is sharper in Taiz (14%) than in Shabwah (4%).

Table 17- Distribution of rural poverty in Yemen

Poverty Level	Governorate	Rural Population	Rural Poor	% poor
Level 1	Amran	755,000	533,000	71%
Level 2	Al-Jawf, Al-Bayda, Shabwa, Haja	2,736,000	1,455,000	53%
Level 3	Hadhramout, Marib, Abyan, Lahj, Al-Dal'i, Taiz	4,226,000	1,866,000	44%
Level 4	Hodeidah, Ibb, Dhamar, Sana'a, Al-Mahwit, Rayma	6,380,000	2,017,000	32%
Level 5	Sana'a Governorate, Al-Mahra, Sa'da	733,000	106,000	14%
Total		14,830,000	5,977,000	40%

3.6 *Education* - With around 70% of females enrolled in basic education, Taiz represent the part of Yemen where women have access to education, while Shabwah, with 50% of enrollment rate, represent the other part of Yemen.

3.7 *Health* - Indicators show that Shabwah enjoys a higher level of medical staffing (4 doctors and 35 qualified staff for 10,000 inhabitants) than the country's average (4 doctors and 17 qualified staff) while Taiz suffers from the lack of adequate medical staffing (3 doctors and 11 qualified staff for 10,000 inhabitants). Per capita health expenditure is much higher in Shabwah (1,200 YR) than in Taiz (480 YR). These two governorates are representative of the Yemeni diversity in terms of access to health services.

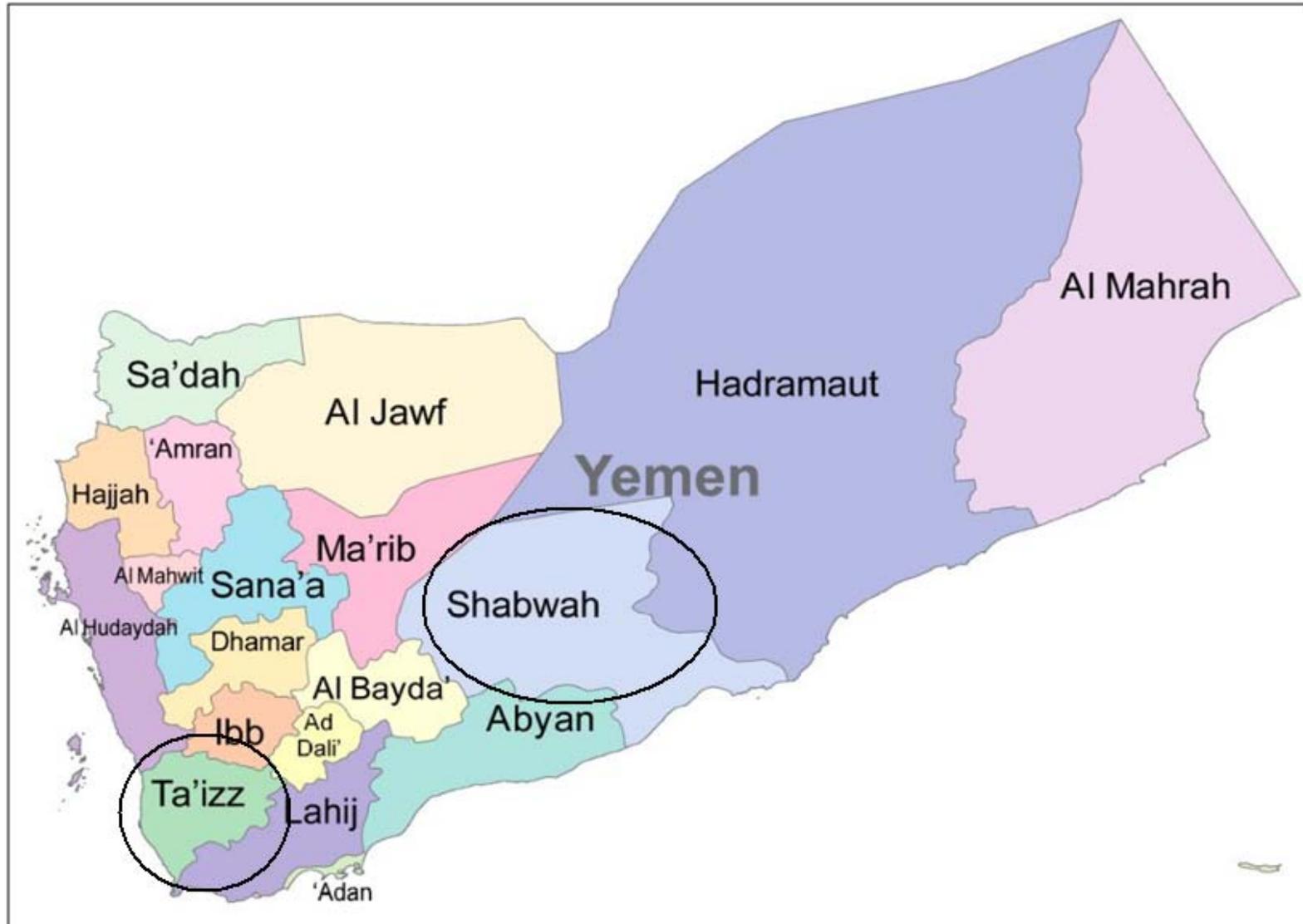
3.8 *Recent history and social norms* - Shabwa was part of the communist regime while Taiz was not. Tribal structure is predominant in Shabwah, but weak in Taiz. Finally, family ties are very strong in Shabwah, where the group is much more important than the individual, while more importance is given to the individual in Taiz.

3.9 *Resources* - Use of the available agricultural land is much higher in Taiz (126%) than in shabwah (40%).

3.10 *Population density* is much higher in Taiz than in Shabwah. Taiz is representative of western Yemen in this regard, while Shabwah, with its low population density, is representative of Eastern Yemen.

3.11 *Topography* - These two governorates cover two of the main variations in the Yemeni landscape: the highlands of the West (Taiz) and the hills and desert of the east (Shabwah).

Map 2- Administrative Division of Yemen



2. Selection of villages

3.12 In each governorate, three villages were selected. The main selection criterion was road availability, which is defined by the existence of an asphalt road and the number of years it has been available. Of the three villages, one has an old road (more than 15 years of age), one has a new road (between 2 and 5 years of age), and one has no road.

3.13 Data was collected from different sources then checked and categorized. Using the GIS system, all villages and rural roads were mapped which helped distributing the villages into the three categories of road availability defined above (old road, new road, no road). In each governorate, and for each category, villages that are too small or too close to the district center were eliminated. Remaining villages were ranked according to their representation of the governorate in terms of gender indicators, poverty level, access to education and health. When this was possible, the study team selected villages where it can insure local support and facilitation.

3.14 The selected villages are:

Table 18 - Villages selected for the study

No.	Village Name	District	Road Availability
<i>In Shabwah</i>			
1	Al-Jawl	Ataq	Old road: more than 15 years
2	Al-Hawta	Maifa	New road: 2-5 years
3	Satnan	Markha Al-Sufia	No road
<i>In Taiz</i>			
1	Al-Shiabi Jaher	Makbana	Old road: more than 15 years
2	Al-Maqasher Aloum	Mawaset	New road: 2-5 years
3	Marat – Al-Shawifa	Khadir	No road

3.15 Main characteristics of the selected villages are summarized in the tables below.

Table 19 - Characteristics of Shabwah villages

	Al-Jawl	Al-Hawta	Satnan
Road Availability	More than 15 years	2-5 years	No road
District Center	Ataq (6 km)	Jawl Al-Raida	Jawl Al-Raida
Number of Ozal ⁴⁵	2	12	11
Population	650	7180	1530
Number of households		697	
Number of Residences	70	886	170
Number of stores	3	42	1
Mills	Not available	Not available	one
Economic activities	Available and varied	Available and varied	Very limited
% of migrants (men)	60%	50%	5-7%
Distance to the asphalted road	In the middle of the village	3 km	45 km
Nearest market	Ataq Market (6 km)	In the village	Khora (3 – 4 km)
Cars in the village	60	220	113
Cars passing nearby	100	-	-
Available donkeys	Not available	15 including 12 for rent	unspecified
Nearest health care	The Al-Jania (1 km)	In the village	In Khora (4 km)
Nearest hospital	Ataq (6 km)	Ataq (90 km)	Ataq (70 km)
Transport cost for health emergencies	500-1000 YR (2.5 – 5 USD)	6000-10000 YR (30 – 50 USD)	12000 – 15000 YR (60 – 75 USD)

⁴⁵ In Yemen, and because of the topography, a village can be composed of a number of Ozal. An Ozla (plural Ozal) is a group of adjacent houses. Ozal of the same villages might be few hundred meters away from each other. The Ozal can be on different hills in the same confined area for example.

Schools	Primary and secondary mixed (male and female) school till 11 th grade. 12 th grade in neighboring villages.	Primary Education Schools till 9 th grade. Secondary available in other villages.	Mixed primary school till 6 th grade. Boys might continue in Khora village, girls can be home schooled and pass exams in Khora.
Potable Water	Surface wells and streams in the valleys of neighboring villages	Network of local project connected to all households and stores	Water network to households

Table 20 - Characteristics of Taiz villages

	Al-Shiabi Jaher	Al-Maqasher Aloum	Marat Al-Shawifa
Road Availability	More than 15 years	2-5 years	No road
District Center	Hajda (3 km away)	Al-Ein (13 km away)	Al-Rahida (13 km away)
Number of Ozal population	5	Over 21	22
Number of households	2000	996	1543
Number of Residences	243	137	228
Number of stores	235	144	242
Mills	9	4	Some stalls
Economic activities	1	At about 4km	2
% of migrants (men)	Available and varied	Available with relative variation	Very limited
Distance to the asphalted road	10%	4%	Nil
Nearest market	1 km	13 km	3 km to 13 km
Cars in the village	Hajda (3 km)	Al-Ahd (2 km)	Al-Rahida (13 km)
Cars passing nearby	50	15	14
Available donkeys	8	-	-
Nearest health care	150 Donkeys	5 Donkeys	1 Donkey / Two families
Nearest hospital	In the village	Outside Market (4-7 km)	Dhamran Village (4 km)
Transport cost for health emergencies	Hajda (3Km)	AI-Nashama (13km)	AI-Rahida (13km)
Schools	1500 – 2000 YR (7.5 - 10 USD)	2000-2500 YR (10 – 12.5 USD)	4000-5000 YR (20 – 25 USD)
Potable Water	Primary and Secondary School within the village boundaries	Primary School – Schools of neighboring villages	Primary and Secondary school for boys and girls in the village
	Local Project and water pipes network all households	Al-Alum Water Project serves about 80% of the households	From wells or water tankers

3. Data Collection and Analysis

3.16 Quantitative data was collected through 60 interviews in each village, based on formal questionnaires. The sample is composed of 50% males and 50% females from different age groups, education levels, social background and occupation. Rural Rapid Assessment techniques, based on observations, mapping, etc. were used to collect background data about the villages. Four to five focus group discussions (FGD) were held in each village to collect qualitative data. Two FGDs were held with women and two with men. Whenever possible, a FGD was held with transport operators. The discussions tackled issues related to natural resources, economic activities, decision making and their link to mobility and transport.

3.17 Team discussions were held at the end of each day, and village reports were written at the end of each village visit. Data collected was coded and analyzed by a specialized data analyst.

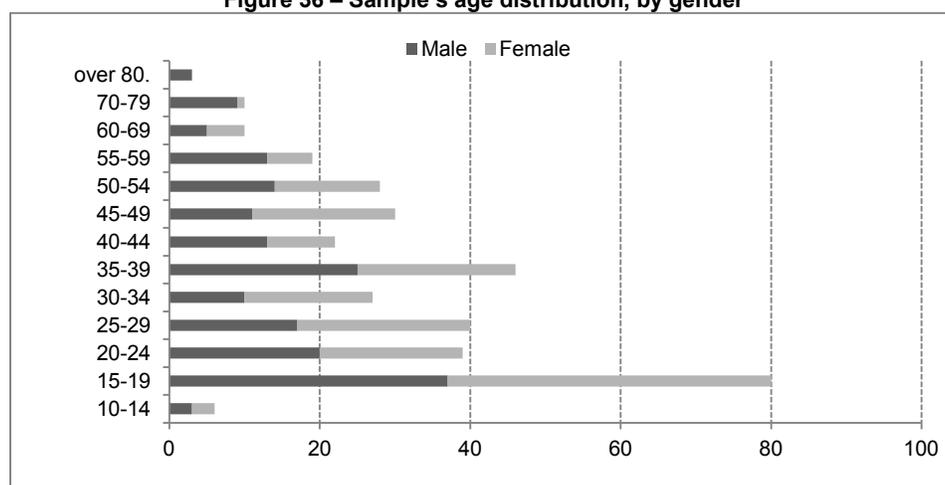
Chapter Three: Findings

1. Characteristics of the sample

Age

3.18 The interviewees are between 10 and 90 years of age. The age distribution is similar to the national one where younger generations outnumber the older ones.

Figure 36 – Sample's age distribution, by gender



Education

3.19 Most women in the sample are illiterate or barely read and write. This is consistent with the situation in Yemen, where illiterates represent 45% of the Yemenis and 62% of women. Overall, men are more educated than women; this is also consistent with the situation in Yemen.

Table 21- Sample's level of education, by gender

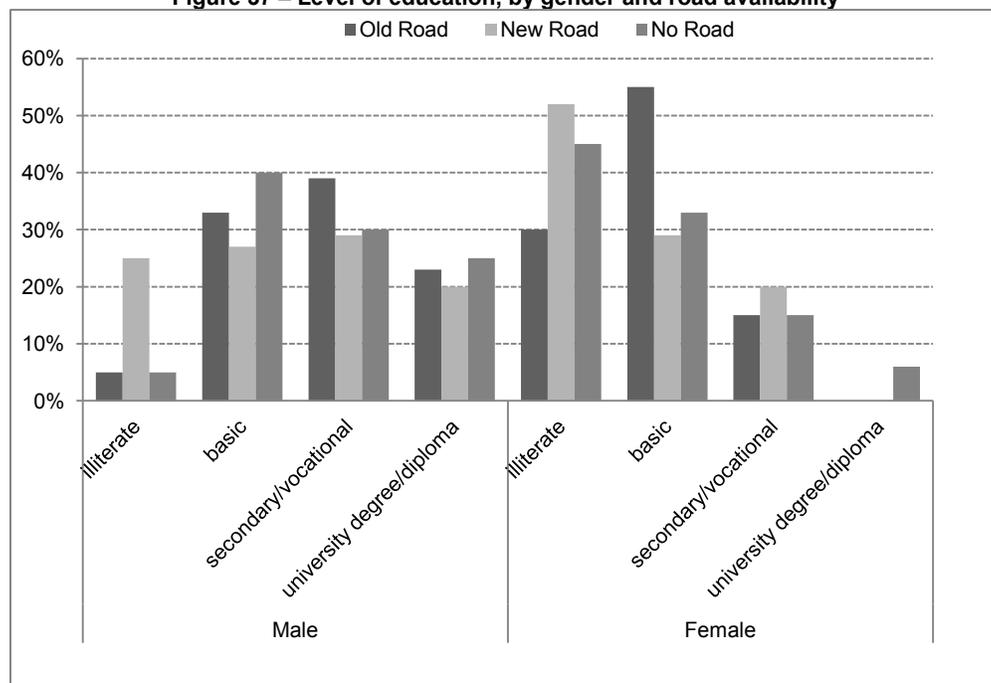
	Male	Female	Total
Illiterate	12%	42%	27%
Basic	33%	39%	36%
Secondary / Vocational	32%	17%	24%
University Degree / Diploma	23%	2%	13%

3.20 The link between road availability⁴⁶ and access to education is unclear. Access to basic education is significantly higher and illiteracy significantly lower for women from villages with old roads. However, road availability does not impact women's access to secondary or higher education (see figure below).

⁴⁶ Road availability is defined by the existence of an asphalt road and the number of years it has been available:

- Old Road = more than 15 years
- New Road = between 2 and 5 years

Figure 37 – Level of education, by gender and road availability



Employment

3.21 Overall, female participation to the workforce is low in rural Yemen. In the sample selected, only 3% of female members of households interviewed work, while 34% of men do. The others are either unpaid workers in the family's farm or shop, or housewives, children, and elders.

Table 22 – % of household members who work

Female	Male
3%	34%

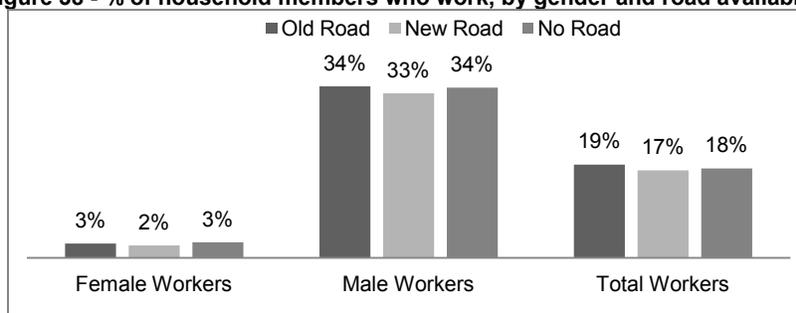
3.22 The rate of household members who work is higher in the sample (probably because children are not included), but the rate of women who held a job is still much lower (22%) than men's (71%).

Table 23 - Employment situation in the sample

	Male	Female	Total
Housewife / Husband	3%	58%	31%
Student	26%	20%	23%
Worker	14%	11%	12%
Employee / Trader	31%	3%	17%
Other	26%	8%	17%
Total	100%	100%	100%

3.23 The study does not demonstrate any impact of road availability on employment. The rate of women workers in the household is around 3% in all villages, while male workers' rate is around 34%.

Figure 38 - % of household members who work, by gender and road availability



Income

3.24 The average income of interviewees who declare having one (11 women and 115 men) is equivalent to 190 USD. Women's average income is less than half that of men.

Table 24 - Average revenue of interviewees, by gender

	Male	Female	Total
YR	40,500	18,200	38,600
USD	200	90	190

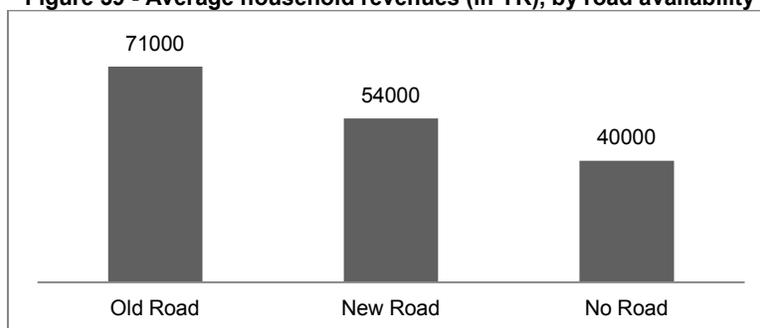
3.25 The lower income of women is partly due to their lower qualifications. However, data collected shows that even for equally qualified persons, males' revenues will be higher than females'.

Table 25 - Average revenue of interviewees, by gender and employment category

	Male	Female
Manual Worker	30,900	14,600
Trader	90,700	25,000
Civil Servant	42,800	35,500
Agricultural Worker	14,900	0
Other	31,000	15,500

3.26 Road availability directly impacts households' revenues; and the older the road, the higher the income.

Figure 39 - Average household revenues (in YR), by road availability

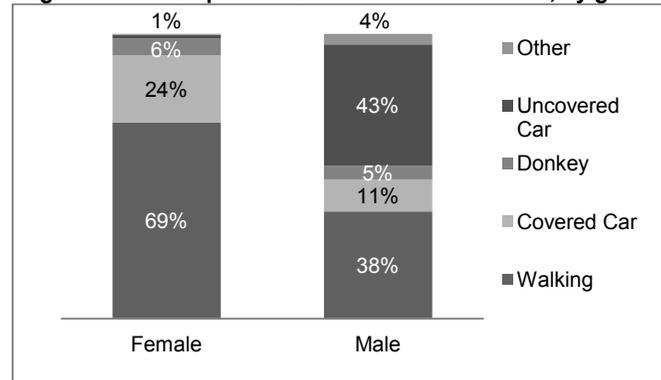


2. Transport Means and Infrastructure

Transport Means Used in Rural Yemen

3.27 Study findings show that walking is a major transport mode for men and women. It is the most common transport mode for women, while it is supplemented by uncovered cars (such as pick-up trucks) for men. Transport alternatives are limited for women: walking, covered cars (passenger cars) or donkeys are the most common. The use of other alternatives available to men such as pick-up trucks, motorcycles and bicycles is socially constrained. The use of donkeys is limited to carrying loads: it is not socially acceptable for women to ride donkeys.

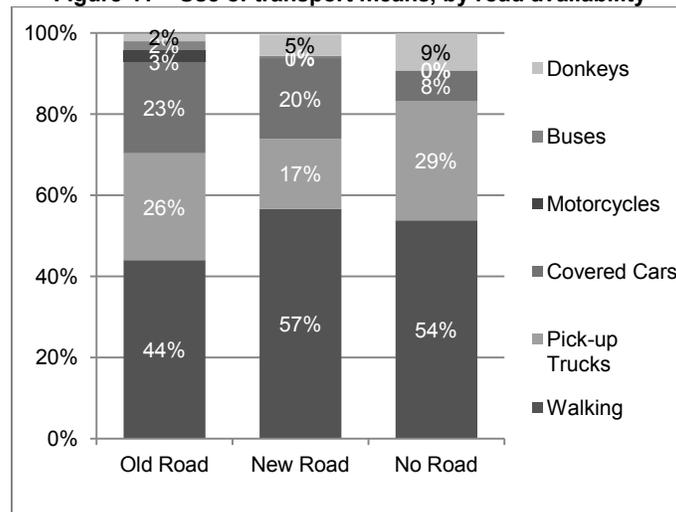
Figure 40 – Transport means used in rural Yemen, by gender



3.28 FGD indicate that the use of the varied transport means is influenced by the availability of these means, the length of the trip and by the quality of roads. Pick-up trucks are preferred in mountains of rural Yemen. Cost, social norms and appropriateness to the quality of the roads and the purpose of movement (passenger cars when moving with women, pick-up trucks to move goods) are also important factors influencing the choice of transport means.

3.29 Data collected shows that (Figure 41) roads introduce a greater variety in transport means. Villages with no roads such as Marat al-Shawifa and Satnan are only accessible to pick-up trucks. Thus, people walk, use donkeys or pick-up trucks to move. Villages with an old road are more accessible to covered cars and might be served by buses. In those villages, people rely more on motorized means of transport which cover 55% of transport supply. Finally, villages with a new road are better served by covered cars (passenger cars) which are preferred for women.

Figure 41 – Use of transport means, by road availability

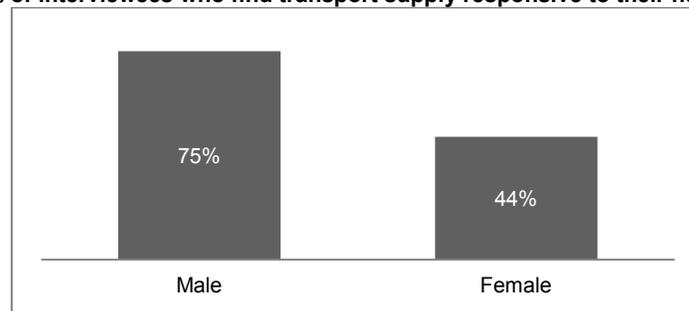


Needed Means

3.30 Interviewed women declare preferring passenger cars, then multipurpose cars, which are adequate to carry passengers and goods, then pick-up trucks, and finally buses; those are available only in villages with an old road. Passenger cars are preferred because they hide women and protect them from the sun, dust and wind. Other means such as multipurpose cars or pick-up trucks are more available, and thus used under certain conditions of seating.

3.31 Interviewees were asked whether the current transport supply responds to their needs (Figure 42). It is interesting to notice that most women in the sample find transport supply unresponsive to their needs, while most men find it adequate. This could be explained by the greater availability of pick-up trucks, which are not suitable for women but adequate to transport goods and men.

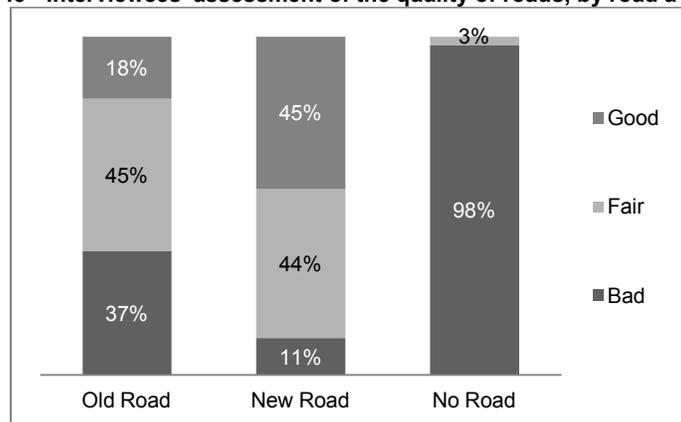
Figure 42 – % of interviewees who find transport supply responsive to their needs, by gender



Roads

3.32 Interviewees were asked to qualify the roads in their villages. Without surprise (Figure 43), villages with a new road have the best road quality, while villages without road have the worst. This indicates that unpaved rural roads are not maintained properly.

Figure 43 - Interviewees' assessment of the quality of roads, by road availability



3.33 FGD participants explained that some roads pass through water streams and are made unavailable to pedestrian and motorized traffic during the rainy season. Road pavement is regularly delayed making roads more vulnerable to heavy rains common in certain areas. Finally, tribal conflicts prevent the use and maintenance of some roads.

3. Travel Patterns

Movement in Rural Yemen

Women

3.34 Transport burden related to household chores (bringing water, firewood, and gas; taking cereals to the mill or fertilizers to the fields) falls on women. They carry heavy loads on their heads or use donkeys. Women might roam the neighboring hills collectively to collect firewood. When cars are available, men come with cars and drive them back with the firewood. Recently, purchasing firewood from ambulant merchants or from the market became common.

3.35 In some villages like Al-Maqasher in Taiz, women transport produce from the fields to the main road where men load them on pick-up cars and then transport them to the market to be sold. In Al-Shiabi, transporters refuse to deliver goods to the houses because of the poor infrastructure inside the village. They unload goods in a specific point on the main road. Women carry gas cylinders and other things on their heads, or use donkeys, when available, to bring these goods from the main road to their houses.

3.36 Women walk within the village or to neighboring villages to visit family and friends, or to participate to social events.

3.37 More rarely, women might use cars for longer trips: mainly to access health services, or to shop for clothes or wedding accessories. In these occasions, women must be accompanied by a muhram.⁴⁷ If they use a pick-up car, more adapted to the rural roads, the front seat next to the driver will be reserved to the woman and her companion because it is not socially acceptable for women to be seated in the uncovered part of the car or by themselves (without muhram) next to the driver or other passengers. In passenger cars, in case of use of public transport, a separate seat is specified for the woman and her companion. In case of privately rented passenger car, women and girls may choose any place they like to sit in.

3.38 Girls are schooled in the village or in close by villages, at walking distance from their homes. They cease education when there is no more girls' schools for their schooling level. Co-education schools are available in some villages for higher levels, but families rarely allow their daughters to pursue their education in such schools. The high cost of transport or the unavailability of socially acceptable transport means does not allow sending girls to further villages to pursue their education. Some girls continue their education through enrolment in a further school. They are home schooled and attend only for exams. These girls have to be accompanied by their muhram for the exams.

3.39 Women participate to political activities such as election of national assemblies. They might walk to electoral centers if these are located within the village or in neighboring ones. In most cases, candidates provide collective transport means to move women and girls to the electoral centers and back to their houses.

Men

⁴⁷ A muhram is the husband or any other male family member that the woman can not marry, such as her father or brothers.

3.40 In the Yemeni villages, men’s daily movements include travels within the village to their fields or others' fields where they work against a wage in cash or in kind; assisting women and children in some agricultural works like grazing, gathering firewood, or bringing water; taking care of the farm buildings; or attending social gatherings. Men mostly walk to accomplish these activities. They might also use donkeys especially when the activity involves carrying loads.

3.41 Students and teachers walk to schools, either because they are close, inaccessible to motorized means of transport, or on a direction opposite to the main traffic flow (from the village to the market). When the local schools don’t provide for high school education, boys are allowed to carry out their education outside the village and at far distances. They walk these long distances, use motorized means of transport, or spend weekdays in a location close to their schools.

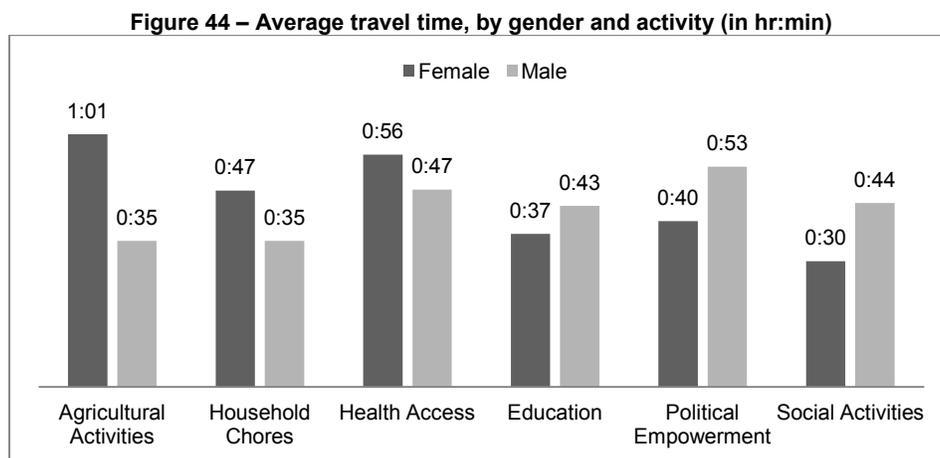
3.42 In villages that have had roads for a long period of time, such as Al-Shiabi in Taiz and Al-Jawl in Shabwah, or in villages with a new road such as Al-Hawta in Shabwah, a large number of men travels daily to the close markets or sub-district centers for different purposes including operating transport means and employment in the public and private sectors.

3.43 Men also travel to buy family needs and access health care. Younger men might attend youth centers where they access cultural activities and practice sports. In doing so, men walk if the distances are short, or use public transport means originating from their villages or from neighboring villages. Men attend the nearest weekly market, where they can buy household needs, and in rare cases, sell produce or handcrafts. In Marat Al-Shafiwa, a Taiz village that has no road, the nearest market is 13 km away.

3.44 Some men spend the week outside the village, and come back only for weekends. They are employees, workers, college students, or business owners. They use mainly use passenger cars and pick-up trucks for their travels.

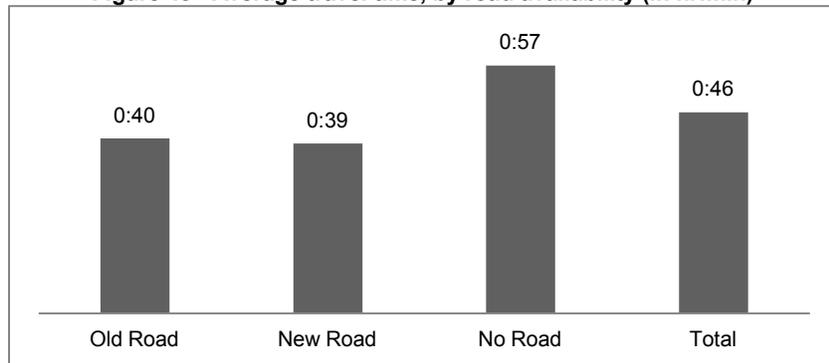
Duration

3.45 The average trip length is around 45 minutes for both men and women. While women spend more time traveling for agriculture related activities (+40%) and household chores (+25%) or to access health services (+15%); men take more time to reach schools (+15%) and electoral centers (+25%) or to attend social activities (+33%).



3.46 While the impact of gender on travel time is limited; the impact of road availability is important: the existence of a road reduces travel time by 30%.

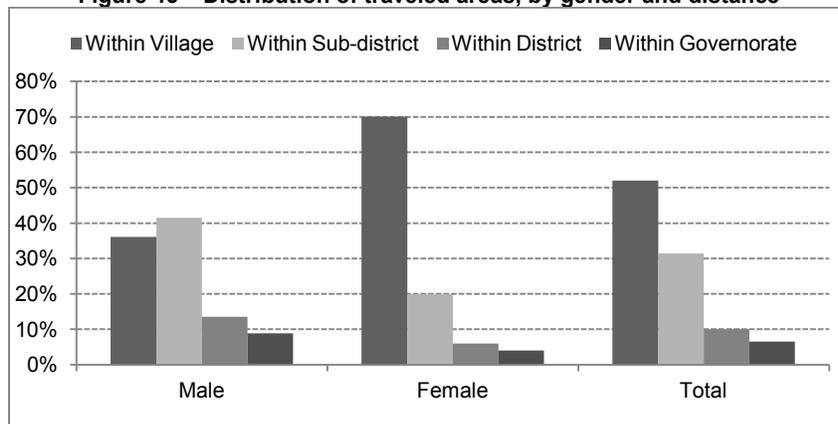
Figure 45 - Average travel time, by road availability (in hr:min)



Traveled Distances

3.47 Most of the rural Yemenis' movements are accomplished within their villages and to a lesser extent, their sub-district. Women tend to stay within the village. They leave their district almost exclusively for health emergencies. They go to the district center either in case of a health emergency or to vote. For all other activities, they remain in the limit of the village or the sub-district. Men tend also to stay in the limit of the sub-district, but they can access education, employment and markets in the broader limit of the governorate.

Figure 46 – Distribution of traveled areas, by gender and distance



3.48 The study shows that roads give men better access to opportunities at the governorate and the district levels where they can find secondary and higher education, and a wider and more sophisticated job market. On the other hand, roads allow women to reach the sub-district level, giving them better access to higher primary education levels, literacy classes, or basic health services. Roads however don't give rural Yemeni women higher access to the district and the governorate (see figures below).

Figure 47 - Distribution of traveled areas for males, by distance and road availability

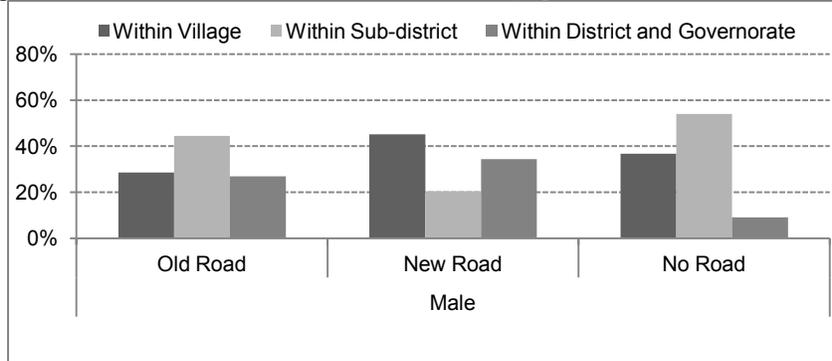
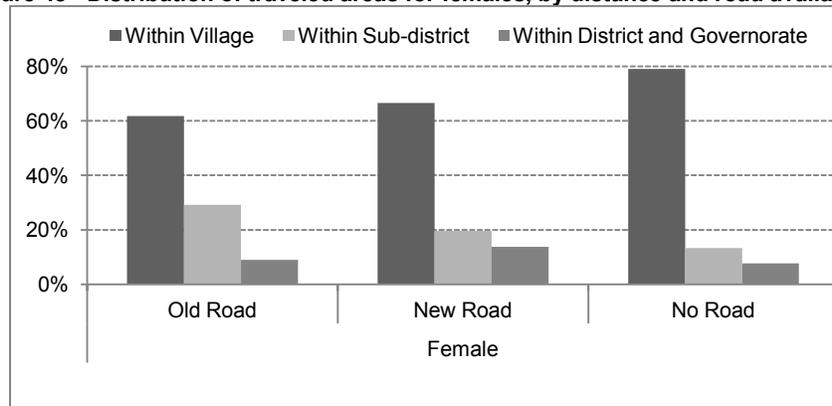


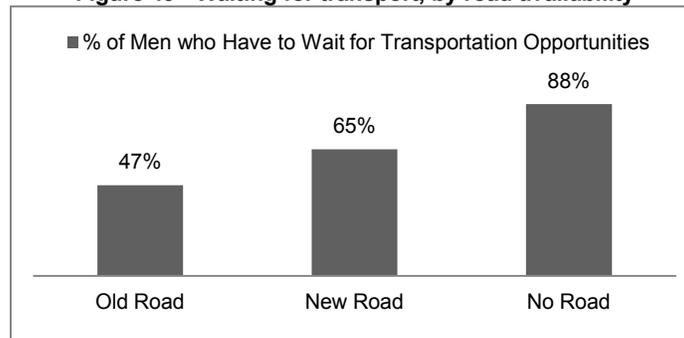
Figure 48 - Distribution of traveled areas for females, by distance and road availability



Waiting for Transport

3.49 Men were asked whether they have to wait when they need to travel. It appears that most men need to wait for minutes or hours to find adequate transport. Waiting time decreases with the number of years an asphalt road has been available. Villages with old roads have the infrastructure and some transport services that had time to develop since the road was built, such as a weekly bus service, or cars and pick-up trucks for rent. FGD explained that transport is not always available in the villages; they have to walk to the main road and wait for adequate transport supply there (either to transport goods or to move with female family members).

Figure 49 - Waiting for transport, by road availability



4. Tariffs, Costs, Expenditure, and Affordability

Tariffs

3.50 FGD indicate that transport providers don't use tariffs to discriminate against women. However, women might pay more if they request a special seating condition. For health emergencies, the fare might be doubled in cases of birth delivery, especially if there is no car in the village or if the request is made at night. This occurs particularly in villages with poor or no roads. FGD allow determining transport tariffs to access basic services and goods as detailed in the two tables below.

Table 26 - Transport Tariffs for Selected Items in Taiz Villages (YR)

<i>Road availability:</i>	Al-Shiabi Jaher <i>more than 15 years</i>	Al-Maqasher Aloum <i>2-5 years</i>	Marat Al-Shawifa <i>no road</i>
Health Emergencies	1,500-2,000	2,000-2,500	4,000-5,000
To Market	100	100-200	400
Water Tanker	2,000-3,500	Water network	1,500-3,500
Gas Cylinder	100	N/A	800-1,000

Table 27 - Transport Tariffs for Selected Items in Shabwah Villages (YR)

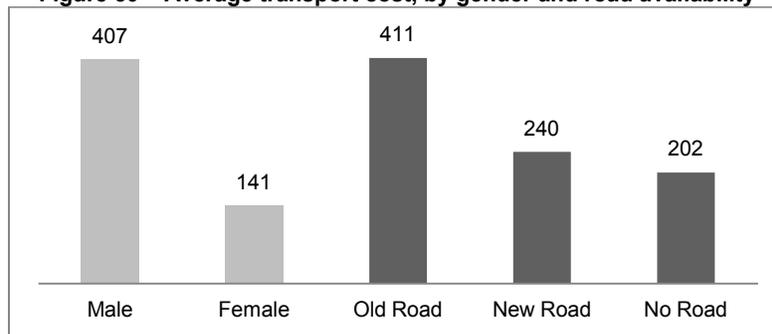
<i>Road availability:</i>	Al-Jawl <i>more than 15 years</i>	Al-Hawta <i>2-5 years</i>	Satnan <i>no road</i>
Health Emergencies	500-1,000	6,000-10,000	12,000-15,000
To Market	(by bus) 0-40	100	free
Water Tanker	(drinking) 8,000 (other use) 2,500-5,000	Water network	(drinking) 4,000-6,000 (other use) 3,500-4,000
Gas Cylinder	1,000	550	By skidding

3.51 This data shows that transport tariffs vary according to the related activity, type of goods transported, and the village. The data shows however a correlation between tariffs and road availability. Transport tariffs are the lowest for villages with an old road, where a bus service or other collective transport means have developed.

Costs

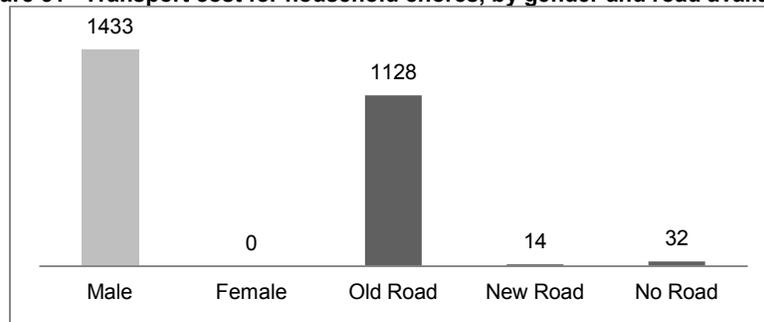
3.52 If average transport costs are considered, one will notice (Figure 50) that men pay a higher cost for transport than women; and that the existence of roads increases transport costs. These averages however don't give a good image of the reality.

Figure 50 – Average transport cost, by gender and road availability



3.53 Indeed, in rural Yemen, households can get water from the valley or firewood from the hill free of charge. They can also buy water from water tankers and firewood from ambulant merchants at a rather high cost. In the first case, women will do the chores, bearing no transport costs. In the second case, men will do the chore, and pay a high price to transport goods comfortably. In villages without roads, costs of these basic goods are too high for the villagers and revenues are low; the villagers will get water from the valley or firewood from the hill, and bear no cost in transporting the goods. Figure 51 illustrates this logic: while men pay on average 1400 YR for transport related to household chores, women don't spend a penny. Similarly, villagers that have had roads for a long period of time got used to buying these goods, while others still rely on women to get them from the neighboring area.

Figure 51 –Transport cost for household chores, by gender and road availability



3.54 It is necessary to compare costs of transport related to activities that men and women, people from villages with different road availabilities, do in the same way such as access to health and education services. The first figure below shows that women pay 50% more to reach schools: while young men can jump on the back of pick-up trucks, young women have to travel in the more expensive covered cars, either with other female companions going to school or with a muhram who will pay to accompany her and thus increases the overall cost of the woman's schooling. A similar logic applies to access to health services (see the second figure below) for which women have to pay an extra 35%. Although no correlation appears between transport costs to access schools and road availability; the existence of an old road clearly reduces transport costs to reach a health care center. Two explanations might be presented: cost of transport in villages with an old road is cheaper than other villages; or the existence of the road brought the health care center to a closer distance.

Figure 52 –Transport costs to access schools, by gender and road availability

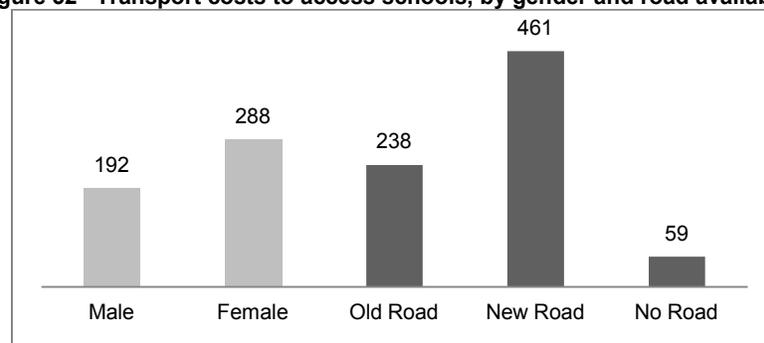


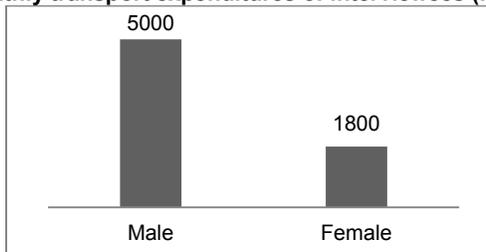
Figure 53 –Transport costs to access health services, by gender and road availability



Expenditure

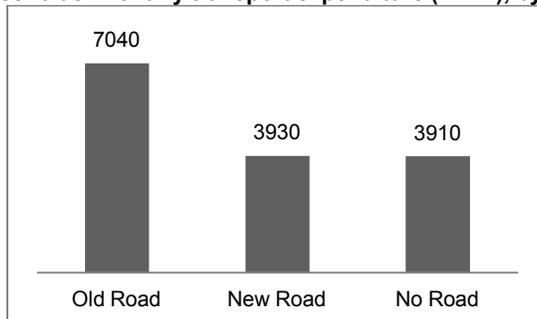
3.55 Quantitative data collected shows that (Figure 54) male’s average monthly transport expenditure (5000 YR ~ 25 USD) is 2.8 times higher than that of females (1800 YR ~ 9 USD). Although women’s transport costs are higher, most of women’s movements are done walking and within the limits of their villages and the surrounding hills and valleys. Previous paragraphs show that men tend to travel further distances and thus use motorized means of transport to reach their destination. Men also are in sole control of the family’s resources which allows them to give priority to their mobility needs.

Figure 54 – Monthly transport expenditures of interviewees (in YR), by gender



3.56 The data collected shows (Figure 55) a correlation between road availability and transport-related expenditure. Indeed, villages with old roads spend 75% more on transport than other villages. According to the previous paragraphs, transport tariffs in villages with old roads are comparable to or lower than those in other villages. However, roads tend to increase households’ revenues, thus giving households access to a more comfortable life. Indeed, in those villages, a higher share of households will buy water from water tankers (see Figure 51), increasing the households’ transport expenditure.

Figure 55 –Households’ monthly transport expenditure (in YR), by road availability



Affordability

3.57 Interviewees' revenues directly impact their assessment of transport costs. Indeed, (Figure 56) a majority of women find transport costs too high while most men find costs acceptable. Road availability also impacts people's perception of transport costs (Figure 57). In villages that have had roads for a long time, a majority of interviewees find transport costs low. At the opposite end of the scale, 90% of interviewees in villages without road find transport costs too high. Road availability lowers tariffs, but also increases household revenues, making transport expenditure weight on households lower.

Figure 56 – Interviewees' assessment of transport costs, by gender

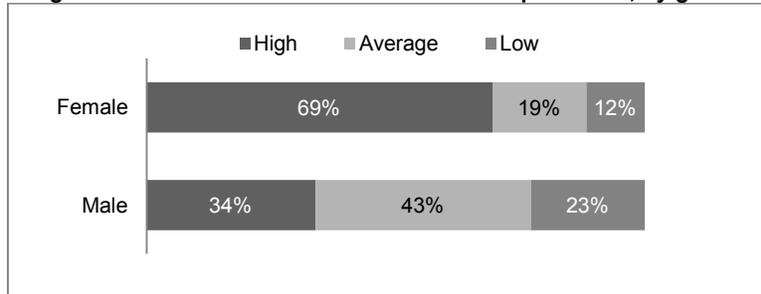
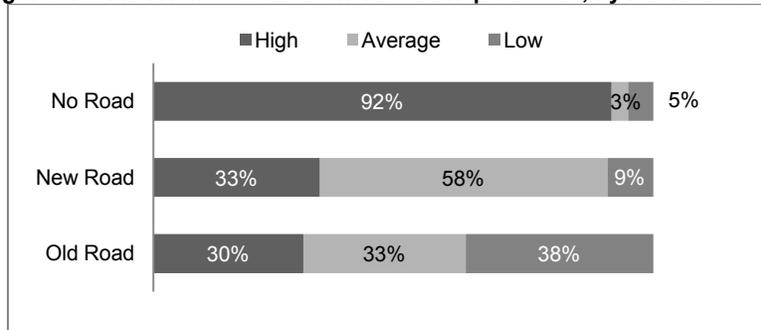
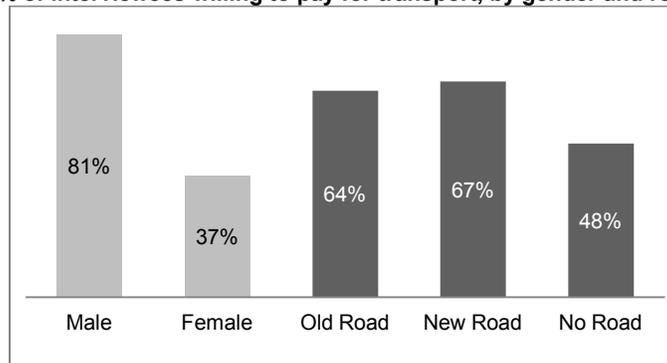


Figure 57 – Interviewees' assessment of transport costs, by road availability



3.58 Interviewees' assessment of transport costs is correlated to their willingness (or ability) to pay for transport (Figure 58). While 80% of men are willing to pay for transport, only 37% of women are. Interviewees from villages without road are the least willing to pay for transport costs.

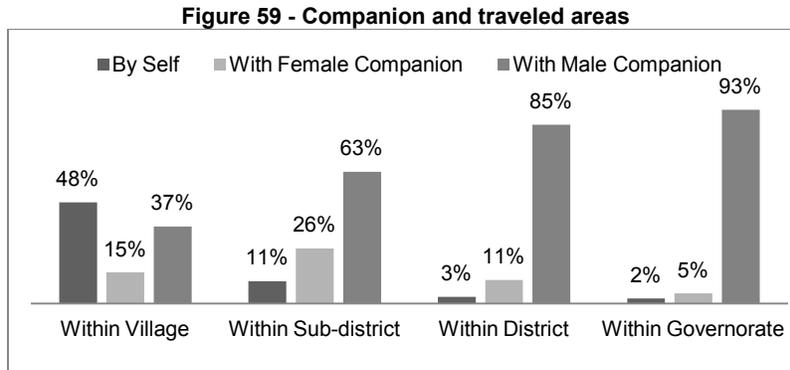
Figure 58 – % of interviewees willing to pay for transport, by gender and road availability



5. Social Norms

The Need for a Muhram⁴⁸

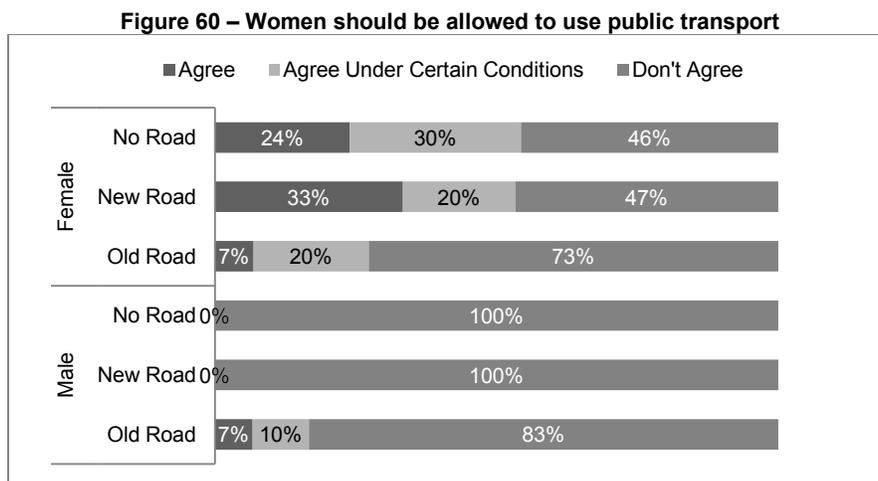
3.59 The field survey shows that (Figure 59) women can move by themselves within the confines of their villages and mainly to accomplish household related chores, such as bringing water and fuel. They are also allowed to move by themselves within the confines of the sub-district to go to school or to accomplish household related chores. The further women go, the greater the obligation to travel with a muhram.



3.60 FGD indicate that women have to be accompanied by a muhram while traveling outside the villages and to the neighboring villages especially at the district and the governorate levels. They also need a muhram to travel by cars.

Using Public Transport Means

3.61 Interviewees were asked whether women should be allowed to use public transport means (Figure 60). Almost all men in the sample did not agree, while women presented certain conditions under which women should be allowed to use public transport, such as being accompanied by a muhram or a group of females and riding a covered car. It is interesting to note that only men from villages with an old road agreed to let women use public transport.



⁴⁸ See definition in the previous footnote.

6. Roads and Women's Access

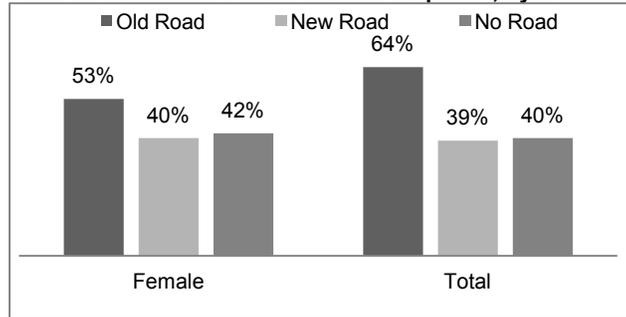
Empowerment

3.62 In some villages such as Al-Jawl and Al Hawta, roads contributed to the reduction of the burden traditionally carried by rural women. Indeed, women are no longer obliged to fetch water from far away distances, to collect firewood from the hills, or to walk long distances to the mill: households in those villages tend to procure these goods from the markets. This saved women time that some of them used to attend literacy classes or start productive activities such as weaving clothes or handcrafts. Some women opened stores to sell goods for women and children. These women still need their male relatives' assistance to provide them with products from the regional markets.

Access to the Outside World

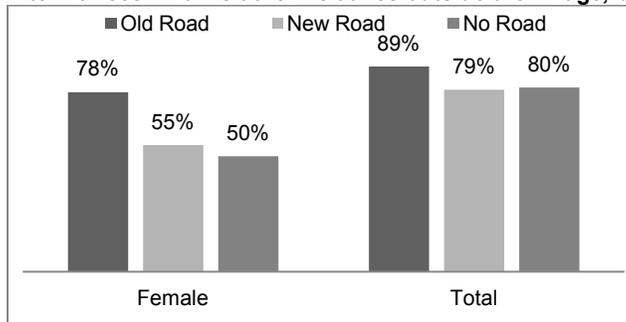
3.63 Roads enhanced rural Yemenis, and particularly rural women's access to the outside world. Indeed, cell phones are more common in villages with an old road (Figure 61).

Figure 61 – % of interviewees who own a cell phone, by road availability



3.64 At least 80% of interviewees who have family ties outside their village visit their relatives (Figure 62). This rate is overall higher in villages with an old road. The effect of roads' on women's ability to visit their relatives is more spectacular: only half of them can maintain their family ties when the village lacks of roads, but almost 80% can do so in villages that have had a road for some time.

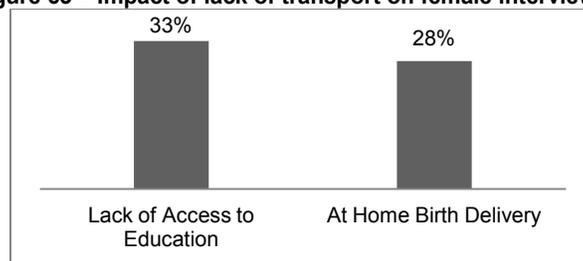
Figure 62 – % of interviewees who visit their relatives outside the village, by road availability



Access to Education and Health

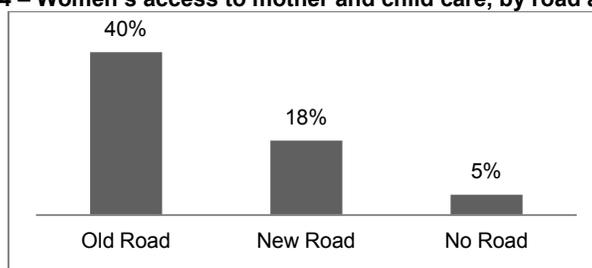
3.65 Previous paragraphs show that roads increase women’s access to basic education, but have no influence on women’s access to secondary or higher education levels. One third of interviewed women declare that (Figure 63) the lack of transport facilities prevented them from accessing education. A similar percentage declared that they had to deliver birth at home without qualified supervision because of lack of transport facilities.

Figure 63 – Impact of lack of transport on female interviewees



3.66 Data collected (Figure 64) also shows that women living in villages with an old road have better access to mother and child care.

Figure 64 – Women’s access to mother and child care, by road availability



Mobility

3.67 Road availability did not have a great impact on women’s mobility. Indeed, roads allowed women to marginally expand their movement to the sub-district level, either for household chores or to access basic health services. Social norms greatly limit women’s mobility: the use of motorized means of transport is limited to accessing health services or to go to the electoral center. Although the impact of roads on women’s mobility is limited, the data collected shows a tendency for roads to introduce a little more openness as per the number of men allowing their female family members to use public transport. Roads also increase contacts with the outside world. These factors might, on the very long term, influence social norms and ease women’s movement.

7. Summary

Table 28 – Summary of Main Features of Transport in Rural Yemen

Description	Male	Female
Ownership of transport means	Yes	No
Operating transport means	Yes	No
Commonly used transport means	Pick-up trucks; walking	Walking; passenger cars
Modern means of transport	Used without restriction – Varied (pick-up trucks, passenger cars, etc.)	Used only with a companion and in certain seating conditions – Less varied, mostly passenger cars
Intermediate transport means	Donkeys; bicycles (for loads and	Donkeys (only for loads)

	ride); and handcarts	
Purposes	Dealing with money, work	Household related
Movement within the village	Daily	Frequent (1-3 times a day)
Movement outside the village	Weekly basis	Rare
Transport costs	Regular	Higher because of the companion and the special seating conditions
Convenience of available means	Convenient	Less convenient: the most available are pick-up trucks which are not convenient for women
Constraints	Poor roads infrastructure, affordability	Poor roads infrastructure, social norms, less money available for women's movement
Related risks	Less important	Important specially for health emergencies and birth deliveries
Impact of availability of transport infrastructure and services	Possibility to increase income through trade or access to wider job selection, access to higher levels of education (end of high school or even university), access to playgrounds	Reduction of household related transport burden freeing time to attend literacy classes or get involved in handcrafting, better access to health services, more opportunities to visit relatives outside the village

Chapter Four: Recommendations

3.68 Encourage the use of intermediary means of transport (IMTs). The findings of the study show that IMTs such as donkeys, motorcycles and handcarts are useful in rural Yemen. Donkeys in particular are used, when available, by women to transport heavy household items such as water, gas cylinders, flour, and firewood. Not all households can afford to own donkeys though. In Al-Hawta village, smart small entrepreneurs propose donkeys for rent. It is in this village that donkeys are most used by women to carry heavy loads. It is recommended to encourage small entrepreneurs to propose donkeys or handcarts for rent in Yemeni villages. This could be achieved through the provision of micro-credits by banks and relevant financial institutions to help small entrepreneurs launch this activity.

3.69 Create awareness about women mobility needs. The study shows that women mobility is extremely constrained in rural Yemen, and mainly due to social norms. All interventions aiming at rural women's empowerment will have limited success if women cannot move further than the limits of their villages. The awareness campaign could be channeled through the media, mosques, and boys' and girls' schools. The campaign should present smart ways enhancing women mobility with respect to the local culture, such as encouraging women with similar needs to move collectively, reducing the need for a muhram and thus lowering transport costs.

3.70 Identify and mitigate constraints delaying development projects in rural Yemen. Focus group participants indicated that a great number of infrastructure projects that could have a positive impact on women's access, such as water connections or roads, take a long time to be achieved. Hindered projects should be scrutinized, and hindering factors identified. Measures to mitigate these factors should be developed. Local councils, in charge of implementing the projects, should be held accountable for their achievement. Accountability mechanisms may consist of linking allocation of loans and subsidies to the achievement of the planned projects, or prizing active rural councils and rewarding individuals who contribute to the achievement of the projects.