

Overcoming Barriers to Women's Mobility

Improving Women's Access to Public Transport in Pakistan

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EXECUTIVE SUMMARY

Key findings:

1. When women in Pakistan need to travel to work, study, visit family or access public services, they depend on public transport. Although **they travel less, as a proportion of non-walking trips, women are much more dependent on public transport than men are**. More of women's trips take place on public transport because travel on other modes such as motorbikes is restricted by social norms.

Yet **women face significant challenges while using public transport** because of concerns over safety, harassment and worries about their social reputation. In a survey of 1,000 households across Lahore conducted by the Center for Economic Research in Pakistan (CERP), 70% of male family members said they would discourage female family members from taking public wagon services. Women also feel unsafe **getting to stops and waiting at them**. In a CERP pilot survey in Lahore, more than 30% of respondents said that it was "extremely unsafe" for women to walk in their neighborhood.

2. Specific, feasible transport interventions **can improve women's ability to travel safely**. Household respondents in Lahore feel that some transport modes (such as **buses with women's-only compartments**) are much safer and more acceptable for women than others.
3. **Existing women's-only services** (in Lahore, three Pink Bus routes) benefit their users substantially, but serve a **small number of women** due to their very limited geographic coverage, restricted timings and lack of publicity. The resources for these services could be used more efficiently. On the other hand, many women in Lahore **lack access to a bus with a women's-only compartment**.
4. These challenges **restrict women's lives substantially**. They affect whether they work and the kind of jobs they take, where they can study and when they can visit their families. If improved public transport addresses these challenges, it has the potential to make a significant impact on women's mobility and the opportunities available them..

Policy recommendations:

1. Continue the **expansion of the public transport network**, emphasizing high quality services with **lower crowding and/or with separate women's sections**.

2. **If women's-only services are used, get more value for money** by improving the design. Use **small vehicles** that can fill up and cover their costs. Run them on routes where there is crowding on vehicles and where there is not already a large bus (High Occupancy Vehicle) with a separate section, as these are the areas where women face the biggest challenges.
3. **Fix a schedule** for transport services and work with operators to help them stick to the schedule consistently. This will reduce waiting time on the street for women, and improve the convenience and value of the system for all passengers. CERP's urban and peri-urban pilot services, conducted with the collaboration of the Lahore Transport Company, demonstrated this is feasible even in Lahore's uncertain traffic conditions.
4. Peri-urban areas have limited public transport coverage, but informal operators provide some services. The government should **work with these operators to provide a reliable, low frequency transport service in peri-urban areas on a well-publicised timetable**. CERP's peri-urban pilot with the Lahore Transport Company in the Halloki area demonstrated that peri-urban passengers will plan around the announced schedule and make use of such a service.
5. **Train public transport staff (particularly drivers and conductors) on sexual harassment**. They should be trained on the standards expected of them, as well as how to deal with passenger-on-passenger harassment. There is currently no training in place for these staff. Staff must also be **monitored and held accountable** to these requirements. CERP's pilot service in collaboration with Aurat Foundation and Women in Struggle for Empowerment (WISE) used such training and enforcement with high success. Aurat Foundation has expressed interest in working with the Government of Punjab on a larger-scale pilot of this program in Lahore. Such a program should be **tested and evaluated** through rigorous methods including covert observation of staff behavior by "mystery riders".
6. Public transport alone is not enough: women need to feel and be **safe getting to and waiting at stops. Sidewalks, street lighting, and police attention** to stops and general street safety are critical.
7. Decisions on gender issues in transport (such as whether to have a divider between male and female sections on the Metrobus) are often made ad hoc, based on the judgment of a particular implementing agency. The government should **start a process to assess women's needs in designing new policies, and use data to help inform transport planning** (such as surveys of female riders on their preferences, which can be carried out at minimal cost).
8. Multiple initiatives on women's-only transport, such as the Pink Bus, as well as programs to change social norms such as Women on Wheels, have been implemented in recent years. There is a critical need for **better monitoring and rigorous impact evaluation of such programs, to determine how to adapt them and whether to scale them up**. Research groups and universities with expertise in economic and social impact evaluation, such as CERP and the Lahore University Management Sciences (LUMS), and with expertise in transport design, such as UET, are keen to collaborate with government on this kind of research and evaluation.

Introduction

Women's mobility outside the home in Pakistan is restricted by social norms and safety concerns. In particular, social norms against women coming into close contact with unrelated men and the discomfort, social stigma, and fear of harassment when they do so, limits women's movement and their use of public transport. This constrains their choices to participate in the labor force, continue their education, or engage in other independent activities. This challenge is particularly important for women of a marginalized social status who are less able to afford private transport.

The government has attempted to address women's concerns through transport policy by introducing separate sections in buses and running women-only buses. However, challenges still remain for women's safety and comfort on public transport. In order to ensure that public transport is equally accessible for both men and women, it is critical to develop a comprehensive policy package that holistically addresses the constraints and challenges that women face. This brief lays out the challenges and policy options for the government through an analysis of primary and secondary survey data, focus group discussions, key expert interviews, existing literature and the authors' experience piloting transport services for women in Lahore at the Center for Economic Research in Pakistan (CERP).

The Issue

Women are more dependent on public transport, face greater challenges when riding, and can benefit more from public transport improvements

There are striking differences between men and women's access to and experience of public transport in Pakistan. Although women travel less frequently, as a proportion of non-walking trips, they are more likely than men to travel on public transport. When traveling beyond walking distance, women in Lahore are almost 30% more likely than men to use public transport such as buses or wagons.¹ This is in part because other options, such as riding independently on a motorbike or bicycle (common transport modes for men), are taboo for women: Men are 70% more likely than women to travel in these private transport modes.

But travel on public transport presents significant challenges for women because of concerns about safety, harassment and social stigma. Most males say they strongly discourage their female family members from riding some modes of transport, such as wagons (Figure 1). Many women do not feel safe on any available transport mode, especially at night (Figure 2).

This is likely part of the reason why women who do not have a choice of private transport choose if possible to ride on alternative modes such as rickshaws or qingqis (motorcycle rickshaws). Women are 150% more likely to ride on these modes than men. But Figures 1-2 show that safety and permission are a concern for a significant number of women even on these modes.

Working women frequently coordinate with other women from their neighborhood and share rickshaw costs to commute to and from work. However, finding other women who live nearby and work in the same area can be difficult.² Whenever possible, they utilise pick-and-drop services offered by offices or educational institutions. Some pay private pick-and-drop operators, but these can be expensive or difficult to find.³ Others plan trips together and travel in groups on qingqis when making trips to the market, visiting relatives or commuting to work.⁴

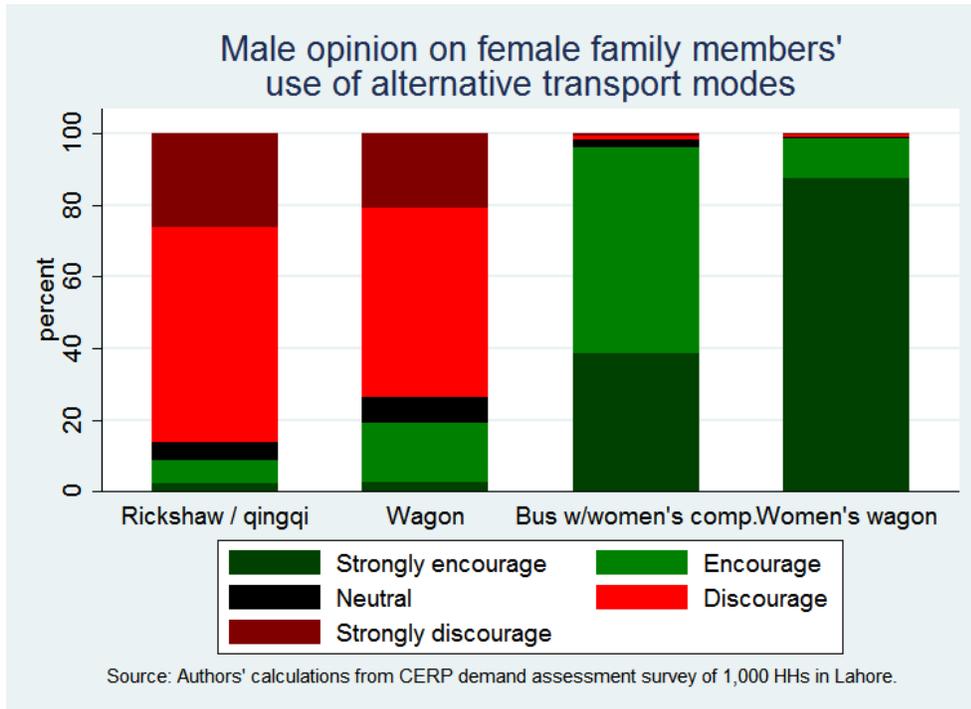


Figure 1

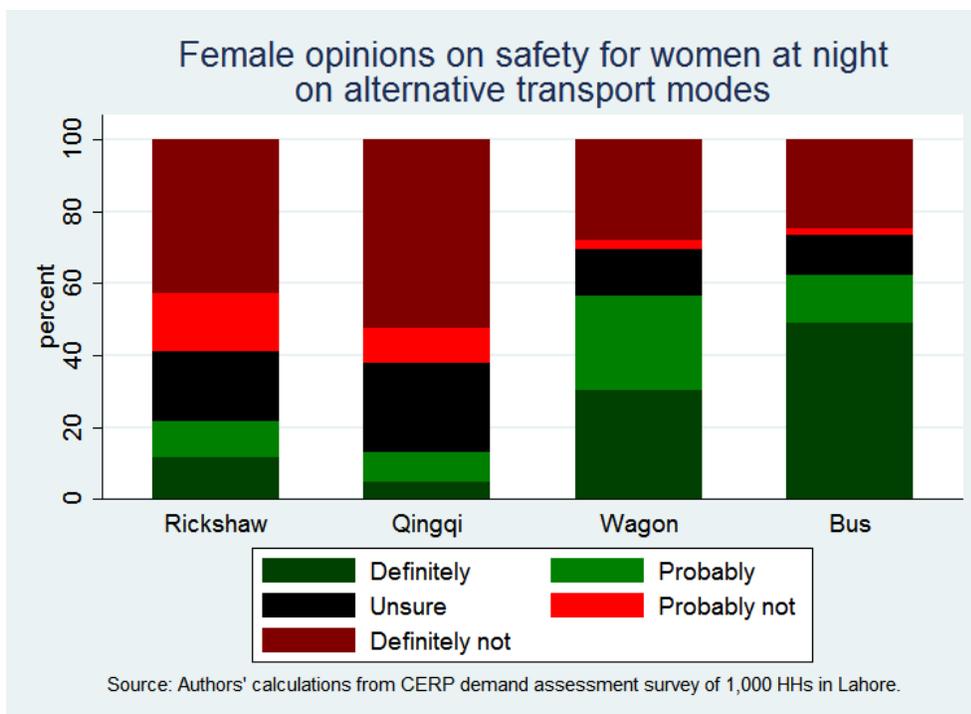


Figure 2

Discussions and focus groups with passengers on CERP’s pilot routes, the Pink Bus, and women in selected areas of Lahore highlight a range of concerns that drive these fears. Women experience fear of harassment or crime while walking to bus or wagon stops, while waiting at stops and while travelling on vehicles.⁵ The following paragraphs examine these concerns in greater detail.

Harassment while walking to and waiting at the stop, compounded by unpredictable wait times.

In order to access public transport, women have to first consider distance to the nearest stop, time of the day, and the degree of exposure to male strangers. Nearly 30% of women in a recent CERP pilot survey said that they feel it is “very unsafe” for women to walk in their neighborhood. Women report that men stare, pass comments, and follow women to their destination, or physically touch women while passing by.⁶ This creates a general atmosphere of fear and stress. Many prefer walking with a male member of their household, and waiting with him at the stop. Sometimes those who cannot do so restrict their travel to a minimum, or take any other form of transport that is readily available without waiting.⁷ Delays and uncertainty regarding arrival times further exacerbate the problem.⁸

‘I felt very scared walking alone to bus stops so I made sure my younger brother accompanied me wherever I went’

Focus Group Participant, female conductor, 22, Lahore

Harassment on the vehicle – by passengers or staff

Although women have varying experiences travelling on public transport, with some traveling without any problems, many report encountering harassment from male conductors, ticket checkers, drivers and passengers.⁹ Occasionally, male conductors and ticket checkers touch female passengers unnecessarily when issuing or checking tickets. At other times, conductors behave rudely with passengers or may harass them.¹⁰ Most commonly, women highlight the problem of harassment by male passengers, who stare relentlessly and pass on their phone numbers, whistle or make comments to female passengers, particularly female students.¹¹ Some women actively reprimand any misbehavior they encounter, but many stay silent and endure harassment or try to avoid it by changing their travel patterns.

Overcrowding on Vehicles

Public transport vehicles routinely travel highly crowded and sometimes above their legal limit of passengers. Because of social taboos on close contact between the sexes, this creates discomfort even without harassment. However, crowding also exacerbates the problem of harassment, as it is easier for perpetrators to remain anonymous. Crowding is particularly pronounced on wagons – Low Occupancy Vehicles (LOVs), as they only have two front seats reserved for women, and women routinely experience discomfort and harassment while travelling on them.

Men – who often play a critical role in determining whether and how female family members may travel – typically disapprove of

‘Often when there are gents and ladies both in the same van, the vehicles are so stuffed that they are all pressed against each other. Men take the opportunity to touch them here and there, and it also happens because of the rush and that is not comfortable, safe, or convenient. So we are forced to accompany women from our households. It would be different if the government ran buses that have separate compartments for men and women,’

- Male Focus Group Participant, Shopkeeper, Peri-Urban Lahore

We are willing to have ladies travel alone if a safe women's-only service is running. They would be safe and surrounded by ladies so we would find it acceptable for them to travel alone to the bazaar or for other errands,¹¹

- Male Focus Group Participant, Shop Keeper, Peri-Urban Lahore

women family members travelling on such vehicles. In a household survey in Lahore district, we found that 21% of men strongly discourage, while 50% discourage female family members from travelling on Low Occupancy Vehicles (LOVs). In contrast, 87% claimed that they would strongly encourage female family members to travel on a women's-only van (Figure 1)

Peri-urban areas

Women living in peri-urban areas face even greater challenges due to the limited availability of rickshaws and qingqis, and the absence of formal transport. Here, there are frequently only a limited number of vehicles – often overcrowded and unpredictable – operating informally.¹² In some peri-urban areas, wait times for public transport range from one to two hours.¹³

Consequences

These challenges cause stress and discomfort for all kinds of women when they have to travel: female students, working women, and housewives.

Many women avoid using public transport, particularly on crowded modes such as wagons.¹⁴ Some switch to higher cost modes such as rickshaws and qingchis. Others adjust their travel timings and routes – but female students and working women often have no choice but to travel during peak hours. Others simply do not travel without a male family member. Some married women who would like to visit their own relatives more often cannot do so because they have to wait until a husband or in-law can accompany them.

These constraints can negatively affect women's lives. Difficulties with transport can restrict women's ability to carry out even the most basic tasks, such as going to the market, visiting the doctor or their children's schools. Girls in some areas drop out of studies earlier because when they get to the level of Middle, Matric or Intermediate, there is no safe and reliable transport to the nearest school at that level, or because safe pick-and-drop services to school are expensive (often the biggest part of educational expenditure for low-income families).

There is a high school and college approximately 10 km away. However, girls from our area don't study there because there's no conveyance.¹¹

- Male Focus Group Participant, Mechanic, Peri-Urban Lahore

“I wouldn’t have continued with this job if the employers hadn’t provided a transport facility. I was going to leave this job because I come from very far away, and it was extremely difficult coming every day. The company offered me a pick drop facility then and so I stayed on.”

- Female manager/supervisor, local beauty parlour, Lahore

Evidence from CERP focus groups and qualitative interviews suggests that women who want or need to work often restrict their search only to employers that are very close to home, provide transport services, or in locations which are convenient for a male family member to accompany them to and from work. This means they have to give up better job opportunities that do not provide transport – or they may not find a

job at all.^{15 16} Forty-five percent of female respondents in a CERP pilot survey in Lahore said that whether a transport is provided would be a “very important” factor in choosing whether to take up a job opportunity.

Transport Interventions to Facilitate Women’s Mobility in Pakistan

As Figures 1-2 show, there is a substantial difference between modes. Women feel more comfortable riding buses with women’s-only compartments and women’s-only vehicles. Their male family members are more likely to support their use of these modes as well. Offering improved services can allow women to travel safely, and could give women more choices of work, study and other activities.

In recent years, various transport interventions in Pakistan have attempted to facilitate women’s mobility by creating safe physical spaces for women to travel (Pink Bus Lahore, Zong-RTA Tabeer project), or changing norms around women’s presence in public spaces (ILO Decent Transport Project, Women on Wheels, EPF Pink Rickshaws). Yet the social and economic impact of such interventions has not been rigorously evaluated. While a number of initiatives have been discontinued due to financial reasons and others have been recently launched, the economic and social benefits to women have rarely been documented or studied systematically.

In Lahore, the Government of Punjab, through the Lahore Transport Company (LTC), launched its flagship women’s transport project in 2012 by introducing women’s-only “Pink Buses” on three routes in Lahore. The service has enabled many female passengers to make their journeys – particularly to their work places and educational institutions – punctually, comfortably and without any fear of harassment.¹⁷ However, the service operates on routes where regular buses with separate sections for women also operate from morning until evening, and only makes two to 3.5 trips in a day, finishing services by 3:00 p.m. latest.¹⁸

We conducted a survey of 81 Pink Bus passengers and six Pink Bus conductors to learn more about the user base and assess its strengths as well as areas for improvement.¹⁹ We found that:

- The pink bus is primarily used by female students and working women, consisting of teachers, nurses, doctors, lawyers, police staff, office workers and domestic workers.²⁰
- Many passengers plan their travel around the Pink Bus timings. However, on one of the routes, the bus arbitrarily completes two or three round trips per day meaning that passengers cannot always plan their travel.
- Many women travelling on regular buses along the routes are not aware of the service.

- When asked what they might change about the service, 35% mentioned their need for the service to run until evening as they cannot use it for their return trip, a major shortcoming for working women. This is likely an under-estimate as women were not asked specifically about extending the hours.

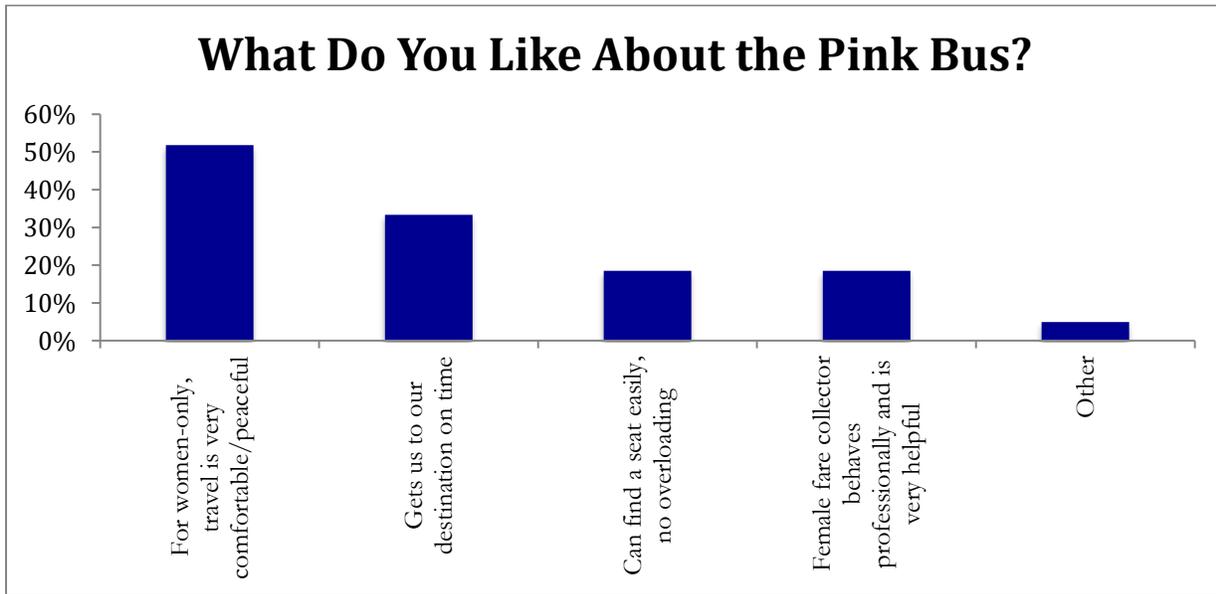


Figure 3: Pink Bus Survey results: What do you like about the pink bus?
 Source: Open-ended question in CERP Pink Bus Passenger survey, May 2016

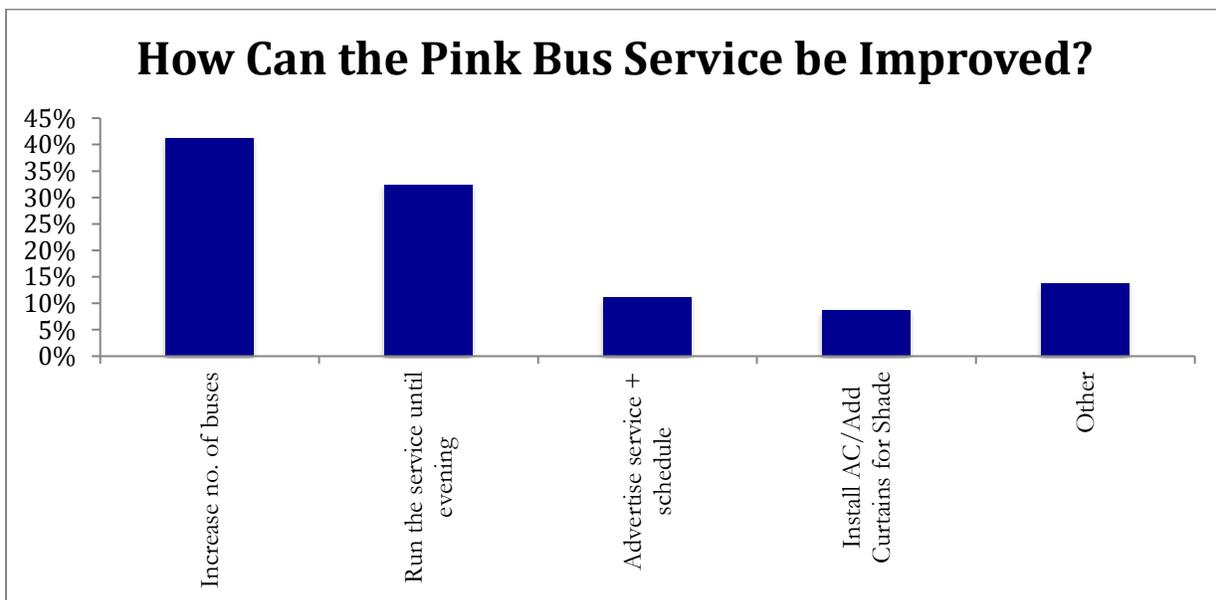


Figure 4: Pink Bus Survey results: How can the Pink Bus Service be improved?
 Source: Open-ended question in CERP Pink Bus Passenger survey, May 2016

The Pink Bus program is also heavily subsidized and suffers from high financial losses as ridership is low and the buses are underutilized. It serves a tiny fraction of the women in Lahore who travel on a

regular basis. In contrast, there are many women in Lahore and its peri-urban areas who don't have access to a bus with a separate women's compartment at all (Figure 3), which many respondents find acceptable (Figure 1) and costs much less to implement.

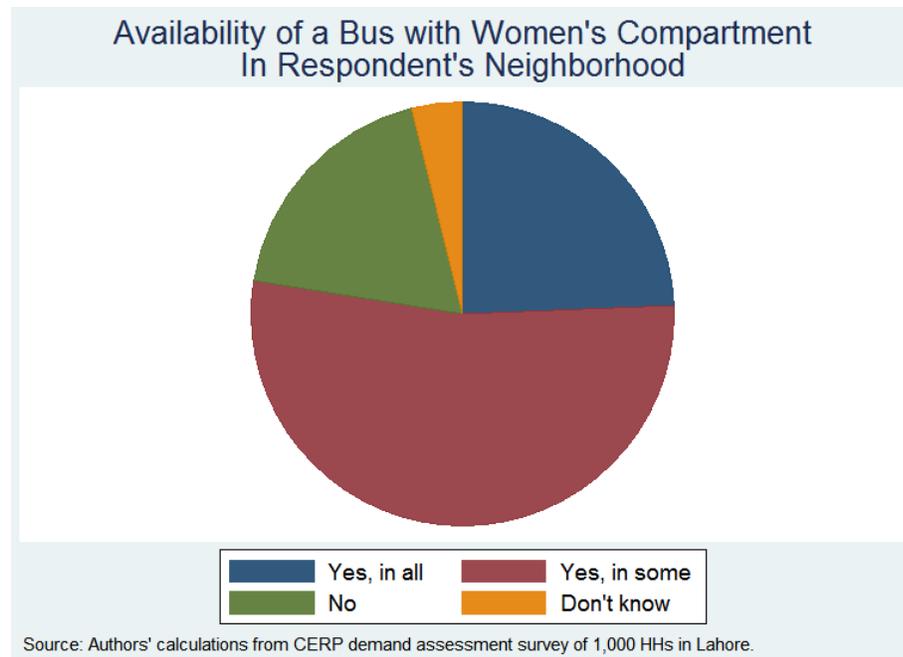


Figure 5

The government's efforts (through the Pink Bus program, Women on Wheels and other initiatives) to facilitate women's ability to travel safely for work, education and other purposes are commendable. However, as the results above demonstrate, there are major areas for improvement in transport policy that can significantly increase women's mobility.

Recommendations

1. Continue expansion of public transport network

The absence and shortage of public transport affects women differently than men. In Lahore (as in many cities across Pakistan), there are few large buses (High Occupancy Vehicles) compared to the growing population and transport needs. Figure 6 demonstrates that some substantially populated areas of Lahore still lack public transport services. Some commentators have argued that Lahore needs 2000 buses, in contrast to only 450 buses currently on the road.²¹ Vehicles on existing routes are overcrowded, particularly during peak hours. Additionally, many routes that are needed have not been authorized, or have been authorized but no buses are running those routes. To improve coverage and quality of service, public transport services must be expanded. Both the federal and Punjab governments have placed a high priority on investment in urban public transport infrastructure in recent years. In Lahore, transport agencies are designing an ambitious public transport plan for the city, including a mass transit system and integrated feeder bus routes. The government should continue

to focus on routes and time slots in which existing public transport options are crowded. This will address the needs of the general public and particularly of women who face more challenges when vehicles are crowded with men.

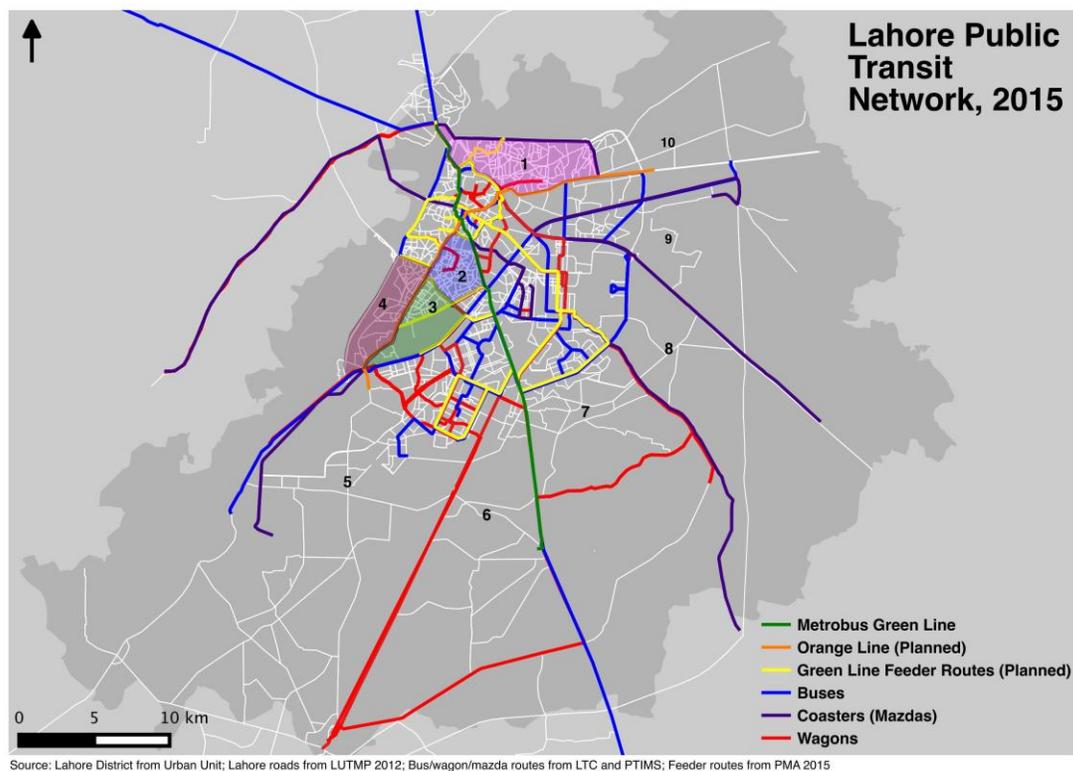


Figure 6: This map shows Lahore’s existing public transport network as well as a mass transit line that is under construction, and feeder routes that are will begin operations in the last quarter of 2016. There are many areas that are still not officially serviced by public transport routes (urban 1-4 periurban 5-10)

In concert with the mass transit system and its feeder routes, the government should increase frequency of service on existing HOV routes that are operating below capacity, particularly during peak hours. This can encourage women – particularly working women – to travel on buses, save money that would have been spent on rickshaw fares and enable them to travel comfortably to meet their travel needs. Increase in frequency can also increase reliability of service, and decrease wait times at stops which is a particular concern for women.

Lahore’s first line of mass transit – the Metrobus – helps to address some of the issues raised above. It has a protected, well-lit waiting area at every station, regular and frequent arrivals and a token-based payment system to eliminate the need for a male conductor or ticket checker to push through a crowded women’s section. Some women feel comfortable traveling on the Metrobus but would not feel comfortable traveling on other buses or wagons.

In moving forward with transport planning in Lahore and other cities, the government should institutionalize a process of assessing women’s specific needs at the outset and addressing them in new services (see Recommendation 6). For example, the Metrobus does not have a divider between the men’s and women’s sections. Based on our findings, including a divider could improve women’s sense of safety and comfort during peak times when the buses become very crowded.

- *Collaborate with existing operators to provide a reliable, low frequency transport service along peri-urban routes where overcrowded vehicles operate informally*

The emphasis on high-quality infrastructure on major routes should not preclude sensible policies for other areas and modes. The government's approach to lower-end vehicles such as wagons (LOVs) and informal transport such as rickshaws and qingqis has been characterized by suspicion, with some policymakers advocating for these modes to be restricted or eliminated. But these modes are providing services that tens of thousands of men and women in Lahore rely on, with no public subsidy (in contrast to large buses or HOVs, which provide a high-quality and inexpensive service but are heavily subsidised and so are limited in their coverage and frequency). These modes are also addressing the problems that women have in getting to and waiting at stops, through 'door-to-door' travel. A policy to restrict these modes would thus likely have major negative consequences.

Instead, the government should work to improve the wagon system and informal transport modes. For example, the government could integrate wagons and coasters currently operating informally in peri-urban areas into the formal public transport network, and regulate their services to provide a reliable scheduled service. This can connect residents to opportunities and services in the rest of the city. This would also likely come at minimal cost, because these vehicles are already operating with no subsidy. They would simply have to be coordinated and held accountable for following a posted schedule. The government could also work with existing peri-urban operators to assist with financing of additional vehicles that are large enough to have a physical partition for men and women so that families can travel together comfortably to meet their travel needs. This can be particularly useful as women do not travel frequently in peri-urban areas and prefer to travel with men from their households.²²

- *Prioritize Complementary Policies to Facilitate Women's Mobility*

However, to effectively improve women's mobility, the government must leverage these investments by addressing other factors that affect women's travel. Bus route stops and the residential neighborhoods that they service should be provided reliable street lighting that is not subject to power outages (such as solar street lighting), so that users and particularly women can get to and from the system safely. Road infrastructure should be complemented with accessible pedestrian infrastructure (as more women depend primarily on walking), initiatives that aim to change social norms (such as Women on Wheels) should be promoted, and safety audits – used by various cities around the world to improve women's safety in cities – should be conducted to remove hazards on streets and improve security.²³ The government should also explore transport-to-work (pick and drop) interventions that can enable women to travel to and from work safely.

2. Use Pink Bus resources to achieve greater value for money

Any women's-only transport solution will require a subsidy in the medium term as there are not enough female passengers to make this a financially viable solution for transport operators. This has been seen in each of the women-only initiatives that have been undertaken in Pakistan, and has been the reason why other initiatives have not been able to take off. However, there are various mechanisms to reduce losses on the pink bus program in Lahore, which can also be used as guidelines by other cities. The government should consider either using the Pink Bus resources to provide more high-quality vehicles with dividers in more parts of the city, and/or redesign the Pink Bus services to be more efficient. It can achieve this in the following ways:

- Using smaller vehicles such as coasters or vans that are less costly to operate.

- Prioritizing operations along overcrowded LOV-only routes where women experience a greater threat of harassment.
- Cover evening times as well as morning and mid-day, to allow more women to rely on these services for their whole commute. To reduce the cost, the government could run these buses for women in peak hours (morning, afternoon, evening) by displaying a large ‘women’s-only’ sign on the buses, and operate the same vehicles for men and women for the rest of the day.²⁴
- Setting the number of round trips that each operator has to complete on a daily basis and mandate a fixed schedule, so that passengers can plan their travel around the vehicle timings.
- Widely advertising pink bus routes and schedules so that more women are aware of the service.

This will allow the government to benefit a greater number of women who are in need of safe and adequate transport solutions across the city, and provide the service more frequently than it is at the moment. And while a subsidy will still be required, it will be able to provide the subsidy more efficiently and with higher social benefits in the long run.²⁵

3. Announce and follow a schedule for bus services; this is possible with more layover time.

Running public transport on an announced schedule can help women plan their journeys and reduce wait times at stops.²⁶ Any delays caused by traffic conditions or other unexpected events can be overcome by factoring in a small amount of extra layover time at the origin/destination points. The CERP women’s transport pilot tested this approach with very positive results. If services operate on a fixed schedule, riders can plan ahead and reduce wait times at stops – beneficial for everyone but particularly for women.

4. Train Staff on Sexual Harassment and Strictly Enforce Rules

Our pilot results suggest that training drivers and conductors on sexual harassment, and following up with any complaints is extremely beneficial for passengers and female conductors.²⁷ Female passengers on our vehicles appreciated the staff and expressed satisfaction with the service because the staff was very respectful, particularly in comparison with male staff on other public transport vehicles.²⁸ In addition, female conductors on our service felt that awareness of existing harassment laws and strict policies against sexual harassment changed their level of confidence and experience in public spaces.²⁹

‘I didn’t find it difficult to work as a female conductor because of our training. I have learnt to speak out against harassment and also feel more confident travelling alone,’

Female conductor on CERP women’s pilot transport service, 28, Lahore

To reduce the risk of harassment on public transport vehicles, staff working for public transport agencies, as well as drivers and conductors on all public transport routes should be trained on sexual harassment – both on the standards of behavior expected from them and on how to manage passenger-on-passenger harassment. Through such training, public transport agencies will be able to send a strong signal to staff that this is a matter of priority with strict consequences. This can deter staff from behaving inappropriately with female passengers, and may allow them to better manage passengers who misbehave with women on board. The government could partner with an organisation such as Aurat Foundation or WISE, who have expertise in this type of training. Aurat Foundation estimates the cost of a tiered training of 1,000 transport staff at approximately PKR 1 million. This cost could be co-funded by international and/or corporate donors.

However, simply training staff on sexual harassment will be ineffective without holding staff accountable for these standards of behavior. Rather than rely only on complaints being reported by passengers, who often do not want to initiate a discussion about a traumatic or stressful incident of harassment, the government should monitor staff by surveying riders on the staff's behavior and using enumerators acting as “mystery riders” who observe these staff at work.

In addition, the government and NGOs should test out campaigns to encourage passengers to intervene when they witness harassment and to report such incidents. Campaigns to encourage reporting and lessons from other cities – such as Bangalore and Mexico City – that have introduced similar initiatives can be studied to learn how to do so. At the same time, such initiatives should also be monitored to evaluate the effectiveness of training, campaigns and the complaint redressal system.

The government should pilot and test this kind of approach along with careful evaluation. In particular, the effectiveness of these interventions should be evaluated not only based on what participants report after trainings (which often tends to lead to over-reported effectiveness) but also through objective measurement through systematic rider surveys and “mystery riders.”

5. Conduct Evaluations of Women's Safety and Mobility Initiatives

There is limited evidence available about the impact of various initiatives undertaken by the government or non-governmental organisations to facilitate women's mobility. As a result many initiatives are replicated and withdrawn without accounting for previous lessons learnt. All initiatives should be documented, monitored and studied, and their success should be evaluated through criteria that assess both the financial costs and the potential social benefits. To give a reliable estimate of the benefits, evaluations should incorporate a comparison or control group as well as collection of data before and after an intervention. The government and other implementers can partner with research organizations and universities that have expertise in social and economic impact evaluation, such as CERP, LUMS, or the Lahore School of Economics, and those with expertise in transport policy, such as UET, to carry out high-quality evaluations.

6. Incorporate Gender in Transport Planning

Transport policies at the moment are developed without consideration of the differences between men and women's transport behavior, and the impact that they are likely to have on women's mobility. In order to develop transport policies that holistically address women's transport needs, the government should:

- Ensure that gender experts – independent consultants, representatives of women's development departments or the National/Provincial Commissions on the Status of Women – are involved in the design and review of transport policies.
- Set up a committee of transport representatives, police, women's development department officials, non-profits and women's groups that meets regularly to design initiatives and monitor and ensure safety on public transport – particularly for women.

¹ Authors' calculations from 2012 HIS survey; 15% of women's non-walking trips were on public transport, while 12% of men's non-walking trips were on public transport. This difference and subsequent differences in women's and men's travel patterns mentioned in this paragraph are all statistically significant at the .01% level.

² Survey of female employees in organizations along Main Boulevard, Lahore, November 2015

³ CERP interviews with women working in the banking, beauty, education, non-profit, manufacturing sectors, Lahore, February – March, 2016; See Hasan, A. & Raza, M (2015) *'Karachi: The Transport Crisis,'* IIED for more details

⁴ Field observations and informal discussions with women along pilot routes, Lahore 2015; Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015;

⁵ See FIA Foundation (2016) *'Safe and Sound: International Research on Women's Personal Safety on Public Transport'* for categorization of the three stages of harassment

⁶ Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016; CERP Pilot Training Sessions, Feedback from Conductors and Drivers, August 2015; CERP Pilot Passenger Interviews, December 2015

⁷ Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016; CERP Pilot Training Sessions

⁸ Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016; This was also found in a more comprehensive study in Karachi, see: Asdar A., Kamran, (2012). *'Women, Work and Public Spaces: Conflict and Coexistence in Karachi's Poor Neighborhoods,'* International Journal of Urban and Regional Research, Vol. 36.3, 585-605

⁹ Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016; CERP Pilot Training Sessions, Feedback from Conductors and Drivers, August 2015; CERP Pink Bus Passenger survey, May 2016

¹⁰ Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016

¹¹ Interviews with Pink Bus female conductors, April – May 2016; CERP Pilot Feedback Recorded through Helpline, November 2015; CERP Pink Bus Passenger survey, May 2016

¹² Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015; Focus Group Discussion with men in Halloki, Lahore, August 25, 2015; Peri-Urban Pilot Observations October 2015 – December 2015

¹³ Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015; Peri-Urban Pilot Observations October 2015 – December 2015

¹⁴ Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015; Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016; CERP Pink Bus Survey 2016; Phone interviews by authors with Pink Bus female conductor previously employed on route B1, April 18, 2016

¹⁵ CERP interviews with women working in the banking, beauty, education, non-profit, manufacturing sectors, Lahore, February – March, 2016;

¹⁶ Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015

¹⁷ CERP Pink Bus Passenger survey, May 2016

¹⁸ Route B1 makes 3.5 trips, B12 makes 2 or 3 round trips, and B33 makes 2 round trips per day

¹⁹ For detailed findings see forthcoming working paper by authors

²⁰ Interviews with Pink Bus female conductors, April - May 2016

²¹ City 42 (2016) *'There are only 450 buses left for the entire city although 2000 are required, Discussion on News Night,'* Published: August 10, 2016 (translated from Urdu). Lahore Transport Company's website also states that the city required 2,000 buses by 2012: <http://www.ltc.gop.pk/plans.php>

²² Duke/CERP Demand Assessment Survey 2015; CERP Pilot, Interviews with Passengers, December 2015; Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015;

²³ See publication by Actionaid on conducting safety audits: ActionAid (2013) *'Making Cities and Urban Spaces Safe for Women and Girls – Safety Audit Participatory Toolkit.'* Developed by Social Development Direct (SDD) on behalf of ActionAid International.

http://www.actionaidusa.org/sites/files/actionaid/actionaid_safety_audit_participatory_toolkit.pdf

²⁴ Also see: University of Engineering and Technology (2014) ‘*Urban and Sub-Urban Routes Survey – Survey Report of Route B1*’ & University of Engineering and Technology (2014) ‘*Urban and Sub-Urban Routes Survey – Survey Report of Route B33*,’ for recommendations on improving the pink bus service

²⁵ The government can also improve the existing pink bus services by making a number of route specific changes. See forthcoming working paper by authors.

²⁶ Prior to the start of the pilot, women living along our routes also asked us to run the service on a schedule so that they could plan their travels accordingly - Focus Group Discussion conducted by authors with housewives, students, and working women in Halloki, Lahore, August 25, 2015

²⁷ A ‘Women-Friendly’ transport project conducted by the ILO in Rawalpindi also found that sexual harassment trainings for staff are critical in ensuring safer public transport experience. See ILO (2011) ‘*Decent Transport for Working Women*,’ Towards Gender Parity in Pakistan Project, ILO Country office for Pakistan

²⁸ For instance, on the peri-urban route, 32% of the passengers stated that they liked travelling on the service because of the staff - CERP Pilot, Feedback Recorded through Helpline, and Comment Cards, October – December 2015;

²⁹ Focus Group Discussion conducted by authors with female conductors from pilot service, January 2, 2016