

RESEARCH SERIES FAIR MOBILITY

SAFE AND SOUND

INTERNATIONAL
RESEARCH ON
WOMEN'S PERSONAL
SAFETY ON PUBLIC
TRANSPORT

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SAFE AND SOUND

INTERNATIONAL RESEARCH ON WOMEN'S PERSONAL SAFETY ON PUBLIC TRANSPORT

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INTRODUCTION

Personal security is an issue for everyone, and there is a clear link between it, public space and public transport. Moreover there is growing awareness of the particular concerns of women as they use public transport, which is the subject of this study.

Much other work has shown that women use public transport¹ more than men as they have few or no other mobility choices. Yet they are also more worried about using it as their personal security is frequently compromised. This is of huge concern for a variety of reasons. Women have the same right as men to access safe and secure mobility. They make a huge economic contribution, and often shape the travel patterns and attitudes of their children. The implications of any disinclination on their part to access publicly-provided transport options are therefore wide-ranging in terms of sustainable development, climate change and urban development. This work is intended as a contribution to those wider debates.

This report reviews published international research, and media coverage of this issue. It then identifies cities where measures have been put in place to address womens' security concerns, mainly in the developing world. It considers the three main aspects of a whole journey – access and egress to public transport, the waiting environment and the in-vehicle experience. The main focus is on the urban environment as this is where the research is presently most extensive.

This is initial report covering the first phase of a larger piece of research that will investigate this issue in more depth and collect information and data from a number of cities. Ultimately the key outputs will include:

- International guidance and principles for policy and decision-makers, transport/transit operators and other service providers to help guide them in addressing this issue;
- Recommendations to help civil society and womens' groups to work with the above to provide and co-create practical and pragmatic solutions.
- Capacity building in the countries which take part in the implementation of the study in order to improve gender-related transport policies and reinforce work undertaken by development and aid agencies in this field.

The objective of later phases of this work is to empower grass roots women's organisations to better understand the issue, and their rights as citizens, as well as helping to inform them how to engage in public stakeholder forums and with authorities to improve the situation.

In supporting this work, FIA Foundation is showing its commitment to improve the understanding of key issues around mobility and sustainable development, with a particular focus on practical solutions and capacity building.



Sheila Watson
Director of Environment and Research
FIA Foundation

March 2016

EXECUTIVE SUMMARY

The mobility patterns of men and women are different. Generally women are more likely to make more frequent and shorter trips and stop more often. They are more likely to 'trip chain', and the daily commute may need to be combined with shopping, picking up or dropping off children, visiting relatives or running small errands. Changes in social roles, especially in the developing world, combined with increased motorisation, have increased some women's opportunities for education, employment and leisure trips. However, for others transport is part of a daily struggle to manage home and work commitments, which significantly impacts their quality of life.

All over the world, women are frequent and regular users of public transport². In developing countries women often rely on some form of public transport³ as their only choice of motorised transport⁴. It is therefore important that they perceive public transport as being safe and secure. However, there are a growing number of distressing incidents reported when women's personal security have been compromised while using public transport. Extreme cases from both the developed and developing countries have caught the eye of the media. However, there are many more cases of women being subjected to aggressive behaviour, verbal abuse and sexual assault on public transport which are not publicised.

Freedom of movement, mobility rights, and the right to travel is part of the concept of basic human rights (Art 13.1.) that encompasses the right of individuals to travel from place to place within a city



or a country and to leave the country and return to it. The right includes not only the right to visit places, but changing the place where the individual resides or works^{[2][1]}. Providing equitable access to education and employment is not only a basic human right but also is core to delivering the Sustainable Development Goals and the New Urban Agenda (that will be agreed at HABITAT III conference at the end of 2016 in Quito, Ecuador).

All forms of harassment affect women in particular and impact their access to opportunities, and their quality of life. Harassment can take various forms such as verbal harassment (cat calling or unwanted teasing); visual harassment such as leering or staring and physical forms such as men exposing themselves, groping or other forms of touching etc. It often takes place in public places as women travel to and from places of education/schools or to and from work. It especially seems to occur in relation to public transport. This may be in or around bus and train stations, or other public transport hubs and stops and on the vehicles themselves, especially if they are crowded. This affects different women in different ways, making it complex to understand why and how this happens or to as there is a lack of systematic data.

However from documented research it is clear that harassment occurs frequently and, it profoundly affects women's mobility. It also impacts their contribution to society and the labour force more than is possibly understood currently. All forms of harassment, sexual or other, affect women deeply and reduce their confidence to move freely in public places. In this way harassment also influences their decision to take up some educational opportunities, access healthcare, decisions to join the labour market and/or decisions about the kinds of jobs they pursue⁵.

A lack of safe and secure transport reduces economic opportunities, reinforcing poverty and increasing inequality and social exclusion. The International Labour Organisation (ILO) in a report in 2012 estimated that an additional USD trillions in GDP could be generated globally by reducing the employment-to-population gap⁶ ⁷ and the McKinsey Global Institute estimates that if women in every country were to play an identical role to men in markets, as much as US\$28 trillion would be added to the global economy by 2025. It is therefore



important that women are able to fully contribute to the national labour force and national development ambitions. Excluding women from being active in the labour market due to transport inequalities will reduce both the speed and robustness of development and bolsters inequality. In addition, both aspects are interdependent - the more active women are in the labour market the more they are able to demand safe and secure transport, the less empowered they are the more socially exclusive transport becomes.

This report reviews a large number of published international papers, reports and articles to scope out the extent of this issue. It also investigates the global and local contexts in order to better understand successful solutions by analysing the main success factors. The University of Cape Town, South Africa provided support in developing the approach to initial data collection and especially for testing the methodology to collect further information. This report presents the initial findings and outlines the approach to collect experiences from several cities in different continents over 2016 using a common methodology and to further elaborate on these initial findings. It should be noted that the focus is primarily on urban issues. There are fewer publications addressing women's transport safety in a rural context, although similar issues are known to exist.

Identifying comparable and robust statistics is difficult due to the fact that there are no common international standards for reporting incidents of undesirable harassment. Many incidents are not reported and the statistics of serious cases lie with a variety of transport, security and/or city agencies. For this reason, the methodology for collecting further information from public transport users in order to inform international guidance focuses primarily on qualitative approaches (participatory, human centred design and co-creation), which will be tested in the second phase. It is also intended that the process of collecting more in-depth information will help to build grassroots capacity and encourage the co-creation of local solutions, possibly inspired by international examples.

It should be noted that a public transport trip does not occur in isolation. This work tried to look beyond the transport section of any trip. The three key components of a transit trip, where increased or decreased feelings of fear can strongly affect whether someone will make the decision if the trip is 'worth taking' or not, are:

- Walking to, from or between transport facilities or stops (walking from departure point e.g. home to a taxi rank or back; from a taxi stop to a bus station; from a train station to destination point e.g. workplace or back).

- Waiting at boarding points and facilities (e.g. taxi/bus stops, train/bus stations, modal interchanges etc.).
- Travelling on board a mode of transport such as a bus, train or taxi.

All of these areas can be perceived differently by men and women and their interpretation of satisfactory levels of personal safety are likely to be different.

Fear of crime is widely recognised as a barrier to public transport use for many users (Crime Concern 2002; Delbosc & Currie 2012)). Research in the UK has identified that an additional 10.5% of rail trips would be generated if people felt more secure when travelling and waiting at stations (Crime Concern 2002). A majority of car drivers in inner Los Angeles claimed they would use transit if public buses were perceived as safe and clean (Loukaitou-Sideris 1999). The most recent survey by Eurobarometer (Eurobarometer 2015) of city dwellers in all European cities makes a correlation between life satisfaction and a 'feeling of safety' (personal security). Feeling safe while travelling around a city therefore impacts the confidence, productivity and quality of life of everyone.

The initial findings of this work show that women face harassment while using public transport on a daily basis all over the world. It is reported as an issue of concern from Baku, Azerbaijan to Bogotá, Colombia – and everywhere in between. It is also not confined in any way to the developing world, and appears to be just as prevalent in rich, highly industrialised cities such as London, New York or Paris.

High rates of non-reporting of incidents were found internationally. In New York it is estimated that 96% of sexual harassment and 86% of sexual assault, on the subway goes unreported; in Baku, Azerbaijan, none of the 162 out of 200 women who reported having been sexually harassed on the metro reported it to the appropriate authority. In Egypt, of 1010 women surveyed, only 2.4% of the 83% of Egyptian women and 7.5% of the 98% of foreign women living or travelling in Egypt, who had experienced sexual harassment in a public place reported it.

Women's personal security is clearly often compromised when using public transport all over the world. From this review the main conclusions include:

- women and girls encounter high levels of harassment, (both physical and verbal) almost everywhere in relation to using transport;

- incidents appear to be largely underreported by victims for a variety of reasons;
- men, although aware that this occurs, tend to underestimate the scale of this and have an unconscious bias that women should accept it as normal female/male behaviour and that women's behaviour encourages men to act in this way;
- walking to and from public transport stations is seen as being an especially dangerous part of the trip;
- levels of safety and security deteriorate on public transport with high levels of overcrowding (especially but not only in developing countries);
- "women only transport" should not be considered as a permanent solution to personal security issues;
- confidence in the authorities and how any incident report will be treated influences both how women feel about their personal security during their trip and the number of incidents reported;
- there is a wealth of knowledge available but little is being transferred between cities or countries and there is a considerable amount of duplication of efforts.

It seems that despite the billions of dollars that are, and will be, invested in expanding public transport all over the world, by building new metro and BRT systems, improving bus fleets, and introducing a variety of application-based technologies, issues pertaining to gender inequity persist. It is also clear that not enough is known about how to address this issue – partly due to the fact that it does not fit easily into solutions formed under the current transport policy and planning paradigm. Further work will be undertaken to explore solutions and measures that can be developed to respond to this issue and to help create a more robust network of knowledge and evidence base.



INTERNATIONAL BACKGROUND ON VIOLENCE TO WOMEN



There are multiple and various acts of violence against women globally.

The UN Declaration on the Elimination of Violence Against Women adopted in 1993 states that: "violence against women is a manifestation of historically unequal power relations between men and women" and that "violence against women is one of the crucial social mechanisms by which women are forced into a subordinate position compared with men."

This initiated 25th November as the annual 'International Day for the Elimination of Violence against Women'. Other important declarations to support equality and the empowerment of women include the Beijing Declaration and Platform for Action, and the newly announced UN High Level Panel on Women's Empowerment⁸. The Beijing Declaration identified 12 areas of significant concern

including listing violence against women as a major threat to equality. In the time since this agreement, many governments have acknowledged that they need to tackle Violence Against Women and Girls (VAWG) and there has been increased visibility of this issue but not yet enough progress on changing behaviour.

All forms of harassment can affect women's access to opportunities, and their quality of life. Harassment can take various forms such as verbal harassment (cat calling or unwanted teasing); visual harassment such as leering or staring and physical forms such as men exposing themselves, groping or other forms of touching. It often takes place in public places as women travel to and from places of education/schools or to and from work. It also occurs in or around bus and train stations, bus or other public transport hubs and stops and on and on the vehicles themselves, especially if they are crowded.

HOW THE POOR USE TRANSPORT

In Asian cities, despite heavy subsidies for road- and rail-based public transit systems, many people cannot afford the fares and either walk or travel by non-motorized rickshaws, the cheapest form of motorised (mechanised) transport. In sub-Saharan African cities, most people walk. Similarly, in Latin American cities, 43% of trips are by walking, 33% by public transport, 16% by car or other motorised transport, and 6% by bicycle. Women have fewer financial resources than men for fares.

Source: Making Transport Work for Men and Women, World Bank 2010

This affects different women in different ways, making it complex to collect systematic data it is clear that it happens frequently, can affect women's mobility and is likely to have significant impact on women contributing to society and the labour force. All forms of harassment affect women deeply and reduce their confidence, impacting their ability to move freely in public places, and also influence their decision to take up educational opportunities, join the labour market or the kinds of jobs they pursue⁹. As women's incomes increase, differences in travel behaviour between genders decrease (Campbell 2016).

A lack of safe transport can limit women's access to education, health care and jobs and increase inequality and social exclusion. Several sources identified that more women working would improve global GDP and reduce the global employment-to population gap^{10 11}. It is therefore important that women are able to fully contribute to the national labour force and ambitions of a country's development.

Public transport has played a crucial role in empowering women and lifting them up economic and social structures, but has also been frequently associated with harassment. For example in the early years of the 20th century it helped African American women (of which some 90% were in employment as domestics) transition from live-in to daily employment. However, these women were exposed to high levels of harassment by people who opposed their right to mobility (Hickey 2014).

Transport systems are not developed and planned to support women to take the journeys where they actually want to go to, but are planned to satisfy a typical commute journey. Cost, personal security and time poverty are the three main factors that influence women's transportation accessibility (Calvo 1994, Kunieda 2007, GIZ Sourcebook 2012, Campbell M 2014).

In addition in the work by Campbell on Bangalore's IT sector, she states that personal security is the most important determinant for choosing the mode of transport for the daily commute of women workers to Electrocitiy (the IT hub of Bangalore¹²), and that lower income women were more concerned than higher income women (this may be as they have more choices). Lower income women still chose the company bus service despite it being more expensive but it was considered more safe, and the women would not have to 'endure' the verbal or visual abuse of the city BMTC buses, which in turn were preferred over informal/minibus or other public transport services. Many IT and Call Centre companies provide bus services for both men and women employee (currently under a PPP with BMTC) but in a survey in 2008 (NASCOMM 2009 & Campbell) the provision of a safe bus service was key to retaining female employees and some companies have a guaranteed ride home door-to-door policy if the employee has to work past 8 pm. This often takes the form of a shared taxi with other women living in the same area and, in some instances, they may be accompanied by a company security guard, to ensure that they arrive safely.

SUSTAINABLE ECONOMIC DEVELOPMENT, GENDER AND TRANSPORT

Gender bias is still deeply embedded in many cultures, economies, political and social institutions around the world, and women and girls often face unacceptable levels of discrimination and levels of abuse that are based on their gender. Not only is this wrong, but also prevents them from playing a full part in society and decision-making. A secondary imperative to address gender, security and public transport but one no less important than the need for safe and secure transport, is the role of women in setting intergenerational values.

Women can be powerful agents of change (Jeff 1996). This is frequently overlooked when it comes to influencing mobility behaviours. For example, negative messages given by the mother (as someone who has significant influence on the values of children) have the potential to impact public transport's attractiveness and its use by those future adults, precisely at a time when mass transit and other forms of public or shared transport will need to expand in order to serve growing urban populations. Thus the messaging given by women to their children, both male and female, about transport and their perception of personal safety and security, is likely to influence their future mobility behaviours. The risk is, therefore, that this may become negatively biased against public transport, while it is important to retain and grow the mode share of public transport if we are to address growing demand for transport worldwide.

The combined challenges of global development, protection of the environment and addressing poverty has stimulated developing a variety of international agreements, to help put us onto more sustainable development pathways than are currently used (this is more fully outlined in the Sustainable Development Goals that were agreed in September 2015); the recent international agreement on Climate Change (December 2015), which sets out a clear imperative for much of transport to decarbonize over the next thirty years; and the development of

the New Urban Agenda (NUA) that will be agreed at HABITAT III (October 2016).

The newly developed Sustainable Development Goals (SDG) are designed to provide guidance for global development. SDG Goal target 11.2 states that by 2030 countries should be able to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons. Goal 5 has the ambition to achieve gender equality and empower all women and girls; providing women and girls with equal access to education, health care, decent work, and representation in political and economic decision-making processes to fuel sustainable economies and benefit societies and humanity at large.

The Paris Climate Agreement signed by some 190 countries gives us science-based targets to make deep cuts and reduce carbon emissions by 2050 at the latest. Efforts to reduce transport emissions are further supported by over 15 different climate commitments from the sector such as UITP's¹³ ambition to double public transport use by 2025.





However, present trends in transport show a rising demand for motorised transport, and predictions expect that most of this growth will come from the developing world. Thus more trips, especially in urban areas, will also have to be made on all modes of collective, shared and public transport rather than by individual, personal transport if the global ambitions of sustainable development and climate change are to be achieved. As today in most countries and regions, women currently use public transport more than men¹⁴, they will play a defining role in achieving this and it will be important to at least retain their modal share.

According to the EU's CIVITAS Smart Choices for Cities Policy Brief on Gender Equality and Mobility - *Mind the Gap, taking a gender perspective in transport policy development* not only helps to reduce inequality. Women are more willing to reduce car use and shift to greener modes. Overall they are more positive to environmental and ecological arguments and have different values and attitudes to transport and mobility. However, it should also be noted that the number of women drivers in the European Union has steadily grown by 3.5% in the last decade, a trend largely attributed to the changing role of woman in society (She Moves, European Union, 2014). As women's incomes increase they frequently shift away from using public transport.

Thus if women across the developing world (and to some extent in the developed world), based on real experience or for emotional reasons, perceive that all forms of public or collective transport are less safe than private cars, it could compromise or slow progress to achieve these targets. It is likely that they themselves may not choose public transport for such reasons but if they pass a negative value on to their children (both male and female), about security on public transport, their children will reduce their propensity to be 'choice rather than captive' riders as adults; and all forms of public and collective transport may appear as being less attractive than private transport to this generation.

In a largely urbanised world, metropolitan areas risk becoming increasingly congested as mass transport struggles for modal share, and even if vehicles themselves may become cleaner, congestion will still plague towns and cities. In addition, it will not be an easy task to stem the intergenerational negative value chain. Therefore it is thought timely to work on this topic to increase the understanding of any differences between men and women and to suggest pathways for the co-creation of suitable solutions. This project will also help provide evidence to frame this issue as a development and equity challenge rather than purely a security one and consider it in the context of the various major international challenges that we currently face.

Definitions

This work looks at how violence and harassment hampers women taking their place in societies and how to identify and co-create successful solutions. As there may be a variety of interpretations of words, it is thought worthwhile to set down what is meant in this work by the terms 'violence', '(sexual) harassment', 'public transport' and 'social inclusion'.

DEFINITIONS FOR THE PURPOSE OF THIS REPORT

- **Gender** is used as a term to define social or acquired sex and implies the associated cultural and socially defined roles, interests and duties between men and women.
- **Harassment** covers a wide range of behaviours of an offensive nature. It is commonly understood as behaviour which disturbs or upsets, and it is characteristically repetitive. In the legal sense, it is behaviour which appears to be disturbing or threatening.
- **Violence against women and Girls (VAWG):** gender-based violence, are the acts of violence are committed against women expressly because they are women¹⁵.
- **Sexual harassment:** unwanted or unwelcome sexual attention.
- **Sexual assault:** when a person is threatened, coerced, or forced into sexual acts against their will.
- **Gender-based violence against women** means violence that is directed against a woman because she is a woman or that affects women disproportionately¹⁶.
- **Public transport**¹⁷: all forms of transport available to the public and charge set fares. For the purpose of this research and taking into consideration that many women use taxis (two and four wheel), minibuses and rickshaws compared to paucity of formal public transport (i.e. those that also run on fixed routes) in the developing world that this wider interpretation of public transport should be used.
- **Social inclusion** is the provision of certain rights to all individuals and groups in society, such as employment, adequate housing, health care, education and training (<http://www.collinsdictionary.com/dictionary/english/social-inclusion>)
- A **socially inclusive society** is defined as one where all people feel valued, their differences are respected, and their basic needs are met so they can live in dignity. Social exclusion is the process of being shut out from the social, economic, political and cultural systems, which contribute to the integration of a person into the community¹⁸.
- **Focus group discussions (FGDs)** are semi-structured discussions with groups of people with common interests or characteristics (UN Habitat, 2012). Focus group discussions are exploratory research tools to explore people's thoughts and feelings and obtain detailed information about a particular topic or issue and they are especially effective in capturing information about social norms and behaviour.
- **Sustainable transport** - The United Nation Economic Commission for Europe (UNECE) has suggested that transport is instrumental for poverty eradication and has identified five key dimensions of sustainable transport: (i) access (ii) affordability; (iii) safety, (vi) security and (v) environmental aspects.

APPROACH

A large number of published international papers, reports and articles have been reviewed to scope out the extent of this issue and to investigate the different global and local contexts in order to better understand how to identify successful solutions. Where possible measures that have been implemented were investigated and the main success factors analysed. The University of Cape Town, South Africa provided support in developing the approach to initial data collection and especially for testing the methodology to collect further information. This report presents the initial findings and outlines the approach to collect experience from several cities in different continents over 2016 using a common methodology and to further elaborate on these initial findings.

This report presents the literature review, a rapid media review, a rapid overview of measures that have been implemented (where possible if these have been evaluated), and some experiences from developing the methodology. It should be noted that the findings to date tend to present an urban perspective of this issue, as there are fewer publications covering this issue in a rural context, although it is known to exist.

The methodology that will be taken forward is based on surveys, semi-structured interviews and moderated focus group discussions with some limited data collection. It is based on a participatory, human centred co-creation approach. Identifying comparable and robust statistics was found to be complicated and difficult. There are no common standards for incidents that may be considered as undesirable, while 'harassment' may

not considered to be criminal, it is still unacceptable and unwanted behaviour. This lack of clarity also makes them unlikely to be reported. The methodology being developed for collecting more information from public transport users will also help to build local knowledge and encourages the co-creation of solutions and measures, possibly inspired by international examples, this is considered to be an important new aspect of this work as the transfer of knowledge appears weak, and many users think that this is only an issue in their city due to the local context.

The final outputs from this work, and that will be undertaken in the second phase are two-fold. On the one hand, international guidance, principles and a simple tool kit will be developed that can help guide policy-makers to better understand this issue, identifying what help develop and implement measures to address it with the objective to improve security for all. A second objective is to help build knowledge networks and capacity at grass roots community level, so women can be better informed on what is feasible and possible to do to address security and how to engage positively with decision-makers to co-create solutions. It was noticed from the literature review that there was little evidence on transfer of knowledge between cities or regions and in the majority of cases external consultants undertook the work. However both objectives link to the ultimate objective of increasing sustainable transport (following the UNECE definition) where all dimensions need to be addressed in varying degrees and according to international and local imperatives.



METHODOLOGY

Literature Review

The Transport Research International Documentation TRID database was considered to be the most comprehensive as it covers all modes and disciplines of transportation, contains more than 1,090,000 records of published research has more than 156,000 links to full-text documents. Using the key words: gender; public transport/transit; rape; sexual assault; women; violence; incident; bus; metro; bus stop; and rail station a total of 135 hits were recorded on TRID of which 27 were considered to be suitable. This included several compilations of conference proceedings. Further searches for published and grey literature were undertaken and included if the contents were deemed relevant. At this point the only English or French publications internationally and only English ones from the Latin American region were considered. However it is thought that this will be more robustly addressed as the project progresses.

This overview of the research also showed up how polarised the approach to women and gender issues were. A number of major reports, in particular those that included visions of sustainable transport in the future did not consider the gender dimension and we were not able to locate any major ones that included gender in scenario projections. For example the World Business

Council for Sustainable Development (WBCSD) flagship report on their vision on mobility 2030, the word gender appeared once and the word women appeared twice, with the first instance on page 158. As women today represent more than 50% of those that use all types of public transport, not taking their needs into account while visioning transport systems into 2030 would seem to encourage developing transport systems using the same paradigm as we do today, inducing more 'Business as Usual' approaches to planning than providing transport systems adapted to the needs of the majority of the users.

It was also interesting that while reviewing work done by the multilateral banks, it was not easy to identify reports that dealt with gender and sustainable transport as a broad topic or highlighting work that had been undertaken at project level generated by the various (and sometimes excellent tool kits such as the one from the Asian Development Bank and the World Bank) that are available. Consequently it was difficult to understand where gender sensitive policies had been successfully implemented in projects and if this knowledge was transferred within the development community. It is expected that this will be more fully investigated.

Media Review

The media review used the similar key words to the literature review for an international Google-based search. Obviously there is a lot of information available via the web and it was considered best to focus on the media in a number of key countries that had also been identified as they had from the literature search or there was a known programme or measure being undertaken. In addition only internationally reported articles could be collected.

In the table below the various hits per key word combinations and the time spent per suitable link are indicated. The extent of the coverage of this issue on the Internet is considered to be too large to be able to

properly investigate and in some cases local languages were needed. Indeed uniquely from 'rape, public transport India 1,050,000 results were found. It would certainly appear that this topic has more coverage in the media than in science.

However, the Thomson Reuters Foundation (in partnership with Yougov.com) surveyed 15 of the world's largest capital cities¹⁹ and New York as the city with the highest population in the United States in 2014. They collected information from women on:

- Levels and frequency of verbal harassment
- Levels and frequency of physical harassment

TABLE 1: HITS PER KEYWORD COMBINATION FOR THE MEDIA REVIEW

Keywords	Number of Results
Safety; women; transport	About 150,000,000 results (0,53 seconds)
Women; safety; public transport	About 292,000,000 results (0,55 seconds)
Women; safety; security; public transport	About 121,000,000 results (0,55 seconds)
Women; security; public transport	About 234,000,000 results (0,60 seconds)
Women; safety; cycling	About 41,700,000 results (0,58 seconds)
Women; safety; cycling; security	About 2,740,000 results (0,55 seconds)
Women; transportation; sexual harassment	About 1,640,000 results (0,83 seconds)
Women transportation violence	About 64,100,000 results (0,63 seconds)

- Feelings of safety about travelling at night (or after dark)
- Public responses
- Confidence in the authorities
- Levels of Safety in the City (generally)

The order of ranking of the cities surveyed with Bogotá, Colombia being in first place i.e. the place where women felt **least** secure.

1. Bogotá, Colombia
2. Mexico City, Mexico
3. Lima, Peru
4. Delhi, India
5. Jakarta, Indonesia
6. Buenos Aires, Argentina
7. Kuala Lumpur
8. Bangkok, Thailand
9. Moscow, Russia
10. Manila, The Philippines
11. Paris, France
12. Seoul, Korea
13. London, UK
14. Beijing, China
15. Tokyo, Japan
16. New York, USA

The media search threw up some interesting actions that had been undertaken as part city-based rather than transport-based actions. The first included identifying cities that have chosen to take part in the 16 days of activism against gender-based violence associated with the UN International Day for the

Elimination of Violence against Women (November 25th)²⁰.

UN Women is also documenting cases of sexual harassment and violence against women and girls in public spaces via its Safe Cities Global Initiative but to date we have not been able to find out much of their findings. Three transport related activities were found Safe City Programme²¹. In 2012 the “Marrakesh: Safe and Friendly City for All” programme began interventions to develop, implement, and test a local Safe City approach to respond to sexual harassment and other forms of violence in public spaces against women and girls and in March 2015, a new partnership was made with a private bus company ALSA. With the agreement of bus and taxi drivers, they will be offered training and agree to let awareness raising videos on sexual harassment be broadcast on the buses’ screens.

In 2013 the Bangkok Mass Transit Authority (BMTA), with some 3 million commuters per day using 3,509 buses, implemented a training and awareness raising campaign to prevent sexual harassment on public transport. The BMTA identified seven forms of sexual harassment that takes place on public buses, which include inappropriate touching, indecent exposure, staring and pestering. The training aims to recognize sexual harassment in its various forms and teach employees how to handle it in an appropriate manner without endangering them or putting other passengers at risk; and passengers are also being encouraged to be vigilant and to intervene when they see anything.

In August 2014, the city of Cape Town, South Africa agreed to increase the safety of women and girls in public places, especially when accessing public transport. The city committed to conducting a pilot study in Atlantis, a town within the city boundaries but one that has significant security issues, and to improve safety at the Cape Town Bus Rapid Transit (BRT),

MyCiti, bus stations and buses. The third example comes from North Africa and was announced this year (2015). In Morocco, a national survey conducted by the High Commissioner of Planning in 2009 reported that over 63% of women living in urban areas said that they had experienced some form of violence in public spaces, including on public transport, in the past year.

Developing and testing a methodology to gather more information

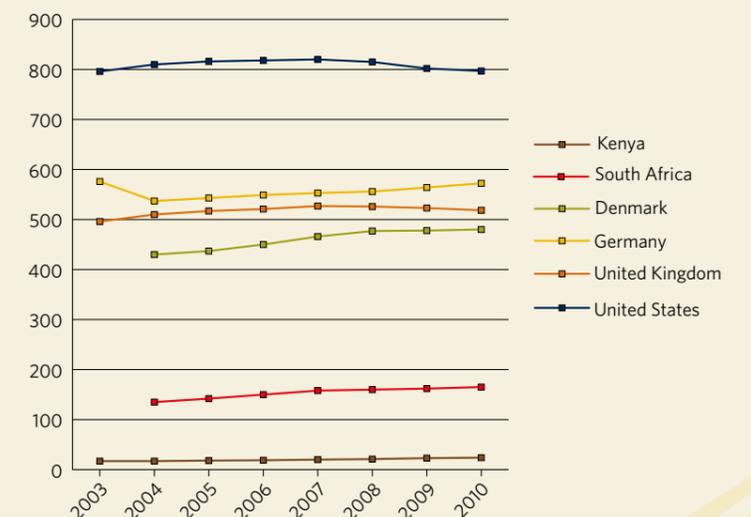
One of the objectives of this study is to develop a methodology that could be used in a variety of locations and the data collected could be comparable. From the published work, it is clear that there is a number of studies and reports available but they are not able to present a unified picture of the scale and scope of the issue internationally and the measures tend to be local. This means that there is a risk of duplication and policy makers are not able to be guided by international best practice to develop and co-create suitable bottom up solutions and increase their understanding of this issue without high levels of investment.

Cape Town, South Africa was chosen as a suitable location for testing a common approach and methodology. Chapter 2 of the South African

Constitution Bill of Rights focuses on the equity, dignity, life and freedom of all citizens with a specific mention on the freedom of movement (<http://www.justice.gov.za/legislation/constitution/>). It further elaborates that everyone has the right of security, which includes being free from all forms of violence (from either public or private sources), not being tortured and not being treated in a cruel, inhuman or degrading way. It also specifies that everybody has the right to bodily and psychological integrity.

Dignity and equity in the transport system starts with opportunities (financial and otherwise) to use the various modes of transport. In South Africa, the potential for women to drive a vehicle is very limited, due to the low license rate. Only 9.8% of the female population has a driver’s license, compared to 13.3%

FIGURE 1: PRIVATE VEHICLE OWNERSHIP PER 1,000 INHABITANTS (ABSOLUTE)²²

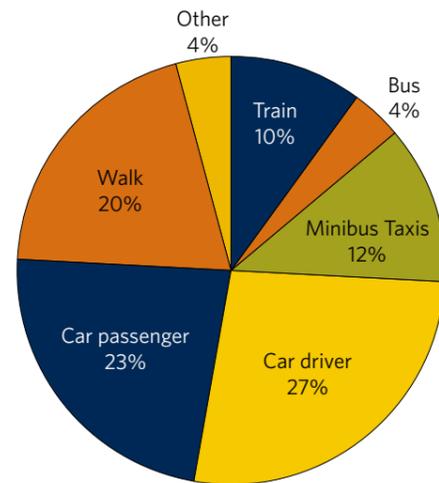


male license holders. For every female driver license holder there are 1.36 male driver license holders. In comparison, the percentage of driver licenses per population in the different US states varies between 58.0% and 86.4%²³. Traditional differences in the percentage driver licenses between males and females used to be 1.3 (in 1970) in the US. Now, the percentages are almost identical, this is similar in much of Europe with female new licence holders growing faster than male.

Equity in transport is frequently related to private vehicle ownership. A typical World Bank Development indicator is private vehicle ownership per 1,000 inhabitants. In Figure 1 the reader can find the vehicle ownership for a selection of countries. Although vehicle ownership in South Africa is low it is growing quite fast. Despite vehicle ownership numbers being considered an indicator for the development of a country, it does not answer the question as to whether these vehicles are distributed equitably over the different sections of the society.

Although vehicle ownership has increased in South African households, the majority of people still have no access to private vehicles and, therefore, have to use (formal or informal) public transport or walk/

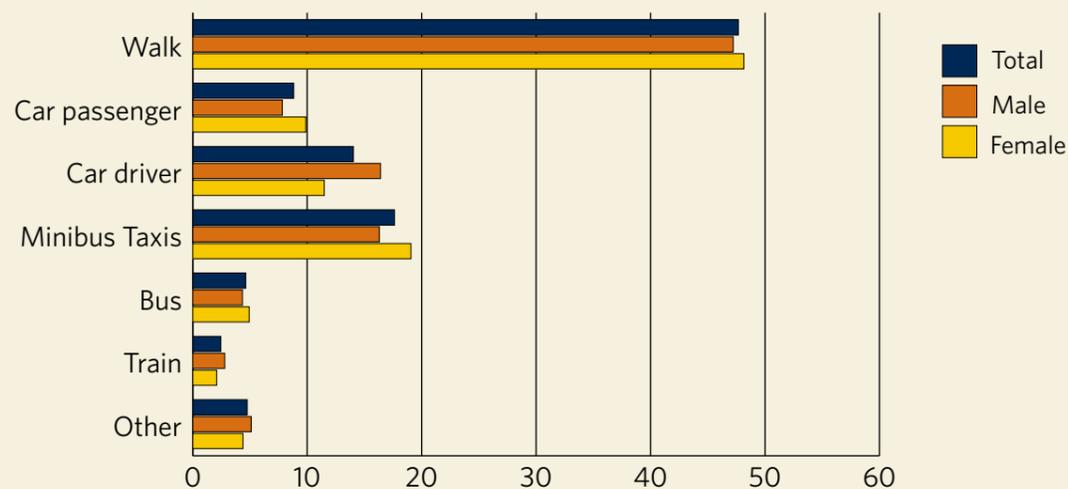
FIGURE 2: MODAL SPLIT FOR ALL TRIPS IN CAPE TOWN (%)



Source: Calculated using the South African NHTS²⁴, 2013

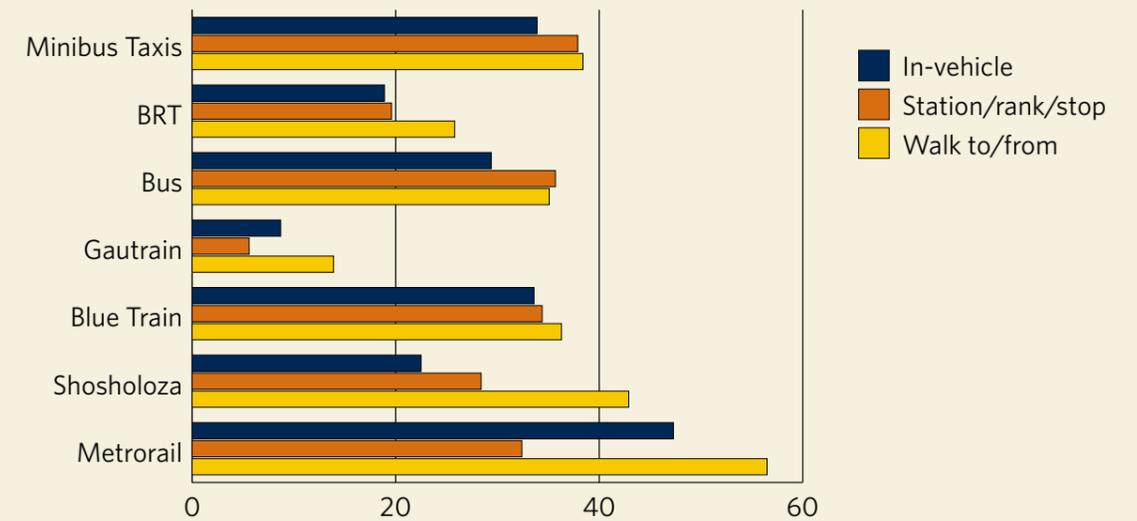
cycle. Figure 2 gives the modal split for all trips in Cape Town from the 2013 National Household Transport Survey (NHTS, STATSSA, 2013) survey.

FIGURE 3: GENDER DISAGGREGATED MODAL SHARE OF TRIP SEGMENTS FOR SOUTH AFRICA (%)



Source: Calculated using the NHTS (STATSSA, 2013)

FIGURE 4: HOUSEHOLDS HEAD'S UNHAPPINESS WITH PUBLIC TRANSPORT IN CAPE TOWN (%)



Source: Calculated using the NHTS (STATSSA, 2013)

In the Cape Town region, 26% of all trips are made using public transport, i.e. 12% of all travellers use Minibus Taxis (MBTs), some 10% of trips are made by train and bus accounts for 4% of all trips in the region (see Figure 2).

As has been found in many other countries, especially in the developing world, males have more access to private cars, making females more dependent on public transport and walking (including, having to walk to the public transport station/stop/rank considered to be the most risky part of many journeys). Figure 3 shows the mode split at national level in South Africa.

A total of 16.4% of trips were made by males as a car driver, while only 11.5% of trips by females. Females use Minibus taxi services and buses more than men (20% over 15%) of trips, while men use the train slightly more.

In the NHTS, questions about the level of satisfaction regarding train security levels were asked. This included four national train services:

1. **METRORAIL:** Metrorail, operated by the Passenger Rail Agency of South Africa (PRASA)

is a commuter rail service in the major urban areas of South Africa. Metrorail is responsible for 2.2 million trips daily (38% at the Witwatersrand/Gauteng, 30% in the Western Cape, 15% in Tshwane/Pretoria and 13% in Durban).

2. **SHOSHOLOZA MEYL:** Shosholoza Meyl, also operated by PRASA, is a long distance rail service in South Africa that provides economy and tourist class services, departing daily except Saturday.
3. **BLUE TRAIN,** operated by TrainSafaris, is a combination of a train and a luxury hotel. In tourist documentation it is advertised as a 'rail cruise'.
4. **GAUTRAIN²⁵:** The Gautrain is an upmarket 80-kilometre long mass rapid transit railway system in Gauteng Province, which links Johannesburg, Pretoria, Ekurhuleni and OR Tambo International Airport. It was built to relieve the traffic congestion in the Johannesburg-Pretoria traffic corridor and offer medium and high income commuters a viable alternative to road transport.

TABLE 2: HOUSEHOLD HEADS THAT ARE (VERY) UNSATISFIED WITH SECURITY ON TRAINS (%)

Issue	Metro	Shosholoza	Blue train	Gautrain
Walk to/from station	56.5	42.9	36.3	13.9
Security at station	32.4	28.4	34.4	5.6
Security on train	47.3	22.5	35.6	8.7

Source: Calculated using the NHTS (STATSSA, 2013)

In the NHTS (2013) household heads were asked security questions regarding the trip to/from the public transport stop/rank/station, at the stop/rank/station and in the vehicle. Figure 4 provides a summary of the responses by people living in Cape Town. On average 30% of them are (very) unhappy with security levels related to public transport; the local service, Metrorail, is clearly perceived as the public transport mode with the highest security risk, while Gautrain is seen as the safest public transport service. Minibus taxis (MBT) generally have less formal routes and more frequent stops and walking to and from them was seen as being as risky as travelling in them²⁶. Most public transport services are seen as being safer when inside the vehicle, while the ingress and egress part of the trips is mostly perceived as having the highest security risk.

Based on the NHTS database 2013, household heads report that they are (very) unsatisfied with the walk to/from public transport (35.6%), when waiting for the public transport vehicle (27.7%) and whilst inside the public transport vehicle (27.8%).

Household heads were also asked security questions regarding the trip to/from the station, at the station and the train. Table 2 provides a summary of the responses. Again walking to/from train stations is cause of the most security concerns 56.5%, followed by the security in trains (47.3%).

The South African population clearly worries about personal security and is not satisfied generally with the security offered in relation to rail services while walking to/from the station exposes travellers to the highest security risks, even the luxury Blue Train suffers from this. For Metrorail more than 50% of travellers indicated that they are (very) unsatisfied. However, Gautrain security is viewed better, and access to and from the stations is thought to be less dangerous.

It should be noted that these walking distances are, generally, shorter and are within the close environment of the stations, which are themselves high quality and the ingress and egress modes are car, taxi, shuttle and planes²⁷. Security personnel are visible at all stations and on the trains on the Gautrain. This clearly increases the satisfaction of travellers – only 5.6% of travellers are (very) unsatisfied at the stations and 8.7% on trains.

Other South African rail services do not provide a visible security personnel presence and the unsatisfactory percentages in Table 2 confirm this. Although no direct comparison was made between train security in South Africa and elsewhere, the fact that tourists, which are the target market of the Blue Train, are unsatisfied with security levels, is an indication that security standards of South African rail-based systems is most likely worse than international best practice levels.

South Africa has two types of formal bus systems within cities, traditional city bus services and Bus Rapid Transit such as MiCiti (Cape Town) or Rea Vaya (Johannesburg) with dedicated trunk routes and feeder systems. Using the NHTS 2013 statistics the dissatisfaction of household heads was analysed (see Table 3).

TABLE 3: HOUSEHOLD HEADS THAT ARE (VERY) UNSATISFIED WITH SECURITY ON BUSES (%)

Issue	Bus	BRT
Walk to/from stop	35.1	25.8
Security at stop	35.7	19.6
Security on bus	29.4	18.9

Source: Calculated using the NHTS (STATSSA, 2013)

It is clear that South African bus systems have a security issue for both men and women. Almost 1 in 5 household heads are (very) unsatisfied with the security levels on the BRT buses and at the stops. For the walking trip to/from the stops, 1 in 4 household heads are not satisfied with security levels. For the traditional City bus services, dissatisfaction among household heads is at least 10% worse than for BRT.

Regarding Minibus Taxis (MBT), 38.4% of household heads indicate that they are (very) unsatisfied with security levels when walking to a MBT stop/rank. Some 37.9% indicate being unsatisfied with security levels at the ranks, while a total of 33.9% of household heads indicate that security levels in the vehicles are not satisfactory. This was in part confirmed by the interviews carried out in Cape Town for this study.

In the 2013 NHTS survey 20% of the female population indicated that they did not travel during the 7 days prior to the survey. Of this, 44.1% said that they did not have the need to travel, while 12.3% gave financial reasons for not travelling. Only 0.2% of the female population indicated that the security risks in the transportation system are a reason for not travelling. However, in the same NHTS (2013) 6.2% of females that did travel, indicated that crime is a major concern when they are travelling and for 2.4% crime is an influencing factor when choosing a transport mode. Females also indicated that they feel exposed to a security risk when travelling with public transport. Some 6.0% of females indicate that MBT services are not secure, while 4.1% of females indicate that trains generate more of a security risk, and only 1.2% of females feel exposed to a security risk when using city buses.

The percentages displayed above appear low as they do not indicate that there is a security issue in the South African transportation system, which is not supported by information that city and operators receive. The NHTS (STATSSA, 2013), unfortunately, only provides information about security levels on a household level with household heads being asked about mode specific security. Although there are also an increasing number of low-income households that have single women (employed and unemployed) as household heads (Van der Walle 2015), in the majority the household heads in this survey were male. In Cape Town only 38% of heads of households are female.

The information from the national survey has been useful in defining the overall trends and perceptions about personal security, but it was clear that this

did not provide information that would assist policy development or generate any change to a business as usual approach to transport policy or planning. From this, it was concluded that in order to better understand the issue with a view to developing guidance for policy development, more in-depth information should be explored via moderated focus groups and a more targeted survey with train users. The following issues were identified to be included in the discussion focus groups and survey questions:

1. The perception of personal security on the different modes of public transport.
2. The kinds of harassment that can be experienced and the level of their impact on those that experience them (including being a victim or observing an incident).
3. The extent (scope and frequency) of this behaviour.
4. Physical areas of highest concern (to/from public transport, at station/stop/rank or in public transport vehicle).
5. How respondents react, what strategies they use to reduce the risk and manage their level of concern.
6. Explore if the concerns are based on facts/evidence or are emotionally driven.
7. Key drivers: e.g. affordability, overcrowding, time and distance.
8. How assistance is requested, from whom, who is responsible for security and what works best (visible security (technology or human presence), segregation (women only spaces), panic buttons, grass roots support/actions).
9. Trust/ confidence in grievance systems and assisting authorities.
10. Perception if harassment happens elsewhere.



INITIAL FINDINGS

It is fully recognised from literature that the mobility patterns of women and men are often quite different. Women are still the main users of public transport. In Europe at least two thirds of public transport users are women (Duchène, 2011). Women more frequently need make more complex trips that require them to change, divert, and break their journeys to pick up children, make errands, shopping or take on other family obligations and the majority of their trips are shorter than men's. Occupation has a big influence on the route purpose, which differs strongly between unemployed people and people who work full or part time and between men and women. The complexity of women's travel patterns tends to become more pronounced if they are employed. In addition, more women hold part time jobs than men, and with this comes flexible hours or shift work. In some places, men are beginning to take up a higher share of household duties or help more with looking after children, but it is still women who carry most of the burden of childcare especially in the developing world.

These differences are quite well documented, however, the gender component of studies or surveys still appear to be underutilised in policy development and transport planning. Overall, it can still be said that women's needs are not taken fully into consideration in the transport planning process especially public transport – it is therefore not yet possible to think that transport planning is 'gender neutral'²⁸. However in a few cases where this has taken place it seems to be quite successful. For example some public transport routes in Bangladesh serving an area of factories where the majority of workers are women were revised and the bus stops put nearer the factories. This meant that more women could take up employment and the employers did not need to put on extra staff transport whilst in other locations factories frequently provide their own staff transport so women can work. This can be worthwhile for employers as they can pay women workers less than men. But as previously mentioned from research in Latin America and the Caribbean, there are not many examples of pro-poor, gender sensitive transport planning.

Most trips can be characterised by being:

- Livelihood-related (for agriculture, markets, employment).
- Service-related (such as accessing health care, education, other services).



- Household-related (for example daily shopping, family errands, water/firewood supplies etc.).

Overall women are less mobile than men (Babinard & Scott, 2009) as men control mobility choices in many societies – from transport planning to dominating car / motorcycle ownership and in some societies to giving permission to women to use transport (especially at certain times of the day). It is also well documented that women and girls experience harassment (sexual and otherwise) when they use public transport or during their daily commute to work or school, in some cases this is linked to societies where gender inequality is greatest, but this behaviour nonetheless occurs everywhere.

Unwanted behaviours may range from the relatively mild to the very serious. These include, but are not confined to lewd comments, catcalls, innuendos, sexual invitations, threats, ogling/leering and staring, being followed or photographed, displaying pornography, exposure, unwanted sexual touching, masturbation, frotteurism and rape (Project Guardian, 2013; Shoukry, Hassan & Komsan, 2008). Sexual harassment and assault on all forms of public transport is also an international daily occurrence. Overcrowding or isolation may enable sexual offending. For example, crowded, enclosed rush hour conditions on public transport vehicles may facilitate rubbing against a girl or woman and conversely women may be also be vulnerable when public transport is largely deserted or stations are isolated.

Women are not only more likely to feel insecure and vulnerable to attack and harassment but to be more affected by it than men are, which can in turn restrict their travel even more. A number of studies have demonstrated that women develop safety strategies for travel by either restricting the places they go to and/or the times they travel - women's travel patterns were strongly influenced by the need to avoid danger (Potgieter et al., 2006). Although the work by Potgieter (Potgieter et al., 2006) focused on rural South Africa, it is assumed that travel patterns in urban areas are also influenced by the fear of danger, i.e. the security risk.

Women's travel patterns and decision-making about transport choices

Women's mobility needs are significantly different from men and literature shows that women are usually more concerned about personal safety, security and quality of service and that they interpret these in a different way to men. Areas and service levels that may be acceptable to men are less so to women for a variety of reasons (see Table 6 Transportation Settings where (British) Women and Men Feel Unsafe After Dark).

It is also clear that socio-cultural norms impact women's ability to travel outside the household and its close surroundings. In Pakistan (Adeel M. et al 2014), in Mexico or in many parts of the Arab world these borders, especially in the evening or in some cases may only travel if accompanied by a male member of the family. Work done in Pakistan showed that not only are there are significant mobility gaps between men and women across the country but that these mobility differences are much greater when urban/rural differences are considered, and female freedom of mobility is often restricted more in the countryside. There was not enough evidence to make any conclusions if this changed if women were more economically active (such as in farming or small holdings). In addition women are restricted as to whom they can sit next to (another woman but not a man) but they may sit opposite a man. However in Kathmandu, Nepal where 83% of women work outside the home, it is also recognised that women need to be mobile.

In the developed world it seems that women (as education levels and incomes increase) are travelling

In today's world, women's mobility and their access to health care, employment, education and social interactions should not be hindered by greater concerns over personal security than those experienced by men. In this respect, 'women' and their experiences may be also used as a proxy for reflecting the experience of several other social groups included young adults, older members of society and those that are vulnerable or disadvantaged. Tilly, for example, notes that discrimination against specific categories of people is also a major threat to democratisation (Tilly, Charles 2007).

more and using public transit less. However not everyone has easy access to a car and a study on social inclusion in 2004 found that nearly every fourth household in Canada, France, Germany and the United Kingdom did not have access to a car and relied on public transport. Elderly people, people with special needs, women and ethnic minorities are also less likely to have a driver's licence and more likely to live in a household without a private car. An in-depth analysis of the effects of local accessibility on social exclusion was carried out in the United Kingdom in 2003 (Lucas 2004), which showed that a lack of transportation was a barrier to employment for 38% of jobseekers (men and women) and that 1.4 million individuals did not seek medical help because of transport problems (over a twelve month period).





Crime and harassment on public transport

Feeling unsafe while using public transport is nothing new and crime on public transport has been well documented for many years. However much of the literature does not include a gender perspective and focuses on the crime aspect (for everyone); or only on issues that mainly concern women (e.g. sexual assault), so it has not been easy to understand the petty crime aspect rather than investigations into more serious incidents such as rape. Petty crime may nourish an impression or emotional reaction to fear about travelling that needs to be understood better, as it is usually more difficult to deal with using technology, or a rational solution.

A public transport trip does not occur in isolation. The three key parts of a transit trip where increased or decreased feelings of fear can strongly affect whether someone will make the decision if the trip is 'worth taking' or not are:

- Walking to, from or between transport facilities or stops (walking from departure point e.g. home to a taxi rank or back; from a taxi stop to a bus station; from a train station to destination point e.g. workplace or back).
- Waiting at boarding points and facilities (e.g. taxi/bus stops, train/bus stations, modal interchanges etc.).
- Travelling on board a mode of transport such as a bus, train or taxi.

All of these areas can be perceived differently by men and women and their interpretation of satisfactory levels of personal safety are likely to be different. The

study therefore included these three areas of interest when developing the questionnaires and focus group guidance.

Women's use of public spaces is also often affected by some form of harassment (Elsherif & Belding, 2015), and this frequently corresponds to the routes people use to access public transport there is a direct link. Fear about crime and petty theft are often the most worrying aspects of this part of a public transport journey.

There is a lot of documented evidence that refers to the UK or the United States on crime and public transport. For example a study by the UK Home Office (1996) found that in the 1990s, one in eight women surveyed mentioned that they felt so unsafe on public transport that they avoided using it. In addition, 10% of the woman in the UK felt 'unsafe' or 'very unsafe' waiting on a railway platform in the day, compared to 53% at night (Root et al, 2000).

More recently, research has found that around 15% of women and girls in London have been subjected to unwanted sexual behaviour on the London transport network, the vast majority of which goes unreported (Transport for London, TfL 2013a). Unwanted behaviours cover a wide spectrum and may include anything from being stared at, being propositioned or followed, photographed, touched, exposed to or even raped. Being a victim of such behaviours has a psychological impact and may result in women and/or other members of vulnerable groups being too afraid to use public transport.

It should also be noted that transport affordability is largely connected with the affordability of other basic needs, such as housing (Lau, 2011; Welch, 2013). According to a recent United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) study urban mobility systems in the region of Latin America and the Caribbean are frequently not planned from the perspective of meeting the routine needs of the poor, and at best may be designed with an awareness of issues of transport equity such as affordability or minimal levels of access (Grieco, 2013).

According to UN Women, women continue to earn less, have fewer assets, bear the burden of unpaid work and care and be largely concentrated in vulnerable and low-paying activities. Women spend more than twice as much time on unpaid care and domestic work as men, and women on average are paid 24% less than men globally for the same work. Moreover, 75% of women's employment in developing regions is informal and unprotected. These gaps constrain women's rights and hinder economic growth and productivity. Scaling-up actions and political will significantly are required to invest in the economic empowerment of women for the benefit of whole societies²⁹.

It is also well known that the poor often spend proportionally more of their income on transport and housing. If women earn less this means that their

transport spend is also lower, frequently choosing to spend more on food rather than on transport. In largest a recent study of a number of low-income areas in Karachi, Pakistan found average monthly incomes to be between US\$ 25-42 (Urban Resource Centre 2001). 70% of household heads (male and female) interviewed spent between 10-20% of income on transport services. Another study in three low-income settlements in Dar es Salaam, Tanzania found that the overwhelming reason to travel was for livelihoods. Household surveys found that in Mabibo (8 km from the centre), 20% of income was spent on bus costs; and in Charambe (20 km from the centre), 14% of income was spent on bus costs (Kombe 2002).

In India progress of women participating in the work force is shown. In Delhi the Female Work Force Participation Rate (WFPR), stands at 5.8% against the urban India average of 13.8% and the national average of 25.6% of women and 51.7% of men in the workforce (Morgan 2014). However, the reported WFPR only covers the formal workers and women employed informally (without contracts), or on temporary or part time arrangements, are not counted.

However, concerns about personal security affect women's travel decisions more than men's in all countries, and probably are more important to them than affordability. Women's travel issues are now recognized to greater or lesser extent around the world, but they still have limited policy traction.

TABLE 4: REPORTED VIOLENCE AGAINST WOMEN IN PUBLIC TRANSPORTATION (2008). SURVEY BY CONEPRED³⁰

While using public transport in Mexico City have people...	% women answered Yes
Directed offensive/disrespectful words to you about your gender?	63
Stared 'sexually' at your body?	74
Touched or manhandled you in sexual ways?	48
Touched their genitals or masturbated in front of you?	36
Pushed their body against yours in a sexual manner?	73



There is a growing body of evidence on gender-based harassment in the developing world. Studies on this issue are available from a number of cities in Asia, Africa and Latin America. Kathmandu (Nepal), Mexico City (Mexico), Bogotá (Colombia), Cape Town (South Africa) and there are numerous national and international initiatives that have been designed, and/or are being implemented.

Unfortunately, it has been more difficult to identify rigorous evaluations with before and after measurement of crime/reported incidents or randomised control trials to provide evidence of whether such initiatives really achieved their aims. For example Project Guardian in London, England, it is arguably one of the most comprehensive programmes aimed at reducing unwanted sexual behaviour on public transport in the world with numerous measures implemented. However, it has not been formally evaluated, so it is not known to what extent it has achieved many of its stated aims (Bates 2013 & 2015 and Gekoski 2014).

In Kathmandu, Nepal, (Gender and Public Transport, World Bank 2013) about one in four (26.5%) people noted personal insecurity, when asked what were the main problems in taking public transport. Women were twice as likely to mention personal insecurity than men (30% compared to 16%). Both men and women noted they felt the most insecure in overcrowded situations (37% and 54% respectively), which matched the level of their feelings of insecurity after dark. However feelings of insecurity have not worsened over the last

five years as may have been suggested in the media. Around 72% of transport users irrespective of gender indicated that they feel a medium or less sense of insecurity currently compared to five years ago. Kash (2014) describes the underlying fear of sexual assault in Bogotá and Arequipa, Perú as being 'palpable' yet invisible to men.

Other examples include a survey of 200 female commuters using the metro in Baku, Azerbaijan, found that eight in ten women (81%) had experienced sexual harassment (Rapid Assessment of Sexual Harassment in Public Transport in Baku Metro Rail, Asian Development Bank Policy Brief – a safe public transportation environment for women and girls (2015)) and 78% of women in Karachi, Pakistan had felt harassed or uncomfortable while using public transport (ADB 2015). 66% of women commuter surveyed had experienced sexual harassment on public transport (Mistra-Sarkar et al 2011). An online survey of 1,790 New York City subway passengers found that 63% of respondents said that they had been sexually harassed in the subway system and 10% said they had been sexually assaulted (Stringer, 2007). On the other hand only 45% of female metro users in Tbilisi, Georgia felt this way.

In the World Bank report 'A gender assessment of Mumbai's public transport' (2011) – personal security was not the most worrying aspect of travel for poor women (it should be noted that Mumbai is considered to be a 'safe' city and that there women also enjoy a far higher level of mobility than in many other Indian cities). In addition a "Ladies Special" train and ladies carriages

were introduced on the Mumbai Suburban Railway as early as 1992). Many cities in India are looking into this issue – Delhi has introduced a Safe Delhi Campaign launched in 2004. Recent work by WRI EMBARQ in Bhopal showed that 51.4% of women interviewed felt they had to face sexual harassment while using public transport and 49% of men had witnessed women being harassed. This study also confirmed a difference in valuing safety and security – as 21% of women respondents used personal safety as a criteria for choosing their mode of transport while only 10% of men used it. On the whole men also spend more on their transport than women and this was confirmed in the WRI Bhopal study. Women in Delhi chose the bus because it was cheap although they had the possibility to use the metro.

The level-of-fear has many consequences and ultimately impact public transport ridership. A typical "cycle of fear" can be built up in which crime on public transport leads to increased fear, which in turn results in fewer people using it. Women in particular tend to self-restrict their mobility creating a vicious circle (Dunckel Graglia A., 2014), where they in turn also felt somehow responsible for this behaviour and became more willing to accept other restrictions (usually imposed by men). Fewer people using the system means less other passengers on platforms and bus stops, on the vehicle and less guardianship from other passengers during the trip as well as reduced allocation of resources by the transit agency to security as overall revenues decline (Smith and Clarke, 2004).

TABLE 5: EFFECTS OF SEXUAL HARASSMENT ON RESPONDENTS' USE OF PUBLIC TRANSPORTATION

Have the incidents you experienced affected your use of public transport?	Overall	Baku, Azerbaijan	Karachi, Pakistan	Tbilisi, Georgia
Yes	162 (37.4%)	48 (29.6%)	95 (52.8%)	19 (21.1%)
No	270 (62.5%)	114 (70.4%)	85 (47.2%)	71 (78.9%)
Total	432 (100%)	162 (100%)	180 (100%)	90 (100%)

Source: ADB Policy Brief: A safe public transport environment for women and girls 2015

There are many things that can influence the real or perceived perception of a safe transport system. For example, the physical design of the different components of the public transport system also have a substantial impact on levels of safety as well as feelings of vulnerability. Certain environments can impart a feeling of safety, while others can induce fear, even in areas where levels of crime are not high. The form and character of the built environment as it relates to public transport can be of great significance as the local setting of a crime, either increasing or reducing opportunities for crime (using Universal Design principles or Jacobs, J. (1961)). Jacobs emphasized in her famous work in urban planning how the design of the built physical environment, including good sidewalks, public spaces and neighbourhood stores may help in protecting the inhabitants from crimes, partly by creating public spaces providing by more 'eyes on the street". Nevertheless, it seems

investments in design aimed at improving traveller's perceived security are seldom evaluated in such terms.

A high quality transport system that is safe and secure is the first (of seven) policy objectives mentioned in the European Commission's Communication on the Future of Transport (European Commission, 2009) and it has been 'a priority' for the European Commission since then. Authorities in many countries in Europe and in North America have integrated women's concerns about insecurity in their national transport policy. For instance, the Swedish transport policy states that the transport system should strive to become more secure, contribute to a gender-equal society and stimulate public transport use and walking (Ministry of Enterprise, Energy and Communications, 2009) and Transport for London produced its first Women's Action Plan in 2004, stating their wish to provide a public transport system that meets women's



needs in terms of greater personal security, flexibility, accessibility and affordability. Yet from the current review of literature progress seems slow.

Dunkel-Graglia (2013) views gender-based violence in Mexico City as a cultural issue, with public transportation being characterised more by masculine behaviours. More men are involved in service provision activities; hence, women are expected to adapt rather than expect the services to be designed for their needs, despite using it more than men! In addition, as mentioned, there is evidence that men underestimate the extent and impact of harassment. This was clearly demonstrated after a safety audit of the city in 2011 by a Washington based civil society organization, whose findings suggested that there was not enough being done by the transit authorities to address gender-based harassment. However the spokesperson of the Washington Metropolitan Transit Agency, WMATA, testified to the city council that it was “not really a big issue” and the Metro Police Chief dismissed leering and staring as not being ‘criminal’ (Freed 2012).

This misperception was also picked up in recent work by WRI’s EMBARQ in Bhopal India. Almost all the drivers and conductors interviewed felt that women being harassment was not a prevalent issue in Bhopal. Also 30% of drivers and conductors interviewed believed that women were equally responsible for harassment committed against them.

It can be said from these and other studies that much of the harassment that matter to women is invisible to men. Most men working in public transport display and unconscious bias that it is safe for women, those

not in the sector may observe that it is not safe but not that the issue goes beyond individual and unfortunate incidents. In the Bhopal study it was encouraging that a large number of the male respondents expressed willingness to undertake training to become gender sensitized and were interested in being trained to handle situations of harassment in the most effective manner. This may imply that they were aware of it taking place but felt that it was not acceptable to mention this behaviour.

It is also clear that this is not a new phenomena but something that has been going on for many years. Transport for London (TfL) started looking into this in the early 1990s and TfL’s Mobility & Inclusion Unit did some excellent work, but with the pressure on the public purse around 2005, this unit was disbanded and the expertise seems to have been lost to some extent. Most recently (TfL 2013) passenger surveys showed that 1 in 7 female passengers aged over 16 have experienced sexual harassment on London’s public transport network in a period of 12 months. Another passenger safety and security survey in 2013, found that 15% of Londoners had experienced unwanted sexual behaviour on the transport network but that 90% of these incidents went unreported. Data shows that the number of sexual offences on the British rail network is also increasing. From the research undertaken in the Ile de France (the greater Paris Metropolitan area) in November 2014, a study found that 94% of 150 women interviewed had been harassed in some way. Women were also clearly are the victims of most of the sexual assaults reported on buses and school transport, but there are more reported cases of men being assaulted on French trains³¹. Although this sample cannot be

considered representative for a city the size of Paris, it stimulated a campaign to ‘Take back the Metro’ and allowed women to clearly say ‘enough is enough’ and has generated policy change.

It is also clear that this behaviour is not confined to systems in the developing world, despite their appearance of being less ‘organised’ and systematic, compared to formal mass public transport systems although it can be said that from this research there were fewer documented incidents from small or mid-sized cities in the developed world. One example is Lille, a medium sized city in Northern France where a study showed that there was a higher probability that men would suffer from violent crime than women but that women suffered more from sexually related crimes and harassment (Palmier 2014).

Much of the research indicates that women are at greatest risk from sexually related offences while

men suffer from violence, while both suffer from petty crime and theft. In the developing world women tend to suffer quite extensively from petty crime because they have more packages and belongings. When travelling with luggage (as many women entrepreneurs do), they also suffer from discrimination while travelling and are more likely to be asked to leave the minibuss taxi, despite having paid their fare, because they are taking up more than one person’s allocated space.

As women need to be able to use all types of public transport safely – formal and informal – it is important to ensure that both the authorities and transport operators (all modes) recognise the needs of women from all walks of life. The findings of this work attempts to position the topic of personal security and gender as a possible new approach to achieving many other socio economic and cultural goals, rather than unique addressing this as a security issue.

Underreporting of incidents

It would appear that many incidents are not reported, and here there is little distinction between the developed and the developing world (i.e. this goes on everywhere) and there is some evidence to suggest that there may be a growing rather than diminishing culture of violence towards women using public transport. It is difficult to properly be able to compare this between cities as levels of acceptability differ between cultures. In addition, statistical evidence is patchy. Statistics on reported incidents are frequently lodged in different agencies with the city administration. In some cases formal public transport has its own security staff, in others it may be the traffic police, city police or the agency itself. This has led us to develop a methodology that looks at understanding the role of an effective

grievance mechanism in the reporting process rather than looking at the incidents themselves.

For example, between 16 December 2012 and 4 January 2013, Delhi police recorded 501 allegations of harassment and 64 of rape, but only four inquiries were launched. However, it appears that the “Nirbhaya” case has had an effect on the willingness of rape or molestation victims to report the crime; police records show that during the final nine months of 2013 almost twice as many rape victims filed a police report and four times as many allegations of molestation were made. Although not all are associated with public transport use this indicates generally a level of under reporting of all sexually related assaults. This was confirmed in the work done by WRI EMBARQ in Bhopal (2014) who also found that the majority of cases went unreported as the women themselves felt ashamed.

High rates of non-reporting were found internationally: in New York it is estimated that 96% of sexual harassment and 86% of sexual assault, on the subway goes unreported (Stringer, 2007); in Baku, Azerbaijan, none of the 162 out of 200 women who reported having been sexually harassed on the metro reported it to the appropriate authority (Jafarova et al., 2014); in Egypt, of 1010 women surveyed, only 2.4% of the 83% of Egyptian women and 7.5% of the 98% of foreign women living or travelling in Egypt, who





had experienced sexual harassment in a public place reported it (Shoukry et al., 2008).

TfL conducts quarterly Safety and Security surveys, involving 1,000 telephone interviews with Londoners aged 16 and over, and includes nine questions about unwanted sexual behaviour, harassment, and assault on public transport. Between April 2012 and January 2013 the vast majority of victims – 89-98% – did not report incidents to the police or to TfL (Twyford, 2013). Similarly, when 130 women who had all experienced some such incident, were interviewed about the barriers and triggers to reporting unwanted sexual behaviour, only one had reported it (TfL, 2013a).

There appear to be numerous reasons for non-reporting, the most common of which include:

- the incident not seeming serious enough or worth reporting;
- the victim ignoring/not being bothered by/moving away from the behaviour;
- thinking that the authorities would not take the report seriously or would do nothing about it;
- fear being accused of provoking the harassment
- not knowing who to report it to;
- being unable to remember the exact details of the perpetrator and/or thinking they would not be caught;
- not wanting to make a fuss or being embarrassed;
- shame;
- being scared/frozen at the time;
- and the behaviour having become normalised (Twyford, 2013, EMBARQ Bhopal).

Reasons for non-reporting can vary between countries with differing levels of gender (in) equality. If women see the police as a threat rather than an ally they will probably not make it. If the complaint has to been

made to a male rather than female police officer they feel compromised talking about such things with unknown men. In addition in many place there is a perception that although it is not acceptable, it happens and is part of life, and is a risk that women must take (Jafarova et al., 2014, p3).

Women may also fear a scandal or stigma attached to speaking out (Fahmy et al., 2014), or feel that they should keep quiet to protect self or families' prestige. This is especially the case in strong faith communities. Overall this maybe slowly changing, especially as technology can help to provide secure and 'impersonal' ways of reporting incidents. It can also be used to help to map out 'hot spots' where incidents are more likely to happen so women can avoid them and police can provide better security.

Interviews carried out in Cape Town showed that if there was a robust grievance procedure and people felt that action would be swift and 'not backfire on you'; people were more likely to report incidents even if they were not criminal. For example on both the minibus service and the city bus (Golden Arrow GABS) people are aware of the procedure to complain. Drivers in the minibuses take more care as most of them belong to a cooperative and if there is a complaint to the central offices they risk being fined, or losing their job. On the other hand there is also a social norm that is created as the more careful drivers take the routes at the least risky times, as they prefer to have well behaved customers and may also decide to do less trips to avoid incidents. In addition, many customers are loyal to one or two drivers that drive their route with whom they may feel safe with and as they frequently take their transport at the same times each day, there is a daily routine that can become a safety net. If these routines are disrupted or break down, those interviewed expressed an increase in fear in using public transport.

The way men and women perceive levels of personal security differ

As women's higher level of fear of victimization and crime is usually not justified by statistics (shown by low rates of reported crime against women in public spaces and most of violence occurs at home), many male dominated transport planning agencies and operators tend to 'brush this issue aside'. This paradox has in their minds led to the conclusion that women's fear of safety is irrational and more of a problem than crime itself (Pain 2001) yet there is also increasing evidence of an unconscious bias towards assuming that all men are not fearful and all women are fearful about their personal security when travelling or using public spaces.

In France the same number of women as men are victims of reported incidents of injury or assault, however women represent the majority of sexually associated cases of violence, whilst males are in the majority of serious assault cases. From the research in Ile de France (the wider Paris region) women are the victims of most of the sexual assaults reported on buses and school transport, but there are more reported cases of men being assaulted on trains³².

Women's fear for their safety and that of their children is often amplified by media accounts and the sensationalisation of crime that may occur in all walks



of life. However when they occur near home or when they hear or read about incidents on their own network³³ they usually express higher concerns than men.

Where women and men are most afraid also varies as seen in the following table from a study done by the Department for Transport, London, UK. This does not imply that men do not have concerns over personal security but that they interpret locations and environments differently. The findings are presented in Table 6.

TABLE 6: TRANSPORTATION SETTINGS WHERE (BRITISH) WOMEN AND MEN FEEL UNSAFE AFTER DARK³⁴

Women	Men
Walking in multi-story parking structures (62%)	Waiting on underground station platforms (32%)
Waiting on underground station platforms (61%)	Travel on the underground (32%)
Waiting on train platforms (60%)	Walking in multi-story parking structures (31%)
Travel on the underground (60%)	Waiting on train platforms (25%)
Walking from bus stop or station (59%)	Walking from bus stop or station (25%)
Travel on Train (51%)	Walking in surface parking lot (21%)
Walking in surface parking lot (51%)	Walking to bus stop or station (20%)
Waiting at bus stop (49%)	Waiting at bus stop (20%)

Source: Department of Transport

MAIN FINDINGS FROM INITIAL FIELDWORK IN CAPE TOWN, SOUTH AFRICA

Using the information from the literature review and the analysis of the South African 2013 NHTS, a draft methodology was developed and tested. This included holding two moderated focus discussion groups, stakeholder and informal interviews and a survey of some 300 rail travellers (mainly commuters). This field work was undertaken in November 2015.

Key learning from the focus groups included:

1 Recruitment criteria

It was easier to recruit unemployed women to take part in the focus groups as they had more time – however it was also noticed that they may choose to use or not use public transport while working women tended to be captive riders. Commuting usually takes place at the times when public transport is stretched and overcrowded – presenting more opportunities for harassment and crime. Busy women are also less likely to report cases. A solution for this will be considered in the next phase.

2 Key learning from the survey

The survey was implemented over the day and included both men and women, but it was clear that the questionnaire was too long at first. Short precise questions that can be answered in less than 5 minutes are required.

3 Key learning from the informal interviews

Informal interviews delivered good information about strategies that women (and to some extent school children) implemented regarding security. Both passengers and drivers were interviewed at a transport hub and this provided interesting insights. For example

the passengers tended to choose to use a particular driver who they knew (and who may also live in their neighbourhood) and only used another one if they deviated from their usual route or time of day. They usually met up with the same fellow travellers on a daily basis so everyone knew each other (including the driver); and this created a feeling of trust. The passengers knew and trusted the system of complaints if something was amiss – and felt confident that action would be taken. Drivers were also aware (and were generally less enthusiastic about an ‘effective’ grievance system as they could lose their job from one day to the next (and the Minibus taxi cooperative owners usually believed the passenger – as from their perspective it was easy to get another driver but less easy to replace a loyal passenger). On the other side, drivers also avoided driving the minibus at times when they do not feel secure – from those that were interviewed, they preferred to work less i.e not to take the evening shifts or at night and to start earlier in the morning as ‘there was less funny business’.



4 Key learning from the other stakeholder interviews

A short questionnaire was prepared for interviews and the information gathered was found to be quite valuable in terms of framing the questions and prompts for the focus groups. In general transport operators and city planners struggled with understanding how best to address this issue although they recognised it as being important and that they needed to address it. Changes to transport planning that may appear logical on paper can present new security threats. For example in Atlantis, a suburb of Cape Town, where the BRT stop had been located in a more logical place in respect to the MBT stop which was much closer to a transport hub leaving the next stop considerably further away. However this meant that the BRT stop was not near the church (as desired destination) but near a bar and was of particular cause for concern for women.

Overall the above points will be further elaborated in the second phase of the study and it is expected that more in-depth experience from social scientists will be drawn on. In addition the following aspects were noted as being of importance in the guidance for the preparation of collecting comparable data from a number of cities.

- i) There are many influences on personal security and it is not easy to be able to comprehensively cover all aspects that influence it. A ‘best available’ approach with more detailed insights that can be analysed against other international studies is considered to be the most valuable approach.
- ii) Local knowledge is key to unlocking potential. This can provide useful data (as in the case of the South African NHTS) to avoid duplication of work and information and also provide insights to local issues that may provide bias to the way questions may be answered. In addition, there appear to be few civil society groups that have a holistic understanding on sustainable transport – many focus on one or other aspect (such as increasing cycling, road safety etc). This may hamper women from properly being able to take part in stakeholder processes (for example a remark, echoed by many, was made at the focus group that ‘no one had talked to them in such terms about transport and it had ‘got them thinking...’).



- iii) Avoid initial unintentional bias from focus group participants – the questions and interview guidance need to be presented in such a way as to draw out information rather than present a premise that needs to be validated (that public transport poses security threats). Concerns about personal security and the forms of harassment should come from the respondents rather than by asking a direct question. Care needs to be taken in providing guidance and the setting up the questionnaire(s) in this respect.
- iv) The focus groups need to be moderated by a trusted person. Harassment in all its forms is sensitive and it is recommended that women be used for the majority of the data collection and focus group moderation, including the survey. Participatory methods (in the form of games) can be useful in ensuring that everyone can share experience otherwise more confident females can dominate the focus group discussions).
- v) Men and women should be included as the study as this provides useful insights to the level of understanding and cultural aspects, that can be helpful in identifying solutions.
- vi) As far as possible all stakeholders should be included in formal or informal interviews – the planning/city authorities (via interviews with key managers and security officials); operators, drivers and conductors; passengers; local actors in key locations such as transport hubs/stations and women’s/ civil society/ grass roots players.

These aspects have been noted and will be integrated into the collect of comparable data from other cities.

MEASURES AND SOLUTIONS

There are numerous solutions that have been put forward and from the research these have been grouped into three main areas:

- Physical solutions – these include physical changes to the travelling environment, designated space for women and infrastructure improvements;
- Technology based solutions – these include anything that has a technology aspect, including the introduction of CCTV; the use of smart phones; the internet and social media solutions; panic buttons, help lines and public announcements etc;
- Awareness Raising and training – all sorts of different media campaigns, signings of MOUs, training of staff to respond better, increased presence of security, patrolling, better coordination with the police. There are also several examples of the creation of partnerships with grassroots women's organisations, community centres and establishing 'Ladies Grievance Centres'.

Physical solutions

There are two main areas of focus for improving personal security through physical interventions. This relates to the transport infrastructure itself as well as the access or egress infrastructure, part of the whole journey or last mile approach.

There are three main environments to consider

- The walking environment;
- The waiting environment;
- The en-route/ in vehicle environment.

Infrastructure can be improved by implementing some simple levels of quality. Other types of physical solutions include integrating Universal Design Principles and other good practice to ensure that the infrastructure does not encourage undesirable behaviour.

There is a new generation of crime prevention actions through environmental design (CPTED). Studies have also contributed to a shift from looking at solutions that can be applied at the mezzo scale (city neighbourhoods) and micro scale (urban block or specific place, such as an intersection, interchange, train

station or even bus stop). Loukaitou-Sideris et al, 2001 had a similar approach by distinguishing these into concepts of places and space as settings for crime. A place refers to a small area (a street corner, intersection or building) that reflects and affects the activities of its users and may impact a specific criminal event or conflict; spaces include space around transport hubs, major stations, car parks etc. There are numerous schemes such as the British Transport Police secure station scheme that encourage safer station design.

See-through fencing rather than solid walls and dark/ poorly lit under or over passes with clear sight lines between, for example, the ticket office and the platform. Well-lit areas and well-maintained environments certainly help to create the perception of safer environments. Therefore sufficient and appropriate lighting would play a critical role in and around public transport facilities (as mentioned in the Saftipin research in 8 Indian Cities).

Several studies have found that darkness, isolation and desertion have a negative impact on the perceived security. To be more precise such factors are:

It is obvious that there is a fourth – policy – but as our focus has been to find practical and applicable solutions that can be put in place in the majority of cases, we have chosen not to focus on this aspect. Any overarching policy goal must be to provide safe and secure access for all, not just for women. There are many examples of city-wide policy packages that look to integrate a gender element better in to planning and policy development. This often starts with a gender impact assessment. Seoul Metropolitan Government (SMG) introduced the Women Friendly City Project in 2007-2010. It tried to view the city 'through the eyes of women' and some 90 projects were put in place and developed a set of guidelines and toolkits as well as a 'Women friendly certification mark'. SMG felt that if they took this approach the whole city would become a better place to live. Others have also tried to put programmes in place such as Safe Delhi and Safer Nairobi, Kenya, as part of UN-HABITAT's Safer Cities Programme. A number of these programmes include community actions but few focus only on transport in this respect.

station or even bus stop). Loukaitou-Sideris et al, 2001 had a similar approach by distinguishing these into concepts of places and space as settings for crime. A place refers to a small area (a street corner, intersection or building) that reflects and affects the activities of its users and may impact a specific criminal event or conflict; spaces include space around transport hubs, major stations, car parks etc. There are numerous schemes such as the British Transport Police secure station scheme that encourage safer station design.

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- A mix of different functions, e.g. housing and services
- A mix of socio-economic groups
- A well-integrated transport system, for instance enabling walkers to be seen by drivers, and enabling secure transfers between bus or train lines.
- Long sight lines along pavements (no ill-placed bushes)
- Walkways visible from nearby buildings
- No confined spaces to entrances and courtyards
- No poor light conditions The above listed factors all improve the chance of being seen, of seeing and of escaping, which thus seem to be key factors for perceived security.

Unfortunately, there are few rigorous evaluations using before and after measures of crime/incidents or randomised control trials to provide evidence of whether such initiatives achieve their aim.

What is considered to be sufficient and appropriate will also vary according to the local context and specific conditions. The levels of lighting (lux), the type of light source (globe), the positioning thereof (high-level masts, LED) and other requirements will depend on a number of factors. Defining factors include in whose interest it is to install new or better lighting and who will own and pay for it. In addition, the level of lighting needs to be carefully planned. If the lighting of a bus stop is significantly higher than its surroundings, it can create

a feeling of insecurity as the people waiting can feel that they are in a type of 'gold fish bowl'.

Further considerations such as whether the light source is environmentally friendly, and connect to closed circuit television (CCTV), how vandal proof it needs to be as well as the financial implications of the design, installation, operation and maintenance of it would need to be taken into account. London for instance has some 18,000 bus stops across the capital to manage. It is difficult to know how many there are (formal or informal) in places such as Dhaka or Lagos. When one tries to understand the scale of applying technical solutions to this issue it becomes clear that these will provide part of the solution and efforts should also be made in engendering cultural change.

The segregation of passengers is seen in some cultures to be a solution, however it does not address the underlying issue that this is unacceptable behaviour. Women-only coaches in the subway or trains have appeared in Brazil, Bangladesh, Egypt, Japan, India, Iran, Indonesia, Israel, Malaysia, Mexico, Taiwan and the Philippines. A well-known example is Japan where they have been in place for more than 100 years. Separate cars for male and female students were introduced in 1912 on Tokyo's Chuo Line and all-female streetcars were running in Kobe from 1920. They ran on the Chuo Line as late as 1973. However a survey in the late 1990s resulted in more than 4000 cases of



sexual harassment/groping and by 2004, the Tokyo police reported a threefold increase in reported cases of groping on public transportation over eight years. The majority of cases (+50%) took place in the capital. Three rail operators reintroduced women only carriages from 2000 and in 2002 carriages for women were introduced on the Osaka subway. 'Women-only' buses have now also been introduced also in Japan, but we have not established if they are a success or not.

Surveys on how effective these schemes in Japan are available (Mineta) and it was found that the number of reported cases of lewd behaviour against women dropped in Tokyo by about 3% one year after the introduction of women-only wagons. The number of arrests on JR East's Chuo Line and Keio Corp's Keio Line, both linking eastern and western Tokyo rose, however, by 15%-20% depending on the line³⁵. These results could indicate that more reported incidents of sexual harassment even in the mixed train cars were made from women victims. In terms of use, more than a third of the Japanese women surveyed (35.9%) never used women-only wagons, while 46.5% used them "sometimes," 13.2% used them "usually," and only 3.8% "always" used them.

Several cities have women-only bus services. In Mexico City there are 22 buses, with pink signs on the front to distinguish them, serving 3 different busy routes (www.springwise.com, www.nytimes.com). Three years after the introduction of the Viajemos Seguras (Women travelling safely) programme in 2008 the numbers of reported sexual harassment cases reduced from five to one. A few years ago Pakistan introduced 'women-only' bus service to help tackle the problem of physical harassment of the female travellers. The 'women-only bus' could be identified by a pink stripe along the bus. However the buses require male drivers but they have female conductors (<http://www.pakpositive.com>). Dhaka, Bangladesh has trialed women-only sections in buses (Rahmen S., 2009). The trial was partially

successful as women who used the service were more satisfied and comfortable but as a section of seats were reserved for women only use in a regular service, this caused resentment from men in the overcrowded male section of the bus, and the demand is not high enough to run women only services. Women passengers usually prefer to have a female conductor and stated that it would be better to provide the female bus driver and female conductor for the 'women-only' bus service.

Dubai (RTA) first introduced a women's only bus service in April 2009 but abandoned it soon after for similar reasons. It has 12 reserved seats for women on regular buses but this is not considered satisfactory as 12 seats are quickly filled up and then the bus drivers did not stop to pick up more women passengers because of non-availability of seats, so in the end they were further disadvantaged by this service rather than helped. However the authorities are re-thinking this and have announced a relaunch a new 'women only' service in April 2016. The downside that this will only be on one route and its success or failure will determine if they continue with this initiative. This would be the first women only bus service in the UAE. The RTA introduced women only carriages on the Dubai Metro, which are not physically separated but separated by a cord. In general the metro is not yet overcrowded and there is respect for this segregation culturally. However a lot of tourists and Westerners use the service and report that there is no stigma to them not sitting in the women's carriage (if they are female).

Women-only taxi services are in operation in many cities in Russia, called 'Pink Taxi' and in service since 2006, in UK (called 'Pink Ladies') from 2006, in Dubai from January 2007, and in Iran (www.springwise.com). In Delhi, there have been taxi services uniquely for women such as ForShe Taxis and Sakha Cabs since many years.

In addition there are several examples of policy-based solutions such as in Montreal and Toronto (Canada) and Curitiba (Brazil) where buses are 'allowed', when requested by a women between certain hours (at night) to make a stop and let her off between official bus stops. This is also being trialed in Delhi, India.

In most cases separated carriages or special seating allocated to women for security, and not cultural, reasons are viewed as been temporary solutions that do not address the underlying problem. Indeed to some extent they are confirming that women should not be allowed to travel freely and need special attention. In the United States, train operators have reported that the women only carriages could result

in 'reverse' discrimination, which has also been seen in other places, especially if there is overcrowding. There are media reports of a similar backlash in Bogotá, where women only transport was condemned as a superficial 'fix' that aimed to 'protect women: *'Segregating them because prosecuting men or expecting them to behave like normal human beings would be too much work'* (Jaramillo 2014). Men's opinion of the women only carriages in Mexico City was also not positive.

Technological solutions

There has been a lot of work done on the technology-based solutions to address the feeling of insecurity of all passengers possibly highlighted by the voice of women in this context. Some of these are showing a lot of promise.

Typical interventions include:

- CCTV & Panic buttons (in vehicles, on platforms or at the bus stops);
- Smartphone apps where women can share their experiences, report incidents, track passengers, and create maps with hotspots where these incidents happen such as HarassMap in Cairo, Egypt
- Websites such as 'Hollaback' website in London and New York and elsewhere allow women to report when and where they were harassed of any kind (not just those related to transport trips). This allows the authorities to see zones where women may be a more risk over others.
- Social media in general (Bogotá, Colombia has implemented a fairly successful campaign and as transit networks build a social media presence this is likely to increase as a useful strategy).

One excellent example from outside the transport sector that has been used to increase the perceived (or real) security of areas where women may have to use public transport to or from is the Indian based 'Safetipin' app. A free app introduced in Delhi in 2013 and can be downloaded from the App store or Google play³⁶. It measures nine parameters including lighting, the state of the walking environment/ pathway, as well as the presence of people and specifically women on the streets being extra 'eyes on the street'. Each audit appears as a pin on the map and is used to compute the Safety Score. Data was collected in recent survey in 8 Indian cities: Delhi, Kochi, Trivandrum,

In Pune, India only 2% of women sampled in a survey in 1996 thought that women-only buses were a good idea. However the same survey mentioned much more support for single sex carriages on commuter trains. The Thompson Reuters poll in 2014 that surveyed some 6,300 women world-wide found that seven in ten women would feel safer on a single sex areas of a train or bus - this is not quite the same a totally segregated services. However in London 45% said that they would feel safer in women only carriages on trains.

Calicut, Pune, Chennai, Guwahati and Jaipur and 800 individual audits has been collated.

HarassMap³⁷ has been used in Egypt to collect information on offences that take place in public spaces, including on or around transport recently celebrated its five years of existence. Via a website, victims are encouraged to anonymously document incidents on-line and the data is then compiled to give the authorities and the public hot spots which could be avoided or better patrolled. People's stories are published on social media so there is a better understanding of the types of incidents occurring and the victims are offered legal, medical and physiological support. In its first year the HarassMap (2012) web site had 88,851 visits and 239,821 page views.

Hollaback³⁸ started in 2005 as a blog in the United States and has now grown into an international internet platform for addressing harassment in public spaces with more than 30 countries and many more local chapters. It builds on the simple concept that the Internet is actually the largest global public space and it can be used to build a community who feel empowered to address this issue. They have identified that the real



motive of harassment is intimidation – and making a target scared or uncomfortable helps to make the harasser feel powerful.

By documenting, mapping and sharing incidents of harassment it was found that ‘power’ is shifted to the victim rather than the perpetrator. ‘Harassment on the Street’ or in public places frequently requires the victim to remain silent in order not to escalate the unwanted behaviour. Hollaback allows the victims to become more confident and to take control as they have a course of redress. HeartMob is their first online platform to tackle harassment by providing real-time support to individuals experiencing harassment and gives bystanders indications of concrete actions so they can take to step in and help with confidence³⁹. Users who report harassment have the option of

keeping their report private and cataloguing it in case it escalates, or they can make the report public. If they choose to make it public, they can choose how they want bystanders to support them, take action, or intervene.

They have also undertaken one of the largest studies on harassment with Cornell University (2015) with some 16,600 interviews in 22 countries. The study included asking the age at first experience of harassment, type of harassment experienced, behavioural changes as a result of harassment, and emotional effects of harassment. Overall 80-90% of women had been harassed in public with the first incident happening between the ages of 11 and 17; with little or no real differences between developed or developing world countries as can be seen in this graphic.

However, incidents (such as groping and being followed) impacted the majority of victims, by lowering their self-esteem and in some cases inducing depression. From their website where stories are shared many incidents occur when women are experiencing one or other component of their trip, such as entering or leaving a station. However from anecdotal evidence few transit agencies⁴⁰ are aware of this platform despite its international context and large following, highlighting how polarised work on harassment frequently is.

In Myanmar, Burma an anti-harassment campaign entitled ‘whistle for help’ was launched in early 2012 (Verbruggen and Geloski 2014). Every Tuesday morning 150 distinctly dressed (purple tee shirts with a large picture of a whistle) distributed leaflets and whistles at eight busy bus stops in the city of Yangon. The leaflets asked women to blow the whistle if they experienced any sexual harassment while



riding the bus and also other passengers to go to their assistance when they heard anyone using their whistle. The campaign lasted for 9 months and led to the introduction of women only buses. The campaign was praised for its use of humour and allowing this subject to be discussed openly.

FIGURE 5: RESULTS OF HOLLABACK RESEARCH ON STREET HARASSMENT IN 22 COUNTRIES (2015)



Source: Hollaback website

Awareness building solutions

Awareness building advertising campaigns – or public service announcements (PSAs) – grassroots actions and community outreach, awareness campaigns, and demonstrations about sexual harassment and assault on public transport broadly help to raise awareness and disseminate information to both women and men, victims and offenders and start a public conversation.

More specifically such campaigns can be used to:

- encourage women to report incidents and ‘speak up’;
- ‘spell out’ and bring clarity what types of behaviours are unacceptable;
- attempt to change male attitudes towards sexual harassment and assault;
- inform the public about initiatives to reduce such behaviour;
- appeal for witnesses to come forward more readily; and
- in some case publicise pictures of suspects.
- The culture of no/zero tolerance as is being promoted in many US networks can be useful in this respect.

Some large cities have recognised this and there are good examples of different interventions in the USA in Boston, New York and Washington and other places around the world such as Bangalore (India),

Curitiba (Brazil)⁴¹, London (UK), Paris (France) and Mexico City (Mexico). In Boston it was found that this behaviour was associated as much with gender as ‘those that might be different’ (especially in terms of being gay, lesbian, religious or cultural). Typically awareness campaigns about respecting people’s personal space that is targeted at both male and female have been put in place. London’s Project Guardian⁴² on the other hand is focussed more specifically on safe travel for women and has had some success in addressing this issue on the Transport for London services.

In New York just over a third (35%) of passengers surveyed thought that increased police presence would be the best way to reduce sexual harassment and assault in the subway system (Stringer, 2007). Similarly, a study exploring women’s safety in transport environments through interviews with representatives of women’s interest groups found that the majority would like to see more security guards and staff patrolling transport settings (Loukaitou-Sideris, 2014). More ‘eyes and ears’ on the street was also cited as being helpful to increase the sense of greater security and this could be achieved by having small businesses or cafés located close to bus stops. It goes without saying that locating bars or cafés selling alcohol or places that would only be frequented by males is not considered to be helpful.

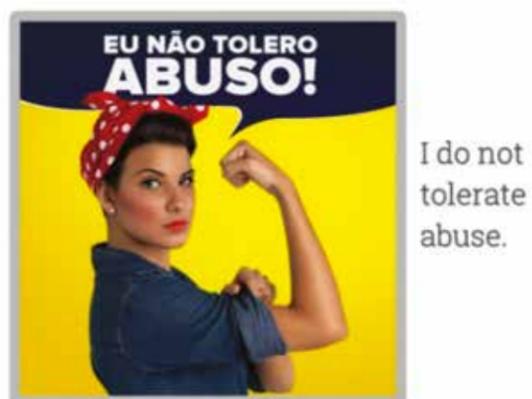
Middlesex University undertook some interesting research⁴³ for the UK's Department of Transport, which looked at how to better understand precisely what works in reducing sexual offending on public transport. This work identified numerous useful international examples, yet solutions are often considered locally. Participants in the initial test focus groups in Cape Town when asked if they think that crime and harassment happens in other cities, most think this is not the case. Some of them have travelled in England, Switzerland and Ethiopia and they considered these systems, more or less, crime free and women can travel without being harassed, which is certainly not the case.

Sri Lanka trained a hundred young men as part of the S.H.O.W you care (Stop Harassment of Women) project. Although it was not specifically designed as a programme to reduce sexual harassment on transport, buses were used as the way to engage with the general public. More than 1000 buses and some 30,000 commuters reached during the week-long campaign. The young men publically apologised to the ladies travelling the buses for any sexual harassment that they might have encountered, and informed them of their right and the legal options available to them and also challenged male passengers to take responsibility and not to harass the ladies. As part of Mexico City's wider initiative to change women's mobility, INMUJERES - the federal institute for gender equality and equal opportunities for women - has run advertising campaigns throughout the city. As well as posters, billboards and bumper stickers read: 'It is our right to travel without fear'. A further campaign (2015) is presently rolling out an awareness raising campaign about tolerance and unacceptable behaviour towards women.



The city authority URBS in Curitiba, Brazil (Transforming Transportation 2016) is paying quite some attention to this issue. It has appointed a Special Secretary of Women's Policies and has implemented several measures to improve security including a long-standing campaign based on tolerance. It re-launched a poster and leaflet campaign on November 25th 2014 (International day against violence to women) targeting both male and females. It had almost immediate success with two girls reporting an incident that led to an arrest on that day as they 'felt that they should and could do so'. Since then a 127% rise has been seen in reported incidents and the number of arrests has also increased.

FIGURE 6: EXAMPLE OF FLYER DISTRIBUTED IN CURITIBA



In addition there are several successful examples of consumer forums or councils that look to identify ways to address the harassment of women on the network. One company in Kathmandu, Nepal has developed an affirmative policy to recruit women drivers and conductors (Sajha Corporation) and the Department of Transport together with the Traffic Police, the Entrepreneurs Federation and the National Women's Commission have developed a Code of Conduct (2010) to protect the rights of women, children, senior citizens and disabled persons⁴⁴. The Bangalore Metropolitan Transport Company (BMTc) surveyed their passengers in 2012-2013 and found that two out of three women travelling on their buses faced regular harassment (both physical and verbal) from other passengers, conductors and the drivers.

This led BMTc to initiate multiple actions:

- BMTc made occupying the reserved ladies seats by men a punishable offence (2014) with

- a fine of 11 lakhs. Some 11,013 men have been fined;
- Ladies Special Buses - operated for the exclusive use of women and children (both sexes). Currently 22 services focussing on the CBD area are in place and running at peak times;
- Training or personnel about their behaviour to women and a monthly campaign informing women what they can do if they experience harassment;
- CCTV cameras fitted on 500 buses and a Helpline number which can identify and prioritise emergency calls, linking them to the BMTc and the police mobile fleet to help send speedy assistance;
- Increased patrolling which monitors that the buses stick to the routes and stops and closer working with the BMTc police;
- Passenger Security/Women's Safety Committee

chaired by the Security and Vigilance BMTc Director and committee members include women officers from BMC, the local police, NGOs and women's groups. This forum allows discussions and defines actions to be taken to improve women's safety.

In some parts of India blacklisting drivers who have lost their jobs due to their behaviour towards women is becoming more common. This is not ideal as this information may not be available to another bus company, or they do not have the interest in checking and in some cases someone may have lost their job after being falsely accused. Better and more consistent standards for the engagement of drivers of any vehicle that is in public service could go a long way to help this. This could include basic levels of training and informing all drivers that this sort of behaviour is simply unacceptable.

SELECTED INTERNATIONAL EXAMPLES OF ADVERTISING CAMPAIGNS

Lambeth Council, London, UK launched a campaign called 'Know the Difference' targeted men's behaviour and attitudes towards women and unwanted sexual behaviour and offences. Aimed at street harassment generally, but including transport environments, posters and advertisements were prominently displayed at tube stations and bus stops, in addition to clubs, pubs, and men's toilets. The posters had different headlines - for example: 'Back to Mine. Back Off', 'Get it On. Get off Me', 'Flirt. Harass', 'Harmless Fun. Sexual Assault' - followed by the same central message: 'Real Men Know the Difference. And so does the Law'. At the bottom of each poster, it read: 'Rape and sexual assault are crimes. Sex without consent is rape. If convicted you could face up to life imprisonment as well as being placed on the Sex Offenders Register. One night out could lead to a criminal record for life, losing your job and respect from your friends and family!' The campaign won the silver award in the best community safety campaign category at the Local Government Communications Reputation awards and was adopted by the British Army.

Brussels, Belgium implemented an anti-harassment campaign, supported by local government agencies in Brussels, with the slogan: 'Touche Pas à Ma Pote!' ('Don't Touch my (girl) Friend!'). The campaign included posters with images of big yellow hands with the message written on them in pink, which were posted on trams for six months. The images were also featured on the outside of pink subway doors and men and women even wrote the slogan on the palms of their hands.

Several cities in the US have launched campaigns: Boston (2008), Washington and Chicago (2010). WMATA created a new email and web portal for reporting incidents in March 2012 and complemented this with a new campaign a month later. Many of these campaigns include images and messages that are targeted at a wider group of society than only women. Typical taglines include 'if it's unwanted it's harassment'; 'I'm not the one who should be ashamed'; 'Respect my space'; 'Keeps your hands off me' and 'Keep your privates private'.

In response to accusations by the press of not doing enough to tackle sexual assault on public transport, the Massachusetts Bay Transport Authority (MBTA), USA coproduced an anti-harassment advertising campaign with Rape Crisis. They launched a public awareness campaign – using large-scale posters across the transport network to encourage victims to report incidents to the police, emphasising that certain behaviour was not acceptable and would be treated seriously by the authorities. In 2013, the campaign was revived after numerous reports of indecent exposure and public masturbation on trains. The new posters, which were displayed on trains and buses, featured photographs of both men and women holding up their hands, pointing at offenders, and crossing their arms. Slogans on the posters included messages such as: ‘Respect my space,’ ‘Keep your hands off me,’ and ‘No means no.’ One poster, with the slogan ‘Keep your privates private,’ carried a warning against public exposure: ‘Want the whole world to see you? No problem. I can snap your photo with my See Something, Say Something app and send it to Transit Police’.

An evaluation of an anti-harassment advertising campaign was conducted by the MBTA who released figures indicating that in the four years after the launch of the campaign,

- the number of sex offences reported on the MBTA increased by 32%;
- the number of arrests for sex offences increased by 96%.

Further considerations

Having more women generally employed in transport is seen to help improve what is considered to be a cultural shift. It is clear that a greater diversity of professional competence profiles, in both women and men, are needed up-stream in transport planning and policy development. In addition women training to become employees in transport service provision such as drivers, ticket sellers and conductors can also help. It has been shown that overall women drivers are safer than men and take fewer risks. The SARTRE – Social Attitudes to Road Traffic Risk in Europe – survey found⁴⁵ that female drivers have a more positive attitude to traffic regulations and safety, overall commit fewer offences and are involved in fewer road accidents than men.

Women can become a linchpin of a region’s development strategy if gender sensitive policies and

FIGURE 7: PHOTO TAKEN JANUARY 2016 (AUTHOR’S OWN)



Washington DC is currently (January 2016) running a campaign on the subway and buses that clearly states that if it is unwanted - it is unacceptable. In most cases, the public responses to campaigns are positive and many are nominated and successful in being recognised and receive awards. There are numerous examples of successful campaigns that do not only target women but, as mentioned men are also vulnerable to assault, and these are often more violent than sexually motivated. However that is often where it stops and the campaigns come and go, popping up again after a major incident.

programs are in place. Economists who scrutinized East Asia’s success noted a common pattern. Many countries took young women who previously had contributed negligibly to gross national product (GNP) and injected them into the formal economy, hugely increasing the labour force. Some 80% of the employees on the assembly lines in coastal China are female, and the proportion across the manufacturing belt of East Asia is at least 70%. It can be said that the massive and swift economic development in Asia over the past few years was, in large part, due to the economic empowerment of women. The basic formula was to educate girls as well as boys, give the girls the freedom to move to the cities and take factory jobs, and then benefit from a demographic dividend as they delayed marriage and reduced childbearing. The women meanwhile financed the education of younger relatives,

and saved enough of their pay to boost national savings rates. This pattern has been called “the girl effect”.

For this to happen they need to be able to be mobile, yet it is likely that they suffer more from public transport inefficiencies, poor service levels and harassment (Violence against women VAWG Transport Brief World Bank et al 2015). Concerns over their travel options can result in missed opportunities (for employment

or education) or increase absenteeism and a loss of earnings. Furthermore, in Mexico City, women are becoming heads of households. In Mexico City, the VAWG report shows that 34% of women users of public transport were heads of household; and changes in marriage behaviour, family formation, health, and education have put upward pressure on females across Africa, with the result that the share of female-headed households has been growing (Van de Walle 2015).



CONCLUSIONS

We have been able to conclude that women all over the world are subjected to unwanted and uninvited harassment when using public transport and that this does affect their mobility. However, our findings also highlighted the complexity of scoping the issue. This behaviour is prevalent in public spaces in general but it would seem that public transport also provides more opportunity for it to occur. In addition, our findings strongly suggest (although it is expected that this will be further explored in the second part of this study) that this issue is widely under-reported. It has not been possible yet to establish what this is related to, to what extent social norms or levels of acceptability play a role or if this can be affected by policy intervention. It would seem from the literature review and from our initial findings in the focus groups that this can be improved if those affected feel confident that action will be taken and that the grievance process is robust and transparent.

Nonetheless, it appears clear that fear of victimization and crime on public transport is widespread among women, especially those that may be captive riders. Many women also feel helpless and victimised when it happens, and they suffer emotional distress. The fear of sexual, visual or verbal harassment exist in the back of many women's minds regardless of whether this fear is justified or not and generally it appears that women are more fearful of the travel experience than men.

The extent of this fear can be manifested by taking precautionary measures and strategies. These strategies range from the adoption of certain behavioural mechanisms when in public, the way they dress or behave, to choosing specific routes at certain times, making modal choices, and preferring certain transit environments over others, to deciding not to travel at all. However it is also suggested from the initial work and that of others that there is room for progress and women can respond better if they feel there are robust, adapted and sensitive routes of complaint.

Although poverty often influences mode choices, work in Cape Town showed that the security concerns also appear to influence public transport mode choice. Women (and girls) are physically

smaller than men and travel more often with children and shopping. This poses both a real fear of attack, trip disruption (if for example the minibus driver asks you to leave due to the amount of luggage) as well as a perceived security risk.

From these reviews the main conclusions include:

- women and girls encounter high levels of harassment, (both physical and verbal) almost everywhere in relation to using transport;
- incidents appear to be largely underreported by victims for a variety of reasons;
- men, although aware that this occurs, tend to underestimate the scale of this and have an unconscious bias that women should accept it as normal female/male behaviour and that women's behaviour encourages men to act in this way;
- walking to public transport stations is seen as being an especially dangerous part of the trip;
- levels of safety and security deteriorate on public transport with high levels of overcrowding (especially but not only in developing countries);
- "women only transport" should not be considered as a permanent solution to personal security issues;
- confidence in the authorities and how any incident report will be treated influences both how women feel about their personal security during their trip and the number of incidents reported;
- there is a wealth of knowledge available but little is being transferred between cities or countries and there is a considerable amount of duplication of efforts.

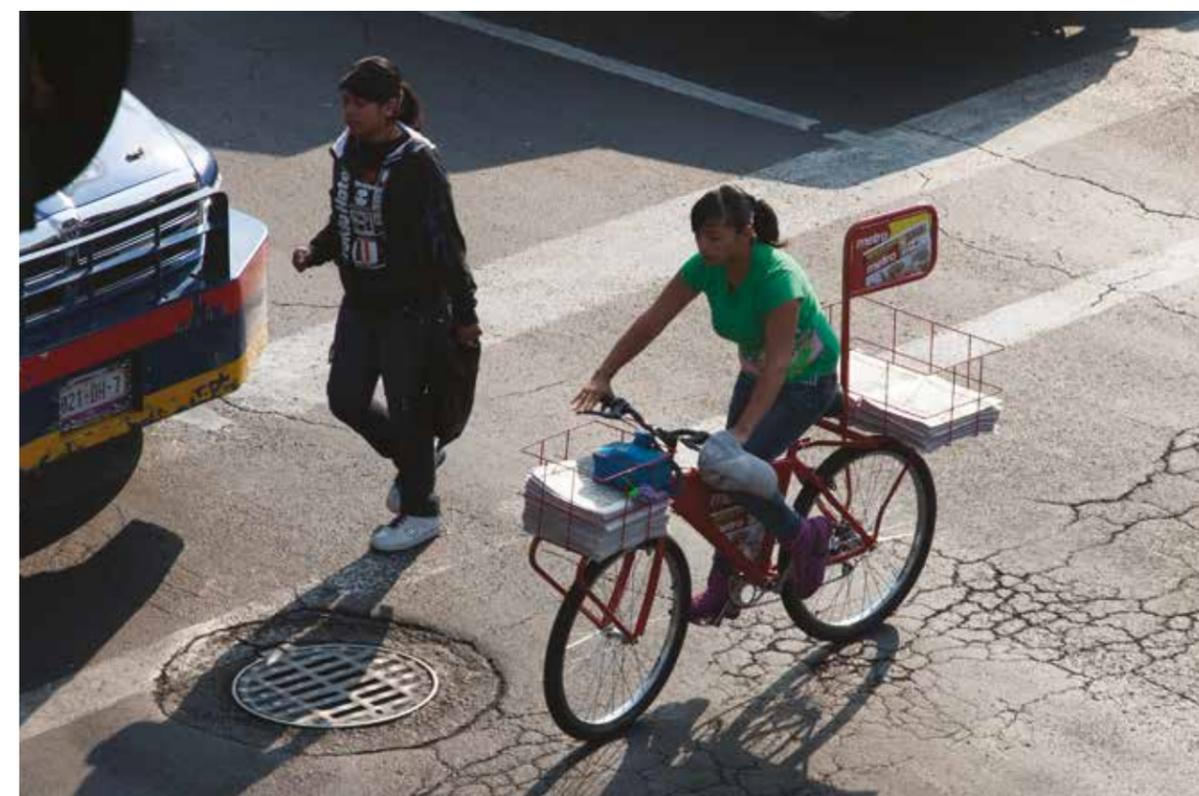
Women's personal security is, therefore, often compromised when using public transport for a variety of reasons. The main research question to establish if this is an issue that affects women all over the world has been answered positively. It is also clear that there are common themes to the concerns women have over personal security and that these are frequently different to those that men have. Further work will be undertaken to explore solutions and measures that can be developed to respond to this issue and to help create a more robust network of knowledge and evidence base.

Scoping the issue

- The international literature and rapid media review showed that it is very widespread and is not confined to poor service levels in the developing world but is a growing issue in the developed world as well.
- Both men and women suffer insecurity however there is a difference in the type of harassment typically encountered. Men suffer more for more violent physical assault, while women and girls encounter a wider spectrum of harassment ranging from 'acceptable' levels of visual or verbal harassment (cat calling, staring etc) to sexual assault such as rape.
- This behaviour is not restricted to passengers and there is also a growing number of transport/transit employees who suffer from antisocial behaviour. Although the study did not investigate this in any great depth, it would appear that this may be more prevalent in the developed world although it could be that there are more reported incidents. It should also be noted that the developing world has a far greater number of informal employees in transport, who may not be able to report incidents apart from those that require medical attention.

It can also be suggested that many men do it because they feel that they can 'get away with it' yet they know it is not acceptable behaviour. Many incidents occur in transport environments that are designed and planned by men, which can leave women feeling that they have to just adapt to them and accept this behaviour. Importantly there is also now a wave of interest to challenge these paradigms - from the highly visible new platforms (HeforShe) and panels (UN High level Panel) to international actions aligned to the international goals (such as the SDG and End Violence to Women) and more bottom-up actions (such as Hollaback and other PSAs).

This first project has allowed a large number of papers and reports to be reviewed and has tested the approach for further data collection. In addition, it has allowed discussions to take place with a number of representative bodies that would be interested in the final outcomes. This holistic approach to providing solutions and sharing knowledge is innovative and important.



FOOTNOTES

¹ Public transport for the purposes of this study includes all types of public transport services (formal and informal) and includes minibus services, shared taxis etc

² The term public transport includes mass transit, and all kinds of formal and informal public transport. In general public transport and public transit can be interchanged.

³ <http://www.businessinsider.com/why-women-use-public-transit-more-than-men-2012-2>

⁴ <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/EXTTSR/0,,contentMDK:21246915-menuPK:2970901-pagePK:210058-piPK:210062-theSitePK:463716,00.html>

⁵ <http://www.empowerwomen.org/en/circles/freedom-of-movement-and-womens-economic-empowerment/womens-mobility-in-public-places#sthash.hxTe17sT.dpuf>

⁶ ILO 2012 Global Employment Trends for Women, Geneva http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_190354/lang--en/index.htm

⁷ Lack of safe transport has been identified as a considerable constraint for women to be able to fully participate in the labour force for example in Pakistan source ADB 2015 Women in the workforce – an unmet potential in Asia and the Pacific.

⁸ <http://www.unwomen.org/en/news/stories/2016/1/wee-high-level-panel-launch>

⁹ <http://www.empowerwomen.org/en/circles/freedom-of-movement-and-womens-economic-empowerment/womens-mobility-in-public-places#sthash.hxTe17sT.dpuf>

¹⁰ ILO 2012 Global Employment Trends for Women, Geneva http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_190354/lang--en/index.htm

¹¹ Lack of safe transport has been identified as a considerable constraint for women to be able to fully participate in the labour force for example in Pakistan source ADB 2015 Women in the workforce – an unmet potential in Asia and the Pacific.

¹² Also the location of many call centres (BPOs)

¹³ UITP – International Association of Public Transport

¹⁴ There are many examples of this including: Civitas Smart Choices for Cities Policy Brief on Gender Equality and Mobility - Mind the Gap.

¹⁵ https://en.wikipedia.org/wiki/Violence_against_women

¹⁶ Art. 3 d, Council of Europe Convention on preventing and combating violence against women and domestic violence accessed from <http://eige.europa.eu/gender-based-violence/what-is-gender-based-violence>

¹⁷ The terms public transport and public transit can be interchanged throughout this report as the meaning is intended to be the same. Public transport includes all forms (formal and informal).

¹⁸ <http://www.health.vic.gov.au/agedcare/maintaining/countusin/inclusion.htm>

¹⁹ Cairo, Dhaka, Kinshasa, Tehran and Baghdad were not surveyed as they were not able to get the required samples

²⁰ <http://www.unwomen.org/en/what-we-do/ending-violence-against-women/take-action/16-days-of-activism#sthash.oM2t36UD.dpuf>

²¹ <http://www.unwomen.org/en/news/stories/2014/9/cape-town-safe-cities-partnership-launched#sthash.j5hQLNzM.dpuf>

<http://www.unwomen.org/en/news/stories/2013/11/bangkok-buses-move-towards-safer-commuting#sthash.6sDZ3ANy.dpuf> 11 June 2015

<http://www.unwomen.org/en/news/stories/2015/6/bringing-buses-on-board-against-sexual-harassment-in-marrakesh#sthash.wDJNpLMF.dpuf>

²² <http://www.indexmundi.com/facts/indicators/IS.VEH.NVEH.P3/>

²³ [http://www.fhwa.dot.gov/policyinformation/pubs/..](http://www.fhwa.dot.gov/policyinformation/pubs/)

²⁴ National Household Travel Survey, collected by the South African Bureau of Statistics

²⁵ The Blue Train and Gautrain are upmarket services and not used by much of the population due to affordability.

²⁶ Note from the informal interviews and the focus groups this information was not entirely supported

²⁷ The train links the international airport to the city and is used by many tourists and business travellers

²⁸ World Bank 2011 Making transport work for women and men

²⁹ <http://www.unwomen.org/en/news/stories/2016/1/wee-high-level-panel-launch#sthash.E8zbqnaC.dpuf>

³⁰ CONAPRED study on gender based violence in Mexico City (Zermenño Núñez & Placido Ríos 2010)

³¹ Source:«Les violences faites aux femmes dans les transports collectifs terrestres –Synthèse de l'étude exploratoire»,de l'ONDT et le CIPC, mars 2015 accessed July 2015

³² Source: Les violences faites aux femmes dans les transports collectifs terrestres - Synthèse de l'étude exploratoire, de l'ONDT et duCIPC, mars 2015)

³³ Mineta

³⁴ Source: Department for Transport (2002), London, UK, p. 28
People's Perceptions of Personal Security and Their Concerns about Crime on Public Transport:
Literature Review. Department for Transport, 2002.

³⁵ Mineta

³⁶ It has not been possible to date to establish exactly where this is being used outside of India but it is thought to be used in Cairo.

³⁷ <http://harassmap.org/en/>

³⁸ <http://www.ihollaback.org>

³⁹ Several studies identify that other passengers or passers-by are not willing to offer assistance (unless it is serious) when they see incidents for a variety of reasons but primarily fear of getting involved.

⁴⁰ From informal discussions with UITP, APTA and MTA New York

⁴¹ See presentation from Transforming Transportation presentation (2016)

⁴² http://www.btp.police.uk/advice_and_information/how_we_tackle_crime/project_guardian.aspx

⁴³ Gekoski et al (2015).

⁴⁴ Gender and public transport Kathmandu Nepal World Bank Group 2013

⁴⁵ She Moves 2014

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ANNEX I

In the following table, a total of articles were found that highlight the various issues and challenges surrounding transport for women. These have been briefly summarised and a full list of all the links to all the articles reviewed are presented after the table.

Title	Website	Key Features of Report	Date	Hits
International / Global Articles				
Most dangerous transport systems for women	http://www.trust.org/spotlight/most-dangerous-transport-systems-for-women/	Compares 15 cities against each other, under the sections: Safety at night; verbal harassment; physical harassment; public response to abuse; confidence in authorities; safety in the city	31/10/2014	Tweeted 1107 (by 16th July 2015) 1.3k Facebook likes
Safe Public Transit for Women and Girls	http://www.endvawnow.org/en/articles/252-safe-public-transit-for-women-and-girls.html?next=253	Highlights patterns of how women travel. Case Study: Findings and Considerations for Transport Planners in Western EU and North America Gender-Responsive Public Transportation Examples of strategies that create safe, gender-based public transportation Challenges that face women and girls: "public transportation includes spaces where diverse forms of gender-based violence against women occur on a daily basis, including sexual abuse, harassment, groping, the use of vulgar language, intimidation and assault"	02/2010	
Making Transport Safer for Women	http://thecityfix.com/blog/women-public-safety-demands-yasmin-khan/	Describes various rape cases in several countries on public transport and NMT facilities (developing and developed). (Note March 8th is International Women's Day)	8/03/2013	

Why public transport needs to work for women, too	http://thecityfix.com/blog/public-transport-women-safety-equitable-access-indian-cities-azra-khan/	Women use public transport differently from men and the implications thereof. Case studies of London, Toronto and New Delhi trying to make transport more gender equitable: focus on good design, identifying problematic areas, including women in developing solutions, using technology and apps to help improve solutions	09/02/2015	
Are women traveling into a safer 2015?	http://blogs.worldbank.org/voices/are-women-traveling-safer-2015	Highlights widespread sexual assault of world in various countries. Indicates that governments are beginning to recognise the gender gap and issues regarding public transport, however implementations and actual steps to addressing the problem are still in their early stages. Several aspects are highlighted as ways to address the problem: Design; women only transportation; Economic growth and empowerment of women	15/01/2015	
These Buses Are a Driving Force for Women's Safety	http://fusion.net/story/4045/these-buses-are-a-driving-force-for-womens-safety/	Discusses the rise of women only transportation solutions in areas of the world where there are high rates of sexual harassment of women using public transport.	25/11/2013	
Subversive transportation: A history of women cyclists and how women cyclists can save the planet today	http://bloomingrock.com/2014/06/09/subversive-transportation-the-history-of-women-cyclists-and-how-women-cyclists-can-save-the-planet-today/	Explores sexism of women and cycling in various parts of the world, tracing it back into the past.	09/06/2014	80+ shares on social media
Calls for single-sex transport on rise	http://www.wheels24.co.za/News/Poll-Calls-for-single-sex-public-transport-20141029	Discusses issues and concerns around single sex transportation.	29/10/2014	
France				
Groping and tongue-clicking: Think UK transport is bad for sexual harassment? Try Paris	http://www.telegraph.co.uk/women/womens-life/11735687/Sexual-harassment-London-transport-aint-got-nothing-on-Paris.html	Discusses sexual harassment in France and compares it the levels in the UK.	13 Jul 2015	

French campaign against sexual harassment on public transport launched	http://www.telegraph.co.uk/news/worldnews/europe/france/11729961/French-campaign-against-sexual-harassment-on-public-transport-launched.html	"Twelve-point plan including stops on demand for female passengers using night buses drawn up after survey finds all female passengers have suffered some sexual or sexist treatment"	09 Jul 2015	
Safety fears high among commuters in France	http://www.thelocal.fr/20131112/one-in-two-feel-unsafe-on-french-public-transport-sncf-rer-metro	"Half of public transport users feel uneasy taking trains and buses in France, a new survey revealed on Tuesday with women, young people and Parisians fearing most for their personal safety." Highlights the security concerns of French commuters, especially women, young persons and those that live in Paris. Indicates that video surveillance helped identify suspects after attacks.	12 Nov 2013	
Man jailed for daylight rape on Paris RER train	http://www.thelocal.fr/20130917/prosecutor-seeks-11-years-in-jail-for-rer-rapist	Discussed a rape case on a French train and mentions crime stats of the public transport modes (rail, bus, metro).	17 Sep 2013	
India				
Women unsafe in city's public transport survey	http://timesofindia.indiatimes.com/city/bhopal/Women-unsafe-in-citys-public-transport-survey/articleshow/46502281.cms	High rates of harassment on public transportation. Implemented surveillance cameras were mostly defective and "help-line" numbers on buses were either missing or smudged. Women were reported to be the minority and men were "insensitive" to the issues of women's safety.	Mar 9, 2015	
How can women be safer in Bengaluru in terms of public transport	http://blog.ridlr.in/how-can-women-be-safer-in-bengaluru-in-terms-of-public-transport/	Describes travel preferences of women in Bangalore, as well as which measures those are supported by women. Two thirds of women want direct police help lines to address issues experience during commuting. "Around 57% of respondents face overcharging, while 43% encounter refusals and 21% face lewd comments"	4 July	

Here is why Bangalore needs late night transport solutions	http://bangalore.citizenmatters.in/articles/need-for-late-night-transport-services-in-bangalore	Discusses lack of transportation at night. Mentions that "women would feel much safer in a train or bus than in an unknown cab or auto," says Shashank Kumar, the lawyer who petitioned BMTC."	27 Oct 2014	59 Social Media shares
Indonesia (focus on Jakarta)				
Women fend for themselves on unsafe public transportation system	http://www.thejakartapost.com/news/2015/06/27/women-fend-themselves-unsafe-public-transportation-system.html	Sexual harassment and violence towards women using minibuses. Lack of management and law enforcement, with no long term solutions to change the situation.	Sat, June 27 2015	
Tackling Pollution and Improving Travel Safety on the Streets of Jakarta: Q&A	http://www.newcitiesfoundation.org/tackling-pollution-and-improving-travel-safety-on-the-streets-of-jakarta-qa/	Identifies key issues in Jakarta including the issues surrounding women using public transportation modes.	May 4, 2015	71 social media shares
Survey slams Jakarta's public transportation	http://www.thejakartapost.com/news/2014/11/03/survey-slams-jakarta-s-public-transportation.html	Describes issues and incidents that have recently happened, as well as refers to the Thomson Reuters Foundation article (article 1 in this list).	November 03 2014	
Bicycle gains high-end status on city streets	http://www.thejakartapost.com/news/2012/06/04/bicycle-gains-high-end-status-city-streets.html	Describes bicycling trend in Jakarta, focusing on the middle / higher income groups now adopting cycling (for more recreational trips). Describes female commuting by bicycle and the first bicycle lane in the city, however highlights that proper cycling facilities are still to be implemented.	June 04 2012	
Cyclists pedal their way home for Idul Fitri celebrations	http://www.thejakartapost.com/news/2015/07/15/cyclists-pedal-their-way-home-idul-fitri-celebrations.html	Describes long commute using bicycle for holiday break.	Wed, July 15 2015	
Latin American Countries				
Is public transport safe for women?	http://www.women24.com/HomeAndAway/Motoring/Is-public-transport-safe-for-women-20141029	Focuses on women in Latin American countries and the lack of authorities taking harassment of women using public transport seriously. Comments on the results of the first article mentioned in this list.	29 / 10 / 2014	

Safe is accessible: Women and public transport in Latin America	http://thecityfix.com/blog/safe-accessible-women-public-transport-latin-america-lizzette-soria/	Highlights practices (USA and Latin American countries) that aim to address safety issues. These include: Increase reporting in cases of abuse; Designing safe cities for all; Considering gender in transport and urban planning;	May 8, 2014	
Brasília, Brazil now lets women choose where to get off the bus at night	http://thecityfix.com/blog/brasil-brazil-women-bus-stop-night-safety-sexual-assault-luisa-zottis/	Describes a measure that aims to make using buses late at night more attractive for women. Highlights the levels of gender inequity and gender violence in Brazil.	November 13, 2014	
Kenya				
Viral Videos Show Kenyan Women Assaulted For Wearing Miniskirts	http://www.npr.org/sections/parallels/2014/11/28/367154315/viral-videos-show-kenyan-women-assaulted-for-wearing-miniskirts	Woman was stripped naked at a bus station, while trying to sell boiled eggs, cell-phone recording thereof went viral. Discusses the gender issues in Nairobi and how women do not come forward.	NOVEMBER 28, 2014	
Rape Culture in Kenya	http://www.eadestination.com/investigative-journalism/376-rape-culture-in-kenya	Extensive article about rape in Kenya, starts off with a story of an incident involving walking to a bus station.		Over 170 shares on social media
Cultural Stigma and Myth: Disabled Women in Kenya are Vulnerable to Sexual Violence	http://thewip.net/2009/03/04/cultural-stigma-and-myth-disabled-women-in-kenya-are-vulnerable-to-sexual-violence/	Discusses lack of adequate transport for women with disabilities and how myths involving disabled women have led to them being even more vulnerable. The article refers to several incidents, most of which happen in public transportation.	March 4, 2009	
Philippines (Manila)				
Manila seeks safer roads with women bus drivers	http://www.pri.org/stories/2011-02-22/manila-seeks-safer-roads-women-bus-drivers	Interesting article where they are looking at encouraging women to be bus drivers as they are less aggressive and risk taking drivers.	February 22, 2011	
Manila's cabs for women, kids, seniors and disabled only	http://transport.asiaone.com/news/general/story/manilas-cabs-women-kids-seniors-and-disabled-only#sthash.vajw1RVt.dpuf	"The taxi cabs which can be identified by the pink stripes on their bodies will exclusively pick up and transport only women, children, the elderly and PWDs in Metro Manila during the morning and evening rush hour, the LTFRB said in a statement."	Thursday, Mar 12, 2015	

Women in Transit	http://www.up.edu.ph/women-in-transit/	Gives exact information regarding the nature of transportation and the various forms thereof, as well as comprehensive and holistic approaches to addressing the gender gaps, not only within the transport area.	April 10, 2015	
South Africa				
Partnership with the City of Cape Town to improve safety for women and girls in public places	http://www.unwomen.org/en/news/stories/2014/9/cape-town-safe-cities-partnership-launched#sthash.BojvUhrM.dpuf	Describes research into harassment and violence against women around MyCiti stations in Atlantis. Ongoing research documenting the problem as well as implementing community based solutions and initiatives.	4 September 2014	
Anene Booysen: Why India and SA responded differently to two brutal rapes	http://www.dailymaverick.co.za/article/2013-11-15-anene-booyesen-why-india-and-sa-responded-differently-to-two-brutal-rapes/#.Vaet9_mqpBd	Compares the responses of India and SA to rape cases. Article highlights gender inequalities: "If Anene's death teaches us anything at all, it is that notions of masculinity, the underlying gender social order and the sexual entitlement of men are issues that require urgent social attention,"	15 NOV 2013 01:43	
Women have a right to safe public transport	http://www.capetownpartnership.co.za/2014/11/women-have-a-right-to-safe-public-transport/	Gender-sensitive transport strategies Issues with women navigating public spaces	27 November 2014	
Thinking about women and public transport planning	http://pegasysinstitute.org/thinking-about-women-and-public-transport-planning/	Soft article that look at factors that influence travelling behaviours of women in South Africa, including lower income/more domestic responsibilities/harassment with links to articles/resources that were used.	July 2015	
Sex and The City and Being a Girl on a Bike A public letter to my parents about life and lust in urban mobility	https://medium.com/african-city/sexism-and-the-city-being-the-girl-on-the-bike-a7396ab7f76a	Discusses cycling as a female in Cape Town with a focus on the cultural assumptions and comments regarding this type of travelling in Cape Town for females.	Jul 16, 2014	
Report shows how gang rapists operate	http://www.iol.co.za/news/south-africa/report-shows-how-gang-rapists-operate-1.235789#.VaqkbLQqqko	"Based on interviews with 162 victims of gang rape in Johannesburg's inner city, researchers found that 41% of victims were walking when attacked."	March 8 2005	

	The struggle for a cycle friendly city	http://mg.co.za/article/2013-10-04-00-the-struggle-for-a-cycle-friendly-city	Discusses challenges of cycling on South African roads. Highlights progress made in Johannesburg. It does not mention women directly though.	04 OCT 2013	
Thailand					
	13-year-old girl raped, killed aboard a train in Thailand	http://www.standardmedia.co.ke/article/2000127560/13-year-old-girl-raped-killed-aboard-a-train-in-thailand	Describes issues and challenges regarding sexual violence towards women in this area of the world. Rape and murder of 13 year old girl happened on a train.	July 9th 2014	
United Kingdom					
1	U.K. Deaths Put Women Off Cycling, Wasting Tour de France Boost	http://www.bloomberg.com/news/articles/2014-01-20/u-k-deaths-put-women-off-cycling-wasting-tour-de-france-boost	Highlights how safety concerns prevent women in the UK from cycling.	20/01/2014	
2	It's high time Cape Town understood why cycling as transport, matters	http://www.studiorotterdam.co.za/blog/whycyclingmatters	"In South Africa, where cycling for transport is concerned, women are almost entirely absent. So are the elderly. So are children. Cycling is thus dominated by the demographic able to tolerate the highest level of personal physical risk - younger adult males." Emphasises key infrastructural issues in South Africa and of cycling	02/07/2015	
3	News analysis: Cycling safety special report	http://www.nhs.uk/news/2014/02february/pages/cycling-safety-a-special-report.aspx	Highlights the different risks between male and female cyclists.	24/02/2014	
4	Cycling in London: The fear factor	http://www.economist.com/blogs/blighty/2013/09/cycling-london	Highlights the danger that lorries and other heavy vehicles have for cyclists in London and how this is negatively impacting on women cyclists.	5/09/2013	Over 200 shares on social media
United States of America					
5	Will Women Ever Feel Completely Safe on Mass Transit?	http://www.citylab.com/commute/2014/03/will-women-ever-feel-completely-safe-mass-transit/8728/	Highlights gender differences between female commuters and male commuters. Emphasises that the issues of making trips at off peak times for women who do not own their own vehicles.	27/03 2014	1.2k shares on social media platforms

6	Women's Bicycling Forum Confronts Obstacles to Getting More Women Riding	http://usa.streetsblog.org/2014/03/04/womens-bicycling-forum-confronts-obstacles-to-getting-more-women-riding/	While bicycle advocates are focusing on some helpful aspects, several key aspects regarding cycling and women have been missed. These include long commutes on arterial roads for low income workers; sexual harassment and targeting of women on their commute; trip-chaining and the complications thereof. Emphasises that the needs of the everyday cyclist commuters needs to be taken into account, not just those that cycle for fun or when it suits them.	04/03/2014	
7	Women Share Their Stories Of Sexual Harassment (And Worse) On Public Transportation	http://laist.com/2012/09/16/harassment.php	Various accounts of sexual harassment on Public Transport in the USA.	16/09/2012	
8	D.C. groups help female cyclists, others learn how to handle street harassment	http://www.washingtonpost.com/local/trafficandcommuting/dc-groups-help-female-cyclists-others-learn-how-to-handle-street-harassment/2013/11/29/677e8bdc-4faf-11e3-9fe0-fd2ca728e67c_story.html	Highlights the levels of harassment of female, homosexual and transgender cyclists. Highlights general disregard of the impacts of making verbal sexual assaults on cyclists by offenders, as well as the safety and security risk felt by the cyclists.	29/11/2013	
9	What will encourage more women to bike?	http://greatergreaterwashington.org/post/14153/what-will-encourage-more-women-to-bike/	Focused on the role that the cycling companies can have in marketing and promoting cycling related products too women and make cycling related purchases more attractive and appealing to women,	22/03 2012	
1	Men Are From Midtown, Women Are From Brooklyn	http://www.wnyc.org/story/men-are-midtown-women-are-brooklyn/	Highlights that through conscious efforts, more women can be attracted to cycling. This is especially true if adequate bike lanes are provided or volumes of motorised traffic on roads are reduced.	8/03/2014	
1	Why More Men than Women Participate in NYC's Bike Share Program ...and why getting the numbers 50-50 would be better for everyone, male or female	http://www.core77.com/posts/38756/Why-More-Men-than-Women-Participate-in-NYCs-Bike-Share-Program	Highlights different attitudes between women and men cyclists and how improving the facilities will benefit both genders.	09/07/2014	9524 views



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