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What is This?
Gender and class in urban transport: the cases of Xian and Hanoi

HOAI ANH TRAN AND ANN SCHLYTER

ABSTRACT This paper presents empirical findings of a study on the mobility situation of people of different gender, age and class in two residential areas each in two fast-growing Asian cities with high rates of motorization, Xian in China and Hanoi in Vietnam. Notable class and gender differences in travel patterns were found in both cities. Respondents in the old and poorer residential areas walk more, while better-off respondents in the new areas use motorized transport modes (car and motorbikes) to a greater extent. The main difference in travel modes between the areas in both cities is that non-motorized modes are used as a necessary means of travel for less well-off people in the old areas, while residents in the new (and better-off areas) can choose to switch to motorized modes for longer distance trips. Further class difference can be found in Hanoi in the use of buses and in Xian in the use of cars. The study found that the differences in travel patterns between women and men are similar to those found between the residents of poor and affluent areas: women walk more and men are more motorized. The study also confirms that in both Xian and Hanoi, despite women's high rates of participation in the labour market, men still predominate in livelihood-related transport tasks whereas women are more involved in household-related transport tasks.

KEYWORDS gender / Hanoi / transport modes / urban mobility / Xian

I. INTRODUCTION

Along with other urban provisions such as housing and social services, transport directly affects the everyday lives of women and men, and can also have a long-term impact on class formation and gender relations. If the urban transport system primarily meets the needs of those who are already better off, it may contribute to further and deeper inequalities. Similarly, if women have difficulties accessing transport, this can hinder development towards gender equality.

During the last decade, international development agencies have paid some attention to the importance of considering poverty and gender issues within transport planning. It is argued that this has economic benefits for society as it increases the rate of return and meets the demands of divergent needs. When transport systems are optimized for all users, transaction costs are lowered and productivity is raised by providing better access for many. It is further argued that this enables women to meet the needs of their households.(1)

This paper presents empirical findings from a study on the urban transport situation of women and men in residential areas with different...
class characteristics in Xian and Hanoi, two rapidly motorizing cities in China and Vietnam. Researchers in developed countries have argued that a car-dependent urban space is a basis of exclusion, while planning for inclusion of women would bring benefits to all transport users. (2) China and Vietnam are fast-growing transitional economies that are undergoing rapid urbanization and motorization, and there have been few, empirical studies looking at the use of means of transport in the everyday lives of women and men in these countries. A focus on class and gender in transport studies in the contexts of these two countries is of specific interest for two reasons. First, in how they related to the development of market economies and a greater differentiation of households’ economic resources; and second, because both Chinese and Vietnamese women have one of the highest rates of economic participation in the world. Differences in transport experiences between different groups and between women and men are usually related to economic resources and position in the labour market.

In this study, differences and similarities in travel patterns in the two cities are discussed. Although the findings might not be of great surprise, the paper provides empirical evidence of how rapid motorization reinforces class and gender disparities in urban areas.

II. SOCIAL AND GENDER JUSTICE IN TRANSPORT

Transport development policies in urbanizing countries have focused on promoting increased motorization in order to stimulate economic development and respond to the popularity of private motorized transport among the more affluent classes, while the greater travel needs of the low-income and poor populations are largely neglected. (5)

Research on motorization in these societies has generally been directed towards solving the transport problems that hinder economic growth. During the last decade, this research has also included emissions and its connection to global warming, but less attention has been paid to the social aspects of motorization and its consequences on social equity. (4) Recently, the need to address the negative impacts of pro-motorization policies on social equity have been voiced, (5) and it is argued that motorization is not only an issue of energy use, emissions and vehicle technology, but also of land use and social justice. (6) It is further argued that motorization will reduce the mobility of the poor, who are most severely affected by its negative consequences. (7)

Although there have been many studies on the transport situation of poor people in developing societies, most have focused on the rural context. It is only recently that studies on the urban transport situation in Asia have paid more attention to the mobility situation of the urban poor. (8) Similarly, little attention has been paid to gender in transport planning and research, although in the 1990s, a number of studies highlighted gender issues in transport in developed countries. Hamilton remarked that the failure to produce transport policies and provision that meet women’s needs has exacerbated social exclusion and environmental pollution. (9) The few research and policy works on gender and transport in developing societies also mainly focused on the rural situation. (10) Little is known about gender differences in transport patterns among urban dwellers in the fast-transforming transitional countries, China and Vietnam.
5. See reference 4, Qureshi Intikhab et al. (2008); also see reference 3, Martin (2007).

In the new millennium, the World Bank, financer of huge infrastructural programmes in many parts of the world, accepted that gender is significant in relation to infrastructure development, and thus developed a strategy for mainstreaming gender into its work.\(^{(11)}\) As it has proved difficult to achieve an actual impact on planning and implementation, a resource guide\(^{(12)}\) was developed based on commissioned studies in several cities. Efforts were also made to revitalize the Bank’s gender agenda with the publication of “Gender equality as smart economics”.\(^{(13)}\) The World Bank points to the Third Millennium Goal concerning gender equality and women’s empowerment, but also notes that progress towards the overarching goal of poverty reduction can not be made if women are not economically empowered. Among the actions suggested for women’s empowerment are the promotion of female participation in the labour force and the engendering of transport operations.

In many countries, women’s lower degree of participation in the labour market is clearly reflected in their transport needs. In the case of China and Vietnam, women participate widely in the workforce. They contribute equal time as men to income-generating activities and, according to a study in Vietnam, also bear most of the burden of household chores.\(^{(14)}\) This paper is based on a study that was designed to find out how this situation is reflected in their transport needs.

Following economic reforms and the move to a market economy, both China and Vietnam have experienced remarkable economic growth during the past decades. Many people have been lifted out of poverty and it is assumed that further growth will continue to benefit an increasing part of the population. Political concerns in relation to justice deal with ethnic minorities and remote rural areas, but less with gender inequalities and emerging class differences in urban areas. Justice and equality as significant factors in the building of a sustainable society need to be placed firmly within the development of an urban transport policy.

### III. THE EMPIRICAL STUDY

In order to highlight the differences in transport needs and experiences of users in different social groups in Xian and Hanoi, surveys and interviews were carried out in two housing areas in each city, with different class characteristics: one older area, built during the 1970s and known to be populated by poorer residents; and one newer area, built in the 1990s and early 2000s, where dwellings are sold commercially to well-off people who can afford to buy them. Choosing two areas of differentiated socioeconomic standing marks the intention to identify different indicators of class differentiation in mobility opportunities, and as such there is no focus on the poorest group. In each city, small surveys of 200 respondents\(^{(15)}\) were carried out in 2007 by students and research assistants. The surveys were in the form of face-to-face interviews and were designed to establish transport patterns and characteristics of users of different transport modes. The respondents were asked about a trip they had undertaken on the day before the interview; in this paper it is called the “yesterday trip”. The respondents were also asked whether and how often this trip was repeated in a week. The “yesterday trip” proved to be significant, as half of the respondents made this trip every day and

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one-quarter several times a week. Walking trips – i.e. those undertaken only on foot – were also taken into account in the “yesterday trip”, with the intention of highlighting the significance of walking in urban transport. However, as walking often forms part of other trips, such as car or bus journeys, in reality the amount of walking will be greater than that recorded in the study.\(^{(16)}\)

In 2008, qualitative interviews were carried out with about 20 women and men of different ages from each of the four residential areas. In order to gain a better understanding of the whys and hows, the researchers had hour-long discussions (some in English, some in Vietnamese and others with the help of interpreters) with the residents concerning their travel patterns, experiences and preferences.

IV. URBAN TRANSPORT SCENES IN XIAN AND HANOI

In both Xian and Hanoi, the motorization process is strong. In Xian, the number of cars is growing rapidly: from 1990 to 2003, the average annual increase in the number of motor vehicles was close to 11 per cent, of which 14 per cent was the rate of increase in small-sized passenger vehicles.\(^{(17)}\) During the same period, Hanoi’s main transport mode switched from bicycles to motorbikes: average annual growth in the number of motorbikes was 13 per cent and for automobiles 10 per cent.\(^{(18)}\)

a. Non-motorized modes of transport and bus use are more popular in Xian

A major difference in the transport scenes in Xian and Hanoi is that non-motorized transport is more significant in Xian, where half of the respondents walked or cycled on their “yesterday trip”, while in Hanoi only about one-third did so. This reflects the urban infrastructure that has been planned with some consideration for bicyclists and pedestrians in Xian – there are separate bicycle lanes in many of the streets and the sidewalks are often paved and suitable for walking. In Hanoi, there are almost no separate bicycle lanes and most pavements are occupied by retailers or parking for motorbikes. Hanoi is clearly more motorized than Xian: 60 per cent of the respondents drove motorbikes, while only 16 per cent of Xian respondents used motorized transport (cars and motorbikes) on their “yesterday trip”. The bus system in Xian is more developed than in Hanoi, and bus use is much more popular. One in five Xian respondents used the bus for their “yesterday trip”, while in Hanoi only a small percentage did so (3 per cent).

b. Many motorized trips in both cities are short distance trips

In Xian, almost one-third of car trips were long distance trips of more than 15 kilometres, while – this is notable – almost 40 per cent of car trips were short distance trips of less than five kilometres. Only one in a hundred respondents in Hanoi used cars, and then only for longer distances. The use of cars for short distance trips in Xian, either as driver or passenger, seems to point to car use as a marker of class.
Motorbike trips in both cities covered all distances, but the majority were in the 2–10 kilometre range. However, some motorbike trips in Xian, and up to 16 per cent of the many motorbike trips in Hanoi, were short trips of less than two kilometres. One wonders whether the use of motorbikes for short trips in Hanoi is also a marker of class, and whether these trips could become non-motorized or bus trips, should travelling conditions for these modes of transport be improved.

V. CLASS DIFFERENCES IN TRAVEL PATTERNS

The surveys revealed that the populations in the study areas are far from homogenous, and there are clear differences in income and status that are reflected in travel patterns. In both cities, respondents from the new areas have more stable, usually better paid jobs. In Hanoi, these are in the state sector; in Xian, it is regular work in private companies in the formal private sector. In the old areas in both cities, there were more seasonal workers among the respondents and somewhat higher rates of unemployment.

a. Ownership of motorized vehicles is higher in the new areas

In Hanoi, respondents from the new area have more motorbikes than those from the old area. There are more households with two motorbikes in the new area (80 per cent compared to 53 per cent in the old area), while more households in the old area have bicycles (43 per cent compared to 20 per cent in the new area).

In the new area in Xian, more than one-third of respondents are car owners and one-quarter of them even have two cars, while only 8 per cent in the old area are car owners, and no household has two cars. One in three households in both areas owns a bike, and in the old area one in four households has two bikes, twice as many as in the new area.

A recent study on urban transport in Hanoi\(^\text{19}\) points to the near obvious fact that as income increases, car and motorbike ownership increases while that of bicycles decreases. Car ownership is mainly in the highest-income quintile households and is very low in all other income groups.\(^{20}\) The higher rates of motorized vehicle ownership in households in the new area are an indicator of better economic standing.

b. People in the old areas walk more and people in the new areas are more motorized

With regard to non-motorized transport, people in the old area in Xian walk more (37 per cent compared to 20 per cent from the new area) but people in the new area bicycle more (25 per cent compare to 14 per cent from the old area). People from the old area walk for most travel purposes: to work, to school, to go shopping and for leisure. In the new area, bicycles are a popular means of travel and are used by many for travelling to work and to school.

With regard to motorized modes of transport in Xian, people in the old area use motorbikes more (10 per cent compared to 3 per cent in


the new area), and people in the new area use cars more (14 per cent compared to 3 per cent in the old area). There were somewhat more motorbike passengers in the old area. Car passengers were all from the new area, and the trips were to go to school and for leisure. This indicates a difference in wealth, or social class, between the two areas.

Cars and motorbikes were used mainly for travelling to work or for business. In the old area, motorbikes provide a speedy solution for those who cannot afford a car. A young man who supervises several mobile shops assured us that a motorbike is a profitable investment, as he spends less time on transportation than when he used to ride a bicycle.

In Hanoi, it is quite clear that residents in the old area walk and use the bus more, and residents from the new area rely more on motorbikes. In the “yesterday trips”, almost twice as many from the old area walked compared to the new area; 5 per cent from the old area used the bus compared to 1 per cent from the new area.

Car use is still very low in the study areas in Hanoi, and all car trips were for going to work; there were no apparent differences between the two areas.

One might assume that the reason for the greater use of non-motorized modes of transport in the old area was that respondents there travelled shorter distances. However, this turns out not to be the case if one looks at the distance travelled according to each mode of transport.

![FIGURE 1](attachment:image.png)

**FIGURE 1**
Travel modes according to housing area, Xian
c. Mobility of choice and of necessity

While the majority of non-motorized trips in both cities were trips of less than five kilometres, there are some differences between the areas within the cities regarding travelling distances in relation to travel modes.

In Hanoi, the majority of non-motorized trips (walking and bicycle trips) in both areas were less than five kilometres and many were less than two kilometres. The main difference between the two areas is that in the new area, non-motorized modes were only used for relatively short trips of less than five kilometres, while in the old area, non-motorized modes were used for both short and long distance trips. Here, non-motorized modes were used as a necessary means of travel, while residents in the new (and better-off area) can use other modes (motorized) for longer distance trips.

In Xian, while the rate of bicycle use in the new area was higher than in the old area, bicycle trips in the latter covered the whole range of distances, except the longest distance of more than 15 kilometres. In the new area in Xian, bicycle trips were confined mainly to the shorter distances. It can also be said that bicycles were used by residents of the old area as a necessary means of travel, while residents of the better-off new area could choose to use bicycles for short distance trips and use other (motorized) means for longer distance trips.

Similarly, motorbike trips in the old area in Xian covered the whole range of distances, except the longest distance of more than 15 kilometres. In the new area, motorbike trips were more than five kilometres. No
motorbikes were used for shorter trips, which were generally undertaken by bicycle, considering the higher rate of bicycle use in the area.

Walking trips in Xian did not display similar class differences. People in the old area walked more often but their walking trips were shorter, mainly less than five kilometres, while people in the new area walked less but their walking trips covered a variety of distances, including longer distances of more than 10 kilometres. Possibly, this can be explained by the large-scale urban pattern in which the new area is situated, with huge blocks and fair distances between likely destinations.

In Xian, cars were used in the new area for all trip distances, including the shortest distance of less than two kilometres (29 per cent of car trips are of this distance), while car trips in the old area were only for longer distances. Car use for very short distances in this case indicates a preference, a class marker. The few car trips in Hanoi were long distance trips.

d. People in the old area are more positive about bus use

In Xian, almost one-quarter of respondents used the bus for their “yesterday trip”. There was no difference between the old and new areas when looking at the total sum of bus use. However, when looking at bus use in relation to purpose of trip, there are clear area differences. Bus use is greater in the new area for trips to work and to school, while in the old area, bus use is greater for shopping trips.

In Hanoi, few respondents used the bus for their “yesterday trip” (3 per cent), and of these more came from the old area. Besides, half of the respondents in the old area used the bus during the week, compared to only one-fifth of those in the new area. Further differences between the areas were found in the use of buses in relation to trip purpose. All bus trips from the new area were shopping trips (to shopping centres), while the majority of bus trips from the old area were to go to work and for business. It was mainly factory workers who travelled by bus to their work places, which are located away from their homes. Bus use in Hanoi seems to indicate a lower class status, unlike in Xian where bus travel is more common and many office workers and professionals are bus users.

The interviews in Hanoi revealed that some respondents’ aversion to using the bus was not only a criticism of the bus services but also an expression of class distinction. A young woman in the new area finds it “uncomfortable” to travel by bus, and with this she means that in the bus she has to mix with people from lower social classes:

“...and also the comfort. Now it is actually better than before but it is still not nice... but how to say it... it is the level of education, it is the culture... people are jostling... even if there are few people it is still not pleasant... it is low educated people... people carry goods, especially the smells of the goods during the summer and also people jostle and push... not to say thieving.”

Several business men from the new area in Xian also mentioned the risk of theft as a reason for not using the bus (although only one had any personal experience of this and others had only heard about it). However, bus use is clearly less an indicator of class in Xian than in Hanoi.
VI. GENDER DIFFERENCES IN TRAVEL PATTERNS

In both cities, some gender differences can be seen in both the purpose of the trips and in the modes of transport, although the differences are quite small in Xian and more pronounced in Hanoi.

In both cities, more men than women have stable work. In Hanoi, more men than women work in the state sector, and somewhat more women than men are engaged in small family businesses. In Xian, where the majority of respondents work in the private sector, more than twice as many men as women work in the formal private sector, while an equal number of women and men are engaged in small family businesses.

In both cities, there is little unemployment, although there are more unemployed women than men. On a global perspective, however, it can be concluded that women’s participation in the labour market is high in both cities, and although there are more men with stable jobs, the difference is quite small.

a. More men travel to work and for leisure and more women make shopping trips

In both cities, more men travel to work or for business than women, although the difference is smaller in Xian than in Hanoi. This is a “conventional” gender difference, common in most countries but surprisingly high in Hanoi given Vietnamese women’s high rate of economic participation. This seems to reflect the informal (and unstable) nature of many women’s jobs.

Similarly, in line with global “conventional” trends, in both cities more women than men made shopping trips. The difference is small in Xian (9 per cent and 6 per cent, respectively) but much more pronounced in Hanoi, where 26 per cent of women made shopping trips compared to 5 per cent of men.

The gender difference between the cities with regard to shopping was less pronounced in the interviews: not many of the men we interviewed in Xian were responsible for shopping, any more than the men in Hanoi. In the old area, some men made shopping trips, but these were retired (or laid off) workers whose spouses worked. In the new area, where many people are business people and office workers, two men said that they went shopping with their wives, but never alone.

The interviews revealed that grandparents in both cities helped a lot with child minding, escorting children and, in the case of Xian, food preparation. Several people in both areas said that their parents or parents-in-law lived either with them or nearby, took care of the children and did the shopping and food preparation. We interviewed two retired women who lived with their son’s or daughter’s families and took care of most household chores. A middle-aged woman said that she went with her husband and son to their parents-in-law for dinner every day.

In Hanoi, it is also common for grandparents to take care of the children, but we did not come across any instances where the grandparents prepared food for their children’s families if they did not live together. Even in households where several generations lived together, the nuclear households prepared and ate their meals separately. The low percentage of shopping trips in Xian compared to Hanoi could be due to the fact that many Xian respondents received more help from grandparents with regard to food preparation.
In both cities, men and women shared responsibility for escorting children, but in Xian grandparents helped to a greater extent with this task and also with household chores. In Xian, escorting children is shared equally by men, women and grandparents, while in Hanoi more women than men escorted their child (more than half of the women and one-third of the men).

In Hanoi, more men than women undertake leisure trips (one-quarter of men compared to one-fifth of women). There is no difference between men and women in Xian regarding leisure trips. The bigger gender difference in leisure trips in Hanoi seems to link to the fact that women in Hanoi are more burdened with household chores.

b. Women walk more and men are more motorized

Gender difference is apparent in the use of transport modes in both cities, and is more pronounced in Hanoi, with more women relying on non-motorized modes and more men using motorized transport. In Xian, women walked more than men but men used bicycles more than women. No gender difference was found in bus, car and motorbike use in Xian.

In Hanoi, there were more women among those who walked and used bicycles, and more men drove motorbikes. Of the few who drove cars, these were only men.
c. More women are motorbike and car passengers

In both cities, more women than men travelled as passengers, driven by family members. Male car passenger trips were often for leisure purposes, while women passengers often headed to school. In Xian, other than multi-purpose motorbike passenger trips, which were undertaken by both women and men, men’s trips were to go to work and women’s trips were to go shopping.

In Hanoi, there were more women than men motorbike passengers, driven by family members. Half of the male passengers were going to school and the other half were travelling for health care purposes. In other words, only young or sick men travelled as motorbike passengers. Women’s trips as passengers varied: the majority were trips to go to work, but shopping and multi-purpose trips were also significant. That women travelled as passengers for trips to go to work (income related) could reflect the fact that women possess fewer motorbikes than men, as shown in a recent urban transport study of Hanoi.\(^{21}\)

![Figure 4: Purpose of trip according to gender, Hanoi](image)

\[21\] See reference 19.

d. Women travel shorter distances...

In line with “conventional” travel patterns, women travelled shorter distances than men in both cities, when all transport modes were included. In both cities, there were more women than men among those who travelled short distances of less than two kilometres.
e. … but walk longer distances

However, when looking into respective travel modes, we found that the distance differentiation between men and women depended on whether the travel modes were non-motorized or motorized. In both cities, women’s walking trips covered longer distances than men’s, while men’s motorized trips (cars in Xian and motorbikes in Hanoi) were for longer distances.

In Hanoi, women walk longer distances than men. All the men’s walking trips in Hanoi were short trips of less than two kilometres, while women’s walking trips were of varying distances.

In Xian, gender differentiation in travelling distances with regard to walking trips is similar to Hanoi. The majority of men’s walking trips were less than five kilometres, while women’s walking trips included longer distances of more than 15 kilometres. On the other hand, more women than men made short walking trips of less than two kilometres.

f. Women bicycle longer distances in Hanoi

Women’s bicycle trips in Hanoi were longer than men’s. Most of the men’s trips were less than five kilometres, while women’s bicycle trips varied in distance, with some up to 15 kilometres.

In Xian, the situation is different. Men’s bicycle trips covered all ranges of distance, including distances of up to 15 kilometres, while
the majority of women’s bicycle trips were shorter than five kilometres. However, it should be noted that the majority of Xian respondents used electric bicycles, which is physically less demanding, while all the bicycles used by respondents in Hanoi were “normal” bicycles.

**g. Men travel longer distances with motorbikes**

In Hanoi, men’s motorbike trips were longer, with almost 30 per cent being more than 10 kilometres. The majority of women’s motorbike trips were less than five kilometres. For motorbike trips in Xian, no clear gender differentiation regarding distance was noted.

**h. Men use cars more often and for shorter distances**

In Xian, only small gender differences were noted with regard to car use and trip purpose: more women than men used the car for multi-purpose trips, and somewhat more men than women took the car to work. On the other hand, men used cars for shorter distance trips than did women; this exhibits a clear difference for both drivers and passengers.

The interviews showed some gender differences in the purpose and frequency of car use. Although both men and women drove cars to work, men used cars as their only means of transport, while several women car owners used their car for work, but less often. We met a car owner, a business woman who sometimes used the bus to go to work. Her husband used his
car more than her, driving every day. A man, who owned a private business, drove every day, while his wife, who worked at the same business two or three days a week, used the bus to go to work. All the businessmen we interviewed travelled to work by car. Some women car owners used the car to go to work but took the bus when they went to the gym, to go shopping, or when travelling to the city for pleasure. One household had two cars; one was used by the man, the other by the company, and the wife did not use the car. She used the bus when going shopping or for leisure purposes.

In Hanoi, very few respondents drove cars and those who did were men. Few people drove cars on a daily basis. A man from the old area drove to his work in another province, about 80 kilometres from Hanoi. His came home only on Saturday or Sunday. One person in the new area owned a car, but he used a motorbike to travel to work.

VII. CONCLUDING DISCUSSION

The main differences between the urban transport scenes of the two cities are the heavy dominance of motorbikes in Hanoi and the functioning public bus system in Xian. There are class and gender differences in travel patterns in both cities, but the differences are more pronounced in Hanoi than in Xian.

Both cities are quite compact and the majority of the residents do not travel long distances. Most trips are less than five kilometres, which points at non-motorized transport modes as the most efficient means of mobility.\(^{22}\) The urban compactness has been used to explain the popularity of motorbikes in Vietnam.\(^{23}\)

However, in both cities, there was a significant number of short distance trips (under two kilometres) that were made using cars (in Xian) and motorbikes (in Hanoi). Driving a car or travelling as a car passenger for short trips seems to be a class marker for well-off residents in Xian. Short motorbike trips in Hanoi seem to play a similar role as class marker for the less well off in the old area, in line with the discussion that the motorbike does for the less rich what the car does for the rich in terms of status.\(^{24}\)

In both cities, people in the old areas walk more than people in the new areas, and the people in the new areas are more motorized. This is in line with findings from other studies showing that walking is the main mode of travel for the urban poor.\(^{25}\) Bus use also has a class attribute. In Hanoi, it seems to be considered as the travel mode of the lower classes; bus use in Xian is more widespread and does not have a lower-class stigma.

The main class difference in travel patterns among residents in both Xian and Hanoi is the difference between mobility of choice and mobility of necessity. In Hanoi, residents of the old area undertake non-motorized trips of varying distances, including long distances of more than 10 kilometres, whereas residents of the new area only use non-motorized modes for shorter distance trips (less than five kilometres), as they can choose to switch to motorized modes for longer distance trips. The situation is similar in Xian regarding the use of bicycles and motorbikes, where residents of the old areas use these modes for both short and long distances, while residents of the new area only use these modes for shorter trips and switch to car use for longer trips.

Another class difference is evident in car use in Xian. The higher level of car use in the new area (both as driver and passenger, both to go to


\(^{24}\) See reference 8, GTZ (2002).

work and for business and leisure) is a marker of class. The fact that a significant group of car trips were short distance trips of less than two kilometres supports this.

China’s, and to a greater extent Vietnam’s, neglect of non-motorized transport and walking reflect the same approach to transport planning of many developing and transforming countries in Asia and Africa, in which non-motorized transport is marginalized and not taken into account in transport infrastructure planning.\(^{26}\)

The differences in travel patterns between women and men are similar to those found between the residents of poor and affluent areas: women walk more and men are more motorized. In Hanoi, this difference is notable, as more women walk or go by bicycle, and more men go by motorbike or by car. The division of household work contributes to gender differences regarding travel mode: more women make shopping trips and the majority of shopping trips are walking trips.

There are fewer gender differences regarding transport modes in Xian compared to Hanoi, but in Xian, women walk more than men and there are more women passengers, driven by family members. These findings are in line with findings of studies in other countries, whereby women have less access to (motorized) means of transport and spend more time walking daily.\(^{27}\)

In line with findings from other studies, both from developed and developing countries,\(^{28}\) women in Xian and Hanoi travel shorter distances when all transport modes are taken into account. However, this study found that women cover longer distances using non-motorized modes of transport. One might say that Hanoi women use non-motorized modes of transport out of necessity, while men choose to use non-motorized modes only for shorter distances and use their motorbikes for longer distance trips. Among car owners in Xian, women use the car for longer distances, while men use the car more often and also for shorter distances.

The World Bank’s gender and transport resource guide outlines three basic types of transport task, namely livelihood related, service related and household related, and discusses how men and women’s involvement and their related needs in these tasks are shaped by gender roles and responsibilities.\(^{29}\) The findings here also show that in Xian and Hanoi, despite women’s high rate of participation in the labour market, men still predominate in livelihood-related transport tasks, while women are more involved in household-related transport tasks.

Both in Xian and Hanoi, many respondents made reference to the support provided by the elderly generation to the working generation. Thus, without having to increase a husband’s share of household chores, a wife and husband can reach a degree of equality, which is also reflected in their travel patterns.

The study indicates some gender differentiation in purpose of travel beyond the three categories specified in the World Bank gender and transport guide (livelihood, services and household-related chores): these cover leisure trips and trips to school. The guide refers mainly to gender differences in rural situations; this study reveals the need for categories that reflect the urban situation in countries like China and Vietnam. Leisure and studies, as well as generational aspects, should be further investigated and taken into account.

The inclusion of walking trips in the study is significant, as it highlights the travel needs of women and the poor. Conventional transport surveys

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27. See reference 8, Baker et al. (2005).


29. See reference 12.
tend to neglect the walking links of motorized trips, and thus fail to pay due attention to the gender and class aspects of urban transport. According to Kunieda and Gauthier, when all trip types are considered, both motorized and non-motorized, women make more trips per day.

In Xian and Hanoi, as in most cities in the world, urban transport policy and planning have the overarching goal of supporting economic growth. Nevertheless, Xian has designed traffic areas that are friendlier to bicycles and pedestrians and offers an extensive, cheap and frequent bus service that benefit poor people and women. This study confirms that the motorization of urban transport has different possibilities, and has diverse effects on people depending on class and gender. If urban transport and infrastructure planning are used to support a good everyday life for all, the obvious implication is to plan for safe mobility through walking, biking and public transport.

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