Women do not have equal access to private motor vehicles. Access to motorized transport, a mode which is costly from an overall social and environmental perspective, yet convenient to the ones who can afford it, is determined not only by economic means but also by cultural roles. All over the world, car ownership is associated with success, power and social status. So it comes as no surprise that even in car-owning households, it is often only the men who get to drive, maintaining a monopoly over technical and mechanical knowledge [1]. Even in car-crazy Germany, women only make up one third of all driver’s license holders. Although motorization rates are much lower in developing countries, the overall situation is very much the same. For example, a study of Nairobi, Kenya revealed that while 24% of male heads-of-households used a car, only 9% of women heads did [2].

**W O M E N W A L K**

The most predominant mode of travel for low-income women in developing countries is walking. Rural women in Mozambique and Tanzania spend up to four hours every day on local transport. Evidence from Tanzania...
demonstrated that women’s unpaid headloading and portage of wood for fuel, water and farm and household produce accounted for more than 70% of total transport time and tonne-kilometres carried [3]. Even in urban areas, other transport modes are often not available to women, either because they are too expensive or located too inconveniently and far away.

While walking has the advantage of being free from fares or capital investments, it is quite costly in terms of both time consumed and the effects it has on women’s health. Women’s headloading in particular leads to increased incidences of back injuries, spine curvatures, sprained ankles, headaches and even interference with pregnancies. Various studies from Sub-Saharan Africa show that women carry about three to five times as much weight as men every year, usually taking full responsibility for domestic travel and transport, most notably for water and wood collection [4].

For many women in developing countries, cycles or animal-drawn carriages are the most accessible and affordable modes of transport available besides walking. A 1997 World Bank study [5] revealed that 35% of female commuters relied on cycle rickshaws as their sole mode of transport, with another 6% using them in combination with bus services and scooters.

One fourth of all women also relied on rickshaws for accessing educational facilities. So when the Government of Bangladesh recently proposed to ban rickshaws from the streets of Dhaka, they were singling out not only the most environmentally-friendly mode available, but the one transport choice most essential and accessible to women, thereby greatly affecting their mobility.

One again, however, women are mostly passengers and not drivers. A recent survey in Havana, Cuba, where bicycles became the most common mode of travel after the fuel shortage in the early 1990s, listed the following distribution: 70% of all bicycles were used by single males, and another 13% by males with a passenger, totalling 83% male-steered bicycles. Only 13% of the bicycles were ridden by single females. And this is in a society where women account for a significant part of the paid labour force [6].

Women’s access to vehicles and services is actually often more constrained by socio-cultural conventions or even bans rather than by physical barriers. This is particularly true for bicycles, which represent a particularly attractive transport alternative for shorter- and medium-length trips with multiple stops. Unfortunately, it is culturally unacceptable for women in many societies to ride bicycles. In Iran, women were recently banned from riding a bicycle in public places altogether, because women must avoid anything which could attract strangers.

In many parts of Africa, where bicycles often represent the only viable alternative to miles of walking, women who ride bicycles are considered too independent and loose. When asked why so few women in Beira, Mozambique ride bicycles, the following were among the most telling responses [7]:

“Women can’t be trusted to ride bikes because they may go off and have affairs”

“Women don’t know how to ride bikes”

“It’s not ladylike for women to spread their legs”

“Women are afraid to ride bikes”

However, these responses, while not entirely untypical for Sub-Saharan Africa, are much less pronounced in other parts of the region, which usually quote “safety concerns” or simply “conventions” and “dress-codes” as the primary impediments to women’s cycling.

Female cyclists are very common in some Asian

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### Table 1. Women’s Participation in Labour Activities, General African Situation.

<table>
<thead>
<tr>
<th>Production Activities</th>
<th>Per cent of Work by Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Crop Production</td>
<td>30 - 70</td>
</tr>
<tr>
<td>Food Production</td>
<td>60 - 90</td>
</tr>
<tr>
<td>Food Processing</td>
<td>100</td>
</tr>
<tr>
<td>Animal Husbandry</td>
<td>30 - 50</td>
</tr>
<tr>
<td>Marketing</td>
<td>50 - 80</td>
</tr>
<tr>
<td>Brewing</td>
<td>90</td>
</tr>
<tr>
<td>Water Collection</td>
<td>90 - 100</td>
</tr>
<tr>
<td>Fuel Collection</td>
<td>80 - 100</td>
</tr>
<tr>
<td>Transport of Crops from Field</td>
<td>70 - 90</td>
</tr>
<tr>
<td>Rearing and Care of Children</td>
<td>100</td>
</tr>
<tr>
<td>Cooking</td>
<td>100</td>
</tr>
<tr>
<td>Cleaning, Washing, etc.</td>
<td>100</td>
</tr>
<tr>
<td>House Building and Repair</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Communal Farming</td>
<td>50 - 80</td>
</tr>
<tr>
<td>Social – Dances, Funerals, Weddings, etc.</td>
<td>50</td>
</tr>
<tr>
<td>Litigation Activities</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Political Meetings</td>
<td>10 - 20</td>
</tr>
</tbody>
</table>

Source: Peters, 2000 (original data in Riverson and Carapetis, 1991: 11)

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Figure 2
The Afribike project in action. ITDP partners with in-country NGOs to select communities where bicycle culture will prosper. Indigenous mechanics help assemble the bicycles, and beneficiaries are instructed in safe bicycle riding and basic maintenance techniques (photo: Paul S. White)
countries, such as China and Vietnam, but in other cycling countries in the region, such as India or Indonesia, cultural norms and traditional clothing prohibit women from riding bicycles.

WOMEN ARE MORE DEPENDENT ON PUBLIC TRANSPORT

Women are also more dependent on public transport than men, especially when they are lower-income. Unfortunately, the off-peak and peripheral public transit routes on which many women depend for their travel to shopping or social facilities have much less priority than the radial commuter corridors going straight to the city centre. Women's complex household and caretaking responsibilities usually force women to make multiple stops. This also often makes it much more costly for women to get around, since they may have to pay numerous single fare tickets during such a chained trip.

Women are also disproportionately affected by the privatisation of public transit, because bus companies operating under competitive market conditions are not very interested in serving the less lucrative routes and connections on which women depend, so this is where operators are most likely to reduce service, or cut it altogether. If service does remain, it is often at increased fare levels. In addition to this, privatisation and/or licensing of public transit lines also reduces the possibility for integrated fare zones, again disproportionately affecting women who make more transfers and stops (1). The reduction of subsidies for public transport often has a similar effect, both in developed and developing country contexts.

Personal safety and the avoidance of harassment are also major concerns for women public transit users. Women are especially vulnerable to violent attacks or sexual abuse when transporting heavy goods and accompanying children, and this can be a major deterrent for women to use public means of transport.

Finally, there are cultural constraints which often prevent women from properly accessing public transport. In predominately Muslim cities such as Dhaka, it is socially difficult for women to share crowded buses with mainly male riders because of the religious custom of the purdah, or social seclusion of women.

INTERMEDIATE TRANSPORT TECHNOLOGY

For many low-income women who are currently dependent on walking or expensive public transport, permanent access to intermediate transport technologies would have many valuable pay-offs. Intermediate means of transport (IMT or IT) are sometimes also called “appropriate” means of transport in the development literature. IMTs can be anything varying from walking/headloading to conventional motor vehicles. According to this definition, everything from handcarts, wheel barrows, bicycles, pedicabs or animal-drawn carts are considered IMTs.

Considering the excessive transport burden of rural women carrying and headloading goods over long distances, the payoffs of IMT projects targeting these women are particularly great. For example, after acquiring a bicycle through a revolving loan fund, one woman in Beira, Mozambique increased her daily profits by one third by cutting out the intermediary and taking the fish her husband caught every day to the market herself on her new vehicle. Another woman in the same village was even able to double her daily profits, because she earned her income delivering coal to people, and with the new bicycle she significantly reduced her travel time and was thus able to transport much more coal than before [7].

Even simple wheelbarrows, which typically hold loads up to 50 kg, compared to head-loading 20 kg, would reduce women's time spent on water portage by 60%. Experiences from different areas in Sub-Saharan Africa show, however, that projects promoting the access to IMT need to be carefully designed to take into account local culture and social conditions, or the women may fail to be the primary beneficiaries of a project. For example, when the US-based Institute for Transportation and Development Policy (ITDP) designed its first “Bikes For Africa” project in 1993 to benefit rural women in Beira, many of the distributed bikes ended up in the hands of men who were only using them for social purposes rather than work. The most overwhelming problems at the implementation level were of a cultural nature. In poverty-stricken Mozambique, ownership of a functioning bicycle is rare in many areas, especially after the decade-long civil war, and so for most men, bicycles represented a status symbol rather than a working tool which could alleviate the excessive transport burden of their wives [7].

Perhaps the best way for international development organizations to avoid socio-cultural conflicts is to work very closely with local women's organizations which are sensitive to the local culture and to support IMT projects by advocating the acceptance of non-motorized vehicle use within family and community structures. Consultation with the whole family/community is also necessary to gain the support of males. Men's acceptance of women riding bicycles is much higher if they realize that there is a direct economic benefit to
the women’s use of the bicycles, i.e. if they are used to facilitate income-generating activities which benefit the whole family, such as taking goods to a market.

**PROMOTING WOMEN’S ACCESS TO PUBLIC TRANSPORT**

Many of the cultural problems outlined in the previous sections are similar for women’s access to public transport. In some societies, it is customary that men board buses first, and women often do not get on. Few transport providers care enough about women’s safety and comfort to make a special effort towards accommodating women’s special needs. There are some interesting examples of rail services being exclusively reserved for women, however. For example, the Mumbai urban transit authority has designated entire railway cars for women only, while the rest of the cars are packed with male commuters. The same is true for Mexico City subways during peak travel times. Often, much less drastic measures are actually necessary to accommodate women’s needs. Increased service during off-peak hours, better connections outside main commuting corridors, and improved vehicle design and public safety are all standard requirements which should be part of any gender-sensitive, poverty-alleviating public transport project. There is nevertheless a real lack of initiatives addressing these issues, most likely because the benefits of improving women’s access to public transport facilities are less immediately quantifiable in economic terms.

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**REFERENCES**


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