

## Viewpoints

*Natural Resources Forum, a United Nations Sustainable Development Journal* is running a special series over the 2009-2011 period on themes to be considered by the United Nations Commission on Sustainable Development in its 18<sup>th</sup> and 19<sup>th</sup> sessions: chemicals, mining, sustainable consumption and production, transport and waste management. In this issue, experts address the question:

**“How can the stigma of public transport as the ‘poor man’s vehicle’ be overcome to enhance sustainability and climate change mitigation?”**

The stigma — the disgrace — of public transport cannot be overcome until the conditions on which that epithet is based are changed. Throughout much of the world, public transport is not just a disgrace, it is despicable. This is due to the fact that the political class is able to ignore the interests of the poor who must rely on it. It need not be this way. The public transport systems of Paris, London, Moscow and other great European cities are marvellous and thoroughly democratic. People do not, and will not, use public transport for the purpose of enhancing sustainability or mitigating climate change. They use it because it is clean, safe, reliably punctual and cheaper than driving. This will require subsidies on a scale that match current subsidies to the private automobile (under-taxed gasoline priced below its marginal social costs). If the price of a litre of gasoline were indexed to the price of a double macchiato in each nation, the rich would quit their automobiles and use public transport. They would be appalled. But, tax proceeds from more expensive gasoline, coupled with their demands for higher-quality service, will very soon render public transport desirable. And from this, both the rich and poor will benefit.

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Public transport must rise to a level where it can compete directly with the car in order to attract more riders from all groups of society. Drivers choose the automobile

because it is reliable, fast, flexible, easy to use, and out-of-pocket costs for individual trips are low. Regional coordination and integration of public transport services, timetables, customer information, and ticketing can help foster public transport’s competitiveness by increasing travel speed, ease of use, reliability, accessibility, and reducing out-of-pocket costs. Regional integration of services across modes and operators increases the public transport network size and fosters regional accessibility by public transport, making it a feasible alternative for more trips. Temporal coordination of services and spatial integration of stops provide seamless transfers, increase travel speeds, assure reliable connections, and allow for short walks at stations. Integrated tickets provide easy access to all modes of public transport in the region — bus, rail, and across all operators. Discounted monthly or annual regional tickets eliminate out-of-pocket costs for individual trips. Moreover, monthly and annual tickets make public transport an alternative for most trips, mimicking the ubiquitous availability of the car. Signal priority at intersections and proprietary rights-of-way increase public transport travel speed and reliability. Government policies can foster pedestrian and bike access to public transport and limit car use and speeds in cities.

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The stigma of public transport as the poor man’s vehicle tells us that public transport users in many countries are captive users, those who have no choice. Public transport shares this stigma with cycling and walking, which in many countries are also modes with only captive users.

The stigma of these three modes of transport are related and mutually reinforcing: public transport users will be pedestrians and/or cyclists for at least part of their trip between origin and destination. Poor walking and cycling conditions thus contribute to a bad travel experience for public transport users, even in the case of modern public transport systems. If the public space does not respect the dignity of people walking and cycling, the stigma for public transport is an inevitable consequence.

As long as cyclists and pedestrians are treated as second rate or even as non-existent, cycling and walking will continue to decrease. Lack of status is only an obvious consequence of existing planning policies. Whatever good reasons there are to promote public transport, cycling and walking, people will only choose these modes if these provide a safe, practical and dignified solution for their transport needs. Some European countries show that this can be done.

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Answering the question rather directly, I would say that there is a connection between public transport, poverty and inefficiency that must be broken. This connection may stem from people's unfair perceptions, or may be based in reality. In both cases, however, there is a need to change citizen's "pre-analytic vision" of public transport.

In countries whose public transport systems are ineffective, the obvious solution is to invest in higher quality infrastructure and vehicles operating under appropriate business models. It is important to highlight the role of business models because issues such as the ratio of operating costs to revenues and the availability of funds for infrastructure investments are crucial to enable the sustainability of any system.

Efficiency is a precondition to changing the way people perceive public transport systems. But that just might not be enough. Even in developed countries with high quality systems, the car culture has spread throughout large sections of society — including to children and students, whose current behaviour will probably extend into the future with long-lasting consequences.

We need, therefore, to show the wider public that many persons commonly perceived as rich or successful also opt for using public transport. Politicians, for instance, should be the first to set the example. We must also communicate, and with higher confidence, the tremendous benefits of public transport, particularly benefits less often thought of, such as:

a resting nap on a train, time to read, meeting new people, and easily communicating and having fun with friends. Mass media and social networks are just waiting for innovative campaigns.

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Overcrowded vehicles — with many men clinging to the roof and side of buses — create a certain image of public transport. As the question says, it is seen as the "poor man's vehicle", and not "poor woman's vehicle", since the overcrowded vehicles can be too prohibiting for women. However, I do not think that there is a stigma to public transport itself. Convenient, clean and safe public transport is popular in any country. The best and only way to make public transport a main means of transportation is to improve its convenience, safety and connectivity. The minimum criteria for safety and convenience should be based on the perception of lower middle class women in their late 20s and 30s, who are more likely to experience pregnancy; travel with small children; be vulnerable to harassment in public transport; work in factories in shifts during odd hours; and/or be self-employed but with small capital, thus relying on public transport to transport goods. The best criteria, however, may be derived from the perception of disabled women and the elderly.

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This is partly a design problem, and partly a supra-system constraint problem. Any transportation system that is cheap, clean, predictably punctual, modern and convenient in both use and location will effectively compete with single-occupancy vehicles. Of these factors, cost and location are the key supra-system constraints, while the rest are design constraints. The Curitiba model in Brazil clearly shows that the design constraints can definitely be resolved, and, at that level, public transportation is a viable option for most socio-economic levels of society.

As far as cost is concerned, the conventional view is that public transportation is not cost-competitive with the automobile without subsidies. But this view disregards the fact that the automobile is itself heavily subsidized, albeit indirectly. We do not account for any of the many externalities that accrue to the use of automobiles. In fairness, all costs associated with the use of automobiles need to be factored in, to make meaningful comparisons.

With regard to location issues, we have only two options open to us, either to choose cases where origin and destination points are conveniently clustered as our first points of intervention or move other regions of the country towards a smart growth model in some gradual and systematic way.

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As social behaviours are a driving force of mobility and transportation trends, promoting a particular transport mode will develop habits in future generations with regard to the types of practices, choices and behaviours that contribute to a more sustainable environment.

We must build a deep understanding of concepts such as collaborative consumption, which represents a critical shift in the way we live, use resources, spend money and time, with immediate consequences on the built environment's efficiency and landscape quality.

Public transportation modes should provoke not only a re-thinking of mobility itself, but a re-thinking of urban space in a broader sense. Considering, for instance, land use devoted to infrastructure, people travelling in a car use 4.32 m<sup>2</sup>/person, while people riding a bus use just 0.66 m<sup>2</sup>/person. If we could convert the space devoted to cars into green use, then we would have a radically transformed city.

Nowadays, a system such as BRT (Bus Rapid Transit) has achieved an average speed of 22 km/hour during peak periods, surpassing a car's speed due to the fact that you travel in exclusive lanes avoiding traffic congestion.

The strategy is simple: "Think rail, use buses."

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The Norwegian bus company Konkurrenten recently started offering free wireless internet on its 5-hour connection between Kristiansand and Oslo. While intended as a measure for outpacing its rivals in this market, an important lesson to be learned from this example is that increased quality through high-end, low marginal cost (to keep service extensions affordable even on limited budgets) services is central in the competitive battle for customers. In our view, applying insights from such commercial policy experiments to public sector transport could help overcome public transport's stigma as the "poor man's vehicle". Specifically, services such as free wireless internet have the ability to raise both the image of public transport (a direct effect: these services are not commonly associated with poverty)

as well as increase its attractiveness to certain segments of the population (an indirect effect: a broader use of public transport indirectly undermines the stigma thereof). In this respect, it is interesting to observe that the same technology is now also being offered on, for example, high-speed trains in Germany (ICE), France, Belgium and the Netherlands (Thalys), but the additional fee often charged there, in our view, is likely to reinforce the social stigma that providing a free service could address.

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The question implied that a stigma exists and people are not using public transport because poor people use public transport. Is this really the case or it is just a matter of available choice? The test situation would be if we keep all variables identical and then people do not use public transport due to stigma. Convenience, status, quality, price, origin to destination time are some of the factors that people consider when making travel decisions. To encourage use of public transport, the same decision-making factor needs to be taken into account. Some likely actions:

1. Public transport should offer higher value than private modes even for short distances. The quality of travel, convenience and customer services in public transport must be competitive with private modes.
2. The celebrity/role model should be encouraged to use public transport and that should be shown on media regularly for a long period of time.
3. All UN senior executives, senior staff in the public and private sectors should use public transport or eco-friendly cars for travel to and from airports.
4. In-kind benefits should include bus and rail allowances rather than additional new cars.
5. Travel modes involving high CO<sub>2</sub> emissions per passenger should be stigmatized.

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The stigma of public transport as a "poor man's vehicle" can be overcome by addressing the root cause of this. One

of the factors that taint the image of public transport is crime. In some developing countries, public transport is an easy target for criminals. Hence, relatively better-off people are traditionally wary of using public transport due to a fear of crime and are reluctant to leave the relative safety of their own vehicles.

Governments must invest in improving safety on public transport. The mechanical condition of most public transport vehicles is very poor and operators treat passengers very poorly.

Public transport operators must be trained in basic customer service. The operators must always observe set schedules. Public transport operators must treat passengers with respect and not with contempt. They should remember that passengers sustain their business. This is the type of relationship that makes a huge difference in whether one uses a public vehicle or not.

Hence, improving vehicle conditions, efficiency of service, operator attitude and behaviour, and general safety can go a long way towards removing the stigma.

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#### Promote Car-free Living as a Positive Lifestyle Choice

The key to solving this problem, in developed countries in particular, lies in supporting and encouraging people of higher social status to choose not to own cars. My research suggests this group — Carfree Choosers — represents about a third of the 16% of adults who live without a car in the UK. Concentrated mainly in the inner areas of larger cities, their most common explanation for not owning a car is: “because I don’t need one”. The Carfree Choosers walked more, cycled much more and used buses three times and trains twice as often as the rest of the sample. Several Western European countries have begun to build carfree neighbourhoods, which have led many of their new residents to give up car ownership. Most of these people come from higher social groups. Governments and official reports on people who live without cars have generally approached the issue as an aspect of social exclusion, which it is for some people. But if we are to overcome the stigma attached to some forms of public transport we need to view and promote carfree living as a positive lifestyle choice.

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Why is public transport considered a “poor man’s vehicle”? Although sufficiently fast on individual legs of a journey, it is often slow considering the entire trip. It is uncomfortable, noisy and unsafe and therefore attracts mainly captive users with no other option for their essential trip; mostly they are the urban poor. Potential riders who do have a choice avoid public transport altogether.

To overcome this stigma, a shift in behaviour is needed, stimulated by the creation of attractive and efficient urban public transport systems operating on the basis of multi-modal integration. Such systems combine the relative strengths and appropriate spatial scales of modes to guarantee seamless travel. Of particular importance is the strengthening of access and egress by bicycle; these are mostly overlooked by transport planners and operators who generally apply a piecemeal approach to system planning.

The advantages of a more distinct role for cycling are obvious: it is zero emission, fast and efficient; it promotes people’s health; and contributes to social inclusion. Its spatial scale allows the public transport system to be less dense and operate more efficiently. In our view, an integrated cycling-public transport chain will offer a real choice to all people and is the key to sustainable cities.

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With regard to various sustainability criteria including climate change, public transport, in principle, can perform far better than private modes. However, it is ironic that potentially competitive public transport modes are subject to a vicious cycle of lower ridership, operational deficit and poor quality services. The root cause for triggering and sustaining such a vicious cycle lies in the common notion that public transport should be made affordable for poor people through fare regulation. The politically-imposed “affordable fare” is clearly a disincentive for service improvement, which is necessary to attract high-income users. Such a wrongly conceived policy premise eventually makes public transport the “poor man’s vehicle”.

The affordable fare can instead be achieved by turning the vicious cycle into a virtuous cycle of higher ridership,

profitable operation, and improved service quality (attractive enough for high income users). For this, policy focus should be on balancing modal competition. The out-of-pocket (variable) cost for private mode is much less than the public transport fare. Emphasis should therefore be on measures like fuel tax, tolls, and parking fees to reflect the real economic costs of driving, which not only generates much needed funding for transport infrastructure but also makes commercial operation of public transport viable. This is exactly the model adopted by countries such as Japan and Singapore, where public transport is rich in quality, yet affordable for the poor.

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Most people are determined to have their own cars as a representation of their accomplishments in life. However, the fact that they would use it every day is a completely different matter. People are rational. They opt for a better and cheaper option. The question is how well transit planners influence their decision. In some developed cities, fiscal instruments limit the intensity of using cars. Nonetheless, the effectiveness is dependent upon the availability of an outstanding public transport system that allows people to have reasonable alternatives. As for developing countries, the potential captive users of public transport are increasingly choosing motorcycles since they have easier access to them and the operational cost is a lot cheaper than using public transport. Inefficient management of public transport is one of the reasons. Therefore, the stigma may not fit some cases where public transport is no longer widely affordable for even the poor people. Accordingly, reducing the convenience of private modes will not work if the circumstances still force people to be dependent on them. What we need is to establish a public transport system which is attractive to those at a higher income level but is affordable enough for those at

a lower income level. Then, we can talk about limiting the use of private modes.

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Before answering the question we need to consider how the concept of public transport is defined. For instance, do we understand public transport to include bullock carts, rickshaws, buses, trains, trams, and planes, too? Which particular mode of public transport is considered to be the “poor man’s vehicle” and by whom? The definition of public transport, especially as a “poor man’s vehicle”, will be different depending on different cultural and geographical settings. The key challenge is instead to ask how we can change all modes of transport so that people, whether rich or poor, have access to low or zero emissions forms of transport. Accessibility means as much geographical accessibility — the fact that you have a zero or low carbon transport system in place — as affordability and admirability — people being able to and wanting to use the system. For this, we need to analyse why people travel and to where. Is it mainly commuting to work and services or leisure-related activities? We also need to develop innovative services which allow people to do fewer “unnecessary” journeys. These could include, for example: delivery services, shared-transport modes and telecommuting. For lasting sustainability, we need zero emissions mobility.

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