

# PLANNING AND DESIGN FOR SUSTAINABLE URBAN MOBILITY

## GLOBAL REPORT ON HUMAN SETTLEMENTS 2013

### Think Access, not Transport

**There is a huge disconnect between transport needs and investments, according to the United Nations Human Settlements Programme, UN-Habitat, where – despite over half of all passenger and goods trips being by foot, bicycle or rickshaw – the bulk of transport investments focus on cars.**

In the *Global Report on Human Settlements 2013 – Planning and Design for Sustainable Urban Mobility* – UN-Habitat says the greatest challenge to urban mobility comes from the fixation with building or expanding transport infrastructure, over increasingly long distances, rather than ensuring people greater access to destinations and facilities that satisfy their needs. The report suggests that urban planners and decision-makers must realize the human right of people to equitable access and make the fulfilment of that right the focus of their efforts to improve urban mobility.

“Mobility is not just about developing transport infrastructure and services; it is about overcoming the social, economic, political and physical barriers to movement, such as class, gender relations, poverty, physical disabilities and affordability,” says UN Under-Secretary-General and UN-Habitat Executive Director, Dr Joan Clos. “The right to equitable access is about empowering people to exercise their basic human rights to the fullest.”

Getting there, the report says, calls for urban planners and decision-makers to make a massive shift in mentality to move beyond the fixation on speed, efficiency and effectiveness of transport systems to focus on enhancing equitable access instead.

Speed, efficiency and effectiveness of travel are important, it acknowledges, but more critical is reducing the need for travel, by bringing services and destinations closer to the public, which increases the access of all residents, irrespective of income, age, gender and physical ability. Human and spatial dimensions, then, become the core of sustainable mobility. The ultimate objective of all transportation is access not mobility.

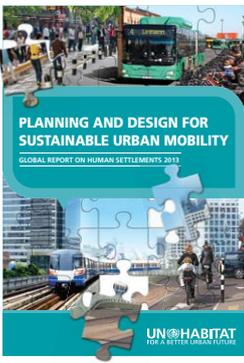
## Mobility is not just about developing transport infrastructure and services, but about overcoming the social, economic, political physical barriers to movement.

### Sustainable Mobility

Sustainable mobility entails closer connection between transport planning and land-use planning - that is the organization of urban space. The main objective is to reduce the need for mobility by reducing the number of trips and length of distance travelled. By planning for sustainable urban densities we enrich urban space and reduce the need for long-distance travel.

The urban form, design of streets and neighbourhoods promote a sense of belonging and determine the accessibility of such neighbourhoods. Physical arrangement of streets may either encourage or discourage walking and cycling. Therefore, street patterns, the length of city blocks, the relationships of buildings to pathways, stations and central places are key considerations when planning sustainable mobility.

Despite increasing levels of urban mobility worldwide, access to places, activities and services has become more difficult. Thus sustainable mobility entails a shift in emphasis from transport to people and places, although it still demands improved transport systems and innovations in other modes of communication.



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### 'Transport poverty' and inequity

Affordable urban transport is an important aspect to economic and social well-being. It means the low-income earner can afford access to healthcare, household goods, education, work and social activities. Unaffordable transport denies vulnerable groups these opportunities and exacerbates poverty.

Accessibility is an even greater concern in developing countries. Where governments are unable (or unwilling) to provide subsidized public transport systems, the poor are at the mercy of informal sector transport operators or are forced to cover long distances by foot. In 2005, about 37 per cent of urban trips worldwide were by foot or bicycle, the two major modes of urban non-motorized transport. In South Asia's most dense cities, over half of all passenger and goods trips are by foot, bicycle or rickshaw. In the African cities of Dakar (Senegal) and Douala (Cameroon) walking accounts for 60 per cent of all trips. In poorer and smaller cities it may reach 90 per cent.

With walking being such a dominant form of mobility in developing countries, urban planners there need to look at land-use and transport planning to provide well-connected and safe pedestrian environments, which are critical to providing access. Pedestrians must deal with the lack of pavements and safe crosswalks. They are prone to car accidents, and the personal security threat that comes with unlit streets. In many African countries school children and youth often walk long distances along congested corridors to reach schools, exposing them to accidents risks and other hardships. The elderly and disabled in developing countries do not have the statutory rights of those in advanced countries that guarantee full accessibility to pavements, street designs, and public transport.

Women in many countries worldwide are less likely to have access to private motorized transport. Most – 87 per cent versus 57 per cent of men in Bamako (Mali); 83 per cent versus 63 per cent in Chennai (India); and 59 per cent versus 39 per cent in Chengdu (China) – walk for virtually all trips. Women have the added burden of making multiple trips: they take children to and from school, go shopping

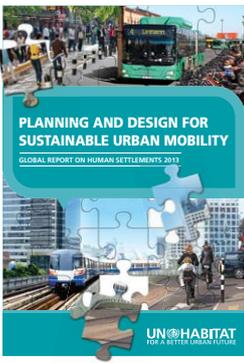
Percentage of women versus men who walk for virtually all trips (examples)

City/Country	Women	Men	% difference
Bamako, Mali	87	57	30
Chennai, India	83	63	20
Chengdu, China	59	39	20

and conduct other errands, often back-to-back known as trip-chaining. Therefore, fixed bus routes become impractical, forcing the use of more expensive door-to-door services: private cars in developed countries and in poor ones rickshaws, bicycles, motorcycles taxis.

Despite its marginal importance in many cities in the developed world, cycling is still an important enhancer to accessibility in some cities of the developed. With the appropriate planning and infrastructure, bicycles can be used as feeders to other transport services. In some cities in the Netherlands, for example, bicycles account for upward 40 per cent of trips. In smaller Chinese cities the range is between 70 per cent and 80 per cent.

Attaining equitable access requires a holistic and integrated approach to urban mobility; the shape, structure, function and demographics of cities are all vital components of urban transport systems. A focus on accessibility also requires attention to the compactness of the city – which often means increasing urban densities and giving residents a sense of belonging. Compactness (i.e. sustainable densities), mixed-use and walkable neighbourhoods create more accessible urban landscapes, thereby reducing the need for private motorized travel. More accessible cities also foster greater social equality and inclusiveness.



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### Cost of transport around the world

- In Mexico City's informal settlements travel can consume 25% or more of daily wages
- 20% of Mexico City's workers spend more than 3 hours travelling to and from work daily
- Informal minibuses and motorized tricycles to and from work can cost 20% to 25% of daily wages in Delhi (India), Buenos Aires (Argentina), and Manila (the Philippines); and 30% in Nairobi (Kenya), Pretoria (South Africa) and Dar es Salaam (Tanzania)

### Conclusions:

- Politicians, government institutions and planning processes need to emphasize accessibility over mobility.
- Cities need to be more compact, encourage mixed land use, and prioritize sustainable modes of mobility such as non-motorized transport, in order to develop sustainable mobility systems.
- Urban mobility systems need to provide mobility opportunities for all.
- Improved urban planning will be critical in designing and retrofitting cities to better accommodate sustainable modes.
- Policies to encourage sustainable urban mobility must take into account social, environmental, economic and institutional dimensions of sustainability. This calls for more holistic and inclusive framework for the planning, design and provision of urban mobility systems and services.