Better urban mobility in developing countries

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Better Urban Mobility in Developing Countries

Today, developing countries are facing great challenges in their journey towards economic development, may it be socio-economic changes, education, health, the environment. However, urban transport remains largely unaddressed. With population growth and an increase in motorization, pressure is building up on transport systems in cities of the developing world. In situations that are already difficult, socio-economic marginalisation, air and noise pollution, congestion and traffic fatalities are deeply threatening economic development and the quality of life in cities of the developing world.

For a long time, public transport was neglected, in the same way as walking or cycling, in favour of cars. However, public transport has now become part of a number of pioneer mobility policies in cities in Latin America, Asia and Africa. This trend should be generalised if the majority of the population in developing countries is to benefit from reliable and affordable transport. To achieve this goal, decision-makers must give priorities to developing sustainable transport systems that give a better place to public transport and non-motorized modes.

Though the underlying reason for travelling is the same in the developed and developing world, the challenges of urban transport differ greatly. This brochure, specific to the developing world, is not only intended to reveal urban transport problems but also to provide concrete solutions and good practices from the developing world. UITP is, more than ever, committed to the promotion of public transport for all and, in this respect, effectively addressing transport needs in developing countries.

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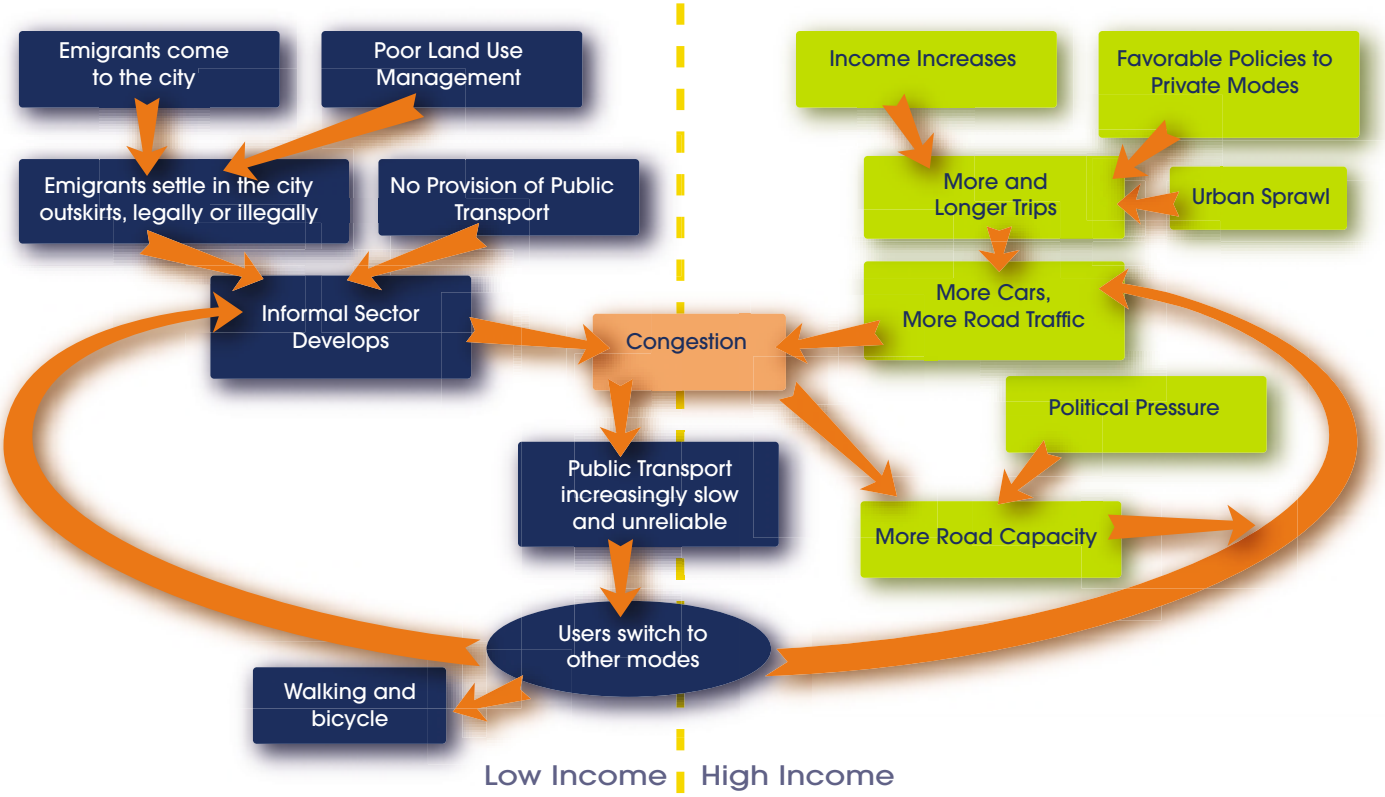
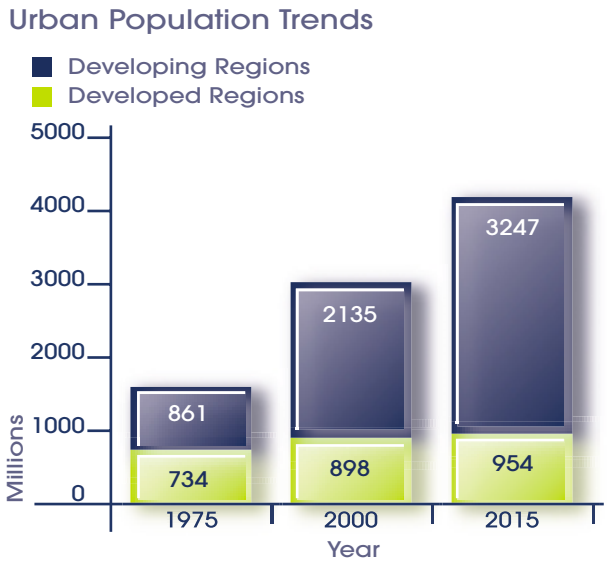
Vicious Circle of Urban Degradation



City Less Accessible for All

More and more people are living in urban areas



In 2000, 35% of the world population was living in urban areas in developing countries. This is estimated to rise to 45% in 2015.

The world population is forecasted to grow exponentially in the developing world, with the majority of growth concentrating in urban areas.
As population grows, travel demands also grow. Consequently, developing cities will be faced with an increase in urban mobility demands that can be supported neither by existing facilities and infrastructures nor by past and current car-centred policies.

In the developing world	2005	2015
10 million or more	15	17
5 million to 10 million	20	31
1 million to 5 million	280	378

More people and larger cities

Population and economic growth increase mobility demand in urban areas

Many cities are developing anarchically

This past century, demographic pressure, increase in the level of economic activities in urban areas and deficient urban planning resulted in the development of anarchic cities, even anarchic megalopolises. The challenge remains as population and activities are expected to grow even more.

Most city developments are in low-density areas further expanding the metropolitan area.

9.4 million inhabitants were living in Cairo in 2000. The UN forecasts a population of 11.5 million in 2015, most of the growth occurring in spontaneous areas

Favelas in Rio de Janeiro concentrate poverty into particular areas of this wealthy Brazilian city

In growing cities, many neighbourhoods are becoming less and less connected and integrated to the rest of the city. Urban sprawl accentuates the marginalisation of the poor by creating ghettos without proper public infrastructures.

Chaotic city development threatens quality of life and the ability to meet mobility needs

There is a lack of dedicated institutions to address urban mobility issues

In Lagos, Nigeria, due to a lack of public regulation until just recently, the informal sector has been the only provider of collective transport

Urban transport has up to now seldom been a priority for decision-makers.

First and foremost, city transport policy-making and management has often been centralised at the national level, far from local issues. In addition, in many cities there are no dedicated institutions in charge of transport at a metropolitan level.

Second, even when transport competencies are decentralised, there is a fragmentation of the policy-making process. Transport-related competencies are repartitioned among various administrations (infrastructure, finance, traffic regulation, etc.) leading to a lack of comprehensive policies.

Eventually, in a deregulated environment, the informal sector takes over in providing collective transport but without achieving its public service goals.

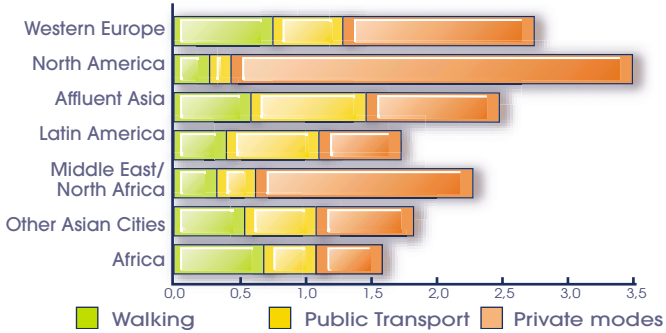
Few comprehensive and integrated policies are formulated to manage and regulate urban transport

People have limited access to motorized transport

Though it varies much between countries and regions, equal opportunity for access to transport is far from being achieved.

In developed countries, the vast majority of people have access either to public transport or private modes and often have the choice of both. However, low average income does not allow the majority of people in the developing world to have access to private motorized transport, making them dependent on other modes.

Daily trips par Capita



People in developing countries are making less trips

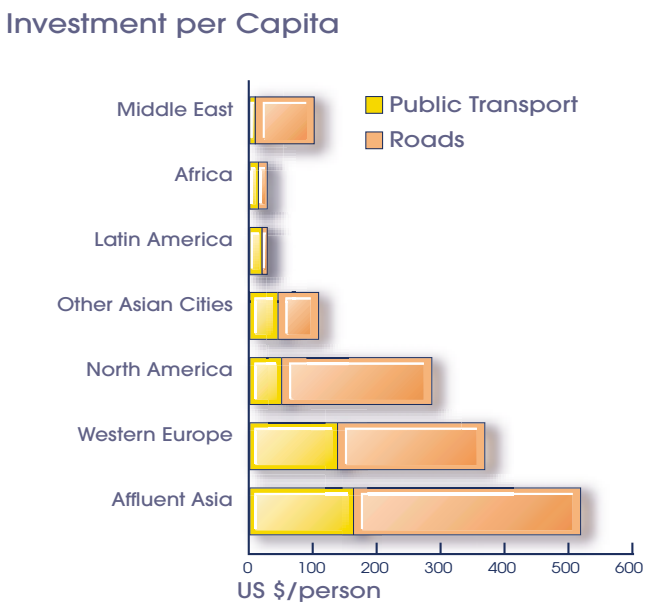
General costs to own and use a vehicle in Asian cities (US$ 1992)

City	Purchase of a new vehicle		Annual operating and maintenance	
	Motorcycle	Car	Motorcycle	Car
Phnom-Penh (Cambodia)	1690	25100	174	600
Kanpur (India)	1200	6400	349	1000
Surabaya (Indonesia)	1480	24600	183	820
Manila (Philippines)	1760	31300	147	1130
Chiang Mai (Thailand)	1520	19800	239	1280
Penang (Malaysia)	2000	16000	380	2230

Hence, when public transport is not available, people can only rely on walking or cycling. As cities are sprawling, travel times are getting longer and longer and access to basic services becomes increasingly difficult.

Inhabitants of developing countries often do not have the choice of mode of transport most adapted to their needs

Cities are under-investing in infrastructure



Developing countries invest little in general, even less in public transport

The low priority given to urban transport combined with limited funds has resulted in a low level of investment in infrastructure in the developing world, with regard to both public transport and roads. Moreover, whenever governments invest in transport infrastructure, it is often aimed at car-based infrastructures (i.e. highways and parking spaces), not necessarily the most accessible for the majority of the population.

Low investments are generally synonymous with poor maintenance and degradation, a decrease in the level-of-service and poor safety records.

Situations that are already problematic are getting worse

Air in urban areas is increasingly polluted

Transport is a major contributor to pollutants such as CO, NOx, SO2, lead and particulate matter. The World Health Organization (WHO) estimates that about 700,000 deaths annually could be prevented in developing countries if three major atmospheric pollutants - CO, particulate matter and lead - were reduced to safer levels.

In Mexico City - the WHO estimates that Mexico City's concentration of suspended particulates is on average 179 mg/m3, nearly twice the recommended level of 90 mg/m3. The exhaust fumes of the 3 million cars in the city are primarily responsible for this low air quality.

In Tehran, a quarter of the car fleet is without any emission control and is over 20 years old. In December 2001, the level of pollution was so high that authorities had to shut down schools and close the city centre to cars, advising everyone to stay indoors.

Motorbike taxis exposure to carcinogenic pollutants - Cotonou

µg/m3	Benzene	Toluene	Ethyl benzene
Crossroads			
Dedokpo	144	329	62
Sacré-Cœur	199	436	84
Marina	280	679	130
Personal Badges			
Driver 1	292	631	125
Driver 2	186	403	83
Driver 3	91	217	39
Driver 4	251	473	93
Health Norms Organization	5 (UE)	260 (WHO)	100 (WHO)

In Cotonou (Benin), the Zemidjans (motorbike taxis) have exposed inhabitant and drivers to levels of pollution far above the health standard in terms of carcinogenic pollutants

The direct health cost of urban air pollution in developing countries was estimated in 1995 to be nearly US$100 billion a year.

Too many people die or are injured in traffic accidents

In New Delhi, pedestrians, motorcycles, buses and cars share the same road space, incurring many fatalities

Inappropriate infrastructure and poor regulation promote a mixed use of existing infrastructure. This generates conflicts between pedestrians/bicycles and motorized modes which leads to a particularly high rate of injuries and fatalities, most of the victims being pedestrians and two wheelers drivers

In addition, travelling is made dangerous for car passengers due to a lack of basic safety standards, like safety belts, and old vehicle fleets.

Total transport deaths per million people

Brasilia	553.25	Tunis	146.16
Rio de Janeiro	331.83	Harare	139.64
Kuala Lumpur	282.73	Guangzhou	137.27
Johannesburg	261.8	Caracas	118.89
Jakarta	227.05	NORTH AMERICA	106.56
Bogotá	204.5	WESTERN EUROPE	72.34
Bangkok	192.07	AFFLUENT ASIA	59.37

Transport mortality is higher in developing cities and the most vulnerable populations are cyclists and pedestrians

Growing congestion is a widespread problem in almost all cities

Though motorization remains low in developing countries, inadequate infrastructure, low capacity and poor traffic control create heavy congestion in large urban areas, costing more and more to the society in terms of hours lost in traffic and longer commuting times. The informal sector, cars and motorcycles are all contributing to this congestion.

Estimated losses due to traffic jams in 1996-1997

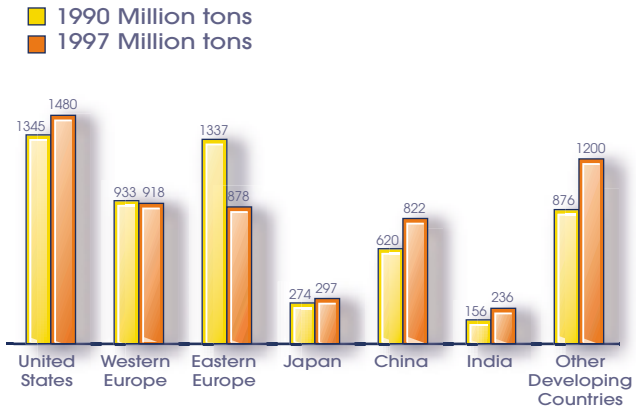
City	Annual Cost of Time Delay (million US$)	Percent of Regional Gross National Product
Bangkok	272	2.1
Jakarta	68	0.9
Kuala Lumpur	68	1.8
Manila	51	0.7

Commuters are already losing time in traffic jams and this can only get worse as motorization is forecasted to increase in the developing world

Congestion threatens economic viability and aggravates pollution

Urban sprawl and usage of cars increases emissions of greenhouse gases

World Carbon Emissions 1990 and 1997 Million Tons



The share of carbon emissions from developing countries is expected to grow as they become more and more motorized

Even though the emission of Greenhouse Gases (GHG) is lower per capita, the developing world increasingly contributes to climate change. Further motorization due to population growth and the increasing private travel demands will accentuate the Greenhouse Effect, jeopardising efforts to limit climate change.

Motor Vehicles in Use in Delhi (thousands)

Year	Scooters and motorcycles	Cars/jeeps	All motor vehicles
1971	93	57	180
1980	334	117	521
1990	1077	327	1547
2000	1568	852	2584
2010	2958	1472	4809
2020	6849	2760	10339

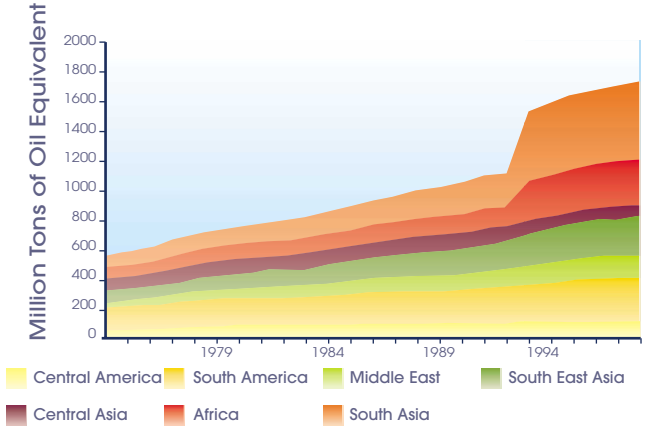
Motorization in New Delhi is forecast to almost double every decade and GHG emission are estimated to increase by 65% by 2010

Urban transport in developing countries is increasingly contributing to climate change

Increase in travel also means increase in energy consumption

The International Energy Agency (IEA) has projected that the transport sector will be the primary user of energy by the year 2020. That same year, the world energy consumption will have grown by 66%, due in great part to the developing countries.
The world consumption of energy is largely based on fossil sources. In the case of transport, petroleum accounts for more than 95% of its energy needs. As a result of motorization, the demand for oil cannot be sustained and the energy cost for developing countries can become a real burden when oil is bought with foreign currencies.

Total Energy Consumption



More energy also means more oil and greater costs

Developing countries will become more and more energy dependent

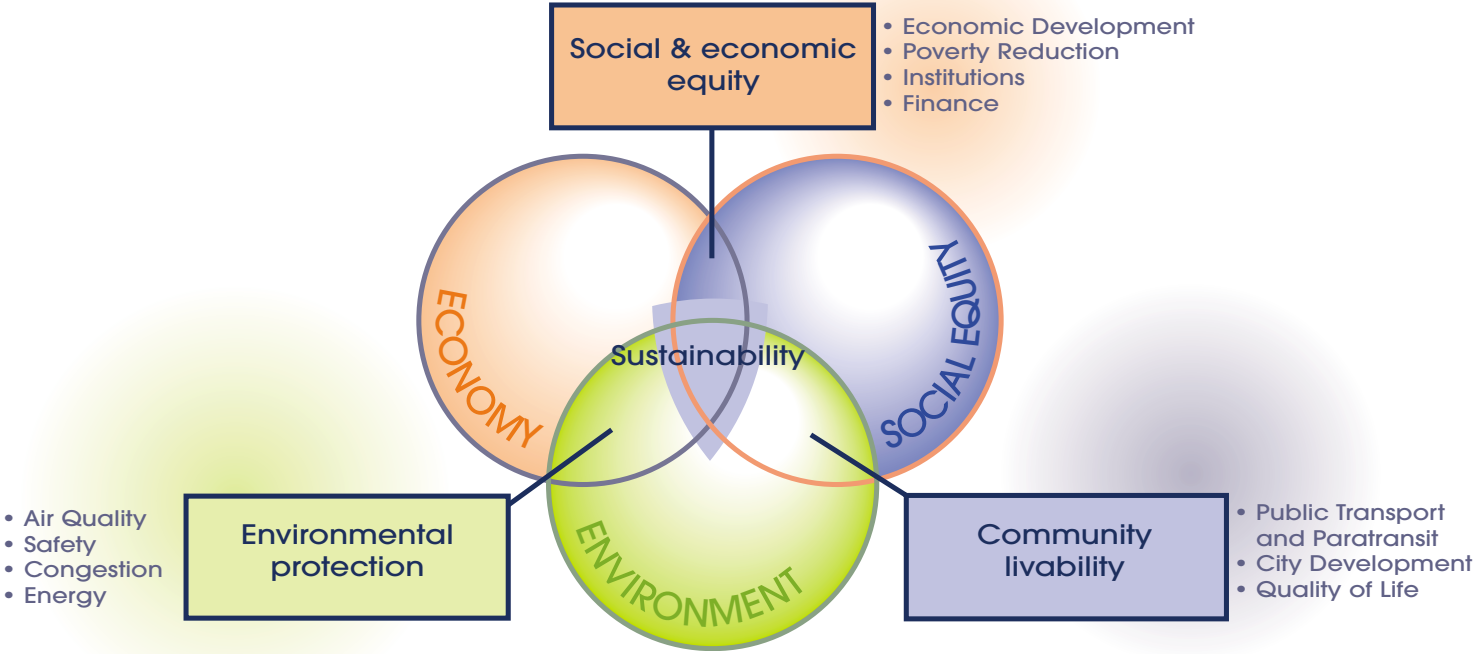
Car infrastructure uses urban space inefficiently

Brasilia was built to accommodate cars, with a lot of space for roads and parking

Each mode of transport uses space for moving and parking over a given period of time. However, a private car is the largest consumer of space as it spends 90% (or 22 hours per day) of its life stationary (i.e. parked).
Subsequently, enormous quantities of valuable urban space are used uneconomically only for parking at home, at the office, in commercial areas.
In addition, road infrastructure needed to accommodate travel demands also consumes much space, sometimes disrupting communities and marginalising entire neighbourhoods.

Economic value is lost and some living areas are marginalised by car-based infrastructure

Sustainable Solutions

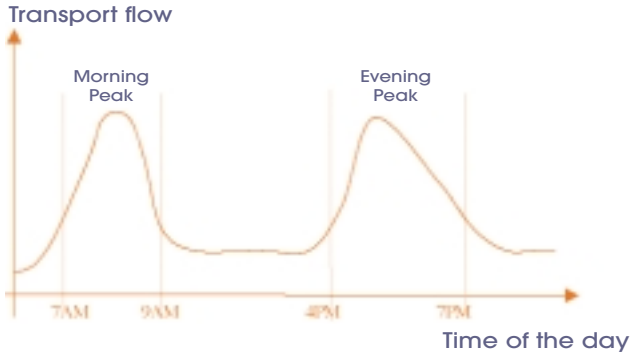


Sustainable solutions to urban mobility must take into account: the economy, the environment and social equity

Sustaining economic development through efficient and effective public transport

Economic activities require a movement of people between residential areas and jobs, leisure and shopping. Therefore, an efficient and effective transport network is required to link activities and people.
Because transport demand is concentrated in time (during the morning and the evening peak hours) and in space, public transport can more efficiently link activities and people.

Typical peak hour pattern



Public transport offers an efficient and effective access to activities

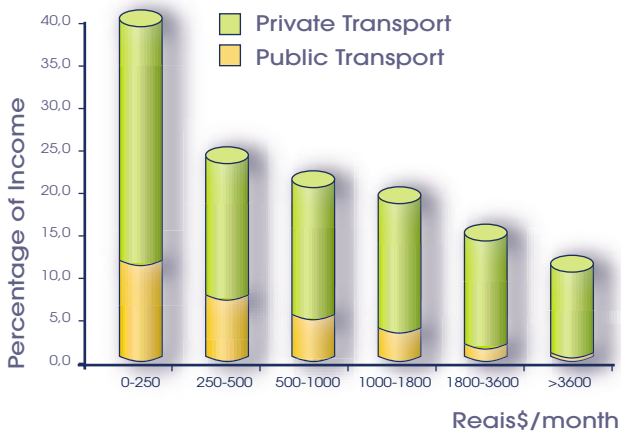
Solution 2

Supporting poverty reduction goals by offering good access to the city

In the context of low income and low accessibility, transport costs can represent up to 30% of household budgets excluding the time spent travelling. Public transport can provide an efficient way to give people access to basic services. Indeed, it will help those most marginalised if they have easy and affordable access to jobs, health centres, schools, universities and administrative centres, ensuring greater social cohesion.

Access is also for people with disabilities

Relative expenses in Transport



Absolute and relative transport expenses by income level, Sao Paulo, 1997

Social policies can only have limited impacts if people are not given good and affordable access to basic needs

Creating a local or regional transport authority to support local policy-making

Urban transport is a great challenge in many aspects, due to numerous conflicting issues. To address this challenge, there must be an integrated transport authority that ensures cohesive policies with respect to all the different stakeholders.

Indeed, planning a transport network and financing infrastructure ought to be done in a coherent way if projects are to be realized. Also, regulating traffic and public transport can be difficult to balance if done separately, as measures from one administration could counteract those of another administration.

A transport authority once established must build legitimacy by developing strong ties with the local stakeholders in order to address urban transport challenges. They include:

- Local communities
- Transport user associations
- Businesses and major employers
- Public/private transport operators
- Land-use agencies
- Intercity operators
- Decision-makers/elected officials

Transport authorities will need to focus on strategic planning and establishing the best conditions for public transport to flourish, setting transport policies which complement the efforts of those who are actually developing and operating the public transport system.

Only co-operation between transport actors can help to resolve urban transport issues

Financing public transport operations and investments

FOCUS
The Financing of Public Transport Operations

In general, the financing of the operation and investment of public transport cannot be fully covered by the revenue from fares. Outside financial support is often required to fill the gap between income from passenger fares and costs of operation and investments. It only reflects that fares and service levels are set with specific policy objectives in mind. Governments, local authorities and other bodies, including the private sector, thus make funds available to public transport for economic, social, transport and environmental reasons.

The alternatives to direct funding by the user can be considered under three main headings:

- **Polluter Pays:** those who cause a problem compensate for the cost imposed on the community. Environmental taxes on the use and ownership of cars and parking charges can be levied.
- **Beneficiary Pays:** those who gain benefit from a service meet its costs. In France, the Transport Tax ("Versement Transport") requires employers with more than nine staff to contribute towards the cost of public transport investment and operation. In Hong-Kong, the construction of new metro infrastructure is partly funded from the rents and sale values of property adjacent to metro stations.
- **General Public Pays:** through national and local taxation, whether or not they are public transport users.

In practice, funding of public transport may involve a combination of mechanisms. The need for public funding should be clearly recognised because in most cases public transport requires external finance in order to provide a level and quality of service defined by a policy at a price which could not otherwise be achieved. It is justified by:

- The full potential of public transport to contribute to mobility, to the functioning of urban economies, to the urban environment, and to combating social exclusion
- The fact that funding required is not a subsidy, but a payment for a service rendered to the community
- The funding of a public good, for the same reason as roads are provided for free to cars.

Measures should be taken to ensure that maximum value for money is obtained by the external funding provided. These include:

- the contractualisation/formalisation of relations between operators and authorities,
- provisions for giving incentives to operators and for adjustments to contracts to meet changes in costs outside the control of the operator.

Funding public transport is not a subsidy but a payment to provide a level and a quality of service, at a price which could not otherwise be achieved

Improving air quality by emphasizing more environmentally-friendly modes

Emission Rates in London (grams/passenger-km) by mode, 1997

	Cars	Buses	Metro*
Carbon Monoxide	12.9	0.3	0.03
Hydrocarbons	1.9	0.1	0.0
Oxides of Nitrogen	0.8	1.2	0.3
Oxides of Sulphur	0.05	0.02	0.15
Lead	0.02	/	/
Particulate Matter	0.04	0.02	0.01
Carbon Dioxide	197	89	91

*Correspond to the emission of the electric power supplier

Comparative studies in London show that public transport is less polluting than cars because emissions are spread over the group of users

Cars and motorcycles, which are responsible for most emissions, can be substituted in part by more sustainable modes. Environmentally-friendly modes include cycling, walking and also public transport run by:

- Biodiesel or clean diesel powered engines (buses) with catalytic filters
- CNG-powered engines (buses)
- Electric-powered engines (heavy and light rail, buses).

Cities must evaluate what trade-offs they are willing to make between the economy and the environment, and choose the best alternative accordingly.

The myth of empty buses

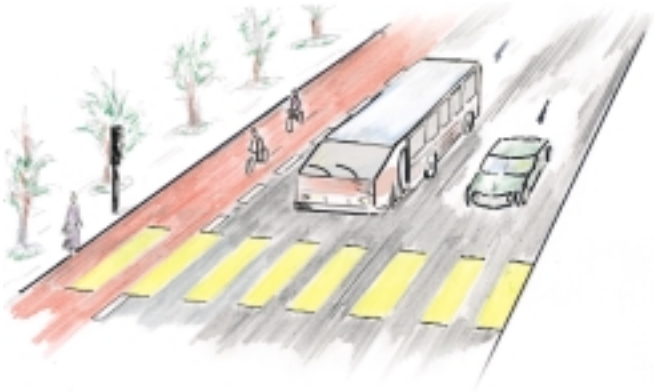
Despite popular belief, research in Sao Paulo shows that a standard 45-seat diesel bus with only two passengers emits less carbon monoxide, carbon dioxide and less hydrocarbons per person than a private car with an occupancy of 1.5 passengers. But not everyone will or can travel by public transport all the time so a balance needs to be created through integrated planning, incentives, regulation and a reduction in car-use.

The use of public transport helps to improve air quality and must be a leading example in setting emission standards

Solution 6

Making travel safer by allocating dedicated space and enforcing standards

Each transport mode provides an answer to a specific travel demand and a single mode will never answer all needs in a sustainable way. In urban areas, people should be allowed to choose their modes and use it in the safest way. The most vulnerable users should be protected by avoiding conflicts between the different traffic flows and by creating dedicated infrastructure such as cycle paths or sidewalks.



In Dar Es Salaam, Tanzania, the municipality has put cycle paths at the top of their agenda, to improve low-cost mobility

On the other hand, safety is also a matter of enforcing basic safety standards and making sure people are not neglecting them. Simply enforcing the use of safety belts for car users or helmets for motorcycle users can drastically reduce passenger fatalities.

City authorities need to protect vulnerable road users and obtain more respect from drivers

Reducing traffic jams by preserving road capacity and limiting parking

In Bogotá, the provision and enforcement of parking has considerably improved traffic conditions on the road

Various activities tend to overflow on roads, limiting the infrastructure capacity, in particular illegal parking and commercial activities. Illegal parking, for example, in a city's busiest areas can take up to two lanes of capacity. Public transport is often running on the right lane and is consequently stuck in traffic.

The provision of parking places and the strict enforcement of its use can help tackle part of the congestion.

In addition, control of parking capacity is the most effective way to convince drivers to leave their cars at home.

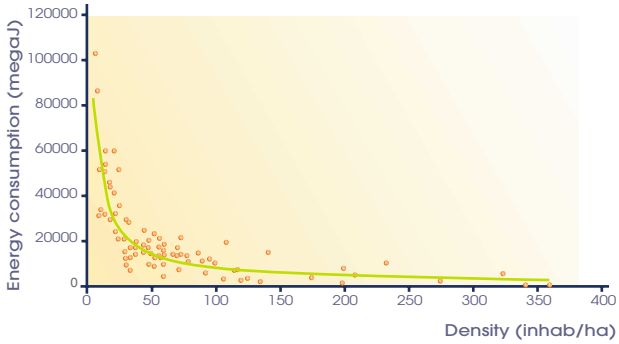
Enforcing parking policies and preventing other activities from spilling onto the roads will allow public and private transport to run more smoothly

Making more energy efficient cities by increasing density and public transport use

UITP studies show that the densest cities are also the most energy-efficient for traffic purposes.
In low-density areas, the car dominates the choice of transport.
Denser urban areas are more energy-efficient because they favour:

- Non-motorized trips, as distances are short enough for people to access jobs, leisure, retails by walking or cycling;
- Public transport (as shown in the UITP Millennium Cities Database) is more energy-efficient than cars.

Density vs Energy Consumption per inhabitants per year for traffic purposes



Energy Use by Urban Mode
(MJ/Passenger-km)

Mode	Vehicles Production	Fuel	Total
Light Rail	0.7	1.4	2.1
Bus	0.7	2.1	2.8
Heavy Rail	0.9	1.9	2.8
Car, Petrol	1.4	3.0	4.4
Car, Diesel	1.4	3.3	4.7

From production to use, public transport is more energy-efficient

Putting an end to urban sprawl will lead to more energy-efficient cities

Organising and cooperating with paratransit services

In Dakar, the transport authority (CETUD) moved towards a regulation of the paratransit sector. The president of the paratransit operators association recently signed the urban mobility charter established by CETUD

In many cities, paratransit is a prominent actor in providing collective transport. It often represents the last alternative for affordable transport for many, despite the dysfunctionalities it may impose.

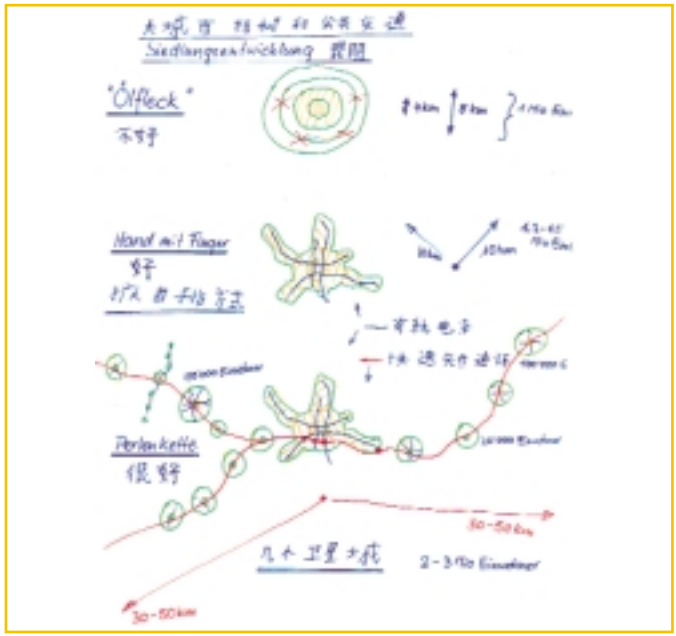
In such a context of urban mobility, the situation can be greatly improved if policy-makers ensure that paratransit is included in providing better mobility for citizens.
To achieve this goal, public authorities must first push for a legalization of the activity, for example by giving licenses to operators. These licenses must be linked to agreements established between the paratransit operators and the authorities on topics such as:

- Fares
- Timetables
- Safety
- Areas of operations.

Urban transport policies must take into account paratransit in order to limit their externalities

Shaping city development using public transport as a backbone

Growth and development is very likely to happen in areas near high-quality public transport networks because the areas become more accessible and attractive.
Developing a public transport network can also help to develop a city in a planned way and restore already-developed areas.
For example, by establishing combined transport and land use plans, decision-makers can give incentives to private developers to concentrate their activities along public transport corridors. Consequently, those developments (residential or commercial) will later benefit good access to the city, making them particularly attractive.



Plans of Kunming show the concept of further expansion of the city around the future public transport network

A high quality public transport system adds value to land and real estate

Improving quality of life through a better use of urban space

75 people are carried either by 60 cars

or, only 1 bus.

To accommodate all the travel demand by cars would require very extensive road capacity. Alternatively, public transport makes better use of urban space because it has better capacity. Indeed, during one hour period, 2000 people can cross a 3-5m wide space by cars, 9000 by regular buses and more than 22000 with high-capacity public transport (Bus Rapid Transit, Light Rail or subway). The space saved can then be used for other purposes:

- Green spaces
- Open spaces
- Pedestrian areas
- Recreation areas
- Commercial and shopping areas

Cities should not be designed for cars, but for their inhabitants

Three pillars of a sustainable mobility

Only a combination of solutions is successful

Reforming transport institutions and empowering local authorities

The Gauteng Province is the economic engine of South Africa and Southern Africa. It includes 3 metropolitan municipalities

- City of Johannesburg Metropolitan Municipality
- Ekurhuleni Metropolitan Municipality
- City of Tshwane Metropolitan Municipality (previously Pretoria).

A number of other cities in Africa have also taken the initiative to reform their institutions. In 1997, Dakar created its local authority CETUD, followed by Abidjan in 2000 with AGETU and more recently Lagos in 2002 with LAPTA.

It also includes three districts municipalites.
The Gauteng TCC (Transport Co-ordination Committee) was created in 1996 in view of the fact that the Gauteng Province is largely urban and operates as a functional transport area and because of the large percentage of transport movements across the boundaries of the municipalities.
The TCC co-ordinates transport policy between the 3 metropolitan municipalities, the three district municipalities, the province, the local rail operators and the national railways government agency.
Nevertheless, all three metropolitan municipalities are advanced in the investigation to establish Transport Authorities. This will enable many functions to be devolved to the municipalities, and will ensure that the previous fragmented approach to the planning, management and control of public transport can be eliminated.
Municipalities are now, for the first time, preparing integrated transport plans which include public transport as well as transport infrastructure. The planned taxi recapitalisation process, which is aimed at replacing the 16-seater vehicles with 18 and 35-seaters, will have a major impact on the public transport system. Gauteng is also advanced with the implementation of a Rapid Rail transport system to link all three metropolitan municipalities.

Urban transport policy is more efficient when it takes local and regional perspectives into account

Restoring a quality of life in the city

Recently, city officials from Bogotá, Colombia have invested in urban renewal with a strong focus on quality of life. Facing a degradation in the life of its citizens, the city developed a program around transport and the urban fabric:

- Transmilenio, a bus-based high capacity transit system with 31 km of exclusive bus lane and three lines, carries 700 000 passengers per day, with 42 000 per hour in peak times
- Limiting car access during peak-hours, the citizens voted to make the entire urban area car-free, except for taxis, during the morning and evening peak hours from 2015
- Bicycle paths (200 km programmed to link the entire city) and sidewalks connect the city's activity centres to promote non-motorized modes
- Green spaces and public spaces to revitalise urban land use.

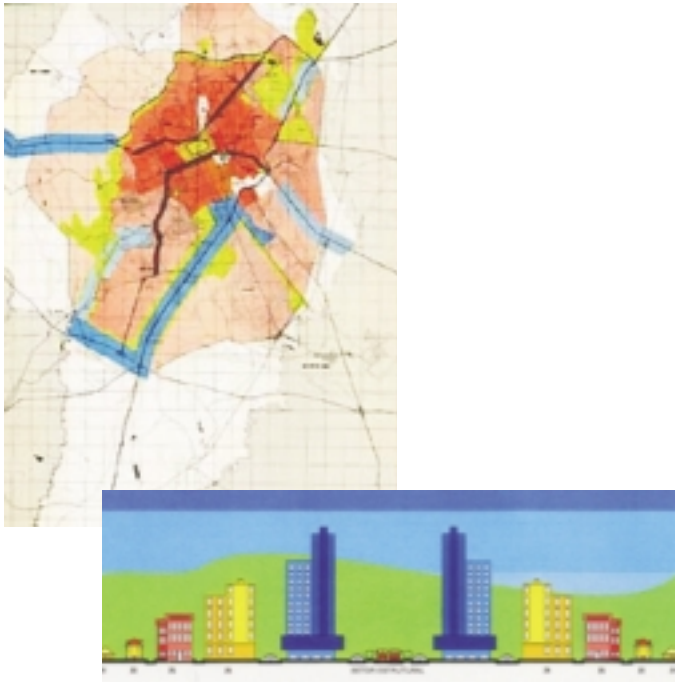
After the implementation of Transmilenio Phase 1 in 2000

32% reduction in travel time for users
75% reduction in injuries,
92% reduction in fatalities
43% reduction in SO2
12% reduction in Particulate Matters PM-10

Transmilenio, Bogotá

Public transport is one of many elements to restore quality of life in our cities

Integrating transport and land-use planning



Curitiba, Brazil

In 1943, the Agache plan, the first plan establishing Curitiba's transport priorities, suggested to accommodate the future explosion of the automobile market by creating arterial highways. In 1965, the Plano Diretor de Curitiba (Master plan) was created to tackle traffic problems. However, it adopted a completely different solution: building the city around the transport network through the strict control of urban development along designated corridors. The city would grow linearly, not as the common radial model. The aims of the plan were clear:

- Control urban growth
- Integrate urban functions
- Give full priority to public transport
- Limit traffic and pollution.

Nowadays, Curitiba enjoys one of the most efficient bus-based public transport networks in the world.

Curitiba Growth

Land-use and transport integrated policies not only allow for a coherent city development, but also help to sustain a good ridership level for public transport

Introducing emission standards to curb air pollution

In New Delhi, surveys have established that the incidence of respiratory diseases due to air pollution is 12 times the national rate. Whilst the Indian GDP has increased by 150% in the last 20 years, pollution from automobiles has increased 8 fold.

In response, the government passed a law in 1998 to curb urban pollution. It requires public transport and private modes to shift to cleaner technologies and to limit emission sources such as motorbikes and taxis.

Supreme Court Directives (06/1998)	Status of Implementation (02/2001)
All pre-1990 taxis and autorickshaws (including those owned by individuals) must be replaced with new vehicles running on clean fuels by March 31, 2000.	All pre-1990 taxis and autorickshaws were successfully removed from the road by the deadline.
Local governments must provide financial incentives to replace all post-1990 autos and taxis with new vehicles that operate on clean fuels by March 31, 2001.	Substantial financial incentives are being offered for new vehicles operating on clean fuels.
All public sector buses older than 8 years must be scrapped by April 1, 2000 unless they operate on CNG or other clean fuels. The entire city bus fleet (public and private) must be steadily converted to CNG.	About 137 CNG buses are in operation (all publicly operated) and 1,200 are on order. Thirteen diesel buses have been retrofitted with CNG.

Air pollution can be drastically reduced by regulating vehicle fleets

Relieving congestion through high-capacity services

Shanghai, China

In Shanghai, congestion is a major problem due to the large number of bicycles and pedestrians mixed with cars, buses and highly polluting motorised two-wheelers, all fighting for the same road space.

The growth in population and motorization could not be accommodated only by expanding the road network, thus local officials concerned about building an international city, decided upon large investments in public transport.

Public transport trips average 10.5 million trips daily with over 7 million being made by bus. With the ambitious goal of keeping the time needed to cross the city to an average of 60 minutes, developing rail has been a priority as it is the most economic way to move large quantities of people. 65km of metro line already averages a million passengers a day and an extra 200km of rail will be completed by 2005, linking areas of the city in a 'hub and spoke' (Cross and Ring) network.

A bus-based or rail-based public transport network can rapidly move a large number of people

Raising awareness and helping communities using public transport facilities

The Commuter AIDS Information Project is a two year activity developed by the HIV/AIDS and STD Directorate of the Department of Health, running from October 2001 to September 2003. The project targets the commuter population by providing basic HIV/AIDS information, referral information, condoms and leaflets via kiosks located at 20 urban commuter sites countrywide, reaching some 3.5 million commuters. The kiosks are situated prominently at each site and are regularly used for consumer product promotion. Two trained NAPWA (National Association of People Living with HIV/AIDS) members are located at each kiosk and offer individual discussions, referrals and also disseminate condoms and support materials. The project is promoted by utilising exterior taxi signage, kiosk signage and advertising inserts on Star Music. The Star Music concept involves the free distribution of popular local and international music interspersed with short commercials to taxi drivers on a bimonthly basis.

Commuter AIDS Information Project, South Africa

Public transport is a useful contributor to the well-being of a community in many ways

Providing training and creating local knowledge

Institut des Métiers de la Ville, Hanoi

In the context of creating a pilot tramway line on the East-West corridor of Hanoi for 2005, a co-operation framework was established between the Popular Committee of Hanoi and the Ile-de-France region. The "Institut des Métiers de la Ville" (Institute of City Skills or IMV) was created to support the city of Hanoi in terms of planning and urban management with three specific goals:

- Implement "Training – Action" sessions for municipal managers working on urban issues
- Bring a supporting role to the Vietnamese authorities and transfer knowledge with respect to urban issues
- Develop a resource centre in French and Vietnamese for Vietnamese managers.

Since September 2002, the IMV is hosting a 1 million euro project to improve public transport in Hanoi with 3 pilot bus lines for a 2-year period.
Already, 220 managers have been trained within the IMV in the fields of transport, planning, public infrastructure and urban development.

Training public transport professionals and developing urban management knowledge are crucial to the establishment of coherent local policies

Giving public transport priority

Kunming, capital of Yunnan province in south-western China, has a population of 1.3 million. The city initially planned its development through the promotion of cars instead of pedestrians and bicycles. In 1993, the negative consequences of this policy (congestion, pollution and chaotic traffic) pushed the city to consider public transport.

A master plan was delivered in 1996 with the support of its sister city of Zurich. In 1997, in order to rapidly obtain a good public transport system, the municipality planned a Bus Rapid Transit network that would incrementally be transformed into a modern tramway network. Several successful pilot projects have already helped to convince decision-makers.

Since April 1999 (4 months after the beginning of construction), Kunming enjoys exclusive right-of-way for its buses. The city is now planning new services, including a regional network and the implementation of a modern LRT.

FOCUS
A congestion free bus network

Kunming, China

Improving bus and light rail with dedicated lanes is cost-effective and produces rapid benefits

Adapting public transport to the customers' needs

Abidjan, Ivory Coast

The new waterborne service takes 8 minutes to reach Cocody from Yopougon, compared to 55 minutes for the bus service; a result of more than 45 minutes of travel time saved by users.

SOTRA, the public transport operator in Abidjan (Cote d'Ivoire) has around 1.000.000 passengers a day by bus and 20.000 by boat. SOTRA aimed to further exploit the waterborne transport, since most parts of the city have a direct access to the lagoon.
Since it was not possible to get affordable boats, SOTRA started it own a shipbuilding yard. 4 new small ports are planned in addition to a tram, a light rail and a suburban train.

Innovative services help public transport to better answer its customers' needs

Giving simple and useful travel information to customers

Without high investments in travel information, the city of Yogjakarta (Indonesia) succeeded to provide an easy-to-use and understandable public transport service based on high-frequency services. The public transport network in Yogjakarta (Indonesia) was simplified covering 10 radial and 2 orbital lines, making it possible to provide high-frequency transport services. Every bus is equipped with several panels (sometimes just cardboard) indicating the line number from 1 to 12 and, on the front of the vehicle, a wooden board indicated the major stops on that line.
Thanks to this information system (and within budget restrictions), the local operator KOPATA managed to offer a very simple public transport network making it possible for travellers to orient themselves with ease.

Yogjakarta, Indonesia

Good passenger information is a deciding factor in the competitiveness of public transport

Easing access to public transport with information technology

Amman, Jordan

The Automated Fare collection system was launched in 2001 in Amman (Jordan) using contactless smart cards. It offers a lot of advantages for bus riders and the company. It reduces long queues at bus stops and eliminates the need to search for change. It also makes the customers' commute more convenient and efficient. The advantage for the company was the elimination of the fraud factor, coin-counting and sorting which consumed much time. Smart cards can be recharged in many locations (e.g. bus terminals or big supermarkets). Riders simply wave their cards in a front of a reader to board the bus, without inserting it into a slot or the need of removing it from a person's wallet.

This advanced system also provides transport indicators such as numbers of passengers during the day or during the peak hours.

New electronic ticketing makes journeys easier for public transport users

Focusing on the customers through a quality commitment

In September 2001, the Tunisian Ministry of Transport launched a pilot project bringing together the three operators of Tunis around the theme of Quality. The project consisted of developing and implementing a quality action plan aimed at strengthening capacity to improve satisfaction among public transport users, this by bringing together the experiences of public passenger transport professionals involved in different areas of service provision (operations, marketing, studies, quality). The quality action plan was based on the guiding principles of openness, commitment and innovation between the three operators.

The action plan was divided into four focus areas:

- Customer complaints and suggestions
- Common indicators (extended with specific indicators for each of the three companies)
- Customer satisfaction
- Key satisfaction indicators.

The quality action plan achieved a better collaboration within the three companies operating in Tunis in terms of information management and also a better knowledge of their customers' needs. Customers were also given the opportunity to express their needs.

Tunis, Tunisia

Public Transport is a service and must be customer-based

Bringing public transport closer to the customer

Saõ Paulo, Brazil

The Companhia do Metropolitano de São Paulo – Metrô, with a subway network of four lines (totalling 58.6 km and 52 stations), developed a strategy of marketing focused on the customer.

In order to get closer to the users, Metrô communicates through various media: call centre, suggestion boxes in stations, user phones in the principal stations and the Internet. In addition, a yearly user opinion poll referring to the service evaluation and a biannual socio-economic assessment are both being carried out.

Users also receive permanent information on public utility campaigns that are advertised in association with other institutions, such as vaccination and blood donation campaigns, and cultural events.

An important activity within the stations is the artistic and cultural agenda, as well as the significant works of art installed there. Currently, this collection consists of approximately 100 works of the most expressive contemporary Brazilian artists. Metrô also promotes several cultural activities, such as exhibitions, musical and theatre presentations.

As a result, Metrô has become a symbol of the city of São Paulo, a point of pride for the population.

Including added-value services and culture into public transport systems improves its image

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GP 6 Picture and text: Centre for AIDS Development, Research and Evaluation (CADRE)

GP 7 Picture and text: Institut des Métiers de la Ville

GP 8 Picture: UITP

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GP 10 Picture: UITP

GP 11 Picture and text: Asia Transport Co. Ltd

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GP 13 Text: Metropolitan Railways Conference, Shanghai 2002
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Presentation of UITP

UITP is the world-wide association of urban and regional passenger transport operators, authorities and suppliers. With over 2000 members from nearly 80 countries, UITP promotes a better understanding of public transport and acts as the international NETWORK for all transport professionals.

It is a point of REFERENCE for the industry and studies all aspects of mobility to encourage the development of more efficient and attractive collective passenger transport, and informs its members of best practices world-wide. It provides research and analysis on all aspects of urban and regional passenger transport including infrastructure, rolling stock, organisation and management.

UITP acts as an international FORUM for the transport sector to exchange knowledge and experience to further the position of public transport and maintains close contact between the industry, operators and authorities.

It promotes public transport through close contact with decision-makers and the media to develop a favourable climate of opinion and acts as an ADVOCATE for public transport. It represents the interests of its members through its dealings with international organisations such as the European Institutions, the UN, the OECD and the World Bank as well as giving its members opportunities to network with other national and international transport associations.

UITP's Mission Statement UITP, the International Association of Public Transport is the:			
World-wide NETWORK of public transport professionals	Point of REFERENCE for the industry	International FORUM for transport policy	ADVOCATE of public transport

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