



**Mobilise
Your City**

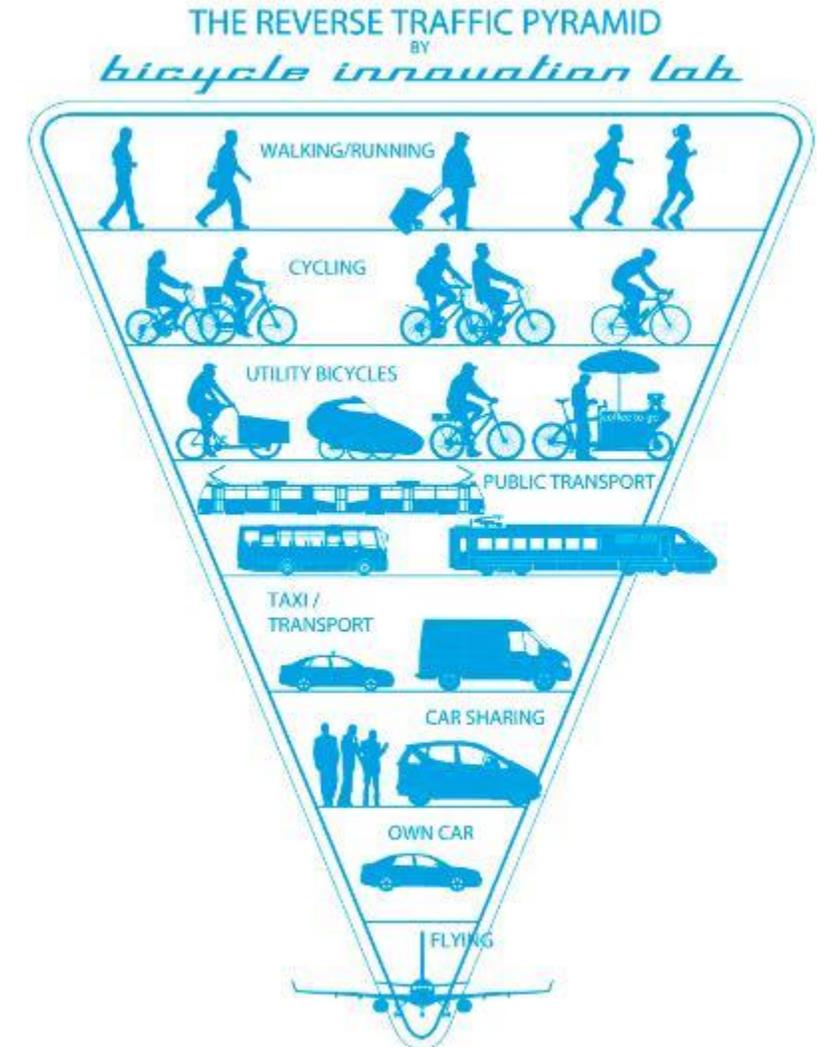
SUSTAINABLE URBAN MOBILITY: FUNDING, FINANCE AND POLICY INTEGRATION

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Overall aim of Sustainable Mobility

- To create an equitable, affordable, safe, environmentally-friendly and an integrated transport system
- It is essential to get the priority right
- Proper priority leads to putting money where the need is



True costs of transport

Some of the costs



paid usually by users

Direct costs

- Time for travel
- Operating costs
- Fares

Indirect Costs

- Infrastructure
- Health
- Environment
- Air Pollution
- Congestion
- Urban Space

Who pays them?



Funding and Financing

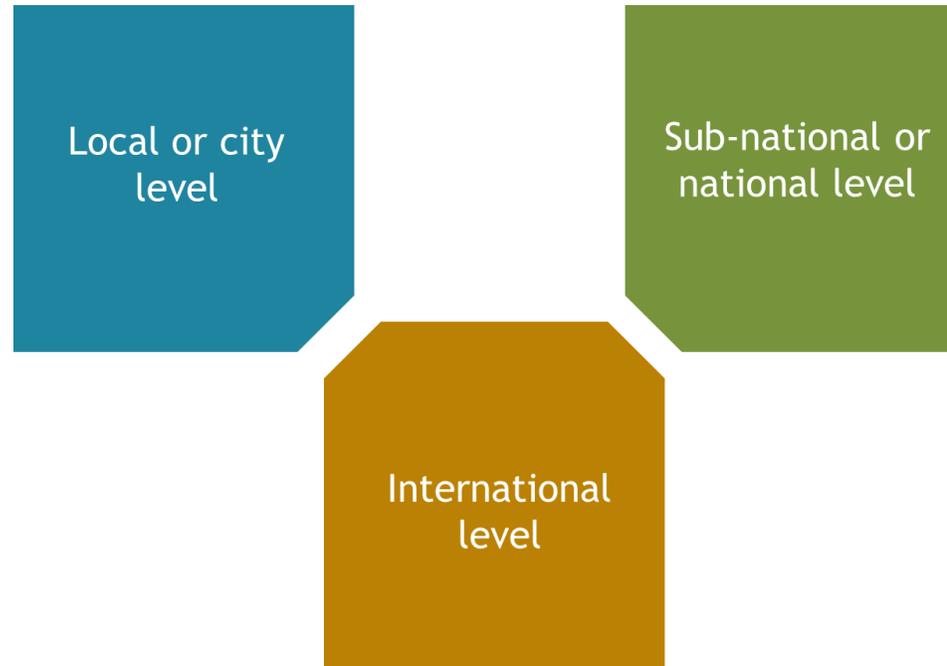
Funding relates to the **source** of financial resources or income which will pay for the project

Financing relates to ensuring that the **financial resources or mechanisms** are in place to cover the project costs. It also involves borrowing capital (as a loan).



Sources of funding

- Taxes from citizens
- Taxes from transport users
- Usage fees from transport users
- Funds from beneficiaries other than transport users



Local government revenue sources



Parking pricing

- Often overlooked
- If priced then it is often cheap or next to free
- Important in influencing behaviour - destination choice, mode choice



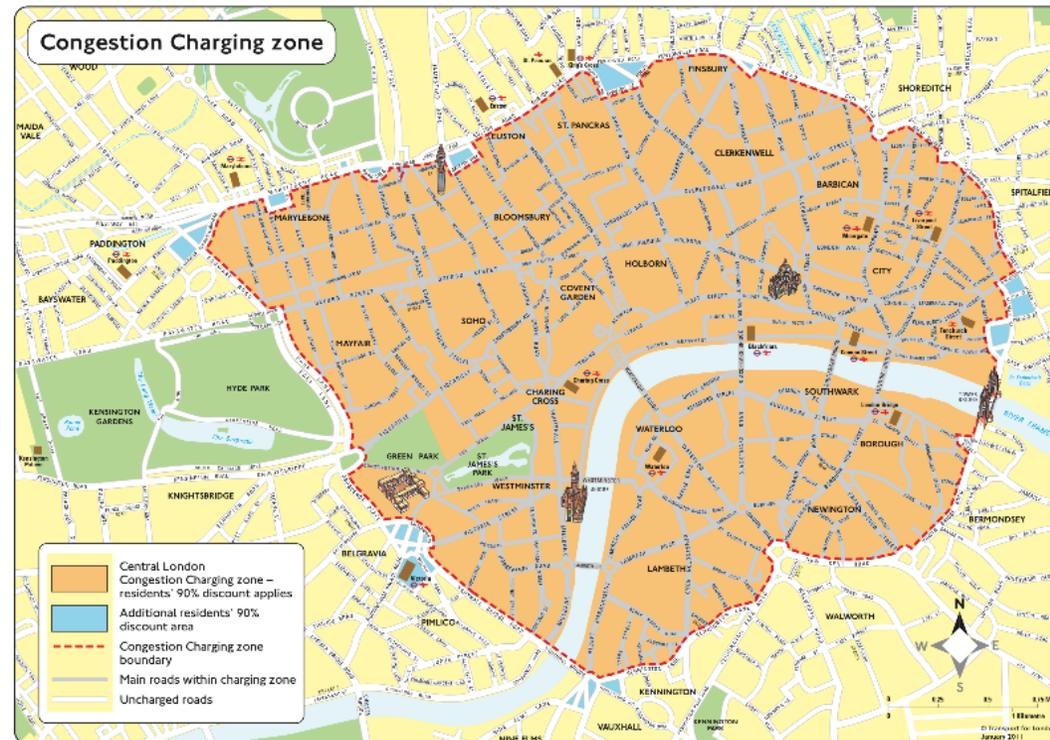
Parking pricing (2)

- Influencing private parking spaces - *Parking Space Levy*
- Such a levy is essentially an annual license fee for a business to have parking space
- \$2260 per year per parking space in the Sydney
- Nottingham (UK), £362 per year per parking space



Congestion pricing

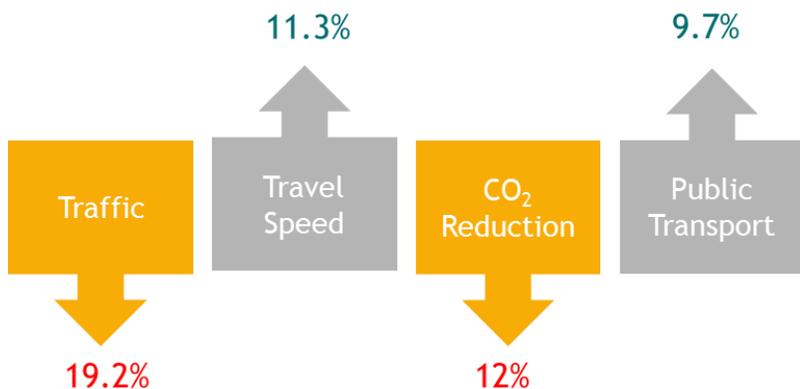
- London: The Congestion Charge is an £11.50 daily charge for driving a vehicle within the charging zone (21 square km) between 07:00 and 18:00, Monday to Friday.
- Pricing aims to reduce congestion and generate funds for improving public transport
- 39% reduction on private cars entering the zone, 30% congestion time
- 46% net revenue invested in bus network and services, public transport, road improvement, walking and cycling schemes.



Emission Free Zones - Milan's EcoPass

EcoPass Class	Criteria	Charges			
		Daily	Multiple, first 50 days	Multiple, successive 50 days	Annual resident
Class I	Alternative fuel (e.g. LPG, CNG, electric)	Free	Free	Free	Free
Class II	Gasoline cars and trucks, Euro 3 and later; Diesel cars and trucks, Euro 4 and later	Free	Free	Free	Free
Class III	Gasoline cars and trucks, Euro 1,2	€2 (\$2.50)	€50 (\$62.60)	€60 (\$75.12)	€50 (\$62.60)
Class IV	Gasoline cars and trucks, Euro 0; Diesel cars, Euro 1, 2, 3; Diesel trucks, Euro 3; Diesel Bus Euro 4, 5	€5 (\$6.26)	€125 (\$156.50)	€150 (\$187.80)	€125 (\$156.50)
Class V	Diesel cars, Euro 0; Diesel trucks, Euro 0, 1, 2; Diesel Bus, Euro 0, 1, 2, 3	€10 (\$12.52)	€250 (\$313)	€300 (\$375.60)	€250 (\$313)

- It is a scheme of emissions-based charges for the entry into Milan's Limited Traffic Zone (ZTL), which is controlled by 43 gates
- Cameras record vehicle license plate numbers and pollution class, and debit the card holder's account
- Operating Hours: Monday - Friday 7.30 a.m. to 7.30 p.m.
- Tollage up to EUR 10 (US\$12.52) per day, charges are based on the Euro emissions class of the vehicle, the fuel type, the availability of particulate filters, and the type of transport (personal or goods)



Land Value Capture



- Financing mechanism where land owners directly benefiting from new public infrastructure have to pay
- Tax payers are not penalised
- Businesses located near the new infrastructure can increase their trades and profits
- Reduces the capital costs of public transport
- Promotes high density land use
- Encourages Transit Oriented Development (TOD)



Rail Plus Property (R+P) Model - Hong Kong

- Conduct planning and development review for new rail extension and agree with Government amount of property development rights
- Land premium is negotiated with Government on “greenfield basis”*, prior to tender being offered to developers
- Competitive tender of property packages to developers
- Metropolitan Transit Railway Corporation (MTRC) of Hong Kong buys development rights from the Hong Kong Government (the majority shareholder of the MTRC) at a “before rail” price, and sells these rights to developers at an “after rail” price—which is significantly higher ; covers the cost of railway investments



*Greenfield basis = market value ignoring the presence of the railway



Other Means: Denver's FasTracks - Targeted Tax Increase

- Six New light-rail, electric commuter and diesel commuter lines (122 miles); 57 new train stations; 18 miles of bus services
- USD 4.7 billion
- Voters agreed to a 0.4% sales tax increase in 2004
- Combined with federal appropriations, private contributions



https://en.wikipedia.org/wiki/FasTracks#/media/File:Union_Station_Track_2_platform_and_RTDCommuter_rail_cars.jpg



Other Means: Advertising - Vélib' in Paris

- Initial ten year outdoor advertising contract, allowing advertising rights on 1,628 bus shelters, newsstands, public toilets, and other street furniture. In return, the major urban installations and urban publicity firm JCDecaux, cover all of the costs for the Vélib' system.
- JCDecaux paid Paris all the revenue from cycle rentals and annual subscriptions, plus an estimated €3.5 million per year from its advertising takings



Source: eusakdi 69, <https://www.flickr.com/photos/ddelion/1372936626/sizes//>



Vehicle Quotas - Shanghai Experience

- Limit number of new vehicles registered per month (approximately 7 - 8k)
- Conduct an auction to sell registration plates
- ~0.2% chance of winning
- The average winning bid was 88,176 yuan (\$14,022) in 2017
- 12 billion yuan in 2017, 2% of total city revenue

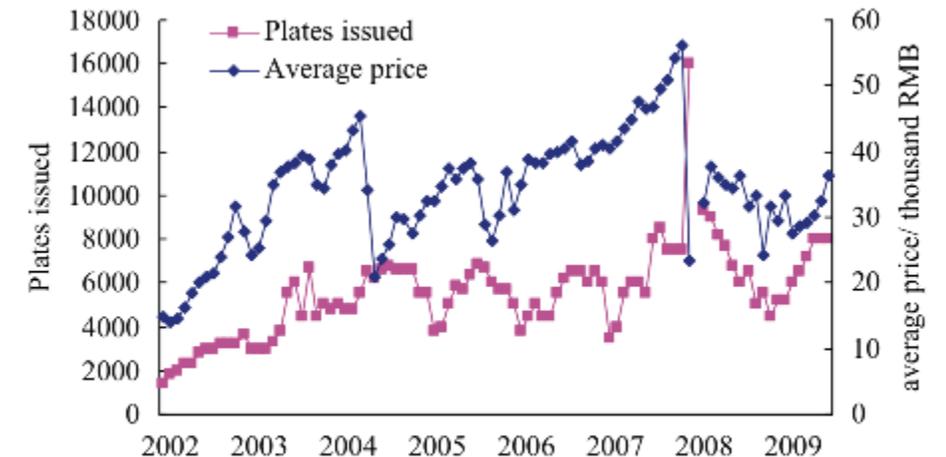
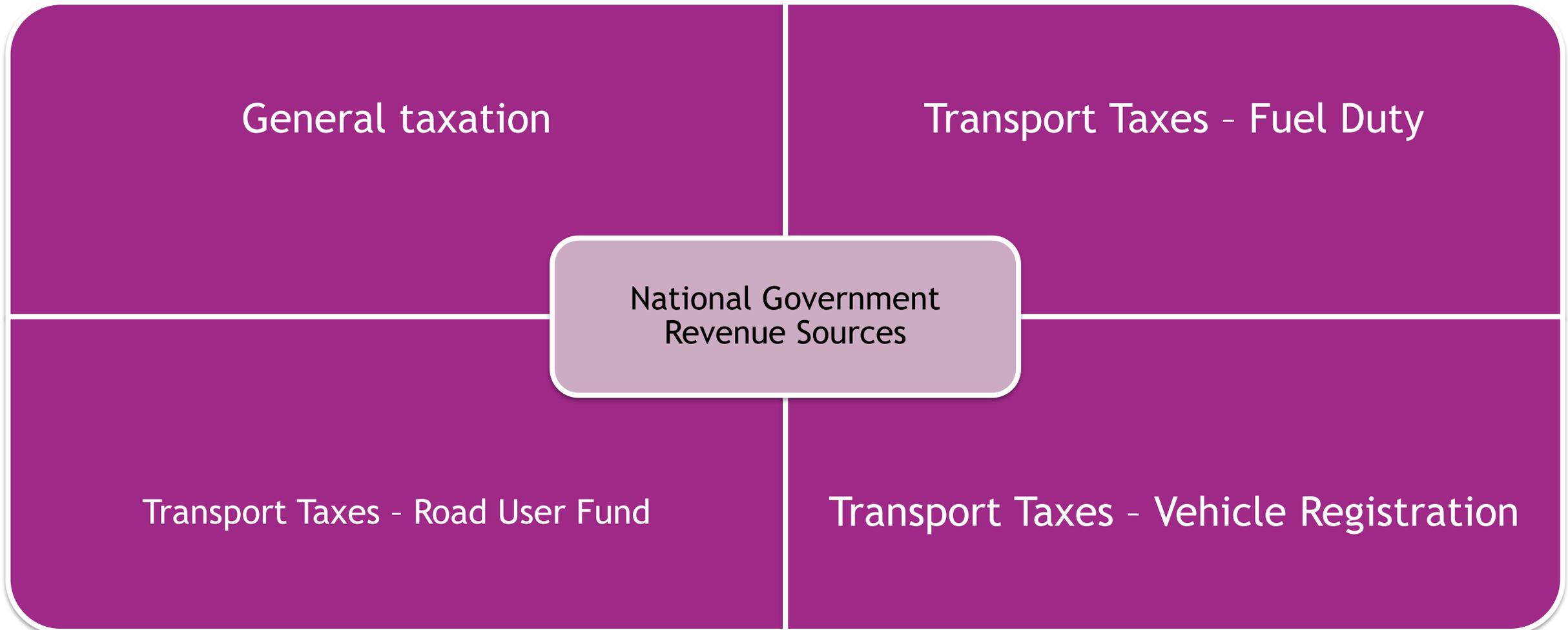


Fig. 2. Private vehicle license plates issued per month and the average price in Shanghai.



National Government Urban Transport Funding Sources



National Level Support to Cities

Cities are major generators of national economic wealth

- Society benefits from investment in urban public transport
- Alleviating congestion in urban areas has significant positive economic benefits

Public health and wellbeing

- More than half of the population typically lives in urban areas
- Air quality has greatest impact in urban areas

Cities are a major contributor to greenhouse gas emissions

- To meet the national climate mitigation targets, urban transport emissions must be tackled



German National Electric bus funding programme

- Created by the Federal Ministry for Environment (BMUB)
- 70 million Euros for public transport
- Investment into Electric and plug-in electric buses
- Funds can support charging infrastructure projects
- Public transport operators (either individual or in partnership with other operators) can receive the funds through a competition for subsidy
- Applications for funding are assessed on
 - Overall concept (fleet size vs e-buses, time scale for implementation)
 - CO2 reduction
 - Air quality improvement
 - Transferability and visibility
- A part of the grant can also be used to support capacity building measures, charging infrastructure

GIZ - SUTP's translation into English is available [here](#).



German funding for cycling - soft measures

National Cycling Plan (NCP) 2020
<http://edoc.difu.de/edoc.php?id=1U032RD6>

Some of the main priorities

- *Make cycling attractive;*
- *Provide infrastructure that enables cycling in cities;*
- *Cycling as a component of integrated transport and mobility policy;*
- *Encourage cycling in rural areas;*
- *Emphasizing road safety*
- *Promote e-mobility/pedelecs*

- Created by the Ministry of Transport and Digital infrastructure (BMVI)
- About 3.2 million euros of funding available each year to implement the NCP
- The assistance is for pilot projects in the 9 action areas of the National Cycling Plan
- Assistance can also be provided for pilot activities that include cycling and target public health, climate change mitigation, urban development etc.
- The funding is open to all. While private entities need to cooperate with a public entity (e.g. a municipality) to submit a proposal.



National government support for Local measures

- **Direct allocation from government**

- Longer-term funding allocations from national governments are not so common
- Central government control of funding may limit local government's ability to raise further funds
- Risks can be borne mostly by the national governments

- **Ring-fenced funding for specific programmes**

- Permits national government to influence direction of local policy intervention
- May require additional resources for administration/proper dissemination to local governments

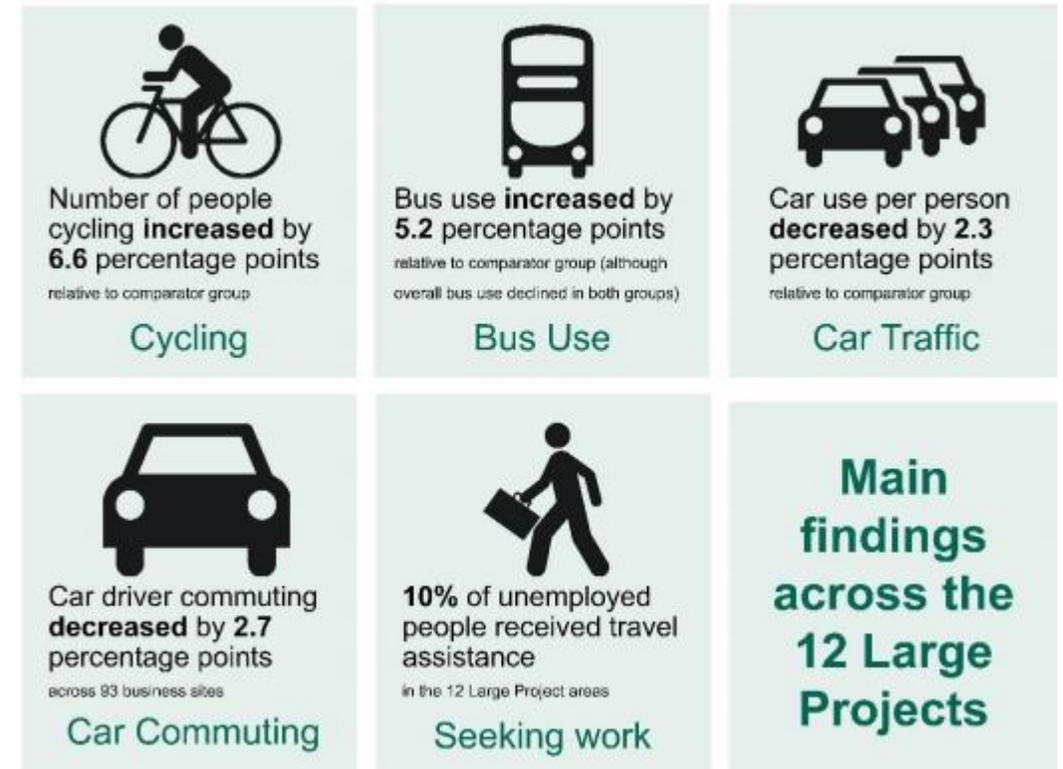
- **Competitive funding on specific policy based measures**

- Incentivises local government to develop schemes aligned to national government policy
- Stimulates innovation
- Selection may be a function of a city's existing capabilities



Example : Local Sustainable Transport Fund (UK)

- £560 million available to the Fund over the 4 year period to 2014-15
- 96 projects across 77 local governments
- Community participation treated positively
- Linking Policy Objectives to criteria
 - Social and economic
 - Safety
 - Reduction of emissions
- Value for Money, deliverability, affordability



Example: Jawaharlal Nehru National Urban Renewal Mission

- Second economic stimulus package - one time assistance to 61 cities for purchasing buses
- Structural reforms towards sustainable transport systems at state level (city-level transport authorities; state and city-level urban transport fund, integrated planning, fare revision; TOD policies, development of Comprehensive Mobility Plans)

Lessons

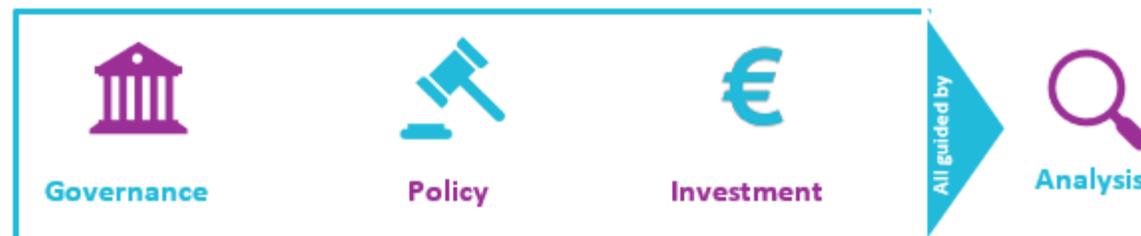
- Need to integrate CMPs with the budgeting process
- Essential to expand the investment envelope by mobilizing long-term debt financing from the financial markets;
- Improved credit-worthiness shall help create interface between capital market and municipal finance;
- Need for supplementing institutional capacity
- Better integration of locals in the identification of needs



NUMP and its Opportunities

NUMP as an opportunity to

- coordinate international, national and local finance and funding flows
- investigate increased general allowance to local governments
- influence policy-based funding based on identified priorities
- systematically explore options for increasing private sector participation, when appropriate
- lower transactions costs related to the financing process
- attract other funding

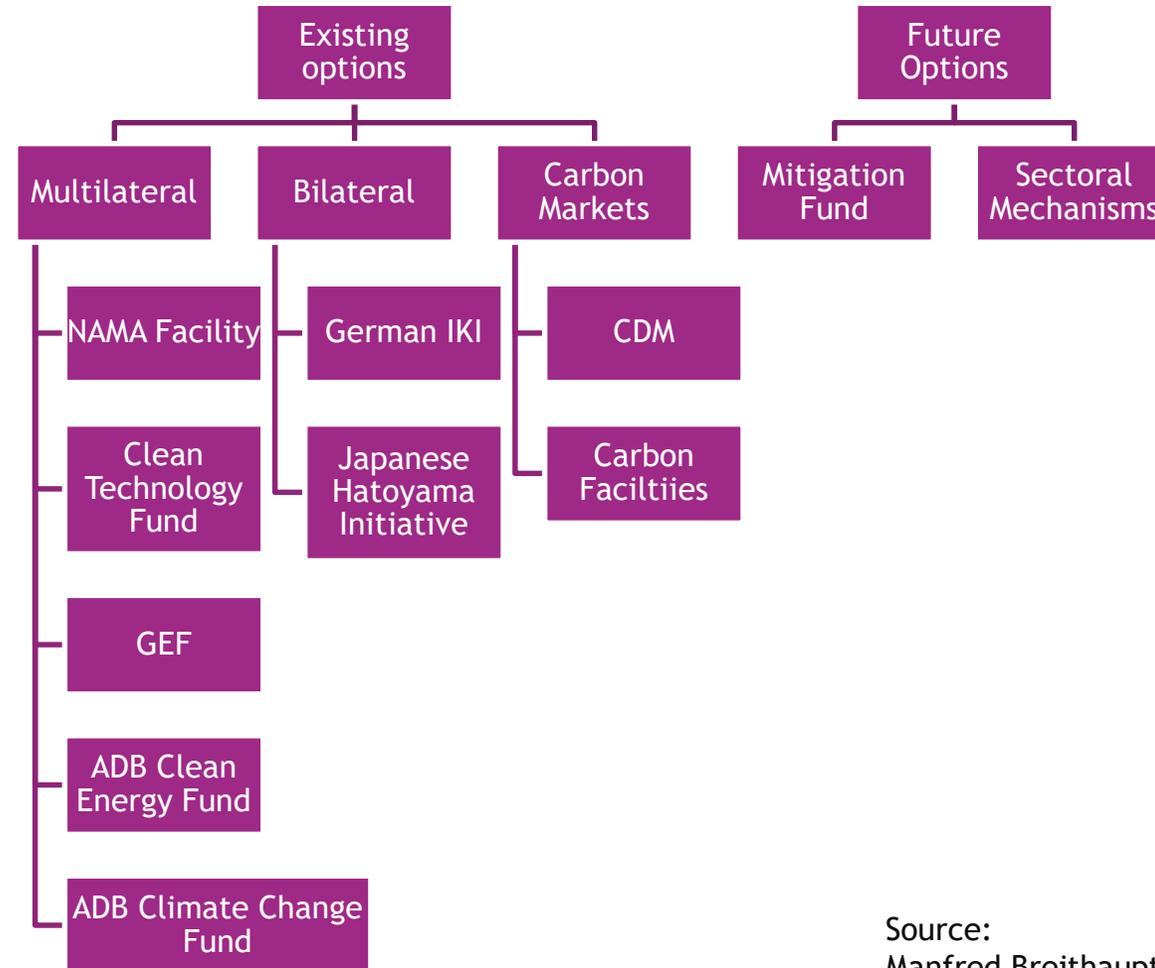


International options

- Global Environmental Facility (GEF)
- Green Climate Fund (GCF)
- Development bank loans (ADB, World Bank, etc.)
- Bi-lateral funding (KfW, AfD, etc.)
- Climate financing



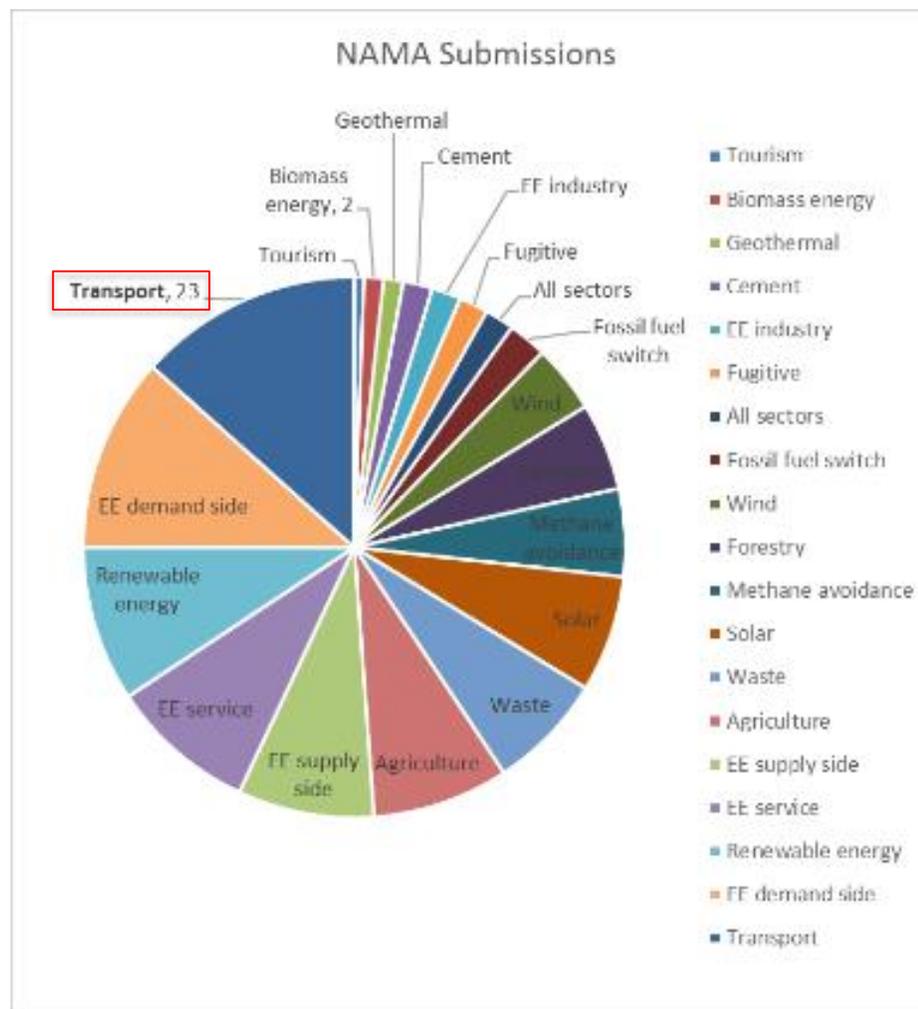
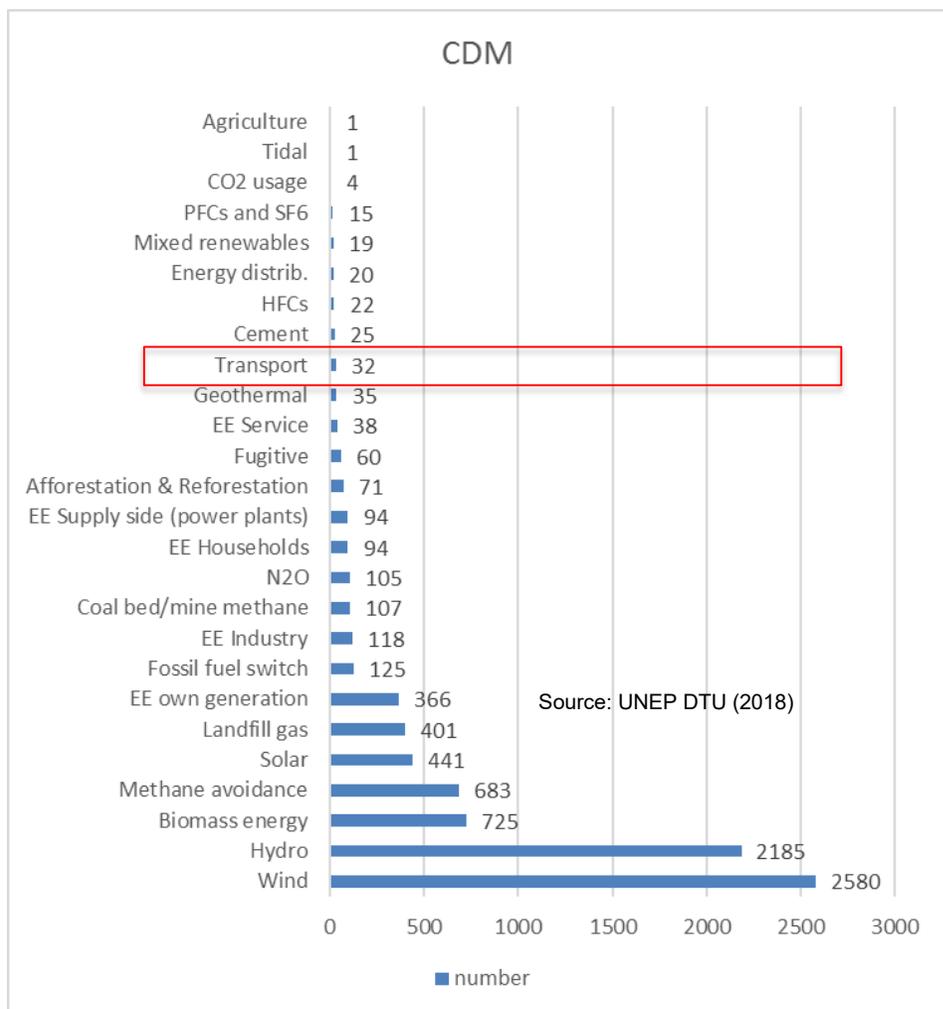
Zooming in : Climate Financing



Source:
Manfred Breithaupt, 2017; GIZ



Climate Financing and Sustainable Transport



Summary and Recommendations

- Funding urban transport is difficult due to fragmentation brought by geographies, modes, implementation timelines, multiple relevant stakeholders
- Global experience has shown multiple variations of the utilization of funding sources and financing mechanisms, finding the right combinations may be difficult
- Ways to generate funds while saving money at the same time exist at the local level
- There is a need to strengthen national support towards realizing sustainable transport measures at the urban level
- Coordination is key, given the multi-layered nature of challenges



Summary and Recommendations (2)

- Need to take into account local capacities and appropriate supporting activities need to be put in place
- Ensure the integration of the urban mobility plans into relevant budgeting processes
- Bringing together strategies and investments for the different modes to minimize costs and maximize value of investments is essential; integration of urban transport finances
- NUMP poses several opportunities for increasing the efficiency, effectiveness, and impacts of funding sustainable urban transport initiatives
- Take hold of the opportunity to introduce longer-term, structural reforms towards sustainability

