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Strong Cities Brief

Low-carbon and sustainable mobility in cities

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With increasing populations in urban areas, cities are playing a key role in improving residents' livelihoods as well as achieving the climate objectives set in the Paris Agreement and Sustainable Development Goals (SDGs). Cities need to set science-based long-term roadmaps and implement best practices to achieve these goals. This paper provides examples and recommendations on achieving low-carbon and sustainable urban mobility.

Challenges and context

Multifaceted challenges have made it inevitable for cities to force the transition from conventional transport systems to low-carbon and sustainable mobility. The current transport sector is one of the main carbon emission sources. In some countries, such as China, carbon emissions from the transport sector are increasing rapidly as people tend to drive by car more as their incomes increase. The sector also emits large amounts of air pollutants, leading to significant public health costs. Traffic congestion and noise caused by urban transportation also result in negative socioeconomic impacts. In some extreme cases, vulnerable groups, like women, have safety concerns using public transport.

How can the challenges be tackled?

These challenges can be converted into opportunities if suitable institutions and policies are established. Cities can embrace multiple benefits by implementing integrated and science-based actions. For instance, carbon mitigation actions in the transport sector can contribute to several SDGs, particularly SDG 3 (Good Health), SDG 11 (Sustainable Cities and Communities) and SDG 8 (Good Jobs and Economic Growth).

However, cities face barriers in promoting low-carbon and sustainable mobility. In many cities, transport policies, climate policies, and other development policies are usually designed by separate bodies, instead of applying an integrated approach. Transport agencies are not responsible for climate strategies, while the climate experts have limited knowledge and mandates on transport. Officials in transport departments may have limited capacities in implementing low-carbon and sustainable transport actions. Political instability also plagues some cities. Frequent changes in leadership makes implementing long-term strategies unlikely.

These challenges can be solved by integrated plans, concrete actions, international partnership, and incentives. Cities should develop long-term mobility development roadmaps that are integrated with climate strategies and other relevant development plans. Under the guidance of long-term roadmaps, cities can refer to best practices and take concrete actions. International cooperation can be helpful for cities with limited capacities, as cities can seek advice from their international peers or international organisations. Incentives can also be provided to encourage the public to use green mobility, such as public transport, biking, and walking.

Examples

Some cities and international organisations have implemented projects on low-carbon and sustainable mobility. For example, the city of Seoul published a 2050 Climate Action Plan in which a mobility transition roadmap was established. The roadmap includes two pillars: converting ICE vehicles to zero emission vehicles and promoting green mobility, i.e., walking and biking. ICLEI, a global network of local governments committed to sustainable development, published the TransDEC tool and relevant guidebooks to support cities in mobility transition.

Policy recommendations

The following policies are recommended for cities to develop their low-carbon and sustainable mobility:

- › Developing long-term low-carbon and sustainable mobility transition roadmaps;
- › Strengthening interdepartmental collaboration in mobility transition;
- › Promoting transit-oriented development (TOD) to create compact, walkable, pedestrian-oriented, and mixed-use communities centred around public transport stations;
- › Using digital technology to provide real-time information about available public transport options;
- › Providing incentives for public transport usage, such as flexible fare over peak hours;
- › Increasing awareness on public transport usage, such as by organising car-free days.

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