Policy Brief

Non-Motorized Transport in Greater Mekong Sub-Region (GMS)

Background

Developing countries of the Greater Mekong Sub-Region have experienced rapid economic growth in recent years. Growth in the region (GDP) as a whole has averaged close to 8% per year throughout since early 1990s [1]. One common feature of the region is growth of its small-medium size cities, which are undergoing rapid urbanization and are becoming major tourist destinations. Cities, in general, are major contributors of greenhouse gas (GHG) emissions, and the transport sector is one of the important and growing GHG emitter. However, cities in the region overlook the importance of planning for sustainable urban transport as a precursor to livable city [2]. Non-Motorized Transport (NMT) - walking and cycling- not only improves the environmental quality by reducing GHG emissions and provides health benefits, but also improves the livability of the city and thus enhances its touristic potential.

Sustainable Development Benefits of NMT [3]

Environmental	Social	Economic
Air quality improvement GHG emission reduction	Congestion and noise reduction Health benefits due to exercise Gender benefits (cycling can be particularly suitable for many short trips women in developing countries take) Social equality and poverty reduction: Beside public transport, cycling and walking are usually poor's only medium, to access work, education, healthcare and markets Improves pedestrian safety	NMT, particularly cycling, is easy, flexible, cheap and fast More attractive cities for tourists and residents, particularly if car-free zones are included Reduced travel times due to improved traffic flow Energy security due to lower vehicle energy use

Although few countries in the Asia Pacific region see the necessity of sustainable urban transport and have formulated various policies (e.g. National Environmentally Sustainable Transport Strategy for the Philippines; Tenth Malaysian National Plan), none of them have a comprehensive policy/ blueprint guide on Non-Motorized Transport itself and there is no regional collaborative effort to bring together the resources and experiences. This policy brief presents relevant details on NMT to assist policy makers in the region (local/provincial/national government, intergovernmental organizations, development banks, etc) to develop and enhance the implementation of NMT in their cities.

Understanding the problem

Modal share of urban transport in many Asian cities have traditionally been largely based on NMT such as walking and cycling (Figure 1). The growing cities have an advantage as ownership of motorized vehicle is not high compared to mega cities/ developed countries and they have opportunities to embrace a lower carbon development path. Developing/ enhancing NMT facilities as a sustainable transport option will help these growing cities become more sustainable and livable, as it will positively impact health, environment, personal and social well being, Research in other regions (e.g. Latin America) have shown that even shifting relatively small percentages of modal share to public transport or NMT can be worthwhile (a 1% reduction in mode share of private automobiles represents over 1 $MtCO_2$ through the 20-year project period) [5].

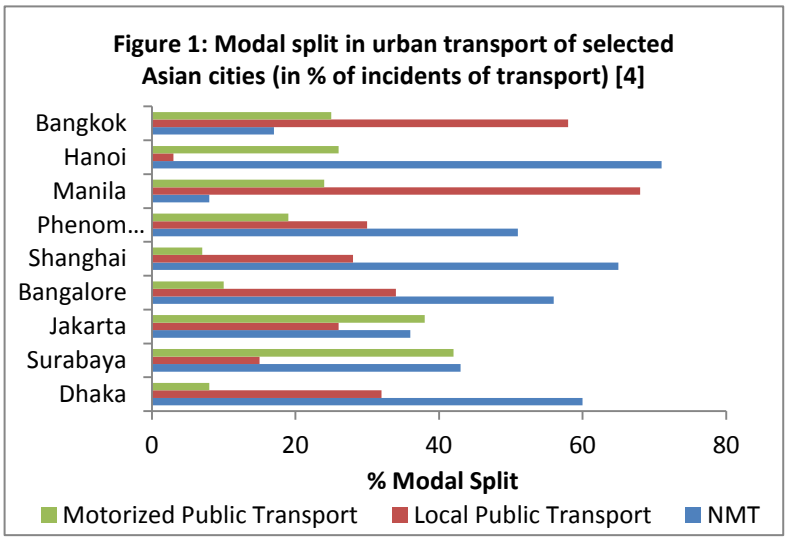

Figure 1: Modal split in urban transport of selected Asian cities (in % of incidents of transport) [4]

Policy Landscape for NMT in Asia

Many Asian countries have either developed or strengthened their national policy for sustainable transport, and have integrated NMT components in their national/provincial/local plans. However, most of the government support for NMT in the region is in the form of plans and projects for pedestrian and pedestrian's facilities (e.g. pedestrianization of Malioboro road in Yogyakarta, Indonesia ; Indian cycle rickshaw modernization project [6]), and only few statutory and regulatory policies for comprehensive NMT exists. Some examples of national plans that encourage NMT include [7]:

- The Tenth Malaysia Plan (2011-2015) focuses on public transport and pedestrian-friendly street network towards building vibrant and livable city.
- The National Environmentally Sustainable Transport Strategy for the Philippines identifies provision of NMT such as pedestrian lanes and bike lanes a strategy toward achieving environment and people-friendly infrastructure development.
- Singapore's Land Transport Master specifically states in terms of pedestrian facilities, providing more covered link ways and pedestrian overhead bridges and underpasses as main priorities.
- The Traffic and Road Transport Act of Indonesia gives priority to the safety of pedestrians and bicyclists.
- The National Urban Transport Policy of India encourages integrated land use and transport planning, public transport, and non-motorized modes by giving them priority in investments.

An Opportunity for Regional Cooperation

The prospect of developing NMT, such as walking and cycling, in the cities is largely dependent on the local conditions and national policies and priorities. However, concerted effort at regional level can help to strengthen the coherence of regional partnership on sustainable transport. Few rapidly growing small/medium scale cities of the region can work to enhance/develop NMT in their cities and at the same time learn from each other to better catalyze their implementation. Several international agencies and development banks have developed strategic framework for region specific sustainable transport and interest of cities in such intergovernmental processes could generate interest among those agencies. The learning of experience from GMS region will ensure standardization of process and technology and can facilitate exchange of good practice.

Non-Motorized Transport (NMT): Some Facts

- About 70% of commutation covers less than 5 km, and NMT has a large potential to replace car travel [5].
- A 5% or 4% increase in walking or cycling mode share can reduce CO_2 emissions up to 7% at an estimated cost of 17 or 15 US$/t$CO_2$ [5].
- Study on GHG emission of tourism sector in Chiang Mai municipality in Thailand showed that developing NMT in the city centre (6,000 m^2) could reduce up to 570 tons of CO_2 equ. annually, generate clean and decent jobs to the local people and improve the city's touristic potential.

NMT Improvement and Encouragement Strategies

Some of the possible ways to improve and encourage NMT in each city include [8]-

- **Walking and cycling facility improvements**. Improved sidewalks, crosswalks, paths, bike lanes, bicycle parking and changing facilities that accommodate all possible users, including wheelchair and handcart users, and people who cannot read local languages.
- **Non-motorized transport encouragement and safety programs**. Special programs that encourage people to walk and bicycle for transport, and teach safety skills.
- **Public bikes (easy-to-rent bikes distributed around a community)**.
- **Roadway redesign, including traffic calming, road diets, and traffic speed controls**. Traffic calming changes roadway design to reduce traffic speeds; road diets reduce the number of traffic lanes; and traffic speed controls can involve driver information, changes in posted speed limits, and increased enforcement.
- **Improved road and path connectivity**. More connected roadway and pathway systems allowing more direct travel between destinations.
- **Public transport improvements.** Public transit improvements often involve pedestrian and cycling facility improvements, and can reduce vehicle traffic and sprawl.
- **Commute trip reduction programs**. This includes programs that encourage use of alternative modes, such as improving bicycle parking or financial rewards such as parking cash out.
- **Pricing reforms**. This includes more efficient road, parking, insurance and fuel pricing (motorists pay directly for costs they impose).
- **Smart growth (also called new urban, transit-oriented development, and location-efficient development) land use policies**. More compact, mixed, connected land use, and reduced parking supply tends to improve walking and cycling conditions and encourage use of active modes by reducing the distances people must travel to reach common destinations such as shops, schools, parks, public transit, and friends.

Policy Development and Implementation Scheme

Scheme for NMT policy development and implementation may include, but not limited to [9]

- **Consideration of the specific situation of a city.** NMT design and development should take into account the local context of the city including the variations based in transport availability, travel flows and demand, scheme boundaries along with the local/national strategies influencing NMT design and development.
- **Informing and engaging stakeholders**. Plan a dedicated strategy to involve stakeholders and citizens, including local authorities, private businesses, civil society organization and local people.
- **Policy announcement and dissemination**. Ensure the formal adoption of NMT plan, rollout policy decisions and disseminate information to wider audience.
- **Prioritizing investments and Implement NMT activities**. Develop effective measure of NMT implementation with well defined objectives, targets, funding requirement and formalize responsibility of all actors.
- **Checking the progress of implementation.** Identify problems and challenges of effective implementation, and monitor outputs and outcomes.



Reference

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