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Local Project Planning Workshop Low Carbon Mobility Planning in Chiang Mai

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Partners of Connective Cities







Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

In cooperation with

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Cities are gaining increasing importance globally, and urban actors all over the world are facing similar development issues. Although local solutions are required, these issues are becoming increasingly relevant at the global level. While many innovative solutions for sustainable urban development exist at a local level, for example in energy efficiency, mobility or municipal services, frequently these are not widely known. Often there is lack of systematic access to these practical solutions. The pressing challenges posed by worldwide urbanisation call for efficient and innovative approaches, especially in the areas of Good Urban Governance, Integrated Urban Development, Local Economic Development and Municipal Services - Connective Cities' four focal themes.

Connective Cities, the International Community of Practice for Sustainable Urban Development is a joint venture between the Association of German Cities (Deutscher Städtetag), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Service Agency Communities in One World (a division of Engagement Global gGmbH). Connective Cities is supported by the German Federal Ministry for Economic Cooperation and Development (BMZ).

Connective Cities provides demand-based services designed to improve cooperation among urban practitioners at the global level. The platform enhances sharing of good practice examples, expert knowledge and solution-oriented peerto-peer consulting, and creates opportunities for partnerships among different stakeholders.

Connective Cities addresses questions of how to achieve sustainable development through innovative strategies and practices. It highlights good practice examples in the overarching fields of Good Urban Governance, Integrated Urban Development, Municipal Services and support of Local Economic Development Strategies. Connective Cities creates a base for knowledge

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sharing and the development of transformative solutions in local contexts that are customised to local requirements for sustainable urban development.

By conducting dialogue events and project workshops, Connective Cities facilitates exchange among urban practitioners on relevant themes, and functions as a platform for networking. To implement its strategy Connective Cities also organises trainings, study tours, virtual discussion forums and webinars. Working within the Connective Cities framework can result in new forms of cooperation among the actors involved. The platform also aims to facilitate the initiation of joint projects among urban practitioners from various cities to disseminate innovative solutions in sustainable urban development.



Starting Situation

Chiang Mai is a strategic regional growth center in Northern Thailand, having about 1 million inhabitants in the metropolitan area. To date the road mode dominates both passenger and freight transport. This leads to heightened levels of traffic congestion and pollution causing in turn land use conflicts and increased greenhouse gas (GHG) emissions as a major contributor to climate change. In addition, factors such as rapid economic growth, expansion of the tourism sector and population growth result in urban sprawl, contributing to emergence of ill-connected settlement areas.

The lack of adequate public transport infrastructure and services and the high rate of carbon emissions form the starting point to apply Low Carbon Mobility Planning (LCMP) in the current spatial planning process in Chiang Mai Municipality. The goal



Prof. Douglas Webster (2017). Transport Planning for Low Carbon Mobility in Secondary Cities: The Case of Chiang Mai [PowerPoint Slides]. Retrieved from: nective-cities.net/..

of implementing an integrated sustainable mobility system is geared towards an increase in the share of public transport by up to 30% by 2030. Additional focus is on promotion of non-motorized modes of transport, particularly in the inner city areas. Such measures are believed to enhance living conditions in the metropolitan area, improve the urban environment, reduce air pollution as well as preserve the cultural heritage of Chiang Mai, while making the city overall more liveable and resilient.

Chiang Mai metropolitan area:

- 1 million inhabitants more than half of the total population of Chiang Mai Province
- Area of 2,905 sq. km
- Strategic regional growth centre
- 15% annual growth rate in the number of tourists

Current challenges:

- Large seasonal fluctuations in demand on public services due to tourism
- Urban sprawl and inefficient land use
- Complicated physical landscape
- Wide popularity of private motorized transport
- Traffic congestion in the city centre

Good Practices Presented



Access restriction schemes

Combination of hard and soft restriction schemes in German cities proved to be an efficient solution for controlling traffic, given that proper enforcement mechanisms are in place



Car-reduced city centre

Leipzig has successfully implemented the concept based on restrictive and supportive measures with emphasis on creation of pedestrian zones and development of transit connections



Strategic cycling development

Leipzig has established a position of "cycling coordinator, and created a working group to address all cycling-related issues (infrastructure, regulations, marketing, stakeholder engagement)



Electromobility promotion

Cities such as Berlin, Stuttgart and Leipzig have started implementing e-mobility strategy by building up electric fleets for municipal needs as well as car-sharing and taxi services

Baseline Studies Presented

Sustainable urban transport in Chiang Mai

by Mr. Trinnawat Suwanprik, Chiang Mai Municipality

Chiang Mai has established the long-term vision of becoming a "City of thirty". The targets to be achieved in the course of the next 30 years include:

- 30% increase in public transport use;
- 30% reduction in air pollution;
- 30 minutes of average trip time.

The vision is largely based on the integration of low carbon transport and smart land use with bottom-up activities. For effective implementation of this plan, issues such as public participation and awareness raising; transportation and infrastructure development as well as integrated land use development are to be tackled.



A study on Chiang Mai public transport master plan

by Dr. Boonsong Satayopas, Chiang Mai University

The main traffic problem of Chiang Mai is imbalance between travel demand and transport supply. To overcome this challenge, an integrated transport system comprising of three interrelated sub-systems has been proposed:

- the first system as a system of high service quality and capacity such as a Light Rail Transit (LRT) to cover the inner city area;

- the second system as a less sophisticated network to link suburbs with terminals of the first system;

- the third system as the minor feeder based on non-motorized modes of transport to fill up the areas that are not covered by the two previous systems.



Contraflow bike lane and bicycle road to promote safe and sound cycling in the centre of Chiang Mai City

by Dr. Nirandorn Potikanond, Chiang Mai Sunday Cycling Club

Problems that cyclists face in Chiang Mai include safety issues, unsuitability of infrastructure to commute on longer distances and occupation of bike lanes by cars and vendors. Three measures are seen as particularly relevant for easing the pressure on cyclists: - creation of one-way roads with contraflow bike lanes; - restrictions for motorized vehicles on usage of bike lanes;

- installation of proper traffic signs, indicating bike lanes as well as speed limit zones.



As a result of the workshop three action plans have been elaborated to facilitate implementation of Low Carbon Mobility Concept in Chiang Mai



1 - ENHANCING THE USE OF PUBLIC TRANSPORTATION SYSTEM

The scope of measures under this plan includes awareness raising to inform local people about the benefits of public transportation. Apart from that, increase in frequency of public buses and improvements in connectivity between the existing public transportation systems are planned. Additional focus lies on cooperation with schools, colleges and universities to support the use of school buses as well as promote walking and cycling. Restriction on parking near schools in rush hours with simultaneous efforts on providing "parkand-ride" stations for parents near department stores are aimed at creation of transit stops for students where they can safely switch to school buses.

The figure showcases estimated number of students (by zone) and potential park-and-ride stations



2 - SUPPORTING WALKABILITY AND CYCLABILITY OF THE OLD TOWN AREA

Primarily, implementation of this plan requires enhancement of safety and convenience for cyclists through creation of prioritized bike lanes, better enforcement of parking restrictions on bike lanes, general increase in the number of traffic signs and establishment of a stricter speed limit control. Given the complicated physical landscape of Chiang Mai, it is also necessary to improve existing and develop new routes across city's moats as well as, considering the touristic appeal of the area, to strengthen a bike-rental system.

The figure showcases tourist destinations and potential cycling routes in the old town area



Conclusion

The Local Project Planning Workshop provided a better understanding of the Low Carbon Mobility concept and its local application by learning from successful models already implemented and tested in other places. Through practical exchange, future transportation system and related traffic infrastructure for Chiang Mai were conceptualized as an integrated and sustainable mobility system with intelligent traffic planning as well as consideration of settlement patterns and land use issues. The workshop contributed to consensus building in the current process of infrastructure planning in Chiang Mai Municipality and enhanced working relationships between and among different

stakeholders.

By the end of the workshop, local participants proposed to set up a working group, chaired by the Governor or Deputy Governor to facilitate implementation of the action plans and effectively promote the concept of Low Carbon Mobility in Chiang Mai. The group will be responsible for elaborating details of each of the above-mentioned plans, promoting them, cooperating with stakeholders and following-up implementation of the plans. Tasks of the group will also include checking on technical and financial feasibility as well as looking for finance from third parties. Such approach is believed to lead to a more sustainable urban development as well as consistent implementation of the Low Carbon Mobility concept in Chiang Mai.

3-DEVELOPING SUB-CENTRES THROUGH TRANSIT ORIENTED DEVELOPMENT (TOD) APPROACH

This task mainly concentrates on guiding the physical development of Chiang Mai into several sub-centres, which means creating the nodes with diverse functional uses and linking them to the public transportation system.

The figure provides a conceptual plan for Chiang Mai's TOD



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