Area Improvement for Non-Motorized Transport in Chiang Mai

Sustainable Urban & Transport Planning Research Unit (SUTP)

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Project background

Project Objectives

Expectations for the project

Components of the project

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PROJECT BACKGROUND



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Traffic problems in Bangkok (Nations of Business, 2012)

- "Bangkok" The Dart is a city with traffic jams, it ranked 4th in the world (19 Oct 2012).
- Volume of cars: About 6.8 million cars but with the support of around 5,887 kilometers. The imbalance

Bangkok



Chiang Mai



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Climate change

	9. 1	ชียวใหม่ ((3สถานี)	
Ū 2550	ຈຳນວນວັນກໍ່ ເດັນມາຕຮຽານ 35 ວັນ	ค่าสูมสุด (มคก./ลบ.ม.) 382.7	<mark>ค่าต่ำสุด</mark> (มคก./อบ.ม.) 21.2	วันตรวจพบ ค่าสูงสุด 14 มี.ค.50
2551	8 วัน	206.3	9.5	24 มี.ค. 51
2552	21 วัน	238.3	15.8	14 มี.ค. 52
2553	22 วัน	279.9	12.3	17 มี.ค. 53
2554	0 วัน	109.9	5.8	8 มี.ค. 54
2555	17 วัน	215.9	20.9	19 มี.ค. 55

Source: Hedlom Agence

Jan 31, 2012 PM10 is 58 less than the standard of 120 micrograms / cubic meter. It is not caused by a forest fire. Due to increased vehicle caused by dust, smoke, smog and exhaust; that PM10 average increase.

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"Chiang Mai City" most in the world

• Chiang Mai is 1 of 10 city tourist interest most in the world. From guide book "Lonely

Planet" LISA_2011



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Concepts to solve problems.

- Reduce the need to travel and reduce the private car.
- Promote travel by Non-motorize vehicle model.
 - Energy reduction in travel.
 - Reduce the severity of accidents down.
 - Inexpensive choice for low incom
 - Environmentally friendly.



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Development of non-motorized



Because of the constraints of the road network Vision of Clifical Mation Cli

Global Environment Facility (GEF) + Chiang Mai Municipality.

The development of non-motorized transportation.

transportation. Area Improvement for Non-Motorized Transport in Chiang Mai



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Concepts to resolve





Compare the speed of travel of the



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Compare the cost of a vehicle.

- A cheap bike.
- The cost to build bike path.
- Area of the bike a small.



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PROJECT OBJECTIVES



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Objectives

1. To develop an implementation plan for area NMT improvement and detailed design with a target to increase the share of NMT in old town area.

2. To provide technical support and supervision to CMM and contractors for sustainable plan and implementation.

3. To develop and increase the competency of CMM to plan and to develop a sustainable transport system during implementation process.

4. To conduct monitoring and evaluation of the pilot project.

5. To develop the NMT pilot project to other cities in Thailand and Mekong region.

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EXPECTATIONS FOR THE PROJECT

Source: Center for Transportation Studies, 2011

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Expectations for the project



Traffic Condition are improved.

Reduce fuel consumption.

Supplement to condition city.

Enhance a better environment. such as reduce accidents, sound and air pollution.

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COMPONENTS OF THE PROJECT. 1. Three Kings yard improvements. 2. Pavement design and construction of the bicycle. 3. Bicycle Taxi 4. Public Bikes.

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COMPONENTS OF THE PROJECT. 1. THREE KINGS YARD IMPROVEMENTS.

2. PAVEMENT DESIGN AND CONSTRUCTION OF THE BICYCLE.

3. BICYCLE TAXI

4. PUBLIC BIKES.

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- Add trees and green space.
- Add lighting.
 - Improve pedestrian surfaces.
 - Design facilities.

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Design bench and electric lights.

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The convenience and safety for pedestrians and cyclists.

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• The convenience and safety for pedestrians and



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The convenience and safety for







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The convenience and safety for



design for



Safe crossing.



Way for the



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Design of the bike path

Bicycle Route Network



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Criteria for use of bicycles route 1.



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Criteria for use of bicycles route 2.



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Criteria for use of bicycles route 3.



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Bicycle Taxi System For Travel

- Provision of facilities of bicycle taxi system for travel
- Policies to promote bicycle taxi system for travel



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The project support bicycle taxi



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Public Bikes system

Is a bike rental system for those people who prefer travelling by bicycle but do not want to own them. Help in decreasing car park area and also bicycle parking. Thus, provide more effective land use (ສລິລາ ທະລາຊາ, 2551)



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Public bicycle systems are currently in



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Public bicycle project in Thailand.







แท่นล็อคจักรยาน

- สำหรับล็อคจักรยาน และ ปลดล็อคจักรยาน
- แถบไฟสำหรับนำบัตร Smart Card มาแตะ เพื่อปลดล็อค



•

ตู้ควบคุมสถานีระบบ touch screen

- มีไว้สำหรับบันทึกข้อมูลขอใช้บริการ รถจักรยาน
- สามารถเติมมูลค่าบัตรและเช็คมูลค่าบัตร ผ่านตู้ควบคุม

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Public bicycle project in Bangkok.

- After BTS and MRT stations the bicycle provides a rest of the trip.
- Bike release and return or rental stations cover urban area for example 330 bikes with in 50 stations.
- Free for the first 15 minutes.
- RFID smartcard system for "Top Up and Balance inquiries".



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Management system by Call a Bike

- The system is now in used in Germany and Austria.
- Bike returning in this system called "Flex".
- Easy to operate with low cost due to "Bike Attached Equipment".
- Contact with Call center to rent and return.
- No rental station needed beside "Bike Parking Rail".

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The system model public bikes in Chiang Mai

- Setup "Call a bike" systems.
- Predicted 25 rental and return station with 10 Bikes.
- Start with 5 rental stations in the starting year.





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Bicycle parking in short-term



5 rental stations in the starting year.

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Transports are essential for a modern society, but need to be made sustainable.

THANK

YOU



Area Improvement for Non-Motorized Transport under the Chiang Mai GEF Sustainable Urban Transport Project