



**(Inclusion in topic: The new context – urbanisation, motorization and sustainable development)**

## **CAPACITY BUILDING AND AWARENESS RAISING ON SUSTAINABLE URBAN TRANSPORT IN ASIA**

**Carlosfelipe Pardo\*, Manfred Breithaupt\*\*, Thirayoot Limanond\*,**

*\*GTZ SUTP, Thailand \*\*GTZ Transport sector, Germany*

### **ABSTRACT:**

A coherent sustainable transport policy is very difficult to achieve when political will is not clearly visible and technical capacity and public awareness towards sustainable transport is low. To confront these three major obstacles, we have developed material on sustainable transport and strategies to diffuse it through a dedicated website, through training documents and by delivering training courses. There is worldwide an increasing awareness of the importance of sustainable urban transport, also due to its relevance for climate, air pollution, health and other related areas. This calls for extensive capacity building efforts with policymakers and high-level technical staff within municipalities, in order to achieve a real change in policies, projects and impacts from sustainable transport in developing cities. This has been confirmed by major players, such as researchers, transport experts, Multilaterals, ITF, FCCC, and IPCC. The presentation will provide an overview of the state of art in capacity building in sustainable urban transport

**Keywords:** sustainable transport, awareness raising, capacity building, political will

### **1 Background**

The Sustainable Urban Transport (SUT) concept which has recently emerged in discussions related to the transport sector. The concept stems from sustainable development and sustainability itself, and has gained much credence in the past decade due to increasing awareness of academia, governments and practitioners that it is the most feasible solution to the current problems in the environment, society (individuals and community) and economics of cities. Further, examples and best practices such as that of the “redevelopment” or “transformation” of Bogotá have increased the interest from city governments to pay attention to these success stories and develop projects in order to emulate the impacts seen in cities which have large-scale projects that have improved city life in general and urban transport as such.



However, the term SUT, though it has become a very common term among different parties in developed and developing cities (as well as sustainable mobility and synonymous terms), and the meaning attached to such term is shallow at best in most occasions. As happens with many urban trends or replicable concepts, many cities have decided to implement “sustainable urban transport policies” while presenting projects of (e.g.) non motorised transport, public transport and travel demand management, but when one comes closer to these applications finds many misunderstandings and contradictions with the term they have chosen to promote. To give a few examples:

- Bangkok (Thailand) has built a series of cycleways which have been modeled after elevated highways and built as scale models of automobile infrastructure. Needless to say, use of these cycleways has clearly not been increasing;
- Various cities in India have developed “Bus Rapid Transit” systems, only to present simple busways with no actual modifications in bus operations or management of such systems; and
- Cities such as Popayán (Colombia) have sought to develop a more “livable” city center, but this has been tried by banning public transport and allowing only automobiles in this space.

There are various other examples of such behavior in city planning, and this can result (and has resulted) in both a deterioration of quality of service of urban transport, plus a reduced confidence from the city in implementing similar measures in the future. In the case of Bangkok, large scale cycleway construction was halted and the elevated cycleway that was once built has been torn down, while government staff have attributed the failure of such projects to its “unclear impact”. The most negative impact of such unfortunate implementations of so-called sustainable urban transport measures is that it reinforces the assumption that cities must not cater to the needs of bicycles, pedestrians or public transport because it would seem a waste of public resources.

Thus, it is clear that one underlying problem to this is the lack of capacity in city government staff, consultants and academia in terms of their detailed knowledge of sustainable transport measures, their characteristics and how projects that respond to the term should be planned and implemented.

Another situation, which to an extent can be more harmful, is when city governments are not aware or skeptic of the effectiveness or even the existence of sustainable urban transport. Cities in developing cities, especially during the end of the last century, were not knowledgeable about the basic issues of pollution, accidents, health, energy problems and financial burden of a poorly planned transport system and were (or still are) still under the influence of supply-oriented transport projects (e.g. large infrastructure and investments and catering the needs of motorized traffic). In some cases, despite their knowledge of best practices as described above, some city governments have remained confident that their approach to transport policy is correct when they invest heavily in elevated highways and other expensive projects which were deemed appropriate decades ago but are now obsolete as a solution to the transport problems in urban settings. In many cases, this is further reinforced by long-respected professors and municipal engineers who support this supply driven approach.



In both cases (lack of deep knowledge of the real meaning of SUT and lack of awareness of its existence or impact), it has been necessary to discuss with developing city governments and present to them the basic issues of sustainable urban transport and how, when properly implemented, can clearly improve a city's efficiency in terms of emissions, energy consumption, accident rates and livability in general. In providing assistance to stakeholders, decision makers and planners in cities, 3 levels have been seen as crucial to arrive at an improved understanding of SUT:

- higher level: policymakers and high level municipal staff
- medium level: planners and middle level municipal staff
- lower level: junior engineers and designers in municipal staff

(Complementary to these levels in city governments are universities and their staff and consultants, though a higher importance has been given to municipal staff).

In the case of the group in the higher level (policymakers), the approach that has been used to present SUT has been primarily that of describing the key issues and their impacts, rather than extensive presentations with details. It has been chosen to work with policymakers in reduced time slots and presenting key information due to their need to understand an issue to the extent that they can ask their staff to go deeper into the subject.

Municipal staff of the medium level (mainly planners) will have more interest in arriving at a more detailed comprehension of the actual logic behind the measures of SUT and how they can be developed while complementing other measures in cities. A more general approach has also been used with this group, though emphasizing on the need for detailed planning of a project or system, which would then be the task of lower-level staff.

The junior engineers, as the lower tier of the structure mentioned here, have been approached with detailed design instruments and in-depth operational issues of specific components of an SUT policy or systems that compose it (Bus Rapid Transit, Non motorised transport, Travel Demand Management and other subject areas). As is expected, such capacity building activities take a longer time.

This capacity building effort is also coherent with the fact that current trends of urban transport policy advise have shifted focus from infrastructure and "hard" issues to more "soft" issues of capacity building and actual dialogue on options. Development banks and cooperation aid organizations have agreed that it is more relevant to strengthen knowledge of local staff and work with counterpart contributions, rather than providing large financial contribution that could be implemented by an agency while capacity is not enhanced nor expected from a developing city. This has also proven to be a cost-effective measure for both sides of the equation, where development organizations need not invest such large sums in projects while local counterpart agencies are better engaged in processes of improvement of urban transport. Capacity building plays a key role in such processes as well, since it is what makes it possible for developing cities to improve their urban transport policies and adapt best practices from other countries to their own setting.

### **TOP-down approach**

To complement these efforts, a significant amount of material has been developed which describes details and intricacies of a sustainable urban transport project. In this case,



various organizations have written full documents in this regard and have distributed them as part of their capacity building activities in order to give developing cities a more “permanent” resource to the knowledge given to them in training courses or other capacity building activities.

Based on the above analysis, the following sections will describe the approach that the German Technical Cooperation has given to capacity building.

## **2 Material and training**

As part of its efforts, the GTZ Sustainable Urban Transport Project (SUTP) has developed 26 modules/booklets in English and other languages (all are available also in Spanish and Chinese language translations) on various topics. It continues to develop training courses and executes workshops with interested cities and is prepared to assist pilot implementation projects that would serve as best practices for other cities around the world.

Most of these topics centre around or involve promoting ‘modal shifts’; that is, promoting alternatives to the use of private motor vehicles. The project also aims to promote environmentally ‘sustainable’ and economically efficient modes of transport, such as public transport, walking and non-motorised transport, as alternatives to cars and motorcycles.

### **2.1 Developed material**

#### **2.1.1 Bus Rapid Transit planning Guide**

The GTZ SUTP project, with Hewlett Foundation, UNDP and ITDP has developed a Bus Rapid Planning Guide currently consisting of 830 pages of detailed information on how to develop a complete BRT system. This guide was written by Lloyd Wright and Walter Hook. It has included information from international experts who have taken part in the development of BRT systems around the world such as Bogotá, Curitiba, Quito, Jakarta and other successes.

#### **2.1.2 Mass Transit Options Training course**

Another document that gives detailed explanations on mass transit and its options is the training course on Mass Transit Options, where there is a detailed explanation on how to choose the appropriate solution for a city in terms of its size, population and available resources, among others.

#### **2.1.3 Non motorized transport training course**

There is also a training document on Non motorized transport that extends the previously developed material on the topic, while describing how to integrate stakeholders, the regulation of vehicles, operation of NMT in cities, planning for non motorized transport, facilities of non motorized transport, data collecting and implementation of a project of improvement of conditions for pedestrians and bicycles in a given city. This document is currently being revised by GTZ and the Interface for Cycling Expertise from the Netherlands.



### **2.1.4 Training course on public awareness and behavior change for sustainable urban transport**

The latest addition to training documents is the training course on public awareness and behavior change on sustainable urban transport. It describes the differences and complementarities between public awareness and behavior change, the target groups that should be targeted and how they should be targeted, specific tools to work on public awareness and behavior change activities and diffusion of the activities and messages that would be developed for specific campaigns and actions. It is a document with a psychological, sociological and marketing background that takes examples and best practices from experiences in transport and other fields.

### **2.1.5 Upcoming training documents**

Upcoming documents include a training document on Travel Demand Management and one on Bicycle infrastructure planning. These shall be made available in the second semester of 2008.

## **2.2 Training courses on Sustainable Urban Transport topics**

One of the main outputs of the Project is delivering training courses based on already-developed training documents. At this point, the project has developed training courses on Nonmotorised Transport, Bus Regulation and Planning, Mass Transit Bus Rapid Transit, TDM and Public Awareness. More than 20 courses have been held since 2005 on these topics. Trainings have already taken place before in Indonesia, China Thailand, Malaysia and Romania with other GTZ projects related to transport.

Training courses are delivered to small groups of between 25-40 people which are directly related to a city's transport policy or project implementation. In the cases in which training sessions are developed with more participants, there is an alternative structure with broader information and less in-depth implementation strategies. However, the preferred modality is the former (less than 30 people, in-depth training).

All training courses include a conceptual framework that is developed into specific examples from developing countries, and later be reinforced by implementation techniques that will be practiced by participants. One main goal of every training course is to result in a specific project from the participants in their city(ies). Field visits are also developed, and the trainer prepares the material based on the city's context and current situation (there is a prior few days field work made by the expert in the city where the training course will be developed).

Training courses are also complemented with respective documents, and supporting material from various sources that have been compiled to deepen knowledge regarding specific contents. Authors of these training courses are (for the most part), experts who have longstanding experience in these topics in developing countries and in implementing sustainable transport projects.

The positive results from these previous training courses have shown that participants are highly impressed by the contents and methodology delivered, and they've asked for more



information on these topics, clearly showing the relevance to their work. Following are compiled graphs of evaluations for all training courses.

### 3 GTZ SUTP training activities- example of train-the trainer

Based on the UNCTAD train the trainer approach (GTZ has executed various large scale training programs over the last 15 years applying this approach) the development of training materials is based on a standardized methodology.

Courses developed under this methodology conform to strict specifications with regard to both the instructional approach and the format of the training materials. Since the approach is standardized among all members of a programme training packages can be used elsewhere with little adaptation.

GTZ SUTP is currently developing one train-the-trainer exercise for the SUMA project (a partnership with CAI-Asia, ITDP, I-ce, WRI/Embarq and UNCRD). It has the goal to train up to 500 participants from various countries around Asia (mostly in China and India) on the topics of Sustainable Urban Transport, Mass Transit Options, Non Motorised Transport and TDM with a strong Social component. Detailed reports on these training activities are also available upon request.

### 4 Impacts of training courses on urban transport policy

Training courses delivered by the GTZ SUTP project are intended to boost improvements in urban transport policy towards a more sustainable agenda. Since training courses are directed to policymakers, planning and engineers directly related to transport programs in cities, once they have been shown the benefits of specific measures on urban transport, they have redirected their policies significantly based on the knowledge gained from training. Below are some examples of how training has changed urban transport policy in the developing world:

- **Vientiane (Laos):** After the training course in 2005, the Laos national government has developed and submitted a GEF proposal to improve their urban transport by developing a BRT system, cycleways, a TDM initiative and pedicabs in Vientiane.
- **Montevideo (Uruguay):** A BRT training course was developed in Montevideo in 2006. After initial resistance to improving their existent public transport systems, the local transport staff has started to visit cities with BRT systems such as Guayaquil (Ecuador) in order to develop a similar system in their city. They have currently developed an improved public transport system.
- **Pasto (Colombia):** After training and some visits to this city by GTZ staff, Pasto has developed high-impact activities to improve cycling facilities and to increase bicycle ridership, including Carfree Days and massive meetings of bicycle riders in their city.
- **Bangkok (Thailand):** The Bangkok Municipal Administration has sought GTZ's assistance in various occasions to develop their ongoing projects on Bus Rapid Transit and cycleway development, which are currently in development.



- **Manila, (Philippines):** GTZ's training course in the end of 2005 was an important component of their current plans to develop a Bus Rapid Transit System in their city.
- **Sao Paulo (Brazil):** The training course on Non motorised transport with various cities from Brazil was succesful in strengthening the national agenda on promotion and development of infrastructure for non motorised transport.

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### **From authors:**

#### *Carlosfelipe Pardo*

**Experience** – Carlosfelipe Pardo is a Colombian psychologist who has worked in transportation issues from the organizational, advocacy and policy level with various projects in his country and abroad. He worked with a Foundation in Bogotá as mobility coordinator in 2002-2004, and was research assistant to ITDP and others. Since 2005 he is the project coordinator for the GTZ Sustainable Urban Transport Project in Asia and Latin America ([www.sutp.org](http://www.sutp.org)) and steering committee member for Sustran LAC. He has taken part in the development of training courses on BRT, non motorised transport and public awareness in China, India, Indonesia, Thailand, Uruguay, Brazil, Mexico and other places in the world, as well as other broader topics or sustainable transport. He has also written two chapters of the Bus Rapid Transit Planning Guide (ITDP, UNEP, Hewlett, GTZ) and a module and training document on public awareness and behavior change for GTZ, while editing the latest documents from SUTP on transport.

#### ***Institutional affiliation*** – GTZ SUTP

#### ***Contact details*** –

Cl 93A # 14-17 of 708 - Bogotá D.C., Colombia

Tel/fax: +57 (1) 236 2309

[carlos.pardo@gtz.de](mailto:carlos.pardo@gtz.de)

#### ***Manfred Breithaupt***

**Experience** – Manfred Breithaupt received his Masters in Economics in 1975. After working as Transport Economist for a German consulting company in Europe, Africa and Asia he joined GTZ in 1981 and is now Senior Transport Advisor. His experience covers transport planning, transport sector policy and restructuring, commercialisation and institutional development. Over the last years he worked overwhelmingly in the area of sustainable urban transport. He is the editor of the Sourcebook on Sustainable Urban



Transport, meanwhile covering 26 modules and various training packages, having been translated in various languages.

He also works as an Assistant Professor for transport planning and policy.

***Institutional affiliation*** – GTZ Transport Section

***Contact details*** –

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH  
(German Technical Cooperation)

Transport and Mobility

Division 44 - Environment and Infrastructure

P.O. Box 5180

65726 Eschborn

Tel. + 49 6196 79-1357

Fax + 49 6196 79-80 1357

Email: [manfred.breithaupt@gtz.de](mailto:manfred.breithaupt@gtz.de)

<http://www.gtz.de/transport>

Sustainable Urban Transport Website:

<http://www.sutp.org>

Thirayoot Limanond

***Experience*** – after received his Ph.D. in Civil Engineering (Transportation) in 2001, he worked in a transport and traffic consulting company in the San Francisco Bay area for 3 years and a local firm in Bangkok for another 2 years, before joining GTZ-SUTP in 2005 as an Asia project coordinator. He gave training on various topics of sustainable urban transport, including congestion pricing, road safety, bicycle planning, among others. He has taken part in the development of training courses on BRT and bicycle planning and design in Bangkok and Nakorn Ratchsrima, Thailand, and on travel demand management in Singapore. He also works as a lecturer in the department of Transportation Engineering at Suranaree University of Technology in Thailand.

***Institutional affiliation*** – GTZ SUTP

***Contact details*** –

GTZ-SUTP

Transport Division, Room 942

United Nations ESCAP, UN Building



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GTZ SUTP training - background document

Rajadamnern-nok Road  
Bangkok 10200, Thailand