

Application Form of EASTS IRG (International Research Group)

Date of Submission: 2012/09/25

1. Name of IRG: Strategies for a Sustainable Transportation Path for Small- and Medium-sized Cities in East Asia

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3. Name of contact person other than representative:

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4. Keywords (Maximum: 5 words) Sustainable transport, Public transport, Transport co-benefit analysis, Bus rapid transit, non-motorized transport

5. Purpose and Mission of IRG:

The Mission of this IRG is to be a source of relevant and practical research and information about sustainable transport systems like bus rapid transit systems as applied to small and medium-sized cities in East Asia.

The primary purpose of this research is to determine the applicability of sustainable transport systems for small and medium sized cities in East Asia. Sustainable transport systems are those that have minimal impact to the environment and at the same time provide an efficient and economical way of moving people in these cities. In particular, bus rapid transit systems which have become very popular in other parts of the world are just beginning to be introduced in major cities in East Asia. Usually small and medium-sized cities (urban population from 0.50 to 2.0 million) in the region look at their primate city as example in terms of how to address their transport problems like

inefficient public transport system and traffic congestion but which most of the time would take years to materialize and furthermore, primate cities could not even solve their own traffic congestion and transport problems. It is then proper to look elsewhere for success stories regarding sustainable transport in order to address the emerging transport problems of small and medium-sized cities in East Asia.

From the successful experiences in Latin America and elsewhere, it can be assumed that BRT would be applicable to cities in East Asia. The following are the specific objectives of this study:

1. to review the key success factors of BRT,
2. to determine whether BRT is applicable to small and medium sized cities in East Asia,
3. to develop a guide and criteria for designing BRT in small and medium sized cities in East Asia,
4. to develop accessibility integrated measures (i.e. walking, cycling and non-motorized transport) to support BRT, and
5. to study how to deal and accommodate existing public transport.

Even though small and medium-sized cities in the Asean Region may have different urban forms, urban travel characteristics and unique cultures and traditions that dictate the travel behavior of its population, the challenge is to find a common ground through the development of a classification system appropriate for the introduction of the BRT system.

6. Target year for completion (Research period is suitable within four years.):

October 2012 to September 2016

7. Research plan:

(Oct, 2012 – Sep, 2013)

- Literature review of best practices and studies about bus rapid transit systems in cities around the world
- Criteria development for small and medium-sized cities in East Asia where bus rapid transit system would be applicable
- Identification of small and medium-sized cities like Khon Kaen City and Changmai City in Thailand, Cebu, Iloilo and General Santos City in the Philippines, Hanoi and Danang in Vietnam, Bandung and Yogyakarta in Indonesia, and Vientiane in Laos, where bus rapid transit system could be applied. Other small- and medium-sized cities in East Asia are most welcome.
- Paper presentations in the coming EASTS 2013 of initial studies regarding bus rapid transit system applicability for small and medium-sized cities

(Oct, 2013 - Sep, 2014)

- Secondary and primary data collection on small and medium-sized cities chosen as candidate for each country involved

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- Data collection will focus on the determination of socio-demographic characteristics of the cities, urban forms and land use, inventory of existing transport infrastructure network, determination of the public transport service characteristics, and determination of the urban travel characteristics
- Conduct stated preference survey regarding the introduction of the propose BRT system
- Initial data processing and analysis

(Oct, 2014 - Sep, 2015)

- Urban transport modeling and application of transport co-benefit analysis to the chosen small and medium-sized cities
 - Scenario development of proposed BRT network design and alignment including the network of feeder services including non-motorized transport in support of the BRT system
 - Also include the propose redesign and rerouting of existing public transport service
- Paper presentation of final research outputs to the EASTS 2015

(Oct, 2015 - Sep, 2016)

- Collating of results and development of a basic guide for the application of bus rapid transit system to small and medium-sized cities in Japan, Thailand, Laos, Philippines, Indonesia, Vietnam and other countries that are going to join the IRG.

8. Expected research funds

ICRA – research grant of EASTS