

# IRG Activity Report

Date of Submission: 24 / AUGUST / 2010

## 1. IRG CODE AND NAME OF IRG

- 1) IRG code: IRG -15 - 2009
- 2) Name of IRG:

**Sustainable Transport Futures for Cities in Asia and the Pacific:  
Trends and Prospects of Indigenous Transport in Climate Change Adaptation**

## 2. LIST OF RESEARCH MEMBERS

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- 4) Tri Basuki JOEWONO, D.Eng., Department of Civil Engineering, Parahyangan Catholic University, Bandung, INDONESIA
- 5) Associate Professor Sorawit NARUPITI, Ph.D.; Transport Research Laboratory, Chulalongkorn University, Bangkok, THAILAND
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- 8) Yusak O. SUSILO, D.Eng.; The University of the West of England, Bristol; INDONESIA/UNITED KINGDOM
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## 3. PURPOSE AND MISSION OF IRG

Climate change is a global issue that has local roots. While previous approaches has focused on various mitigating measures, it was only recently that planning for adapting has become an important agenda to address the anticipated climate change impacts (IPCC, 2007). Anticipatory adaptation strategy (such as considering the potential role of indigenous transport in developing cities) increases the adaptive capacity of communities (Sperling and Szekely, 2005) especially in Asia. As an example, Dhaka city, the capital of Bangladesh, suffers from monsoon flooding annually. During the flooding period, only rickshaws have the operational capacity to provide the much needed mobility and access to different parts of the city (Hossain and Susilo, 2010). In many cities and towns of developing nations in Asia, the presence of indigenous transportation like the public utility jeepneys in the Philippines, ankot in Indonesia, tutktuk in Thailand has been the acceptable and common public transport system. For example in Manila and Davao City, indigenous transport mode such as tricycles and pedicabs even complements mainstream transport system within gated communities (Guillen

and Ishida, 2004; Guillen, 2008). Electronic jeepneys (e-jeeps) in the Philippines have been rolled out as pilot projects in a number of key cities to provide a low-carbon public transport mode alternative for its users (Yap, 2007).

A number of definitions have been used to describe the concept. Susilo (2010) defines indigenous transport as a transport mode developed by locals, based on local conditions and cultures which can serve as a cultural artifact that provides continuity of past to present. Some examples would be tuktuk in Bangkok, rikisha in the historic Asakusa district. Guillen (2004) defines indigenous public transport modes as low-cost vehicles utilized for commuting passengers, of paratransit and informal character, basically homegrown and have unique designs identifying its country of origin. Guillen (2008) further defines indigenous public transport system as a microenterprise, private in nature, is a mixture of locally designed transport modes adopted by the community and accepted for transporting passengers.

Historical and cultural analysis of transport development in Asia has illustrated the presence of diverse indigenous transport modes which were initially utilized as the main mode of moving people, goods and services (i.e. cycle rickshaws, becak), then to complementing mainstream transport (i.e. jeepneys as feeder modes) and to providing transport alternatives in areas with a pronounced lack (i.e. role of “habal-habal”).

Moreover, while indigenous knowledge systems have been extensively utilised in the field of environmental management and ecological research, its wider application of looking at indigenous transport as a means of climate change adaptation has remained elusive and has not yet been well-established. Recent international progress in the field has also been sparse.

The study attempts to identify the existing roles of indigenous transport in various cities in developing countries and explores its potential to be further used as an alternative of sustainable transport modes in the future. It also aims to examine the value of indigenous knowledge on transport in climate change mitigation and adaptation strategies within the region. The initial scope seeks to collate and assess existing materials on the topic (i.e. literature survey, experts interview, focused group) such as but not limited to transport issues of indigenous communities, indigenous transport modes native to a particular contemporary context, indigenous modes/vehicles (i.e. Philippine jeepneys, Thailand’s tuktuks, Indonesia’s angkot), traditional knowledge on transport or local transport history of original inhabitants in a particular area, among others. It then becomes imperative to document and profile such information and consider this as a project of its own prior to its incorporation into another scientific undertaking.

The anticipated outcomes will advance the knowledge base in transport planning, contribute to preserving local transport knowledge and provide link to past, present and future generations. This will help in establishing identity, better understanding, preserving culture, and contribute to cultural-awareness and sensitive planning and transport policies.

#### **4. ACHIEVEMENTS OF IRG IN 2009-2010**

The IRG has been organized in November 2009. As such, achievements for the group would be limited to (a) the creation of the IRG, and (b) the development and improvement of the ICRA research proposal. However, given that majority of the IRG members are early career researchers, their track record shows demonstrated research skills capacity through peer-reviewed publications in the area of indigenous transport not just in the region but internationally thus presents a strong case to be able to make a significant contribution to the project (refer to section 6.1 below). As a group, the first stage of the research undertaking will commence at the latter part of this year with the

funding support from ICRA-EASTS.

**1) Paper, Report or Book: (Title, Authors, Year, Name of the journal, etc.)**

A number of publications and written papers within the IRG scope are as follows:

- Guillen, Marie Danielle, Ishida, Haruo and Okamoto, Naohisa. "Is the Use of Informal Public Transport Modes in Developing Countries Habitual? An Empirical Study in Davao City, Philippines, Paper presented to the 12th World Conference on Transport Research Studies in Lisbon, Portugal (July 2010)
- Guillen, Marie Danielle, Formal and Informal Public Transport Service Providers as an Occupation: A Social Investigation in Davao City, Proceedings of the 8th East Conference in Surabaya, Indonesia (16-19 November 2009)
- Guillen, Marie Danielle, Understanding the Informal Public Transport: The Case of Indigenous Public Transport System in Davao City, Philippines. Ph.D. Dissertation submitted to University of Tsukuba, Tsukuba City, Japan (July 2008)
- Guillen, Marie Danielle, A Study on the Development of Local Public Transport Policy and Indigenous Public Transport: The Case of Tricycles and "Habal-habal" in Davao City, Philippines" Paper presented to the Asia-Pacific Challenges: Global, Regional, National, and Local Perspectives, 4th East-West Center International Graduate Student Conference (February 2005)
- Guillen, Marie Danielle, A Study on Non-Motorized Public Transportation in Urban and Urbanizing Areas: The Case of Pedicab Operations in the City of Manila and in the Municipality of Los Banos, Laguna. Master of Arts thesis submitted to the University of the Philippines School of Urban and Regional Planning (April 2000)
- Gozun, Brian and Guillen, Marie Danielle, 2008. Towards a Sustainable Transportation Environment: The Case of "Pedicabs" and Cycling in the Philippines. Proceedings of the 13th Cooperation for Urban Mobility in the Developing World (CODATU) Conference in Ho Chi Minh, Viet Nam.
- Guillen, M.D., Ishida, H. Okamoto, N and Tsutsumi M, 2007, Public Transport Policies and the Road-based Public Transport Service in Developing Countries: The Case of Indigenous Public Transport Modes in Davao City, Proceedings of the 7th EAST Conference.
- Guillen, M.D., Ishida, H. Okamoto, N and Tsutsumi M, 2006, Understanding the Informal Public Transport Presence along the Mintal-Tugbok-Calinan Route in Davao City, Philippines: An Exploratory Study, Journal Proceedings of Infrastructure Planning Vol. 34. No. 282.
- Guillen, M.D, Ishida, H., Okamoto, N. and Tsutsumi M., 2004, Hidden Policies and the Indigenous Public Transport Sector: The Case of Tricycles and "Habalhabal" in Davao City, Philippines, Proceedings of the 10th World Conference on Transport Research in CD Rom.
- Guillen, M.D. and Ishida, H., 2004, Motorcycle-propelled Public Transport and Local Policy Development: The Case of Tricycles and Habal-habal in Davao City, Philippines. IATSS Research Vol.28. No.1.
- Lidasan, H. and Guillen, M.D., 2001 A Study on Non-Motorized Public Transportation in Urban and Urbanizing Areas: The Case of Pedicab Operations in the City of Manila and in the Municipality of Los Banos, Laguna. Proceedings of the Eastern Asia Society for Transportation Studies. Vol. No.1.
- Guillen, M.D. and Lidasan, H., 2001. A Policy Study of Non-motorized Public

Transportation in Urban and Urbanizing Areas (The Case of the Philippines).  
Proceedings of the 9th World Conference on Transport Research in CD Rom.

- Susilo, Y.O., Joewono, T.B. and Santosa, W. (2010) An exploration of public transport users' attitudes and preferences towards various policies in Indonesia. Forthcoming at the Journal of the Eastern Asia Society for Transportation Studies/Journal of Asian Transport Studies.
- Susilo, Y.O, Joewono, T.B., Santosa, W. and Parikesit, D. (2007) A reflection of motorization and public transport in Jakarta Metropolitan Area: lesson learned and future implications towards better transportation development in developing countries. Journal of the Eastern Asia Society for Transportation Studies, 7, 299-314.
- Susilo, Y.O, Joewono, T.B., Santosa, W. and Parikesit, D. (2007). A reflection of motorization and public transport in Jakarta Metropolitan Area. IATSS Research, 31(1), 59-68.
- Hossain, M. and Susilo, Y.O. (2010) The exploration of rickshaw usage pattern and its social impacts in Dhaka city, Bangladesh. Paper submitted for publication and presentation at the 90th US Transportation Research Board Annual Meeting, Washington, D.C., 2011.
- Susilo, Y.O. (2010) Paratransit, at A Dictionary of Transport Analysis, edited by Kenneth Button, Peter Kijkamp and Henry Vega. Edward Elgar Publishing Ltd. Forthcoming.
- (2001) University of the East Foundation for Research and Advanced Studies (UE-FRASI) (2000), Potential Initiatives for Urban Renewal of the University Belt in the City Of Manila.

## **2. Seminar, Symposium or Special Session: (Title, Date, Venue & abstract)**

The IRG is a new group which has not conducted any empirical activities. It has not conducted any special sessions at present but will organize a special session in the EASTS conference.

## **3. Group meeting: (Date, Venue & abstract)**

3.1. A GROUP MAILING LIST was created in November 2009 to provide a venue for the members of the IRG to set up meetings, conduct online discussions and place postings. Website link is as follows: <http://tech.groups.yahoo.com/group/transportfutures/>. About 64 posts have been made.

3.2. ONLINE CONFERENCE. Given that the members were located in different parts of the region/world, it was not possible to meet physically. Thus, the IRG resorted to online conferences and one-on-one skype meetings.

- 25 Jan 2010: Initial IRG meeting conducted. The AGENDA/ABSTRACT was to discuss about the IRG scope and structure. Members have identified the large scope of the project and were identifying ways to limit the scope. Issues with respect to different time zones had also to be properly managed.
- Feb-Mar 2010: Two more fortnightly online meetings ensued in the months of February to March. Succeeding meetings covered various aspects of operationalising the project.
- Feb-Mar 2010: One-on-one skype meetings with other members were also conducted

just to make some clarifications.

- Email correspondence was the most common method of communication among the members because it offered flexibility to all concerned.

#### **4. Result of application to other research funds: (Name of research fund and its result)**

At present, no other external funding had been applied for. However, plans are underway to apply for other funding opportunities to supplement the study.

#### **5. Promotional Activities: (Home page, Newsletter, Mailing list etc.)**

5.1. IRG HOMEPAGE. A website has been created to host the IRG. Website link is as follows: <http://sustainable-transport.org/>

5.2. UNIVERSITY PUBLICATION. To increase the presence of the project, the representative also included the IRG in the recently published biennial publication of the University of Queensland School of Geography, Planning and Environmental Management which showcases ongoing research areas by its academic staff. The following link provides access to the document <http://www.gpem.uq.edu.au/docs/ResearchProfile.pdf> (refer to page 30 for the discussion on the IRG).

5.3. MAILING LIST. The IRG has an active mailing list (see 6.3.1)

#### **Will you continue your IRG's activity after August 2010?**

[ **YES** / NO ]

→ If "YES", please answer the following questions.

#### **5. Future research plan and including time frame with the following items:**

The following table provides the research plan for the IRG with an identified activities and its corresponding time frame. It is expected that while the overall management will be done by the IRG representative, each member will contribute significantly in the identified activities of the IRG. The expected completion of the research project is in mid 2012 or two years after the ICRA funding is granted.

In general, almost all the members of the IRG are early career researchers who were awarded their PhD degrees within the last eight years. The research topic provides a critical gap in Asia-Pacific transport development, thus, very relevant to the region. This undertaking provides an opportunity for the members to establish a continuous, collaborative and international research undertaking.

