

Application Form of EASTS IRG (International Research Group)

IRG-15-2009

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1. Name of IRG:

Sustainable Transport Futures for Cities in Asia and the Pacific

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3. Purpose and Mission of IRG

Fifty six percent (2009 est.) of the world's population live in Asia. Population in Asia is expected to increase to 4.3 Billion by 2030. This exacerbates Asia's primacy and translates to higher share of energy consumption as well as increasing transport needs and services. However, the present transport system clearly reflects a mismatch between transport needs and provision resulting in a number of issues and challenges.

Climate change is a global issue that has local roots. While per capita emission is high in developed countries the commercial and industrial boom happening in China and other parts of Asia contributes to increasing GHG emissions.

Communities in Asia as well as the economic sector have become highly dependent on oil supply which makes them extremely vulnerable to price increases. The recent global financial crisis has severely affected groups with highest transport needs but belonging to the lowest economic echelon of society. This furthers the urgency to find ways to achieve higher resilience to oil supply vulnerability. Moreover, while the transport sector is one of the major contributors to greenhouse emissions, it also presents a huge potential to be the fastest growing emissions sector and as such provides significant opportunities for greenhouse gas abatement.

Historical and cultural analysis of transport development in Asia has illustrated the presence of diverse indigenous transport system which developed to complement mainstream transport as well as to provide alternatives in areas with a pronounced lack. Such transport elements need further evaluation of how they can be integrated into the overall transport system.

Given the expectation of a more global and connected world, a more plural and mixed society is expected to be the continuing trend of the near future. Ensuring a more efficient cross-border movement across countries has brought about a number of cross-cutting issues and challenges. Multilateral banks and international development agencies have shifted investment prioritization to focus more on sustainable infrastructure projects and capacity building initiatives.

The 'predict and provide' tradition of delivering an infrastructure-oriented transport solutions has shown to have its limitation. The expansion of ICT and the provision of non-transport alternatives have changed the face of how and why of travelling. Thus, transport professionals are now faced with a daunting task of finding alternative strategies that would effectively address present and future transport issues and challenges.

The purpose of the study is to examine potential transport future scenarios for Asia and the Pacific in the next 20 years and beyond. This will assist in better understanding transport needs, services and infrastructure provision.

While the exercise requires an understanding of the cultural-historical perspective and the current transport system, it also becomes relevant to extrapolate possible futures to better equip engineers, planners and policymakers alike to appropriately address these issues and challenges.

The project aims to better understand the Asia-Pacific transport context, determine issues and challenges, define desired outcomes and identify potential transport futures. It also aims to determine options that would lead to a more sustainable transport system model in Asia-Pacific. The exercise will determine and analyze various futures such as (but not limited to) low carbon (green transport), Asian multi-modality, indigenous transport systems, among others, while at the same time examine the Business As Usual scenario to compare the do nothing picture with other futures. It also plans to develop an assessment framework looking at transport co-benefits as well as mode-neutral indicators.

4. Future research plan including time frame

YEAR 1. CONCEPT AND PROJECT DEVELOPMENT PHASE

To define past and current trends of transport in Asia and the Pacific, the main activities include: context scan, literature review of best practices, scoping, identification of case studies and preliminary gathering of data needs and related information.

YEAR 1-2. EVALUATION PHASE

Identify/assess alternative transport futures/scenarios (BAU/base case scenario, low carbon future, indigenous transport systems, integrated and multi-modal futures) including risks and opportunities associated with different scenarios. To ensure stakeholder participation, backcasting as a method will be utilized.

Develop an assessment framework to evaluate options. Conduct scenario analysis, forecasting and modelling. Conduct focus group discussion and surveys to validate results. Identify desired options.

YEAR 3. FINAL PHASE

Determine strategies to arrive at the desired transport options, determine policy and planning implication and report writing.