



Project title:

Development of an integrated climate change impact assessment tool for urban policy makers (UrbanCLIM) (Ref: ARCP2012-10NMY-Li)

Summary of the project

This project proposes to develop a co-evolutionary urban climate change decision support tool (UrbanCLIM), to support climate change impact and risk assessment for the major sectors: health, transport, water. A participatory assessment approach will be applied through working with local urban policy makers and planners. A series of climate change impact models (flood, storm surge, heat waves and other impact models as identified during the project) and cost-benefit tools for adaptation measures analysis will be developed and incorporated in the UrbanCLIM. Case study and capacity building activities will be carried out in China and Vietnam. The main objectives of this project include:

- (1) Development of high resolution climate change projections based on regional climate model (RCM) output from RMIP3. This project will work with RMIP3 team to compile the data produced by RCMs, to make the data publicly available and in an easy accessed and handled format.
- (2) Development of an integrated impact assessment system including the major sectors in urban areas through working closely with the urban policy makers and planners, based on the co-evolutionary decision support system FAWSIM and SimCLIM software package applying system dynamics approaches. A series of climate change impact models (flood, storm surge, heat waves and other impact model as identified during the project) and cost-benefit analysis tools will be developed and incorporated in the UrbanCLIM.
- (3) Training workshop, dissemination and publications will be carried out during the latter stages of the project.

This project is a joint effort of the International Global Change Institute (IGCI), New Zealand; START TEA in Chinese Academy of Sciences, Nanjing University, Jinan University, China; Centre for Water Resources Planning and Investigation (CWRPI), MONRE, Vietnam; and, Water Resource Centre, University of San Carlos, Philippines.

The team at IGCI will lead the project and carry out the integrated model development tasks. The China team will carry out the RIMP3 data processing and case study in Guangzhou. The Vietnam team will carry out the case study in Vietnam. The Philippine team will carry out the participatory assessment in the Philippines. All teams will provide data and tools for model development and case studies. The duration of this project is three years (2012-2015).