

Call for applications from outstanding early career researchers to participate in a workshop on:

Tools and Indicators for Assessing Urban Resilience

7-10 December 2015

The University of Tokyo, Japan

Organized by Global Carbon Project in collaboration with:

RMIT University, Urbanization and Global Environmental Change (UGEC) Project, Urban Climate Change Research Network (UCCRN), and IR3S

Background

A significant share of the world population and economic activities are concentrated in the cities of the Asia-Pacific region. These, mainly low-elevation and coastal, cities are facing various climate-induced threats that may affect the local population and cause various socio-economic and environmental impacts. Addressing this wide range of threats requires having appropriate knowledge. A better understanding of vulnerabilities and development of risk management strategies is necessary for the Asia-Pacific region, most parts of which are comparatively less understood despite the frequency and intensity of the risks and disturbances that the cities of this region need to deal with. Such understanding is required for providing the decision makers with the knowledge for creating communities that are more resilient. Resilience thinking is an approach to stewardship of social-ecological systems that seeks to bring the (often) fragmented diverse efforts and practices under an integrated framework. As a concept with a broad scope, resilience can be utilized to frame various problems related to different climate- and non-climate-induced disruptions in urban areas. In addition, it can provide learning opportunities for transition to a low carbon urban future.

This workshop aims to utilize resilience thinking as a guiding principle and bring together scholars from different disciplines to develop an integrated framework for assessing urban community resilience in Asia-Pacific cities. The ultimate objective of this four-day workshop is to develop a resilience assessment toolkit that can be used by planners and decision makers to lead them to more informed decisions. This assessment toolkit aims to be developed on an integrative and trans-disciplinary basis and use bottom up indicators suitable for local needs.

Objectives

Within the past few years several studies focused on assessment of urban resilience have been conducted by scholars around the world. The ICLEI ACCCRN Process (IAP) Urban Resilience Toolkit is an example of such efforts that aims to enable local governments to assess their climate risks in the context of urbanization, poverty and vulnerability, and to formulate and implement corresponding resilience strategies through a process of shared learning with local stakeholders. The Global Resilience Partnership is another initiative that aims to accelerate promising technologies and ideas and identify opportunities in order to build stronger and more resilient for families, communities, and countries in key regions around the world – including in South and Southeast Asia. These works have made a significant contribution by establishing a theoretical framework for assessment of urban resilience and identifying criteria that can be used for this purpose. However, they are mainly based on single-disciplinary approaches, are focused on either mitigation, or adaptation, and provide generic resilience metrics and are too complex to be used by decision makers and community members. Resilience thinking is still evolving and is yet to be

operationalized in any appreciable way. Due to the evolutionary nature of resilience thinking and the changing nature of risks and vulnerabilities, the process of understanding current situations and assessment of urban resilience needs to be iterative. The assembled team will seek to advance this knowledge base. Plus, the adaptation and mitigation construct is overly simplistic and the research will address the more nuanced agendas of adaptation, disaster risk reduction and vulnerability which are particularly important in the developing world context. To build upon the existing studies, this activity seeks to realize the following main objectives:

- Scientific capacity development through developing a framework of trans-disciplinary research, involving researchers with expertise in various fields, which facilitates “co-design”, “co-production”, and “co-dissemination” of knowledge.
- Developing strategies to adapt existing/future cities to climate- and non-climate-induced disruptions.
- Designing a framework for developing an assessment toolkit that can be used by planners and decision-makers to mainstream resilience thinking into planning system and increase the response capacity of cities. To address shortcomings of the existing tools, efforts for development of resilience assessment metrics will pay due attention to the following points:
 - o Identifying resilience criteria related to social, human, physical, economic, and institutional capital
 - o Specifying disaster management phase to which the criteria are related (i.e. mitigation, preparedness, response, recovery, and adaptation)
 - o Use of bottom-up indicators that fit the local needs and reflect the different composition and needs of different contexts
 - o Development of assessment metrics that are easily scalable and replicable (while being context-specific). This will make the assessment framework flexible and adaptable and helps local authorities save money and resources
 - o Design of a framework that, while simple enough to be used by non-experts and suitable for self-assessment, could take account of the complexities and dynamics of cities as socio-ecological systems
 - o Linking vulnerability, mitigation, and adaptive capacity measures in the resilience assessment framework. This should be considered in development of a matrix of synergies and tradeoffs between different measures related to urban resilience. Understanding these synergies and trade-offs between mitigation and adaptation, planners and policy makers could take appropriate measures to maximize synergies and minimize trade-offs.
 - o Emphasizing the iterative nature of such toolkits for each of the cities, and the need to continuously re-examine the approach to their climate adaptation planning.
- Applying the developed toolkit to several case studies. Among other things, the organizer is planning to utilize a selected number of criteria from the toolkit for assessing resilience of different urban forms. This would be conducted in collaboration with The World Urban Database and Access Portal Tools (WUDAPT) group (for more information see: <http://www.wudapt.org/wudapt/>).

Style of the workshop

The workshop will consist of presentations and practical hands-on sessions allowing the participants to actively engage in the development of the resilience assessment tool. A general framework will be prepared by the organizers in advance and participants would be asked to update and complete the

framework. In addition to identifying and prioritizing resilience criteria, this activity intends to specify the interlinkages between the selected criteria and assign each criterion to one or more of the five disaster risk management phases (mitigation, preparedness, response, recovery, and adaptation). To test applicability of the draft assessment toolkit, it will also be used during the back-to-back sessions on resilient urban forms. After the workshop, the working groups are expected to continue to collaborate on developing the assessment toolkit so that it can be delivered during the following year.

Who should attend the workshop?

The workshop is intended for scholars who are interested in development of criteria and indicators for assessing urban resilience. Participants are welcome from any discipline that engages with the following resilience-related themes:

- Social
- Human
- Economic
- Physical
- Institutional

Participants are also expected to be interested in engaging in the working group activities and contributing to the synthesis papers that would be submitted to high-profile academic journals.

Funding opportunity for early-career researchers

GCP has secured fund from Asia-Pacific Network for Global Change Research (APN) and NIES to support participation of a limited number of young/early-career scientists.

To be eligible to apply, you have to be:

- A citizen and resident of one of these countries: Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Lao People's Democratic Republic, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Russian Federation, Sri Lanka, Thailand, and Vietnam (**for the APN fund**).
- An early career researcher, under 40 years of age, who holds a PhD degree or is a graduate student with an equivalent level of research experience.

How to apply:

If you are interested in taking part in this workshop, please submit your applications electronically, and in one file, to sharifi.ayyooob@nies.go.jp.

The application file should include:

- A CV of no more than 3 pages, including information about education, publications, and work experience.
- A concise abstract of the work you would present at the workshop.
- An abstract of any publications related to the workshop agenda.

Closing date for applications: 30 September 2015.

Successful applicants will be informed in late October 2015.