
## International research workshop on: LOCALISING STRATEGIES FOR MAKING CITIES RESILIENT TO DISASTERS

An international research workshop on: LOCALISING STRATEGIES FOR MAKING CITIES RESILIENT TO DISASTERS was successfully organised by De La Salle University, the Philippines and Global Disaster Resilience Centre, University of Huddersfield, UK, from 22nd to 26th January 2018 at the Century Plaza Hotel, Manila, Philippines. The British Council (for the UK participants) and Department of Science and Technology (DOST) for the Philippine participants) covered the costs related to the participation to the workshop, including: travel (both international and local), accommodation and meals. There were all together 58 academics from both the Philippines and the UK and local stakeholders.

Photo: Workshop participants


Photo: Workshop participants

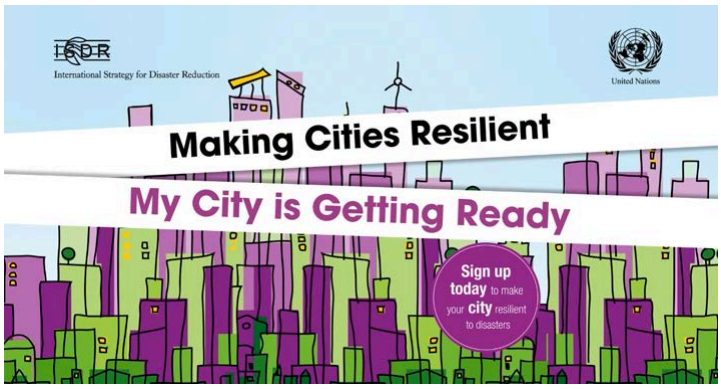
**Workshop organisation**

The workshop was  coordinated by Professor Dilanthi Amaratunga (Global Disaster Resilience Centre, University of Huddersfield, UK) and Professor Andres Winston Oreta (De La Sallle University, Manila, Philippines ) and had contributions from other leading researchers, including Professor Richard Haigh (University of Huddersfield, UK), Professor Renan Tanhueco and Professor Jose Edgar Mutuc (De La Sallle University, Manila, Philippines) and Abhilash Panda (UNISDR).


Philippines and UK coordinators and mentors (from L to R): Dr. Renan Tanhueco, Dr. Andres Winston Oreta, Dr. Dilanthi Amaratunga, Dr. Richard Haigh, Dr. Jojo Mutuc, and Dr. Lessandro Estelito Garciano.

**Rationale for the workshop**

The World Risk Report (2015) identifies the Philippines as the country with the third highest disaster risk in the world. It has one of the fastest-growing populations in Asia and there will be a 70% increase over the next 40 years. In recent years, the Philippines experienced the most natural disasters in the region and suffered through 21 disasters in 2011, the third-most natural disasters worldwide. Metro Manila alone is one of the largest urban areas in East Asia, being home to 16.5 million people. Half of cities in the Philippines are situated in flood plains. Cities consist of a number of inter-dependent physical systems and human communities which are vulnerable to disasters in varying degrees. As a result of rapid urbanisation, cities are becoming extremely vulnerable to threats posed by natural hazards. City leaders need to make significant transformative changes and investments in the resilience of their cities. In 2015, the Sendai Framework for Disaster Risk Reduction (SFDRR 2015-2030) was adopted by the UN with the goal of reducing disaster risk and losses in lives, livelihoods and health. In contributing to this goal, UNISDR developed the new “Ten Essentials for Making Cities Resilient” (10E) framework to enable cities to assess their resilience in accordance with the goals of SFDRR, and in recognition of a need to strengthen local governments’ role.




This "Ten Essentials for Making Cities Resilient" serves as a guide to good DRR practices and focuses on the ability of a city to plan for, mitigate, respond, recover, adapt and grow after major disasters in the light of its unique physical, economic, environmental and social circumstances. The topic that was addressed in the workshop was the new “Ten Essentials in making cities resilient to disasters (10E)", and was aimed to foster multi-disciplinary discussions. It was also aimed at building capacity for the development of disaster resilient cities that are better able to tackle the threat posed by hazards, create a network of partnerships, and build information that will promote livable, safe and economically vibrant cities.

**Role of Academia and Research Community in making cities resilient to disasters**

Communities in the Philippines need support by way of mainstreaming "Ten Essentials for Making Cities Resilient" within their practices and to build up relevant capacity. To realize this objective, what makes a city resilient to disasters needs to be seen as a combination of resilience on one hand, and the result of actions to reduce disaster risk, the basis of "Ten Essentials for Making Cities Resilient" on the other. Academia has to build networks, including local government units, to promote dialogue and cooperation in enhancing the resilience of communities in cities.

This workshop aimed to gather the academia and other local stakeholders to identify strategies that can be used to assess and build a city’s resilience to disasters, using the “10 Essentials” as a guide. These strategies when implemented will give a holistic understanding of a city’s status including their interrelationships, and will guide decision makers in identifying policies and interventions that would improve the city’s resilience, thereby generating solutions that touch multiple aspects of the city and its various communities (e.g., schools, hospitals, business, government units).

**Aims of the workshop**

The participants identified strategies, future research projects and policies that will be implemented to further compliment the UNISDR’s "Ten Essentials for Making Cities Resilient".

Specifically, the workshop aimed to:

1. Improve understanding and mitigate the human and economic impacts of natural hazards towards urban cities by investigating the "Ten Essentials for Making Cities Resilient" in detail to further understand the differences, overlaps and potential synergies, and thereby to develop much needed capacities in the field.
2. Map current research and future potential around the "Ten Essentials for Making Cities Resilient" in making contributions in meeting the targets of the SFDRR 2015-2030, also linking the SDGs
3. Help validate and further refine the "Ten Essentials for Making Cities Resilient" based on scientific dialogue.

It also helped the cities to better understand the "Ten Essentials for Making Cities Resilient" to reduce disaster risks, and the potential for integration, as well promote the role of "Ten Essentials for Making Cities Resilient" in policies and strategies. Through sharing best practices and experiences, and the development of a roadmap, the workshop stimulated links between the UK and Philippines in this

really important area of managing disaster risks. It helped early career researchers grasp the complexity, work collaboratively, and engage with stakeholders to further understand the "Ten Essentials for Making Cities Resilient". It  embedded researchers in a multidisciplinary and inter-sectoral programme, with input from the key experts in the fields of DRR, and global advocates of the "Ten Essentials for Making Cities Resilient".

**Features of the workshop**

Features of the workshop included **Keynote presentations** by leading scientists on the state of the art. There were four key notes: “Dynamics of Disasters”, by Dr. Jose Edgar Mutuc, DLSU, Philippines; “Why are cities at risk of disaster?” by Prof. Richard  Haigh, University of Huddersfield, UK; “The Ten Essentials for Making Cities Resilient:  A Framework for Research” by Prof. Andres Oreta, DLSU, Philippinse; and “Sendai Framework for DRR 2015-2030, SDGs and Global & Local Experiences in the Making Cities Resilient Campaign” by  Prof. Dilanthi Amaratunga University of Huddersfield, UK

Photo: Prof. Richard Haigh, key note on Why are cities at risk of disaster?”

There were **early career researcher presentations** on current and emerging research, in particular linking with the 10E.

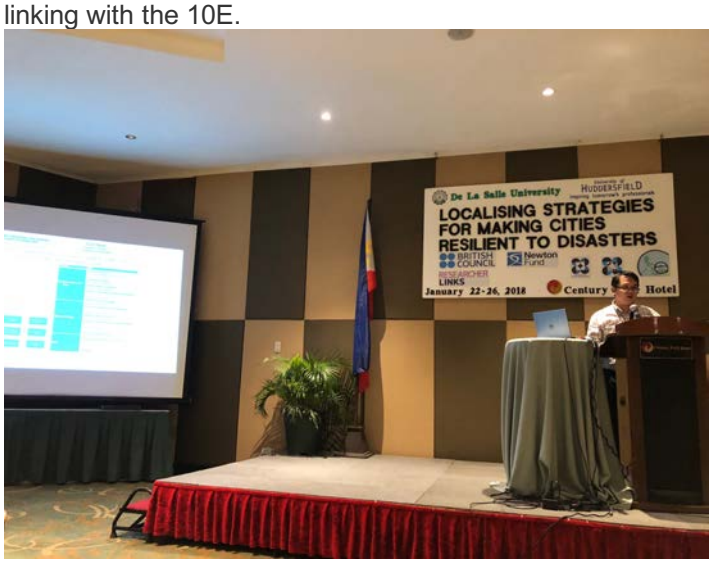



Photo: Dr Ezri Hayat presenting his research

There were several **skills development sessions** conducted as part of the international workshop: “Academic writing  and  Publishing your research” by  Prof. Richard Haigh, University of

Huddersfield, UK; “Interactive session on building your research profile” , and “Interactive session on building your research profile”, by Prof. Dilanthi Amaratunga, University of Huddersfield, UK

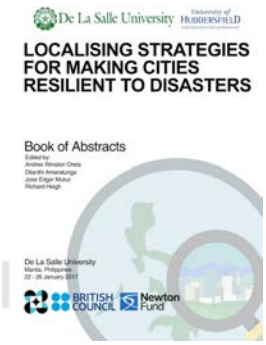
In addition, there were several **briefing sessions**: “Local Issues on DRR in the Philippines” by Mayor Abigail Binay (Makati) and Dr. Cedric Daep (Albay); “An introduction to the development of a roadmap for research futures on making cities resilient to disasters” by Prof. Dilanthi Amaratunga, University of Huddersfield, UK; “Integrating public engagement into research” by Prof. Richard Haigh University of Huddersfield, UK; and “Getting funding for our research”


Photo: Mayor of Makathi city: Briefing on “Local Issues on DRR in the Philippines”

**Two panel discussions** were held, entitled: “the current landscape and future opportunities for advancing the dialogue between DRR and urban cities” and “Pathways to impact”, a discussion about how to convert research knowledge into evidence based policy development.


Photo: panel discussion on Research impact

**A collection of abstracts** pertaining to all presentations that was done was published as the workshop proceedings




This can be downloaded at:
https://www.researchgate.net/publication/322570630_Localising_Strategies_for_Making_Cities_Resilient_to_Disasters_Book_of_Abstracts

Workshop had several **Group work sessions** and activities aimed at sharing knowledge, promoting international and multi-disciplinary working.

All materials delivered during the workshop to be made available as open education resources so that they are released under an open license (creative commons) that permits no-cost access, use, adaptation and redistribution by others. This will ensure that a much wider constituency of early career researchers from Philippines and the UK, as well as interested parties from other backgrounds and countries, can benefit from the materials presented.

Authors of abstracts presented in the workshop were invited to submit a full paper for publication in a Special Issue of the International Journal of Disaster Resilience in the Built Environment. The journal is indexed and abstracted in: Scopus; ISI web of Science ESCI.

**Makathi city site visit, a UNISDR role Model Resilient city**

One of the highlights of the workshop as a Makati city briefing and visits to Barangay San Lorenzo and to Barangay Magallanes. Mayor Binay acted as a resource person for the briefing session and discussed LOCAL ISSUES ON DRR IN THE PHILIPPINES and elaborated on the challenges and best practices in her political domain, Makati.

Photo: With Makathi city Mayor

Objectives of the site visit included: to share the best practices of Makati in the areas of disaster risk reduction and management and exchange knowledge and learning with the visiting participants; and to highlight the importance of community-based DRR and encourage sustainable community resilience building.

Makati has a total land area of 27.36 square kilometers and the city has 33 barangays which consists of 6 clusters. The barangays are clustered based on their relative geography, economic similarities and characteristics. These communities were grouped together based on the availability of resources and ease of access. Makati's population based on the National Statistic's Office 2015 Census is 583,000 which bloats to 3.2-4.2 million during the day time due to the influx of transient of employees and other visitors of the central business district. Makati, as the Business and Financial Center of the Philippines, is committed to investing in resilience - may it be in terms of knowledge, human resources, and physical assets. This proactive stance of Makati in disaster risk reduction and management (DRRM) has been the city's leverage for being recognized internationally as a prime mover of city-level engagements towards disaster resilience. Also, contributory to this is Makati's involvement to the promotion of international advocacies on DRRM, particularly the United Nation's Making Cities Resilient Campaign (MCR). Since its launching in 2010 up to present, Makati has done a lot of activities for its promotion and tools application not only within Makati but even to other local governments in the Philippines and abroad. Just early this year, Makati has been trained by the UNISDR on the use of the new MCR tool called as the Disaster Resilience Scorecard 3.0. Makati, along with the UNISDR offices in the different parts of the world, was then the lone local government participating in the first training of trainers for its rollout.

Makati's best practices in various aspects of DRRM have actually been its leverage for becoming a model for disaster resilience. Examples are in the fields of DRR mainstreaming and community-based DRR, among others.Makati's active involvement in DRR provided the city a venue in taking the role of

being an active advocate of disaster resilience while also being a keen learner as to the recent developments in DRRM. This positions Makati as a good model in pursuing resilience at the city level.

**Evacuation drill**

The Makati DRMM Office, in association with Barangay San Lorenzo, presented a simulation of their disaster emergency response schemes including evacuation models, helpdesk and command center provision, fire suppression action team, rescue operations, etc.


Photos:  of the staged emergency drill in Makati City (Barangay San Lorenzo)

**Makati City Site Visit (Barangay Magallanes)**

The barangay chairman showed the participants the many features of their model city – hyping the crowd for an eventual tour of their amenities. The chairman toured the participants to the different facilities in their barangay which are contribute to their reputation as a model city for resilience



Photo: with the Chairman (2nd from right) of the Barangay Magallanes


Photos: from the Walking Tour in Makati City (Barangay Magallanes)

**Research Road Map**

A research road map based on the working group discussions, inter-disciplinary work required and major challenges and opportunities around the 10 Essentials in making contributions in meeting the targets of the SFDRR 2015-2030 can be identified as one of the key deliverables of the workshop.

Research Road mapping is a forecasting tool used to capture a prioritised time sequence of research trends, targets and research responses. It can provide a living agenda covering tactical and strategic level objectives. Roadmaps are useful as enablers for sharing research goals and for promoting buy-in to research strategy and planning.

What's a Research Roadmap For? It provides an agreed specification of what the problems are: what we are trying to do. When the problem is very complex, a roadmap can break the problem down into significant sub-problems, helping with research planning. Further, It can be used to specify milestones and routes through them.

What is our roadmap for research futures on making cities resilient to disasters? It is the basis of our strategic research plan, which can be used to provide a common reference framework for research priorities in promoting city resilience, using the current MCR as the basis, within the context of global agreements' convergence. It gives prioritised and auditable agendas for actions, presenting key drivers and research elements in the context of the MCR interests, and yielding a set of research priorities which support the future developments MCR by highlighting opportunities. Other stakeholders may also find the road map a valuable method to help them identify knowledge gaps and actions needed to maximise their DRR potential.

Hypothesis associated with the Road Map Development was to Promote a coherent approach in the implementation at local level of the 2030 international agreements (i.e. the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals –SDGs, and the Paris Agreement on Climate Change). "Joined up action" across the 2030 Agenda and the Paris Agreement on climate change to achieve the SDGs and address DRR.

**How can we produce one? Following sections were identified as the basis for the Road Map:**

1. **Identify the challenges** that cities face in implementing the 10 essentials for making cities resilient to disaster, and meeting the associated commitments and targets of the 2030 development agendas.
2. **Provide a brief summary of each challenge**. They may be current or potential future challenges.
3. **Analyse the requirements** in cities for overcoming those challenges.
4. **Order the challenges and requirements** (by difficulty and by dependence).
5. **Identify the research projects and/or programmes** that are required to support cities in addressing those challenges and requirements?
6. **Identify potential action plans** and timescales for such research developments, including any interdependencies.

7. **Identify any key messages** that you wish to convey to research funding bodies.

What type of research are we referring to? It can be **Scoping research** (scans for existing knowledge, assisting in the knowledge gap analysis), **Applied research (**focuses on developing and demonstrating a technology solution), **Fundamental or 'Basic' research (**is more generic, longer term research to move the boundary of a technology area). Additionally, **Knowledge Transfer** is important in passing the learnings from research, through interpretation, to practice. The roadmap can also be summarised through **a time scale graph** for each main topic driver and its subheadings.

What are the benefits to us in having a Research Road map on Ten Essentials Futures?

- Provide a strategic framework, which links to global priorities
- Increase the focus - how Making Cities Resilient (MCR) Global Campaign assessment and planning tools, materials and approaches may be better used to build local resilience to disasters within the global policy outset
- Have a balanced portfolio of top-down and bottom-up research to support above
- Publish an agenda that can be shared with universities, funding agencies, clients and collaborators - a framework for collaboration
- Increased political commitment and social demand for disaster resilient development, adapted for climate change, aiming for sustainable development
- Better understanding of the Sendai Framework for Disaster Risk Reduction 2015-2030 implementation and national and local level and role of governments, SDGs and Climate Agreement

It is the organiser's intention to complete the Road map by March 2018, which will be openly shared with all interested parties.

**Beneficiaries**

Addressing the challenges faced by cities is one of the most critical necessities and in this context, the main beneficiaries of this workshop are the urban cities and the associated stakeholders. Users also include local authorities, the UN, researchers, and city officials. Capacity will be enhanced on the extent to which cities are integrating DRR into other local government activities, including education, livelihoods, health, environment and planning. New projects will be initiated that address key DRR issues within the urban city context, by taking the UNISDR Making Cities Resilient to Disasters 10 Essentials as the framework.

**Impact of the workshop**

In addition to the Road Map, one other main output of the workshop will be capacity building on disaster residence in urban cities around 10 Essentials and the SFDRR 2015-2030, which will guide the global DRR agenda until 2030; a road map consisting of future projects aligned with the "10 Essentials", inter-disciplinary work required and major challenges and opportunities in further supporting the 10 Essentials with scientific evidence and thereby proving opportunities to updating them further, that can guide the academia and local stakeholders in making their communities resilient to disasters and thereby to help UNISDR to reform its global campaign.

It is also hoped that the workshop will help:

- Strengthening the collaboration between HUD and DLSU
- Development of a Graduate Course or Certificate Program on Urban Resilience
- Future collaboration and creation of strategic partnership for research between the HEIs represented by the UK-Philippines researchers and beyond
- Wider transformation of the knowledge and skills gained from this workshop, and post-workshop activities to institutions represented by the ECRs. Individuals empowered through the workshop will serve as advocates and role models

**Further details**

Further details of this international workshop is available at the workshop web site:
http://www.buildresilience.org/nrl-philippines/index.php

Contact details of the workshop Coordinators:

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- Prof. Andres Oreta, De La Sallle University, Manila, Philippines. Email : andres.oreta@dlsu.edu.ph

Photo: workshop coordinators: Prof. Dilanthi Amaratunga & Prof. Andres Oreta,