

Mainstreaming Disaster Resilience within the Construction Process

Fri, 16 Sep 2016 12:12:00 BST



CADRE WORKSHOP: Mainstreaming Disaster Resilience within the Construction Process

GDRC and its CADRE project (<http://www.disaster-resilience.net/cadre>) were key collaborators of the recently held 6th International Building Resilience Conference 2016 in Auckland, New Zealand, from 7-9th of September, 2016. As part of the conference, a CADRE WORKSHOP on Mainstreaming Disaster Resilience within the Construction Process was held.

Aim of the workshop included:

1. To disseminate the knowledge gaps that have emerged from the study, to mainstream disaster resilience within the construction process
2. To discuss key actions that can be carried out in mainstreaming disaster resilience concepts in the construction process
3. To discuss the key components of the proposed DProf framework that has developed to address the knowledge gaps
4. Identify key themes that need further investigation

This event was organised by: Global Disaster Resilience Centre, University of Huddersfield, UK; Vilnius Gedminas Technical University, Lithuania; Tallinn University of Technology, Estonia Northumbria University, UK; United Nations International Strategy for Disaster Reduction, Switzerland; University of Moratuwa, Sri Lanka; and Federation of Sri Lankan Local Government Authorities, Sri Lanka.



Photo: Prof. Richard Haigh Introducing CADRE project

Background to the Workshop

Disasters continue to exact a heavy toll on many communities around the world. Globally during the last 10 years, over 700 thousand people have lost their lives, over 1.4 million have been injured and approximately 23 million have been made homeless as a result of disasters. More than 1.5 billion people have been affected by disasters in various ways, with women, children and people in vulnerable situations disproportionately affected. The total economic loss was more than \$1.3 trillion.

It is critical to anticipate, plan for and reduce disaster risk in order to more effectively protect people, communities, their livelihoods, health, cultural heritage, socioeconomic assets and ecosystems, and thus strengthen their resilience. The Sendai Framework for Disaster Risk Reduction, endorsed by 187 UN states in 2015, recognises that disaster risk reduction practices need to be multi-hazard and multisectoral, inclusive and accessible in order to be efficient and effective. The Framework also identifies:

- A need for the private sector, including the construction industry, to work more closely with other stakeholders and to create opportunities for collaboration, and for businesses to integrate disaster risk into their management practices
- A need to promote the incorporation of disaster risk knowledge, including disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in formal and professional education and training



Photo (top and bottom): some of the workshop participants



The vital role of the built environment in serving human endeavours means that when elements of it are damaged or destroyed, the ability of society to function – economically and socially – is severely disrupted. The protective characteristics of the built environment offer an important means by which humanity can reduce the risk posed by hazards, thereby preventing a disaster. Conversely, post-disaster, the loss of critical buildings and infrastructure can greatly increase a community's vulnerability to hazards in the future. Finally, the individual and local nature of the built environment, shaped by context, restricts our ability to apply generic solutions. The consequences outlined above serve to underline and support the growing recognition that those responsible for the built environment have a vital role to play in developing societal resilience to disasters. Despite this, several studies have identified that construction professionals are not well equipped with disaster risk reduction related skills and knowledge that are required to create a more resilient built environment.

CADRE Project

In recognition of these challenges, CADRE (Collaborative Action towards Disaster Resilience Education) is an EU funded project that aims to identify current and emerging labour market demands in the construction industry with a view to mainstreaming disaster resilience within the construction process. The project will also improve the quality and relevance of higher education through active cooperation between Higher Education Institutes and partners from outside academia, including construction professional bodies, local/national/ international bodies and social partners. The project will also develop an innovative professional doctoral programme (DProf) that integrates professional and academic knowledge in the construction industry to develop societal resilience to disasters. Through the development of an innovative and timely curricular and learning materials, the project seeks to update the knowledge and skills of construction professionals.

The research team have already conducted a detailed study to capture labour market requirements for disaster resilience and its interface with the construction industry and its professionals. The investigation aimed at capturing:

- the needs of 5 stakeholder groups (local and national government, the community, NGOs, INGOs and other international agencies, academia and research organisations, and the private sector) involved in disaster resilience and management
- current and emerging skills for built environment professionals that could contribute to enhancing societal resilience to disasters across the property cycle (Preparation, Design, Pre-construct, Construct and Use)
- emerging policy needs in the disaster resilience in the built environment

All needs and skills were categorised into five dimensions of resilience (Social, Economic, Institutional, Environmental, Technological). Finally, the identified needs and skills were combined 'like-for-like' to produce broader level of knowledge gaps.

Further details on CADRE can be read by visiting: www.disaster-resilience.net/cadre (<http://www.disaster-resilience.net/cadre>)

In addition to the workshop, there was also the CADRE Steering Committee where CADRE team discussed the key future activities that need to be concentrated on.

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