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Dilanthi Amaratunga outlines how construction policy will support the UN's Sendai Framework for Disaster Risk Reduction

Risk and resilience



Among many communities around the world, disasters pose significant concerns and challenges. With a growing population and expanding infrastructure, the world's exposure to hazards – both natural and human in origin – is increasing.

Effective mitigation and preparedness in the form of pre-disaster planning can greatly reduce the threat posed by hazards of all types. Likewise, capacity for emergency services and medium- to long-term reconstruction can also be deployed following a major disruptive event. An effective response to disaster can limit the loss of life, while timely reconstruction can minimise the broader economic and social damage that may otherwise result.

The UN Office for Disaster Reduction's Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR), endorsed by 187 member states in 2015, seeks to prevent new disasters, reduce existing disaster risks and strengthen resilience (<http://bit.ly/1h93Jk>).

Aims and priorities

The framework sets out four priorities, including five different goals – a need to understand disaster risk better, strengthen risk governance, invest in risk reduction, enhance preparedness and build back better – plus seven targets.

The SFDRR recognises that disaster risk reduction practices need to cover many different hazards and sectors, and be inclusive and accessible in order to be efficient and effective. It also identifies two requirements:

- a need for the private sector, including the construction industry, to work more closely with other stakeholders and 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.

When parts of the built environment are damaged or destroyed, the ability of society to function – whether economically or 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, after a disaster, the loss of critical buildings and infrastructure can greatly increase a community's vulnerability to hazards in the future. The individual and local nature of the built environment, shaped by its context, restricts our ability to apply generic solutions, and there is a growing recognition that those responsible for the built environment have a vital role

to play in developing greater societal resilience to disasters.

Skills and knowledge

A recent EU-funded study entitled Collaborative Action towards Disaster Resilience Education (CADRE) identified the significant gaps in skills and knowledge among construction and property professionals, which need to be bridged in order to support disaster resilience building efforts. These include:

- governance, legal frameworks and compliance
- business continuity management
- disaster response
- contracts and procurement
- resilience technologies, engineering and infrastructure
- knowledge management
- social and cultural awareness
- sustainability and resilience
- ethics and human rights
- innovative financing mechanisms
- stakeholder inclusion and empowerment
- post-disaster project management
- multi-hazard risk assessment.

RICS view

RICS is contributing to the Words into Action guide by preparing a report into the effectiveness of a fully functioning building control system that accords with the respective countries' social, technical and cultural backgrounds. This might require a significant shift in approach to construction education and techniques.

It would also require a firm, ethical enforcement regime that reflects national legal systems. The challenge would be immense, but would in turn produce immense benefits for the economy and social wellbeing.

RICS is extremely proud of its involvement and firmly supports the UN Sendai framework. ●

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knowledge and technology to help cities prepare for potential risks. It can also work with governments, non-governmental organisations and the public to improve policy and drive the development of more resilient and sustainable societies.

Words into Action

Key players in the construction and property sector including RICS are contributing to the development of a Sendai Framework Words into Action implementation guide for construction policy and practice, with the support of the UN Office for Disaster Risk Reduction.

During the consultations and negotiations on the SFDRR, practical guidance was strongly recommended that would ensure engagement from all stakeholders. The Words into Action guides emphasise implementation, follow-up and review of the framework by writing "evidence-based and practical guidance for implementation in close collaboration with States, and

through mobilization of experts; reinforcing a culture of prevention in relevant stakeholders" (<http://bit.ly/2wf77fa>). The guides will be an important tool to record progress and learning, and share good practice, learning and progress.

The construction policy and practice Words into Action guide is being developed by a working group, co-led by myself, that is cooperating with existing expert groups and communities of practice to learn from their experience, updating our own guidance as implementation practice evolves.

Some of the key issues and recommendations to be addressed will include:

- identifying stakeholder requirements to make disaster resilience central to the construction process
- identifying how to integrate disaster risk recovery action into construction practices
- sharing best-practice case studies to make disaster risk recovery central to the construction process

- identifying legislative frameworks and regional protocols as well as means of providing support for and regulation of international construction practice
- incorporating key disaster risk recovery elements from Sendai in RICS APC
- incorporating key disaster risk recovery elements into

the CPD programmes that are formally recognised by key professional institutions

- ensuring capacities such as on-the-job and structured training for local government officials are in place, incorporating the key principles of SFDRR relating to property and construction.

The guide will also be informed by the 13 key knowledge gaps and a series of recommendations identified in the CADRE study.

In doing so, the construction policy and practice guide will directly contribute to the goals of the SFDRR, including three of its seven agreed global targets:

- reduce direct disaster economic loss in relation to global gross domestic product by 2030
- substantially reduce disaster damage to critical infrastructure and disruption of basic services, including health and educational facilities, with the development of their resilience by 2030
- substantially increase the number of countries with national and local disaster risk recovery strategies by 2020.

The guide will translate the SFDRR into meaningful actions that can be adopted by various actors in the construction and property sectors, including professional bodies, industry regulators, clients and construction and property companies. ●



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The study recommended updating the knowledge and skills of construction and property professionals to address these gaps. Doing so would help to "build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector, through sharing experiences, lessons learned, good practices and training and education on disaster risk reduction".

The future standards of professional bodies such as RICS could start to include factors such as long-term value and common risk frameworks that might apply at a city scale, rather than to single buildings alone. The construction and property sector can play an important role in advising governments, promoting progressive investments and sharing

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