

# Stakeholders



# 1. National and local government

- “Public and semi-public entities that have the authority to make and enforce rules, laws and regulations pertaining to the built environment”
- Mediate between private and public interests and as an actor with local, national and international connections.
- Coordination of different stakeholders at different levels.
- Develop and enforce rules, laws and regulations.
- In disaster risk reduction in the built environment, governments have administrative and legislative power to enforce regulations and policies on construction operations.

## 2. International community

- “Non-profit making organisations which possess membership of more than one country and set up as intergovernmental organisations or international non-governmental organisations”
- Policy making
- Coordination among different nations
- Provide necessary aid and support

# 3. Community

- “Individuals and groups sharing a natural and built environment that is vulnerable to hazards.”
- Users and occupants of the built environment
- Participation, experience and leadership towards DRR is important
- Source of local knowledge
  - hazardous conditions, local vulnerabilities, cultural practices, traditional coping mechanisms suited to the environment

## 4. Civic society

- “Non-governmental organisations (NGOs) that participate in disaster risk reduction activities, including not-for-profit and voluntary groups that are organised on a local, national or international level”
- NGOs
  - work with and on behalf of most needy groups: the poorest and the most vulnerable
  - operate at grassroots level with communities and local organizations as partners
  - take a participatory approach to development planning. This allows them to respond better to local people’s priorities and build on local capacities.

# 5. Private and corporate sector

- “Privately owned profit-orientated business and industrial groups.”
- Driving force behind socio-economic development
- Developers, consultants, contractors and sub contractors, banks and finance institutions that design, construct, maintain and finance the built environment
- Responsible for implementation of policies, regulations or guidelines including building codes and construction standards

## 6. Academia and professional associations

- “Universities, research organisations, and professional associations engaged in research, and training and development of individuals and organisations involved in disaster risk reduction”
- Responsible for
  - related education
  - training
  - research and development
  - development of technical standards and guidelines

# Key findings...

- Weak leadership
- Poor horizontal communication between national and regional government
- Inadequate coordination structures
- Unrealistic planning
- Lack of long-term capacity building
- Lack of basic project management skills
- Inadequate supervision and enforcement
- Weak integration between reconstruction and livelihoods

CENEAST  
Lithuania, March 2014

Prof Dilanthi Amaratunga



# Other research...



Bridge construction Pothuvil , Sri Lanka

# Funded research and projects

Large portfolio of research and development projects

Implementation in close collaboration with international partners from academia, industry and government

Supported by the European Union, UK Foreign and Commonwealth Office, British Council, Joint Information Systems Council and Royal Institute of Chartered Surveyors

# EURASIA Partners

**University of Salford, UK**  
Dr Dilanthi Amaratunga  
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**Tallinn University of Technology, Estonia**  
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Professor Irene Lill

**Vilnius Gediminas Technical University, Lithuania**  
Professor Arturas Kaklauskas

**University of Moratuwa, Sri Lanka**  
Indunil Seneviratne

**University of Ruhuna, Sri Lanka**  
Dr Nayana Alagiyawanne

EURASIA was a partnership between 3 European and 2 Sri Lankan Higher Education Institutes

Funding: EC (Framework), €456,495

Completion Date: 30/04/2009

Web: [www.eurasia.buhu.salford.ac.uk](http://www.eurasia.buhu.salford.ac.uk)





# ISLAND Project

- **Inspiring Sri Lankan Renewal And Development**
- **Funded by:** The Royal Institution of Chartered Surveyors, UK & University of Salford, UK, £71,000
- **Web:** <http://veber.buhu.salford.ac.uk/island/index.php>
- Aimed at increasing the effectiveness of disaster management by facilitating the capturing and sharing of appropriate knowledge and good practices in land, property and construction

## Community Based Disaster Risk Reduction and Climate Change Adaption

*In collaboration with*

Patuakhali Science and Technology University, Bangladesh

**Funding:** British Council, £39,927



# Community Resilience to Extreme Weather (CREW)

Developing a set of tools for improving the capacity for resilience of local communities to the impacts of future extreme weather events

A consortium of researchers drawn from 14 Universities



## Developing Flood Expert kNowledge in CharterEd Surveyors (DEFENCES)

**Funding:** RICS (The Royal Institution of Chartered Surveyors)

**Web:** <http://www.rics-defences.net/>

seeks to investigate the gaps in existing skills, knowledge and understanding of chartered surveyors in order for them to be able to provide independent, reliable and valid advice on property level flood adaptation measures to businesses; specially SMEs



- Examined the need for learners to acquire and develop skills and knowledge enabling responds to changing construction labour market needs linked to the disaster management. The project identified ways for Higher Education Institutes to be more responsive to industry skill requirements.

### **Implementing partners:**

University of Salford, UK

Vilnius Gediminas Technical University, Lithuania

Tallinn University of Technology, Estonia

### **Funding from EU Life-long learning programme:**

Euro 361.591



# ANDROID Disaster Resilience Network

ANDROID (Academic Network for Disaster Resilience to Optimise Educational Development) is a network of 67 partner organisations from 31 countries

Partners include Higher Education Institutes, National & Local Government, National NGOs, International NGOs & Independent Research Organisations

ANDROID is inter-disciplinary in scope and includes applied, human, social and natural scientists within its membership

Supported by the EU Lifelong Learning Programme, £536,447

## Conflict Prevention through Infrastructure Reconstruction

British High Commission & Foreign and  
Commonwealth Office – Sri Lanka,  
£74,905

- A study into the relationship between physical infrastructure reconstruction programmes and social cohesion among conflict affected people in the North and East of Sri Lanka
- The first phase provided an insight into the critical components of adequate infrastructure and assessed how local people are currently engaged in the reconstruction process
- The project is a partnership between Salford, Colombo, Eastern and Jaffa Universities, and the Chamber of Construction Industry Sri Lanka





## **CASCADE (Collaborative Action towards Societal Challenges through Awareness, Development, and Education)**

- The **overall objective** of CASCADE is to prepare ground for a future research programme that targets South Asian Countries and promotes bi-regional coordination of Science & Technology (S&T) cooperation, including priority setting and definition of S&T cooperation policies.
- **The specific objectives of CASCADE** are to: compile a regional position paper that identifies global challenges and research priorities; map and develop an inventory of national and regional stakeholders related to global challenges; and, raise awareness on research & innovation priorities for fostering cooperation and towards building mutual understanding on how to address common global societal challenges

Aims to address current and emerging labour market demands in the construction industry to increase societal resilience to disasters

**Implementing partners:**

University of Salford, UK

Vilnius Gediminas Technical University, Lithuania

Tallinn University of Technology, Estonia

UNISDR, Geneva

Federation of Local Government Authorities, Sri Lanka

University of Moratuwa, Sri Lanka

**Funding from EU Life-long learning programme:**

Euro 569,078.00

# Doctoral research

At present there are 37 doctoral students registered with the Centre

A selection of the research themes are provided below:

- Capacity building for disaster mitigation and reconstruction
- Project management for post disaster reconstruction
- Disaster risk reduction
- Risk management and sustainability
- Development and construction
- Post-conflict reconstruction
- Stakeholder management and Corporate social responsibility
- Community engagement and participation in reconstruction
- Social impact of reconstruction
- Protection and empowerment of women and other vulnerable groups
- Role of women in mitigating and managing disasters
- Livelihood development, micro finance and community co-operatives
- Knowledge management and integration
- Impact of culture towards disaster risk reduction
- Post disaster waste management
- Disaster management and theory building
- Process improvement / production management / lean production
- Public policy, governance & procurement
- Complexity science
- Extreme weather events and coping strategies
- Business continuity analysis and planning

# Education and training

The Centre offers short tailor-made continuous professional development (CPDs) programmes for industry

Some recent CPD activities undertaken by the Centre include:

- National training workshop on disaster risk assessment & management of coastal zone of Sri Lanka, organised by UNDP and the Disaster Management Center Sri Lanka
- Institute of Quantity Surveyors, Sri Lanka in Collaboration with Association of Construction Professionals, Sri Lanka, entitled, *Role of built environment professionals in disaster management*
- Chamber of Construction Industry, Sri Lanka, entitled, *Disaster recovery for risk reduction and development*
- Chamber of Construction Industry, Sri Lanka, entitled *Rehabilitation and Reconstruction of the Northern and Eastern Provinces*

# International Journal of Disaster Resilience in the Built Environment

- **Editors:** Professor Dilanthi Amaratunga and Professor Richard Haigh
- **Website:** [www.emeraldinsight.com/ijdrbe.htm](http://www.emeraldinsight.com/ijdrbe.htm)
- Aims to further knowledge and understanding of the link between the built environment and disaster mitigation, response and reconstruction
- Now in 4<sup>th</sup> volume; 3 issues per year
- Indexed and abstracted in: British Library, Construction and Building Abstracts, ICONDA - The International Construction Database, Business Source Premier (EBSCO), ABI INFORM Global (ProQuest), Cambridge Scientific Abstracts (ProQuest), INSPEC, Scopus



# International partnerships



## Selected global partners

- UN-HABITAT United Nations Human Settlement Programme
- The World Bank
- UK Foreign and Commonwealth Office
- Royal Institution of Chartered Surveyors (RICS), UK
- Chamber of Construction Industry, Sri Lanka (CCI)
- University of Moratuwa, Sri Lanka
- Eastern University, Sri Lanka
- Social Policy and Analysis Research Centre, University of Colombo, Sri Lanka
- Regional Public Administration Training Centre, Dhaka, Bangladesh
- Patuakhali Science and Technology University, Bangladesh

- National Institute of Disaster Management, India
- University of Madras, India
- Kadambari Memorial College of Science and Management, Nepal
- SUTRA Centre for Development Education and Research, Nepal
- Kyoto University, Japan
- UTM, Malaysia
- Indonesian Institute of Sciences, Jakarta, Indonesia
- NUS, Singapore
- Asian Disaster Preparedness Centre, Bangkok
- The Royal Melbourne Institute of Technology (RMIT), Australia
- University of Queensland, Brisbane, Australia

- University of Newcastle, Australia
- University of South Australia, Australia
- University of Western Sydney, Australia
- RMIT University, Australia
- University of Perth, Australia
- Resilient Organisations, New Zealand
- UNITEC Institute of Technology, New Zealand
- University of Palermo, Argentina
- Federal University of Parana, Brazil
- Purdue University, USA
- Ball State University, Indiana, USA
- University of Calgary, Canada

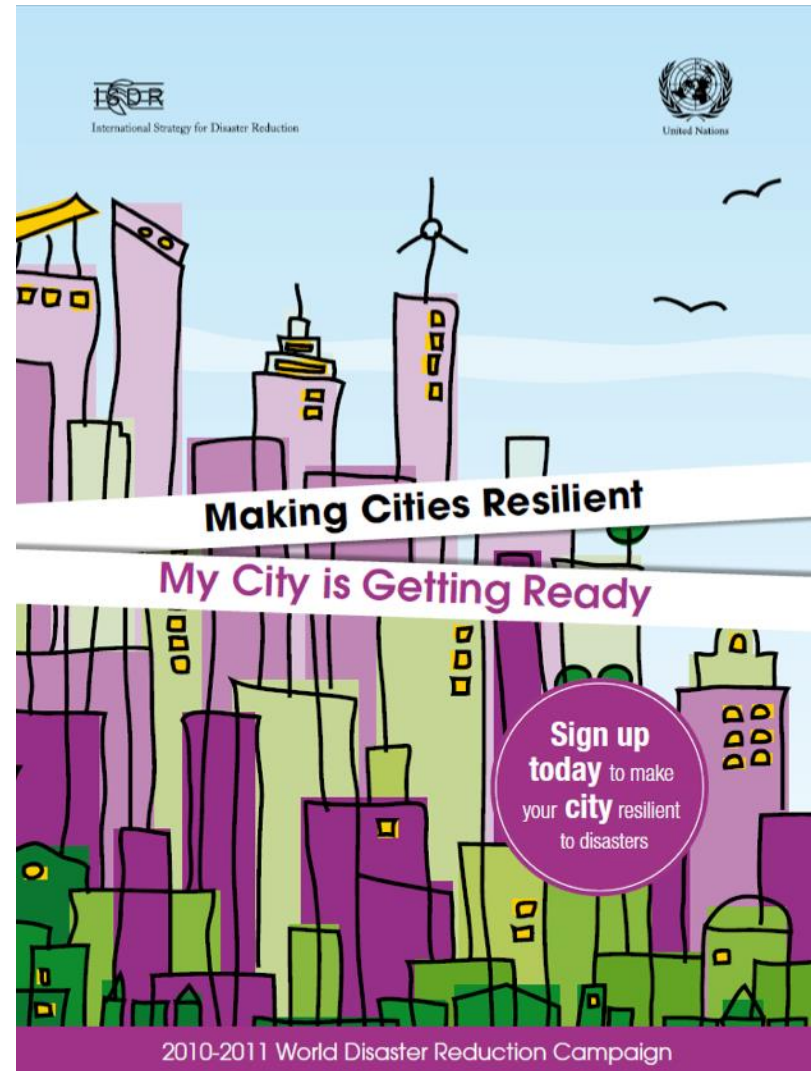
- York University, Canada
- University of British Columbia, Canada
- Justice Institute of British Columbia, Canada
- UNISDR, Geneva
- Vilnius Gediminas Technical University, Lithuania
- Tallin University of Technology, Estonia
- Israel Institute of Technology, Israel
- UN-HABITAT, Kenya
- Stellenbosch University, Matieland, South Africa



Centre for Disaster Resilience  
is an academic partner of the  
UNISDR Resilient Cities  
campaign

Professor Dilanthi  
Amaratunga and Dr Richard  
Haigh are on the campaign's  
advisory panel

Contributed to the  
development of the Mayors'  
handbook



# Conferences and events

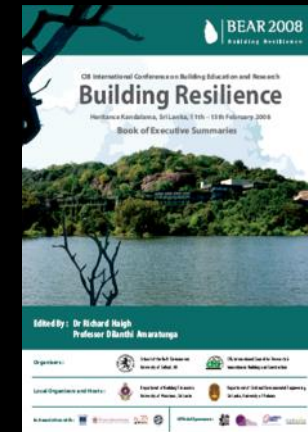
Bi-annual international conference series on building resilience

Symposia in conjunction with national and international partners

Policy dialogs with industrialists and government

## 2008 International Conference on Building Education and Research (BEAR)

175 delegates attend the event, representing academia, industry and government



In July 2011, Salford's Centre for Disaster Resilience organised the International Conference on Building Resilience at Kandalama

The event welcomed over 65 international and 45 Sri Lankan academics, practitioners, professionals and policy makers concerned with interdisciplinary approaches to disaster risk reduction, and the development of sustainable communities and cities

It had a particular focus on the challenges associated with reconstruction of communities in a post-war environment



**International Conference on Building Resilience**  
Interdisciplinary approaches to disaster risk reduction,  
and the development of sustainable communities and cities  
Kandalama, Sri Lanka 19th - 21st July 2011



**Annual conference of:**  International Institute for Infrastructure Renewal and Reconstruction

**Organised by:** Centre for Disaster Resilience, School of the Built Environment, University of Salford, UK  
RMIT University, Australia

**Local hosts:** Chamber of Construction Industry Sri Lanka  
University of Moratuwa, Sri Lanka  
University of Colombo, Sri Lanka  
University of Peradeniya, Sri Lanka

**In association with:** Disaster Management Centre, Ministry of Disaster Management, Sri Lanka; United Nations Development Programme (UNDP) Sri Lanka; Central Environmental Authority, Sri Lanka; Ministry of Environment, Sri Lanka; IOC/UNESCO; International Journal of Disaster Resilience in the Built Environment, Emerald Publishing; BSLUCIVE Built Environment Lifelong Learning Challenging University Responses to Vocational Education; Royal Institution of Chartered Surveyors (RICS) UK; Disaster Management Commission

In support of the United Nations International Strategy for Disaster Reduction (UNISDR)  
World Disaster Reduction Campaign 2010 - 2011 Making Cities Resilient

**Annual Conference of:**  International Institute for Infrastructure Renewal and Reconstruction

**Organised by:**  THE UNIVERSITY OF SALFORD  
 RMIT UNIVERSITY

**Local hosts:**  University of Moratuwa  
 University of Peradeniya  
 University of Colombo  
 SPARC  
 CCI  
Chamber of Construction Sri Lanka

**In association with:**  UNDP Sri Lanka  
 United Nations Educational, Scientific and Cultural Organization  
 Disaster Management Center  
Ministry of Disaster Management  
 Central Environmental Authority  
Sri Lanka  
 Ministry of Environment  
 RICS  
 BuildAction  
Royal Institution of Chartered Surveyors

**In support of:**  UNISDR  
Making Cities Resilient Campaign 2010 - 2011

**Incorporating:**  BELLCURVE  
Built Environment Lifelong Learning Challenging University Responses to Vocational Education  
 European Union  
Education and Culture DG  
Lifelong Learning Programme  
 EACEA  
Education, Culture and Youth Agency

# 2013 International Conference on Building Resilience Heritage Ahungalla, Sri Lanka, 17-19<sup>th</sup> September

Individual, institutional and societal coping strategies to address the challenges associated with disaster risk

**175 delegates from around the world and representing academic, government and practice**

## Conference themes

How can we increase community engagement towards increasing societal resilience?

How can national and local governments be empowered to incorporate disaster risk in their development plans?

How can we promote inclusive development to increase resilience?

How can we facilitate evidence-based policy?

How can we create public private partnerships to address disaster risk?

How can we manage disaster risk in development planning?

What will be the role of the built environment professions in addressing disaster risk?

How can we promote social transformation through post disaster reconstruction?



**[www.buildresilience.org/2013](http://www.buildresilience.org/2013)**



# 4<sup>th</sup> International Conference on Building Resilience

Incorporating the 3<sup>rd</sup> Annual Meeting of the ANDROID Network

9<sup>th</sup> – 11<sup>th</sup> September 2014, Salford Quays, Salford, United Kingdom

[www.buildresilience.org/2014](http://www.buildresilience.org/2014)    [android@disaster-resilience.net](mailto:android@disaster-resilience.net)

Meeting of 67 ANDROID network partners

Hosting of the UN *Making cities resilient* campaign steering committee meeting

Call for research papers; double blind peer review by international scientific committee

Key research themes led by ANDROID partners

Awards for best papers and special issue linked to the International Journal of Disaster Resilience in the Built Environment

Hyogo Framework Action Phase 2 consultation activity

ANDROID residential doctoral school

Panel discussion on post-2014 ANDROID Network Plan

Launch of the ANDROID Research Roadmap