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Making Cities Resilient

How Local Governments Reducing Disaster Risks – Sri Lanka Case Study 2012

***Centre for Disaster Resilience, University of Salford, UK
&
Disaster Management Centre, Sri Lanka – August 2012***

University of
Salford
MANCHESTER

Centre for
Disaster Resilience



Disaster Management Center, Sri
Lanka
Ministry of Disaster Management



Introductory note

The Making Cities Resilient Campaign was launched in Sri Lanka in May 2011. The Ministry of Disaster Management and the Disaster Management Centre led the national launch in partnership with: Ministry of Local Government; Centre for Disaster Resilience, University of Salford, UK; Practical Action; UNDP Sri Lanka; and, UNISDR. The launch provided an appropriate backdrop for a policy, academic and practitioner audience to explore how they may support the campaign's goal: to help cities and local governments to get ready, reduce the risks and become resilient to disasters. Three Urban Local Authorities and twelve Urban Local Authorities were joined as participating cities.

UNISDR was a partner in the International Conference on Building Resilience 2011 (www.buildresilience.org), which was also held in association with the National Launch of the UNISDR Making Cities Resilient Campaign. This international conference was chaired by Professor Dilanthi Amaratunga and Professor Richard Haigh of University of Salford, who are advisory panel members and partners of the UNISDR Making Cities Resilient Campaign. This conference was used as a backdrop in promoting the Resilient Cities concept in Sri Lanka.

The Disaster Management Centre of Sri Lanka is mandated with the responsibility of implementing and coordinating Disaster Management activities to achieve the long-term goal of a safer Sri Lanka. The aim of the report is to provide a snapshot of local-level resilience building activities associated with the City of Batticaloa and identify trends in the perceptions and approaches of local governments toward disaster risk reduction, using the Making Cities Resilient campaign principles. This report also analyses the factors that enable disaster risk reduction activities, including how the Campaign has helped improve local knowledge of disaster risk and support capacity building. This report was jointly prepared by Centre for Disaster Management Sri Lanka and Centre for Disaster Resilience, University of Salford and presents an update from the City of Batticaloa since taking up the challenge of becoming a resilient city, as part of the UNISDR Making Cities Resilient campaign and is structured under the following themes:

- Background details
- Resilience building activities
- Impacts of the campaign
- Resilience outcomes
- Challenges and the future ; and
- Information about some of the most significant initiatives/legislative changes that the city has undertaken, that have sought to reduce the impact of hazards or disasters

Centre for Disaster Resilience, University of Salford, UK
Disaster Management Centre, Sri Lanka
August 2012

Background

City Details - Batticaloa, Sri Lanka

The Campaign states a desire to focus especially on reaching the most vulnerable urban communities; the urban poor and communities that face a high-risk of adverse hazard impacts. Batticaloa, a participant city in the campaign, is distinctive in having suffered from disasters related to a combination of natural and human hazards. The city remains exposed to significant levels of disaster risk and faces major development challenges.

The city of Batticaloa, on the eastern coast of Sri Lanka boarded by the Indian Ocean, occupies the central part of eastern Sri Lanka and is 314 km from Colombo. Although Sri Lanka has the 2nd highest per capita in the South Asian Region, inequitable distribution of resources & uneven economic development between Urban and Rural areas leaves much to be desired. The per capita of Colombo residents is estimated at 7 times that of those from rural areas. Development of rural areas warrants a high priority. Further, the city was one of the most severely affected by the 2004 Indian Ocean Tsunami and has been disrupted by the 30-year insurgency against the government by the Liberation Tigers of Tamil Eelam.

Following the defeat of the insurgency in May 2009, there are large scale plans to develop and upgrade the infrastructure of the North and East of Sri Lanka. Many foreign entities have expressed interest in investing in Tourism infrastructure to take advantage of the Eastern coastline. As the East seaboard has not been exploited for its fisheries resources for over 20 years, there is an ample supply of lobsters, crabs, and shrimp, which are in high demand in overseas markets. Similarly, interest has been shown by corporations in meeting the global demand for tropical fruits and herbal products by cultivating in these areas. There has also been significant interest shown by the Tamil Diaspora to invest in the North & East. In order to propagate this interest, major infrastructure upgrades have already begun and other development projects are planned.

These and similar developments present an opportunity for the city to reduce its risks to disasters, alleviate poverty and empower the local community, but significant challenges must be overcome. While the ethnic war involving the Sri Lankan government forces and rebels appears to have come to an end, an estimated 100,000 plus have been killed and over a million displaced. A combination of the Tsunami and conflict has deepened poverty, and destroyed infrastructure, schools, hospitals, livelihoods, homes, and people's families. The demography of the region comprises three major ethnic groups, including two National minorities. Recent experience has created deep feelings of mistrust, grievance and fear. This context has hampered poverty reduction efforts and limited progress towards the Millennium Development Goals.

Data collection strategy

In 2011, the Mayor and local government pledged to work towards the priorities identified in the Campaign's "Ten steps for City Resilience - A checklist for local governments". The Mayor and local government are supported in the Campaign by a group of local, national and international organisations that have committed to work with them toward achievement of the Campaign goal. Together, they will form a voluntary partnership between local and national authorities, with local actors, civil society groups, academia and expert organisations.

Data pertaining to this case study in Sri Lanka, representing the City of Batticaloa, was put together jointly by the Sri Lanka Disaster Management Centre and Centre for Disaster Resilience, University of Salford, UK. The Disaster Management Centre is mandated with the responsibility of implementing and coordinating Disaster Management activities to achieve the long-term goal of a safer Sri Lanka.

Within this context, data from Batticaloa was collected via a series of interviews that were carried out with: the Deputy Mayor; Regional Assistant Commissioner of Local Governments; Deputy Director of Irrigation; Asst Coordinator - Disaster Management Centre; Development Officer, Coast Conservation Department; Planning Assistant - Urban Development Authority; and, Officer in Charge, Central Environment Authority – District Office. In addition, focus group meetings, seminars and workshops were conducted, as well as a document and archival records analysis.

Joining the Campaign

Batticaloa suffered from disasters related to a combination of natural and human induced hazards. The city remains exposed to significant levels of disaster risk from hazards such as cyclones, floods and Tsunamis, and faces major development challenges. With expansion of population, urban centres are becoming more vulnerable to natural hazards. Urban cities need to be made resilient to disasters for sustainable development. Further, Batticaloa was a victim of a civil war that ended in May 2009, but resulted in massive destruction of property and huge loss of life. A combination of the 2004 Tsunami and conflict has deepened poverty, and destroyed infrastructure, schools, hospitals, livelihoods, homes, and people's families. Batticaloa city faces major challenges, some of which includes, lack of adequate drainage where it is believed that the effects of recent floods have been made worse due to inadequate drainage; lagoon pollution; unplanned filling of marshy and paddy lands which increase the risk of floods; inadequate housing units for increase population; and, lack of adequate town planning. As such, Batticaloa, being a coastal city, is prone to a number of natural hazards and the Municipal Council should be well prepared to face the challenges brought by natural disaster, as well as climate change impacts in the future. Anticipated benefits for the Batticaloa City through participation in this Campaign include:

- To show leadership in working towards a more resilient District and initiate steps towards this
- To get access to expertise, partners, learning opportunities, and the possibility to “twin” a role model city
- To increase the knowledge and improve access to tools, technology and capacity development opportunities
- To save lives and livelihood through proper planning and preparedness
- To provide a platform from which to obtain external funding for the introduction and application of risk reduction measures
- To work towards sustainable urbanisation
- To raise the awareness of the local government officials and the public, by applying the messages and participating in activities during the campaign
- To get visibility through the website and other products disseminated throughout the campaign
- To help protect natural resources, the urban heritage and economic activities
- To provide expertise, participate in or offer to host city-to-city-learning events on how to reduce disaster risk in specific areas, which puts the city “on the map”

- To be regularly updated by UNISDR about the activities within the campaign and by the partners

Resilience-building activities

Main stakeholders in resilience-building

Effective implementation of resilience-building requires participation of various sectors and disciplines such as the three tiers of government (national, provincial and local), private sector, community, non-governmental organisations, community based organisations, research institutions and universities. In Sri Lanka, there are a number of governmental organisations responsible for the design, development and maintenance of the built environment and urban planning functions in close collaboration with various agencies under different government ministries. All these government institutions have to play a role in the city's resilience-building. Some examples include, the Urban Development Authority, Department of Coast Conservation, Department of National Physical Planning, Department of Irrigation, and the Central Environmental Authority. All these have district level offices in Batticaloa and work closely with the Municipal council in the city's resilience-building. In addition, all the disaster management activities are coordinated by the Disaster Management Centre. Its district level coordinators coordinate the disaster management activities with the support of all other related agencies and local governments. There are number of NGOs and INGOs who are working closely with the municipal council and the district disaster management office, and who provide support in terms of finance, training, livelihood development, water and sanitation. Also, universities and research organisations contribute by way of conducting workshops and training events for local officials and community, and provide research support.

Within this broader context, the city has appointed a committee consisting of officers, elected members of the council, community leaders, government officials, private sector agencies and religious leaders, to prepare the city development plan incorporating disaster risk reductions concepts and based on the ten point check list.

Involvement of the private sector in these risk reduction initiatives/ activities/ programmes

There was a high level of involvement by the private sector soon after the Tsunami in 2004 to support rebuilding activities. Initially, the private sector pledged support to prepare the development plan for the city. But at the moment there is relatively little contribution from the private sector when compared to the involvement of NGOs and INGOs. Accordingly, this has been an area identified by the city as one to actively concentrate upon.

Level of community participation and engagement with communities

The level of community participation is considered as a key requisite in implementing disaster risk reduction initiatives in the city. At the moment, a number of initiatives are taking place with the lead of disaster management centre and its district level coordinators. These are designed to encourage community participation. Different committees and sub committees at the district, divisional and village level have been formed with the participation of the local community. Some of the initiatives include the formation of district, divisional and village level disaster management plans and committees, training and awareness programmes to community and school children, mock drills, safety locations and routes, early warning, search and rescue training, and livelihood support.

Further, the council has commenced an awareness programme on hazards in several communities and has involved them to prepare community level hazard maps. Projects will be identified by the community to reduce the risk in the area.

Impacts of the campaign

Use of ten essentials in reducing risk in the city

The 10 essentials provide an overall framework towards achieving city resilience. It covers all necessary activities in moving towards resilient cities. The local government can use the ten essentials as a check-list in measuring the successfulness of the resilience-building and this can be used as performance measurement criteria for local governments. It is thought that acting on these Ten Essentials will empower local governments and other agencies to implement the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, adopted by 168 governments in 2005.

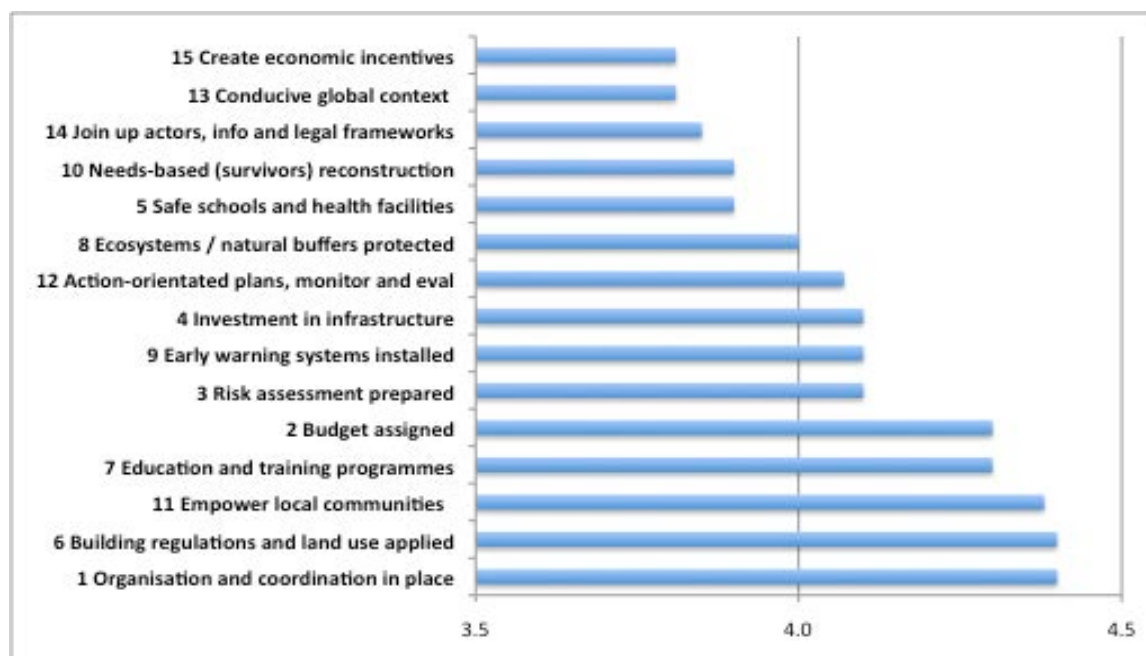
Ten essentials were used as a guideline to discuss with the community and to identify areas of interventions to reduce risk. The Disaster Management Centre conducted an awareness programme on the ten-point check-list and disaster management to committee members and city officials.

Further, the International Conference on Building Resilience: Interdisciplinary approaches to disaster risk reduction, and the development of sustainable communities and cities (www.buildresilience.org), held in July 2011 and organised by the University of Salford UK, represented an opportunity to gain some feedback in relation to the campaign's ten point criteria for reducing disaster risk, as well as to get some early input from local government as to their capacity in these areas.

Based on the details of how cities can get involved in the campaign, including the 10 point checklist that cities are expected to work toward and the set of questions relating to the criteria that was prepared as a self-evaluation questionnaire, a study was undertaken to explore whether these criteria sufficiently capture and prioritise the breadth of issues that need to be addressed in order to develop resilience, as well as understand in which areas local government feel they are inadequate. This helped to establish the actions that should / are being taken and people's views regarding their comprehensiveness / relative importance / effectiveness. Accordingly, the simpler 10-point approach was used as a sort of questionnaire in giving a very credible foundation. These were combined with some questions regarding perspectives on longer-term contextual trends.

Respondents were asked the questions in terms of the next **five years** and to give a *confidential* rating for each element in terms of its likely **impact in practice**. Respondents were asked to complete the questions as an individual with a particular responsibility in relation to their city. A summary of the responses is given below:

Likely Impacts of Actions
Impacts in practice; Over next 5 Yrs



Respondents were further asked to suggest any other actions that are important and that are not directly included or covered within the 10 point check list. 5 further areas were suggested. Of these, three were identified as having close links with current points within the 10 point check list. A summary of the results from this exercise is provided below:

Suggestions for "Other actions" No's 11-15

Other possible actions	No. times suggested	Links to "Ten Essentials"
Empower local communities, especially vulnerable categories (1)	24	7 - ed and train
Action-orientated plans, monitoring and evaluation	9	3 - risk assess
Conducive global context - policies, standards, good practice, etc	7	
Join up actors (2), information and legal frameworks	6	1 - org and coord
Create economic incentives	4	
(1) children, old, women, disabled		
(2) National and local government bodies and civil society organisations		

Respondents were also asked to rate for each element the **level of preparedness** of their city for possible disasters **now** and the likely position in **five years' time**. The table below summarises the results:

Ratings for Impact and Preparedness

UNISDR "Ten Essentials" + 5	Likely impact in next five years (mean)	Level of preparedness		
		Now (mean score)	In five years (mean score)	
1 Organisation and coordination in place	4.4	1.9	2.4	Round 1 (N=64)
2 Budget assigned	4.3	1.8	2.2	
3 Risk assessment prepared	4.1	2.0	2.4	
4 Investment in infrastructure	4.1	1.8	2.1	
5 Safe schools and health facilities	3.9	1.9	2.3	
6 Building regulations and land use applied	4.4	1.8	2.2	
7 Education and training programmes	4.3	2.0	2.4	
8 Ecosystems / natural buffers protected	4.0	1.7	2.1	
9 Early warning systems installed	4.1	2.0	2.4	
10 Needs-based (survivors) reconstruction	3.9	1.8	2.2	
11 Empower local communities	4.4	1.7	1.9	R2 (N=29)
12 Action-orientated plans, monitor and eval	4.1	1.9	2.2	
13 Conducive global context	3.8	1.8	2.3	
14 Join up actors, info and legal frameworks	3.9	1.6	2.0	
15 Create economic incentives	3.8	1.5	2.0	
	Where	Where:		
	1=None	1=Poor		
	2=Minimal	2=Some		
	3=Some	3=Good		
	4=Moderate			
	5=Big			

National government support

The Disaster Management Centre of Sri Lanka has been supporting the councils and coordinating activities with all stakeholder agencies working within the city limits on DRR.

In Sri Lanka, local governments function under their respective Ordinances and Acts. None of these Ordinances and Acts has explicitly recognised disaster management as a subject for local governments. The Disaster Management Centre was able to incorporate DRR concerns in the National Policy for Local Government, which has been approved by the Cabinet of Ministers. The Local Government Ministry accepted the Amendments to incorporate DRR concepts into the Local Government Ordinances and Acts. This can be seen as the first step toward bringing local governments into disaster risk reduction activities. This will provide a legal state for the local government to engage in DRR activities. Also, hazard and vulnerability maps, guidelines for disaster resilient constructions and development plans, are being prepared at the national level. Further, national level awareness, education and training programmes are being conducted to educate local government officials on resilience-building activities.

Use of the UN-ISDR’s Local Government Self-Assessment Tool and its links with the national-level reporting for the Hyogo Framework for Action

An event entitled “Making Batticaloa a Resilient City - 2010-2011 World Disaster Reduction Campaign”, was organised by the University of Salford’s Centre for Disaster Resilience and the

Chamber of Construction Industry Sri Lanka, in conjunction with the City of Batticaloa. Objectives of the event included:

- To discuss and establish the concept of “Resilient Cities” around the City of Batticaloa.
- Agree set of activities including idea for proposals for potential research bids/projects with links to UNISDR Resilient Cities Campaign.
- To explore, discuss and formulate an effective strategy in responding to this initiative incorporating Sri Lanka National and Local Government, the World Bank, UNDP and the British High Commission in Sri Lanka.
- Explore further possibilities of support from the Industry, NGOs and INGOs and other Government bodies for future bidding.
- Plan future activities with links to Resilient Cities initiative.
- To establish potential research topic areas worthy of research investigation in the areas of disaster risk reduction.

This event included a facilitated workshop on the **UNISDR’s Local Government Self-Assessment Tool**, to test the suitability and use of the tool kit. This was facilitated jointly by the Centre for Disaster Resilience, University of Salford, the City of Batticaloa Mayor’s office, and the Metropolitan Commissioner of the Batticaloa District. There were around 60 – 70 participants who attended the workshop and these were drawn from the middle to top management officials who were identified as having some aspect of their job role linked to disaster risk reduction activities. In general, the questions related to the points seemed to be understood by the participants and the toolkit was successful in eliciting a range of responses. Also it prompted calls from many of the attendees for a mapping exercise to be undertaken to identify what is already in place – this was immediately identified as a valuable outcome. It was also clear that some form of facilitation is helpful in guiding respondents through the questions. Also, it was suggested that a set of guidance notes should be provided: e.g., Should it be completed by an individual with specific responsibilities? Should it be completed by a group of representatives from the city? If so, is there a list of suggested functions/roles? Should external stakeholders be consulted? If so, who? Who should facilitate, if a workshop format is to be used? The guidelines could include the format/agenda of a facilitated workshop, for example.

Further, there have been various awareness raising events organised by the Sri Lanka Disaster Management Centre. These recognise the language barrier associated with the toolkit, which otherwise limits its use within most of the local authorities in Sri Lanka. Accordingly, the Disaster Management Centre is currently making arrangements to translate the toolkit into local languages before undertaking a full assessment.

Partnerships with other cities (e.g. Partnerships, knowledge-sharing)

Since the launch of the global Making Cities Resilient Campaign in May 2010, 3 Urban Local Councils and 12 Urban Local Authorities joined as participating cities. These cities are in the early stages of implementing the programme. Some of the cities have developed partnerships in other programmes such as cultural, environment etc.

National level education, awareness and training programmes provide an opportunity for local government to share the experience and good practices with other local governments. Also in emergency situations local governments work together and share resources among local governments.

Resilience outcomes

Resilience-building in the city: progress so far

After joining the Resilient City Campaign, Batticaloa Municipal Council has already taken initiatives towards risk reduction in the city. The Council has taken steps to pass a resolution to establish a Disaster Management Unit within the council. By establishing this unit, it is expected to increase the contribution of the local government towards the city's resilience-building activities. This can be identified as one of the key milestone in the process of resilience-building. As such, an institutional and administrative framework is in place for proper implementation of risk reduction, and all stakeholders can work in collaboration towards achieving the city's resilience. A number of workshops, stakeholder meetings and other capacity building initiatives has been conducted for city officials and the community, all aimed at making them more aware of the resilience building process. Different committees and sub committees at the district, divisional and village level have been formed with the participation of the local community and some of the initiatives include, formation of district, divisional and village level disaster management plans and committees, training and awareness programmes to community and school children, mock drills, safety locations and routes, early warning, search and rescue training, and livelihood support.

Indicators of success

Through this programme, awareness on building resilient cities was created. The Sri Lanka Centre for Disaster Management has a schedule of training programmes for city officials to develop project proposals incorporating concepts for reducing disaster risk in the city, and to submit them for government funding.

Monitoring or measuring techniques been used

This is one of the areas that Disaster Management Centre is currently working on closely with the local governments. It is anticipated that there will be some sort of a monitoring mechanism available for Sri Lankan Local Councils, including Batticaloa, to monitor the techniques being used in making the cities resilient to disasters.

Most significant 'moments', activities and events that have represented steps forward in the city's level of resilience

By joining the UN-ISDR resilient city campaign, Batticaloa municipal council has committed to taking the lead in resilience-building activities, the first most significant activity in taking a step forward in the city's level of resilience. After joining the Campaign, Batticaloa Municipal Council has already taken initiatives towards risk reduction of the city, including steps to pass a resolution to establish a Disaster Management Unit within the council. By establishing a disaster management unit within the council it is expected to increase the contribution of the local government towards the city's resilience-building activities.

Key ingredients for successful risk reduction in the city

One key ingredient for success is that the support, commitment and motivation of all the stakeholders in implementing successful risk reduction in the city.

A number of NGOs and INGOs are based in Batticaloa city, and are working in collaboration with the municipal council and district disaster management office towards reducing disaster risks.

People in Batticaloa have suffered greatly from the 2004 Tsunami, the armed conflict which ended in 2009, and due to various flooding events over recent times. As a result the people are more vigilant and aware of the risk of disasters, and willingly support risk reduction initiatives.

Challenges and the future

Main challenges

Local governments are facing a number of challenges in making cities resilient to disasters. Some of the challenges are listed below:

- Local governments in disaster vulnerable areas are financially weak and need outside assistance to implement DRR activities.
- Lack of capacities and knowledge about disaster risks and vulnerabilities.
- Inadequate human resources, especially local governments, who do not have qualified planners to undertake initial planning activities, feasibility studies etc.
- Managing the long-term process, as disaster risk reduction initiatives often suffer due to staff changes, uneven priorities among staff, and long term political commitment.
- The main focus has been on short-term recovery works after the onset of a disaster, rather than engagement in pre disaster protection and planning.
- Inadequate legislative authority.
- Lack of proper control methods.
- Inherent administrative weaknesses.
- Lack of coordination between different levels of government.
- Involvement of a large number of agencies, which leads to a lack of clear-cut responsibilities.

Disaster risk reduction (DRR) has not yet been mainstreamed into local government and therefore at the moment, there is no direct mechanism to allocate funds for DRR policy implementation. Through the emphasis of its importance and awareness raising with the support of Centre for Disaster Resilience, Disaster Management Centre Sri Lanka was able to include DRR concepts into Local Government Policy, which was approved by the government in 2011. This is certainly a welcome development as the local government sector in Sri Lanka is not financially strong, and therefore it needs the central government's attention in the form of funding and other resource allocations for capital, as well as recurrent expenditure.

Further details : Information about some of the most significant initiatives/ activities/ programmes/ legislative changes that the city has undertaken, that have sought to reduce the impact of hazards or disasters

Awareness raising and launch project

The Disaster Management Centre of Sri Lanka has been the focal point and the leading agency in awareness raising and the launch of the UNISDR Making Cities Campaign in Sri Lanka and has been taking the lead role in coordinating with other agencies such as the Urban Development Authority, Local Govt Ministry, Provincial Local Govt Dept., Irrigation Dept, Sri Lanka Institute of Local governance, Practical Action, and Oxfam international. Financial support has mainly been given by Practical Action. The University of Salford has also supported several capacity building programmes, including a two-day workshop on disaster risk reduction for local government officials. UNHABITAT, with the support of University of Moratuwa, is implementing a similar programme in Batticaloa, Balangada, Kalmunia and Rathnapura cities.

University of Salford was the key sponsor and organiser of the International Conference on Building Resilience 2011 (www.buildresilience.org), which was held in July 2011 in association with the National Launch of the United Nations International Strategy for Disaster Reduction (ISDR) Making Cities Resilient Campaign. This international conference was chaired by Professor Dilanthi Amaratunga and Dr Richard Haigh, University of Salford, and who are advisory panel members and partners of the UNISDR Making Cities Resilient Campaign.

“Batticaloa City is getting ready ...”, Stakeholder Consultation Workshop on Resilient City program, Batticaloa Municipal Council, Public Library Auditorium, Batticaloa, 20th December 2011

A Stakeholder meeting on Resilient City Program was held at the Public Library Auditorium in Batticaloa on the 20th December 2011. This was organised by the Municipal Council, Batticaloa and jointly facilitated by the Disaster Management Center (DMC), Practical Action, the Asian Disaster Preparedness Center (ADPC) and United Nations Development Programme (UNDP).

Her worship Mayor of Batticaloa MC, Sivageetha Prabakaran is a signatory to the Global campaign on Resilient Cities launched by United Nations International Strategy for Disaster Risk Reduction (UNISDR). In her opening remarks she stated that ‘Being a coastal city, Batticaloa people and the municipal council should be well prepared to face the challenges brought by natural disaster as well as climate change impacts in the future. After joining the Resilient City Campaign, Batticaloa Municipal Council has already taken initiatives towards risk reduction of our city and one such step is passing a resolution and establishing a Disaster Management Unit within the council’.

Representatives of the Government, non-government agencies and civil society organizations of Batticaloa district participated at the event. Assistant Director of the Disaster Management Centre, Ms. Anoja Seneviratne, explained the objective of the Resilient City Programme, which is to help local governments to develop and implement a long term Disaster Risk Reduction programme. She said that citizens and organizations of the council should be well aware and prepared to face future

disasters. She also explained ways in which local government can incorporate disaster risk reduction measures into development programs of the council. Risk assessments are vital for the decision making process; hazard and vulnerability maps available for Batticaloa were presented by Practical Action and Asian Disaster Preparedness Centre, Thailand (ADPC) emphasizing this. Dr. Buddhi Weerasinghe, one of the experts on Disaster Management, explained the characteristics of a resilient city.

During the group activities, participants were given an exercise to assess the current status of Batticaloa City against the 10 essentials of the disaster resilient cities. Each group identified current status, gaps and challenges, relevant stakeholders, and action points at the end of this exercise.

A working committee was formed to develop a comprehensive Disaster Risk Management action plan for the council, comprising of 9 members chaired by the Mayor. The working committee scheduled their first meeting for 3rd January 2012. During this process, Practical Action and the Disaster Management Centre agreed to provide technical facilitation and other agencies will work with Batticaloa to implement this plan while assuring efficient coordination between the agencies. Batticaloa is one of the 5 local governmental bodies that have been selected for the initial phase of the Resilient City Programme. This programme is funded by Practical Action's Climate Smart Disaster Risk Management (CSDRM) project through grants of Christian Aid.

Capacity development project

In response to the Global assessment Report 2011 on DRR and the state of disaster risks and progress on various disaster risk reduction mechanisms, including identifying capacity building mechanisms in these important areas, the Centre for Disaster Resilience undertook a project entitled "Capacity Development for Disaster Risk Reduction in the Built Environment".

This initiative focused upon how to meet the requirements of affected communities and manage mitigation and reconstruction activities effectively, efficiently and sustainably. The destruction caused by recent natural and human-induced disasters has highlighted the susceptibility of the built environment and its vulnerability to hazards. Due to its linkages with other sectors, the destruction of the built environment by disasters hinders the regular functioning of any social and economic context. It is suggested that in the longer term, improved governance, policies, planning, management and capacity-building can provide the framework for better access by households and local communities to the professional expertise and knowledge within business, local government and civil society. In doing so, it will help communities to reduce their risk to natural disasters, and build their properties, villages and neighbourhoods to withstand the threat posed by hazards, when they cannot be avoided.

In this context, a capacity development framework was developed with the aim of strengthening the knowledge, abilities, skills and behaviour of individuals responsible for the built environment, and improving institutional structures and processes to ensure that disaster risk reduction meets its mission and goals in a sustainable way.

The framework identifies four stages of capacity development: analysis; creation; utilisation; and retention. The four stages of capacity development are mapped against major stakeholder groups that are involved in disaster risk reduction activities. The categorisation of stakeholder groups within this study is at high level and thus one category may cover a wide range of stakeholders. Stakeholders are any identifiable group or individual who can affect the achievement of disaster risk reduction objectives, or who is affected by the achievement of those objectives. Six major

stakeholder groups have been identified: National and local government; International community; Community; Civic society; Private and corporate sector; and, Academia and professional associations. This framework was introduced to the city council in adapting it in introducing a capacity development programme aiming at satisfying the criteria of making cities resilient campaign.

Making Cities Resilient action plan

The Centre for Disaster Resilience, University of Salford, UK is offering its support to the Ministry of Disaster Management by incorporating the 2011 International Conference on Building Resilience (www.buildresilience.org) outcomes in the local government joint action plan to tackle hazard risk in Sri Lanka, which was launched in July 2011. The plan identifies key priority activities that follow the 'Ten Essentials' of the 'Making Cities Resilient' campaign. The action plan will be implemented in coordination with the Ministry of Disaster Management and the Ministry of Local Government & Provincial Council. This is to convene platforms or task forces for collaboration in the regions of Sri Lanka. This activity will primarily be supported by the University of Salford's Centre for Disaster Resilience.

Working with local authorities

Further, through strong commitment for implementation of disaster risk reduction policies, the Centre for Disaster Resilience (CDR) is:

- Working closely with the local authorities in committing to disaster risk reduction through for example, programmes associated with capacity building;
- Collaborating in applied research projects on risk management and reduction in local government environments;
- Making its expertise available to local governments and the public at large;
- Adapting the science agenda to emphasise this paramount research topic and advance the state-of-the art in risk reduction;
- Making risk knowledge, assessments and risk reduction part of the university curricula for urban planners, architects, engineers, geographers and similar disciplines, as well as a cross disciplinary subject;
- Hosting capacity development events for local government and civil society to upgrade their organisational ability to deal with disaster risk. Many of these events address the priorities identified by the local authorities themselves;
- Upgrade the capacity of the local construction industry in order to provide livelihood opportunities and stimulate economic development within local communities;
- Provide educational opportunities, including Doctoral, Masters and short courses for local government and academics in order to upgrade their knowledge and skills relating to disaster risk reduction;
- Develop research programmes and projects that focus on the specific needs of the Batticaloa District;
- Prepare bids for external funding that propose the introduction and application of innovative risk reduction strategies and techniques;
- Raise awareness and introduce conflict sensitive approaches to reconstruction; and,

- Develop a long term partnership of key stakeholders that will work together with Batticaloa after the Campaign finishes.

Resilient City Programme, Sri Lanka - A Disaster Risk Management Training Program for Local Government Councils

A Disaster Risk Management Training Program for Local Government Councils was held from 8th and 9th March 2012 at Green Garden Hotel, Batticaloa. Participants included representatives from Mannar UC, Eravur UC and Batticaloa MC, District DMC Assistant Directors, Resource Persons and Facilitators (Total of 30 participants) . this event was organised and led by the Sri Lanka Disaster Management Centre with the involvement of Practical Action, UNDP, University of Salford, Asian Disaster Preparedness Centre (ADPC), Christian Aid, Federation of Local Government Authorities and UNISDR. Workshop was structured as follows:

- Introduction to Hazard, Vulnerability and Risk assessments
- Group work – Finalize Hazard and Risk Mapping in each local government councils and group presentations
- Ten point checklist for “resilience cities”
- Inclusive development to address disaster risk
- Disaster Risk Reduction approaches at local level
- Group work – Prioritize risk reduction measures for each LG councils based on risk assessments and group presentations
- Legal Framework for Incorporating DRR at Local Level

PhD project

As part of the long-term capacity building process, University of Salford has invested in a three year PhD study (valued at £70,000 over three years) in a theme directly related to the Making Cities Resilient Campaign. The title of the PhD is, “Empowering local governments to make cities resilient to disasters”. The researcher is currently in the middle stage of her PhD study having successfully completed her interim assessment. Based on her research, she has already published the following academic articles emphasising the academic contribution of her work.

- Malalgoda, C., Amaratunga, D. & Haigh, R. (2012) , Creating Disaster Resilient Cities, Breaking the Mould: Humanitarian Aid and Empowering Local Communities, Durham University, Durham, UK
- Malalgoda, C., Amaratunga, D. & Haigh, R. (2012) , Empowering Local Governments to make Disaster Resilient Cities, IRDR Annual Conference, UCL, London, UK.
- Malalgoda, C., Amaratunga, D. & Haigh, R. (2011), Empowering local governments to make disaster resilient cities, in the proceedings of International conference on BUILDING RESILIENCE 2011: Interdisciplinary approaches to disaster risk reduction, and the development of sustainable communities and cities, July 2011, Sri Lanka.
- Malalgoda, C., Amaratunga, D. & Pathirage, C. (2010). Role of local governments in disaster risk reduction. In the proceedings of the Royal Institution of Chartered Surveyors (RICS)

Construction, Building and Real Estate International Research Conference (COBRA),
Université Paris-Dauphine in Paris, France, September 2010.

As this research mainly focuses on answering a 'how' type of research question which is how the local government can be empowered to make the cities resilient to disasters and therefore would be more appropriate for a case study approach. The nature of this research requires gaining a rich understanding of the context of the research and the processes being enacted, and therefore the case study strategy would be an ultimate strategy for this research.

In this research, a city is taken as a case and the research is concerned with the empowerment of local government and their contribution towards making cities resilient. Accordingly, three case studies have been conducted including a detailed case study on the City of Batticaloa. Information gathered through this process from the Batticaloa city via interviews through semi-structured interviews with the local and other government officials, policy makers, industry practitioners and experts who are engaged in the respective areas of study, supported by a detailed literature synthesis on publications related to the establishment of local governments, their structure and other administrative and funding arrangements, were studied to get an in depth idea about the Batticaloa case study as reported in this report.

Conflict prevention through infrastructure reconstruction

While war in the N&E of Sri Lanka has ended, peace, especially sustainable peace, is not so easily forthcoming. Post-conflict reconstruction supports the transition from conflict to peace through the rebuilding of the socio-economic framework of the society. However, there is a need to pay special attention to conflict dynamics that may arise through development work. Physical infrastructure – broadly defined to include services that are essential ingredients to quality of life and economic activity – has the potential to connect or divide communities. Persisting inequalities – vertical and horizontal – and differential access to opportunities can increase social tension and may lead back to conflict, rather than build strong, resilient communities. Reconstruction programmes must be sensitive to the varying needs of different groups, while also addressing inequalities in access to infrastructure. Infrastructure that connects rather than divides different constituencies must also be identified and prioritised. In order to achieve this, there is a need to explore how different constituents affect the post-conflict reconstruction process, and how development interventions, and cultural contexts may change that role.

It is against this background that the Conflict Prevention through Infrastructure Reconstruction project was initiated. The project is part of a longer-term study into the relationship between physical infrastructure reconstruction programmes and social cohesion among conflict affected people in the North and East of Sri Lanka. This phase of the study aimed to provide an insight into the critical components of adequate infrastructure and to establish how local people are currently engaged in the reconstruction process.

The project was funded by the UK Foreign and Commonwealth Office through the British High Commission in Colombo. It was implemented by an international partnership of UK and Sri Lankan Higher Education Institutions and Sri Lankan Construction Professionals. The University of Salford's Centre for Disaster Resilience worked in partnership with the Social Policy and Analysis Research Centre, University of Colombo; the Department of Sociology, Eastern University; the Department of Sociology, University of Jaffna; and, the Chamber of Construction Industry Sri Lanka. Consequently, the project was able to draw upon a team of academics and professionals who represented the built environment, sociology and archaeology disciplines.

Empirical data was collected from districts in the N&E provinces of Sri Lanka, including Batticaloa. Semi-structured interviews and focus groups were conducted with community leaders within the target provinces, and with representatives from government, construction industry actors, and local and international NGOs. These were used to gain an insight on what the critical components are in adequate infrastructure, and how local people were engaged in the reconstruction process.

The study revealed that a majority of the projects studied were donor funded and state agencies were responsible for implementation. Typically, contractors came from outside the region; they often had their own supplies and workers brought from outside the host community. Many local people felt that they did not have opportunity to engage in construction work, and gain experience and economic benefits from this activity.

In many situations, the beneficiaries belonged to diverse communities with a history of inter-community conflict and tension. The projects had not been planned in such a way as to reduce such conflicts and tensions. Indeed, some projects have reinforced them, rather than reducing them and this was evident in both the North and East. Comparative analysis revealed an improved understanding of how infrastructure reconstruction programmes affect social cohesion, including concerns in infrastructure development surrounding: marginalisation of beneficiaries; segregated infrastructure that reinforces divisions; inadequate consultation with target population; and, a lack of economic opportunities for local people despite large-scale construction activity.

Engagement of key stakeholders through this project has helped to highlight the concerns, opportunities and challenges among them. In order to increase the likelihood that these findings will be used in practice, target groups of the project – including key stakeholders and decision makers involved or affected by the reconstruction process – were identified and engaged at an early stage with a view to raising awareness and understanding of how infrastructure can connect and divide communities. This early engagement was intended to contextualise the findings, but also increase the likelihood of the project achieving a tangible impact upon on identified target groups and beneficiaries through obtaining support for sustainable implementation of post-conflict recovery and rehabilitation practices. The project included a clear set of activities that promoted collaboration with a variety of stakeholders throughout the life of the project, rather than merely through dissemination at the end of the project. These activities included stakeholder engagement workshops, non-technical summaries, and direct interaction of the research team with the beneficiaries in local languages. Some policy influences that are envisaged include the shift of attention among certain government policies: to use much needed infrastructure reconstruction projects as a basis to promote inter-ethnic co-existence among conflict-affected communities. With this goal in mind, a policy briefing was written and communicated to key stakeholders in order to raise awareness of the project findings. In summary, the project has contributed to the capacity development of local stakeholders in Batticaloa and elsewhere, to deliver conflict sensitive infrastructure reconstruction programmes within the North and East of Sri Lanka, and thereby will help to build stronger, more resilient communities in the region.

Final Note

If any further details are required on any of the points reported in this document, please contact Professor Dilanthi Amaratunga (r.d.g.amaratunga@salford.ac.uk) or Professor Richard Haigh (r.p.haigh@salford.ac.uk), Centre for Disaster Resilience, University of Salford, UK.