

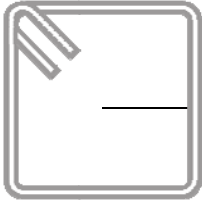
High-level Symposium on Disaster Risk Reduction

“Be aware, be prepared: Implementing lessons learned from other earthquakes”

KEY MESSAGES



Government of Nepal. Government of the United States of America. United Nations.



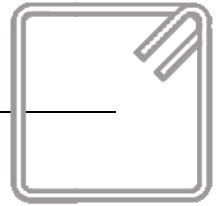
High-level Symposium on Disaster Risk Reduction

*“Be aware, be prepared: Implementing lessons learned from other
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KEY MESSAGES

February 2011

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United Nations.



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The publication records the key messages at the High-level Symposium on Disaster Risk Reduction jointly organized by the Government of Nepal, the U.S. Government and the United Nations on 14-15 February 2011 in Kathmandu, Nepal. All presentations at the symposium are available at <http://www.un.org.np/nrrc/hlsymposiumondrr2011>

The National Society for Earthquake Technology - Nepal (NSET) prepared this report with the support of The Writing Workshop P. Ltd.

Cover photo: An earthquake evacuation drill at Jana Udaya Lower Secondary School, Bhaisepati, Lalitpur, Nepal. The school has been seismically retrofitted for enhancing earthquake safety.

Photo Source: NSET

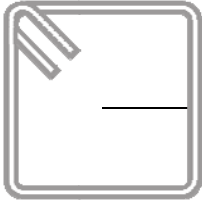
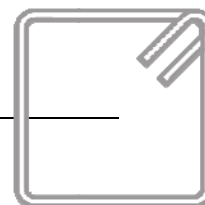


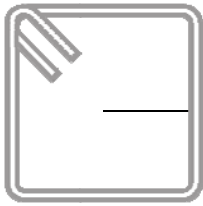
TABLE OF CONTENTS

List of Acronyms	iv
Context and overview	1
Key messages from the symposium.....	3
1 INAUGUAL SESSION.....	3
2 Plenary: Session I.....	4
3 Plenary: Session II.....	6
4 Plenary: Session IV	8
5 Plenary: Session I.....	10
6 Closing Session	12

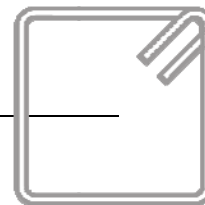


LIST OF ACRONYMS

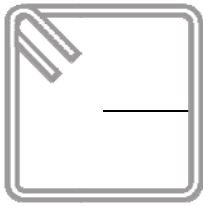
ADB-	Asian Development Bank
APF -	Armed Police Force
AusAid-	Australian Agency for International Aid
CDRC -	Central Disaster Relief Committee
CDS-	Center for Disaster Studies
CECI-	Center for International Studies and Cooperation
DFID –	Department for International Development
DOFS –	Department of Forest and Soil Conservation
DRM-	Disaster Risk Management
DRR-	Disaster Risk Reduction
DUDBC-	Department of Urban Development and Building Construction
EC-	European Commission
ECHO-	Humanitarian Aid Department of the European Commission
ECO-	Environment and Child Concern Organization- Nepal
FAO-	Food and Agricultural Organization
FELM-Nepal -	Finnish Evangelical Lutheran Mission Nepal
GiZ-	Gesellschaft für Internationale Zusammenarbeit
HFA -	Hyogo Framework for Action
ICRC –	International Committee of the Red Cross
IMF-	International Monetary Fund
IOE-	Institution of Engineering
IOM-	International Organization for Migration
IOM/TUTH-	Institute of Medicine/Tribhuvan University Teaching Hospital
JICA- Japan	International Cooperation Agency
KOICA-	Korean International Cooperation Agency



LSMC-	Lalitpur Sub-Metropolitan City
MDGs -	Millennium Development Goals
MOHA –	Ministry of Home Affairs
MPPW-	Ministry of Physical Planning and Works
MRB Associates-	Manohar Rajbhandari Associates
MUAN –	Municipal Association of Nepal
NEOC -	National Emergency Operation Centre
NRCS-	Nepal Red Cross Society
NSDRM -	National Strategy for Disaster Risk Management
NSET-	National Society for Earthquake Technology- Nepal
OCHA-	Office for the Coordination of Humanitarian Affairs
OHCHR-	Office of the High Commissioner for Human Rights
SAR -	Search and Rescue
SDC-	Swiss Agency for Development and Cooperation
TIACAO-	Tribhuvan International Airport Civil Aviation Office
UN HABITAT-	United Nations HABITAT
UN SRSG-	United Nations Special Representative of the Secretary-General for Disaster Risk Reduction
UNDP –	United Nations Development Program
UNDSS-	United Nations Department of Safety and Security
UNESCO-	United Nations Educational, Scientific and Cultural Organization
UNFPA -	United Nations Population Fund
UNHCR-	United Nations High Commission for Refugees
UNIC-	United Nations Information Centre
UNICEF-	United Nations Children Fund
UNISDR-	United Nations International Strategy for Disaster Reduction
UNMAT-	United Nations Mine Action Team



- UNOCHA- UN Office of Coordination of Humanitarian Affairs
- UNRCHCO- United Nations Resident Coordinator and Humanitarian Office
- USAID – United States Agency for International Development
- USAR - Urban Search and Rescue
- WFP- World Food Program
- WHO – World Health Organization



CONTEXT AND OVERVIEW

Nepal is among the most disaster prone countries in the world. It had devastating earthquakes in 1934 and 1988. The 1934 earthquake measured 8.4 on the Richter scale is estimated to have killed over 16,000 people in Nepal and India¹. It caused extensive damages in Nepal: Over 8,500 lives were lost; over 80,000 houses were completely damaged, and over 126,000 houses were severely damaged.² The more recent earthquake of magnitude 6.6 in Udayapur district in 1988 had killed 721 people and destroyed 64,467 houses.³

Nepal lies along the boundary of the Indian and Tibetan tectonic plates, which is a region of high seismic activity. On average an earthquake of magnitude 8 or above has occurred once every 80 years. A large earthquake is not only likely but could also cause far greater damages in terms of deaths and injuries, and damages to infrastructures and services. Nepal's largely unplanned and uncontrolled development, the high population density and lack of adequate risk reduction measures to cope with disasters could worsen the possible outcomes.

Several studies have estimated the earthquake damages in Kathmandu Valley. A 2007 study of the UN Office of Coordination of Humanitarian Affairs (OCHA) had the following damage estimates for an earthquake of 8.3 magnitude in Kathmandu Valley: up to 40,000 dead, 95,000 wounded, 900,000 homeless, 60 percent of buildings destroyed, only two or three of 14 hospitals with in-patient capacity of 30 still functional, among others.⁴ In addition most of the water pipes and half of the pumping stations and treatment facilities are expected to be seriously affected; about 60 percent telephones unusable and over 40 percent of electricity lines and all sub-stations could be non-functional for over a month, while most of the narrow roads would be unusable because of damage and debris. A more recent NSET study suggests that there could be 100,000 deaths and 200,000 injuries.⁵

Nepal also faces recurrent disasters such as floods, landslides, fires, epidemics, droughts and avalanches that cause an average of about 350 deaths every year. The country is ranked 11th in earthquake vulnerability, and Kathmandu is said to be exposed to the greatest earthquake risk among 21 megacities around the world.⁶

¹ http://www.seismonepal.gov.np/historical_eqk.htm. With an estimated population of over 3 million in Kathmandu Valley, the casualties in an earthquake today could be much higher.

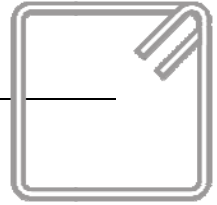
² http://www.nset.org.np/nset/php/earthquake_history.php

³ Earthquakes and Megacities Initiatives. 2010. Mainstreaming Disaster Risk Mitigation in Megacities: A Pilot Application in Metro Manila and Kathmandu. Structuring and Implementing a Competent Disaster Management Function. Page 64 (<http://www.un.org.np/sites/default/files/report/report3-risk-sensitive-land-use-plan.pdf>)

⁴ OCHA – Scenarios for Inter-Agency Contingency Planning for Humanitarian Disasters (2007) – Scenario 1: Major Earthquake Centered on the Kathmandu Valley, p.1. (in Nepal Red Cross Society. Contingency Plan for a Major Earthquake in Kathmandu Valley. May 2008. <http://www.un.org.np/sites/default/files/attachments/2008-07-30-nrcs-cp-complete-3-june.pdf>). NSET (2010).

⁵ NSET (2010). Update on 1997 Kathmandu Valley Earthquake Scenario. (Unpublished)

⁶ Final Report: Global Earthquake Safety Initiative (GESI) Pilot Project. GoeHazards International (GHI) and United Nations Centre for Regional Development (UNCRD), October 2001.



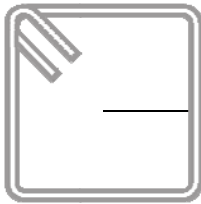
Objectives of the High-level symposium on Disaster Risk Reduction (DDR)

The high-level symposium on Disaster Risk Reduction (DRR) had three main objectives:

- Raise awareness among key decision-makers of Nepal's vulnerability to a catastrophic earthquake,
- Demonstrate the commitment of the government and the international community to disaster risk reduction, and
- Take lessons from recent disasters into policy and planning in Nepal.

The Government of Nepal organised the symposium in collaboration with the United Nations and the United States government. The two-day meeting brought together members of the Nepal's Central Disaster Relief Committee (CDRC), parliament, senior officials from all ministries, Chief District Development officers from selected districts, officials from three municipalities in Kathmandu Valley, officers from the security agencies (Nepal Army, Armed Police Force and the Nepal Police), representatives of development partners both in-country and from their headquarters, diplomatic agencies, and civil society representatives.

The symposium had the highest political representation from Nepal. Prime Minister Jhala Nath Khanal inaugurated the meeting and reiterated the government's commitment to take effective DRR measures. Maria Otero, U.S. Undersecretary of State, Democracy and Global Affairs and Margareta Wahlström, Special Representative of the UN Secretary General for Disaster Risk Reduction also attended the inaugural session. In addition the meeting brought together key speakers from countries that had experienced major earthquakes – Pakistan in 2005, Haiti January 2010, and Christchurch, New Zealand September 2010.



KEY MESSAGES FROM THE SYMPOSIUM

DAY I: 14 February 2011

1 INAUGURAL SESSION

Dr Govind P. Kusum, Secretary of Home Affairs chaired the inaugural session.

Key messages

Rt. Hon. Jhala Nath Khanal, Prime Minister of Nepal

Mr. Khanal thanked the organisers and hoped the symposium would help towards developing resilience and capacity to manage disasters that kill an average of 350 people in Nepal every year. The Prime Minister said Kathmandu has been identified as ‘high risk’ city for an earthquake owing to ‘high probability of building collapse and insufficient preparedness’. He stressed Nepal’s commitment to the Hyogo Framework for Action (HFA) and committed to enhance efforts towards a ‘Disaster Resilient Nepal’ with the support of the international community, civil society and the private sector. He appreciated the formation of Nepal Risk Reduction Consortium and the identification of five Flagship Programs⁷ for implementation. Some priorities he underlined were: building capacity for urban search and rescue (USAR), forming a National Response Team, identifying open spaces for evacuations and shelters, augmenting drinking water supply and strengthening health and sanitation systems, and stockpiling of food and non-food items.

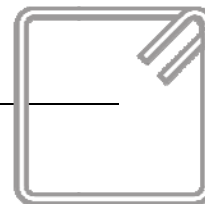
Maria Otero, US Under-Secretary of State, Democracy and Global Affairs

Ms. Otero stressed on the need for shifting mindsets from thinking about the present to thinking about the future; from thinking about disaster response to thinking about reducing disaster risk; and from thinking about millions of dollars to spend after disasters to using the money for reducing risks. She said the discussions require a shift in mindset, moving away from disaster response to risk reduction. Ms. Otero said, “The past several decades have brought significant development in Nepal, but that progress could be wiped out in one day with a disastrous earthquake of the magnitude expected. So we are here to discuss risk reduction, to internalize the challenges of impending disaster, and to integrate appropriate planning into current thinking and planning. Such a discussion—and the efforts that follow—require a shift in mindset by all of us. We must move from ... disaster response to risk reduction.”

Margareta Wahlström, Special Representative of the UN Secretary General for DRR

Ms Wahlström said Nepal has huge vulnerabilities and therefore needed to focus on the absolute need of creating and sustaining a sense of urgency for preparing for the ‘earthquake

⁷ School and Hospital Safety; Emergency Preparedness and Response; Flood Management in the Koshi River Basin; Community Based Disaster Risk Reduction/Management; and Institutional Support for Disaster Management (DRM)



that will come,’ and also for multiple hazards that take a deep toll on limited resources. She added the importance of not losing sight of the daily disasters that keep people in poverty far longer than they would be otherwise, and said DRR was important for being able to attain the Millennium Development Goals (MDGs). Most importantly, she said, ‘We cannot wait for disasters to start changing behaviours’.

Robert Parker, Mayor of Christchurch, New Zealand

Mr. Parker, whose city had experienced an earthquake of 7.1 (Richter Scale) on 4 September 2010 banged on the podium to simulate the rumble that had accompanied the tremor for 40 seconds before spelling out his main message: the need to plan in advance for disasters – including evacuation areas and supplies, strengthening buildings and strictly enforcing building codes. He said it is never too late to start planning, and the place to begin could be making hospitals stronger. His other key message was the need for good leadership for making decisions when needed, and good institutions to execute the responses.

Dr Govind Prasad Kusum, Secretary of Home Affairs

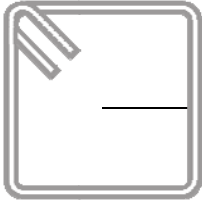
As part of his welcome speech, Dr. Kusum said the risk of earthquakes is high while the country has only limited resources to respond to disasters. He added that there is a minimum response time because earthquakes come without early warning. He said the government had prepared a Disaster Management Strategy (2009) and that it was in the process of enacting a new law for setting up institutional mechanisms needed for better preparedness and response. He praised the Nepal Risk Reduction Consortium, saying it brings together experts from government and non-government organisations and donors, which is needed to better prepare for facing disasters.

2 PLENARY: SESSION I

Chair: Mark Ward, Deputy Assistant Administrator, USAID

Mr. Ward’s message focussed on the need to change mindsets and start thinking less of response and more about risk reduction. “Seismologists tell us it is not ‘if’ but ‘when’, it’s scary,” he said and spoke about the U.S. involvement in assisting Nepal on earthquake preparedness, and the results attained so far, including the making schools and hospitals safe, and training the first responders in Nepal and other countries in the Asia-Pacific Region. He extended his government’s willingness to assist Nepal in prioritising and planning, and suggested that Nepal could identify areas to start working with and begin working right away. The other important message was that the government also needed to immediately set aside a regular budget for DRR.

The session had three speakers Lt. General (Retired) Nadeem Ahmed, the head of Pakistan’s National Disaster Management Authority, Colonel Ratindra Khatri, Chief Military Personnel Office, Commander of the Nepali National Contingent in Haiti and Sue Wardell, Director of security, humanitarian and regional programmes at DFID. The key messages from their presentations are summarised below.



Key Messages

Lt. General (Retired) Nadeem Ahmed, head of the National Disaster Management Authority, Pakistan

General Ahmed recounted the consequences of the 2005 earthquake in Pakistan that had left over 73,000 dead, over 128,000 injured and 3 million homeless. The quake also destroyed 6,300 education and 800 health facilities, 949 bridges, 6,440 km of roads and 4,040 water and sanitation schemes adding up to a reconstruction bill of US\$ 6 billion. Most importantly, he also outlined what had gone wrong in Pakistan, and urged Nepal to learn from those mistakes and become better prepared:

- Lack of a single coordinated agency for Disaster Risk Management (DRM) planning and institutions to undertake recovery
- Lack of building codes and enforcement
- Lack of hazard assessments/mapping
- Absence of adequate response capacity – warehouses, tents, fuel, medicines and urban search and rescue teams
- Lack of preparedness and awareness of communities (first responders), and
- Absence of information management/ decision support systems.

The former general pointed out Nepal's low capacity to even manage and absorb relief supplies that could come after a major disaster, because the first bottleneck could be the traffic handling abilities at the only international airport. Another would be handling and managing the supplies and getting them to people in need. Other vital logistics include open spaces needed for housing those displaced and engineering equipment needed for clearing debris and opening roads, and rebuilding bridges.

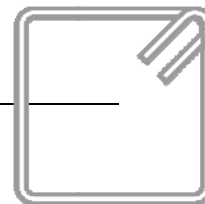
Some lessons he listed as most relevant to Nepal were: 1) Don't wait for damage assessments – Act, 2) Deploy military assets immediately, 3) Develop coordination mechanisms, 4) Conduct proactive media management, 5) Protect vulnerable groups, 6) Establish emergency call centers, 7) Enforce building codes, and 8) Mainstream DDR in all development activities, among others.

Colonel Ratindra Khatri

Nepali National Contingent Commander in Haiti

Colonel Khatri of the Nepal Army was stationed in Haiti when the earthquake (7.2 in Richter scale) of January 2010 struck. The quake left over 222,000 people dead, over 300,000 injured and destroyed over 188,000 houses, including government and donor offices. Some challenges faced in the immediate aftermath of the disaster in Haiti were:

- Chaotic environment in the first few days



- Command, control and communication problems
- Multi-agency coordination problems
- Ambiguity in the roles of actors
- Ineffective state capacity, and
- Corruption and crime.

The main lessons from Haiti were the need for a crisis action plan, preparedness and a response strategy, and adequate information and early warning systems. Preparedness includes managing urbanisation, identifying and managing adequate open spaces for emergencies, strict enforcement of building codes and having a standby search and rescue (SAR) teams, among others.

Sue Wardell, Director Security, Humanitarian and Regional Programmes, DFID

Ms. Wardell reiterated the need for planning for DRR but stressed the importance of government leadership for making that possible. She said the government has to take leadership and it must start now. Similar leadership is needed in the UN and among donors in order to be able to get in the best people on time. Ms Wardell added that it was also the responsibility of international NGOs and the private sector to begin thinking of the eventuality and begin planning for responding to the impending disaster. She said, “The earthquake in Haiti was a wakeup call, let’s not go back to sleep walking.”

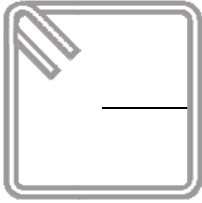
3 PLENARY: SESSION II

Chair: Robert Piper, UN Resident and Humanitarian Coordinator for Nepal

Mr. Piper summarised some lessons from the Haiti earthquake that were relevant to Nepal and re-stressed the importance of neighbouring countries during an earthquake, especially because there will be need for flyover arrangements and staging posts, which he said, need to be negotiated now.

Key messages

- It is the buildings that kill people not the earthquake; in Haiti 99 percent people were killed by the rubble
- Urban search and rescue teams are important; 25 teams were deployed within 36 hours and 60 were working within the 72-hour window, and saved 134 lives
- Plan, plan, and plan, and
- The relief and assistance did not follow the people out of the city, but focused on towns so 80 percent of people who had fled came back looking for help. (Lesson: Some relief has to be targeted to places not directly affected by disaster)



**Brigadier General John Broadmeadow, Deputy Commanding General,
United States Marine Corps Forces Pacific Command**

Brigadier General Broadmeadow outlined the U.S. Pacific Command's preparation for assistance after an earthquake as part of the international response. He said guidelines would be needed on using the military for civil assistance and that planning and coordination are important. To him the most important take-away from the symposium was 'plan, plan and plan' because an earthquake in Kathmandu could require the largest response effort in history. For effective support, he said Nepal's neighbours should also be ready to support the relief efforts. The US military has a five-phase plan to bring in support sought by the Nepal government – heavy lift helicopters, command and control facilities and medical supplies. Other items on his immediate 'must do' list were: to identify sites for use during rescue and relief operations, protecting those sites from encroachment and pre-positioning supplies/warehouses.

Pema L. Dorji, SAARC

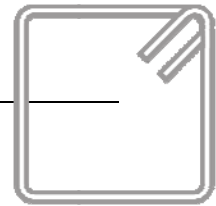
Mr. Dorji said South Asia has a history of disasters, including earthquakes and made a case for regional cooperation for DRR. The South Asian regional body, SAARC, set up a regional centre for disasters in October 2006 and has plans to harmonize national efforts and strategies for tackling disasters for preparing a regional DRR plan. Its 15th summit decided to have a Regional Rapid Response Mechanism for natural disasters and the regional centre preparing a vulnerability atlas on South Asia.

Dr. Apurva Sanghi, The World Bank

Dr Sanghi brought the economics of financing DRR based on a multi country World Bank study to the symposium. He had five main messages:

- There are benefits of prevention
- Prevention does not always cost more
- Targeted increases in spending are needed
- No single measure is sufficient, and
- The future can be managed (if done properly).

Dr. Sanghi said there was need for strong and credible institutions for disaster prevention – a shift from the dominance of rescue and recovery – because the non-enforcement of building codes is what results from weak institutions. He also made a case for targeted increases in spending on prevention because large disasters leave behind severe fiscal effects that often cost more to stabilize. He presented data on spending after disasters and that done before to point out that governments were not spending effectively (and enough) for preventing disasters and reducing risks.



4 PLENARY: SESSION IV

Disaster Response Capacity

The final plenary of the day focused on disaster preparedness in Nepal, dwelling mainly on the policies and practice. The session included presentations by the Ministry of Home Affairs and first responder agencies – Nepal Army, Armed Police Force, Nepal Police, Nepal Red Cross and the Department of Health Services. The agencies presented their preparedness for disasters and shared experiences from past rescue and relief operations. The National Emergency Operation Centre (NEOC) at the Ministry of Home Affairs coordinates the national response.

Ministry of Home Affairs

Shankar Prasad Koirala, Joint Secretary

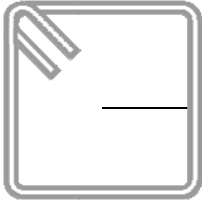
The presentation reiterated Nepal's vulnerability to disasters: 20th among countries most vulnerable to disasters; 4th in terms of vulnerability to climate change; 11th in earthquake vulnerability and 30th in flood vulnerability. The presentation also included a slide on a post-earthquake scenario prepared in 1997. He also explained the emergency response system, which begins with an assessment and report by the Chief District Officer/ District Disaster Rescue Committee the basis for activating the needed responses on a 1-4 alert stage. The Government of Nepal decides a stage 4-alert.

Mr. Koirala outlined measures taken to better prepare for disasters including, the identification of 64 evacuation sites in Kathmandu Valley, preparing the airport for disaster and developing a national early warning strategy, among others. He explained the institutional mechanisms for activating a level-4 alert. The NEOC has direct communication links with all security agencies, the Civil Aviation Authority, Red Cross and the United Nations. He said the government's priorities were implementing the National Strategy for Disaster Risk Management (NSDRM), enacting a new law for establishing the institutions and mechanisms needed for DRR, developing a comprehensive relief standard and establishing regional emergency operation centres.

Nepal Army

Ishwar Hamal, Colonel

The Nepal Army is stationed in over 400 locations and has experience in rescue and relief operations. It has adequate ground transport but not the air lifting capacity needed during disasters. The response capacity included troops with dry rations to last two months; tents to house about 400 families and about 500 people trained in establishing camps; and about 800 engineering technicians in Kathmandu Valley. It does not have standby engineering equipment for use in disasters. The army's priority procurements for disaster response include Collapse Structure Search and Rescue and flood rescue equipments. The army has regular disaster management training for its ranks and has also carried out preparation exercises in collaboration with U.S. forces.



Armed Police Force

Durga Kunwar, Senior Superintendent of Police

Nepal's paramilitary Armed Police Force (APF) was established in October 2001 and comprises of 31,000 uniformed personnel. It is deployed in all parts of the country and has also responded to disasters. The APF has carried out awareness/training on earthquakes and disaster management for 41 percent of the force. It has a Central Disaster Management Cell under the Operations Department and also a Disaster Management Training Centre. The APF has some capacity and equipment for medical first responders, Collapsed Structure Search and Rescue, fire fighting, etc. and plans to train and equip 66 disaster response teams of about 2,500 personnel for central, regional and district operations. The force has dry rations to last three months.

Nepal Police

Dr. Kulesh Thapa, Deputy Inspector General

Nepal Police has a force of around 59,000 personnel organised in over 2050 units. It also has nationwide presence and, being responsible for public security, has direct contact with the community. Its central rescue team has a force of 200 people; the regional and district teams add up to 150 persons. Nepal Police also has disaster training at various levels, and its trainers have also served as instructors in other countries. Training on disasters is part of the regular capacity building process.

Nepal Red Cross Society

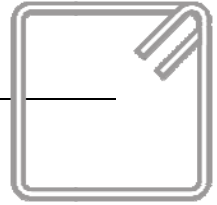
Umesh Prasad Dhakal, Executive Director

The Nepal Red Cross Society (NRCS) has presence in all of Nepal's 75 districts and has a membership of around 1.15 million. It also has around 150,000 volunteers who can be mobilised during disasters. The NRCS has been involved in responding to disasters (emergency relief), recovery and risk reduction. It has 900 community DRR initiatives underway in 45 districts. NRCS has also carried out training for different types of responders needed during disasters and its immediate response capacity includes a relief fund of Rs. 20 million and an emergency response fund of Rs. 2 million.

Department of Health Services

Dr. B. K. Suvedi, Deputy Director General

The department coordinates the Disaster Health Working Group, and there are similar mechanisms to coordinate national, regional and district responses during emergencies. The department has rapid response teams in the centre, the regions and all of the country's 75 districts. Major hospitals in Kathmandu Valley and some outside have developed emergency response plans, and 21 districts have contingency plans. There are 1,092 doctors, 6,540 nurses and 7,588 paramedics available under the Ministry of Health and Population. Nepal has 70 blood banks in 50 districts (8 in Kathmandu Valley) but all of these centres are vulnerable to



damages during a major earthquake. Only a few hospitals in Nepal have been assessed for vulnerability during disasters.

None of the presenters from the different security services or the Red Cross and the Department of Health Services discussed coordination and communication mechanisms among them. All of them had communication links with the NEOC.

Day II: Strengthening Disaster Risk Reduction in Nepal

5 PLENARY: SESSION I

Key messages

The meeting began with reflections of the first day by Robert Piper, UN Resident Coordinator. Some of the key points were:

- There is commitment and leadership of government and there is international willingness to help. ‘If the government will lead, we will follow,’ he said. ‘Let us not make financing DDR an obstacle’.
- There is an opportunity to share and learn from the powerful experiences on disasters, and take lessons.
- There was recognition of the need to plan, plan and plan.
- A policy shift from disaster response to disaster risk reduction is taking place: The new risk management strategy and a new law can help to create a dedicated authority and leadership for DRR.
- Participants raised the issue of every-day disasters in Nepal – floods, forest fires, landslides, and drought and food security.
- The World Bank made an overwhelming case in investing in prevention.
- The basic assets, services and systems for response operations are in place, there is willingness of different agencies to enhance capacity but there also are issues of duplication.

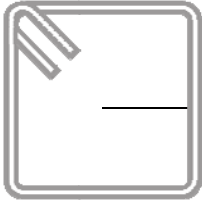
Breakout Sessions

The objective of the breakout sessions was to come up with clear action points for follow-up. The groups were assigned the task of identifying actions required to address DRR, prioritization of 5-7 actions, timelines, bottlenecks, and to reference best practices. Despite the complexity of the tasks and the limited time, the groups were able to flag issues and actions needed to address them. The three discussion themes were:

Saving Lives: Preparedness and response to a major earthquake

Chair: Dr. Govind P Kusum, Secretary, Ministry of Home Affairs.

Moderator: Arjun Katoch, Former Chief of Field Coordination UN OCHA



Mainstreaming DRR from local to the national level

Chair: Brinda Hada, Secretary, National Planning Commission.

Moderator: Mohammed Mukhier, Head of Community Preparedness and Risk Reduction. IFRC

Engineering a safer future: Building codes, roads, bridges, schools and hospitals

Chair: Purna Kadariya, Ministry of Physical Planning and Works (MPPW)

Moderator: Dr. Jiba Raj Pokharel, Director, Centre for Disaster Studies.

Group Priorities

Saving Lives: Preparedness and response to a major earthquake

Group I identified the institutional arrangements needed for effective decision making as major priority for donor coordination, local response (including, logistics and pre-positioning supplies) and maintaining law and order. The key actions identified were the enactment of law, and establishing a National Disaster Management Authority as envisaged by the NSDRM. The group identified training and preparation of a strategy for managing the media (local, national, international and social media) and communications as needs. The major bottlenecks identified were resources, trained human resources and equipment.

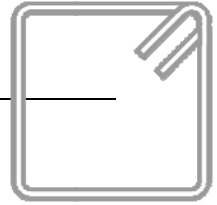
Mainstreaming DRR from local to the national level

Group II worked on five key areas: legislation, policy and planning; implementation and practice; coordination and institutional arrangements; resource allocation and advocacy and communications. It identified the absence of legislation for localizing DRR as a gap and stressed the need for integrating DRR plans into national and local development. It also suggested developing criteria for disaster impact assessment and for addressing climate change issues. Major implementation issues identified were need for greater emphasis on school-based risk-reduction and incorporation of a DRR 'lens' for infrastructure development; training of responders, including health workers; and establishing crisis management centres at the municipal levels for preparedness; and effectively communicating safe-building practices.

The issues for coordination were taking stock of work already done and existing systems and exploring coordination forum options, and need for a nodal agency for coordination. It recommended introduction of disaster impact/risk assessments for all new projects and mainstreaming DRR in donor country strategies; including the incorporation of DRR into the Nepal Portfolio Performance Review. The need for predictable DRR funds was noted and the group recommended that the government allocate a certain percentage of funds for the purpose. The group also stressed the need for DRR communications and media outreach.

Engineering a safer future: Building codes, roads, bridges, schools and hospitals

The group identified lack of public awareness/demand for safe construction as an outstanding issue alongside the existing unsafe schools, hospitals and other buildings as areas of concern. Another issue was the lack of accountability mechanisms for engineers, contractors, professional and agencies responsible for monitoring building codes. Other issues identified



were assessment of the cost for safe construction, institutional (and human resources) capacity of municipalities, technical capacity of masons, engineers and technicians, lack of accreditation systems for safe public buildings and lack of a standard vulnerability assessment methodology.

The key recommendations actions included awareness programs for building demand for safe-buildings and greater public commitment for enforcing safety measures, including building codes. Other actions recommended were review, updating and enforcement of building codes; accountability mechanisms for professional bodies and monitoring agencies and licensing of engineers and building technicians and setting up of incentives for safe-construction.

6 CLOSING SESSION

Robert Piper, UN Resident Coordinator

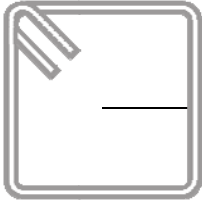
Mr. Piper summarised the two day symposium saying, ‘we know enough about the scenario that Nepal is faced with, and also enough about the consequence of inaction... we know enough, we must act quickly’. He added that the presence of international agencies at the meeting also indicated that they would be there when called upon for support.

Key messages

- DRR needs a new approach at the community, national and international level with a sense of real urgency. There is no time for making a perfect policy and therefore have to work with what exists to move fast and show results.
- Something good can come out of the tragedies of the past few years; we will learn from those terrible experiences. Buildings kill people in massive numbers; best coordination can be overwhelmed; even the best laid plans have to be written again; relationships have to be built before the crisis; moments of crisis need leaders with authority to make decisions.
- What happens next? Go forward with structures that exist; bring people together and establish relationships and partnerships; no one can do it alone and we cannot also afford to wait for the ideal institutional arrangements or institutions that don't move fast enough.
- The Nepal Risk Reduction Consortium is the right vehicle to take DRR forward. It is practical, concrete and focused; the MOHA in the lead is a right approach. The institutional mechanism with government leading provides a big tent under which all can organize.

Scott H. DeLisi, US Ambassador to Nepal

Ambassador DeLisi's main message was, ‘The real work lies ahead. Serious work. Hard work.’ He thanked the Government of Nepal for taking leadership on the issue and the United Nations for its engagement and partnership. He pointed out that, ‘if a major earthquake were to occur today in Nepal, we would see hundreds of thousands of lives lost and decades of development erased in seconds...’ and added that this could be changed. The Ambassador reiterated the commitment of the U.S. to DDR – the right thing to do:



- The long-term goal is a future in which Nepal can withstand a major earthquake without substantial damage. Every life saved is a triumph. Every school that doesn't collapse in an earthquake is a victory. Every hospital that stands, every community that is trained to respond, every bridge that is reinforced will make a difference.
- He said this future (of saving lives and minimizing damages) would need DRR measures mainstreamed throughout government planning and budgeting; by ensuring all buildings coming up in Kathmandu are seismically safe; by removing bureaucratic obstacles that impede the efforts to do what is needed; by preparing communities for facing natural disasters; by making schools the safest buildings in the community; by ensuring that the public is aware of the risks and knows how to protect themselves; by using the power of the market to force change by only purchasing houses that are seismically sound; by effective advance coordination between government and international donors for working as full partners, among others.
- Every investment in DRR is an investment in stability and preserving development gains made so far, and that achieved with donor support. The U.S. seeks to mitigate the impact of a major natural catastrophe and shorten recovery time through DRR efforts.
- It takes leadership and planning, not necessarily new resources to bring change: a government that is committed to risk reduction can do it.

Dr Govind Prasad Kusum, Secretary, Ministry of Home Affairs

Dr. Kusum said the symposium has been a 'right beginning at the right time' and added that the Prime Minister had told him personally that he supported the DRR initiatives. He said there is commitment from not just government but also from the international agencies, non-governmental organisations and the private sector. It is important to have the support from all sectors for managing disasters.

The Secretary for Home Affairs stressed the need for a holistic approach for managing disasters one with optimal planning, coordination, logistics and resources, including community awareness. He said the lessons from Haiti, Pakistan and New Zealand have been eye-openers.

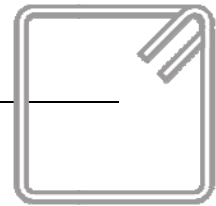
Dr. Kusum said, 'we talk more, say we will do and do little' which will be different beginning with the symposium. This symposium is not the end, but a starting point and there is a long way to go towards effective preparedness, he said, adding that saving human lives was the holiest of deeds. He also urged all to join hands for making Nepal's cities and villages safe.

Key priorities

This section summarizes the key priorities gleaned from the presentation of the breakout groups.

Saving Lives: Preparedness and response to a major earthquake

1. *Support establishment of National Disaster Management Authority:* This would also include developing Standard Operating Procedures for response or a National Emergency Response Framework for all responders (national and international).



2. *Enhance local and national response capacity and systems:* This would include logistics and pre-positioning supplies and plans for maintaining law and order during emergencies, training and capacity building of responders and rescue equipment.
3. *Prepare emergency communications and media outreach strategy:* This would include media (national, international, social media) and information management plans during emergencies and strategies for communications for ensuring better preparedness through safe-building practices, etc.

Mainstreaming DRR from local to the national level

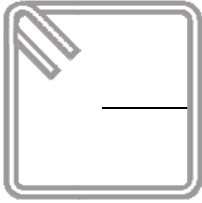
1. *Enhance policy and legal framework for DRR:* This includes frameworks for integrating DRR in plans at all levels and building an enabling legal environment for mainstreaming DRR and for incorporating Disaster Impact Assessment for all development projects, and for establishing crisis management centres at the municipal level.
2. *Establish and strengthen mechanisms for coordination for DRR at local (village and district) and national level.* This includes mechanisms for coordination among different responders and agencies (both national and international) and incorporating a DRR checklist for all projects during donor reviews. It also includes mechanisms for ensuring predictability of funds for DRR.
3. *Assess disaster risk of all major public infrastructures (roads, bridges, airports, water supply, telecommunications, hydropower projects) and develop framework for DIA of all development projects.* This would include developing and implementing an assessment framework for both existing projects and DIA for all forthcoming development projects.

Engineering a safer future: Building codes, roads, bridges, schools and hospitals.

1. *Enhance awareness and capacity of local authorities on DRR and building codes:* This would include capacity building for enforcement and enhancing skills for safe-construction.
2. *Develop public accountability mechanisms for engineers, contractors and other construction professionals, and decision makers.* This would include mechanisms for updating rules and ensuring effective monitoring and enforcement of building codes.
3. *Replicate and scale up successful DRR projects (school and hospital retrofitting).* This would include incentives for safe-construction, licensing of engineers and building technicians.
4. **Annex: Participating organizations⁸**

This list was compiled from the sign-up sheets. Names of individuals have been excluded to take into account the large participation at the symposium.

⁸ All presentations at the symposium are available at <http://www.un.org/np/nrrc/hlsymposiumondrr2011>



Nepali participants

Government agencies: National Seismological Centre, Department of Mines and Geology, Nepalese Army, Armed Police Force, Nepal Police, Nepal Police Hospital, National Investigation Department, Department of Health Services, Department of Soil Conservation, Department of Water Supply and Sanitation, Department of Water Induced Disaster Prevention, Department of Urban Development and Building Construction, Tribhuvan International Airport, District Administration Office (Lalitpur), District Administration Office (Kavre), District Administration Office (Kathmandu), National Vigilance Centre, Department of Immigration, Civil Aviation Authority, Department of Roads, Social Welfare Council, Tribhuvan International Airport Civil Aviation Office

Ministries: Ministry of Youth and Sports, Ministry of Agriculture and Cooperatives, Ministry of Physical Planning and Works, Ministry of Land Reform and Management, Ministry of Energy, Ministry of Home Affairs, Ministry of Education, Ministry of Irrigation, Ministry of Defence, Ministry of Foreign Affairs, Ministry of Health and Population, Ministry of Local Development, Ministry of Culture and Sports, Ministry of General Administration, Ministry of Science and Technology

NGOs: NSET, MUAN, SECEN, FELM-Nepal, NRCS, DPNet-Nepal, Eco-Nepal

Elected bodies: Constituent Assembly, Kathmandu Metropolitan City, Lalitpur Sub Metropolitan City, Bhaktapur Municipality, District Development Committee (Kathmandu)

Commissions: Election Commission, Public Service Commission, Water and Energy Commission, National Information Commission

Media: News24, Nepal TV, Nepal One TV, Image TV, Sagarmatha TV, Communication Corner, Republica, Nepalnews, Xinhua News Agency, The Kathmandu Post, The Rising Nepal, Press Trust of India, Gorkhapatra, Himalaya TV, National TV

Private sector: NCell Pvt. Ltd., Comfort Housing, MRB Associates

Political Parties: Nepali Congress, Communist Party of Nepal (UML)

Academic Institutions: Tribhuvan University, IOE, CDS, IOM/TUTH

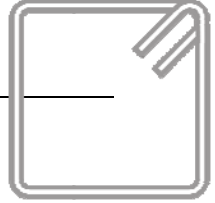
International participants

International agencies: WHO, UNDSS, UNDP, OHCHR, UNFPA, UNDP, ICRC, UNRCHCO, UN HABITAT, UNICEF, FAO, UNMAT, IMF, ADB, UNISDR, WFP, UNIC, WHO, OCHA, UNHCR, UNESCO, World Bank, IOM

Regional Organization: SAARC Secretariat

Diplomatic Representation: Embassies of USA, Russia, United Kingdom, Canada, Pakistan, Finland, Norway, India, France, Thailand and Australia

Other international participants: U.S. State Department, U.S. Pacific Command, British Gurkhas, and several participants from Bhutan and India



Bilateral agencies: USAID, AusAid, JICA, GiZ, DFID, SDC, European Union, ECHO

International NGOs: Oxfam-GB, MERLIN, Danish Red Cross, Mercy Corps, CECI Nepal, World Vision, DAN Church Aid, IFRC, Plan Nepal, Save the Children, Lutheran World Federation Nepal, Practical Action, Action Aid Nepal, KOICA, BRCFC, Finnish Meteorological JSW, British Red Cross