

# International Day for Disaster Reduction IDDR Day 2015

## KNOWLEDGE FOR LIFE IDDR 2015

International Day for Disaster Reduction, IDDR-2015 Symposium

*Organized by*



Nepal Geological Society  
*in association with*



Nalsing Gad Hydro Project  
Ministry of Energy, Nepal



Engineers Without Borders  
USA



Mitra Kunj  
and



Russian Centre  
of Science  
and Culture

**October 15, 2015**

Russian Centre of Science & Culture, Kamalpokhari, Kathmandu, Nepal

### WORKSHOP REPORT

# **IDDR Workshop Report-2015**

## **International Day for Disaster Reduction IDDR-Day 2015**

### **"KNOWLEDGE FOR LIFE"**

#### **NGS AND DISASTER RISK REDUCTION ACTIVITIES**

The geological hazards (earthquake, landslide, Flood, etc.) are the major threat to the national development and poverty alleviation in Nepal. Therefore, Nepal Geological Society (NGS) initiated the advocacy in the area that included awareness campaign through the regular celebration of the International Day for Natural Disaster Reduction (UN/IDNDR) since 1990s, occasional publication of disaster-related booklets etc. Likewise, after the establishment of UN ISDR (United Nation International Strategy for Disaster Reduction), the Society has carried its activities in line with the UN/ISDR aims of building disaster resilient communities by promoting increased awareness of the importance of disaster reduction for reducing human, social, economic and environmental losses due to natural hazards and related technological and environmental disasters.

The activities of NGS towards Disaster Prevention was acknowledged by UN Humanitarian and Emergency Relief Co-ordination Office of IDNDR Secretariat in Geneva, by awarding UN-Sasakawa Disaster Prevention Award in 1998 for its efforts in disseminating the scientific knowledge and spreading the awareness of prevention of the natural disaster. Nepal Geological Society is committed to continue to advocate for disaster risk reduction and mitigation activities in the country. This professional organization is always open to have partnership with other national and international organizations involved in this sector.

#### **THE IDDR DAY 2015**

Nepal Geological Society (NGS) is a professional organization that is committed to work towards reducing hazard, vulnerability, and resulting disaster in the country. It has been working in disaster inventory, preparedness and advocacy since its establishment (last three decades). United Nation (UN) proclaimed the theme to celebrate disaster day 2015 as: “**Knowledge for Life**”. Giving high priority to this theme NGS organized a half day workshop on October 15, 2015 in collaboration with Engineers Without Borders (WEB), Nalsing Gad Hydropower Project and Mitra Kunj, Russian Centre for Science and Culture.

The program was organized in the Russian Culture Center hall, Kamal Pokhari, Kathmandu. There were around 78 participations consisting of researchers, policy makers and practitioner representing various organizations working in the disaster sectors. The program was inaugurated and addressed by Hon’ble Prof. Dr. Govinda Raj Pokharel, Vice-Chairman of National Planning Commission. The program was also addressed by the distinguished guests. The workshop was divided into two sessions namely Inauguration Session and Technical Session. There were two technical sessions, each followed by discussion over the queries of the participants. Finally, the workshop was concluded by wrap up session.

#### **INAUGURAL SESSION**

The Inaugural session was chaired by Dr. Danda Pani Adhikari, President of NGS and the program was inaugurated by Hon’ble Prof. Dr. Govinda Raj Pokharel, Vice-Chairman of National Planning Commission, Government of Nepal. The speakers in the inauguration session were Prof. Dr. Govinda Sharma Pokharel; Dr. Danda Pani Adhikari, President-Nepal Geological Society; Mr. Moti Bahadur Kunwar, Convener, NGS-IDDR-2015, and other

distinguished guests. All the speakers focused on the role of professional society and disaster risk reduction as well as the themes of UN/ISDR. Dr. Prem Bahadur Thapa, NGS General Secretary, conducted the Inaugural Session and vote of thanks was delivered by Mr. Mukunda Raj Paudel, Vice-President of NGS.

**Mr. Moti Bahadur Kunwar**, Convener of the NGS-IDDR Committee delivered welcome speech on behalf of the organizing committee. Mr. Kunwar welcomed all the guests, resource persons and participants in the workshop. In his welcome speech Mr. Kunwar shaded light on the main objectives of the workshop focusing on the theme given by the UN for this year “**Knowledge for Life**”. He also reiterated that Nepal Geological Society has long been recognized for research initiatives, regular publication, and organization of national/international seminars, workshops and has contributed in development and disaster mitigation endeavors. He stressed on the relevancy of the theme in view of the necessity to focus our disaster risk reduction activities to utilize the traditional, indigenous and local knowledge and practices, to complement scientific knowledge in disaster risk management.

Mr. **Kunwar** mentioned that IDDR Day has been observed by NGS since long, especially focusing on interactive workshop and seminar with view to share the knowledge and practices of disaster management and to generate awareness among the stakeholders. In addition, he mentioned that the invited papers from academia, researcher and practitioner are equally important issues to be covered for the disaster management. He believed that at the end of the workshop NGS will be able to produce a report with assessment of our present capacity, identifying substantial activities to be done and practical recommendations to decision makers and planners.

**Er. Rick Ehlert** from Engineers Without Borders (WEB) highlighted the different approaches of using knowledge for life especially the sustainable engineering techniques in reconstruction strategies after the large-scale disaster. He also discussed examples of best practiced reconstruction process in different countries.

Hon’ble **Prof. Dr. Govinda Raj Pokharel**, Vice-Chairman of National Planning Commission as well as the Chief Guest of the IDDR Day 2015 mentioned the theme is highly relevant in Nepalese context. He pointed out the need of formulation of new and review of the existing disaster related government policies to incorporate the various aspects of knowledge for life. He also wished for the success of the workshop and



*Mr. Moti Bahadur Kunwar, Convener of IDDR 2015 is delivering welcome speech.*



*Er. Rick Ehlert is delivering speech in Inaugural session of IDDR 2015.*



*Chief Guest, Prof. Dr. Govinda Raj Pokharel is giving speech in IDDR 2015.*

expected strong suggestion and recommendation from the workshop to the policy makers and the practitioners for re-building nation that devastated by the Gorkha Earthquake of April 25, 2015.

**Dr. Danda Pani Adhikari**, Chairman of the session and President of NGS thanked the participants for their presence in spite of their busy schedule. He stressed that Nepal is geologically situated in a zone that is vulnerable to natural disaster. Because of this reason, NGS has been celebrating IDNDR and IDDR Days in cooperation with the concerned government and non-government organization so as to disseminate the information about disaster to the general public. Dr. Adhikari said, the Society is still committed to its objective towards disaster risk reduction and has been continuously involved in various related activities.

Dr. Adhikari focused the theme of year 2015 to use knowledge for life. Different kinds of indigenous and local knowledge in the society which are very useful while planning disaster risk management. He mentioned that, in view of geographical and geological condition, Nepal is prone to hit by disaster and has experienced several such incidents in the past (2014 Jure landslide in Sindhupalchawk, 2015 Gorkha Earthquake are the recent deadliest examples in Nepal). In this context, NGS has organized this 2015 IDDR workshop in order to discuss the role of knowledge in disaster management and also to explore the ways how to save life from people's perception.

The Session Chair in his concluding remarks highlighted the importance of geology in disaster risk reduction. He also stressed that various branches of geosciences especially engineering geology can play specific role in disaster sector and hence it is urgent to form geological council so as to regulate, monitor and safeguard their role in various activities in the country and seek government support in this endeavor of the Society. He also acknowledged the partnership between Nepal Geological Society, Government bodies, local governments as well as Mitra Kunj, Russian Center of Science and Culture, Nalsing Gad Hydropower Project and Engineers Without Borders.

**Dr. Prem Bahadur Thapa**, General Secretary of NGS conducted the whole program with prioritizing the theme of the IDDR-2015 Symposium and **Mr. Mukunda Raj Paudel**, Vice-President of NGS gave vote of thanks with thanking to the Chief Guest, other guests,



*Dr. Danda Pani Adhikari, NGS President is highlighting the IDDR 2015 program.*



*Dr. Prem Bahadur Thapa, NGS General Secretary is conducting the IDDR 2015 Program.*



*Mr. Mukunda Raj Paudel, NGS Vice-President is delivering the vote of thanks.*

participants and collaborative organizations for their support and participation in the ISDR Day organized by the Nepal Geological Society.

## TECHNICAL SESSION

The First technical session was chaired by **Er. Rick Ehlert**, Engineers without Borders (EWB) from United States. The rapporteurs were Dr. Moti Lal Rijal (Central Department of Geology, Tribhuvan University) and Indira Siwakoti (Nepal Electricity Authority).

In this first session, three technical papers entitled (1) Non-linear response of the Kathmandu valley sediments during the 2015 Gorkha Earthquake sequence for the given damage and destruction by Mr. Sudhir Rajaure from Department of Mines and Geology; (2) Earthquake induced landslide hazard assessment by Prof. Dr. Megh Raj Dhital from Central Department of Geology, Tribhuvan University; (3) Earthquake reconstruction in NEPAL: Reviving the forgotten phase of earthquake technology that required for safer housing reconstruction by Ranjan Dhungel from Nepalese Society of Earthquake Technology (NSET), (3) Enhancing flood early warning systems in Nepal by Dinanath Bhandari from Practical Action.

The first speaker of this session, Mr. S. Rajaure during his presentation discussed the strong motion records of the 2015 Gorkha Earthquake sequences to investigate ground response of the Kathmandu Valley sedimentary basin. He found that the Kathmandu valley sediments have responded non-linearity during Gorkha Earthquake sequence. Second Speaker, Prof. Dr. M. R. Dhital elaborated earthquake-induced landslides triggered by 2015 Gorkha Earthquake and their relationship with peak ground acceleration (PGA) values whereas third speaker Mr. D. Bhandari described the enhancing flood warning system and their status in Nepal. According to him, the early warning system (EWS) is operational at different status for the flood plain communities in the major rivers basins in the Nepal.



*Ms. Yuliya Zhuk, a speaker from Sweden, is presenting her paper.*



*Participants in the IDDR-2015 Symposium at Russian Culture Centre Hall, Kathmandu.*



*Audiences are participating in discussion following presentations.*



*Group photograph of 17th Executive Committee with Er. Rick Ehlert from USA.*

The second technical session was chaired by **Prof. Dr. Tara Nidhi Bhattarai**, Department of Geology, Tri-Chandra Campus, Tribhuvan University. The reporters were Mr. Narayan Gopal Ghimire and Dr. Ashok Sigdel (Nepal Electricity Authority).

In this session, four technical papers entitled (1) Building damage assessment after 2015 Gorkha Earthquake: A case of Panauti Municipality by Mr. S. Adhikari from Nepalese Society of Earthquake Technology (NSET); (2) 3 earthquakes, 3 devastations, similar issues and resilient solutions by Er. Rick Ehlert from Engineers Without Borders, USA; (3) Natural disasters in Sweden by Ms. Yuliya Zhuk from Uppsala University, Sweden and (4) Active faults and associated disasters in the Nepal Himalaya: A case study of the Badi Gad Fault from Ridi-Shantipur area of Gulmi District by Dr. Kabi Raj Paudyal from Central Department of Geology, Tribhuvan University.

In 2<sup>nd</sup> technical session, First speaker, Mr. S. Adhikari discussed the natural disaster are not certain, they could occur anytime and seriously disrupts the functioning of a community causing huge loss, therefore during the time of crisis the collection and dissemination of damaged data are crucial. Second speaker, Er. R. Ehlert elaborated the large-magnitude earthquakes have devastating impact to people, economies, infrastructure, homes, businesses, and community which requires advance preparation by people and communities to withstand the impacts of these major events. Ms. Y. Zhuk was the third speaker who discussed the overview of past and present challenges caused by natural disaster in Sweden. The last speaker, Dr. K. R. Paudyal showed importance of active fault their relationship to cause disaster in the Nepal Himalaya. According to him, identification and characterization of active faults in the Himalaya have a great value for the assessment of natural disaster like earthquake, landslide, soil erosion, and flood.

## **WRAP UP SESSION**

After completion of presentations in two technical sessions, Dr. Danda Pani Adhikari, the Chairman of the wrap up the session together with two panel members (Mr. Moti Bahadur Kunwar and Er. Rick Ehlert) pointed out the importance of the Theme of the Workshop and related research papers presented in the Technical Session and their main findings and conclusions. At that time he mentioned that all the presentations and follow up discussions were interesting and fruitful. He mentioned, it was wonderful opportunity for us to learn more regarding Geoscience, disaster and the knowledge of the people for life. Government must give high priority in pre-disaster preparedness as well as post-disaster rescue and relief and recovery of disaster victims at the earliest possible. It will be better to: (1) raise awareness of the use of traditional, indigenous and local knowledge and practices, to complement scientific knowledge in disaster risk management and (2) highlight approaches for engaging local communities and indigenous peoples in implementation of the Sendai Framework for Disaster Risk Reduction.

## **ACKNOWLEDGEMENT**

Nepal Geological Society would like to express many thanks to Mr. M. B. Kunwar, Convener, Er. Rick Ehlert, Member-Secretary and the members of IDDR Day organizing Committee 2015 for their active role in the organization of the workshop.

## **CONTACT FOR FURTHER INFORMATION**

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