

**Government of Nepal  
National Position Paper  
On  
Disaster Risk Reduction and Management**



Reconstruction of Earthquake-hit Boudhanath Stupa, Kathmandu

**Global Platform for Disaster Risk Reduction, 2019  
Geneva**

## 1. Background

Nepal, exposed to multiple hazards is among the most vulnerable countries in the world. The country is at risk of number of geological, hydro-meteorological and other human induced hazards. Nepal's steep slopes and the still growing Himalaya mountain range coupled with heavy monsoon rainfall patterns lead to a wide range of geological and hydro-meteorological hazards across the country including landslides, debris flows, floods and glacial lake outburst floods (GLOFs), epidemics, droughts and earthquakes frequently. Environmental degradation and climate change both interact with and exacerbate the occurrence and impact of natural hazard events. The frequent disasters caused by these hazards have shown an uprising trend.

Nepal frequently faces disaster events from a multitude of natural hazards; many of them are unprecedented such as a powerful windstorm (Tornado) has hit two southern districts of Nepal for the first time in our recorded history claiming 29 lives, hundreds of homeless and with huge economic loss. Besides the heavy toll that it has had on the lives of the people, the country has also experienced a huge setback in its socio-economic development process. A significant proportion of Gross Domestic Product (GDP) is lost every year due to large, medium and small-scale disasters. The effects of the disasters illustrate that the estimated value of total damages and losses (changes in flows) is equivalent to about one third of the GDP (PDNA, Nepal Earthquake, 2015). The total damage caused by the 2017 floods is Nepali Rupees (NPR) 60,716.6 (USD 584.7) million, which almost amounts to 3 percent of Nepal's GDP (PFRNA, 2017). Floods have had the largest impact out of climate related disaster events. Government of Nepal (GoN) along with concerned stakeholder is working rigorously to reduce the disaster related death toll in Nepal.

A scenario of disaster deaths by disaster events is presented in the table below:

Table1. Human Deaths from various disasters Since 2005 to 2018

| Year  | B.S. 2068<br>(2011/12) | B.S. 2069<br>(2012/13) | B.S. 2070<br>(2013/14) | B.S. 2071<br>(2014/15) | B.S. 2072<br>(2015/16) | B.S. 2073<br>(2016/17) | B.S. 2074<br>(2017/18) | B.S. 2075<br>(2018/19) |
|-------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Death | 519                    | 399                    | 417                    | 539                    | 9279                   | 483                    | 597                    | 455                    |

Source: Ministry of Home Affairs// [drportal.gov.np](http://drportal.gov.np) (Mid April-Mid January to Mid January-Mid April)

B.S. stands for Bikram Sambat for Nepali Calendar year.

## 2. Understanding disaster risk

GoN is working on developing the level of understanding of disaster risk among the all tiers of government including the stakeholders. It's collaborating with non-government and private sectors to enhance understanding and awareness on concepts, practices and policy discourse on disaster risk reduction and management (DRRM) and also in climate change adaptation by preparing of local adaptation plans, and financing them for implementation. Publications on hazards, vulnerabilities and analyses of events and their impacts have drawn significant attention of DRRM actors and vulnerable communities. Media coverage has increased significantly over the recent years. Televisions, radios, print and online media have included disaster risk reduction related information and opinion sharing frequently. Some of them have regular coverage of the issues. Interest and concerns on the key messages, weather forecasts shared by the Department of Hydrology and Meteorology (DHM) and National Emergency Operation Center (NEOC) gets significant attention and follow discussion series in the social media. People following the DRR Portal of GoN for DRRM related information are increasing. People started to participate in the discussion is an indicator of established public attention to risk reduction, preparedness, response and recovery.

The real-time hazard risk monitoring system such as Seismic stations, hydro-metrological stations, lightening detection centers has been developed and the numbers are increasing. Learning sharing and knowledge management programs are organized by the government and non-government organizations at federal, provincial and local level are able to grab the attention on DRR. Numbers of bilateral and multilateral discussions have provided avenues for sharing of learning and experience within country and beyond. Key message about DRRM, dialogue on contextual issues through IEC material, documentary and media partnership are successful in sensitizing wider stakeholders and developing a common understanding about disaster risk. Furthermore, National and International days like; National Earthquake Safety Day, International Day for Disaster Reduction are observed at national to local levels to spread awareness, knowledge and develop understanding on disaster risk.

Several national and international research by academia, institutions and individuals have added into the knowledge systems with supporting innovation by generating new knowledge, accessing global stores of knowledge, and adapting knowledge to local use in the field of DRR and climate change.

## **2.1 Risk Assessment**

The risk perception in Nepal differs in rural and urban area basically by socio economic conditions, different geographies, education to limit the understanding of disaster risk. The government has now initiated the hazard and vulnerability risk mapping at local level to develop the risk profile. Community specific hazard risk assessments are initiated by local levels with the support of humanitarian partners, building upon which the local governments are now trying to integrate and develop a comprehensive disaster risk profile.

Following disaster events, Nepal has timely carried out Initial Rapid Assessment (IRA) and Multi-sector Initial Rapid Assessment (MIRA) and Post Disaster Need Assessment (PDNA). The PDNA after 2015 earthquake and PFRNA 2017 floods are some examples. These assessment methodologies are being vital in quantifying loss and damage of various disasters. Lessons learned are documented and shared through workshop and discussion meetings.

## **2.2 Disaster Information Management System (DIMS)**

Recognizing the need and importance of data and information for effective DRRM, MOHA has initiated the establishment of comprehensive and integrated DIMS. The DIMS is aimed to works as a repository of data, information policies and key decisions of all levels on DRRM and provides basis for evidence-based decision support system in Nepal. In order to ensure the common sharing platform, this DIMS is expected to integrate all existing data system at one click to serve this purpose. It serves as a platform for fostering data partnership on disaster management and a common system for disaster management at multiple tiers of government and stakeholders. A strong linkage will be established among the institutions/agencies involved in forecasting, managing and assessing the risks and responses. Its own server will collect data on disaster loss and damage and provide support for disaster preparedness and response during emergencies. Being hosted by the NEOC the database provides the real time data about the hazards and disaster events, affected population and casualty. It also provides the information about disaggregated data of the local level and the capacity of local level and humanitarian agency regarding the preparedness for response. Furthermore, it also provides the mapping of organizations who is working in the particular local level and their initiatives. All local level will have the access to DIMS to update and provide disaster data relevant information from the field, which can be directly feed into the system.

## **2.3 Capacity building**

MoHA in coordination with Ministry of Federal Affairs and General Administration, capacity building programs for the local level governments in DRRM are in progress. However, program specific capacity building programs are going on at federal, provincial and different local levels. Development partners

and humanitarian organizations in close coordination with government are also working on wider resilience building through capacity building program by delivering DRRM related trainings like mainstreaming DRR and climate change adaptation (CCA) into development planning and implementation process, gender and disability inclusive DRR, school based DRR and mock drills and simulation on earthquake safety and flood etc. The civil military joint simulation exercises at provincial level have increased participation and help understand the response and coordination system to manage disaster events. There is an enabling environment to deliver operational and individual skill/knowledge development. In order to harmonize the training contents on DRM, a consolidated and uniform training module is being developed by Local Development Training Academy (LDTA) and MoFAGA. The training module will be roll out throughout the country to ensure the uniformity and consistency of content on DRRM.

### **3. Strengthening Disaster Risk Governance**

As a part of disaster risk governance, GoN has formulated DRR Act, Policy, Strategy in National level and the process is ongoing in provincial and local level. Some organizational structures are like emergency operation center are in place in some levels. National Platform for DRR (NPDRR) is formed with reference to the United Nations Office for Disaster Risk Reduction (UNDRR) guideline for the effective coordination and collaboration between the organizations working in DRR in Nepal.

#### **3.1 Strategic Action plan for DRR**

GoN has introduced and implementing disaster risk reduction strategic action plan (2018-2030), in order to create a conducive environment for risk governance. This action plan is guided by 13 principles and states that the state has the primary responsibility to prevent, reduce and manage disaster risks and if necessary it shall pursue international, regional and bilateral cooperation and partnership. The state shall ensure full engagement of all institutions of executive and legislative nature at all levels and a clear articulation of responsibilities across public and private stakeholders to ensure mutual outreach, partnership, complementary in roles and accountability. Local authorities and local communities shall be empowered to reduce disaster risk. DRR requires a multi-hazard approach and inclusive risk-informed decision-making based on the open exchange and dissemination of up to date disaggregated data. There shall be coherence between Sustainable Development Goals, Food Security, Health Security, Climate Change Adaptation, Environment Management and Disaster Risk Reduction. Disaster risk-informed public and private investments shall be increased to address underlying disaster risk factors and to contribute to sustainable development. In the post-disaster recovery, rehabilitation and reconstruction phase, “Build Back Better” approach shall be followed to prevent the creation of and to reduce disaster risk. Application of science and technology shall be promoted and local resources, materials, knowledge, skills and labor shall be used optimally in DRRM.

Nepal is very close to achieving Priority 2 and Target E of Sendai Framework by 2020. The Disaster Risk Reduction and Management Act 2017, the Local Government Operation Act 2017 have been enacted, the National DRR Policy 2018, National DRR Strategic Action Plan 2018-2030 have been endorsed and the National Disaster Response Framework has been revised recently drawing upon the learning from implementation of SFDRR since 2015. Newly restructured provinces and local governments are adopting the required policies in their territory.

#### **3.2 Existing legal and policy framework**

Nepal has achieved notable progress in DRRM during the last few years. A number of legal, institutional and policy frameworks are in place. The Constitution of Nepal has clearly stipulated that DRRM is a shared responsibility at all tiers of government. The Constitution states that the responsibility of disaster management falls under the jurisdiction of federal, provincial and local government. In the list of

concurrent powers of federal, provincial and local Government, DRM is put as one of the subjects implying that it is a shared responsibility of every tier of governance system, but more at the lower level.

The DRRM Act, 2017 is more comprehensive and addresses the complex dynamics of all phases of disaster management. The Act has made the provision of a National Council for Disaster Risks Reduction and Management (NCDRRM) upon the Chairmanship of the Prime Minister. Now, the government is in the process of establishing a National Disaster Risks Reduction and Management Authority (NDRRMA). The Authority shall work under direct oversight and control of the Executive Committee (EC), which is chaired by the Home Minister. The NDRRMA will take care of disaster management in close cooperation and coordination with all DRR stakeholders as and when necessary.

The lessons learned and the experiences gained from the implementation of National Strategy for Disaster Risk Management 2009, Gorkha earthquake 2015 and recent other disasters for reducing the existing disaster risks and preventing of new potential risks, National Disaster Risk Reduction Policy 2018 has been endorsed to build safer, adaptive and resilience nation. The strategic action plan for disaster risk reduction is introduced as a GoN with commitment for DRR/M to support accomplishing Sustainable Development Goals by building disaster resilient community. This action plan has emphasized on the comprehensive approach of "Risk Reduction" in Disaster Management. It has incorporated a comprehensive approach of DRR/M in accordance with the international declarations and commitments such as SFDRR 2015-2030, Asia Regional Plan adopted on AMCDRR 2016, and the Cancun Declaration adopted by fifth meeting of GPDRR.

The Local Government Operation Act (2017) has also mandated local governments to take initiatives on DRRM to mainstream in development, risk reduction and natural resource management.

GoN has analyzed needs to prepare guidelines and standards at federal level which would serves as the guidelines for province and local governments and their entities. The analysis identified 8 guidelines to amend and 18 to formulate as new. MOHA have prepared a 3-year plan to prepare and amend as necessary, these policy documents are targeted to complete by 2021.

Beside the above mentioned legal instruments, the existing major legal and policy frameworks in DRRM in Nepal are as below:

- Emergency Relief Standards for Disaster Affected People, 2007
- Standard Operating Procedures of Emergency Operation Center, 2010
- District Disaster Preparedness and Response Planning Guidelines, 2011
- Search and Rescue Strategic Action Plan, 2014
- National Building Code, 2015
- Local Government Operation Act, 2017
- Guidelines for the Relocation and Rehabilitation of High Risked Settlements, 2018
- Standard Operating Procedures of Ware House (National and Provincial), 2018
- Dead body management guidelines 2011 (amendment 2019)
- National Disaster Response Framework, 2013 (amendment, 2019)
- Standard for Emergency Communication System for Tiered Integration and Operation, 2019

All these activities and output can be considered as exemplary steps taken by the GoN to show its seriousness towards disaster risk reduction in Nepal.

### **3.3 Institutional structure**

The DRRM Act provisioned National DRRM Council led by the Prime Minister, as the apex body for the policy guidance on DRRM issues. The Executive Committee (EC) led by the Home Minister is provisioned for executive functions. The National Disaster Risk Reduction and Management Authority is envisioned to function on behalf both the Council and the EC. The NDRRMA is mandated to lead,

support and coordinate with all agencies on DRRM. The government has initiated process to establish the NDRRMA. The MoHA is the nodal ministry for DRRM and managing the DRRM issues in Nepal. Furthermore, the concerned government agencies also have the specific department related to specific hazard.

At the Provincial level, there is provision of Province DRRM Council and Province DM Committee. Ministry for Internal Affairs and Law at has been mandated to function as nodal ministry for DRRM at the province level. Out of seven provinces, three comes up with DRRM Act, while others are in the draft and finalization process. 5 out of 7 provinces are operating EOCs and warehouses. There is provision of District Disaster Management Committee (DDMC) in the leadership of Chief District Officer who represents federal government and is mandated to coordinate and cooperate with respective Province and local governments. There are 77 DDMCs operative and 51 DDMCs have been operating district emergency operation centers (DEOCs). At the local level, there are 753 local governments - urban and rural municipalities mandated to take both sole responsibilities and concurrent responsibilities to DRRM in their territory. Each municipality has disaster management committee (DMC). There are many rooms of opportunities as well as challenge to institutionalize and build capacity of these structures.

### **3.4 Collaboration and partnership**

The need and importance of collaboration and partnership is desirable in disaster risk reduction and management activities. With this in view, the Government of Nepal works in collaboration and partnership with donor agencies, development partners and civil society organizations for the effective disaster risk reduction and management in Nepal. National Platform for DRR is established for coordination with wider stakeholders including, Government agencies, I/NGO, academia, media, donors and UN agencies. The government of Nepal along with the civil society organizations is working in the field of DRR&M. With reference to the guideline of UNDRR, Nepal has also formed a National Platform for DRR including, I/NGO's, Academia, Media and stakeholders contributing to DRR in Nepal.

### **3.5 Inclusiveness**

The DRRM policy of Nepal recognized inclusive disaster management including GESI. The National Planning Commission has focused on no one leave behind approach promoting, gender and social inclusion and social security. The government has also promoted disability inclusive DRR, gender and social inclusion.

## **4. Public Private Investments in DRR**

Investing in DRR is important for building a disaster resilient community. However adequate investment in disaster preparedness is lacking, thereby increasing the cost in disaster response and recovery. The public private investment is being increased in relief and recovery, but very less support in preparedness.

### **4.1 Promotion of public and private investment in DRR**

GoN is promoting Public-Private Partnership to attract participation and investment of private sector in Disaster Risk Insurance, Risk sharing programs, which is included in the medium term plan of National strategic action plan. Public private sector has also contributed in constructing unified model village, schools and hospitals. Long term collaboration between Department of Hydrology and Meteorology (DHM) with telecom service provider Nepal Telecom and Ncell for Mass SMS flood alert have been instrumental in influencing wider private sectors to invest in DRRM as a part of their Corporate Social Responsibility.

### **4.2 Risk Transfer**

The National strategic action plan has prioritized risk transfer plan as disaster resilience tools. MoHA has taken the lead and has started discussion with the wider stakeholder to establish the risk transfer

mechanism. Existing insurance system as health insurance, livestock insurance, other social security provisions are being tied up together to transfer the risk.

## **5. Enhancing preparedness and promote build back better**

### **5.1 Promote Preparedness**

Nepal's policy, legal and programmatic measures underscore preparedness for effective response and recovery and reconstruction by promoting build back better. The 15<sup>th</sup> periodic plan 2019-2024 approach paper has also prioritized and included the DRRM in the five year plan. GoN has initiated ware houses in all provinces, and there are humanitarian staging stations planned in all provinces and are under construction. A total of 83 open spaces are identified in Kathmandu valley and similar initiatives are ongoing in other parts of the country. The systematic preparedness focused on the most recurrent summer monsoon related flood and landslide has been initiated. Significant investment has been made from both government and non-government sector in district disaster preparedness planning, formulation of committees, task forces and building their technical skills and awareness. All 77 districts have disaster preparedness and response plans for which guidelines are in the process incorporate federal structure on it. However, the capacities lied in different tiers have been utilized in disaster events.

### **5.2 Multi-Hazard Early Warning System**

In recent years, there have been some significant progresses in flood forecasting and weather prediction in Nepal. DHM is now undertaking some key initiatives on 3-day weather and flood forecasting in some major river basins whereby most of the rainfall and hydrological stations are made automatic and telemetric. Community centered flood early warning systems are operational in more than 9 major rivers and some other small rivers and tributaries, which are being crucial to saves lives and livelihoods of flood vulnerable people. However, these flood early warning systems are largely based on real time information of water and river level, thus providing limited lead time. DHM is now working to operationalize available forecasts for pro-active disaster management through early actions and preparedness. To some extent mass SMS circulation during 2017 southern Nepal flood was successful to reduce the loss and damage. The country's need to move towards Multi-Hazard Early Warning System, building on existing flood EWS and through innovations in weather forecasting and radar technology.

### **5.3 Community Based Disaster Risk Reduction (CBDRR)**

Community based disaster risk reduction initiatives in Nepal have contributed in strengthening the local capacity for emergency preparedness and understanding the risk. The implementation of nine minimum characteristics of CBDRR has contributed in building a disaster resilient community. Community based, child centric programs are continued as children are agent of change and the community itself.

### **5.4 Capacity building in search and rescue**

All security forces (Nepal Army, Armed Police Force and Nepal Police) has established separate departments for Disaster Management and committed units for disaster response at provincial level. There are training centers and collaboration with DRRM actors in the country for coordinated efforts on disaster preparedness and response. Medical First Responder (MFR), Collapsed Structure Search and Rescue (CSSR), Dead Body Management (DBM), Water rescue, rope rescue, mountain rescue trainings etc are conducting regularly. They have a dog squad for k-9 search, Life Detector for emergency purpose. Security forces have received international and bilateral support on knowledge sharing and capacity building such as, Disaster Response Exercise and Exchange (DREE), an annual civil-military disaster preparedness and response initiative between the Nepali Army and the US Army Pacific (USARPAC) is organized in Nepal in 2011, 2013, 2016 and 2018 to strengthen coordination among multinational military for the humanitarian assistance.

### **5.5 Build Back Better**

Nepal has been investing on earthquake reconstruction. Reconstruction of private houses is one of NRA's top priority, the 2015 earthquake had destroyed over 825,439 houses. A total of 383,753 houses have been completed so far while others are under construction. (NRA, 2019) Many local levels have prepared hazard and disaster risk profile that has been used as reference in development and resilience planning.

## **6. Implementation status of Sendai framework**

Nepal is committed to implement the SFDRR. Nepal has formulated the National DRR Policy (2018), National DRR Strategic Action Plan (2018-2030), similarly the formulation of province and local level policies are ongoing smoothly, inspired by SFDRR.

## **7. Challenges**

- Understanding our risk of different geographies, different communities, different hazards and different economic activities while scientific risk assessments are very limited.
- Information, technology and knowledge gap on the practical aspects of the DRRM.
- Understanding on proper allocation of budgeting, planning, and execute activities related to disaster risk at the local government level in new government structure.
- Less investment in preparedness and early actions
- Lack of adequate coherence in different national and international instruments
- Prevalence of new forms disaster, urbanization, unprecedented disaster.
- Aligning DRRM landscape with political transformation
- Uncertainty of risk due to climate change.
- Trans-boundary nature of hazards and need of bilateral, international efforts.

## **8. Way Forward**

- Better understanding of disaster risk through scientific research and comprehensive risk assessment
- Formulation of necessary DRR policy measures, strategies, guidelines by 2020.
- Institutional arrangements and set up of institutional structures (such as NDRRMA, EOCs).
- Implement actions of Strategic Action Plan - complete short-term, and initiate and complete long term as appropriate
- Bilateral and international cooperation regarding our offer and expectation. (International support for technological transfer, knowledge management)
- Empowering province and local governments for effective leadership role in disaster risk management
- Ensure meaningful participation of women, person with disability, minority and vulnerable groups in the overall DRR program decisions and implementation.
- Develop international fund for DRR in developing countries
- Provide and share more data and evidence on the benefits of investing in preparedness.
- Effective and integrated implementation of DIMS.
- The disaster resilient livelihood options need to be promoted to strengthen community resilience
- Ensure appropriate technologies and innovations are in place to have the bigger impact on overall DRRM of the country.
- Develop institutional capacity for DRR/M at all levels.