



# **Developing National Disaster Risk Reduction Policy and Strategic Action Plan in Nepal: 2016- 2030**

## **Lessons Learned from Implementation of National Strategy for Disaster Risk Management (NSDRM)- 2009**

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## **Background**

The 2009 National Strategy for Disaster Risk Management (NSDRM) presents a vision of a disaster-resilient Nepal as called for in the Hyogo Framework of Action of 2005-2015. It was adopted by the Government of Nepal in 2010.<sup>2</sup>

The NSDRM identified five priorities for comprehensive disaster risk management. This paper is an attempt to review the key achievements and lessons learnt from the implementation of the NSDRM. The objective is to use the lessons in the formulation of the National Disaster Risk Reduction (DRR) Policy and in coming up with a revised new Strategic Action Plan for DRR 2017 – 2030.

This paper is prepared based on review of secondary literature and one-to-one interaction with some key institutions and individuals working on Disaster Risk Management (DRM).

## **Broad Observations**

From a relief and response guided framework driven by the 1982 Natural Calamity (Relief) Act, the NSDRM helped Nepal transit towards integrating DRR into sectoral development planning and implementation processes. The NSDRM helped develop and strengthen the institutional mechanisms and capacities needed to build resilient communities.

The NSDRM is widely accepted and supported at the national level. It is believed that the NSDRM helped guide the implementation of DRR activities in the absence of a supportive legislative context. (IFRC, 2011; S. Jones, 2014). Key ministries and departments have focal person/team for disaster risk management. District governments, few municipalities and VDCs have prepared their disaster management plans<sup>3</sup>.

The following sections identifies key achievements and lessons for each of the five pillars identified by the NSDRM.<sup>4</sup>

### **NSDRM Priority 1: Put a vibrant institutional framework in place for its implementation by prioritizing DRR at both the national and local levels**

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<sup>1</sup> This paper has been prepared by Anil Pokhrel, Dilip Gautam and Puja Shakya of Practical Action Consulting, Nepal.

<sup>2</sup> The NSDRM was coordinated by UNDP and funded by the European Commission's Humanitarian Aid Department. National Society for Earthquake Technology (NSET) was the technical consultant. For the formulation, a meeting was held on the 26 February 2007 bringing together 136 representatives from government, non-government and international organizations, reflecting the high level of participation in the preparation process. The NSDRM was finally approved in 2010.

<sup>3</sup> Over 635 VDCs and municipalities have developed LDRMPs.

<sup>4</sup> This Strategy outlines 29 priority activities for risk reduction. The findings in the sections below are a summary of the activities within each pillar.

There is not yet a comprehensive and broad based Disaster Risk Management Act in place in Nepal. Early effort to replace the 1982 Natural Calamity (Relief) Act draft a Disaster Risk Management Act (DRMA) started in 2008.<sup>5</sup> The Disaster Risk Management Act forwarded to the legislative parliament in April 2012. The dissolution of the Constitution Assembly in May 2012 and the devastating impacts of the 2015 Gorkha earthquakes, the proposed act is under review. In another occasion, a revised draft Act had been cleared by the Ministry of Law and Justice and reached the Cabinet for discussion. The draft act was returned back to MOHA for improvements. The Disaster Risk Management Act was submitted to the parliament again in 2014, and in 2015 was amended to integrate lessons learnt from the Gorkha 2015 earthquakes. The new text of the draft DMA is not available at the time of writing; however, as it is understood to have undergone substantive changes ever since the first draft prepared in 2008. (see HFA, 2015:26) .

In a review of legislation related to DRR in Nepal in 2011 carried out by IFRC (see IFRC, 2011) “legislative reform processes have slowed and become less clear, as has the process for implementation of new policy”. As a transitional arrangement, the Ministry of Home Affairs created a Disaster Management Division. .

Though the exact status of the DMA is not known, Minister of Home Affairs Bimalendra Nidhi confirmed that the National bill on Disaster Management is in its final stages of preparation and will soon be enacted.<sup>6</sup> Given Deputy Prime Minister Nidhi’s commitment and that Nepal experienced major devastations during the 2015 major earthquakes, there are high hopes that the bill will be in tune with the global agreements made on DRR and reflecting the high disaster risk and that the process of finalizing the legislation and getting it approved by the parliament will be placed on a priority.

The Ministry of Education and Ministry of Urban Development are in the process of developing their sectoral policy and strategic action plans. To support community resilience, the Ministry of Federal Affairs and Local Development (MoFALD) developed the Local Disaster Risk Management Planning (LDRMP) guidelines. The LDRMP provides local authorities the necessary tools to assess risk and plan appropriate mitigation and preparedness activities. However, allocation of resources for implementation for these plans remains a challenge.

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<sup>5</sup> This initiative was coordinated by the Nepal Centre for Disaster Management with financial assistance from Oxfam.

<sup>6</sup> Deputy Prime Minister and Minister of Home Affairs Bimalanendra Nidhi’s speech during the 3 February 2017 DRM National Platform workshop. He also mentioned that though the bill has been prepared, it has not taken its final shape because of the disputes between the Government and some NGOs. He has been quoted as: “You have demanded the Act without any delay. But unfortunately, the delay is caused because of dispute as to whether the bill is to be enacted as per the proposition of the government or of the NGOs”. See more at: <http://english.ratopati.com/news/12889/#sthash.i9B2V8HB.dpuf>

## **NSDRM Priority 2: Strengthen assessment, identification, monitoring, and early warning system on potential disaster**

For the implementation of the NSDRM there was no systematic assessment of disaster impacts, policies or institutions took place. The first ever national multi-hazard risk and vulnerability assessment was completed in 2010.<sup>7</sup> The assessment covered key sectors, included hazards mapping and recommended the adoption of a range of mechanisms and policies to address the risks identified. The Nepal Risk Reduction Consortium (NRRC) approved a plan to conduct a nation-wide multi-hazard risk assessment in three phases. The first phase of the work to survey various hazards, vulnerabilities, risk exposure and disaster databases and identification of key risk assessment priorities began in 2014.

While there has been considerable progress on installing weather and river flow monitoring system including its use for flood early warning system in key river basins– strengthening [risk] assessment and identification has been least understood and implemented. The priorities of risk assessment were reflected by the NSDRM. It identifies the necessity to define all types of potential disaster risks in Nepal including the vulnerability and capacity analysis, and social, economic, and demographic information. It recommends the development of a comprehensive national and district-level database system on disasters, vulnerability, and coping capacity. Further, it suggests establishing and institutionalizing Disaster Information Management System based on authentic and open GIS by incorporating all disaster related information at central, district and municipal levels. There are only few project-based-initiatives that have developed open georeferenced hazard and exposure information- such as on schools and hospitals. Information on vulnerability of the exposed population based on gender, age and disability are not incorporated into the risk assessment process. No such information is put in the public domain in useable formats such that search, rescue and response could be done within minimal time or by prioritizing the most vulnerable. Assessments do not inform financial loss scenarios thus keeping key institutions with financial allocation authorities out of the disaster risk management decision making loop. Risk assessment for actionable decision making needs substantial work.

In 2013 the National Disaster Response Framework outlined a plan to develop emergency communications system and disseminate early warning system within 0-7 hours of a disaster event. In 2013 a draft National Early Warning Strategic Action Plan was prepared as a part of the NSDRM and the responsibility was assigned to a range of government ministries and relevant departments. The plan aimed to implement early warning system across the country in 15 years.

Reviews of a few LDRMPs and Local Adaptation Plan of Actions have shown that they are not based on a comprehensive understanding of risks. It is not financially and technically feasible to carry out detailed risk assessment (and downscaled scenarios of climate change) to a high resolution by each VDC or municipality. Instead, a national system that supports a risk assessment platform whereby local authorities could draw upon that risk information to further refine their risk information is required.

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<sup>7</sup> This risk assessment was prepared with the support of the World Bank and Global Facility for Disaster Reduction and Recovery.

### **NSDRM Priority 3: Make use of knowledge, new ideas, and education for the development of safety and disaster resilient culture at all levels**

Trainings, building awareness and capacity -at all levels- has shown huge benefits (e.g. masons, communities, local authorities, NGOs, civil society, departments, ministries). Drills and simulations have been effective in delivering awareness on disaster information to school children and local communities. There has been good progress on incorporation of disaster education. DRM and CRM curricula have been incorporated into the secondary school and university levels curricula. However, the DRM and CRM curricula requires updating to reflect risk- hazard, exposure and vulnerability- assessments and teachers need to be trained to deliver those courses.

Without proper risk assessments, it is difficult to inculcate the culture of risk and resilience. Risk assessments in Nepal, particularly in Kathmandu valley have not been able to change the 'business as usual' scenario especially at the household level. Cases where home owners ask consulting firms to prepare two sets of designs and drawings are a case in point – one set to get building permits which the other set for actual construction.<sup>8</sup> In contrary, successful examples around the world have shown that changes in behavior and practice particularly is shaped by risk information. For example, in the Central American countries, the use of risk information has enabled families to make decisions on selecting of their schools (to consider safety considerations), renting office buildings or buying real states in less risk-prone areas.

Such risk information also helps local authorities to determine 'carrots and sticks' such as in determining incentives for safer building practice, identifying higher taxes and permits for building in high risk areas and a design of appropriate risk transfer instruments e.g. insurance, drills, simulations and early warning systems. The community based DRM practice too would have benefited hugely from such risk information.

### **NSDRM Priority 4: Minimize existing risk factors**

The earthquake on 25 April 2015 left a trail of destruction in Kathmandu and surrounding districts - over 8,000 deaths, more than 16,000 injured and thousands of collapsed houses and buildings. But in different corners of the Kathmandu Valley, more than 200 retrofitted public school buildings withstood the massive 7.8 magnitude tremor and over 100 aftershocks. Many of these school buildings had one thing in common - each was modified to make it more resilient to disasters as part of Nepal's risk reduction program on school safety.<sup>9</sup> The case of these schools, and a few retrofitted hospitals prove that investing risk reduction yields good returns in saving live and in getting the systems back at the earliest possible – a key indicator of building resilience as envisioned by the NSDRM.

Efforts to integrate and mainstream disaster risk reduction has been successful to the extent of assigning DRM focal person or teams in most ministries and departments. The national developments plans have mainstreamed DRR including climate change actions. However, the work on integrating DRR in the sector development projects are only limited to 'stand-alone DRR projects'. Sectoral plans and policies like, National Agricultural Policy (2004), National Urban Policy (2006), National Land Use Policy (2012), etc. have incorporated DRM/CRM issues;

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<sup>8</sup> Based on the study carried out by DUDBC in Kathmandu Municipality [Check for exact references]

<sup>9</sup> Adapted from ADB's school safety story published in its webpage. See: <https://www.adb.org/news/features/schools-earthquake-proof-technology-survive-nepali-disaster>

however, implementation of all these policies is not satisfactory. There are no tools to screen projects and programs for risks and mechanisms to choose appropriate designs for the levels of risk based on the findings of risk levels. Need for a consistent mechanism to screen projects for various hazards and mechanisms to address risk in the project design are a priority need.

Given the urgency to reduce risk in a high risk setting like Nepal and need for resources, the Government of Nepal initiated the Nepal Risk Reduction Consortium (NRRC) in 2011. The NRRC brought together the Government of Nepal, the international financial institutions, development partners and donors. Under the NRRC, five flagship programs based on the 29 key activities of the NSDRM had been identified for immediate action. The NRRC, though does not exist anymore.

### **NSDRM Priority 5: Make Disaster Preparedness strong enough for effective response**

There have been major advancements in disaster preparedness. All 75 districts have prepared their Disaster Preparedness and Response Plans (DPRP). These DPRPs outline the key agencies, actions and responsibilities that will be undertaken in disaster preparedness and response. A national emergency Operation Centre (NEOC) adjoining the MOHA was established. Five Regional Emergency Operation Centers have been established. 49 districts have now DEOCs.<sup>10</sup>

To enhance emergency response, a network of warehouses for storing both food and non-food items is underway. Construction of additional warehouses is ongoing after the 2015 earthquakes. Nepal Red Cross Society has established 12 warehouses in strategic locations with a capacity to support 36000 families in the event of a disaster. The existing warehouses of Nepal Food Corporation, Nepal Red Cross Society and Private Sector are being strengthened. There are plans to build at least one seismically resilient warehouse for food and non-food items each in all 75 districts within next three years.

The Government of Nepal has identified and secured 83 safe open spaces for emergency response in Kathmandu Valley. These spaces helped to some case as hubs for response efforts during the 2015 earthquakes. While these efforts have only focused Kathmandu, it needs to be expanded to all urban settings with high earthquake risks.

### **Summary of Findings**

A review of Nepal's achievement on implementing the NSDRM suggests that it has substantially evolved from its relief-and-rescue focus –guided by the National Calamity (Relief) Act 1988– to a comprehensive approach focusing on Disaster Risk Reduction. The process of formulating the strategy itself and its implementation helped gain impressive attention on DRM across national and local levels - among ministries, departments, I/NGOs and civil society.

Despite numerous uncertainties, Nepal has made considerable progress in most of the pillars of the NSDRM. Investments in risk reduction such as retrofitting of school buildings and new constructions based on improved building code provides strong evidence to invest in DRR. Training and building capacity -at all levels- has shown huge benefits (e.g. masons,

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<sup>10</sup> JS Raut's presentation on 3 February 2016 during the launch of the kick off workshop on National DRR Policy and Strategy organized jointly by UNDP and DpNet.

communities, local authorities, NGOs, civil society, departments, ministries). Flood early warning systems integrated through DEOCs have helped save lives and to some extent property.

While the progress has been significant compared to the prior NSDRM situation, there has been critical gaps in the first and second pillars– development of institution and in risk assessment. It is not sure as when the much due national legislation will be enacted. Secondly, absence of actionable risk information and mechanisms to effectively communicate risks hinders getting the resource to the right communities. Hydro-meteorological and climatological risks are dealt separately. A common assessment of these risks allows integration of disaster and climate change risks – that helps save limited resource in understanding risk.

The 2015 earthquake has revealed numerous fractures and fault lines in the way disaster risk management is addressed in Nepal. Despite considerable success in the last decade, much remains to attain the long-term vision laid out by the NSDRM in establishing Nepal as a disaster-resilient community.

The findings and conclusions in this report are based on an initial review of the available literature. To establish all the achievements and gaps and to that effect how truly effective has the national strategy has been successful –requires a more comprehensive review. Such review would help understand how different kinds of risk reduction activities, with different costs, could benefit different contexts.

## References

GON, 2013., *National Disaster Response Framework*, Ministry of Home Affairs, Kathmandu, Nepal

HFA, 2008., Ministry of Home Affairs (MoHA) Nepal: *National progress report on the implementation of the Hyogo Framework for Action (2007-2009)*. Kathmandu: MoHA.

HFA, 2011., Ministry of Home Affairs (MoHA) Nepal: *National progress report on the implementation of the Hyogo Framework for Action (2009-2011)*. Kathmandu: MoHA.

HFA, 2015., Ministry of Home Affairs (MoHA) Nepal: *National progress report on the implementation of the Hyogo Framework for Action (2013-2015)*. Kathmandu: MoHA.

IFRC, 2011., *Analysis of legislation related to disaster risk reduction in Nepal*, International Federation of Red Cross and Red Crescent Societies, Geneva.

S. Jones., et. al. 2014., *Governance struggles and policy processes in disaster risk reduction: A case study from Nepal*, available at:

<http://www.sciencedirect.com/science/article/pii/S0016718514001687>

UNDP, 2015., *An Overview of Ten Year's Progress of Implementation of Hyogo Framework for Action (HFA): 2005-2015 in Nepal* - Prepared by UNDP for MOHA, January 2015.

UNISDR, 2015., *HFA monitoring and review through a multi stakeholder engagement process, 2013 – 2015*.