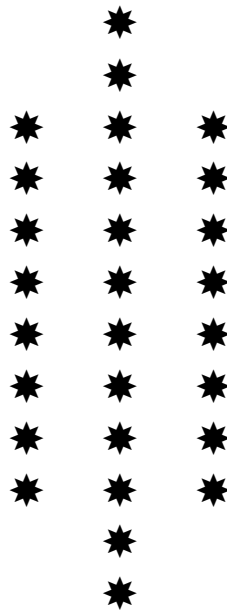


# **COUNTRY REPORT ON DISASTER GOVERNANCE IN NEPAL**

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## **ABSTRACT**

Nepal is one of the disaster prone countries of the world. Geophysical and socio-economic condition of the country have made her vulnerable to various types of natural disasters such as flood, landslide, fire, earthquake, windstorm, hailstorm, lightning, glacier lake outburst flood, drought, epidemic, avalanche and so on. However, flood, landslide and fire hazards are recurrent natural disasters in Nepal.

The Ministry of Home Affairs is the focal agency for disaster management in Nepal, particularly for immediate rescue and relief works. The Ministry also formulates national policies and implements programs in relation to natural disasters. Preparedness and mitigation, immediate rescue and relief works, data collection and dissemination and mobilization of funds and resources are also dealt with. It has its network throughout the country to cope with natural disasters. There are 75 administrative districts in the country and in each district there is a Chief District Officer who acts as the Crisis Manager in the time of natural disasters. The Ministry also plays significant role for pre, during and post disaster activities.

Moreover, various agencies of the Government of Nepal are involved in disaster prevention and mitigation works in close cooperation with some friendly nations, international bi-lateral and multilateral agencies, INGOs and national NGOs. In addition, some research and training programs have been carried out to raise public awareness in the country.

*Catch words: geophysical; seismic; fragile; precipitation; environment.*

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## **Introduction**

Due to the rugged and fragile geophysical structure, very high peaks, high angle of slopes, complex geology, very remote, rural and difficult geo-physical situation, variable climatic conditions, active tectonic processes and unplanned settlement Nepal is one of the natural disaster prone countries. Apart from the above reasons, the lack of coordination among agencies related to disaster management, no clear-cut job description of those agencies, resource constraint, the lack of technical manpower, increasing population, weak economic condition, the lack of public awareness, low literacy rate, absence of modern technology undeveloped early warning system and so on are the other factors which have made Nepal vulnerable to most types of natural disasters.

In view of the above situation, mass education, well trained technical manpower, advanced technology and sufficient means and resources are also needed to reduce the natural disasters. Moreover, disaster management course has to be included in the school and university curriculum and various types of programs are to be launched in order to raise the public awareness. Early warning system is needed to develop as this sector is still at primitive stage in Nepal. Similarly, the system of hazard mapping, vulnerability assessment and risk analysis has to be developed. For all this, there is the necessity of strong political determination and effective policy formulation and their implementation. Apart from the above, formulation of a Natural Disaster Management Regulation and amendment in the existing Act is needed to clarify and specify the jobs and responsibilities of the agencies related to disaster management.

## **Disaster Scenario**

Since Nepal is prone to various types of natural disasters due to her complex geophysical condition and poor socio-economic situation she is facing various types of natural disasters like: flood, landslide, fire, earthquake, windstorm, hailstorm, lightning, glacier lake outburst flood, drought, epidemic, avalanche and so on. Besides, a number of organizational weaknesses, resource constraint and absence of modern technology are the other major factors that have hindered to cope with the natural disasters in Nepal.

Most parts of the country are seismically active. Hence, the geomorphology is very fragile. The constant tectonic action of different degree along with varied intensity of weather condition has adverse effect on stability of earth surface and river course. The physiography of earth is changing slowly due to its own tectonic action and universal planetary action. Such activities are more pronounced in Asia (Oceania) and South America. Among them all, the Himalayan region and some pocket of the Oceania are the

most active. And major part of the Himalaya lies in Nepal. The Himalayan region of Nepal is one of the severest flood hazard zones of the world. Besides, the heavy precipitation, the high wetness, steepness of watersheds and river channels, all contribute to large flood magnitudes. The middle Hills are very prone to landslides and the Tarai to flood and fire. As a result flood, landslide and fire are the most frequent natural disasters in Nepal. These disasters occur almost every year in one part of the country or the other. The above natural disasters cause the casualty of thousands of human lives and destruction of physical properties worth billions of rupees. The earthquake of 1934, 1980, 1988 and the flood of July, 1993 are the most devastating natural disasters which not only caused heavy losses of human lives and physical properties but also adversely affected the development process of the country as a whole. In such a way it is a great challenge to the nation to protect infrastructure and property from frequent natural disasters. For this reason the country has been found to be a disaster prone country. Table 1 summarizes the loss of lives by disasters from 1983 to 2009.

Viewing at the Tables it seems that the impacts of natural disaster events are enormous and they in increasing trend. It is so mainly because of rapid population growth (2.3 percent per annum), unplanned settlement, lack of preparedness and lack of public awareness.

**Table: 1 Human life lost due to disasters in Nepal**

<b>Types of Disasters</b>	<b>1983-2008</b>
<b>Earthquake</b>	<b>727</b>
<b>Flood and landslide</b>	<b>7,469</b>
<b>Fire</b>	<b>1,268</b>
<b>Epidemics</b>	<b>12,017</b>
<b>Wind &amp; Hailstorm, Thunderbolts</b>	<b>622</b>
<b>Avalanche</b>	<b>104</b>
<b>Stampede</b>	<b>71</b>
<b>Total</b>	<b>22,278</b>

### **Agencies Involved in Disaster Management**

The following national governmental and non-governmental agencies are involved in disaster prevention and mitigation works in Nepal:

- Ministry of Home Affairs
- Ministry of Irrigation
- Ministry of Energy
- Ministry of Physical Planning and Works
- Ministry of Health
- Ministry of Finance
- Ministry of Defense
- Ministry of Foreign Affairs
- Ministry of Information and Communication
- Ministry of Forest and Soil Conservation
- Ministry of Agriculture and Co-operatives
- Ministry of Education
- Ministry of Sports
- Ministry of Science and Technology
- Ministry of Population and Environment
- Ministry of Women and Children
- Ministry of Social Welfare
- Ministry of Industries
- Ministry of Commerce and Supplies
- Secretariat of National Planning Commission
- Nepal Army
- Nepal Police
- Nepal Red Cross Society
- Nepal Scout
- Department of Water Induced Disaster Prevention
- Department of Mines and Geology
- Department of Hydrology and Meteorology
- Department of Forest and Soil Conservation

Beyond the above, the following international agencies have also contributed in disaster prevention and mitigation works in Nepal:

- Japan International Cooperation Agency (JICA)
- Asian Disaster Reduction Center (ADRC)
- Asian Disaster Preparedness Center (ADPC)
- United Nations Development Program(UNDP)
- International Center for Integrated Mountain Development (ICIMOD)
- International Red Cross Society (IRCS)
- United States Agency for International Development Mission to Nepal (USAIDMN)
- United Mission to Nepal (UMN)
- Cooperation for American Relief Everywhere (CARE)
- OXFAM
- Action Aid
- World Vision
- Save the Children

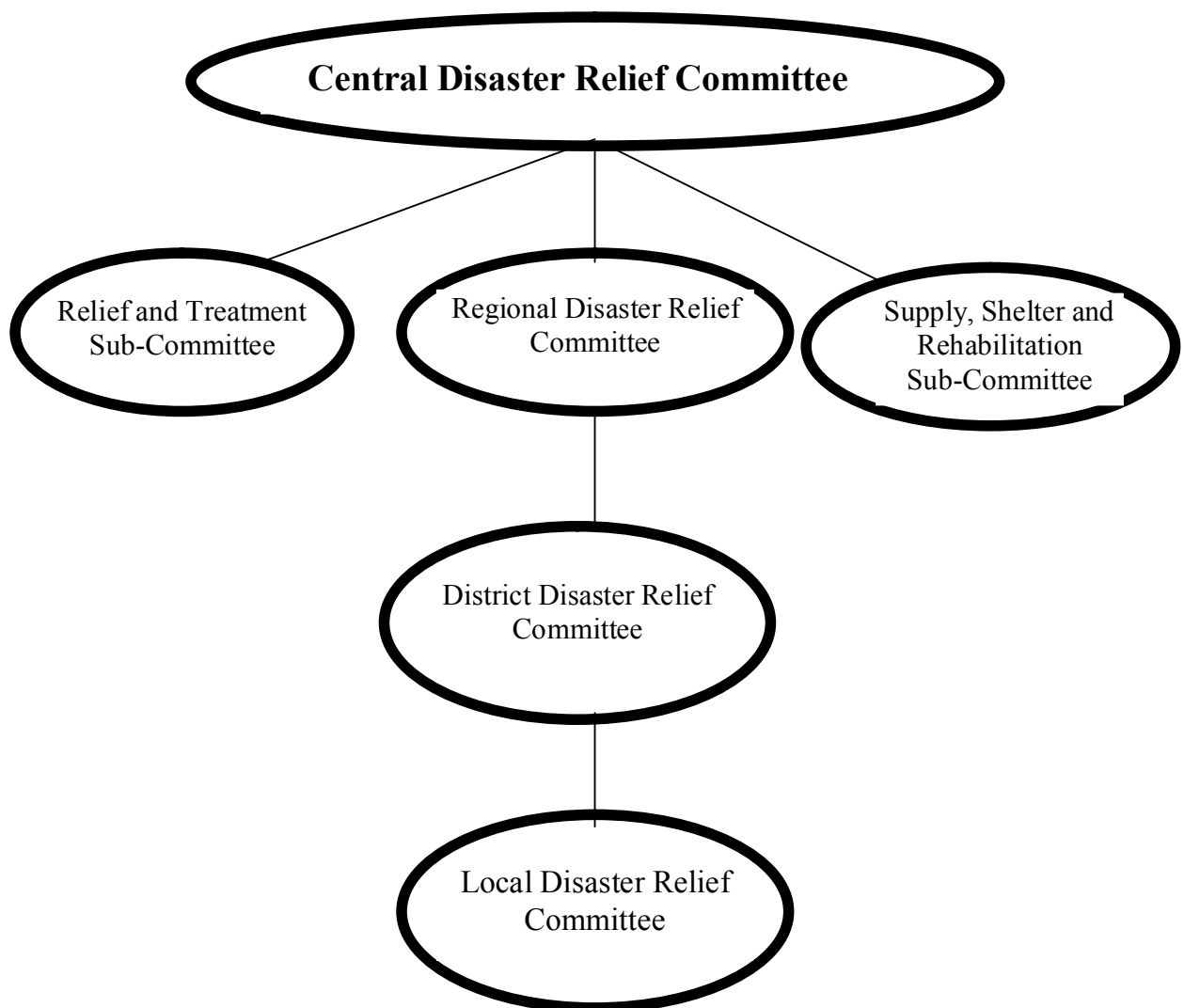
- World Food Program (WFP)
- Save the Children Fund (SCF)
- Technical Cooperation of the Federal Republic of Germany (GTZ)
- Lutheran World Federation (LWF)

Apart from the above, various other professional and non-governmental organizations of Nepal are also providing highly valuable support at the time of disasters.

**Organizational Structure of Natural Disaster Management in Nepal**

Natural Disaster Relief Act (NDRA), 1982 has the provision to constitute the following organizational structure through which the various activities of disaster management are being carried out effectively and efficiently:

**Figure 1.**



According to the NDRA, 1982 Central Natural Disaster Relief Committee (CNDRC) has been constituted under the Chairmanship of the Home Minister in order to formulate and implement the policies and programs regarding the natural disaster relief work and to undertake other necessary measures related thereof. Moreover, the Central Committee prepares specific norms of relief assistance, in cash and/or in kind, to be distributed to the disaster victims of the affected area. There is also the provision of the Regional Natural Disaster Relief Committee, District Natural Disaster Relief Committee and Local Natural Disaster Relief Committee in order to undertake the natural disaster relief works immediately. Thus, the Central Committee functions as a central agency and District Committees function as the field agency. The Central Committee provides necessary funds, resources and relief materials to the District Natural Disaster Relief Committee for the distribution to the natural disaster victims. Thus, rescue operations and relief assistance are being carried out and provided basically by the District Natural Disaster Relief Committee in close coordination and cooperation with other disaster management related agencies and various other actors in the district.

Keeping in view the gravity of the disaster, the Central Committee may constitute Relief and Treatment Sub-Committee (RTSC) and Supply, Shelter and Rehabilitation Sub-Committee (SSRSC) which provide necessary advice and suggestions to the Central Committee, help to execute policies and directives of the Central Committee and operate effectively the rescue, relief and rehabilitation work.

The Central Natural Disaster Relief Committee and the District Natural Disaster Relief Committee mobilize the army and the police personnel in rescue operations.

### **Role of the Ministry of Home Affairs**

The Ministry of Home Affairs is the focal agency for disaster management in Nepal, particularly for immediate rescue and relief works. The Ministry also formulates national policies and implements programs in relation to natural disasters. Preparedness and mitigation, immediate rescue and relief works, data collection and dissemination and mobilization of funds and resources are also dealt with. It has its network throughout the country to cope with natural disasters. There are 75 administrative districts in the country and in each district there is a Chief District Officer who acts as the Crisis Manager in the time of natural disasters. The Ministry also plays a significant role for pre, during and post disaster activities.

### **Role of the Nepal Army and the Nepal Police Force**

At the time of the natural disasters Nepal Army and Nepal Police plays an important role, especially in carrying out rescue operations. In the event of a large scale disaster, the Nepal Police establish the command posts to facilitate rescue operations. The Nepal Police officials collect first hand information of the event and inform to the concerned officials. Moreover, Nepal Police collect most of the disaster data and information. Thus, Nepal Police is the key source of disaster information and data. It is a well-known fact that disaster data and information play significant role in mitigating the natural disasters.

The District Chief of the Nepal Army Unit, the District Police Chief and other army and police officials help the Chief District Officer, who acts as the Crisis Manager during the time of disaster and other disaster managers in mitigating the natural disasters in the district. As a result the Nepal Army and the Nepal Police Force play a key role in managing the natural disasters in Nepal.

### **Rehabilitation Program**

With regard to the rehabilitation program the Ministry of Home Affairs authorizes the concerned agencies to carryout the rehabilitation program right after the occurrence of natural disaster. However, such programs have not been as effective as anticipated due to various legal and organizational problems and resource constraints. According to the Natural Disaster Relief Act, 1982 there is the provision of a sub-committee i.e. Supply, Shelter and Rehabilitation Sub-committee which is not a permanent committee rather it will be activated during the time of the very big and serious natural disasters only. Thus, it is felt very necessary to establish a permanent committee for rehabilitation and reconstruction planning at central as well as district level which should be responsible to set up permanent sectorwise expert group for different types of disaster to review of damage assessment and to prepare guidelines for resettlement, rehabilitation and reconstruction plan and programs.

### **Finances**

Provision of a Central Natural Disaster Aid Fund has been made under the control of the Central Natural Disaster Relief Committee. The fund consists of: (a) cash and kind provided by the Government of Nepal, (b) funds received from the Prime Minister Aid Fund, (c) cash and kind assistance received from foreign countries, agencies and individuals, and (d) funds received from other sources. In addition, provision has also been made of a Regional Natural Disaster Aid fund, a District Natural Disaster Aid Fund and a Local Natural Disaster Aid Fund. These funds consist of the cash and kind received from the Government, the Central Natural Disaster Aid Fund and other sources. Whatsoever, at present, only the Central Natural Disaster Aid Fund and the District Natural Disaster Aid Fund are into operation. The Central Fund releases finance to the District Natural Disaster Aid Fund according to the need and justification for immediate rescue and relief assistance to the victims of the natural disasters.

### **Concept of Regional Cooperation**

While talking about Regional Cooperation Nepal, India, Bangladesh, Bhutan and Pakistan have common problems and thus a country's disaster situation affects the others as well. For instance, if it rains heavily in Nepal, India and Bangladesh may be flooded. And if a cyclone hits any part of India or Pakistan or Bangladesh, it might rain heavily in Nepal and may cause flood and landslides. Thus, these countries are economically and socially affected due to the serious natural disasters in a neighboring country. Therefore, all these countries have to work together to solve the problems by protecting the environment. Exchange of disaster data and sharing of information play very important role in disaster prevention and mitigation. For that reason, it is very necessary to establish

a Regional Information Center so as to cope with the natural disasters. There should be regional planning and joint effort to solve the disaster problems as the uncertainty of disasters are major concerns for all the countries of this region. Adoption of wrong method can be serious including lost opportunities, environmental degradation and loss of life. Therefore, a dynamic, committed and concerted action among the regional countries is also highly desirable. With this in view establishment of such centre would help to find more effective ways to forecast risk, to better manage the response and develop organizational resilience to interruption and different types of crisis and disasters.

Working together, a proactive plan could be formulated for the future disaster management activities among these countries. Moreover, sharing of experiences and exchange of views among the experts of these countries will definitely result into fruitful outcome which may be used as an important tool for disaster prevention and mitigation in the region.

In addition, there are several issues and concerns among the regional countries to be addressed, particularly about the heightening of weirs and other construction works which have affected the neighboring countries. In such cases also the Center can be a platform to meet and talk. Meeting at the Center the authorities can discuss and find some ways and means to solve the existing problems. The Center may also help the riparian countries to enhance the regional cooperation and mutual understanding.

### **Problems in Disaster Management in Nepal**

Disaster management is a difficult task. A disaster often happens without warning. Thus, the suddenness of a disaster and its destruction becomes very difficult to cope with a normal administrative set up. In view of the suddenness of the disaster and limited funds and resources the government is facing a number of severe challenges. Issues like whether or not the disaster management policies and regulations are compatible to present situation, what should be the role, duties and responsibilities of the various disaster management related agencies, how to accumulate, manage, disburse and distribute the funds and resources, whether or not the present resource mobilization is compatible to the needs of the victims, how could the resource mobilization be simpler and faster, how could the duplication of services be minimized, how could the cooperation and coordination between the various disaster management agencies be established and how could mass public awareness be raised are some of the main challenges.

Problems of behavior indifference, the lack of cooperation and coordination among various disaster management related agencies, inadequate funds and resources, the lack of roads, transportation and communication facilities, the lack of modern technology, absence of early warning system and inadequate rehabilitation program are other severe problems in the disaster management in Nepal. In addition, in Nepal where only 39.6 percent of the total population is literate and where some of the people accept natural disasters as an act of God, it is very difficult to carry out disaster awareness programs.

It is unfortunate that early warning system is not yet developed in Nepal except for

weather forecasting. There is no forecasting system and any other types of warning systems for flood, landslide and other disasters. It is so mainly due to the lack of technical manpower and adequate resources. Combining the above features with the unyielding geographical feature of Nepal, the set of challenges faced here with respect to disaster management are complex and difficult to overcome.

### **Measures to Solve the Problems**

Despite of the above problems and limitations in the disaster management of Nepal, selection of proper strategies could help to solve the problems, which will simultaneously help to mitigate and reduce the natural disasters. In this context the need to amend the Natural Disaster Relief Act,1982 and the formulation of the Natural Disaster Relief Regulation is very necessary whereby the role, functions, duties and responsibilities of all the disaster management related agencies should be specified so that no agency could ignore or shift their responsibilities. For want of mutual understanding and dialogue between the disaster management related agencies, duplication of work and delays in rescue and relief works have been experienced in the past. Therefore, there is the need to work in close cooperation and mutual understanding with all the concerned agencies.

In view of the above situation, well trained technical manpower, advanced technology and sufficient means and resources are needed to reduce the recurrence and the impact of natural disasters. As the lack of public awareness is one of the vital problems in managing the disaster in Nepal, it is felt necessary to work at increasing the literacy rate. Of course it takes quite a long time. Moreover, disaster management courses should be included in the school and university curriculum. It is also necessary to train school teachers, selected students, women leaders, health workers and social workers to educate others in measures to mitigate the natural disasters. For all this, active people's participation is very necessary. Such types of programs may convince people to believe that natural disasters are not an act of God and preventive measures could help to reduce the impact of natural disasters.

It is also felt very necessary to ease legal complications and arrange sufficient resources for the effective and adequate rehabilitation program. An urgent need to improve road infrastructure, transportation and communication facilities exists. In order to prevent inappropriate construction of buildings, the building code should be strictly implemented. People should be advised to build earthquake resistant buildings in earthquake prone areas.

Political determination, sound policy and their effective implementation are imperative to carry out disaster management activities efficiently and effectively. It will be better to include a disaster management component in the development plans and programs of concerned agencies for the effective implementation of disaster mitigation programs. A considerable amount of funds should be allocated for that purpose.

### **Conclusion**

Although Nepal is facing the above problems it is gradually picking up the momentum

towards improving the disaster management situation. Policy makers have shown interest to look into the problems of disaster management from the point of view of economic development which is gaining strength in the country. Such interest of the policy makers might prove to be conducive to use and improve the existing scientific and technical knowledge to reduce vulnerability to natural disasters and environmental degradation. Being a developing country, Nepal needs assistance and support from international communities and friendly nations to strengthen her capabilities for natural disaster prevention and reduction, making early warning system as the key element.

In view of the complexities and diversities of the disaster management in Nepal, a concrete, effective, practicable and proactive policy is needed. Thus, if above mentioned measures could be adopted and implemented by all the concerned agencies it goes without saying that disaster management will be more effective and efficient. The lack of coordination, insufficient funds and resources, poor public awareness and resource mobilization problems have to be addressed through the effective implementation of aforementioned measures. Disaster mitigation, early warning system, emergency rescue and relief operation, rehabilitation and recovery plans should involve activities such as training, post-disaster evaluation, monitoring of relief works, review and cooperation and coordination of Central, District and Local level preparedness and research works. Recovery planning should involve immediate recovery as well as long-term programs. Political determination, effective and efficient policy implementation and people's participation is of great importance to achieve the above goals.



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