

Nepal's Hazard Profile (Sumesh Kumar Bhattarai)

Socio Economic Indicator

Total Area: - 140800 sq km, Total population: - 27.0 million (Urban:- 14.2%, Rural:- 85.8%)

GDP per capita: - \$ 1310, Sector Distribution of GDP: - (GDP- agriculture 39%), (GDP – industry 23%), (GDP- service 37%)

Overview

Nepal is a disaster prone country due her steep terrain, a rugged and fragile geomorphic condition, high peaks and slopes, volatile tectonic processes, variable climatic condition, increasing population, poor economic condition, unplanned settlement, low literacy rate and very rural topography. Disaster like earthquake, floods, landslides, lightning, glaciers lake outburst flood, avalanche, epidemics often occur time to time causing enormous physical damages and human life losses. Nepal ranks 11th in terms of risk from earthquake, and 30th in terms of flood risk according to global report on disaster risk.

Nepal's landscape is predominantly composed of hills and mountains, covering about 83% of the total area of the country. All part of the mountains exposed to landslide during monsoon period. Most parts of middle mountains and terai are exposed to severe flooding. Most of the rivers suffer from erosion. Middle mountain also exposed to debris flow. A research study is carried (Thapa and Khanal) out in past to investigate Average annual losses from different types of environmental disasters from 1983 to 2000. It shows that about 6000 people have been reported killed and loss of properties worth about 13,500 million rupees has been estimated in this period. Floods, landslides and avalanches, which are triggered by heavy precipitation, cause 29% of the total annual death of people and 43% of the total loss of properties from different types of disaster in Nepal. Glacier lakes in Nepal are becoming much larger than in previous times due to global warming. A study conducted by International Center for Integrated Mountain Development (ICIMOD) points out that "20 lakes in Nepal are potentially dangerous. The lives of tens of thousands of people who live high in the mountains and in downstream communities could be at severe risk.

All of Nepal is a high-risk earthquake zone. Regions north of Kathmandu as well as in Mid-Western Nepal, is under higher risk of very big earthquake than eastern Nepal. Out of 21 cities around the world that lie in seismic zones, the Nepali capital is at the highest risk of death, destruction, and un-preparedness mostly due to an uncontrolled urban development with a 6.5% annual growth rate and a large number of poor quality of building construction each year. The next big earthquake is expected to cause at least 40,000 deaths, 95,000 injuries and would leave an estimated 600,000-900,000 homeless in Kathmandu.

Institutional Framework- National Management Disaster System

Nepal disaster relief act 1982 A.D. was introduced to provide legal framework for disaster management system in Nepal. It has already been amended twice in 1989 A.D. and 1992 A.D. According to the act, there are provisions for central, regional, district and local natural disaster relief committees. The ministry of Home Affairs is the apex body in relation to disaster management in Nepal, which formulates and implements national policies, plans and programs. The ministry is responsible to provide rescue and relief materials, data collection, distribution of fund and resources. The home ministry has the responsibility to coordinate the activities relation to disaster preparedness, mitigation, and reconstruction as well as rehabilitation with other disaster management related agencies. However, a comprehensive and modern approach towards hazard risk management is not fully incorporated in the institutional framework. The poor quality of management and poor inter-coordination among disaster related governmental and non-governmental organization with the apex body often make process slow and inefficient. Nepal is yet to formulate Natural Relief Regulations to define the specific role of line agencies working in the field of disaster management. The regulation should clearly define the role of every related institution and eliminate confusions. It will bring responsiveness and accountability for any agencies working in disaster management system.

Challenges Ahead and Recommendation

- Conduct and formulate System of hazard mapping, vulnerability assessment, risk analysis, monitoring and forecasting system, reliable data collection and dissemination.
- Formulate Natural Relief Regulations Act
- Upgrade the institutional capacity and make good coordination between research organizations and other agencies working in same field to integrate several findings.
- Upgrade the strength of important infrastructure like school, temple, dams and Glaciers Lake's wall.
- Introduce participatory approach focuses on strengthening capacity of local and community institution to manage and rescue risk, and awareness-raising educational activities.