Background Statistics and Hazard Exposure

Nepal’s Experiences

Sushil Kumar Sharma
Director
Central Bureau of Statistics
Nepal
sushils2001@yahoo.com
**Background**

- Hazard is a potentially damaging physical event, phenomenon or human activity, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation, and characterized by its location, intensity, frequency and probability (ISDR 2004)

- Exposure refers to the elements at risk from a natural or man-made hazard event

- Hazard exposure is a state of being in which a person or a group of people remain in an imminent risk of danger
Introduction

- Nepal is disaster prone due to topography & climatic condition
  - Earthquakes, landslides, floods, fire, thunderbolts are the major causes of disaster events
  - Environmental degradation and climate change both interact with and exacerbate the occurrence and impact of natural hazard events
- Yearly loss of life, property and a significant proportion of Gross Domestic Product (GDP)
Climate Impacts in Nepal

- Temperature raise 1.5 - 2.7 degree by 2100
- Black carbon in the high mountains
- Glacier melting and GLOF issues

- Slow on set impacts (desertification, Drought)
- Rapid on set impacts (Flood, landslide, fire)

- 1.5 to 2% GDP Loss
- 13% GDP Loss by 2100

Unique topography with different elevation based eco-regions, nature-based livelihoods
Poverty and marginalization a major problem
Low adaptive and resilience capacity

Poor, Indigenous marginalized, women, girls, children, disabled, elderly groups are mostly impacted by climate change
Major Existing legal and policy framework

• The Constitution of Nepal: DRRM is a shared responsibility

• The DRRM Act, 2017: to coordinate and implement DRRM-related function
  – Established the National Council for Disaster Risks Reduction and Management (NCDRRM) &
  – National Disaster Risk Reduction and Management Authority (NDRRMA)

• From the Gorkha earthquake 2015 and recent other disasters:
  – National DRRM Policy 2018
  – Disaster Risk Reduction Strategic Action Plan 2018-2030
  – Comprehensive planning framework for DRRM

• The GoN committed to the implementation of the new Sendai Framework for Disaster Risk Reduction 2015-2030

• National Strategy for the Development of Statistics (NSDS)

• Designation of disaster focal persons
Disaster Data Coordination

MoHA is responsible for admin data DMIS

– Has been producing biennial Nepal Disaster Report since 2009
– National Emergency Operation Centre (NEOC) manages
  • Nepal Disaster Risk Reduction Portal (DRR Portal) containing policies, plans etc. designated focal persons, and incident maps
  • SAHANA System, an open source web-based platform customized for disasters

Disaster Information Management System (DIMS)

– Basis for evidence based decision support system
– A repository of data, information policies and key decisions of all levels on DRRM
– A platform for fostering data partnership and a common system
– Provides the real time data: hazards, events, affected population and casualty
– Local level disaggregated data and capacities, and humanitarian agency preparedness

• CBS is responsible for surveys/censuses and compilation and publication of the disaster related data
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Disaster and Basic Statistics

Disaster data in Population Census 2021
First time to introduce community questionnaire in population census

• To be collected at Ward level (7643 wards)
• To include thematic area on natural disaster and hazard
  — Condition like flood, landslide, soil erosion, inundation, thunderstorm, hailstorm, sporadic rain, heat wave, cold wave, drought, avalanche etc..
  — Loss of life and property in one year
• As the baseline data for disaster mapping and other special disaster-related survey

Environment Statistics Section in CBS

• Regular publication of Environment Statistics of Nepal in the interval of 2/3 years with the guidelines of UN FDES where there is one module disaster statistics
• Environment compendium _ an analytical report
Potential results of climate change related to disaster

- Drought
- Fire (settlement)
- Inundation
- Thunderstorm
- Heavy rain
- Soil erosion
- Heat wave
- Disease / insect
- Fire (forest)
- Flood
- Dry wind storm
- Hailstorm
- Sporadic rain
- Land slide
- Avalanches
- Glaciers
- Flood wave
- Cold wave

Observed change in climate induced hazards in last 25 years.
Challenges

- Uncertainty of risk due to climate change
- Lack investment in preparedness & early actions
- Knowledge gaps
  - in understanding the diverse risks due to limited scientific assessments
  - in information, technology and knowledge on the practical aspects of the DRRM
  - in proper allocation of budgeting, planning, and execute activities related to disaster risk
  - in linkages among the institutions/agencies involved in forecasting, managing and assessing the risks and responses
  - in bilateral, international efforts to tackle the trans-boundary nature of hazards
Expectations & way forward

• GoN is developing the understanding among all tiers of government and stakeholders

• The GoN works in collaboration and partnership with stakeholders for the effective disaster risk reduction and management in Nepal

• Established focal desk for DRM within line ministries, establishment of national multi-stakeholder platform for DRR

• Effective and integrated implementation of DIMS
  – Sharing of disaggregated data
  – Strengthen GIS & Environment Section of CBS
  – Needs special surveys and censuses
Expectations & way forward.....

• Better understanding of risks through research, surveys and assessments

• National Climate Change Survey Second round

• Improved institutional arrangements and structures

• Bilateral and international cooperation for knowledge and technology

• Empowered leadership of province and local governments

• Capacity development program
Thank you !!!
Your comments and queries are highly appreciated !!!