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Research Title: Mainstreaming Disaster Risk Reduction into Local Development Plans (Bhutan)

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Research Background and Significance

- Disasters in Bhutan increasing by many folds over years despite DM progress.
- Earthquake, flash floods, windstorms, fire and landslides (Prominent Threats-DDM 2015).
- Affecting the socio-economic development progress of the country-Enemy of Development (Dorji Y 2014).
- No national disaster management plans-Reactive Disaster management (Thinley P 2013).

Back ground Continued..

- DRR is a cross cutting issue (HFA 2005 and Sendai FDRR 2015)
- Series of Institutional Progress
- Government failed to implement DRR and DRM in local plans due lack of DRR Strategies.
- No short term and long term plans.
- Lacked skills and Knowledge on DM-Actors at Local level.
- Weaken the coordination among local actors.

Continued

- Huge DM policy and implementation gap deescalated the DRR progress
- Not created level playing field for the actors
- No systematic monitoring and improving preparedness for response to adverse Disaster events.

Objective of this Research

- To identify key Disaster Risk Reduction Strategies.
- intent to study the Japanese and Bhutan Disaster Management especially focusing on disaster management planning systems, institutions, legal setting, administrative structure.
- The role of national and local government in conjunction with communities in carrying out DRR activities.
- Discuss Community Based Disaster Management

Objective Conti...

- Examine the advantages of mainstreaming DRR strategies in local planning.
- Discuss CBDRM approach as a local level development planning.
- Identify key Considerations mainstreaming in Development.

Research Methods

Descriptive in nature and mostly qualitative

-Has used both primary and secondary data

- Primary Data Collection include;
 - ❖ Institutional Briefings and presentations,
 - ❖ Tours, field visits and observations.
 - ❖ Community Disaster Awareness Programs
- Secondary Data
 - ✓ From the relevant authorities, departments and Disaster institutions in Japan.
 - ✓ Published and unpublished research reports.
 - ✓ Books, journals, research papers, NGO reports, international documents and reports.
 - ✓ Internet websites

Expected Results of Research

- Defined DRR Strategies applicable to Local Development Planning
- Role of CBDRM approach in DM.
- Linkages between Disasters and Development?
- Community Based Disaster Management Approach?

Definition of DRR and What are Strategies?

- Disaster Risk Reduction (DRR) is a systematic approach to identifying, assessing and reducing that risk (UNICEF 2011).
- Purpose-Minimize Risks and Limit the adverse impact.
- Overall goal-Smooth Development-Sustainable Development (UNISDR -2009).

What is Mainstreaming?

Act of inclusion

1. **Mainstreaming**-The word is derived from the metaphor of a small isolated flow of water being drawn into the mainstream of a river from where it is expected to expand and flow smoothly without loss or diversion. Therefore 'mainstreaming risk reduction' describes a process to fully.
2. In inclusion of DRR schemes in Engineering Designs-Structural improvement
3. Model village-Highly resilient long term.

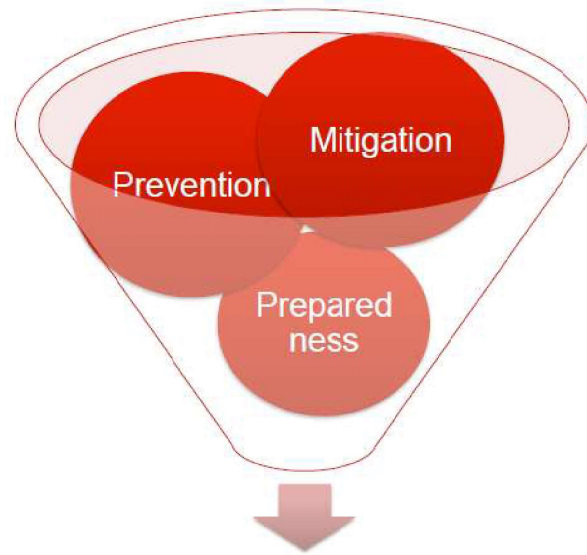
Disaster and Development Linkage

- Disasters can **Set back Development**
- Disasters can **Provide Development Opportunities**
- Development can **Increase Disaster Risk**
- Development can **Reduce Disaster Risk**

DRR Strategies (HFA)

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels. (UNISDR 2005)

DRR Strategies



Risk Reduction Strategies

Prevention

- Relocation of settlements
- Land use regulation/Zoning
- Implementation of spatial plans
- Building Codes

Mitigation

- Retrofitting/strengthening physical structures
- Building of levees, floodgates, dams, etc.
- Construction of safe shelter for harsh weather
- Enforcement of appropriate building codes
- Training and capacity building on coping with disasters

Preparation

- Early warning systems
- Practice evacuation drills
- Risk Insurance
- Enforcement of appropriate building codes
- Training and capacity building on coping with disasters

Benefits of DRR

- Citizen preparedness awareness on varying risks
- Accumulating resiliency
- Low impact on socio-economic growth-hence sustainable development.
- Able to achieve long term and short term goals
- Enables knowledge transfers and sharing
- Save future generations-lives and properties
- Helps to highlight DRR as a **long-term concern**
- Guides a **country's development**
- Allocate and channel **resources**
- Basis for **monitoring and evaluating** performance of country's development

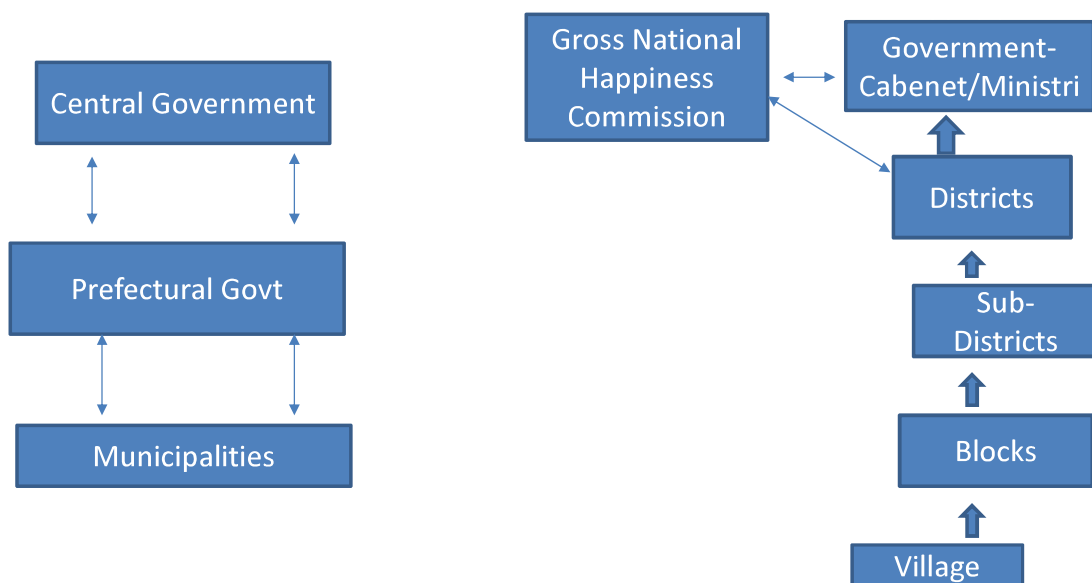
Key considerations on Mainstreaming DRR into Development Plans

- Mainstreaming DRR needs to explore *diverse options for risk reduction*, which can be tested in actual development projects
 - Mainstreaming DRR has to be based *on profound understanding of disaster risk*
 - Disaster risk is not static, but changes with time as the broader development context changes.
- -Mainstreaming DRR into development is not a one-off exercise, but is *a continuous process*
 - -Mainstreaming DRR process can be started either *from the top -down or bottom-up which eventually complement one another.*

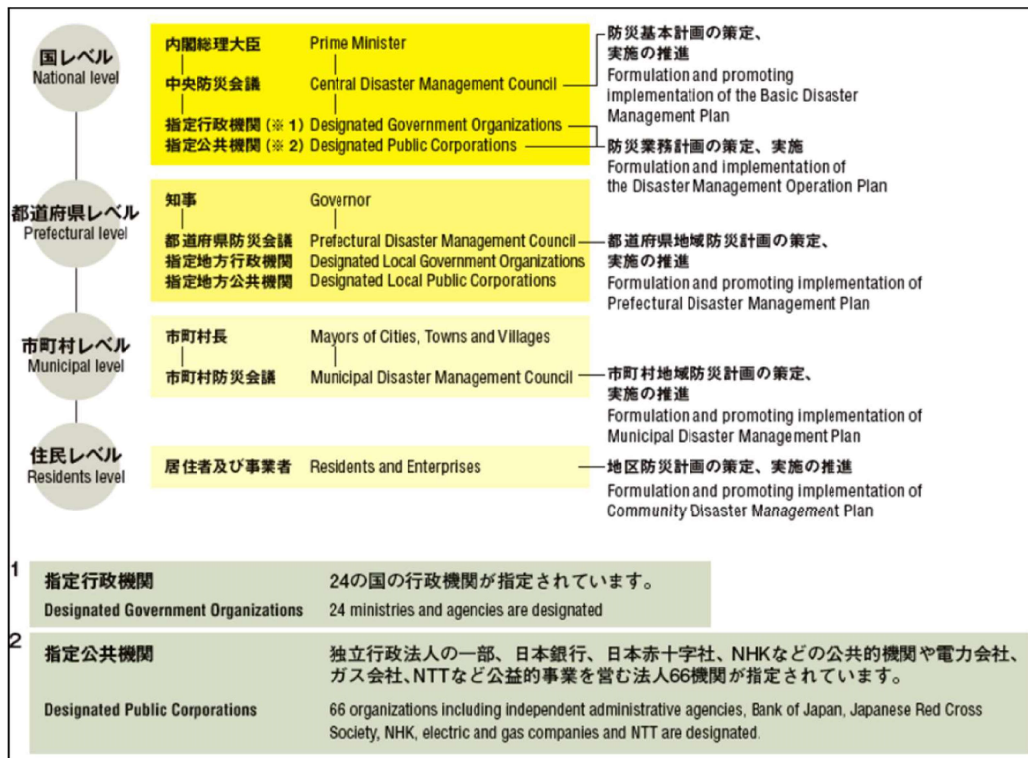
Comparison: Japan and Bhutan?

- Japan has been experiencing long historical disaster events-Series –Centuries
- Bhutan-DRR started from 2006 refer timeline.
- Experienced in dealing with disasters-Earthquake and Tsunamis etc. Learned through Experience.
- Japan Achieved highest level of DRR and DRM activities in Plans and educated DR to all levels. Bhutan not able to cope with new concepts and increasing risks
- Development Planning-Central-Prefecture, Town, cities and Municipalities. (Three levels) Simple and two way decision making.
- Japan attained High Technological Advancement and Development. Bhutan is many decade away.

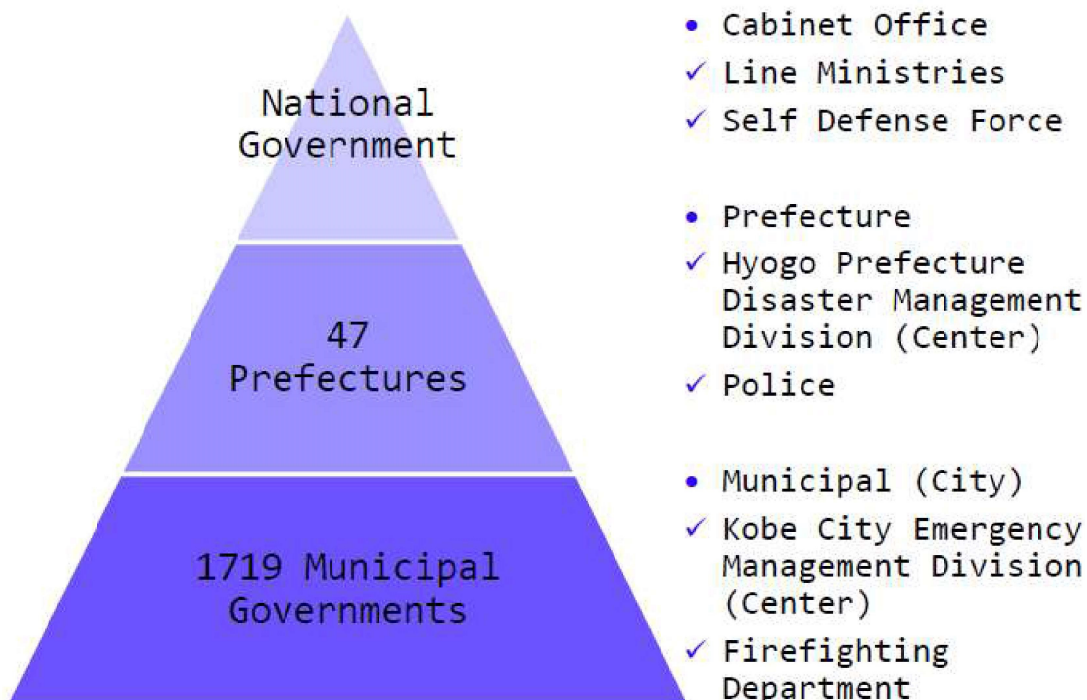
Decision Making Model Japan and Bhutan



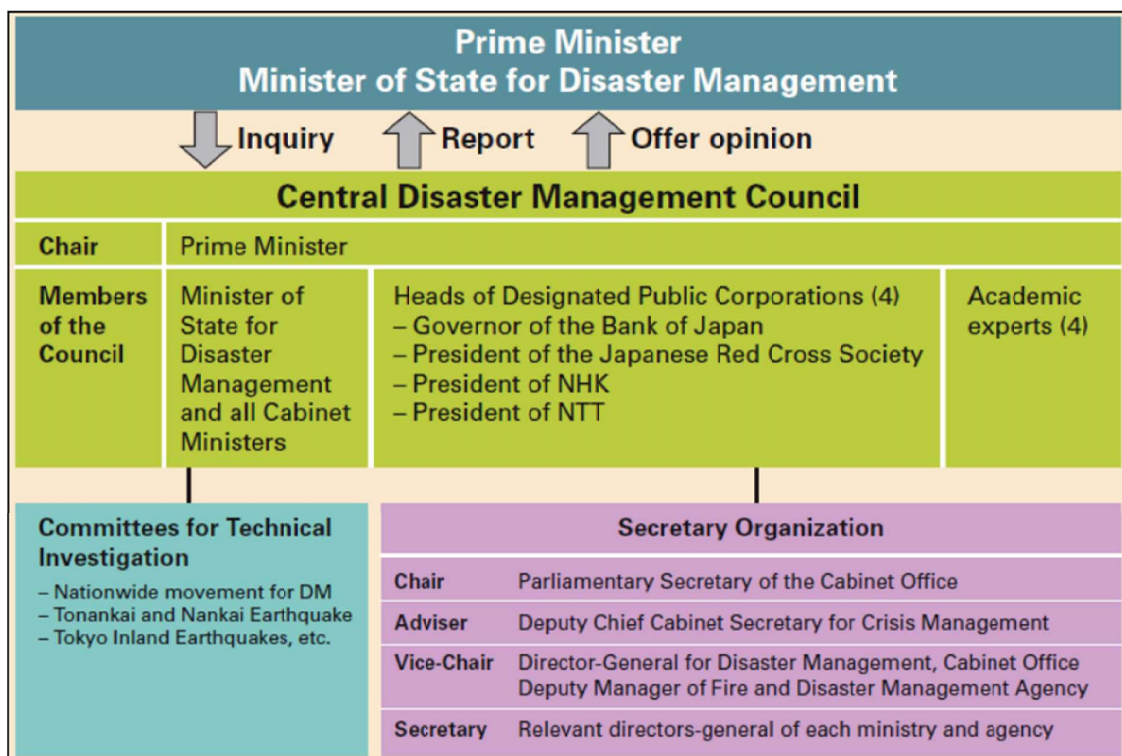
Disaster Management System (Japan)



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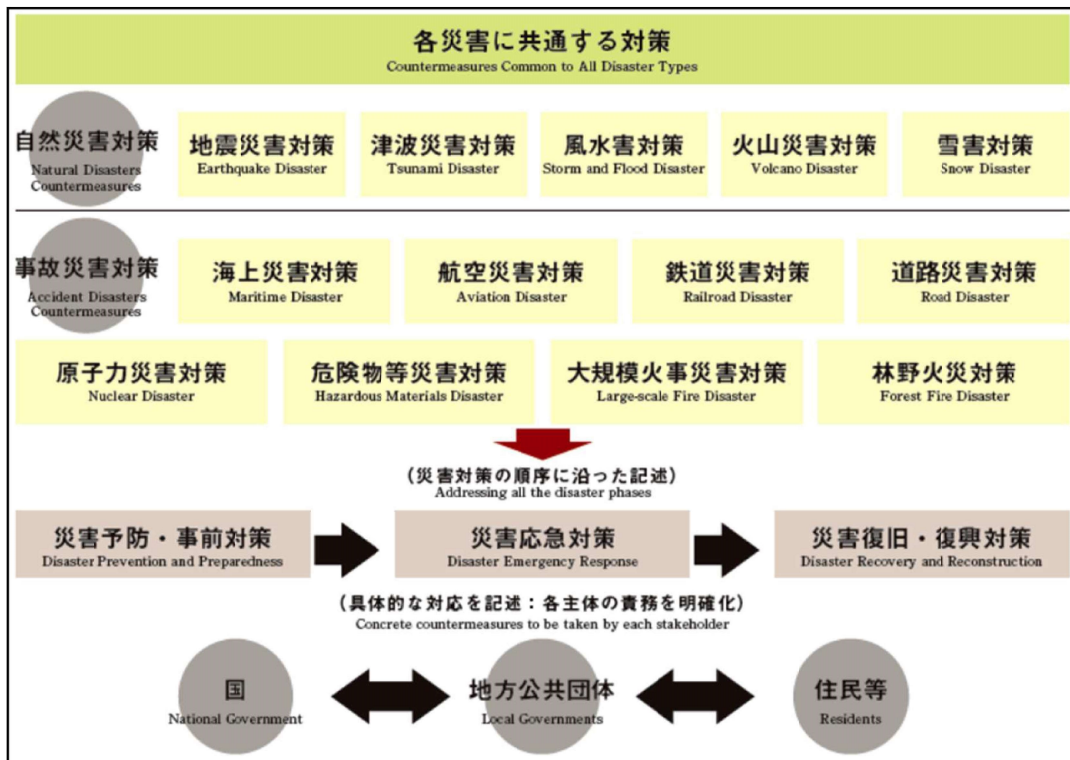
Central Disaster Management Council



Disaster Management System (Japan)

- Definition of responsibilities for disaster management;
- Disaster management organizations;
- Disaster management planning system;
- Disaster prevention and preparedness;
- Disaster emergency response;
- Disaster recovery and rehabilitation;
- Financial measures;
- State of Disaster Emergency

Basic Disaster Management Plan

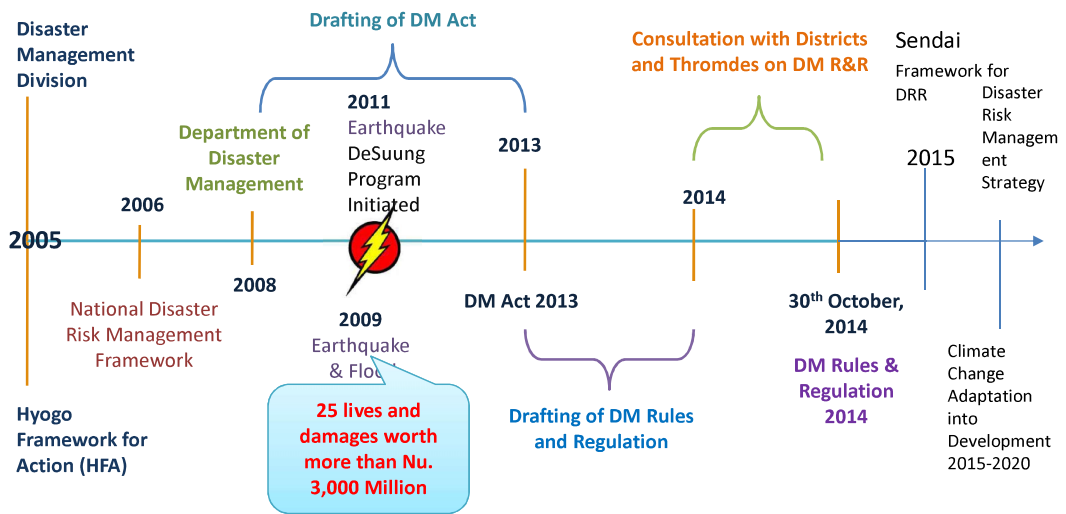


Disaster Management in Bhutan

- Legal System and Framework

- The Article 8(6) of the Constitution of Bhutan. The Kingdom of Bhutan (2008) provides that it is the responsibility of every Bhutanese to provide help to victims of accidents and in times of natural calamities.
- Local Government Act 2009
- Disaster Management Act 2013

Disaster Management Evolution in Bhutan



Visiting Researchers Program(FY2017A)

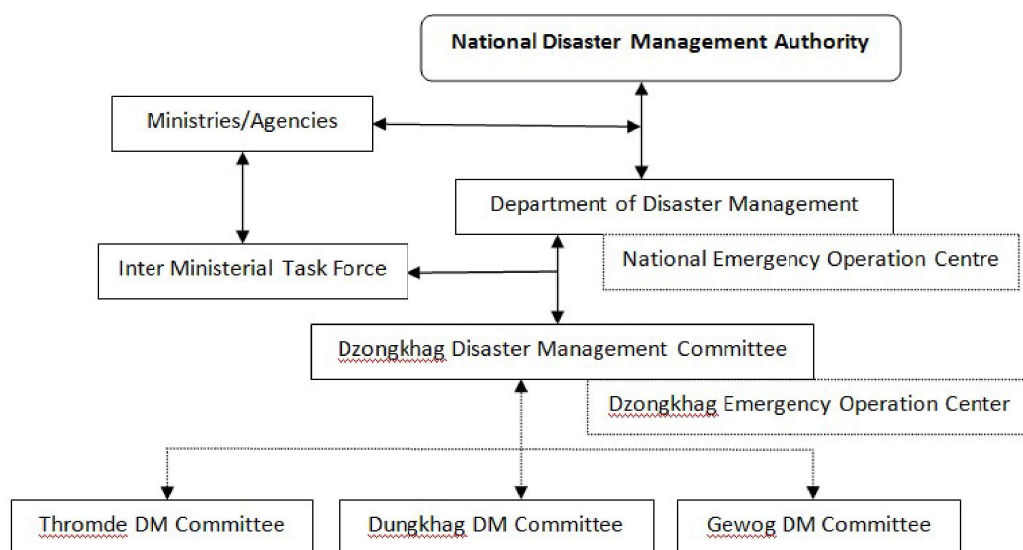
DM in Bhutan conti...

- The Environmental Acts and Policies,
- the Mines and Minerals Management Act,
- the Bhutan Water Act and Policy,
- The Royal Bhutan Police Act
- the Land Act, the Local Government Act and the Bhutan Building Rules indirectly support disaster management system in the Country.

Continued...

- The Local Government Act of Bhutan 2009 also state that the Geog Tshogde (GT) has the administrative powers and functions to organize relief measures during natural disasters/emergencies and the Dzongkhag Tshogde (DT) to mobilize voluntary actions in times of natural catastrophes and emergencies.

Disaster Management Institutions



National Organizations for Disaster Risk Reduction

- The department of Disaster Management under the Ministry of Home and Cultural Affairs serve as the secretariat and executive arm to the National Disaster Management Authority.
- *Disaster Management Planning Guideline/Contingency Planning Guideline*
- *School Disaster Management Planning Guideline*
- *Five year plans of Bhutan*
- ✓ Mainstreaming disaster resilience and management is highlighted as one of 16 National Key Results Areas (NKRA) of the Royal Government of Bhutan (RGoB) for the period of 11th Five-Year Plan (FYP) (2013-2018).

Local Organizations for DM

- District Level-DDMC
- Municipal Level
- Sub-District level
- Block level

Financial Arrangements

- National Re-construction and recovery-DDM/MoF.
- *Response and Relief Expenditure at National Level.*
- Local government Level-Power to use fund during emergency situations from its normal budget.
- No. funds are mobilised in local governments as a emergency fund.

Community Based Disaster Risk Reduction (CBDRM)

- **Community based disaster risk management (CBDRM)** is a process, which leads to a locally appropriate and locally 'owned' strategy for disaster preparedness and risk reduction (UNISDR 2009).

Importance of Community Based Approach?

- The community is the first responder in any disaster.
- In many cases, top-down approaches may fail to address the specific local needs of vulnerable communities, ignore the potential of local resources and capacities and in some cases may even increase people's vulnerability.
- Nobody can understand local opportunities and constraints better than the local communities themselves.
- CBDRR brings together the local communities and other stakeholders for disaster risk management to expand its resource base.

Advantage of CBDRM

- Government power is limited
- Community participation in development planning-decision making is essential. Bottom up Bhutan-Advantage.
- Gives opportunity for Local community to understand their own challenges.
- They can initiate their own awareness and education-self help and self reliance.
- Achieve disaster culture and Initiate DRR activities.

Challenges

- Low level of knowledge and skills-Inadequate capacity at Community/ District/Sectoral/Ministerial level.
- Low institutional and technical capacity at all levels.
- Lack of Disaster Management and Contingency Plans.
- Increasing Risks.
- Lack of Resources-DRR is not fully supported by govt.
- There is no blue print for CBDRM.

Limitation of Research

- Not serve as policy option.
- No adequate literatures on DRR and Bhutan.
- Short duration of guest lectures and Q/A.
- Language barriers.
- Multi-Visits with DM Managers all levels.
- Action plans and long term goal.

Conclusion

- Improve the disaster resilience of the community through CBDRM approach.
- DRR is important to countermeasure and to prepare future disaster events.
- Vital to have post and pre-recovery plans.
- DRR should be continuous process.
- National government should lead the DRR and support in terms of directions and financial incentives.
- Proactive DM/DRM is desired.

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