



Department of Disaster Management
Ministry of Home & Cultural Affairs
Royal Government of Bhutan

Country Report

Disaster Management System



Bhutan

Visiting Researchers Program
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Acronyms, Abbreviations and Glossary

ADRC	Asian Disaster Reduction Center
BCPR	Bureau for Crisis Prevention and Recovery
BHU	Basic Health Unit
CIDA	Canadian International Development Agency
DIPECHO	Disaster Preparedness ECHO
DM	Disaster Management
DRM	Disaster Risk Management
ECHO	European Commission's Humanitarian Aid department
GEF	Global Environment Facility
GLOF	Glacial Lake Outburst Flood
LDCF	Least Developed Countries Fund
NDRMF	National Disaster Risk Management Framework
PHRD	Policy and Human Resources Development
RGoB	Royal Government of Bhutan
UNDP	United Nations Development Program

Bhutanese Terms

Dungkhag	Sub-district
Druk Gyalpo	The King of Bhutan.
Dzong	Fortress or Monastery
Dzongdag	District Administrator.
Dzongkha	The National Language of Bhutan.
Dzongkhag	District
Dzongkhag Yargay Tshogdu	District Development Council
Gewog	County
Gewog Yargay Tshogchung	County Development Committee
Gup	Head of a County.
Lhakhang	Temple
Rabdeys	Monastic bodies in Dzongs other than Punakha and Thimphu.
Thromde	Municipality
Thrompon	Municipal Administrator or Mayor
Zhung Dratshang	Central Monastic Body.

1. General Information

The Kingdom of Bhutan is a landlocked country, sandwiched between the two Asian giants, with Tibetan plateau of China bordering the north and east, west and south by India. It falls in between the latitudes 26040' and 28020' north and longitude 88045' and 9207' east. It has a total area of 38,364 sq km (14,812 sq miles). Located on the southern slopes of the eastern Himalaya; it is characterized by a unique topography with land alleviation ranging from 150m in the southern foothills gradually rising to about 7000m towards the north. The country is endowed with numerous glaciers fed rivers that are being exploited to generate electricity. The climatic condition varies with hot subtropical climate in the south to cool winters and hot summers in central valleys and severe winters to cool summers in the north. Bhutan has a population of 7, 08,500 as of 2011 census record.

Capital	: Thimphu
King	: Jigme Khesar Namgyel Wangchuck
Prime minister	: Tshering Tobgay
Currency	: Bhutanese Ngultrum (Nu.)
Official Language	: Dzongkha
Government	: Unitary state, Constitutional monarchy, Parliamentary system



Figure 1. Bhutan Map

2. Natural Hazards

2.1. Natural Hazards Likely to Affect

Bhutan, like the rest of the world, has not been spared by the fury of natural hazards and is susceptible to many kind of it. Geo-physically, Bhutan is located in one of the most seismically active zones in the world. Considering the location and as proven by the past seismic activities, earthquake is the most imminent hazards in Bhutan. As a result of global warming, Glacier Lake Outburst Flood (GLOF) poses another risk to the people of Bhutan. Given the past trends, the threat from GLOF is more imminent than ever due to the rapid increase in earth's temperature from global warming and rapid unprecedented retreat of glaciers.

Other hazards such as landslides, flash flood, windstorms and fires also sweep across the country causing significant losses to the properties and lives of people. These seasonal hazards also affect the livelihoods of the people especially in rural Bhutan where subsistence farming is prominent. In this regard, the government is mainstreaming disaster risk reduction strategies in all the developmental activities and in all walk of socio economic life in the country.



Figure 2. Disasters in Bhutan

2.2. Recent Major Disasters

Recent earthquakes

Date	Location	Magnitude	Impact/damage in Bhutan
21 Sept. 2009	Narang, Mongar District	6.1	12 people killed and approximately 7,290 people were left without adequate shelter.
18 Sept. 2011	Sikkim, India	6.9	Loss of one life due to landslide, 14 injuries and structural damages worth of Nu 1,197.63 million.

*Location: - Location of the epicentre

*Magnitude: - Magnitude on the Richter scale

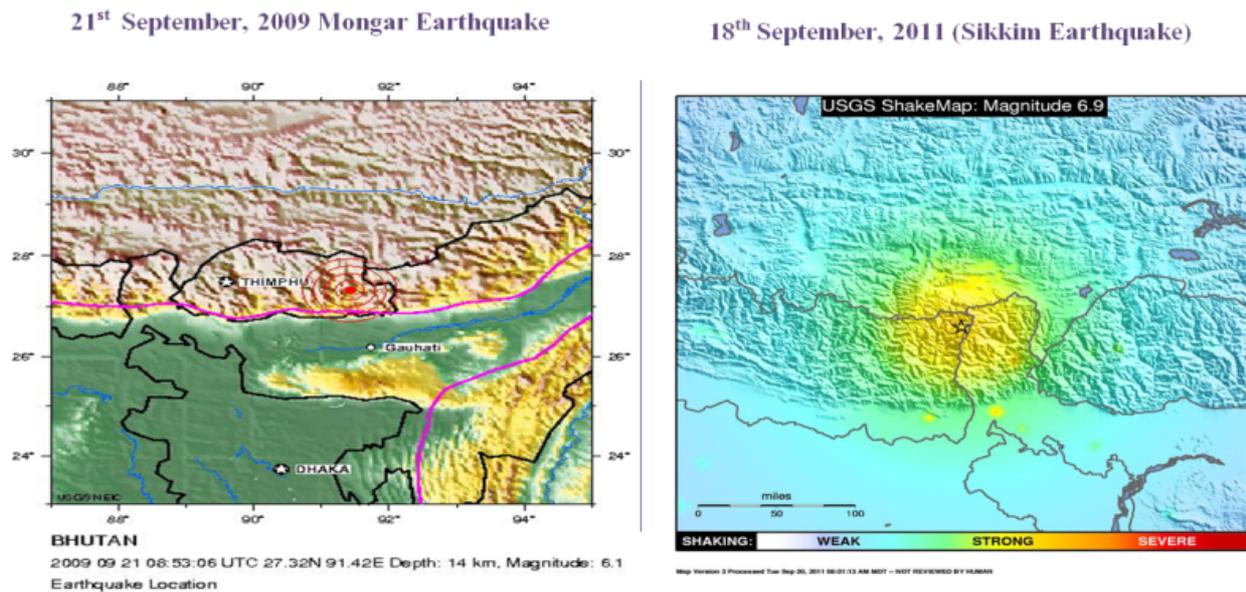


Figure 3. The Epicenters of the recent two earthquakes in Bhutan

Recent fire disasters

Year	Affected areas	Impact
8 Oct 2010	Wamrong, Trashigang	14 houses were raised down.
26 Oct 2010	Chamkhar Town, Bumthang	55 structures were destroyed. 64 families (267 people) left homeless and 2 people lost their lives.
18 Feb 2011	Chamkhar Town, Bumthang	18 houses were raised down, affecting 36 families (107 individuals)
27 May 2011	Chamkhar Town, Bumthang	30 houses were completely burnt down and 3 houses were partially burnt down affecting 56 families (173 individuals)
24 June 2012	Wangduephodrang Dzong	Complete loss of the most historic fortress in country along with some of its artifacts. All district administration office properties, records and documents were destroyed.

Recent floods/flash floods

Date	Causes	Affected areas	Impact
May 2009	Cyclone Aila	17 districts were affected.	Damages estimated at Nu719 million. 12 lives lost and the accompanying strong winds left a trail of widespread damages.
June 4, 2013	Incessant Heavy Rain for the past few days	6 Gewogs of Punakha District	Several acres of land were filled with debris and sand; some of them were washed away. One Culvert bridge was washed away. One main Irrigation channel has been damaged and two in-take irrigation channel

Recent Windstorm

Date	Affected areas	Impact
15 December 2013	13 Dzongkhags 53 Gewogs 1 Town (Haa District)	Damage to 979 private houses, 12 schools, 50 lhakhangs/nunneries/ monasteries, 3 Gewog Office & 8 BHUs/ORCs

3. Disaster Management System

3.1. Administrative System

In order to secure synergies of action and confluence of strategies and resources for implementation of disaster risk management agenda in the country, it is essential that a well-defined structure/mechanism is put in place at all administrative levels. As per the Disaster Management Act of Bhutan 2013, the disaster management institutions are set up as follows;

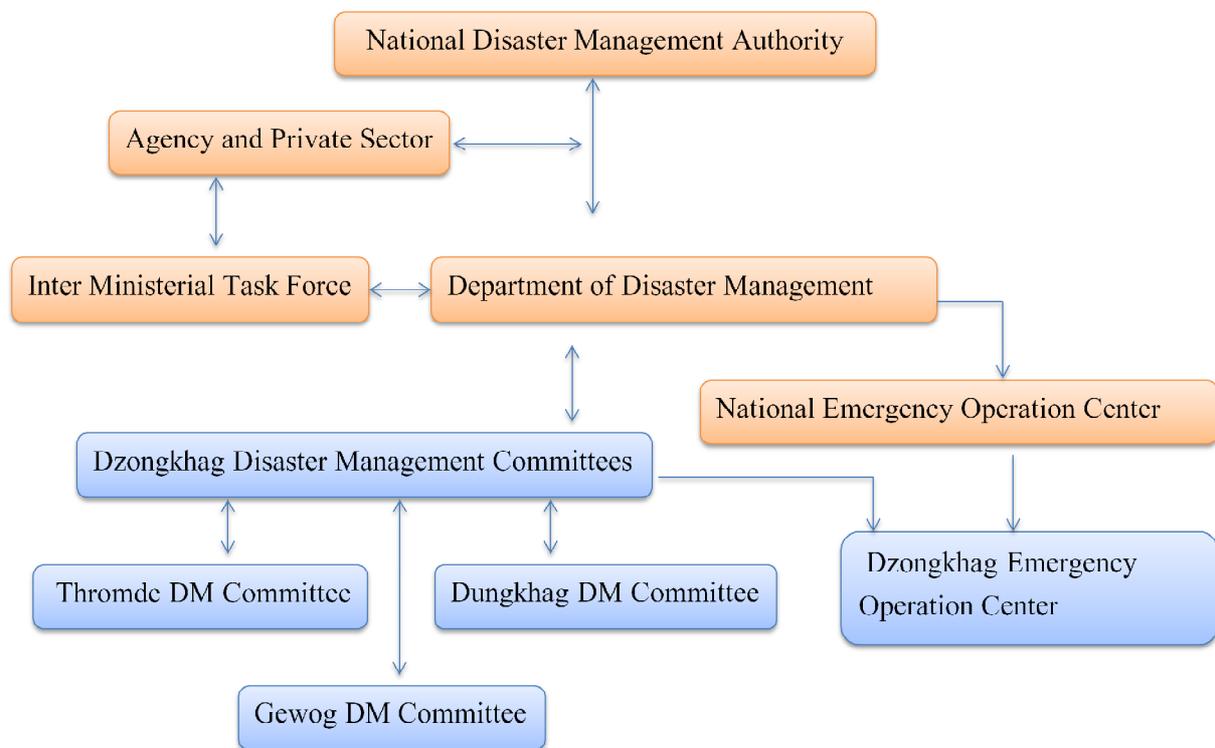


Figure 4. Disaster Management Institutional setup

3.2. Legal System and Framework

No policies or guidelines related to disaster risk management were in place prior to 2006 till the Royal Government of Bhutan adopted the National Disaster Risk Management Framework (NDRMF) in 2006. However, with increasing occurrence of disasters across the country, a strong need arose to ensure systematic Disaster Risk Management approach and provide responses as required. This need led to the enactment of the Disaster Management Act of Bhutan 2013 on the 18th of March, 2013.

The Article 8(6) of the Constitution of 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. The Article 33 (2) of the Constitution, dealing with emergency, gives the authority to His Majesty the King of Bhutan to “proclaim that a public emergency or calamity, which threatens or affects the nation as a whole or part thereof, exists in which case the Government may take measures derogating from the provisions of this Constitution to the extent strictly required by the exigencies of the situation”.

The Environmental Acts and Policies, the Mines and Minerals Management Act, the Bhutan Water Act and Policy, the Land Act, the Local Government Act and the Bhutan Building Rules indirectly support disaster management system in the Country. The Royal Bhutan Police Act has provisions for the RBP to provide help in the times of disasters. Similarly, the other branches of the Armed Forces must take part as and when they are called upon to do so. The Gewog Yargay Tshogchung (GYT) and Dzongkhag Yargay Tshogdu (DYT) Chathrims also state that the GYT has the administrative powers and functions to organize relief measures during natural disasters/emergencies and the DYT to mobilize voluntary actions in times of natural catastrophes and emergencies.

The Constitution also includes an article on environment, reaffirming the country’s commitment to sustainable development. Elements supportive of and addressing disaster risk management concerns, even though in an elementary form, can be found in some of the Acts/ Rules and Regulations of different sectors.

3.2. Structure of Disaster Management

3.3.1. National Platform for Disaster Risk Reduction

The Disaster Management Act of Bhutan 2013 governs the establishment of National Disaster Management Authority (NDMA) as the highest decision making body on disaster management in Bhutan. The NDMA shall be chaired by the Prime Minister & the Minister of Home and Cultural Affairs shall be the ex-officio Vice Chairperson. Other members include the Finance Minister, the Secretaries of all Ministries, Dasho Zimpon from the office of Gyalpoi Zimpon, the head of National Environment Commission, the secretary of Gross National Happiness Commission, the Head of the Department of Disaster Management , who shall be the Member secretary and such other member as may be co-opted in accordance with the Disaster Management Act of Bhutan 2013.

The National Disaster Management Authority shall be responsible for the following functions:

1. Approve the Disaster Management Strategic Policy Framework;
2. Approve the National Disaster Management and Contingency Plan;
3. Approve hazard zonation and vulnerability map;
4. Approve structural and non-structural measures and direct its implementation;
5. Approve national standard, guideline and standard operating procedure for effective disaster management including but not limited to objective assessment tool.
6. Recommend allocation of fund for the purpose of recovery and reconstruction;

7. Direct agencies to mainstream disaster risk reduction into their development plans, policies, programmes and projects;
8. Allocate resources from the National Disaster Management Budget; and
9. Ensure the establishment of an Inter-Ministerial Task Force.

The national Disaster Management Authority has constituted an inter-ministerial Task Force comprising of technical experts from relevant Agencies and other members as it may prescribe based on requirement. It shall review hazard zonation maps, vulnerability maps, structural and non-structural measures, national standard guidelines, standard operating procedures for disaster risk reduction and management. It will also provide technical assistance in the preparation of Disaster Management and Contingency Plan and advice relevant agency in setting up Critical Disaster Management Facilities.

3.3.2. 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. It functions as the main Coordinating Agency for disaster management in the country. The secretariat or department prepares national plan in coordination with relevant agencies, formulate national standard, and develop guidelines and standard operating procedures for disaster management in the Country. It also ensures that public education, awareness and capacity building on disaster management are carried out effectively.

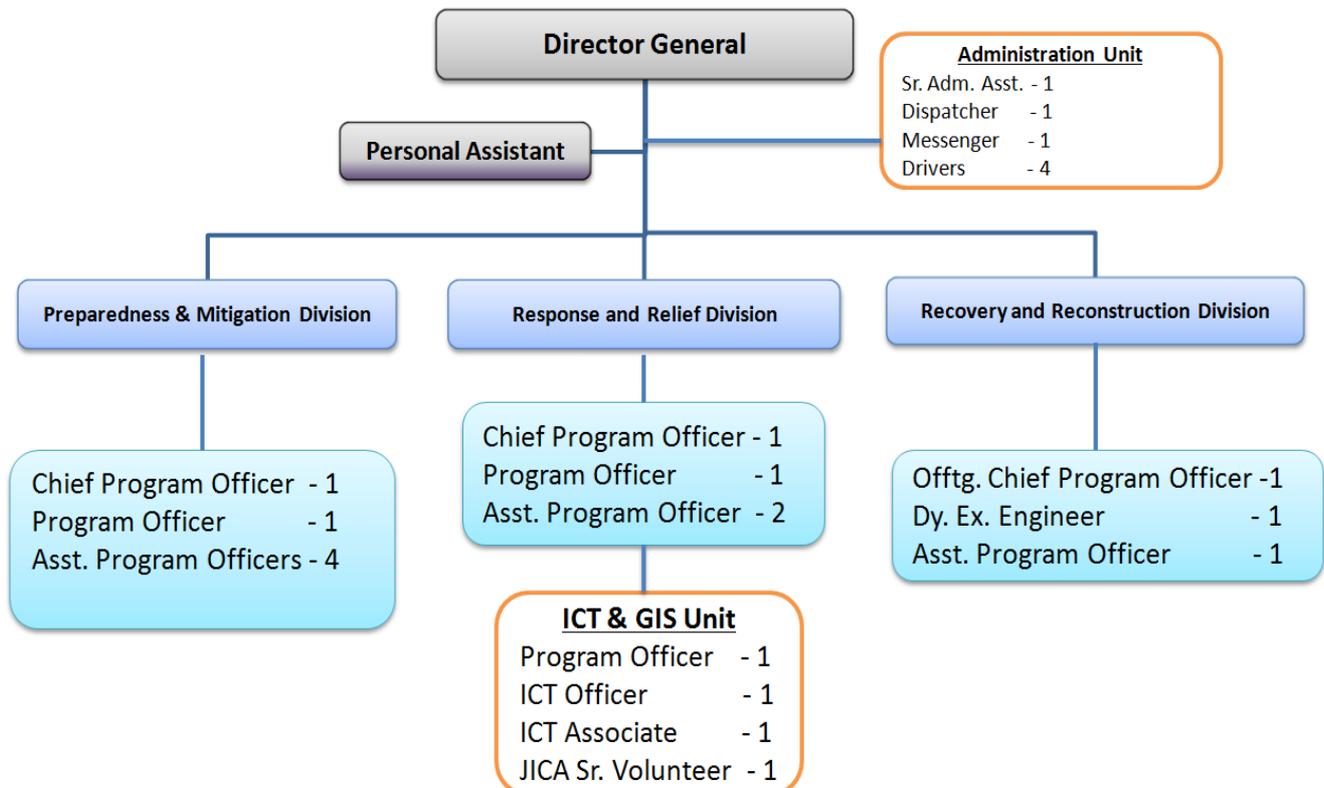


Figure 5. Staffing pattern of Department of Disaster Management

3.3.3. Local Organizations for Disaster Risk Reduction

At Dzongkhag level, Dzongkhag Disaster Management Committee (DDMC) is instituted with Dzongdag as the ex-officio chairperson and Dzongkhag Disaster Management Officer as the Member-secretary. The other members of the committee include an official from the Regional Office of His Majesty's Representative for People's Welfare, chairperson of Dzongkhag Tshogdue, all Gups, all Thrompons, Officer-in-charge of Royal Bhutan Police, the Drungchen of the Zhung Dratshang or Dzongkhag Rabdeys and such other members as may be co-opted in accordance with the Disaster Management Act of Bhutan 2013. The DDMC may constitute a subcommittee at local (Dungkhag, Gewog or Thromde) level, if it deems necessary, to assist in the performance of its functions.

4. Disaster Management Strategy, Policy and Plan

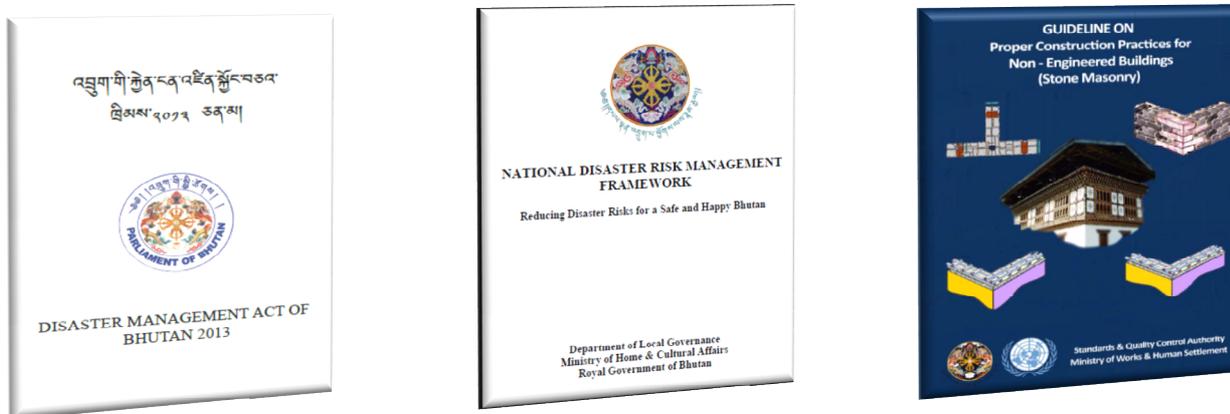


Figure 6. Disaster Management Documents

Disaster Management Act of Bhutan 2013

Until early 2013, the Department followed the National Disaster Risk Management Framework (NDRMF) as one of the main guiding principles in policy making and planning disaster programs and activities. However, this couldn't suffice to the needs of disaster management with increasing occurrence of disaster in the country. The Disaster Management Act of Bhutan 2013 was enacted on the 18th of March, 2013.

DM Act of Bhutan 2013 is accessible at:- http://www.ddm.gov.bt/download/dm_act_2013.pdf

Disaster Management Planning Guideline/Contingency Planning Guideline

As per the DM Act of Bhutan 2013, Disaster Management Planning Guideline has been drafted to assist and guide the Dzongkhags and other relevant agencies/sectors which will be finalized soon.

School Disaster Management Planning Guideline

In collaboration with the Department of School Education, a Planning guideline for the formulation of the School DM Plan has been developed and distributed.

National Disaster Risk Management Strategy

National Disaster Risk Management Framework 2006 is being reviewed and revised, in line with the DM Act of Bhutan 2013 and it is still in its draft stage. This Strategy includes all the elements of a risk management framework including: establishing the context; risk identification; risk analysis; risk evaluation; risk communication; risk reduction (through both anticipatory and compensatory means) and continuous monitoring and evaluation.

The Strategy outlines all the key outcomes that need to be achieved under each of the components and indicative activities that need to be carried out to achieve those outcomes over the short, medium and long term. However, as the implementation of this Strategy commences, detailed programmes and projects need to be developed covering all the components. In this respect, this Strategy presents the ‘breadth’ of actions that need to be undertaken over the next ten years but does not cover the ‘depth’ of analysis and programming that needs to be undertaken to carry out these activities. This will be done by the respective lead institutions for each of the components when the implementation begins.

Five year plans of Bhutan

In addition, mainstreaming disaster risk reduction is taken up as one of the important policy element for disaster management in Bhutan. The RGoB has given high priority in mainstreaming disaster risk reduction initiatives in all the developmental activities to develop a comprehensive disaster risk reduction strategy for the country. 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).

5. Budget Size at National Level**Financial Arrangements as per the Disaster Management Act of Bhutan 2013**

As per the Disaster Management Act of Bhutan 2013, following types of funding mechanisms have been envisaged.

Response and Relief Expenditure

The Dzongkhag Disaster Management Committee shall, as an emergency measure, meet the expenses for response and relief operation from the annual budget of the Dzongkhag in accordance with the guideline formulated jointly by the National Disaster Management Authority and the Ministry of Finance.

Budget for National Disaster Management Activities

There shall be a separate budget head to be called the budget for National Disaster Management Activities and it shall receive adequate budgetary allocation for immediate restoration of essential public infrastructures and service centers, which will be managed by the National Disaster Management Authority.

Department of Disaster Management Budget

There shall be a separate budget head to be called the Department of Disaster Management Budget mainly for capacity building, establishing and maintaining Critical Disaster Management Facility including purchase of equipment and any other activity as may be required to strengthen the preparedness of the nation against disaster.

Recovery and Re-construction

The Government will allocate the fund for purpose of recovery and reconstruction once damage assessment of public assets and infrastructure completes.

Annual budget of the Department of Disaster Management for the the recent 5 years

Fiscal Year (July-June)	Ngultrum (million)
2010-2011	57.261
2011-2012	78.815
2012-2013	34.157
2013-2014	20.56

6. Progress of the Implementation of Hyogo Framework for Action (HFA)

Please refer to the following site:

http://www.preventionweb.net/files/33008_btn_NationalHFAProgress_2011-13.pdf

7. Recent Major Projects on Disaster Risk Reduction

No	Title of the Project	Duration	Funding Source	Status
1	Comprehensive Approach for Probabilistic Approach	1 year	World Bank	Ongoing
2	School Based Disaster Preparedness in Bhutan	11 months	DIPECHO through Save the Children, Bhutan Country Office	Ongoing
3	Child Centered Disaster Risk Reduction/Disaster Preparedness and Response for Safe School Project	10 months	DIPECHO through Save the Children, Bhutan Country Office	Completed
4	Upgrading Schools and Integrated Disaster Education (UPSIDE) Project	3 years	Japan fund for poverty reduction (JFPR), Asian Development Bank	Completed
5	Development of National Action Plan for School and Hospital Earthquake Safety	1 year	Global Fund for Disaster Risk Reduction (GFDRR) through GeoHazards International	Completed

6	Bhutan Recovery and Reconstruction project	2 years	UNDP-BCPR, DOA and CIDA	Completed
7	National Recovery and Reconstruction Plan 2011	5 years	No external support..just few re-appropriation from RGoB	Ongoing
8	Earthquake Recovery Support in Building Back better Project	3 months	UNDP	Completed
9	PHRD Grant for Improving Resilience to Seismic Risk	5 Years	Government of Japan under World Bank as administrator	Ongoing
10	“Reducing Climate change induced Risk and Vulnerability from GLOF in Punakha-Wangdue and Chamkhar Valley”	2008-2013	GEF/LDCF, UNDP	on-going

8. ADRC Counterpart

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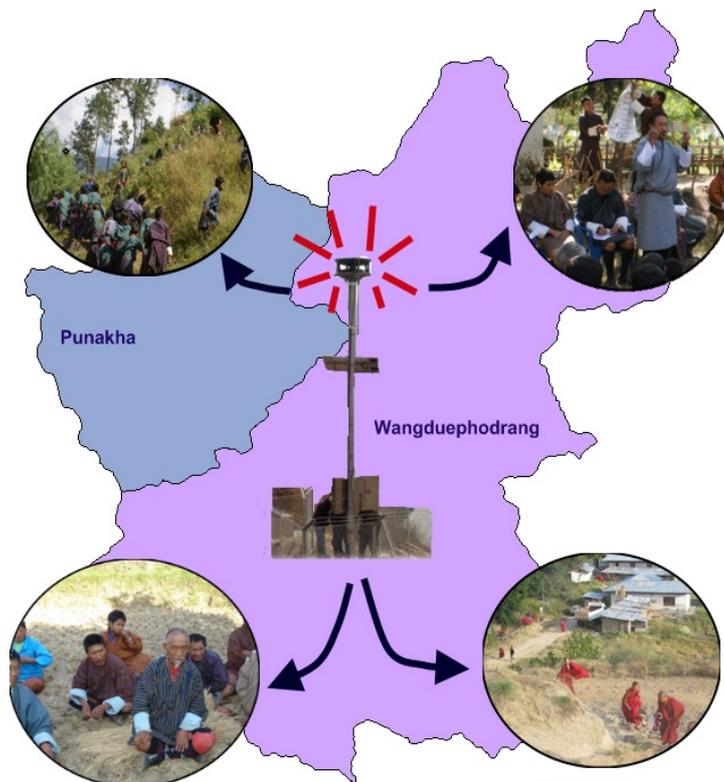


Figure 7. Preparedness Program for Glacial Lake Outburst Flood

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