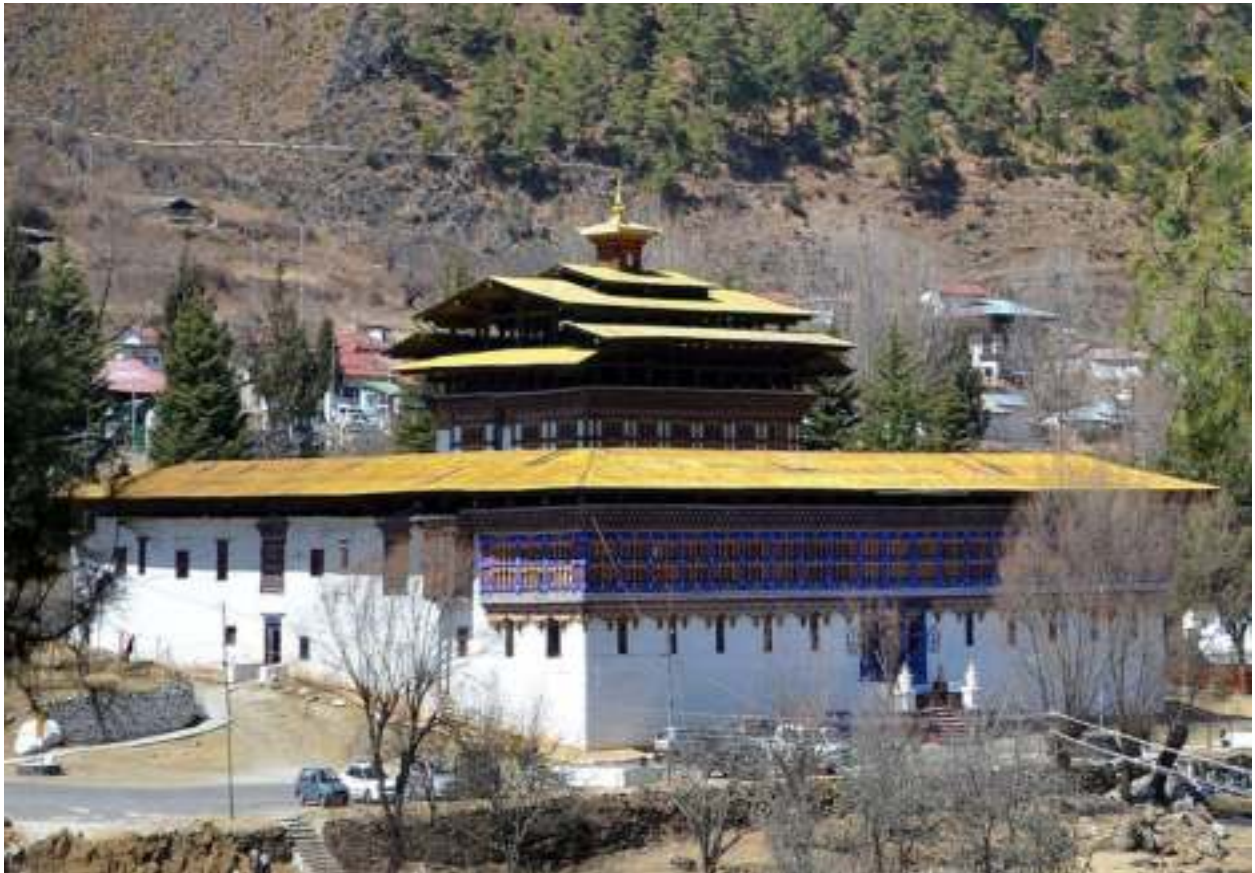




## **Dzongkhag Disaster Management and Contingency Plan**



### **Dzongkhag Administration**

**HAA**

**2023**

## **Executive Summary**

According to Section 77 of the Disaster Management Act of Bhutan 2013, Dzongkhag Disaster Management Committees are mandated to develop Disaster Management and Contingency plans, in consultation with the Dzongkhag sectors and other relevant agencies. Further, Section 78 mandates the Dzongkhag Disaster Management Committee to submit the Dzongkhag's disaster management plans to the National Disaster Management Authority through the Department of Disaster Management. Similarly, Section 79 of the Act mandates disaster management and contingency plans to be updated at least once a year and reviewed every five years.

With the changing risk patterns and frequency of disasters, formulation of Dzongkhag specific disaster management plan is an important strategy to strengthen the local-level disaster management systems and systematically reduce disaster risks.

The Haa Dzongkhag Disaster Management Plan presents hazard, vulnerability and capacity profile for the Dzongkhag. The plan also outlines the priority disaster of risk reduction, awareness raising and capacity building activities and spells out the standard procedures for response in the Dzongkhag. An implementation and monitoring process for the plan is also included.

The Disaster Management and Contingency Plan are to be referred by Gewogs, sectors to ensure mainstreaming and integration of disaster risk management into their annual and five-year development plans. It is required that every stakeholder within Haa Dzongkhag Administration and relevant National Disaster Management institutions and agencies take ownership and fulfill their own roles and responsibilities to make Haa a disaster resilient and safe Dzongkhag.

  
(Melam Zangpo)  
**Dzongdag**

## **Acronyms**

CBDRM	Community Based Disaster Risk Management
DDM	Department of Disaster Management
DM Act, 2013	Disaster Management Act of Bhutan, 2013
DM	Disaster Management
DDMC	Dzongkhag Disaster Management Committee
DT	Dzongkhag Tshogdu
GNH	Gross National Happiness
GT	Gewog Tshogde
HVCA	Hazard, Vulnerability and Capacity Assessment
NASART	National Search and Rescue Team
NDMA	National Disaster Management Authority
RBP	Royal Bhutan Police
SDMP	School Disaster Management Plan

## **Table of Contents**

Executive Summary .....	1
Acronyms .....	2
Table of Contents .....	3
Scope & Objectives .....	4
<b>Chapter 1: Overview of the Dzongkhag .....</b>	<b>5</b>
1.1 Geography.....	5
1.2 Administrative Profile .....	7
1.3 Demography.....	7
1.4 Weather and Climate .....	9
1.5 Economy.....	9
<b>Chapter 2: Dzongkhag Disaster Management System .....</b>	<b>9</b>
2.1 Dzongkhag Disaster Management Committee (DDMC).....	9
2.2 Functions of DDMC .....	9
2.3 Disaster Management Subcommittee.....	12
<b>Chapter 3: Disaster Risk Profile of Dzongkhag .....</b>	<b>13</b>
3.1 Hazard Assessment .....	13
3.2 Vulnerability Assessment.....	14
3.3 Capacity Assessment.....	19
3.4 Disaster Management Action Plan (2021 – 2025).....	22
<b>Chapter 4: Contingency Plan .....</b>	<b>26</b>
4.1 Standard Operating Procedure for disaster types: .....	28
<b>Chapter 5: Implementation Mechanism .....</b>	<b>44</b>
<b>Annexure .....</b>	<b>47</b>

## Scope & Objectives

The Disaster Management and Contingency Plan for the Dzongkhag is prepared, as mandated by Disaster Management Act 2013. The plan is updated, reviewed and endorsed by the Dzongkhag Disaster Management Committee (DDMC) on 17/09/2021 and will serve as a document for reference by all relevant stakeholders – different Dzongkhag Sectors and Gewog Administrations - for implementation of prioritized disaster risk reduction and preparedness activities through mainstreaming. The plan will address all hazards in the Dzongkhags covering the whole disaster management cycle (*Pre-disaster-awareness, capacity building and mainstreaming, During-Disaster-Effective response and Post-disaster- Early Recovery and Reconstruction*).

The objectives of the Dzongkhag Disaster Management and Contingency Plan are:

- To ensure mainstreaming and facilitation for implementation of disaster risk reduction and preparedness activities in Dzongkhag;
- To ensure required capacities are developed for risk reduction, mitigation, preparedness and response;
- To increase awareness on disaster risks, risk reduction and preparedness measures in the Dzongkhag;
- To establish a coordination mechanism for emergency response and relief operations.
- To ensure safety of community, reduce loss to property; protect critical infrastructure, environment and continuity of essential services.

## **Chapter 1: Overview of the Dzongkhag**

### **1.1 Geography**

Haa Dzongkhag is situated at an elevation ranging from 1000 to 5600 meters above the sea level. It is surrounded by Tibet (China) in the north, Samtse in the southwest, Chukha in the south east and Paro in the east respectively. It is one of the smallest Dzongkhags in the country with a total area of 1899.02 Sq. km. and projected population of 13655 as per PHCB 2017. The Dzongkhag has one Drungkhag and six Gewogs; namely Bji, Katsho, Eusu, Samar, Gakiling and Sangbaykha. The Sangbaykha Drungkhag was created in 2007 to address the constraints faced by the people of two Gewogs of Gakiling and Sangbaykha, owing to distance factor from the Dzongkhag Headquarters.

The Dzongkhag is characterized by rugged and mountainous terrain. Topographically, Bji, Katsho, Eusu and Samar Gewogs are located in the north, while Gakiling and Sangbaykha Gewogs are located in the south. Tergola and Selela pass separate these two Gewogs.

The vegetation ranges from broad-leafed forest in the southern Gewogs to coniferous and sub-alpine in the central and pure alpine vegetation in the high lands of northern Gewogs. The Dzongkhag is endowed with rich flora and fauna and about 68 percent of its area is under forest cover.

The Dzongkhag has 2 higher secondary school (both government), 2 lower secondary schools, 5 primary schools and 1 ECR with a total enrolment of 3,498 students in 2022. The Dzongkhag has 1 hospital and 4 PHC and 2-sub post. Wangchu Lo Dzong Military Hospital also provides health services to the people of Haa Dzongkhag.

Haa has 44 Lhakhangs and known for “White Poppy” which is one of the rare species in the country. It was open for tourism in 2002 following the resolution of the 79<sup>th</sup> session of National Assembly. Due to the 6<sup>th</sup> royal Bhutan flower exhibition held at the Dzongkhag, Haa became one of the most beautiful places with beautiful, unique, and sustainable lawns, gardens and flowers. Besides the rich culture and tradition, the Dzongkhag has established panorama-hiking trail for people who love to be surrounded by pristine nature. Haa also has three sacred mountains surrounding the Dzongkhag known as Meri Puensum each one of them believed to be the representation of the gods; Manjushri, Avaloketeshvara and Vajrapani. All Gewogs under the Dzongkhag are connected with roads and basic amenities such as hospitals, drinking water and electricity.



Figure 1: Dzongkhag Boundary Map (Source: NSB)



## 1.2 Administrative Profile

The Dzongkhag Administration, similar to the administrative setup in other Dzongkhags, is headed by the Dzongdag with various sectors representing line Ministries working under the Dzongkhag’s administrative jurisdiction. The Dzongdag and the Dzongkhag Administration work in close collaboration with the elected local bodies – the Dzongkhag Tshogdu and the Gewog Tshogdes.

The other institutions in the Dzongkhag are the Dzongkhag’s judicial system and Haa Rabdey headed by the Drangpon and Lam Neten respectively.

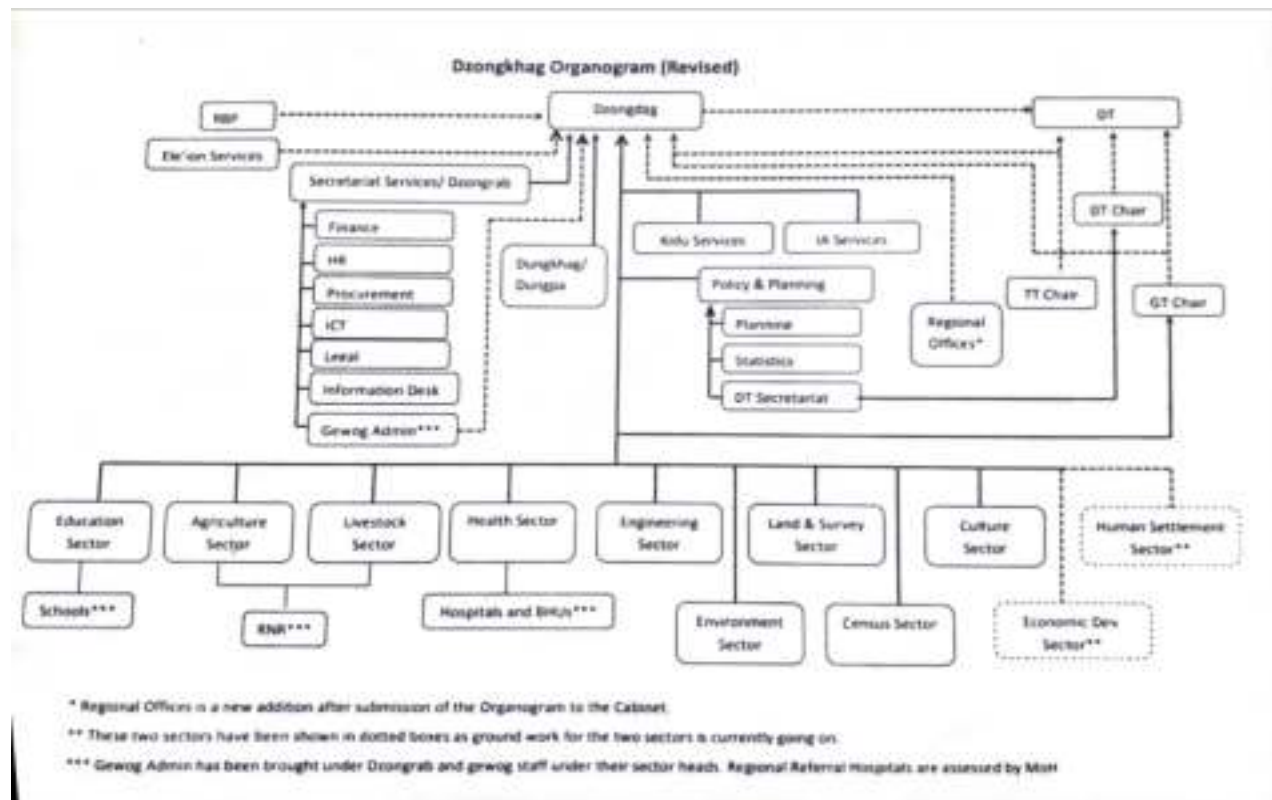


Figure 2: Organogram of Dzongkhag Administration

## 1.3 Demography

The total population of Haa Dzongkhag is 13655 with 2952 regular households as per PHCB 2017. With a crude birth rate of 14.3 per every 1000 population, a crude death rate of 6.6 per every 1000 population and the population is projected to 13,964 in 2027 based on PHCB 2017.



**Table 1: Key Demographics (Area, Households & Population as per PHCB 2017, Health & Schools as of 2021)**

	Gewog	Area (Sq. Km.)	No. Of House holds	Population		Health Facilities			Schools				
				Male	Female	Hospital	PHC	ORC	HSS /CS	MSS	LSS	PS	ECR/ ECCD
1	Bji	802.2	696	1710	1611	0	1	2	1	0	0	1	2
2	Eusu	66.46	520	1527	1024	0	0	1	0	0	1	0	1
3	Katsho	42.8	885	794	688	1 (TM hospital)	0	0	0	0	1	0	2 (1 pvt)
4	Gakiling	192.2 2	288	743	549	0	2 + 1 Subpo st	6	0	0	0	2	2
5	Samar	361.7	308	509	491	0	0	4	0	0	0	1	1
6	Sangbay	432.8	255	472	439	0	1 & 1 sub post	4	0	0	0	1	1 & 1 ECR
7	Haa Throm		507	1419	1177	1	0	0	1	0	0	0	0

*HSS – Higher Secondary School; MSS – Middle Secondary School; LSS – Lower Secondary School; PS – Primary School; ECR – Extended Classroom;*

## **1.4 Weather and Climate**

The Dzongkhag has huge variation in altitude ranging between 1000 and 5600m above sea level. It has cold and dry winter and wet and warm summer. In winter, the temperature drops to minus seven degree Celsius. The Dzongkhag experiences snow fall several times in a year starting from late October to April.

## **1.5 Economy**

Haa has a total cultivatable agricultural land of only 2 percent of its total area. Most are dry and pasture land. Majority of the people depend on livestock and trading activities. Wheat is the main cereal crop grown in the Dzongkhag, and other crops include barley and buckwheat. In the south, cardamom and ginger constitute the principal cash crops and potato in the north. However, apples, oranges and vegetables are also grown on moderate scale.

## **Chapter 2: Dzongkhag Disaster Management System**

### **2.1 Dzongkhag Disaster Management Committee (DDMC)**

Haa Dzongkhag Disaster Management Committee (DDMC) is constituted as below as mandated by the DM Act of Bhutan, 2013:

- a) Dzongdag, Chairperson (ex-officio)
- b) Dzongkhag Welfare Officer, member
- c) Chairperson of Dzongkhag Tshogdu (DT), member
- d) Gups of all Gewogs, member
- e) Thromde Ngotshab, member
- f) Officer-in-Charge, RBP, member
- g) Drungchen, Rabdey, member
- h) Dzongkhag Disaster Management Officer/DT Secretary, Member Secretary

*Any other member as may be co-opted in accordance with the rules framed under the Act.*

On the expiry of the term of the Gup/Thromde Ngotshab or in the event of resignation, the Chairperson of the Dzongkhag Disaster Management Committee shall designate the most appropriate official in the Gewog/Thromde who shall represent in the DDMC during the interim period.

### **2.2 Functions of DDMC**

The DDMC shall be responsible for coordinating and managing all disaster management operations in the Dzongkhag under the direction and supervision of the National Disaster Management Authority (NDMA). The DDMC and Chairperson shall function as mandated under section 31 & 38 of DM Act 2013.

In line with clause 31 of DM Act 2013, the DDMC shall:

- a) Prepare, review, update and implement the Dzongkhag Disaster Management and Contingency plan.
- b) Monitor and evaluate measures taken for prevention, mitigation, preparedness, response, recovery and capacity building by each sector in the Dzongkhag.
- c) Ensure establishment and functioning of the Dzongkhag Emergency Operation Center.
- d) Ensure mainstreaming of disaster risk reduction into the development plan, policy, program and project.
- e) Ensure compliance of the approved hazard zone and vulnerability map.
- f) Ensure the enforcement of structural and non-structural measures.
- g) Ensure that information about an event or a disaster is promptly communicated to the NDMA, DDM and all concerned.
- h) Ensure that the damage assessments in the field are carried out professionally and efficiently without fear or favor.
- i) Coordinate and support disaster response and relief operation including recovery and reconstruction.
- j) Ensure that detailed reports and regular updates on disaster event is provided to the DDM upon completion of field assessment of the situation.
- k) With the support of the DDM promote education, awareness, capacity building and community training on hazard, risk, vulnerability and measures to be taken by the community to prevent, mitigate and respond to disaster.
- l) Conduct regular mock drill.
- m) Report on a quarterly basis to the NDMA on the progress of implementation of its DM plan.
- n) Perform such other function as may be prescribed under the Act or any law in force or as directed by the NDMA/ DDM.

In the case of a disaster, the Chairperson of the DDMC may exercise all or any of the functions of the DDMC, subject to ex post facto ratification of the Committee.

The DDMC is mandated to meet at least twice a year and to frame rules and regulations concerning the conduct of its meeting.

### **2.3 Functions of Chairperson**

1. The Chairperson of the DDMC shall exercise and discharge such functions of the DDMC as the committee may delegate.
2. Without prejudice to the generality of the provision contained in section 37 of this Act, the Chairperson of the DDMC shall:
  - a) Regularly review and assess the effectiveness of DM Plan.
  - b) Ensure decision and policy formulated by the DDMC is implemented.
  - c) Ensure that disaster risk reduction and disaster management activities are consistent with Disaster Management Strategic Framework.
  - d) Provide prompt information on a disaster or an impending disaster situation to the DDM.
  - e) Provide regular updates and detailed reports on a disaster event to the DDM upon completion of filed assessment of the situation.
  - f) Manage response and relief operation in accordance with the directives issued by the National Disaster Management authority.
  - g) Coordinate delivery of services and resources to disaster affected communities.

### 2.3 Disaster Management Subcommittee

The DDMC may if it considers necessary, constitute a subcommittee at the Dungkha, Thromde or Gewog level to assist the DDMC in the performance of its functions under the DM Act of Bhutan 2013.

The DDMC may frame rules and regulations under this Act to determine the composition and function of a sub-committee constituted under section 35 of the DM Act.



Figure 3: Dzongkhag Disaster Management System

## Chapter 3: Disaster Risk Profile of Dzungkhag

### 3.1 Hazard Assessment

Haa Dzungkhag has experienced several disasters over the last 20 years, the most devastating being the September 18, 2011 Sikkim earthquake of M 6.9, which caused widespread damages to rural homes and government infrastructure. The other major and recurrent hazard has been windstorms that have resulted in extensive damages to roofs of rural houses and government infrastructure. The Hazard Vulnerability and Capacity Assessment (HVCA) process carried out in the Dzungkhag also identified other hazards such as – forest fire, structural fire, flood, landslides, thunderstorms and pests and diseases. The hazard assessment is presented below:

SI No.	Hazard	Secondary Hazards	Probability of Occurrence	Probable Impact
1.	Earthquake	Fire, Flood, landslide, Famine.	High	Loss of lives, loss of properties, roadblocks, Bridges, telecom and BPC service disruption, crime rates.
2.	Windstorm	Fire	High	Damage to roofs, structural and forest fires, BPC service disruptions, crop damages.
3.	Flood	Landslide, flash flood, water borne diseases.	High	Loss of lives, loss of properties, roadblocks, loss of domestic animals, crops damages, infrastructure damages.
4.	Pest and Diseases	Famine	Medium	Crop damages, poverty.
5.	Structural Fire	Electric shock, Forest fire.	Medium	Loss of properties, loss of lives.
6.	Landslide	Electric Fires	Medium	Damage to properties, loss of lives, damage to infrastructures.
7.	Human wildlife conflict	Famine	Medium	Crop damage, loss of lives, loss of animals.
8.	Hailstorm	Landslides	Medium	Crop damage, property damage.
9.	Forest Fire	Structural fire	Medium	Loss of lives and properties,

				loss of vegetation, risk of soil erosions.
10.	Thunder & Lightning	Forest fires, structural fire, rainfall.	Medium	Loss of lives, damage to properties.
11.	Drought	Famine	Medium	Poverty.
12.	Avalanche	Landslide/flood	Low	Loss of lives, loss of animals, loss of properties.

### 3.2 Vulnerability Assessment

Vulnerability assessment is carried out based on the underlying vulnerabilities identified during the HVCA process:

Hazard	Element at Risk	Why they are at risk?	
		Physical/Material	Social/organizational
Earthquake	<p>1. Houses, temples, road, life, and properties at Bji Gewog.</p> <p>2. Structures, lives (25 Disabled), out break of forest fire, road blockage and damage of bridges, crop damage and loss of domestic animals at Gakiling Gewog.</p> <p>3. Structure pertaining to houses, monasteries, bridges, all sentient being lives, out break of forest fire, and road destructions at Katsho Gewog.</p> <p>4. Structure, lives, out break of forest fire, road and bridges at</p>	<p>1. Poor construction method, lack of adequate knowledge.</p> <p>2. Poor methods of construction, not knowing dos and don'ts.</p> <p>3. Poor structure materials, Steep geographical location.</p> <p>4. Poor methods of construction, not knowing dos and don'ts, geographical terrain.</p> <p>5. Poor methods of construction, not knowing dos and don'ts.</p>	<p>1. Loss of properties and life.</p> <p>2. Absence or weak Community organizations, lack of awareness and advocacy on Disaster Management.</p> <p>3. In adequate knowledge on construction ethics related to structures to be built, lack of awareness related to the issue uprising.</p> <p>4. Absence or weak Community organizations, Lack of awareness.</p> <p>5. Absence or weak Community organizations.</p>



Hazard	Element at Risk	Why they are at risk?	
		Physical/Material	Social/organizational
	<p>Samar Gewog.</p> <p>5. Structure, lives, road and bridges at Sangbay Gewog.</p> <p>6. Structure, lives (old age &amp; disabled, domestic animal) &amp; outbreak of forest fire, road and bridges at Eusu Gewog.</p>	<p>6. Poor methods of construction, not knowing dos and don'ts.</p>	<p>6. Loss of Property &amp; lives.</p>
Windstorm	<p>1. Houses, crops and forest fire at Bji Gewog.</p> <p>2. House, Lhaxhang, Chorten, Schools, BHUs, and Lives at Gakiling Gewog.</p> <p>3. Sentient being lives, Structures correlated to houses and out break of fire at Katsho Gewog.</p> <p>4. Structure, lives, forest fire and road block at Samar Gewog.</p> <p>5. House, Lhaxhang, crops, Human and Forest at Sangbay Gewog.</p> <p>6. Lives (old age &amp; disabled, domestic animal) House, cereal &amp; cash crops at Eusu</p>	<p>1. Poor roofing method.</p> <p>2. Poor roofing, high rate of poverty and illiteracy.</p> <p>3. Poor architecture ethics, providing the wind factor to pave in, poor electrification methods in habited.</p> <p>4. Poor electrification, Lack of awareness on disaster.</p> <p>5. Poor roofing methods and materials, Located at high-risk area.</p> <p>6. Roofs are not anchored and not designed for windstorm.</p>	<p>1. Damaging houses and properties.</p> <p>2. Lack of awareness on Disaster Management.</p> <p>3. Hereditary adaption and acceptance to construction techniques, Easy access acceptance of thinking that it will not happen or occur-influent.</p> <p>4. Lack of capacity in the gewog to give awareness.</p> <p>5. Inadequate training, Unskilled labor.</p> <p>6. Loss of property, lives &amp; source of income.</p>

Hazard	Element at Risk	Why they are at risk?	
		Physical/Material	Social/organizational
	Gewog.		
Flood	<p>1. Houses, crops, properties, roads, and bridges at Bji Gewog.</p> <p>2. House, human and animal lives, road and trail blockage at Gakiling Gewog.</p> <p>3. Sentient being lives, Structures correlated with above terms, Crops at Katsho Gewog.</p> <p>4. Structures, roads, lives, farm lands, properties (both pvt and govt) at Samar Gewog.</p> <p>5. Road, bridge, structure, and human at Sangbay Gewog.</p> <p>6. Houses, lives, crops, agriculture land, roads &amp; bridges at Eusu Gewog.</p>	<p>1. Poor River protection.</p> <p>2. House constructed on flood prone areas, land loss due to seasonal flashflood.</p> <p>3. Poor building materials, Disaster prone allotted locations.</p> <p>4. Poor building materials, Disaster prone locations.</p> <p>5. Located at high rainfall area, presence of big rivers.</p> <p>6. Geographical location, lack of capacities.</p>	<p>1. Loss of houses, bridges, life properties.</p> <p>2. Lack of coordination among stakeholders, and community.</p> <p>3. Community attachment of being too much at neighborhood, Self centeredness- Influential and wide spreading greatly.</p> <p>5. No proper flood warning system.</p> <p>6. Loss of property and lives.</p>
Pest & Diseases	<p>1. Crop (Paddy and Cardamom) at Gakiling Gewog.</p> <p>2. Crops and water sources at Sangbay Gewog.</p>	<p>1. Poor cultivation method.</p> <p>2. Located in prone area, High temperature.</p>	<p>1. No expert consultation sought by the farmers.</p> <p>2. Lack of proper knowledge and methods.</p>
Structural Fire	<p>1. Houses, properties and lives at Bji Gewog.</p>	<p>1. Poor electrification, lack</p>	<p>1. Loss of life and properties.</p>

Hazard	Element at Risk	Why they are at risk?	
		Physical/Material	Social/organizational
	<p>2. Houses, Lhakhangs, Govt. Infrastructures, Properties, livestock, Human Population, Loss of Forest and Ecosystem diversity esp. endangered species at Gakiling Gewog.</p> <p>3. All sentient being lives, Nearby neighbors, Per Capita income and the over all economy at Katsho Gewog.</p> <p>4. House, Lhakhang, Properties, Livestock, Human &amp; Forest at Samar Gewog.</p> <p>5. Houses, Lives (old age &amp; disabled, domestic animal) at Eusu Gewog.</p>	<p>of proper installation of Bhukhari, Tsheri.</p> <p>2. Poor electrification, improper installation of Bukhari, daily use of firewood, Use of Wood and bamboo materials in construction of house, High rate of drinking/Human Error, Disaster-prone location, High rate of poverty, Insecure sources of livelihood, Lack of adequate skills and educational background.</p> <p>3. Poor electrification, improper installation of Bukhari, lack of butter lamp case in house, Disaster-prone location, Insecure sources of Livelihood, and late delivery services from Disaster management team.</p> <p>4. Poor electrification, improper installation of Bukhari, Lack of butter lamp case in</p>	<p>2. Weak family/kinship Structures, Lack of leadership, Initiative to solve Problems or conflicts, Unequal participation in Community affairs.</p> <p>3. Inrigid family structure, Lack of leadership roles, Unequal participation in community awareness programs.</p> <p>4. Weak family/kinship Structures, Lack of leadership, Initiative to solve Problems or conflicts, Unequal participation in Community affairs.</p> <p>5. Loss of property and lives.</p>

Hazard	Element at Risk	Why they are at risk?	
		Physical/Material	Social/organizational
		house, Disaster-prone location, Insecure sources of Livelihood Lack of adequate skills And educational Background.  5. Poor electrification, improper installation of Bukhari, Lack of awareness.	
Landslide & Human wildlife conflict	1. Crop damage and human lives by human wildlife conflict. House, human and animal lives, road and trail blockage by landslide at Gakiling Gewog.  2. Crops, human, domestic animals by human wildlife conflict. Road, bridge, structure, and human by landslide at Sangbay Gewog.	1. Lack of buffer zone or disturbances of ecosystems for human wildlife conflict and House constructed on flood prone areas, land loss due to seasonal flashflood.  2. No safety measures, Located within forest, High bear population incase of human wildlife conflict and Poor road condition, poor bridge building materials, located at a sloppy terrain incase of landslide.	1. Lack of awareness and coordination for human wildlife conflict and Lack of coordination among stakeholders, and community for landslide.  2. Lack of timely support from concern agencies and Unaware of its occurrence.
Hailstorm	1. Crop damage and human lives (hunger) at Gakiling Gewog.	1. Anthropogenic Activities leading to global warming and climate change.	1. Lack of coordination.
Thunder & Lightening	1. Human lives, House (Fire), and Forest (Fire) at Gakiling Gewog.	1. Poor construction of house (hut/wood/tarpaulin sheet).	1. Poor Housing Policy.

Hazard	Element at Risk	Why they are at risk?	
		Physical/Material	Social/organizational
Epidemic and disease (Malaria, Typhoid and water borne diseases)	1. Lives particularly women and children at Gakiling Gewog.	1. Poor management of surroundings near settlements, Discontinuation of Intervention (distribution of mosquito net), Unhygienic living.	1. Lack of Health and Sanitation Awareness Program to the community, Poor participation from the community.
Poor road condition	1. Human and vehicles at Sangbay Gewog.	1. Under construction, Steep slope.	1. Little community participation.

### 3.3 Capacity Assessment

Various kinds of capacities existing in the Dzongkhag have been outlined below. It includes capacities that are present in the Dzongkhag, which can withstand or reduce the impact of the hazard up to certain extent, the resources households and communities can rely on for response, recovery and re-construction in the aftermath of a disaster and strengths inherent in the community in terms of community cooperation or knowledge that would be useful during disasters.

**Table 3: Capacity Assessment**

SI No	Capacity		
	Particulars	Nos	Location
1	Helipad	2	Damthang & Eusu.
2	Hospital	2	Town & Wangtsa (IMTRAT)
3	Traditional medicine hospital	1	Bali, Katsho
4	PHC	4	Yangthang, Dorithasa, Sangbaykha, Ngatsena.
5	RBA	-	Damthang wing XI and Demo Coy.
6	RBP	-	Town.
7	Desuups	-	Haa
8	Forest Offices	-	Bji (park office) and Wangtsa (range office)
9	IMTRAT	-	
10	SAR team	1	From Desuups.
11	Fire Brigade	1	RBP Station.

12	Water pump fire brigade	1	RBP Station
13	Fire Hydrants	10	Dzongkhag administration area, lower market area, Samba workshop area, upper market area, Bali Hospital area, BPC office area, below court area, ex army chorten area, BDBL junction area, Chorten near GUDCS area (bridge).
14	Water Storage Tank	1	Lhakhang Karpo.
15	Ambulance	3	1 at Sangabykha PHC and 2 at Haa Hospital
16	Bolero	3	Dzongkhag Administration.
17	Excavator	2	Dzongkhag Administration (Agri)
18	JCB	1	Dzongkhag Administration (Agri)
19	DCM	2	Dzongkhag Administration.
20	Waste Collector	1	Dzongkhag Administration.
21	Cease pool	1	Dzongkhag Administration.
22	FCB	1	Town.
23	SAR Equipments	-	Dzongkhag Disaster Store.
24	Others		If needed regional office vehicles shall be pooled

Overall, in all the Gewogs under the Dzongkhag there are certain capacities and some level of awareness on prevailing hazards and some knowledge on the measures to take to reduce risk before and during disasters. Following are summary of capacity needs in Dzongkhag:

### 1) Risk Reduction and Mitigation

There is need to build capacities in the Dzongkhag engineering sector and Dzongkhag DM Office to lead both structural and non-structural mitigation activities in the communities, schools, health facilities, etc. Rural homes, school structures, health facilities and cultural structures have been particularly vulnerable in past earthquake events.

Therefore, vulnerability assessment of old and important/ public structures are important to determine strengthening needs or replacement decisions. In terms of earthquake, and also other hazards, there is need to strengthen the construction quality monitoring system to ensure constructions adhere to standards and building codes.

Landslide is also a priority hazard for Haa and there is need to build capacities in the Dzongkhag to raise awareness in the community on ways of land management and carrying out mitigation in structures such as roads, schools, Lhakhangs, etc. that suffer from recurrent landslide damage.

Community groups such as community forest groups and system of having Re-suups, Me-suups, Chu-suups, etc. need to be encouraged. In addition, there is still need to raise awareness within the Dzongkhag and in the communities on key messages for risk reduction and preparedness.

## **2) Preparedness**

For preparedness there is need to ensure early warning capacities for heavy rainfall, thunderstorms, avalanches, hailstorms, and other such extreme weather conditions and have systems in place to provide the early warning/ advisory to the affected communities in time. Capacities also need to be built in terms of raising community awareness on risks and family preparedness. Similarly, preparedness capacities need to be developing in important public institutions such as schools and health facilities.

## **3) Response**

In terms of response, capacities for - Search and Rescue, First Aid, conducting various assessments (rapid, damage, safety etc.) needs to be built at various levels. There is also need to support and organize volunteers for response and coordinate with existing volunteer organizations such as Desuungs. For effective response, Standard Operating Procedures (SOPs) need to be developing for each Gewog. Simulations and drills should be carried out to test and practice the procedure. At the Dzongkhag level, EOC should be established along with related Standard Operating Procedures (SOPs).



### 3.4 Disaster Management Action Plan (2021 – 2025)

#### Priority Hazards: Earthquake, Windstorm, Flood, Pest & Diseases, Fire, and Landslide

Priority Area	Key Activities	Target	Responsible Agency	Supporting Agency	Timeline (FY)	Budget
1. Awareness and Education	1.1 Public education and advocacy program on earthquake, windstorm, landslide, flood, fire safety and family disaster preparedness (top ranking priority hazards)	Gewogs, Schools, Dratshang, Monasteries.	DDMO/DDMC	Gewog Administration, DDM, RBP	2021-2025	0.3
	1.2 Conduct meetings with Principals and disaster focal teachers to strengthen linkages with school DM plans.	All Schools	DEO/DDMO/DDMC	Dzongkhag Administration, MoE, DDM	2021 -2025	0.2

	1.3 Raise awareness on insurance benefits and encourage families to insure their property against various hazards.	Gewogs and Haa Throm	Gup, GAO, Mangmi, Tshogpas, Thromde Thuemi	RICBL, DDM, Dzongkhag Administration	2021-2025	As and when other meeting happens/ Gewogs to keep separate fund.
	1.4 Schools conduct community outreach activities such as family preparedness plans and mock drills	Both rural and urban communities/schools	DEO/DDMO/DDMC	MoE, DDM, Gewog Adm. DDMC	2021-2025	0.3
	1.5 Raise awareness on installation of fire safety gadgets (fire alarm, extinguishers in govt., private buildings, lhakhangs)	Govt offices, private building owners, Caretakers of Lhakhangs	RBP/ DDMO/DDMC	Gewog Administration and community	2021-2015	0.1
2. Enhance risk reduction and mitigation	2.1 Conduct training on good construction	Engineers, carpenters, Masons	DE/DDMC	DDM, DDMC, DES (MoHWS)	2021-2025	

	practices					
	2.2 Carry out vulnerability assessment of old/existing buildings/houses	Lhakhangs, office buildings, private buildings	DE/DDMC	DDM, DES, MoHWS, MoE, Gewog Adm. Dratshang	2021 -2025	
	2.3 Identify safe Evacuation sites for various hazards	Dzong, Lhakhang, Schools, Community and Offices	DDMO/DDMC/Gewog Administrations	DDM, relevant sectors	2021- 2025	0.2
	2.4 Strengthening of Dzongkhag/ Gewog SAR Team	Dzongkhag SAR team, RBP, Desuups	Dzongkhag/Gewog administration	DDM, RBP, NSRT	Annually from 2022 onwards	0.5
	2.5 Hands on training on use of fire-fighting equipment	DDMC/ Lhakhang care takers/Business Community and Communities	DDMO, RBP	DDM, Dratshang Relevant sectors	2021- 2025	0.2
	2.6 Ensure fire-fighting preparedness is put in place in the town BOD	BOD	RBP/DDMC	DDMO, DDMC	2021-2025	
3. Enhance preparedness,	3.1 Identify an interim Dzongkhag	Dzongkhag	DDMC	DDM, NDMA, Relevant sectors	2021-2025	

response and recovery levels	Emergency Operation Center					
	3.2 Capacity building activities for DM and response (Trainings, study visits etc) for Dzongkhag and Gewog officials	Dzongkhag and Gewog Administration	DDM, MOHCA	DDM, MoHCA	2021-2025	
	3.3 Form Disaster management subcommittees (Gewog/Dungkhag)	Gewog/Dungkhag	DDMC	DDM, MoHCA	2021-2025	

## Chapter 4: Contingency Plan

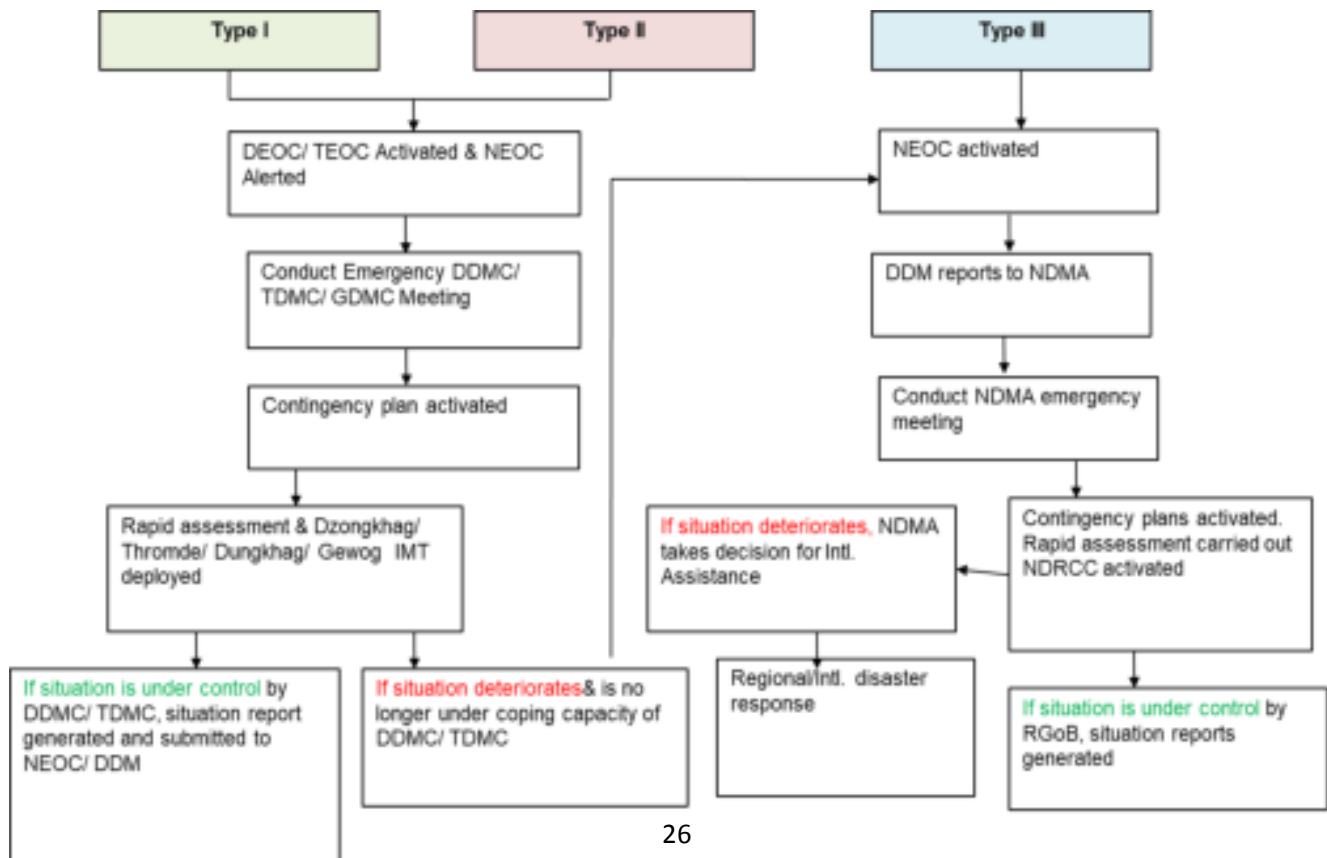
As per the Contingency Planning Guidelines for Bhutan 2014, a contingency plan “aims to prepare an organization to respond well to an emergency and its potential humanitarian impact. The Developing a contingency plan involves making decisions in advance about the management of human and financial resources, coordination and communication procedures, and being aware of range of technical and logical response”

The contingency procedures and arrangement will cover the response and early recovery phases:

- Immediately before a disaster when/if early warning of an impending situation or an event is received;
- During a disaster when immediate response and relief measures need to be implemented; and
- After a disaster for measures have to be taken in terms of relief and setting the recovery process in motion.

The chart below shows the general decision-making, information flow and reporting mechanism during disaster type I, II and III.

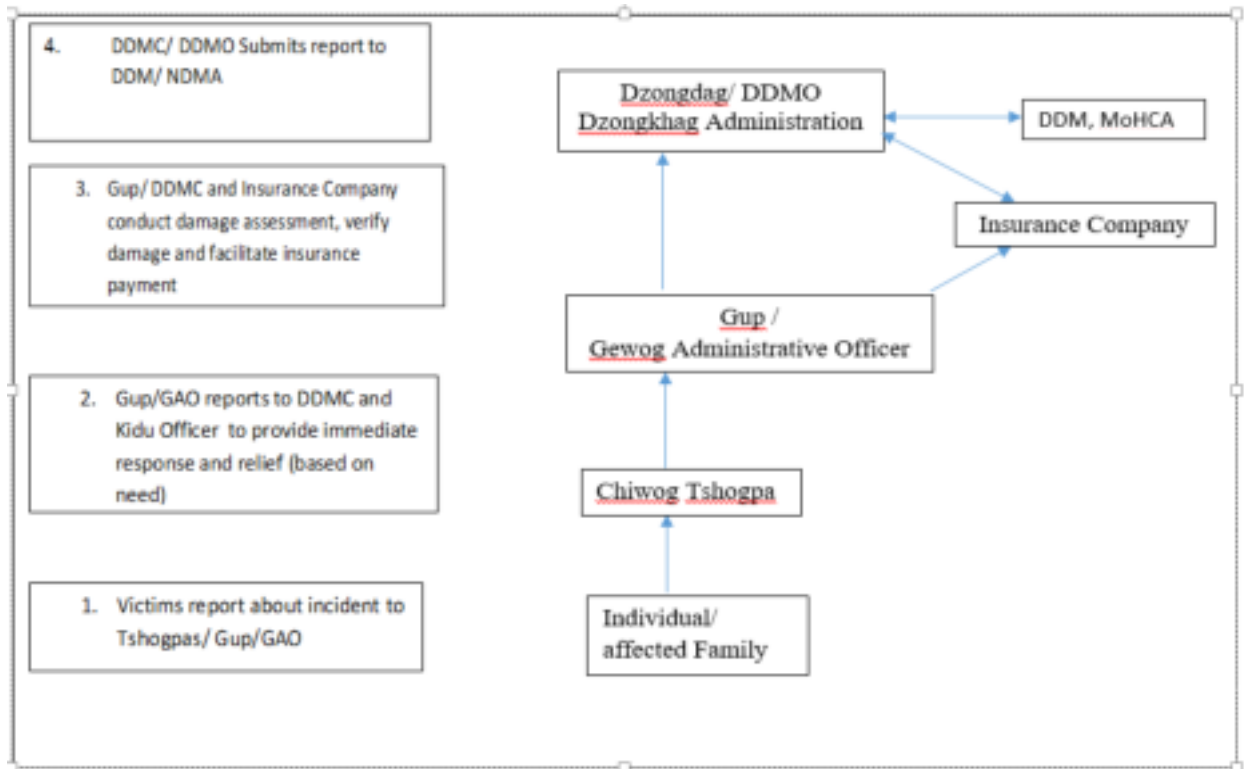
### General disaster decision making and information reporting chart



## Standard Operating Procedure for Isolated local Incidents

**Isolated Local Incident** - An isolated local incident is an incident, which does not have a widespread effect on people and property and can be managed within the normal operations of the agencies concerned, and such incident shall not require emergency procurement and funding

For isolated local incidents, such as fire affecting single house or windstorm blowing off roof of one structure in a locality, and cases which do not qualify under Disaster Types I - III of the Disaster Management Act of Bhutan 2013, the following standard procedure shall be followed.



Insurance officials should be responsible for physical verification and for immediate payment based on damages.

#### **4.1 Standard Operating Procedure for disaster types:**

As per the DM Act of Bhutan 2013 and the DM rules and regulations standard procedures for response at the Dzongkhag level for different Disaster Types will be as follows:

##### **1. In case of Type I**

**Disaster Type I** - A disaster shall be classified as Type I if it can be managed with available resources and is within the coping capacity of the Gewog/Thromde concerned

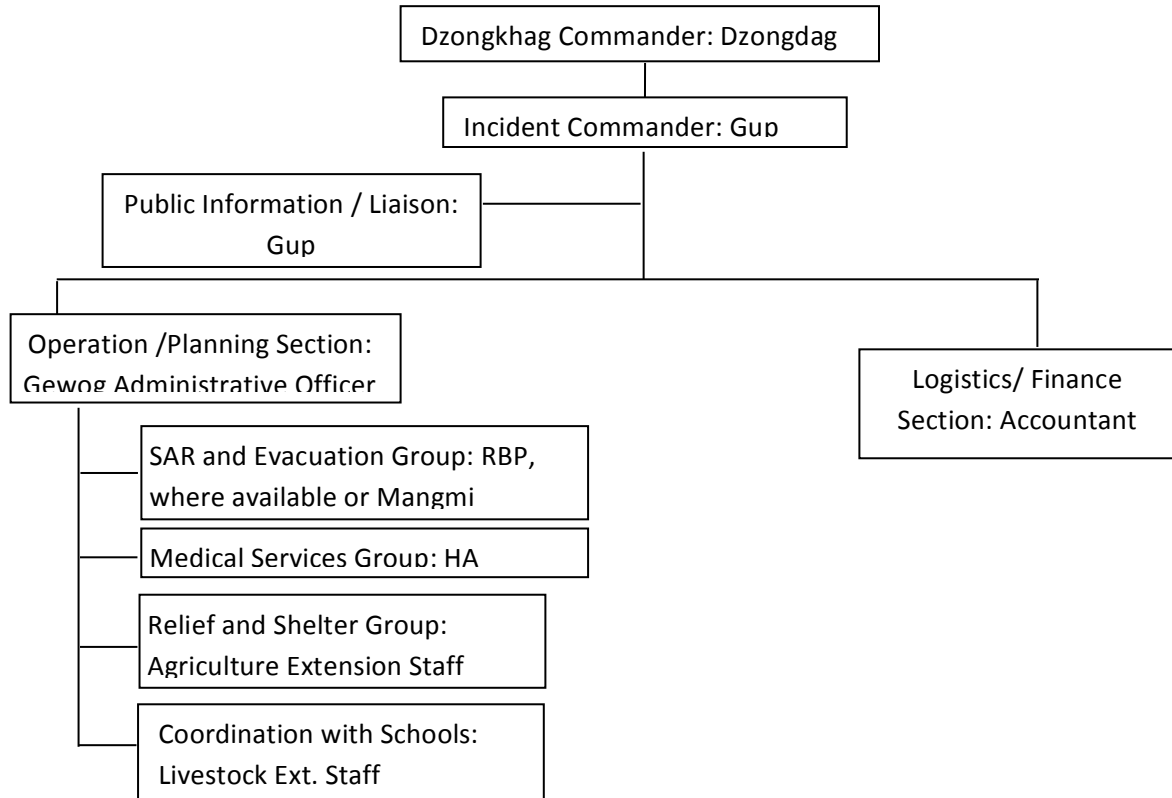
- i. In case of an impending disaster situation, Gewog administration will be responsible for establishing immediate contact with likely affected areas as soon as there is early warning information and provide orders for evacuation and immediate response.
- ii. In case of an incident/disaster situation:
  - a. Gewog shall immediately submit “First Information Report” (FIR) to the Dungkhag DM Sub-Committee/ DDMC/ Dzongkhag Disaster Management Officer (DDMO).
  - b. Gewog Incident Management Team shall provide immediate response and relief within their capacity and submit for SAR and other response needs to the DDMC, if required.
  - c. The DDMO shall submit the FIR to the DDM within 24 hours of the incident.
  - d. Gewog Incident Management Team shall conduct rapid needs assessment as per Bhutan Disaster Assessment (BDA) tool within 72 hours.
  - e. Gewog shall conduct detailed damage assessment along with insurance companies for relief and early recovery and submit report to DDMC.
  - f. Gewog shall provide relief and early recovery support as per damage assessment using available funds at Gewog level and submit expenditure report and bills to DDMC for further submission to DDM, for reimbursement.
  - g. In case the incident is beyond the coping capacity of the Gewog, request for up-gradation of disaster from Type I to Type II shall be submitted to DDMC.

##### **Gewog Incident Management Team**

The Gewog Incident Management Team will be led by Gup and monitored by Dzongdag/ Dungpa. Due to the lack of sufficient officers at the Gewog level, the Logistics and Finance functions will be undertaken by the same officer especially in Type I disasters. In case the disaster becomes Type II but still limited to geography of the affected Gewog then the IMT from the Dungkhag / Dzongkhag will assume command with the support of the IMT at the Gewog.



## Incident Management Team at the Gewog level



### 2. In case of Type II

**Disaster Type II** - A disaster shall be classified as Type II if it can be managed with available resources and is within the coping capacity of the Dzongkhag concerned.

In case of receiving early warning of an impending disaster situation, the DDMC Chairperson shall immediately activate the Dzongkhag Emergency Operation Centre and relay the early warning to all the Dungkhag/ Gewog/Thromde offices along with orders for evacuation, deployment of Search and Rescue Teams or any other response as required.

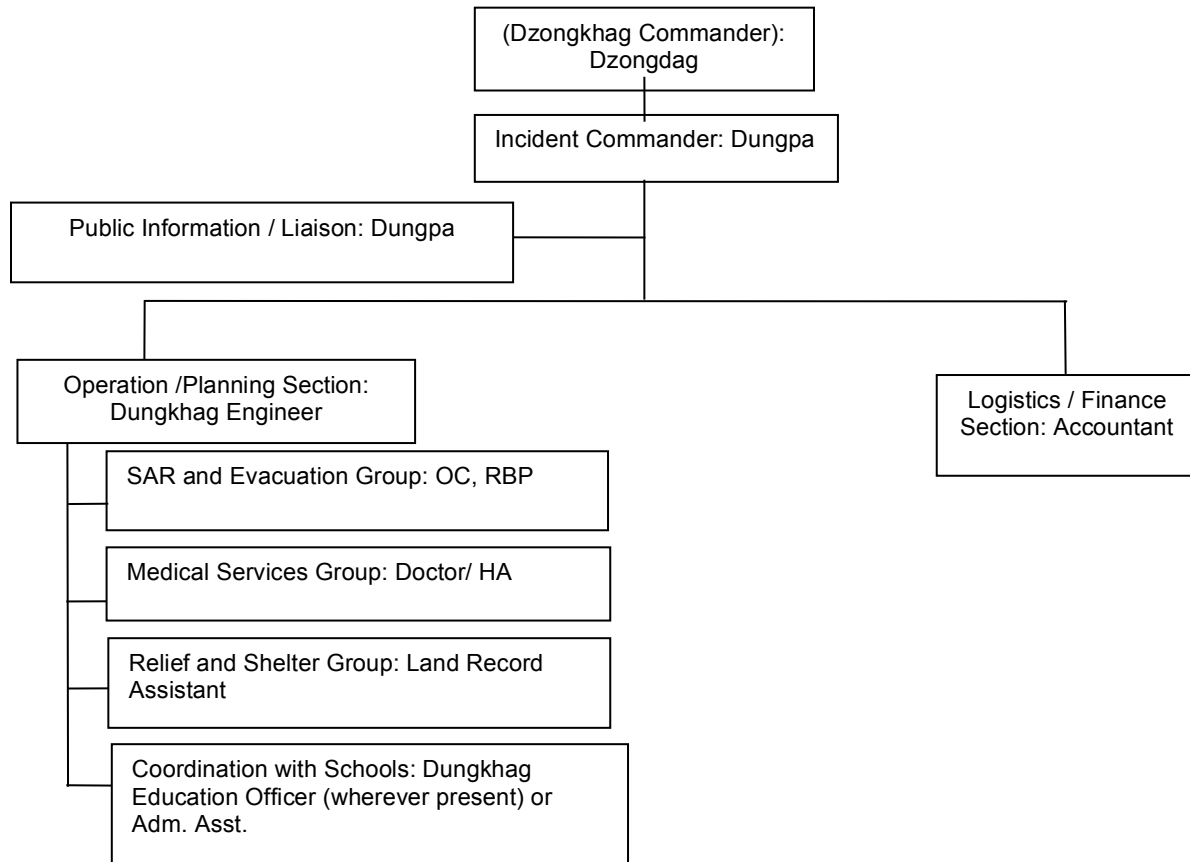
- i. In case of an incident/disaster situation:
  - a. The DDMC Chairperson shall activate the DEOC and be in contact with the National Emergency Operation Centre.
  - b. Dzongkhag/ Dungkhag Incident Management Team shall establish contact and line of communication with disaster site and provide immediate response and relief within their capacity and submit for SAR and other response needs to NEOC, if required.
  - c. The DDMO shall submit the FIR to the DDM within 24 hours of the incident.
  - d. Dzongkhag/ Dungkhag Incident Management Team shall direct evacuation of disaster-

- affected communities to safe areas and temporary shelters.
- e. Dzongkhag/ Dungkhag IMT shall conduct rapid needs assessment as per Bhutan Disaster Assessment (BDA) tool within 72 hours.
- f. Dzongkhag/ Dungkhag shall conduct detailed damage assessment along with insurance companies for relief and early recovery and submit report to DDMC.
- g. DDMC shall provide relief and early recovery support as per damage assessment using available funds at Dzongkhag level and submit expenditure report and bills to DDM for further submission to Ministry of Finance for reimbursement.
- h. In case the incident is beyond the coping capacity of the Dzongkhag, request for up-gradation of disaster from Type II to Type III shall be submitted to the NDMA.

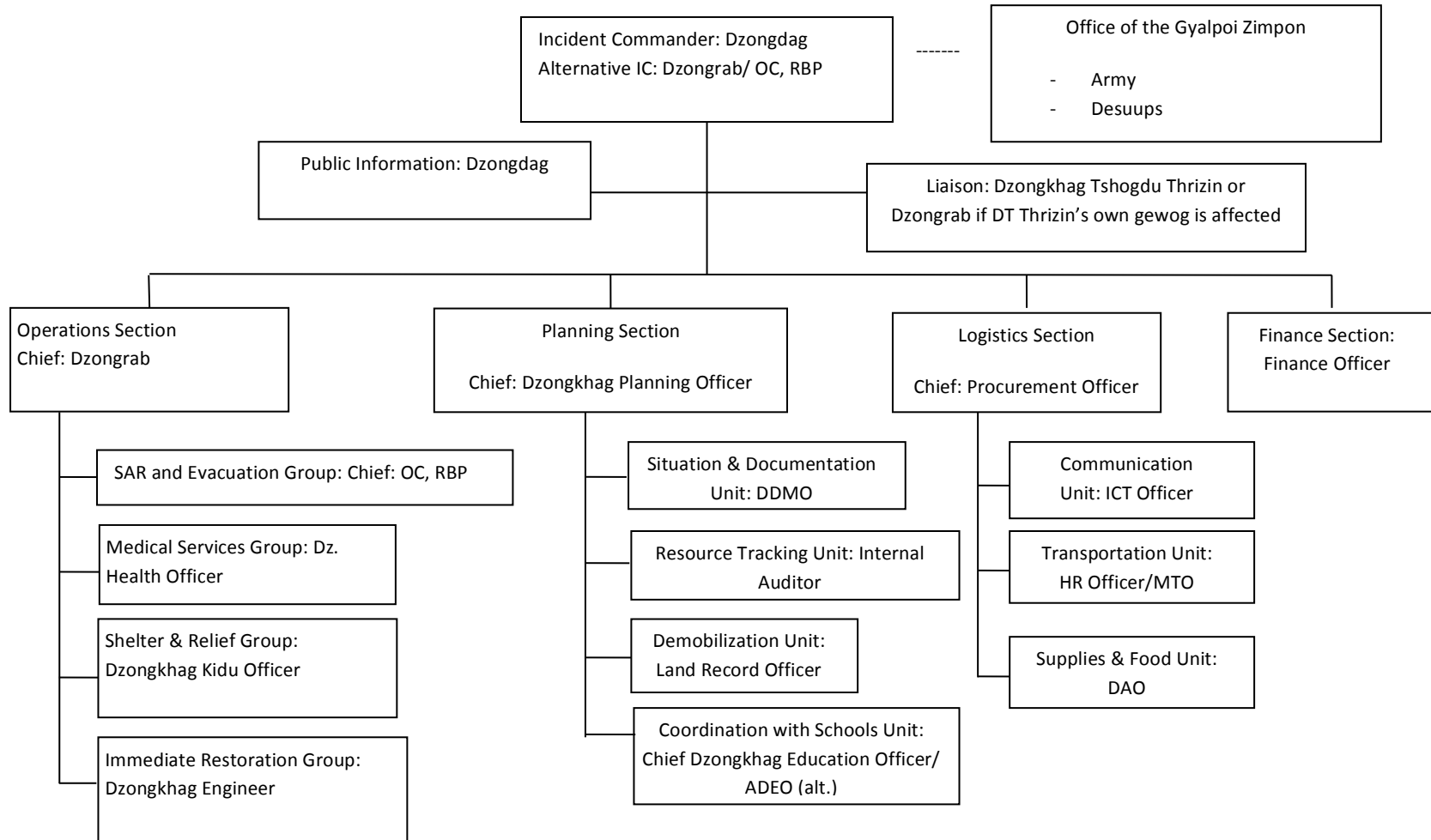
**Dungkhag Incident Management Team**

The Dungkhag Incident Management Team will be led by Dungpa and monitored by Dzongdag. Due to the lack of sufficient officers at the Dungkhag level, the Logistics and Finance functions will be undertaken by the same officer especially in type I disasters. In case the disaster becomes type-II but still limited to geography of the affected Dungkhag then the IMT from the Dzongkhag will assume command with the support of the IMT at the Dungkhag.

**Incident Command System Organization for Dungkhag level (Incident Management Team)**



## 5.2 Incident Management Team at the Dzongkhag level



### ***Transportation Unit leader to liaise with RSTA Base In-charge***

*Note:* The support of Desuups/ Dratshang/ National Government Organizations (NGO)/ Civil Society Organization (CSO)/ Corporations/ Regional Offices/ Private businesses and communities will be coordinated through the National Disaster Response Coordination Center (NDRCC) and IMT at the national and Dzongkhag level. As per Section 41 of the Disaster Management Act 2013, the Dzongdag (chair of DDMC) has the authority to ‘requisition necessary human and material resources from any agency, CSO, private sector or person’ for the purpose of response and relief operations.

#### **1. In case of Type III**

**Disaster Type III** - A disaster shall be classified as Type I if severity and magnitude is so great that it is beyond available resources and coping capacity of the Dzongkhag concerned.

A disaster Type III is at national scale and will be managed by the NDMA and the DDMC shall follow the directives of the NDMA/ the National Disaster Response Coordination Committee.

**Flow of information and communication- Unit/ team members to Unit/ team leaders, Unit/ team leaders to Section Chiefs, Section Chiefs to IC, IC to DDM/ NDMA**

- 1. Rapid Assessment Team**
- 2. SAR/ Evacuation Team**
- 3. Medical Services Team**
- 4. Shelter and Relief Team**
- 5. Immediate Restoration Team**
- 6. Debris Clearing Team**
- 7. Dead Body Management team**
- 8. Carcass Disposal Team**

## **Roles and Responsibilities of the IMT:**

### **1. IC: Incident Commander**

The incident commander at the Dzongkhag level by default will be the Dzongda. During the non-disaster times, Dzongda will function as the chairperson to the Dzongkhag Disaster Management Committee (DDMC) and as chief emergency/disaster coordinator and also as incident commander during the disaster. The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. The IC has overall authority and responsibility for conducting incident/disaster operations and is responsible for the management of all incident/disaster operations at the incident site.

#### **The Incident Commander is responsible for:**

- ✓ Developing incident objectives and managing incident operations.
- ✓ Setting priorities and defining the ICS organization for the particular response.
- ✓ Assigning or deputing other officials to assist in responding, in consultation with the Chief Coordinator.
- ✓ Assess the on-site situation.
- ✓ Report periodically to the DEOC and keep Chief Coordinator informed of incident status.
- ✓ Brief Command Staff.
- ✓ Establish immediate priorities especially the safety of responders, other emergency workers, bystanders, and people involved in the incident.
- ✓ Establish an appropriate organization.
- ✓ Approve the use of trainees, volunteers, and auxiliary personnel.
- ✓ Stabilize the incident by ensuring life safety and managing resources efficiently and cost effectively.
- ✓ Approve implementation of the written or oral Incident Action Plan (IAP).
- ✓ Ensure that adequate safety measures are in place.
- ✓ Order the demobilization of the incident when appropriate.

#### **Alert and Warning stage**

- ✓ Maintain contact with forecasting agencies and gather all possible information regarding the alert.
- ✓ Ensure that all concerned in areas likely to be affected by imminent disaster receive warning signals and respond accordingly.
- ✓ Inform members of Dzongkhag Disaster Management Committee.
- ✓ Maintain contact with Dzongkhag and National EOC.
- ✓ Instruct all concerned to remain in readiness for responding to the emergency.

- ✓ Advice concerned officials to carry out evacuations where required, and to keep transport, relief and medical teams ready to move to the affected areas at a short notice.
- ✓ Authorize release of information to media

### **During Disaster**

- ✓ Convene meeting of Dzongkhag Disaster Management Committee.
- ✓ Conduct Rapid Assessment and launch Quick Response.
- ✓ Keep Dzongkhag and National EOC informed of the situation.
- ✓ Command the DEOC
- ✓ Receive reports from and give necessary directives to the Incident Commander
- ✓ Authorize release of information to media
- ✓ Approve the request and release of funds and resources
- ✓ Authorize Incident Commander to procure required or additional resources

### **After Disaster**

- ✓ Organize initial and subsequent technical assessments of disaster affected areas and determine the extent of loss and damage and volume and nature of relief required.
- ✓ Keep the Dzongkhag Disaster Management Committee and the national and Dzongkhag EOC informed of the situation.
- ✓ Ensure supply of food, drinking water, medical supplies and other emergency items to the affected population.
- ✓ Request national government for assistance if the Dzongkhag Disaster Management Committee deems the situation to be beyond the capacity of the Dzongkhag to manage.
- ✓ Visit and coordinate the implement of various relief and rehabilitation programmes.
- ✓ Coordinate the activities of NGOs in relief and rehabilitation programmes.

- ❖ Overall management of the incident/ disaster
- ❖ Gives policy direction
- ❖ Will be responsible for all aspects of an emergency response
- ❖ Develop incident objectives and manage incident operations
- ❖ Application of the resources and responsibility for all persons involved

**Concerned Person:** Dzongdag for Dzongkhag, alternative Dzongrab and SP

Dungpa for Dungkhag

Gup for Gewog.

**2. Public Information Officer:**

- ❖ Communicate and share important incident response information with others responding units and/or organizations and the public.

**Concerned Person:** Dzongdag for Dzongkhag

Dungpa for Dungkhag

Gup for Gewog

**3. Liaison Officer**

- Liaise with other agencies supporting disaster response

**Concerned Person:** Dzongrab or DT Thrizin for Dzongkhag

Drungpa for Drungkhag

Gup for Gewog

**4. Operations Section:** responsible for all tactical operations at the incident such as search and rescue, medical, infrastructure, and shelter/relief.

- ❖ Oversees and coordinates the entire operation.
- ❖ During recovery, all of the other recovery teams will report to this team on a regular basis.
- ❖ Advices the IC on issues regarding incident safety
- ❖ Ensures the safety of all incident personnel

**Concerned Person:** Dzongrab for Dzongkhag

Dungkhag Engineer for Dungkhag

Gewog Administrative Officer for Gewog

**Groups under the Operations Section;**

**4.1 SAR and Evacuation Group:** will be responsible for conducting the SAR and providing evacuation at the site of the incident. Also responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety.

- ❖ Pre – identify members and leaders (including how many teams)
- ❖ Pre - Any other SAR teams, volunteers

- ❖ Pre – SAR teams to be trained (including code of conduct and emergency first aid) and equipped
- ❖ Pre – stockpiling of SAR equipment
- ❖ Pre-List of vehicles with names and contact details (Dzongkhag and regional Pool vehicle, private vehicle, school buses)
- ❖ Pre-identify people in each team based on identification of evacuation areas- identify team leader
- ❖ Pre-Identify volunteers from the communities
- ❖ **Pre-Evacuation areas:** identify evacuation areas for each location
- ❖ Pre-Awareness on the identification of evacuation centers and routes (based on specific hazard)
- ❖ **Pre-Pre-arrangement** with BoD for fuel supply
- ❖ **During** – Evacuation from the affected area to the nearest identified evacuation center/Medical center
- ❖ **During-** give priority to the vulnerable groups (injured, old, children, people with special needs, women)
- ❖ During – Contact and deploy, including other SAR teams and volunteers

**Concerned Person:** SP/OC, RBP for Dzongkhag, Dungkhang and Gewog (also Mangmi for gewogs)

**4.2 Medical Services Group:** will be responsible for organizing mobile medical teams of specialists from within (and outside if the need arises) for immediate response and coordinating with the DEOC for supply of:

- ✓ Medical relief for the injured
- ✓ Number of ambulances required and locate hospitals
- ✓ Medical equipment and medicines required
- ✓ Special information required regarding treatment for epidemic etc.
- ✓ Blood

They would also be responsible for the monitoring of:

- ✓ Treatment of the injured and sick
- ✓ Preventive medicine and anti-epidemic actions
- ✓ Reports on food, water supplies, sanitation and disposal of waste and coordinate the services of investigation laboratories support services
- ✓ Health and, sanitation, water supply, disposal of wastes, water sanitation and health services
- ✓ Communities for storage of rations, sanitation, water supply, disposal of wastes, water stagnation and health services
- ✓ Provide medical assistance to the victims



- a. Pre – Identify team members
- b. Pre –Training in emergency first aid for Dzongkhag/ gewog staff and residents
- c. During: Provide medical relief

Concerned Person: Dzongkhag Health Officer for Dzongkhag

Doctor/HA for Dungkhag and Gewog

**4.3 Shelter and Relief Group:** responsible for providing shelter and relief for both responder and affected families.

- a. Shelter -

**Pre**-stockpile (blankets, tarpaulin sheet, tents, CGI sheets, family kits, minimum standards, bamboo, rope, mat/mattress fuel/fire wood (pre-arrangement)

**During**- setup the shelters, distribute relief items

- b. Food and water-

**Pre**- as per the minimum standards (individual or family) (FCB)

**During** -Distribute food and water, ensure fair distribution

- c. Sanitation-

**Pre**-stockpile (health and hygiene kits)

**During** – distribute health and hygiene kits

- d. Safety and security, crowd management- RBP at distribution points and at each evacuation center with assistants from trained volunteers

**Pre**- agreement on dress code, procedure on safety and crowd management and awareness to general public on safety arrangement

**Pre** – pre-arrangement with the RBP

**During** – provide safety and security at the evacuation center, crowd management

- e. Medical –MoH (medical staff in each evacuation center)

**Pre** – pre-arrangement with the MoH;

**During** – provide medical services at the evacuation center, triage, counseling and psycho-social support

Need: stockpiles of essential food- FCB, tents, blankets, basic SAR equipment (shovel, helmet, gloves, stretcher, battery operated lighting, safety boots, flash lights, goggles, dust mask etc), generators, portable toilets

- Detailed inventory of stockpiles and resources and things that need to be procured

**Concerned Person:** Dzongkhag Kidu Officer for Dzongkhag

Land record Assistant for Dungkhag

Agriculture Extension Staff for Gewog

**4.4 Immediate Restoration Group:** is responsible to provide immediate restoration of essential public services. BPC and Telecom will also restore their services that have been affected by the disaster.

- a. Pre-** Identify required resources, stockpile, mapping of road network, bridges, water supply network
- b. Pre-** pre-arrangement with services providers (BPC, RSTA, RBP, RBA, relevant stakeholders)

**Concerned Person:** Dzongkhag Engineer

**5. Planning Section:** responsible for the collection, evaluation, and dissemination of information related to the incident, and for the preparation and documentation of Incident Action Plans. The Section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident.

- ❖ Responsible for making the incident action plan
- ❖ Maintain proper documentation, reporting and accounts

**Concerned Person:** Dzongkhag Planning Officer for Dzongkhag

Dungkhag Engineer for Dungkhag

Gewog Administrative Officer for Gewog

### **Units within Planning Section**

**5.1 Situation and Documentation Unit:** - responsible for the collection, organization, and analysis of incident status information, and for analysis of the situation as it progresses. Responsible for collecting, recording and safeguarding all documents relevant to the incident.

**Concerned Person:** DDMO

**5.2 Resources tracking Unit:** - responsible for maintaining the status of all assigned resources (primary and support) at an incident.

**Concerned Person: Internal Auditor**

**5.3 Demobilization Unit:** - responsible for assuring orderly, safe, and efficient demobilization of incident resources.

**Concerned Person:** Land Record Officer

**5.4 Coordination with Schools Unit:** responsible for coordination with schools.

**Concerned Person:** Dzongkhag Educaion Officer/ADEO (alt) for Dzongkhag  
Dungkhag Education Officer (wherever present) or Adm. Asst. for Dungkhag  
Livestock Ext. Staff for Gewog

**6. Logistics Section:** responsible for providing facilities, services, and materials for the incident.

- ❖ Identify shops and items (based on guidelines issued by DDM)
- ❖ Logistics team to be stationed at DEOC/ or strategic location depending on assessment
- ❖ Request, maintain and distribute stockpiles of Equipment, Food, water, Tents, blankets and other emergency relief items
- ❖ Provide logistics support to all operations teams
- ❖ Responsible for all the matters related to finance during the disaster
- ❖ Provide financial directives to DEOC

**Concerned Person:** Procurement Officer for Dzongkhag  
Accountant for Dungkhag and Gewog

The following units will function under the Chief of Logistic Section.

### **Units within Logistic Section**

**6.1 Communications Unit:** responsible for collecting and communicating incident related information to incident commander/staff and the DEOC

- ✓ Submitting situation report (SITREP) to the DEOC
- ✓ Distribution and maintenance of communication equipment
- ✓ Facilitate communication/ relay information between affected population and their families
- ✓ Maintain contact with forecasting agencies/ EOCs and gather all possible information that may further impact the disaster or an impending disaster situation.

**Concerned Person:** Dzongkhag ICT Officer

**6.2 Transportation Unit:** responsible for the fuelling, maintaining, and repairing of vehicles, and the transportation of personnel and supplies. In close collaboration with RSTA shall ensure transportation arrangements, including helicopter services, as required.

**Concerned Person:** Human Resource Officer /MTO

**6.3 Supplies and Food Unit:** Responsible for providing meals for incident personnel and for providing food/supplies for the relief and shelter for victims. Responsible for providing facilities, services, and materials for the incident.

**Concerned Person:** Dzongkhag Agriculture Officer

**7. Finance Section:**

- ✓ Responsible for all incident costs and financial considerations.
- ✓ Responsible for tracking costs, analysing cost data, making cost estimates, and recommending cost-saving measures.
- ✓ Responsible for financial concerns resulting from property damage, injuries, or fatalities at the incident.
- ✓ Responsible for fiscal matters involving hiring, purchasing goods and services, and establishing local sources for obtaining equipment and supplies.

**Concerned Person:** Finance Officer for Dzongkhag  
Accountant for Dungkhag and Gewog

**Other teams;**

**Volunteers' Management Desk**

The volunteers' management desk will be headed by the Human Resource Officer and will be supported by the Census Officer and Election of the Dzongkhag. Other members may assist the desk if required. Often, after the impacts of an event on a community, spontaneous volunteering occurs. The incident commander shall advise on volunteer management arrangements and for working with key focal person of the respective desks to ensure arrangements are in place for these volunteers to be productive. These arrangements should include the selection, induction and safety of these volunteers. This section is responsible for:

- ✓ Registering the volunteers and report to the incident commander for advice and further instructions.
- ✓ Distribute the safety gadgets to the volunteers working in the affected sites.
- ✓ Maintain up-to date information on the volunteers with regards to dispatch of volunteers to the site and their return and communicate with the incident commander.
- ✓ Try to get as many as volunteers in times of disaster.

**Concerned Person:** HRO supported by census officer and Electoral officer

### **Rapid Assessment Team**

- a. Pre –Identify Rapid Assessment Team members and train and familiarize with assigned area
- b. Pre – Communication set-up (procure additional HF/VHF sets and distribution)
- c. Pre - Rapid assessment forms to be available in all gewogs and in the DEOC after the form is finalized by DDM.
- d. During - Conduct immediate assessment of disaster in terms of no of people affected (dead, injured, without shelter, missing), people needing SAR, evacuation, medical assistance, extent of damage, road network and bridges
- e. After – Carry out periodic assessments as directed by team leader

**Concerned Person:** DDMO, RICBL manager, DE & relevant sectors for Dzongkhag

Dungpa, Adm Assistant, relevant officials for Drungkhag

Gup, GAO, & relevant officials for Gewog

### **Debris Clearing Teams**

- a. **Pre-** no of teams- names of the team members, leader
- b. **Pre-**Make list of Machinery, excavators within the Dzongkhag including private, DoR and corporate
- c. **Pre-**Identify the volunteers from communities
- d. **During-** Clear debris based on the rapid assessments (roads, buildings, bridges etc)

**Concerned Person: Dzongkhag Engineer**

### **Dead Body Management Team:**

- a. During – support families to transport body to cremation ground; support Dratshang Lhentshog and RBP to carry out mass cremation in case of unidentified bodies
- b. Pre – Clarify dead body management guidelines with MoH and DDM
- c. Pre - Clarify procedures at national level, including identification of locations and arrangements for dead body storage/ preservation; dead body handling/ labor at cremation sites – DDM and MoH
- d. Territorial/ Range Office to provide firewood

**Concerned Person:** Dzongkhag Culture Officer, Red Cross Focal and relevant Officials

## **Carcass disposal Team**

- e. Pre – clarify procedures for carcass disposal (MoAF – BAFRA, DoL)
- f. Pre – Identify locations and labors
- g. During – collect, transport and dispose carcass at identified locations in coordination with DoL and BAFRA

The IMT at the dzongkhag/ dungkhag and gewog level will be activated during general hazards/ disasters that affect all sectors such as earthquake, floods, landslides etc. RNR/ health related disasters such as forest fire, avian influenza animal health emergencies require a different response therefore we may use the existing response mechanisms developed by the MoAF and Ministry of Health in consultation with relevant sectors, which has proved very successful in responding to past events.

**Note: Gewogs to come up with their own detailed DM and contingency plans**

### **5.2.3 Standard Operating Procedures for response to disaster:**

In case of receiving early warning of an impending disaster situation or in the event of a disaster, the DDMC Chairperson shall immediately activate the Dzongkhag Emergency Operation Centre and relay the early warning to all the Gewogs along with orders for evacuation, deployment of Search and Rescue Teams or any other response as required.

Response Immediately after a disaster:

1. As soon as a disaster strikes the Contingency Plan is activated
2. Rapid assessment teams to conduct rapid assessment and pass on the assessment information to IC/ DEOC
3. DDMC and all Teams to report to DEOC
4. DEOC to compile rapid assessment report and submit to DEOC head (Dzongdag)
5. Planning Section to formulate Incident Action Plan/ IAP (response strategy for a fixed duration along with IC and other section chiefs
6. Based on the IAP initiate response actions -
  - a. Briefing of Unit leaders by Section Chiefs
  - b. Briefing of team members on their respective task by the team/ unit leaders (including area, timings, shift system, communication, etc.).
  - c. Deployment of teams.
7. IC to submit rapid assessment report and IAP to National Emergency Operation Centre through the Dzongkhag Emergency Operation Centre
8. Logistics Section to mobilize resources as per the IAP

9. Outgoing team leaders to brief the incoming Team Leader on the status of ongoing operations.
10. Debrief of the day's response – At Team level, Section level and EoC level
11. Planning Section - based on de-brief information to plan for operations for the next day (detailed roles and responsibilities to be worked out)
12. Liaison officer to submit list of resources required to the NEOC
13. Liaison officer to depute volunteers based on needs in the field
14. IC to provide public information i.e. provide timely press releases and advisories
15. Dzongkhag shall conduct detailed damage assessment along with insurance companies for relief and early recovery and submit report to DDMC.

Dzongkhag shall provide immediate relief and response support as per rapid assessment reports using available funds at dzongkhag/ Gewog level and submit expenditure report and bills to DDMC for further submission to Ministry of Finance, with a copy to DDM, for reimbursement. Bills submitted by the Gewogs have to be verified by the Gup and related sectors.

**Mode of Communication during disaster/ threatening disaster situation:**

- ✓ First line communication: VHF handsets
- ✓ Alternative modes of communication: Mobile phone
- ✓ Social media (Whatapps and Telegram group for Dzongkhag, Drungkhag and Gewog)
- ✓ BBS and radio for giving information to communities
- ✓ Sat phone: not activated (to be used for emergencies when other modes of communication fail)

**5.3 Dzongkhag Emergency Operation Centre Establishment and Management**

The DEOC is to be established as per Section 105 of the Disaster Management Act of Bhutan. The DEOC will perform the following functions for coordination and management of disasters:

- ✓ receive disaster alerts and warnings from responsible agencies and other sources and communicate the same to all relevant agencies
- ✓ forward reports to relevant agencies
- ✓ monitor response and relief operations
- ✓ facilitate coordination
- ✓ requisition resources during disaster
- ✓ other functions as may be necessary

**Location of the DEOC (temporary): Desuung Club House/Visitor Centre**

**Staffing during normal times as per the Disaster Management Rules & Regulations 2014:**

1. Officer in charge: DDMO

2. Manned by two full-time technicians as per Section 62 of the Disaster Management Rules and Regulations 2014

### **During threatening/ disaster situations**

1. Dzongdag to head the DEOC as per the Act
2. Other sector experts to staff the DEOC
3. DDMC to meet in the DEOC to make critical decisions

### **Chapter 5: Implementation Mechanism**

As per the DM Act, the DDMC will be responsible for the formulation, endorsement, implementation, monitoring and updating of the Dzongkhag DM and Contingency plan. The DDMC shall meet at least twice a year to review and update the plan's implementation progress.

Dzongkhag and Gewog administrations will be responsible for implementation of the prioritized plan activities and ensure that the activities are mainstreamed into their annual and five year plans. The Dzongkhag Disaster Management Officer will facilitate mainstreaming of priority disaster risk reduction, preparedness, awareness and capacity building activities in annual and five year development plans of the Dzongkhag.

In the event of disaster, DDMC will activate the Dzongkhag Contingency Plan. DDMC will as an emergency measure, meet the meet the expenses for response and relief operation from the annual budget of the Dzongkhag in accordance with the financial guidelines.

For immediate restoration of critical disaster management facilities, DDMC will submit the fund request to DDM, secretariat to NDMA as per financial guidelines.

The budget requirement for the recovery and reconstruction works should follow the normal budgetary process. The DDMC and concerned sectors shall for the purpose of recovery and reconstruction of public assets and infrastructure, undertake detailed damage assessment within its area of responsibility as per the post disaster assessment framework endorsed by the NDMA. The detailed damage assessment along with the work program and cost estimate will be submitted to DDM who will review and forward to NDMA for further submission to MoF.

The DDM, as the national coordinating agency for disaster management and the executive arm of the NDMA, shall ensure support of the NDMA and of concerned sectors and agencies. The DDM will also provide technical and monitoring support and help in mobilizing resources for the plan.

As member secretary, the DDMO will keep record, maintain data, and assist the chairman of the DDMC in monitoring the Dzongkhag DM plan activities. The DDMO shall present the plan's



progress during DDMC meetings and update DM plan activities and budget annually. DDMO will also ensure that reports are submitted to the DDM and the NDMA, as required.

### **Financial Provisions as per the Disaster Management Act of Bhutan 2013**

As per the Disaster Management Act 2013, there four different types of financial arrangement such as *Response and Relief Expenditure*, *Budget for National Disaster Management Activities*, *Budget for Department of Disaster Management* and *Recovery and Reconstruction budget*. However, there are three main categories of the disaster management activities in the Dzongkhag for which the budget allocation is required;

- i) Preparedness
- ii) Response and Relief Expenditure
- iii) Recovery and Reconstruction

#### **Preparedness**

The Disaster Management Act 2013(DM Act 2013) mandates Gewog, Thromde, Dzongkhag, Agency and Private Sector notified to ensure mainstreaming of Disaster Risk reduction into its development plan, policy, programme and project. Thus, any expenditure on disaster preparatory works, like mitigation, prevention, purchase of equipment and so on should be proposed by the concerned agency/sector following the normal planning and budgetary procedures. For instance, any construction in the country should incorporate the disaster resilient technology inclusive of its budget.

#### **Response and Relief Expenditure**

As per the DM Act 2013 there shall be a Dzongkhag Disaster Management Committee (DDMC). The Chairperson of DDMC shall, upon declaration of disaster, have the authority to use annual budget of the concerned Dzongkhag, to provide Response and Relief support to the affected people and communities. Response and Relief shall include the following:

- a. Providing food, shelter and other essential relief items for the affected people and *Responders (if need be)* as per the minimum standards set by the Department of Disaster Management (DDM).

*“Procurement of items/ goods/ services for the purpose of relief and response, not reflected in the annual quotation of the Dzongkhag/Sectors, may be exempt from standard procurement*

*procedures specified in the Procurement Rules and Regulations, where exigencies of the disaster situation demand, as per section 89 of the DM Act 2013”.*

- b. Payment of compensation to person or private entities, whose property is used, lost or damaged during relief, response and recovery operation in accordance with Chapter 11 of the DM Act 2013.

After the expenditures are met from the annual budget, *the agencies shall* submit detailed accounts of expenditure with copies of documentary evidences to the National Disaster Management Authority (NDMA) through the DDM for budget sanction by the Department of National Budget (DNB), MoF. The DNB, MoF shall, upon receipt of reimbursement letter from NDMA, reimburse the actual amount of expenditure to the agency concerned at the earliest possible (*within 3 weeks*).

In case the annual budget of the agencies is not enough to meet the expenses for response and relief operation, the Chairperson of DDMC may make written requests to the Chairperson of the NDMA for additional funds from DNB, MoF.

The Operation Coordinator or Chairperson of DDMC shall ensure that a detailed inventory of goods/items and services procured for response and relief operation.

### **Recovery and Reconstruction**

The budget requirement for the recovery and reconstruction works should follow the normal budgetary process. The DDMC and concerned sectors shall, for the purpose of recovery and reconstruction of public assets and infrastructure, undertake detailed damage assessment within its area of responsibility as per the post disaster assessment framework endorsed by the NDMA. The detailed damage assessment along with the work program and cost estimate shall be submitted to DDM who shall review and forward to NDMA for further submission to MoF. The NDMA shall make recommendation to the Government (MoF) for release of fund to the sectors concerned. However, for any major recovery and reconstruction works, the concerned Dzongkhag or agency shall plan that such works are considered for the budget allocation during the preparation of the annual budget.

In the event of major disaster, where the restoration expenditures are huge and depending on the availability of resources, the government may have to reprioritize the plan activities to finance the requirement.

## Annexure

### a. Contact details of DDMC members

SN	Name	Designation	Contact no.	Email id	Remarks
1	Melam Zangpo	Dzongdag	17712170	mzangpo@mohca.gov.bt	Chairperson
2	Phurba Wangdi	Dzongrab/Kidu focal	17621579	pwangdi@haa.gov.bt	Deputy Chairperson
3	Tenzin Jamba	DT Chairperson, Gup, Eusu Gewog	77212513	tenzinjamba2015@gmail.com	Member
4	Passang	Gup, Bji Gewog,	17682055	bjiguppasang@gmail.com	Member
5	Phuntsho Norbu	Gup, Katsho Gewog	77660154	pnorbukatsho@gmail.com	Member
6	Tobgay	Gup, Sangbay Gewog	77985518	<a href="mailto:tobgaytobgay95@gmail.com">tobgaytobgay95@gmail.com</a>	Member
7	Namgay Tenzin	Gup, Samar Gewog	17646564	namgaytenzin00@gmail.com	Member
8	Wang Tshering	Gup, Gakiling Gewog	77238333	nachiwang@gmail.com	Member
9	Rinchen Khandu	Thromde Ngotshab	17111977	rkhandu741@yahoo.com	Member
10	Dorji Khandu	OC, RBP, Haa	17940699	dorjikhandruk@gmail.com	Member
11	Phub Dorji	Drungchen, Haa Rabdey	17650121	<a href="mailto:haadrungchen@gmail.com">haadrungchen@gmail.com</a>	Member
12	Tendrel Zangmo	DT Secretary/DDMO	17971172	<a href="mailto:tendrelz@haa.gov.bt">tendrelz@haa.gov.bt</a>	Member Secretary
13	Kelzang Jamtsho	DCO/Desuup Coordinator	17160926	<a href="mailto:kjamtsho@haa.gov.bt">kjamtsho@haa.gov.bt</a>	
14	Ugyen Wangchuk	Chief Forestry Officer, JKSNR	17612566	<a href="mailto:ugyenwangchuk@moaf.gov.bt">ugyenwangchuk@moaf.gov.bt</a>	
15	Sonam Wangdi	Range Officer	17611310	<a href="mailto:wangmanos@gmail.com">wangmanos@gmail.com</a>	
16	Kritiman Rai	Offtg. Dungpa, Sangbaykha Dungkhag	17742120	<a href="mailto:krai@haa.gov.bt">krai@haa.gov.bt</a>	
17	Tandin Penjor	Manager, RICBL	77402627	<a href="mailto:tandinpenjor23@gmail.com">tandinpenjor23@gmail.com</a>	
18	Sangay	Manager, BPC	17116812	<a href="mailto:esdhaa@bpc.bt">esdhaa@bpc.bt</a>	
19	Maita Raj Rai	Manager, BTL	17113279	<a href="mailto:manager.haa@bt.bt">manager.haa@bt.bt</a>	

20	Kelzang Phuntsho	RSTA	17666665	<a href="mailto:kphuntsho@rsta.gov.bt">kphuntsho@rsta.gov.bt</a>	
21	Tshering Gyelmo	FCBL	17617367	haa.depot@gmail.com	
22	Passang Wangmo	Focal, Red-cross	17614186	<a href="mailto:papuwam888@gmail.com">papuwam888@gmail.com</a>	
23	Nakchung	DE	17636521	<a href="mailto:nakchung@haa.gov.bt">nakchung@haa.gov.bt</a>	
24	Kinley Gyeltshen	CDEO	17611045	<a href="mailto:kgyaltshen@education.gov.bt">kgyaltshen@education.gov.bt</a>	
25	Tashi Norbu	CDHO	17648612	tnorbu@gasa.gov.bt	

**b. Contact Details of additional responsible officers**

SN	Name	Designation	Contact no.	Email id	Remarks
1	Tashi Wangchuk	ADAO	17888669	tshwangchuk@gmail.com	
2	DN Chapagai	ADLO	17336710	dchapaigai@haa.gov.bt	
3	Tshering Chezom	AFO	17552746	tchezom@haa.gov.bt	
4	Ugyen Dorji	Offtg. Procurement Officer	17773864	ugyenstore@gmail.com	
5	Karma Chophel	HRO	17447923	karmachophel@haa.gov.bt	
6	Ugyen Dorji	Internal Auditor	17524030	ugyend@haa.gov.bt	
7	Cheda Jamtsho	Planning Officer	77461233	cjamtsho@haa.gov.bt	
8	Ugyen Lhamo	Legal Officer	17528970	ulhamo@haa.gov.bt	
9	Chimi Wangmo	Offtg. ICT Officer	17660716	cwangmo@haa.gov.bt	
10	Sonam Norbu	Environment Officer	77246869	snorbu@haa.gov.bt	
11	Gyem	Land Registrar	17653106	gyem@haa.gov.bt	

**b. Haa Dzongkhag SAR Team**

<b>S/N</b>	<b>Participants</b>	<b>Designation/Office</b>	<b>Contact Number</b>	<b>Remarks</b>
1	Kelzang Jamtsho	DCO/DAH	17160926	Desuung Gojay
2	Sonam Tshering	VP/GUDCS	17806200	Desuup
3	Jamyang Namgay	Haa hospital/MRT	17638819	-Do-
4	Checho Norbu	Taxi Driver	17620318	-Do-
5	Thinley Namgyel	Samar Mangmi	17894189	-Do-
6	Karma Wangmo	Unemployed	17804895	-Do-
7	Phuntsho Norbu	Unemployed	17732207	-Do-
8	Kelzang Wangchuk	Unemployed	77298947	-Do-
9	Sonam Yangzom	Unemployed	17426189	-Do-
10	Kinga Wangmo	Unemployed	77261154	-Do-
11	Yonten Jamtsho	BPC	17487305	-Do-
12	Purni Maya Pradhan	Unemployed	17536308	-Do-
14	Kezang Phuntsho	RSTA	17666665	-Do-
15	Pema Namgay	JKSNR	17876718	-Do-
13	Leki Duba	Census Assistant	77216922	Trained by Dzongkhag
14	Tempay Nima	Surveyor	17772760	Transferred
15	Sonam Dendup	FoP	17451475	-Do-
16	Tempa Gyeltshen	Ranger	17429523	-Do-
17	Sherab Jamtsho	RBP	17683852	Transferred
18	Phub Dorji	RBP	17730882	-Do-
19	Chencho	RBP	17270035	-Do-
20	Jigme Wangchuk	RBP	17541505	-Do-
21	Leki Tshering	RBP	17906721	-Do-
22	Sangay Dorji	RBP	17695983	Transferred
23	Singye Wangchuk	RBP	77358445/17242192	-Do-
24	Pema Lhendup	RBP	77302563	Transferred

**c. Firefighting (trucks, equipment, location, capacity)**

SI No	Facilities	Location	Capacity	Contact person	Phone
1	Fire Fighting Truck (2 nos.)	RBP station			

**d. Medical**

SI No	Name of Hospital/BHU	Location	Capacity	Contact person	Phone
1	District Hospital	Haa Town	20 bedded	Nima Lhamo (GDMO)	17630802
2	PHC	Yangthang	4 bedded	Dorji Dema (HA)	77397726
3	PHC	Dorithasa, Gakiling	4 bedded	Sonam Dorji (HA)	17279714
4	PHC	Sangbay Ama, Sangbay	4 bedded	Kinley Dorji (HA)	17338489
5	PHC	Ngatsena, Gakiling	4 bedded	Chimi Dorji (HA)	17418686

**e. Contact details of 6 Gewog Administrative Officers**

Sl No	Name	Designation	Contact Number
1.	Sonam Yuden	Bji Gewog Administration	77229355
2.		Gakiling Gewog Administration	
3.	Santosh Rai	Katsho Gewog Administration	17981385
4.	Dorji Wangmo	Samar Gewog Administration	17470592
5.		Sangbaykha Gewog Administration	
6.	Phuntsho Choden	Eusu Gewog Administration	17983345

**Emergency Numbers**

FIRE BRIGADE	110
TRAFFIC POLICE	111
AMBULANCE	112
POLICE	113