



Dzongkhag Disaster Management and Contingency Plan



**Dzongkhag Administration, Dagana
ROYAL GOVERNMENT OF BHUTAN
2018**



Foreword

Dagana Dzongkhag has historically been prone to various disasters including but not limited to earthquakes, landslides, floods and windstorm which affect the lives and livelihood of the people. Furthermore, with the changing risk patterns and frequency of disasters, the impact of disasters is likely to increase. Thus the formulation of Dzongkhag specific disaster management and contingency plan is an important strategy to strengthen local level disaster management systems and systematically reduce disaster risks. This is in line with Section 77 of the Disaster Management Act of Bhutan 2013, where in the Dzongkhag Disaster Management Committees are mandated to develop Disaster Management and Contingency Plans, in consultation with the Dzongkhag Sectors and other relevant agencies. 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.

Dagana Dzongkhag Disaster Management and Contingency Plan has been prepared with support from DDM through the NAPA 2 project and through consultation with the Dzongkhag Sectors, Gewog officials and other agencies in the Dzongkhag. The Plan presents the hazard, vulnerability and capacity profile for the 14 Gewogs, including the Disaster Management Action Plan for 2018-2022, which identifies priority activities to raise awareness, reduce risks, and strengthen the preparedness and response capacity. The contingency component of the Plan spells out the Standard Operating Procedures for response during a disaster including the Incident Management Teams at the Dzongkhag, Dungkhag and Gewog levels. An implementation and monitoring process for the Plan is also included.

The Disaster Management and Contingency Plan shall be referred by Gewogs and Sectors to ensure mainstreaming and integration of disaster management into their annual and five-year development plans. It is required that every stakeholder within Dagana Dzongkhag Administration and relevant national disaster management institutions and agencies take full ownership and fulfill their respective roles and responsibilities to make Dagana Dzongkhag disaster resilient and a safe Dzongkhag.



(Phintsho Choeden)
Dzongdag

Acknowledgements

Dagana Dzongkhag would like to extend our sincere gratitude and appreciation to the Department of Disaster Management, Ministry of Home and Cultural Affairs, for guidance as well as inputs to the Dzongkhag DM and Contingency Plan.

The Dzongkhag would also like to extend our appreciation to the OC, RBP, Dasho Dungpa, all the sector head, local leaders and heads of the regional offices for constant support and cooperation in coming up with systematic Dzongkhag Disaster Management and Contingency Plan.

Finally, we would like to acknowledge every individual for your active participation throughout the course of drafting and finalizing this DDMCP.

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 Tshogdue
GNH	Gross National Happiness
GT	Gewog Tshogdey
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

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Scope & Objectives

The Disaster Management and Contingency Plan for the Dzongkhag is prepared, as mandated by Disaster Management Act 2013. The plan was endorsed by the Dzongkhag Disaster Management Committee (DDMC) on 15/5/2018 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 coordination mechanism and standard operating procedures for emergency response and relief operations.
- To ensure safety of community, reduce loss to property, protect critical infrastructure, and environment and continuity of essential services.

Chapter 1: Overview of the Dzongkhag

1.1 Geography

Dagana Dzongkhag is geographically located at the southern part of the country. The elevation above the sea level ranges from 200 to 4720 meters above sea level covering an area of 1722.57 Sq. Km. The Dzongkhag shares its border with Thimphu and Chukha Dzongkhag to the west, Wangduephodrang to the north, Tsirang Dzongkhag to the East and India to the South. The Dzongkhag has a mixed ethnicity comprising of Ngalops, Sharchops, khengpas and Lhotshampas. The Dzongkhag consists of 14 Gewogs and one Dungkhag.

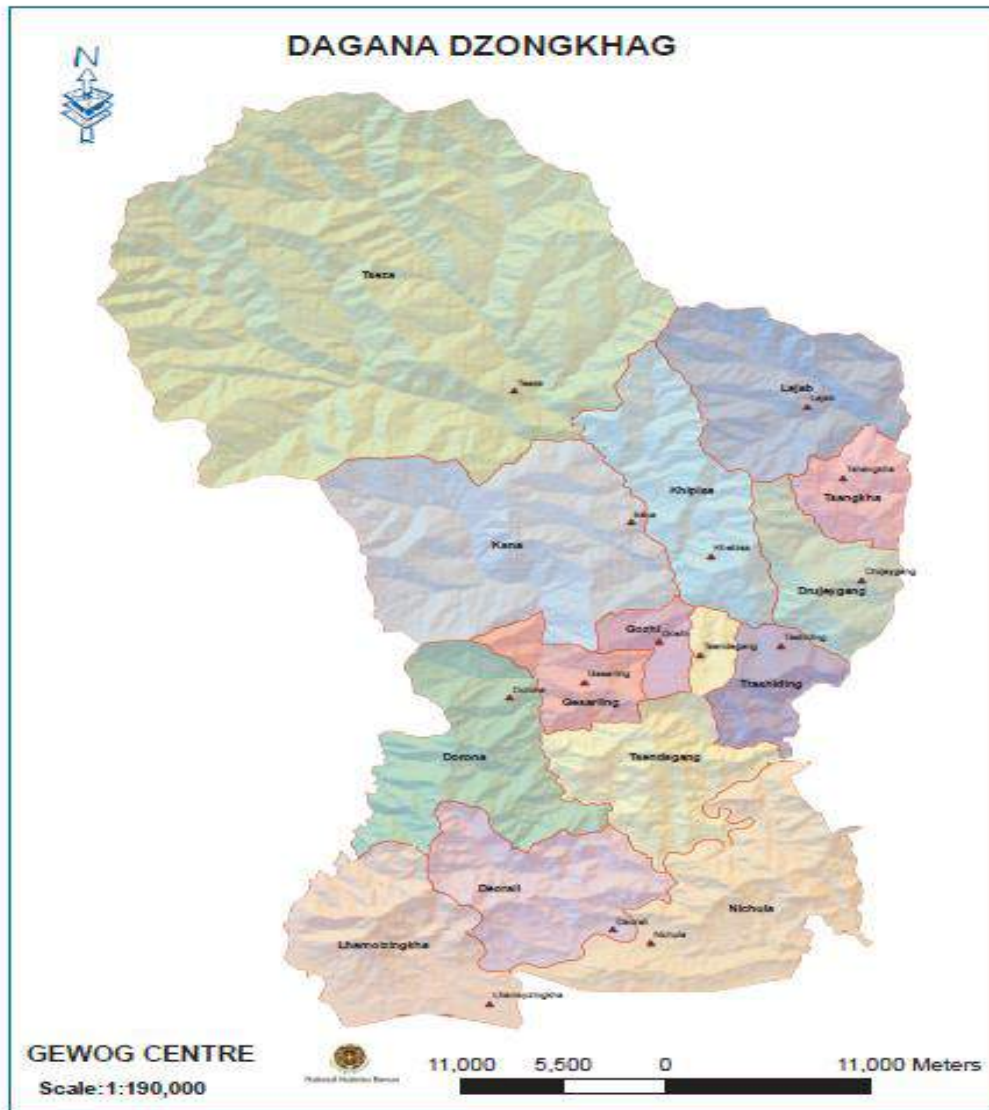


Figure 1: Dzongkhag Boundary Map (Source: NSB)

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 Tshogde.

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

1.3 Weather and Climate

The Dzongkhag has two major climatic conditions. Summer is usually very hot and wet while winter months are dry and cold. Heavy rain falls are expected in the month of June-August which leads to abundant water flow causing minor floods in the plain area. Cold winter starts from October till February. The temperature ranges from 20-37 degree Celsius.

1.4 Economy

The main source of income of the Dzongkhag is Agriculture and livestock farming. The Dzongkhag has a fertile land and a suitable climate for agricultural production, making it one of the major producers of mandarin and cardamom in the country.

All the gewogs are connected by farm road and telecommunication networks, and electricity except for few far flung areas.

1.5 Demography

The total population of Dagana Dzongkhag is around 29,216(PHCB, 2017) with 7346 households. With a crude birth rate of 19.5%, a death rate of 5.3% and a natural population growth rate of 1.4%, the population is projected to 43,915 in 2030.

Table 1: Key Demographics

	Gewog	Area (Sq. Km.)	No. of Hou seho lds	Population		Health Facilities			Schools				
				Male	Femal e	Hospit al	BH U	OR C	HSS/ CS	MS S	LS S	PS	ECR/E CCD
1	Dorona	107.69	231	1053	982		1	1				1	
2	Drukjeygang	54	565	1804	1748		1	3	1			1	3
3	Gesarling	36.81	219	1030	1070			2	1				1
4	Goshi	22.14	384	1591	1637	1		1				1	2
5	Kana	193.11	510	1761	1677		2	2			1	2	2
6	Karmaling	4046	267	1300	1400			3				1	1
7	Khibesa	95.92	298	914	907		1	3				2	3
8	Lajab	210	202	784	816		1	3				1	
9	Lhamoidzing kha	103	540	1778	1712		1	1		1			2
10	Nichula	138.97	152	626	616			1					2
11	Tshangkha	9060.9	405	1288	1288		1	3			1	1	2
12	Tashiding	39.53	355	1592	1451			3			2		1
13	Tsendagang	95.84	456	1840	1760			2		1		1	3
14	Tseza	210	175	813	812		1	2	1		1	1	2

BHU – Basic Health Unit; ORC – Out Reach Clinic; HSS – Higher Secondary School; MSS – Middle Secondary School; LSS – Lower Secondary School; PS – Primary School; ECR – Extended Classrooms

Chapter 2: Dzongkhag Disaster Management System

2.1 Dzongkhag Disaster Management Committee (DDMC)

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

1. Dasho Dzongdag, Chairperson (ex-officio chairman)
2. Dasho Dzongrab, Co-opted Member
3. Dzongkhag Welfare Officer, member
4. Chairperson of Dzongkhag Tshogdu (DT), member
5. Gups of all Gewogs, member
6. Thromde Thuemi, member
7. Superintendent of Police/Officer-in-Charge, RBP, Dagana, member
8. Drungchen, DagaRabdey, member
9. Dzongkhag Disaster Focal person, Member Secretary
10. 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/ThromdeyThuemi or in the event of resignation, the Chairperson of the Dzongkhag Disaster Management Committee shall designate the most appropriate official in the Gewog/Thromdey 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; and
 - g) Coordinate delivery of services and resources to disaster affected communities

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.

2.4 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.

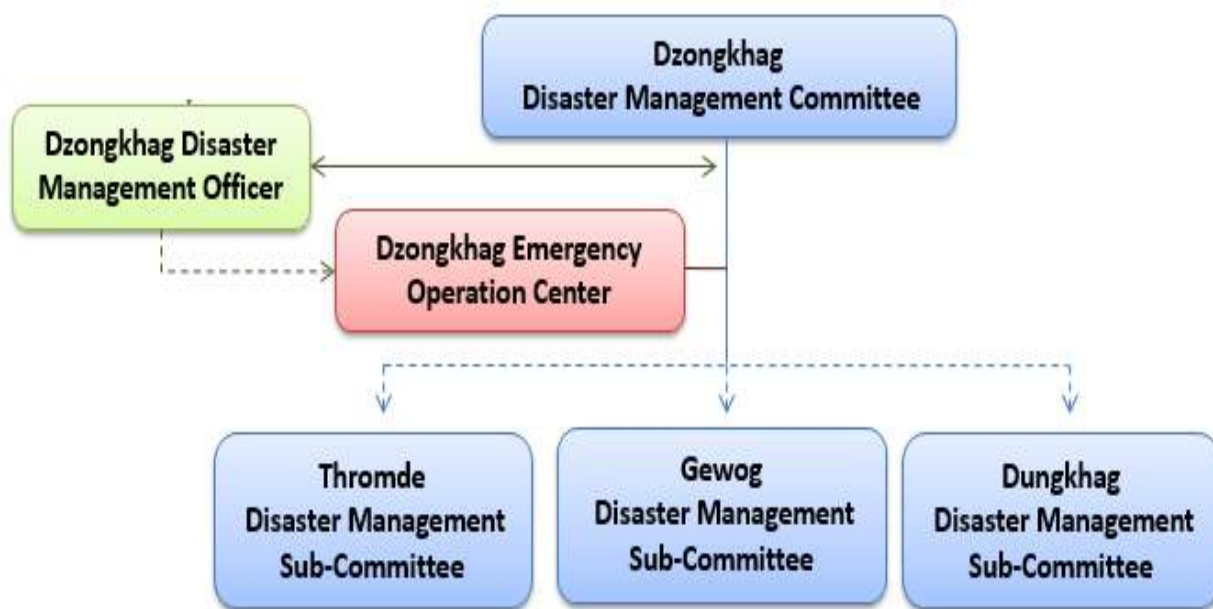


Figure 2: Dzongkhag Disaster Management System

In line with the provisions of the Act, Disaster Management Sub-Committees have been formed in all gewogs and Dungkha.

Chapter 3: Disaster Risk Profile of Dzongkhag

Dagana Dzongkhag has experienced several disasters over the last 20 years, the most devastating being the September 18, 2011 Sikkim earthquake of M 6.7, which caused widespread damages to rural homes and government infrastructure. The other major and recurrent hazard has been windstorms causing extensive damages to roofs of houses and government infrastructure. The Hazard Vulnerability and Capacity Assessment (HVCA) process carried out for the Gewogs also identified other hazards such as – forest fire, structural fire, flood, landslides, thunder storms and pests and diseases. The HVCA assessment of Dagana Dzongkhag, as per consultations with the community, is presented below:

3.1 Hazard Assessment

S/N	Hazard	Secondary Hazard	When it could occur	Probability of Occurrence	History of Past Disaster	Impact
1.	Wind Storm	Structural Fire	Winter month (December-March)	Medium	April 2011 April 2014 May 2015	321 HHs affected
2.	Landslides	Flash Flood	June-September month	High	2016,2017	Dzongkhag Road, Farmroad, irrigation channel,pvt land affected.
3	Structural Fire	Forest fire	During Winter Season	Medium	2017	1 house affected.
4.	Forest Fire	Structural fire	Winter season	Medium	2016	300 acres affected.
5	Lightning and Thunder	Structural fire/forest fire	Summer season	medium	2018	Electric lines short circuited and window glasses broken.
6	Earthquake	Landslide, Structure Fire	Anytime	High	2009, 2011	More than 136 HHs affected.

7	Flood	Landslides	June to August	medium	1995	Damaged crops and cultivatable land.
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3.2 Vulnerability Assessment

S/N	Hazard	Element at risk	Why they are at risk	How will they be affected
1	Wind Storm	Structure and crops	1. Temporary Roofing 2. Lack of proper anchorage 3. Lack of Lung-go (wind to pass through)	1. Roofing will be blown off. 2. Structures collapsed. 3. Live lost/injury
2	Landslides	1. Houses (Tsendagang) 2. 2 households (Tsendagang Village)	1. Sinking Area 2. Landslide prone area	Properties and lives will be lost. Orange orchard
3	Structural Fire	People and property (Lhamoizingkha, Dagapela, Sunkosh and Dagana Town)	1. Poor wiring, old and clustered structures 2. use of butter lamp, heaters and firewood 3. Carelessness while using fire.	1. Property 2. Live
4	Forest Fire	Houses and Environment	1. Carelessness while burning debris 2. Dry season	1. Properties and lives will be lost.
5	Lightning and Thunder	People and property	Working in paddy field and poor electric wiring.	Property and affect human live.

6	Earthquake	1. Traditional houses 2. Dzong and Lhakhangs	1. Traditional houses are not constructed as per Standards and codes	1. Collapse/ cracked 2. Live lost/ injury
7	Flood	Lhamoizingkha and Sunkosh satellite town	Settlement near Sunkosh River.	Damaged property and Human live will be affected.

3.3 Capacity Assessment

S/N	Hazard	Physical capacity	Economic capacity	Social/Institutional capacity	Environment capacity
1	Wind Storm	Most of houses have wind tie.	House Insurance, life insurance		
2	Landslides		Land Exchange		
3	Structural fires	Fire extinguishers and fire hydrant in Dzong area and offices, schools and lhakhangs. Excavators/ JCB	Insurance (house and life)	DDMC (IMT) Fire Fighting Unit Community SAR team Desuups Schools (students)	
4	Forest Fire	Fire line		Forest personnel Desuups and community	

5	Flood	JCB (1) Plantation/ land management Water source and catchment area protection		RBP and RBA in Lhamoizingkha Desuups IMT members	
6	Earthquake	Open spaces in Dzongkhag and all gewogs.	House Insurance, Life insurance.	Hospital and BHUs Schools Cooperatives	

3.4 Probability and impact matrix

Very probable			Windstorm	Earthquake	
Probable		Flood	Structural Fire	Landslides	
Less probable			Forest Fire		
Improbable					
Impact	Unimportant	Limited	Serious	Very serious	Catastrophic

Overall, in all the Gewogs 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 cell and Dzongkhag DM Officer 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 is 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 Dagana 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. Also, 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 developed 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.) need to be built at various level. There is also need to support and organize volunteers for response and coordinate with existing volunteer organizations such as Desuups. For effective response, Standard Operating Procedures (SOPs) need to be developed 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).

3.5 Disaster Management Action Plan (2018 – 2022)

Priority Area	Key Activities	Target	Lead Agency/Person	Supporting agencies	Timeline	Budget estimate (Nu. in M)
DDMC Meetings as per the DM Act of Bhutan 2013	Conduct DDMC meetings bi-annual as per the DM Act of Bhutan 2013 (to review the DM and Contingency plan, assess implementation of the activities and dissemination of plan)	DDMC	DDMO	DDMC	To be clubbed with DT Meetings and also conduct in Gewog Centres	0.100
Awareness and Education	1.1 Raise awareness on top priority hazards – Landslide, earthquake, windstorm and fire	All 14 Gewogs, Dratshang, Monasteries Schools Business Community	DDMC	Gewog Administration DDM RBP	2018-2020	0.200
	1.2 Distribute posters with key messages on risk reduction and disaster preparedness prepared by the DDM	Both to urban and rural public	DDMO	DDMC DDM Gewog Adm. Relevant sectors	2018-2021	0.060
	1.3 Encourage contractors to incorporate risk reduction features in the farm road, irrigation and other	Both rural and urban communities	DE, Gups, DDMO	DDM Gewog Adm. DDMC	2019–2020	0.100

	infrastructural development projects					
	1.4 Dzongkhag observes International disaster day and Annual school preparedness drill day	Schools, communities, Rabdey, Business community	DDMO	DDMC, DDM, Gewog Adm. MoE Dratshang	Annually	0.25
	1.5 Raise awareness on family preparedness	All Gewogs Communities	DDMO/GAOs	DDM, Gewog Adm.	2019-2020	0.200
	1.6 Conduct awareness programs on insurance benefits and encourage families to insure their property against various hazards	All Gewogs Communities	DDMO/GAOs	Insurance companies, DDM, Gewog Adm.	2019 – 2020	(club with other awareness activities)
Enhance risk reduction and mitigation	2.1 Conduct training on good construction practices	Engineers, carpenters, Masons and house owners	DDMO/ DE	DDM, DES, MoWHS	2020 - 2021	0.100
	2.2 Carry out vulnerability assessment of old/ existing government buildings –	Engineers	DDMO/DE	DDM, DES, MoWHS,	2020-2021	2.00

	schools, health facilities, cultural buildings, office buildings			MoE, Gewog Adm. Dratshang		
	2.3 Implement structural mitigation measures or replacement as per vulnerability assessment recommendations on a prioritized basis	Mitigation for priority structures	DE/ DDMO	DDM, DES, MoWHS, MoE, Gewog Adm. Dratshang	2022 onwards	Based on assessment
	2.4 Institute construction quality control and monitoring mechanism for materials and adherence to standards and designs	Engineering Division	DE/ DDMO	DES, MoWHS, DDM Other relevant sectors	2019	0.200
	2.5 Implement mitigation measures on a prioritized basis in the Gewogs as per HVCA: - Fire safety training in Nichula and Dorona gewog - Landslide mitigation in Lajab&Tashiding. - Encourage anchorage of roofs and other mitigation for Windstorm in Dorona, Goshi and Tsendagang Gewog	Gewogs, Respective Sectors.	Gewogs/ Sector heads/ DDMO	DDM, GNHC, MoF, concern ed sectors	2019– 2020	Based on identified priority mitigation activity

2.6 Training of Engineers, Sector heads and GAOs on Rapid Damage Assessment skills	Engineers, Sector heads and GAOs	DE/DDMO	DES, MoWHS, DDM, DDMC	2018-2019	0.150
2.7 Refresher course for the Dzongkhag SAR Team	Dzongkhag SAR team, RBP	DDMO	DDM, RBP	2019-2022	0.300
2.8 Hands on training on use of fire-fighting equipment	DDMC/Lhakhang caretakers/Business Community and Communities	DDMO	RBP DDM Dratshang Relevant sectors	2019-2020	0.300
2.9 Form and train gewog SAR teams	Gewogs	Dzongkhag and Gewog Administration	DDM	2020-2022	1.650
2.10 Procure additional VHF sets	Dzongkhags/ Gewogs	DDMO	Dzongkhag/ Gewog Administration	2018-2020	0.300
2.12 Ensure fire preparedness measures is put in place in the BOD in the Dagapela town	BOD	DDMO	DDMC RBP	2018-2019	

3. Enhance preparedness, response and recovery levels	3.1 Establish Dzongkhag Emergency Operation Center	Dzongkhag	DDMO	DDMC, DDM NDMA, Relevant sectors	2018-2022	0.200 (for furnishing only)
	3.2 Raise awareness and sensitize on Dagana Dzongkhag DM and Contingency plan other response measures	Dzongkhag, Gewog, Dratshang, RBP, RBA, Judiciary, Regional Offices, Desuups, Communities	DDMO	DDM	2018-2019	0.300
	3.3 Stockpile materials required for emergency response and immediate recovery at strategic locations	Dzongkhag	DDMC	DDM, MoF, relevant sectors	2018-2020	0.500
	3.4 Establish and institute pre-arrangements for emergency procurement and requirements	Dzongkhag	Procurement Officer DDMO/ Finance Officer	DDMC, DDM, MoF	2018-2019	0.200
	3.5 Coordinate with Dagachhu Hydro Project to	Dzongkhag	DDMC	DDM, DHMS, Dagachhu Project,	2019	1.500

	establish Flood early warning for low lying gewogs			RBP, Gewog Adm.		
	3.6 Identify Evacuation sites for various hazards (keeping in mind the needs of people with disabilities, women, children and elderly)	Community and Offices	DDMC, Gewog Administrations	DDM, relevant sectors	2018	
	3.7 sensitize, conduct mock drill/ simulation on Dzongkhag DM and Contingency plan	Dzongkhag, Drungkhag Administration, Gewog Administration Dratshang, RBP, RBA, Judiciary, Regional Offices, De-Suong, Business and Communities	DDMC	DDM	2018-2022	0.500
	3.8 Procure additional SAR equipment	Gewog Administration	Dzongkhag/ Gewog Administration	DDM	2019	3.000

	3.9 Establish community based early warning system for floods and landslide including monitoring and reporting system	Dzongkhag	DDMC/ Dzongkhag and Gewog Adm	DDM, DHMS, DGM, RBP,	2018	0.500
	3.10 Identify Dzongkhag Disaster Assessment Team for various hazards	Dzongkhag and gewogs	DDMO	DDM	2018	

Chapter 4: Dzongkhag Contingency Plan

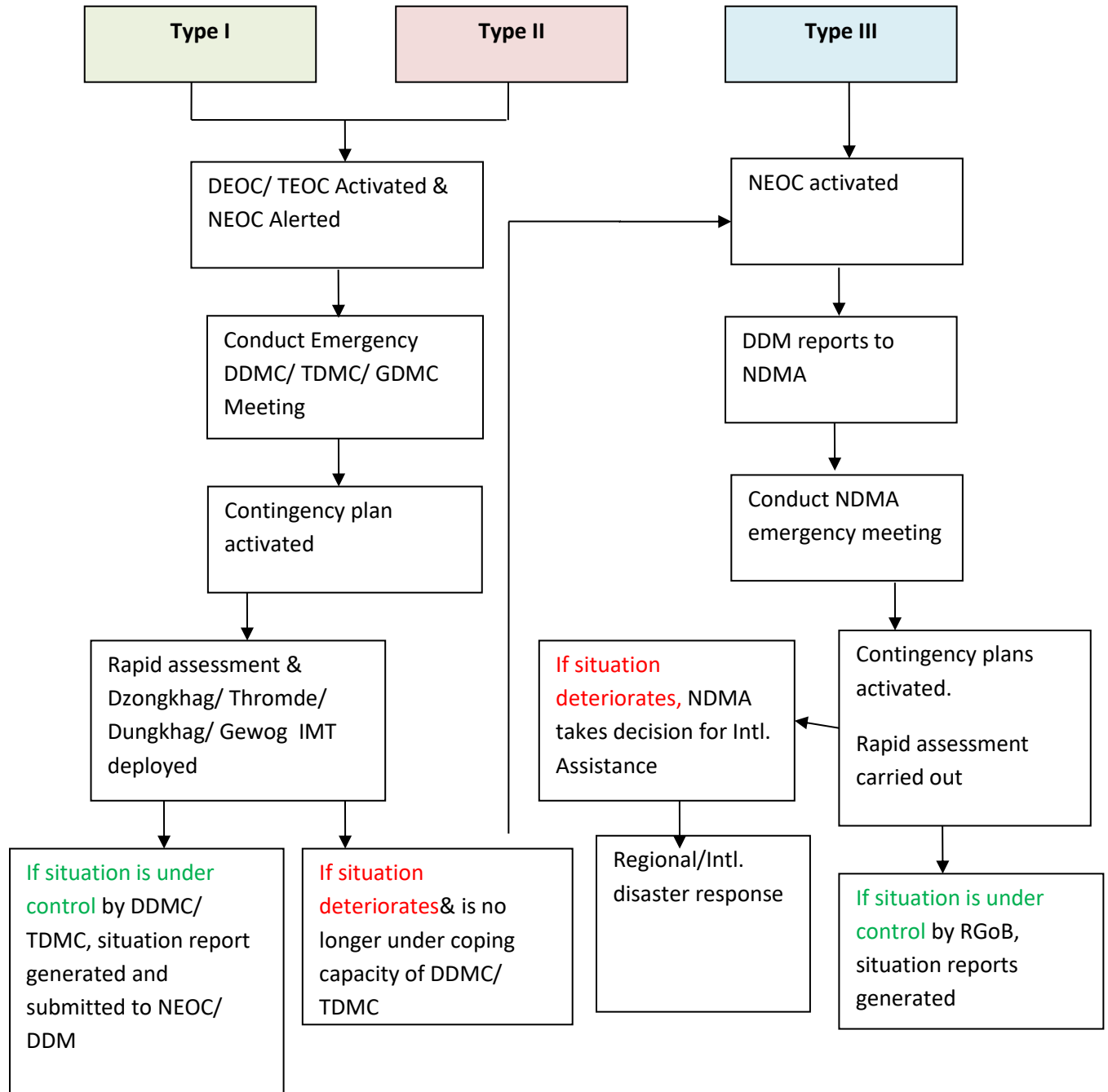
As per the Contingency Planning Guidelines for Bhutan 2014, a contingency plan ‘aims to prepare an organization to respond well to an emergency and its potential humanitarian impact’. Thus developing a contingency plan involves making decisions in advance about the management of human and financial resources, 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 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



4.1 Standard Operating Procedures for Response

a. 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.

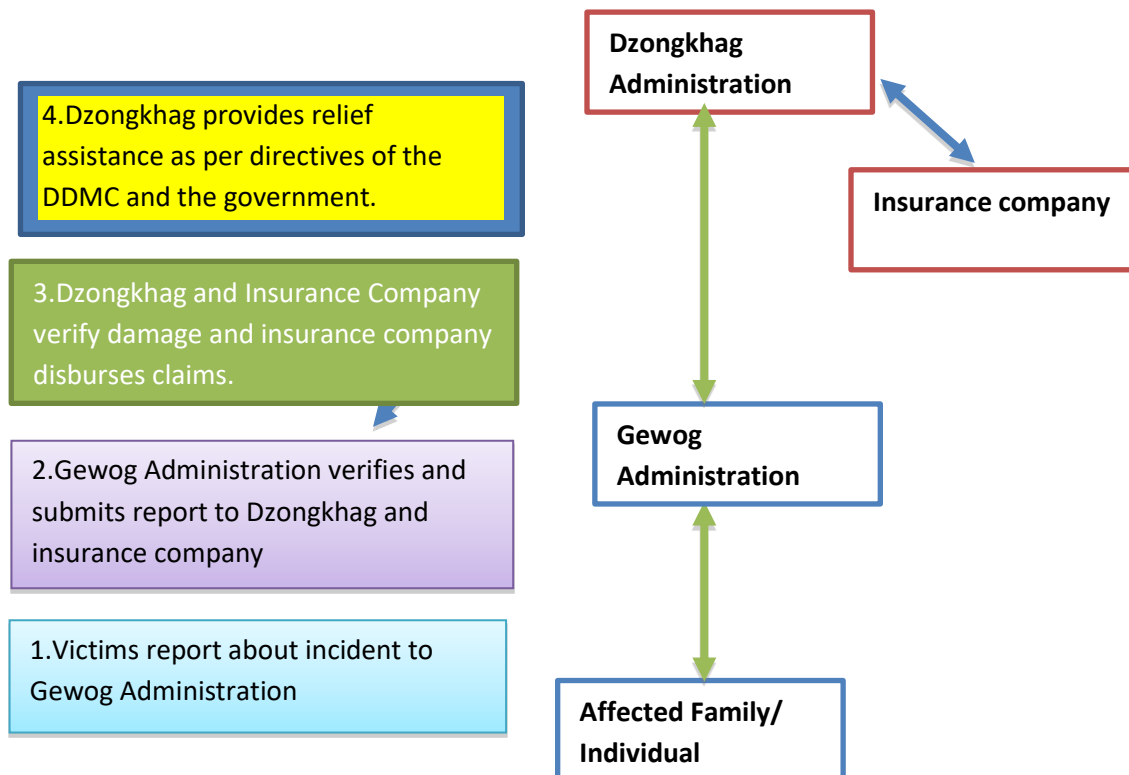


Figure 3: Standard procedure for isolated local incidents

b. 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:

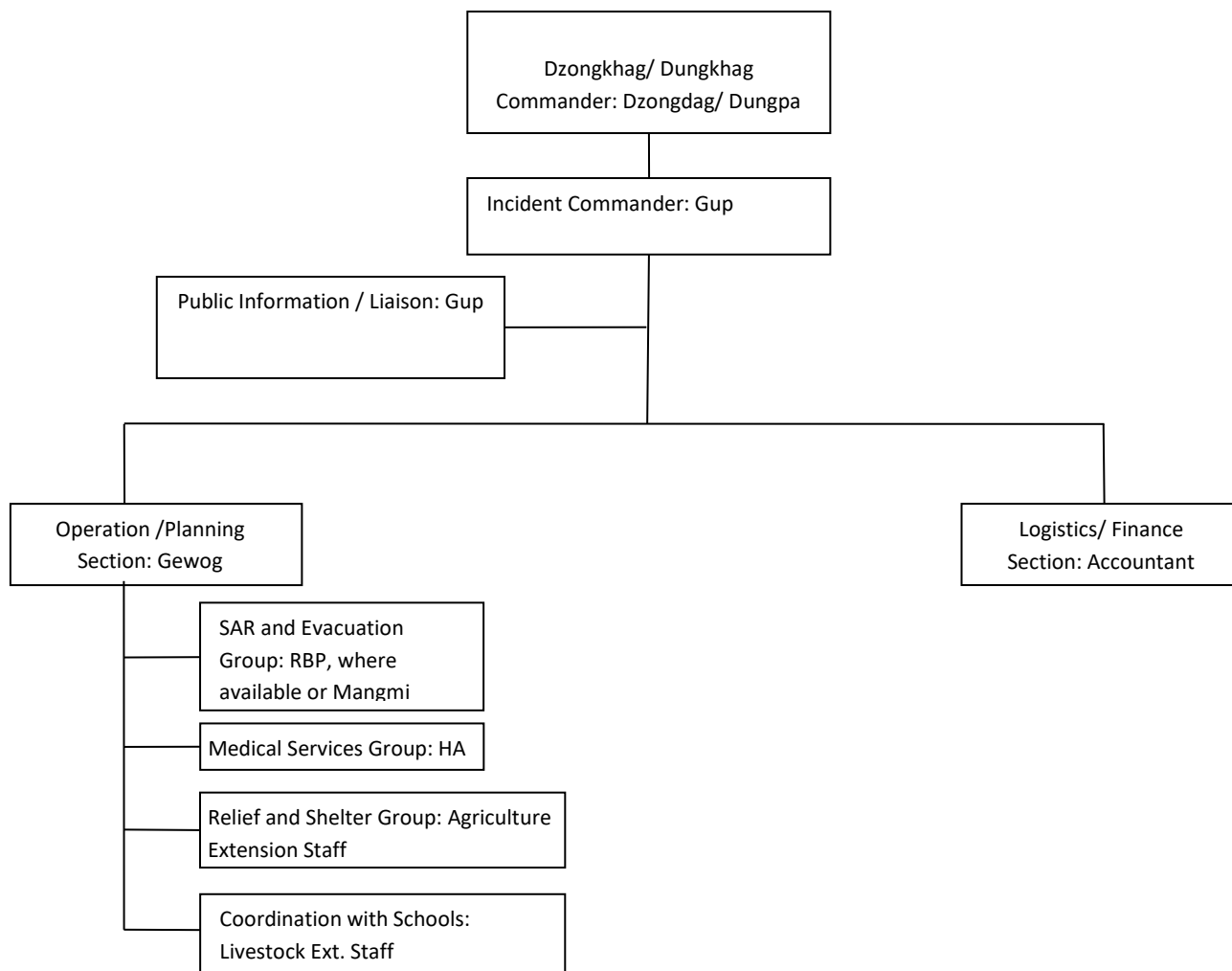
1. In case of Disaster Type I

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

- a. In case of an impending disaster situation, Gewog/ Thromde 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.
- b. In case of an incident/disaster situation:
 - a. Gewog shall immediately submit first information to the Dungkhag DM Sub-Committee/ DDMC/ Dzongkhag Disaster Management Officer (DDMO).
 - b. Gewog Incident Management Team (IMT) shall be activated and the IMT shall provide immediate response and relief within their capacity.
 - c. Gewog Incident Management Team shall conduct rapid needs assessment as per the required format.
 - d. Gewog shall provide immediate relief and early recovery support as per rapid needs assessment using available funds at Gewog level and submit expenditure report and bills to DDMC for further submission to DDM, for reimbursement.
 - e. The DDMO shall submit the first information report to the DDM within 24 hours of the incident.
 - f. In case the incident is beyond the coping capacity of the Gewog, the Gewog will submit for SAR and other response needs to the DDMC.
 - g. Gewog shall conduct detailed damage assessment along with insurance companies for rehabilitation and reconstruction and submit report to DDMC.

Incident Management Team at Gewog level

The Gewog Incident Response Management Team will be led by Gup and monitored by Dzongdag / Dunga. 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.



2. In case of Disaster Type II

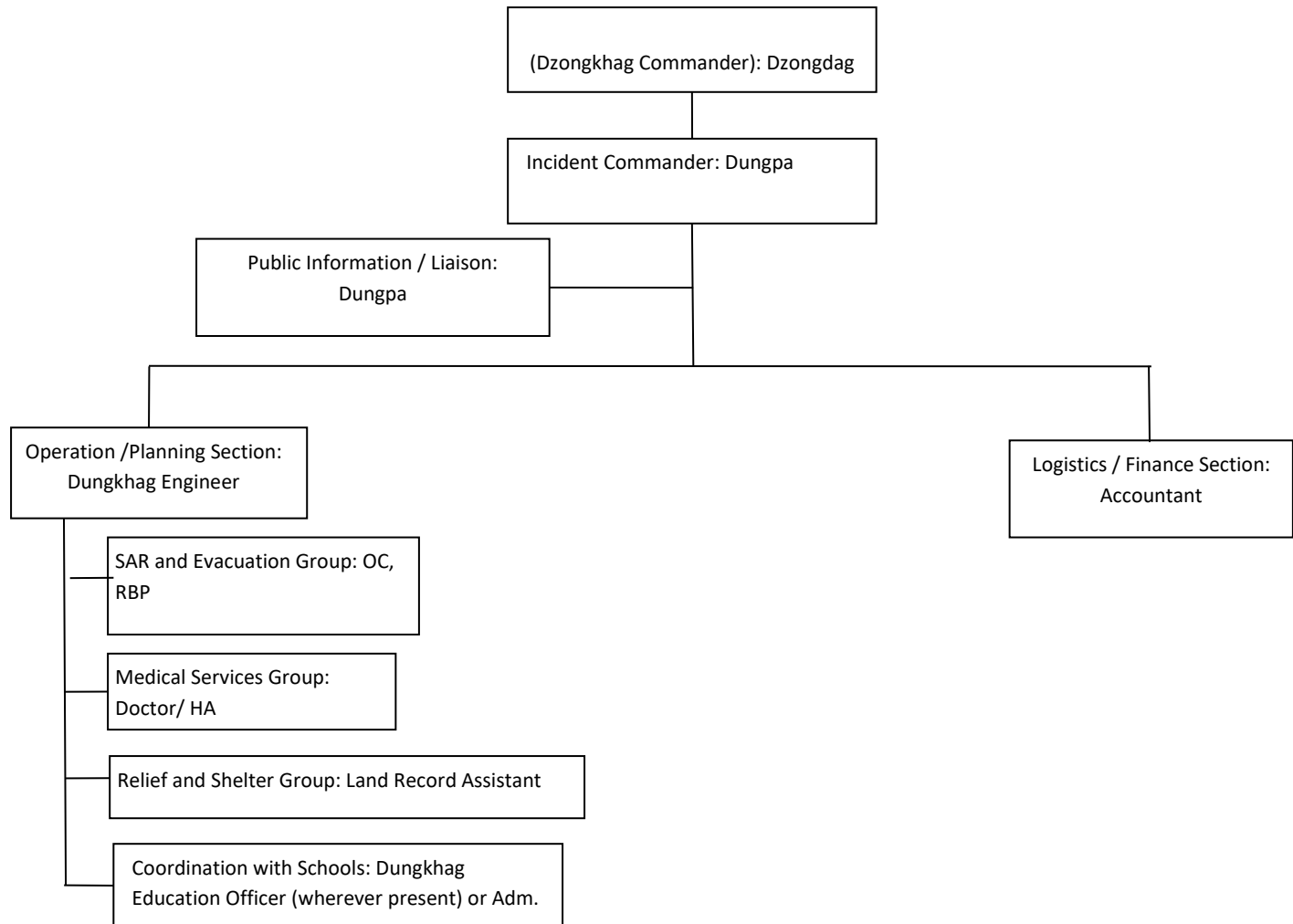
Disaster Type II - A disaster shall be classified as Type II if it can be managed with available resources and is within the coping capacity of the Dzongkhag concerned.

- a. 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 Gewog/Thromde offices along with orders for evacuation, deployment of Search and Rescue Teams or any other response as required.
- b. 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/ Dungkhaq 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. Dzongkhag/ Dungkhaq Incident Management Team shall direct evacuation of disaster-affected communities to safe areas and temporary shelters.
- d. Dzongkhag/ Dungkhaq IMT shall conduct rapid needs assessment as per Bhutan Disaster Assessment (BDA) tool within 72 hours.
- e. The DDMO shall submit the First Information Report to DDM within 24 hours of the incident.
- f. DDMC shall provide relief and early recovery support as per the rapid assessment using available funds at Dzongkhag level and submit expenditure report and bills to DDM for further submission to Ministry of Finance for reimbursement.
- g. 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.
- h. Dzongkhag/ Dungkhaq shall conduct detailed damage assessment along with insurance companies for rehabilitation and reconstruction and submit report to DDMC.

Incident Management Team at Dungkhaq level:

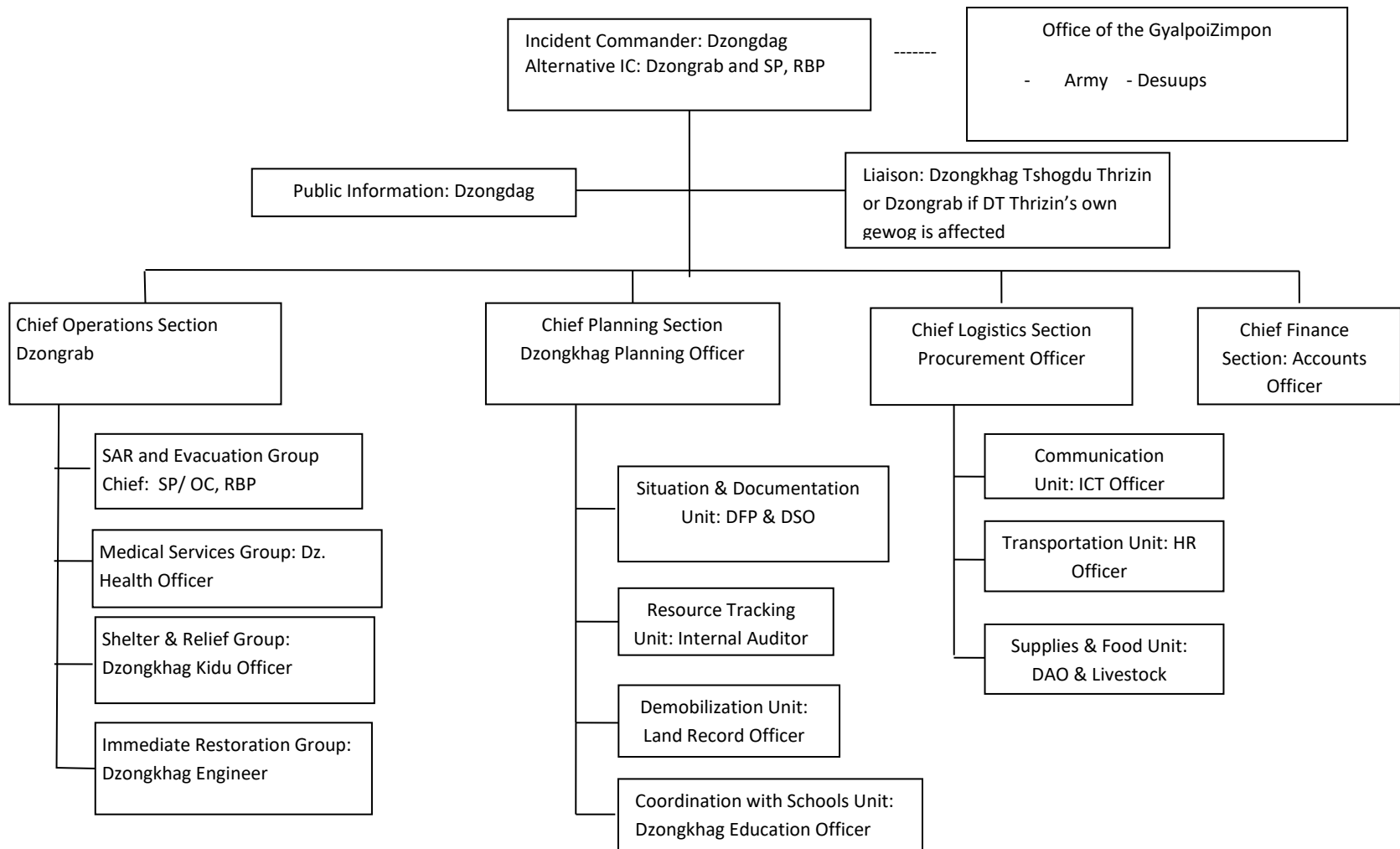
The Dungkhaq Incident Response Management Team will be led by Dunga and monitored by Dzongdag. Due to a shortage of human resources and smaller scale of response, Operations and Planning will be combined in to a single section and Finance and Logistics will also be combined in to a single section. However, when the scale of response escalates to Type II then the organizational structure discussed for Dzongkhag will be adopted.



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 Management Team at Dzongkhag Level

The Dzongkhag Incident Response Management Team will be led by the Dzongdag with Dzongrab being the alternate. The IC will liaise with office of the Gyalpoi Zimpon, Army, and Desuups for effective coordination with these entities. Various positions in the team will be occupied by the officers present at the Dzongkhag level and together they will respond to a disaster in a well coordinated manner using the resources that are available within the Dzongkhag.



Transportation Unit leader to liaise with RSTA Base In-charge

Note: The support of Desuups/ Dratshang/ NGOs/ CSOs/ Corporations/ Regional Offices/ Private businesses and communities will be coordinated through the 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.

Details of IMT positions and Functions

INCIDENT COMMANDER

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.

Public Information: responsible for interfacing with the public and media or with other agencies with incident-related information requirements.

Liaison: responsible for coordinating with representatives from cooperating and assisting agencies.

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

Groups under the Operations Desk

- **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.
- **Medical Services Group:** will provide medical assistance to the victims.
- **Shelter & Relief Group:** responsible for providing shelter and relief to the affected families
- **Immediate Restoration of Essential Public Services Group:** responsible for immediate restoration of essential public services

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.

Units within Planning Section

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

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

Logistics Section: Responsible for providing facilities, services, and materials for the incident.

Units within Logistics Section

- **Communications Unit:** responsible for providing communication services at an incident.
- **Transportation Unit:** responsible for the fuelling, maintaining, and repairing of vehicles, and the transportation of personnel and supplies.
- **Supplies and Food Unit:**
 - Responsible for ordering equipment and supplies required for incident operations.
 - Responsible for providing meals for incident personnel and for providing food/ supplies for the Relief and Shelter Unit (for victims).

Finance Section

- **Finance Officer**
 - Responsible for all incident costs and financial considerations.
 - Responsible for tracking costs, analyzing 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.

3. 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/ National Disaster Response Coordination Committee.

4.2 Mode of Communication during disaster/ threatening disaster situation:

- First line of communication: VHF handsets
- Alternative modes of communication: Mobile phones
- Social media (whatsapp, wechat and Telegram groups for Dzongkhag, Dungkhag and Gewogs)
- BBS and radio for giving information to communities
- Sat phone: not activated (to be used for emergencies when other modes of communication fail)

4.3 Dzongkhag Emergency Operation Centre Management (DEOC)

The DEOC is established as per Section 105 of the Disaster Management Act of Bhutan 2013. The DEOC will perform the following functions for coordination and management of disasters:

1. Receive disaster alerts and warnings from responsible agencies and other sources and communicate the same to all relevant agencies
2. Forward reports to relevant agencies
3. Monitor response and relief operations
4. Facilitate coordination
5. Requisition resources during disaster
6. Other functions as may be necessary

Location of the DEOC: DT hall

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

2. Officer in charge of DEOC: DDMO
3. 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 DM Act 2013.
2. Other sector experts to staff the DEOC

DDMC to meet in the DEOC to make critical decisions.

4.4 Disaster Lessons Learnt

Disasters offer opportunity for the DDMC and the Dzongkhag IMT to learn from it and to improve their DM and Contingency plan. Thus the DDMO will facilitate the conduct of lessons learnt after every disaster in the format attached as Annexure 1. The lessons learnt will then be incorporated in the Dzongkhag DM and Contingency Plan. In case of Disaster Type II, the lessons learnt will also be shared with DDM for record and reference.

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.

5.1 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.

Annexures:

1. Disaster Lessons Learnt Template

Disaster Lessons learnt Template

Sl No.	Questions	Response	Remarks
1.	What was the Disaster/ incident?	Eg. Flood/ Earthquake/ Landslide etc	
2.	What was the impact of the disaster/ incident?		
3.	What was the response to the disaster/ incident: a) Initial response b) Coordination c) Reporting d) Response taken by the Dzongkhag/ Drungkhag/ Thromde/ Gewog IMT? e) Did you get feedback from the affected communities? f) How did you involve the corporate/ private sector and volunteer services?		
4.	Were you able to convene the DDMC meeting? What was the process and outcome?		
5.	EOC coordination and reporting		
6.	Lessons learnt from the disaster/ incident?		
7.	Actions required to implement lessons learnt with timeline and responsible official.		

Note: Dzongkhags to conduct lessons learnt for all incidents and improve their response. Lessons learnt report of disasters of higher magnitude to be submitted to DDM.

2. Contact details of DDMC members

SI No	Name	Designation	DDMC	Contact No
1	Tashi Tobgay	Dzongdag	Chairperson	17610311
2	Tshering Yangden	O.C	Member	17349594
3	Tshering Wangchuk	Dungchen,Dratshang	Member	17804541
4	Bal Bdr. Rana	DT chairman/ Tsendagang Gup	Member	17893817
5	Ugyen Dorji	Dzongrab/Kidu officer	Member	17994332
6	Samten Jamtsho	Tseza Gup	Member	17584062
7	Bali Raj Gurung	Khibesa Gup	Member	17605141
8	Kinzang Tobgay	Goshi Gup	Member	17683356
9	Bal Bdr Rana		Member	17893817
10	Mani Kumar Ghishing	Gesarling Gup	Member	17777313
11	Tashi Wangdi	Dorona Gup	Member	17607664
12	Ratna Bdr. Singer	Tashiding Gup	Member	17700838
13	Singay Dorji	Drujaygang Gup	Member	17953979
14	Neuly Tshering	Tshangkha Gup	Member	77236415
15	Dhan Bdr Gurung	Laja Gup	Member	17762445
16	Pema Norbu Sherpa	Karmaling Gup	Member	77385708
17	Surja Bdr, Limboo	L/zingkha Gup	Member	17368242
18	Nima Wangchuk Sherpa	Nichula Gup	Member	17639086
19	Jigme Dorji	Thromde Ngotshab	Dagathrom	17650114
20	Tashi Gyeltshen	Disaster Focal point	Mem.Secretary	17781551
21	Jigme Singay	Dungpa, L/zingkha Dungkhag	Member	17117117

3. Dagana Dzongkhag SAR Team

Sl No	Name of person	Designation	Phone	Skills in SAR
1	Tsheltrim Jamtsho	OC	17696394	Basic SAR skills
2	NimaTshering	DT Secretary	17907515	Basic SAR skills
3	Nima	OA	17734505	Basic SAR skills
4	SangayTshering	Drimpoen	17318328	Basic SAR skills
5	Gaten	Pelpon	17685874	Basic SAR skills
6	Gembo	Drimpoen	17714970	Basic SAR skills
7	Chogyal	Peljab	17791838	Basic SAR skills
8	Tshering Chophel	Gopa	17903112	Basic SAR skills
9	Karma Tenzin Sherpa	Chuma	17259401	Basic SAR skills
10	Leki Samdrup	Chuma	17645586	Basic SAR skills
11	Ram Krishna	Chuma	17515869	Basic SAR skills
12	Wang Gyeltshen	Chuma	17309647	Basic SAR skills
13	SonamDendup	Chuma	17309724	Basic SAR skills
14	KinzangYangdon	Librarian	17694643	Basic SAR skills

4. Firefighting (trucks, equipment, location, capacity)

Sl No	Facilities	Location	Capacity	Contact person	Phone
1	Fire Fighting Truck	RBP, Dagana	4500 L	Sonam	17779816
2	Fire Hydrant	RBP,Dagana.	200000L	„	„
3	Fire Fighting Truck	DHPC	4000L	Rinzin Dukpa	17114410

5. Medical

Sl No	Name of Hospital/BHU	Location	Capacity/number of patient that can be treated	Contact person	Phone
1	District Hospital	Dagapela	20 in patient	DHO	17623121
				CMO	17853735
2	BHU-1	Lhamoizingkha	10 in patient	In-Charge	17868608
3	BHU-1	Dagana	10 in patient	In-charge	17853735
4	BHU	Khagochen	5	In-charge	17836769
5	BHU	Akhochen	5	In-charge	17543079
6	BHU	Drujegang	5	In-charge	17763686
7	BHU	Dorona,Nimtola	5	In-charge	17373151
8	BHU	Laja	5	In-charge	17889224
9	BHU	Tshangkha	5	In-charge	17705150
10	BHU	Bjurugang	5	In-charge	17741106

6. Contact details of Responsible Officers from Dzongkhag

Sl.No	Name	Designation	Contact No
1	Karma Dorji	Sr. Dzongrab	77223031
2	Pema Wangchuk	DLO	17684400
3	Kencho Dukpa	CFO	17620592
4	PassangTshering	DAO	17976737
5	Sonam Jamtsho	PO	17791388
6	Norbu Tshering	AFO	17341198
7	Jamyang Dorji	DE	17601361

8		Municipal Engg.	
9	Pema Cheda	Legal Officer	17445873
10	Dorji Wangchuk	DHO	17623121
11	Tshewang Penjor	CDEO	17629985
12	Prem Kumar Bhattarai	AHRO	17867977
13	Bishnu Bhakta Dahal	Procurement	17981435
14	Pema Lhaden	Internal Audit	17861183
15	Dawa	Election Officer	17657513

7. Contact Details of Dagana De-Suups

SL. No	Desuup ID	Name	Contact	Email Address
1	DS(26)17-3070	Phintsho Choeden	77197272	pchoeden@dagana.gov.bt
2	DS(17)15-1896	Chador Phuntsho	17642664	cphuntsho12@gmail.com
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8. Contact details of Gewog Administrative Officers

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2.	LhakpaDorji	GAO, Drukjegang	17710021
3.		GAO, Gesarling	
4.	Rinzen Namgyel	GAO, Goshi	77332738
5.	ChekuWangchuk	GAO, Kana	17896067
6.	Rinchen Wangdi	GAO, Karmaling	17341687/77344155
7.	Pema Kota	GAO, Khibesa	17411510
8.	Namgay Wangdi	GAO, Laja	77732132
9.	Sonam chogyel	GAO, Lhamoidzingkha	17887250
10	Sonam Choden	GAO, Nichula	17749899
11	Jigme Samdrup	GAO, Tshangkha	17603846
12	Lobzang Cheda	GAO, Tashiding	17722468
13	Kinley Yangzom	GAO, Tsendagang	17898986
14	Sangay Penjor	GAO, Tseza	17371318/77830855

9. Principals

	Schools	Principal	Mobile no
1	Daga CS (Campus I)	Tsheringla	
	Daga CS (Campus II)	Choezang Drugyel	17716545
2	Drujeygang CS		
3	Dagapela MSS	Ugyen Penjor	17888809
4	Lhamoyzingkha CS	Thinley Dorji	17647957
5	Gersaling CS	Tshering Neema	
6	Tashiding LSS	Indraman Gurung	17150737
7	Tshangkha LSS	Tshultrim	16681021

8	Daleythang LSS	Phurba Singh Tamang	16681001
9	Namchalla LSS	Phurpa Dorji	17151571
10	Samey PS	Sangay Dorji	16681000
11	Lhaling PS		16681007
12	Gumla PS	Thinley Phuntsho	16681004
13	Lungtengang PS	Dorji	16681023
14	Nimtola PS	Pem Tshering	17114434
15	Balleygang PS	Nidup Dorji	16681002
16	Phekoma PS	Rinchen Tshering	16681003
17	Zinchella PS	Dorji Drakpa	16681005
18	Phuensumgang PS	Dorji Penjor	17756056
19	Karmaling PS	Jit Bdr. Gurung	17120006
20	Gangzor PS	Tashi Wangdi	17151551
21	Pangserpo PS	Yeshe Penjor	17151100

10. Vehicles

Sl No	Type/model	Year of Purchase	Use	Remarks
1	Prado/2007	10 years	Dzongdag	Dzongkhag
2	Toyota Vigo Hilux/2011	7 Years	Utility/Pool	Dzongkhag
3	Toyota Vigo Hilux/2016	1 year	Dzongrab	Dzongkhag
4	Bolero Mahindra/2015	2 years	Utility/Pool	Dzongkhag
5	Farm Tractor/2011	7 years	Utility/Pool	Dzongkhag
6	Refuse Compactor Eicher/2016	1 Year	Utility/Pool	Dzongkhag
7	Eicher Truck(Sewer Suction cum Jetting)/2014	4 Year	Utility/Pool	Dzongkhag

8	Eicher DCM Truck/2003	14 years	Utility/Pool	Dzongkhag
9	Kubelco Excavator/2017	New	Utility/Pool	Dzongkhag
10	Toyota Vigo Hilux/2009	8 years	Dungpa	Dungkhag
11	Mahindra Scorpio/2008	9 years	Utility/Pool	Dzongkhag
12	Bolero Camper/2016	1 Year	Utility/Pool	Dorona
13	Bolero Camper/2016	1 Year	Utility/Pool	Drujegang
14	Bolero Camper/2016	1 Year	Utility/Pool	Goshi
15	Bolero Camper/2016	1 Year	Utility/Pool	Gesarling
16	Bolero Camper/2016	1 Year	Utility/Pool	Kana
17	Bolero Camper/2016	1 Year	Utility/Pool	Khibesa
18	Bolero Camper/2016	1 Year	Utility/Pool	Karmaling
19	Bolero Camper/2016	1 Year	Utility/Pool	Laja
20	Bolero Camper/2016	1 Year	Utility/Pool	Lhamoizingkha
21	Bolero Camper/2016	1 Year	Utility/Pool	Nichula

22	Bolero Camper/2016	1 Year	Utility/Pool	Tashiding
23	Bolero Camper/2016	1 Year	Utility/Pool	Tsendagang
24	Bolero Camper/2016	1 Year	Utility/Pool	Tshangkha
25	Bolero Camper/2016	1 Year	Utility/Pool	Tseza
26	JCB/2017	1 Year	Utility/Pool	Dzongkhag

11. Lhamoizingkha Dungkhag SAR Team

Sl No	Name of person	Designation	Phone	Skills in SAR
1	Kabita Dhital	RNR Extension,Nichula	17895447	Basic SAR skills
2	Shah Bdr Subba	Mangmi, Karmaling	77361788	Basic SAR skills
3	Bhim Bdr Subba	Teacher,Karmaling PS	17120006	Basic SAR skills
4	Karma Tshering	EMT, L/zingkha,BHU	17497005	Basic SAR skills
5	Barun Majhi	Tshogpa,Majhigaon	17350419	Basic SAR skills
6	Tika Monger	Dungkhag Court	17723243	Basic SAR skills
7	Deganath Chapagai	RICBL	17836745	Basic SAR skills
8	Kinley Wangdi	Dungkhag Adm.	17754106	Basic SAR skills
9	Cheney Dorji	BPC	17324815	Basic SAR skills
10	Namgay Wangchuk	RBP	17809319	Basic SAR skills
11	NimTshering Tamang	Forest	17561708	Basic SAR skills
12	Rinchen Tshewang	Forest	16910178	Basic SAR skills
13	Tenzinla	Forest	17764975	Basic SAR skills

14	Kumar Limbu	Forest	17397519	Basic SAR skills
15	Dorji Gyeltshen	Bhutan Telecom	17113287	Basic SAR skills
16	Sangay Darjay	BAFRA	17650298	Basic SAR skills
17	Tshering Chopel	RBP	17397519	Basic SAR skills
18	Renuka Subba	Dungkhag Adm	17161687	Basic SAR skills
19	Sonam Tshering	RBP	77329670	Basic SAR skills
20	Sonam Wangchuk	RBP	17762785	Basic SAR skills

Disaster Management Terms

Capacity: The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.

Capacity development: The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.

Coping capacity: The ability of people, organizations and systems, using available skills and resources, to manage a disaster.

Disaster: Subject to section 132 of the DM Act 2013, means a natural or man-made occurrence, which causes environmental loss, increased mortality, illness or injury, and destroys or disrupts livelihoods, affecting the people of an area as classified under Chapter 9 of this Act.

Disaster risk management: The systematic process of using administrative, directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

Disaster risk reduction: Means the conceptual framework of elements considered with the possibility to minimize vulnerability and disaster risk throughout the society and to avoid or to limit the adverse impact of hazard within the broad context of sustainable development.

Disaster risk reduction plan: A document prepared by an authority, sector, organization or enterprise that sets out goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives.

Early warning system: Set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

Mitigation: Measures aimed at reducing risk, impact or effect of a disaster or an impending disaster situation.

Preparedness: State of readiness to deal with a potential disaster situation or disaster and its effects thereof.

Prevention: Measures taken to avert a disaster from occurring or to impede a hazard so that it does not have any harmful effects.

Recovery and Reconstruction: Efforts, including development, aimed at: a) Restoring normalcy in condition caused by disaster; b) *Mitigating the effect of disaster; ORC)Creating circumstances that will reduce the risk of similar disasters from occurring.*

Response: Measures taken during or immediately after a disaster in order to bring relief to people and communities affected by the disaster and includes activities such as search and rescue, evacuation, rapid assessment, relief distribution among others.

Retrofitting: Reinforcing or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

Risk: The level of value of expected losses in the form of deaths, damage to property etc. caused by a hazard.