



**Chhukha Dzongkhag Disaster Management & Contingency Plan
2018**

Dzongkhag Administration, Chhukha

ROYAL GOVERNMENT OF BHUTAN



FOREWORD

In accordance with the section 77 of the Disaster Management Act of Bhutan 2013, the Dzongkhag Disaster Management Committee, Chhukha has developed Dzongkhag Disaster Management and Contingency Plan. It was prepared through conduct of Hazard, Vulnerability and Capacity Assessment (HVCA) of the 11 Gewogs. The Dzongkhag with support from the Department of Disaster Management have conducted a week long workshop in Phuntsholing with participants from different stakeholders from the Local Government and Regional Offices who have made vital contributions in drafting the plan. Data collection and analysis, mock drills and simulations on Standard Operating Procedures (SOPs) were simultaneously conducted and endorsed by the Dzongkhag Disaster Management Committee (DDMC). Thus, we believe that there is Disaster Management linkages across the sectors.

The drafting of the Disaster Management and Contingency Plan started since March 2017 and came to proper shape only in January 2018. It was possible only with the facilitation and technical support from the Department of Disaster Management and financial support from NAPA II project. Some of the best strategies were incorporated during the coordination meeting held in the Dzongkhag from 27-29th November, 2017. Their experiences and expertise in this particular field has contributed in developing those strategies.

The Dzongkhag Disaster Management Plan has Hazard, Vulnerability and Capacity profile for the 11 Gewogs. The plan also outlines priority on Disaster Risk Reduction (DRR), awareness raising and capacity building activities. It also has the standard procedures for immediate response and relief during disaster, implementation and monitoring processes. With the changing risk patterns and frequency of disaster, formation of Dzongkhag specific disaster management plan is an important strategy to strengthen local disaster management system and systematically reduce disaster risks.

The Disaster Management Plan, which shall be revised every after five year, is to be referred by Dzongkhag Administration and sectors to ensure mainstreaming and integration of disaster risk reduction into their annual plans. All the stakeholders, relevant National Disaster Management Institutions and agencies are required to take ownership and fulfill their own roles and responsibilities to make Dzongkhag a disaster resilient and safe place.

Tashi Delek!



(Minjur Dorji)
DZONGDAG

Acknowledgements

The Dzongkhag Administration, Chhukha would like to thank NAPA 2 project for rendering financial support in developing the Dzongkhag Disaster Management Plan and Contingency plan. The Disaster Management and Contingency Plan has come into existence with the funding support from NAPA 2 project and contributions from different stakeholders.

The Dzongkhag also would like to extend our appreciation to the Department of Disaster Management, Ministry of Home and Cultural Affairs for the technical and facilitation support in conducting Community Based Disaster Risk Management (CBDRM) in 11 Gewogs of Chhukha Dzongkhag and subsequently developing the Disaster Management and Contingency Plan for the Dzongkhag.

The Dzongkhag also would like to thank the members of Dzongkhag Disaster Management Committee, Phunstholing Theomdey, Regional Heads and Sector heads of Chhukha Dzongkhag for rendering full support in the process of developing Disaster Management Plan. Their participation in workshops and meetings were crucial for development of the Plan.

The Gewogs collected data from Chiwogs, participated in CBDRM activities, developed their own Gewog Disaster Management Plan. The participation and contribution by Gewogs and Chiwogs also played a major role in developing the Dzongkhag Disaster Management Plan. The Dzongkhag extends its gratitude towards the members of Gewog Disaster Management Committee for their contribution.

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
GDMC	Gewog Disaster Management Plan
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
SAR	Search and Rescue

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Objectives of the Chhukha Dzongkhag Disaster Management and Contingency Plan

The Disaster Management and Contingency Plan for Chhukha Dzongkhag is mandated by the Disaster Management Act of Bhutan 2013. The plan was endorsed by the Dzongkhag Disaster Management Committee (DDMC) on 28th November 2017 and will serve as a document for reference by all relevant stakeholders and Sectors- for implementation of prioritized disaster risk reduction and preparedness activities and guide the Dzongkhag in any response and relief operations.

The objectives of the Dzongkhag Disaster Management Plan are:

- To ensure mainstreaming and facilitation for implementation of disaster risk reduction and preparedness activities in the 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.

The objectives of the Dzongkhag Contingency Plan are:

1. Life-saving and public safety
2. Life sustaining for the first two weeks
3. Ensuring Dzongkhag's resilience
4. Laying the foundation for 'Build Back Better'

The Dzongkhag DM and Contingency Plan will be updated on a yearly basis.

Chapter 1: Overview of Chhukha Dzongkhag

1.1 Background

Chhukha Dzongkhag was established in April, 1987, coinciding with the beginning of the sixth five year plan. Located in the western region, it covers an area of 1879.5 square kilometers with the elevations ranging from 200-3500 meter above sea level. Administratively it is divided into 1 Drungkhag and 11 Gewogs viz Bjabcho, Chapcha, Bongo, Darla, Dungna, Getana, Geling, Logchina, Maedtakha, Phuntsholing and Sampheling. The overall arable land is around 4.63% of the total area of the Dzongkhag with average land holding size of 5.6 acres per households.

Chhukha is the main entry point for import and commercial hub of the country. Major hydro power plants, which are key source of the national income are also located in Chhukha Dzongkhag. This comparative advantage can foster rapid economic growth of the Dzongkhag. There are also plans to establish 3 more hydro power plants which will definitely help boost the country economy by the big margin.

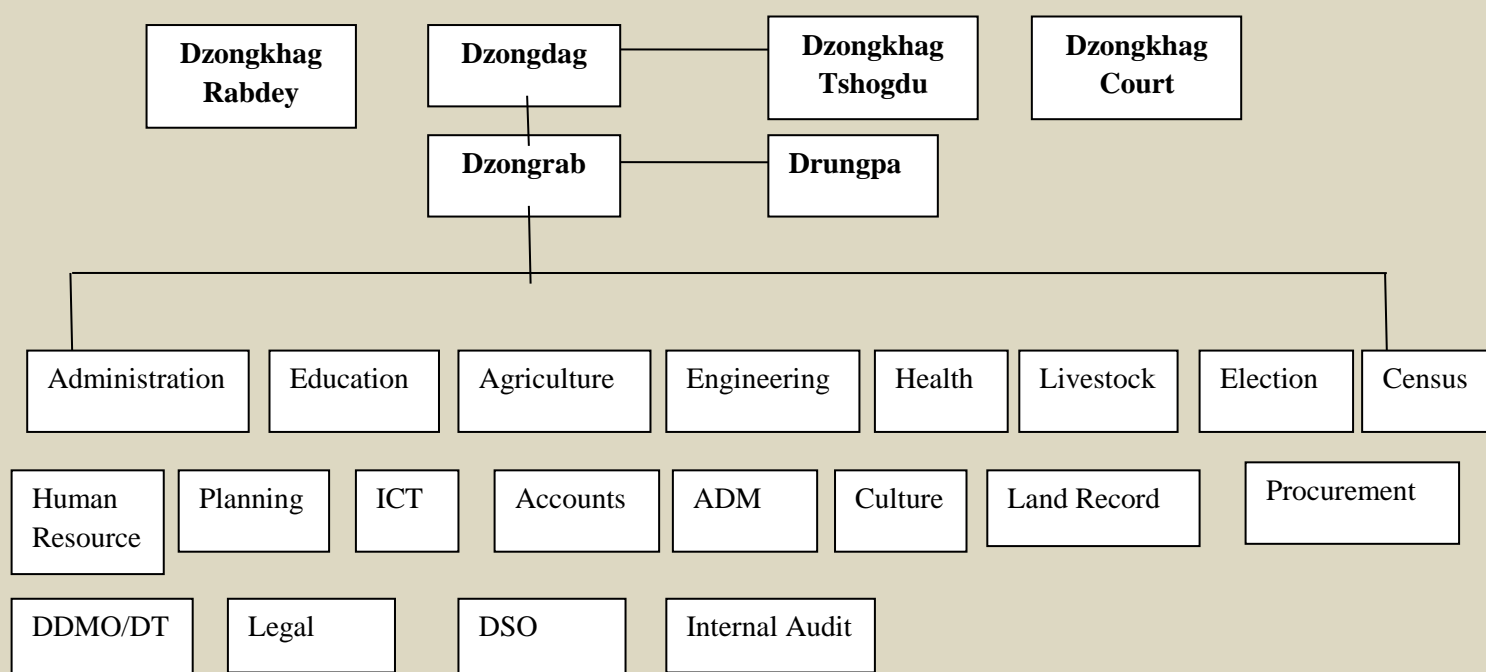
The main sources of income for the people of Chhukha Dzongkhag are Livestock and major cash crops like Cardamom, Orange, Potato and Ginger.

1.2 Social and Administrative Profile

GENERAL INFORMATION	
Total Area (sq km)	1879.5
Forest cover (%)	85.77
Location of Dzong	Tshimasham
<i>Source: Land Cover Mapping Project report 2010</i>	
Administrative units	
Dungkhag	1
Thromday	1
Gewogs	11
Chiwogs	58

Villages	123
Households ¹	12792
Population ²	88342
<i>Note: 1. Households is based on BLSS 2012 report.</i> <i>2. Population is based on Dzongkhag population projection</i>	
Local Government	2015
Gup	11
Mangmi	11
Gewog Administrative officer	10
Tshogpas	55
Dzongkhag Tshogdu Members	23
Gewog Tshogdu Members	71

Figure: 1 Organogram of Dzongkhag Administration



1.3. Weather and Climate

Monthly Temperature (Degree Centigrade)

Figure: 2 Average Monthly Rainfall

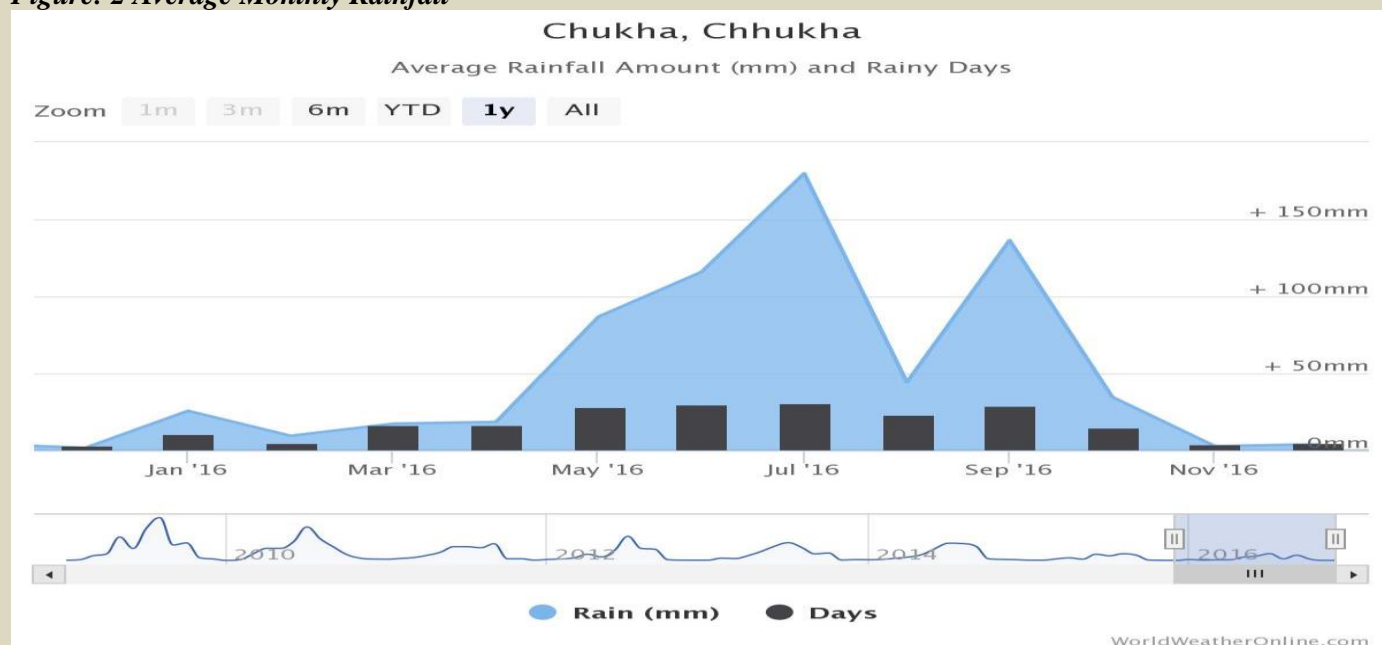
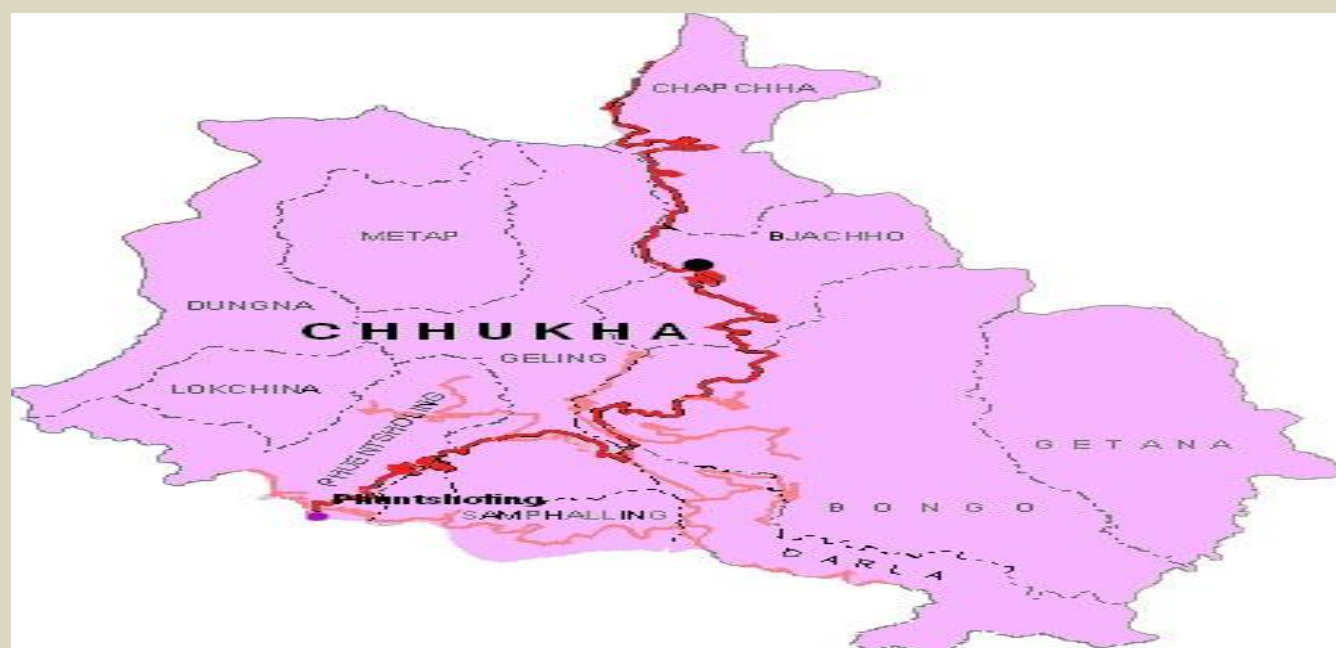


Figure: 3 Map of Chhukha Dzongkhag



Chapter 2: Dzongkhag Disaster Management System

2.1 Dzongkhag Disaster Management Committee (DDMC)

Chhukha Dzongkhag Disaster Management Committee (DDMC) is constituted as below in line with the provisions of the DM Act of Bhutan, 2013:

Dzongkhag Disaster Management Committee

1. Dasho Dzongdag Chairman	Contact# 17110127
2. Dasho Dzongrab Vice Chairman	Contact# 17131916/17673722
3. Drungchen, Ngoedruptse Dratshang	Contact# 17111935
4. Dasho SP, Phuntsholing	Contact# 17604626
5. Dasho Thrompoen, Phuntsholing Thromdey	Contact# 17410281
6. DT Chairman	Contact# 17605942
7. Kidu Officer, Dzongkhag	Contact# 17645977
8. Dzongkhag Health Officer	Contact# 17605824
9. Dzongkhag Education Officer	Contact# 17611045
10. 10 Gups	List attached in annexure
11. DDMO	Contact# 17752005/77752005

Other Stakeholders that may be co-opted as the members of DDMC are as follows:

On the expiry of the term/ resignation of the Dzongdag (Chair), the Dzongrab (Vice-Chair) will take over the functions of the chair. In case of the expiry of term/ resignation of Gup, the Chair of the DDMC may temporarily designate an official from the local government as a member of the DDMC to serve until the vacancy is duly filled.

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).

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 Centre
- 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

Chapter 3: Disaster Risk Profile of Chhukha Dzongkhag (HVCA)

3.1. Dzongkhag HVCA

Chhukha Dzongkhag is susceptible to both natural and human-made disasters. This includes earthquake, windstorm, fire, landslides, hunder storm and vehicle accidents. The most notable disaster was the Sept, 21st earthquake in 2009 which affected the most Dzongkhags including Chhukha. It damaged most of the rural households, schools, Lhakhangs, and other government infrastructures. Further the Dzongkhag is affected by windstorms every year which destroys houses and crops, with serious implication on the livelihood of the people.

3.2. Past disasters

In terms of assessing the disaster risk of the Dzongkhag for this plan it is assessed by looking at the hazard, vulnerability and capacities at the Dzongkhag as well as individual Gewogs since disaster risk is a function of hazard, vulnerability and capacity of the community/ Gewog / Dzongkhag. The HVCA is conducted by the Gups, GAOs, DDMO and relevant sector heads. Finally the Gewog's hazard is prioritized for action planning using the probability and impact matrix.

(Hazard, Vulnerability, Capacity Assessment (HVCA) for Gewogs are attached in annexure)

Chapter 4: Disaster Management Action Plan (2018 – 2022)

This chapter details the action plan for Chhukha to raise awareness, reduce risk, and enhance preparedness and resilience for five years starting from 2018 to 2022 for the hazards which were prioritized.

Priority Hazards: Earthquake, Landslide, Flood, Windstorm, Fire (including forest fire), Human Wildlife Conflict and Pest & diseases

Priority Area	Key Activities	Target	Nodal Agency	Supporting agencies	Timeline	Budget Nu. in M)
DDMC Meetings as per the DM Act of Bhutan 2013	Conduct DDMC meetings bi-annually as per the DM act of Bhutan 2013 (to review the DM and Contingency plan, assess implementation of the activities and dissemination of plan) (Gewogs to propose their own budget to hold GDMC as per need)	DDMC	DDMO	DDMC	to be clubbed with DT Meetings	0.50
4.1. Awareness and Education	1.1 Public education and advocacy program on priority hazards including family disaster preparedness (also distribute user friendly key messages on risk reduction and disaster preparedness) - Use schools to conduct community outreach activities - Disseminate Gewog DM and Dzongkhag DM plans	11 Gewogs including 46 Schools (including 5 ECR), Agencies Include vulnerable groups (Women, children, old age, and people with disabilities)	Gewog Administration DDMC	Dzongkhag Administration, regional offices, DDM RBP	Annually starting 2018	5.5
	1.2 Conduct meetings with Principals and disaster focal teachers to strengthen linkages with school DM plans	Schools	DEO, GDMC DDMC	Dzongkhag Administration	2018	as and when other meeting happens

	<ul style="list-style-type: none"> - At the dzongkhag level DEO to participate in DDMC - At the gewog level, GDMC to initiate 					
	1.3 Dzongkhag observes International Disaster Reduction Day (13 th October every year)	Dzongkhag Administration, Schools, communities, Rabdey, Business community, Regional offices	DDMO, DDMC, Dzongkhag Administration	DDM	Annually from 2018	0.5
	1.4 Raise awareness on insurance benefits and encourage families to insure their property against various hazards	All Gewog and Thromde Communities	Gewog Administration, Thromde Thuemi	Insurance companies, DDM, Dzongkhag Administration	2018 – 2019	
	1.5 Raise awareness on installation of fire safety gadgets (fire alarm, extinguishers in govt., private buildings, and community lhakhangs)	Govt offices, private building owners, Caretakers of Lhakhangs	RBP/ Dzongkhag Administration	Gewog Administration and community	2018-2019	
	1.6 Raise awareness on road safety	Govt. and communities	RSTA/ RBP	Dzongkhag administration	Annually from 2018	
	4.2. Conduct training on Bhutan Building Codes and Guidelines for construction of Traditional houses (including for earthquakes and windstorms)	Engineers, carpenters, Masons, Gewog administration staff	DE	DDMO, DDMC, DDM, DES (MoHWS), DoC (MoHCA)	2018-2020 (2 times)	0.80

4.2. Enhance risk reduction and mitigation	2.2 Carry out vulnerability assessment of old/ existing buildings/ houses (earthquake)	Cultural buildings, office buildings, private buildings	DE	DDMC, DDM, DES, MoHWS, MoE, DoC (MoHCA)	2018-2020	(DE/ DDMO to discuss with MoWHS/ MoHCA)
	2.3 Implement structural mitigation measures or replacement as per vulnerability assessment recommendations on a prioritized basis	Mitigation for priority structures (Government structures)	DE/ DDMO	DDM, DES (MoHWS), MoE, Gewog Adm. Dratshang	2019 onwards	Based on assessment
	2.3 Flood and landslide hazard zonation	Dzongkhag	DGM, NCHM, MoWHS	DDMC, Dzongkhag Administration, Land Commission	2018-2022	(to discuss with technical sectors)
	2.4 Strengthen systems to disseminate weather forecast and advisories (World Bank Project)	Communities		DDM, NCHM, DoA	2016-2020	
	2.5 Installation of fire hydrants as per needs assessment	Tsimalakha/ Tsimasham, Gedu Town	RBP/ Dzongkhag Administration		2018-2020	To be discussed
	3.1 Training of Dzongkhag Disaster Assessment Teams on Bhutan Disaster Assessment Tools	Engineers, Sector heads and Gewog Administration staff, Tshogpas, regional offices	DDM	Dzongkhag and Gewog Administration	2018	
	3.2 Form and train gewog SAR teams (include De-Suups)	Gewogs	Dzongkhag and Gewog Administration	DDM/ RBP	2018-2022 (annually)	1.65

	3.3 Refresher course for the Dzongkhag SAR Team (including De-Suups)	SAR team, RBP	DDMC	DDM, RBP	Annually from 2018	0.7
	3.4 Ensure fire-fighting preparedness is put in place in the BOD	Tsimasham and Gedu BOD	DDMC	RBP/ Dzongkhag Administration	2018	
	3.5 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	
	3.6 Establish Dzongkhag Emergency Operation Center (including Standard Operating Procedures)	Dzongkhag Administration	DDMO	DDMC, DDM Relevant sectors	2018	(equipment supported through NAPA 2)
	3.7 Procure SAR equipment	Gewog Administration	Dzongkhag/ Gewog Administration	DDM	2018	4.0

4.3. Enhance preparedness, response and recovery	3.8 Sensitize, conduct mock drill/ simulation on Dzongkhag DM and Contingency plan	Dzongkhag, Dungkhag Administration, Gewog Administration Dratshang, RBP, RBA, Judiciary, Regional Offices, De-Suung, Business and Communities	DDMC	DDM	2018-2021	0.500
	3.9 Stockpile essential items required for emergency response and immediate recovery at strategic locations		FCB (Essential food items) Farm shops (in Gewogs) ORC (first aid kits) Dzongkhag and Gewog Adm (for other items)	DDM, MoF, relevant sectors	2018-2022	1.00
	3.10 Establish and institute pre-arrangements for emergency procurement and requirements	Dzongkhag Administrations	Procurement Officer/ Finance Officer	DDMC, DDM, MoF	2018-2022	
	3.11 Establish community based early warning system for floods and landslide	Dzongkhag	DDMC/ Dzongkhag and	DDM, NCHM,	2018-2022	0.500

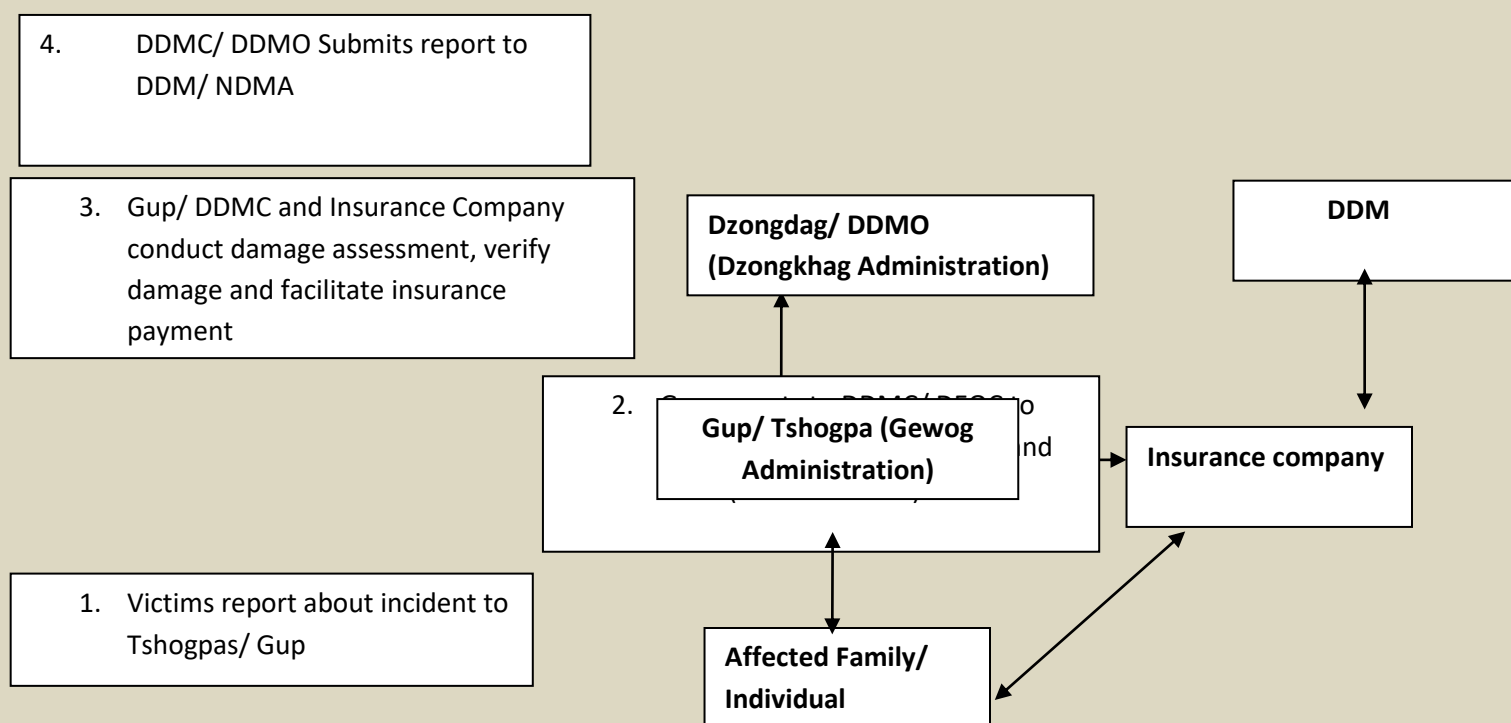
	including monitoring and reporting system	Administration	Gewog Adm	DGM, RBP,		
	3.12 Identify Dzongkhag/ Gewog Disaster Assessment Team for various hazards	Dzongkhag and Gewog Administration	DDMO	DDM	2018	
	3.13 Construction of the Dzongkhag Emergency Operation Centre	Dzongkhag Administration	Dzongkhag Administration	DDM	2020	
	3.14 Procure emergency communication equipment's (VHF/HF sets)	Dzongkhag and Gewog Administration	Dzongkhag and Gewog Administration	DDM	2019	
	Capacity building activities for DM and response (Trainings, study visits etc) for Dzongkhag and Gewog officials	Dzongkhag and Gewog Administration	DDM, MOHCA	DDM, MOHCA	2020	

5.2. 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.

Figure 2 – Standard procedure for isolated local incidents



5.3. 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:

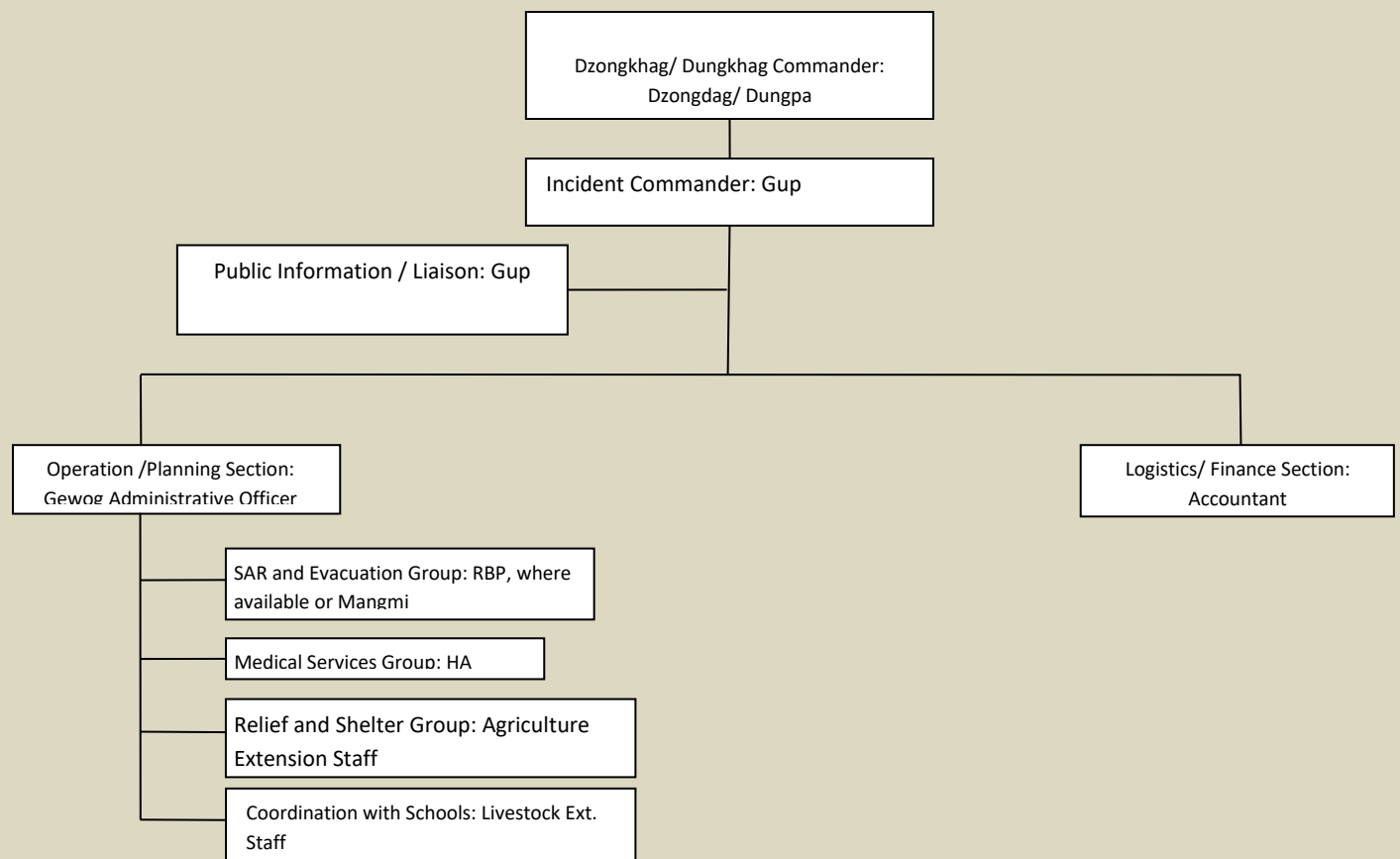
Disaster Type I

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 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 shall provide immediate response and relief within their capacity.
 - c. The DDMO shall submit the first information report to the DDM within 24 hours of the incident.
 - d. Gewog Incident Management Team shall conduct rapid needs assessment as per the required format.
 - e. 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.
 - f. Gewog shall conduct detailed damage assessment along with insurance companies for relief and early recovery and submit report to DDMC.
 - g. 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.

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.



ICS organization at Gewog level

In case of Type II

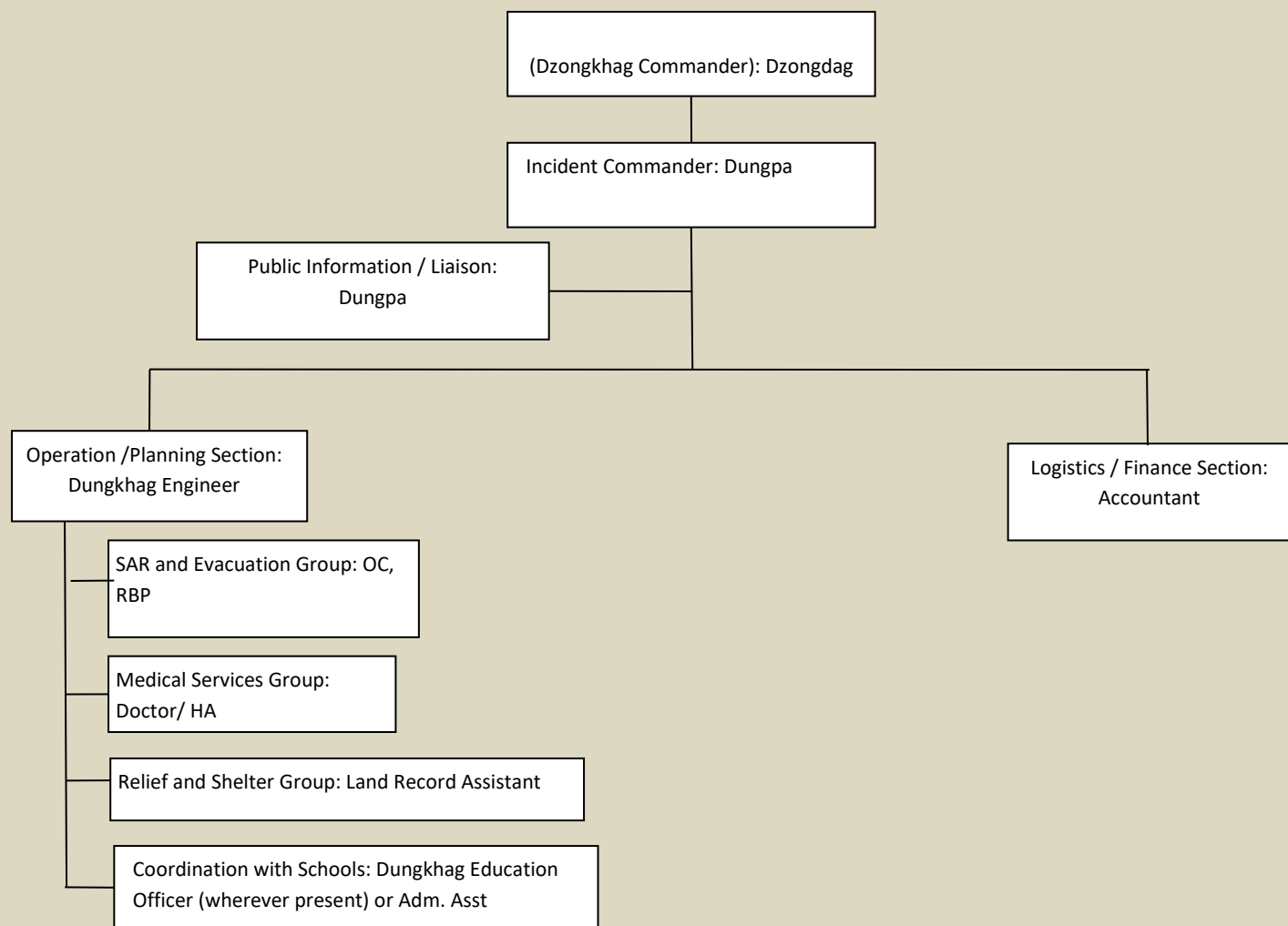
Disaster Type II - A disaster shall be classified as Type II if it can be managed with available resources and is within the coping capacity of the Dzongkhag concerned.

- 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 Dungkhag/ 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/ 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.

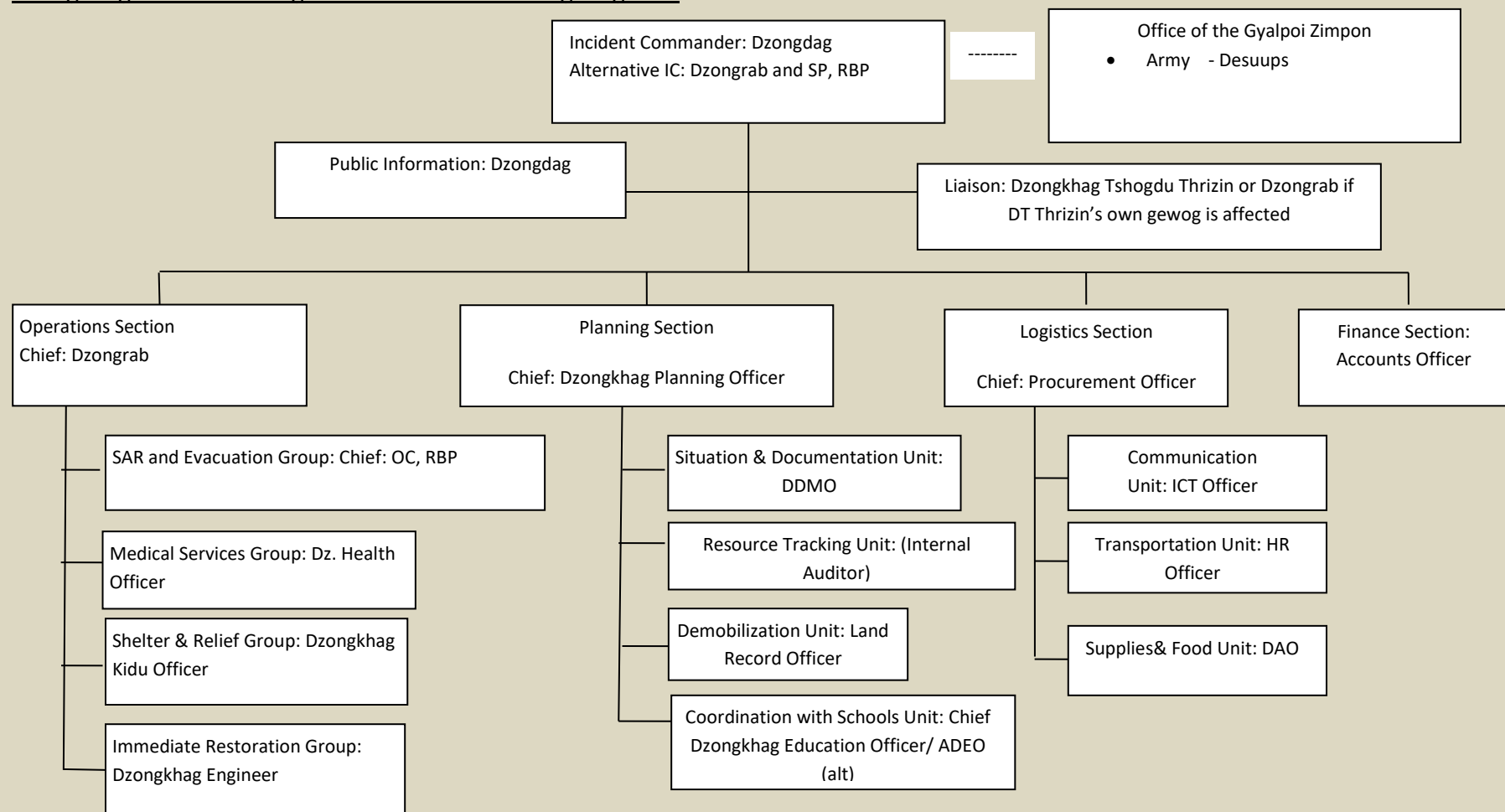
Dungkhag Incident Management Team

The Dungkhag Incident Management Team will be led by Drungpa 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.

ICS organization at Drungkhag level



Dzongkhag Incident Management Team at the Dzongkhag level



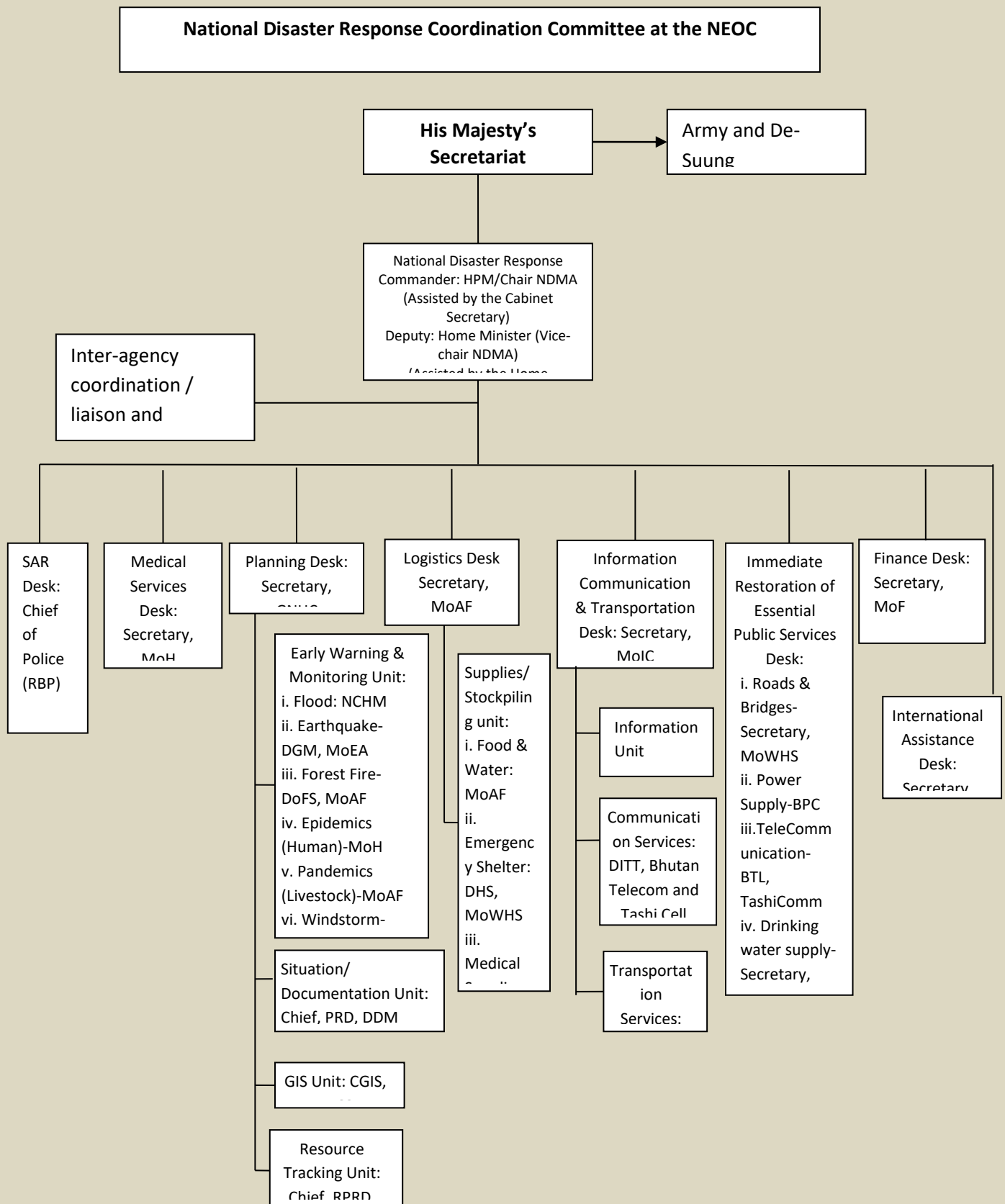
Transportation Unit leader to liaise with RSTA Base In-charge

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.

In case of Type III

Disaster Type III - A disaster shall be classified as Type III 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.



5.3. Standard Operating Procedure (SOP) developed for response to earthquakes:

Based on mock drill and simulations conducted at Dzongkhag level in December 2017, the following Standard Operation Procedure (SOP) was developed for response to earthquakes.

1. Convene emergency Dzongkhag Disaster Management Committee meeting in the Conference Hall
2. Activate Dzongkhag Emergency Operation Centre (which room) and Incident Command System
3. Liaise with DDM (Focal point in DDM: Yang Dorji: 17650223/ 327319) and NCHM for further weather/ rainfall information
4. Develop an Initial Incident Action Plan (IAP) by the Planning Section Team in consultation with the IC and other section heads
5. Respond as per the IAP
6. Activate information, communication and reporting channels
7. Inform Gup of nearby gewogs on the early warning message/ impending threat
8. Gup to relay information to the community through the Tshogpas to stay away from the low lying areas or move to higher grounds
9. Inform the Thromde Thuemi to inform town residents
10. Relay information to Dzongkhag SAR Team, EMTs and RBP to be ready to move
11. Deploy the Dzongkhag SAR team, EMT and RBP to the affected areas if required
12. Inform Military Intelligence to inform the border areas of the risk, if required
13. Relay information to school to keep headcount of children and keep them in school till further notification or to close down the schools if there is high risk.
14. Inform RSTA to restrict movement of vehicles if required (Focal person in RSTA: Ugyen, RTO 17623574)
15. Liaise BPC to cut the power supply (Focal person in BPC: Kipchu, Sr. Manager- No)
16. Contact excavators and JCB owners and identify vehicles for transportation if required
17. Submit periodic reports and request for assistance to the NEOC (forms to be kept ready)

5.4. Roles and Responsibilities of the various positions under the IMT

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

Liaison Officer: 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.

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

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.

❖ **Rapid Assessment Team**

- ❖ Pre –Identify Rapid Assessment Team members and train and familiarize with assigned area
- ❖ Pre – Communication set-up (procure additional HF/VHF sets and distribution)
- ❖ Pre - Rapid assessment forms to be available in all gewogs and in the DEOC after the form is finalized by DDM.
- ❖ 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
- ❖ After – Carry out periodic assessments as directed by team leader

Mode of Communication during disaster/ threatening disaster situation:

First line of communication: VHF handsets

Alternative modes of communication: Mobile phones

Social media (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)

SoP for requesting Helicopter services:

Dzongkhag Emergency Operation Centre Management

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

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 6: Implementation Mechanism

As per the DM Act, the DDMC shall be responsible for coordinating 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 the plan's implementation progress and to review and update the plan.

Dzongkhag administration will be responsible for ensuring that the activities are incorporated into their annual and five year plans and for implementation of the prioritized plan activities.

The Dzongkhag Disaster Management Officer/ Gewog Administrative Officer will facilitate incorporation of priority disaster risk reduction, preparedness, awareness and capacity building activities in annual and five year development plans of the Dzongkhag/ Gewog and facilitate implementation of the prioritized activities.

As member secretary to the DDMC, the DDMO will keep record, maintain data, and assist the chairman of the DDMC in monitoring the 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, on the implementation of the DM and Contingency Plan as required.

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.

6.1. Financial Provisions as per the Disaster Management Act of Bhutan 2013

As per the Disaster Management Act 2013, there are 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 budget allocation is required;

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

6.2. 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, preparedness 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 disaster resilient features.

6.3. Response and Relief Expenditure

The Chairperson of DDMC shall, upon declaration of disaster, have the authority to use annual budget of the concerned Dzongkhag, to provide immediate 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 demands, as per section 89 of the DM Act 2013”. However, the dzongkhags may have an understanding with FCB located within the dzongkhag to procure immediate relief items for payment later.

- 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, at the earliest, 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.

6.4. 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

Annexes:

Annexure 1: List of DDMC members with contact details:

Dzongkhag Disaster Management Committee

1. Dasho Minjur Dorji, Dzongdag Chairman	Contact# 17984024
2. Dasho Sherub Dorji, Dzongrab Vice Chairman	Contact# 17131916/17673722
3. Yangka, Drungchen, Ngoedruptse Dratshang	Contact# 17111935
4. Dasho Wangchukla SP, Phuntsholing	Contact# 17604626
5. Dasho Thrompoen, Phuntsholing Thromdey	Contact# 17410281
6. Tshering Nidup, DT Chairman	Contact# 17605942
7. Kinley, Kidu Officer, Dzongkhag	Contact# 17645977
8. Penjor Dorji, Bjabchog Gup	Contact# 17510750
9. Tobgay, Chapcha Gup	Contact# 17761978
10. Kinley, Getena Gup	Contact# 17410198
11. Mil Kumar Mangor, Darla Gup	Contact# 17238658
12. Pasang, Doongna Gup	Contact# 77948569
13. Phub Dorji, Geling Gup	Contact# 17910854
14. Indra Lal Ghalley, Loggchina Gup	Contact# 17626227
15. Passang Tshering, Metabkha Gup	Contact# 17593169
16. Birkha, Bdr. Rai, Phuntsholing Gup	Contact# 17581585/77412837
17. Mani Kumar Rai, Sampheling Gup	Contact# 17465891/77218843
18. Gopal Hingmang	Contact# 17605824
19. Kinley Gyeltshen	Contact# 17611045
20. Tshewang Dorji, DDMO	Contact# 17752005/77752005

Annexure 2: Emergency contact details of responsible Officers in Dzongkhag and Regionals

Sl No.	Name	Designation	Mobile #	Fixed #
1	Dasho Minjur Dorji	Dzongda	17984024	08-478251
2	Dasho Sherab Dorji	Dzongrab	17131916	08-478256
3	Wangdi Gyelpo	Planning Officer	17647580	08-478810
4	Tshering Chopel	DE	17627590	08-478813
5	Dorji Phuntsho	HRO	17700244	08-478393
6	Sangay Norbu	Dz. Env. Officer	17454638	08-478805
7	Ugyen Choeda	Culture Officer	17120570	08-478817
8	Gyem	LRO	17653106	08-478814
9	Nim Zam	Accounts Officer	17682077	08-478785
10	Padam Bdr. Gurung	DLO	17649855	08-478807
11	Sonam	DAO	17612636	08-478808
12	Kinley Gyaltsen	DEO	17611045	08-478747
13	Chimi Tshewang	ADEO	17170133	"

14	Dawa	DzEO(Election)	17657513	08-478748
15	Damcho wangmo	ERO(Election)	17972421	"
16	Gopal Hingmang	DHO	17605824	08-478388
17	Dorji Gyeltshen	ADHO	17572256	08-478245
18	Jigme	Census Officer	17659109	08-478818
19	Pema Nidup	Revenue Asstt	17653211	08-478324
20	Tshering Zam	ICT Officer	17323919	08-478821
21	Choney Dorji	Procument Officer	17455880	08-478816
22	Tshewang Dorji	DT Secretary	17752005	08-478525
23	Namgay Pelzang	Internal Auditor	17767428	08-478654
24	Kinley	Kidu Officer	17645977	08-478801
25	Damcho Dorji	Muni Engineer	17320994	08-478815
27	Sonam R Chophel	Legal Officer	17265901	08-478803
28	Pemba Tamang	PA to Dzongda	17463383	08-478227
Sl No.	Name	Designation/Office	Mobile #	Fixed #
1	Lam Ugyen Dorji	Lam Neten	17402663	478229
2	Drungchen, Rabdey	Chhukha	17111935	478284
3	Dasho Drangpon	T/sham		478200
3	Karma Rinchen	Sr. Dungpa	17117003	05-254835
4	Dasho Thrompon	Phuntsholing	17410282	254312
5	Dasho SP, Div- , RBP,	Phuntsholing	17604626	
6	Officer In-Command, RBP	Tsimasham	17614412	
7	E E CHPC		17402632	478291
8	ADM Officer CHPC	Chukha		478269
9	E E THPC	Tala		261284
10	Director,BBPL	Darla		05-272607
11	EE, DoR	Darla	17666472	
12	CFO	Gedu	17710863	5282236
13	Manager Bhutan post	Tsimasham		478653
14	Manager BOB	Tsimasham	17640736	478217
15	Manager, BDBL	Tsimasham	17701227	478243
16	Manager, B T	Tsimasham	17111771	478010
17	Base Incharge, RSTA	Tsimasham	17651939	478337
18	Manager, BPC	Tsimalakha	17626053	478649
19	Incharge BAFRA	Tsimasham	17670080	
20	Major,Dantak 60 RCC		77214039	
21	Thromdey Thumey	Gedu	17637931	

Annexure 3: Dzongkhag SAR team:

S/N	Participants	Designation/Office	Contact No.
1	Nima Dorji	AE	17727025
2	Ugyen Chada	DCO	17120570
3	Sangay Tempa	RBP	77786094
4	Karma Gyeltshen	RBP	17993251
5	Karma Ugyen	RBP	17481253
6	Ugyen	BTO, RSTA	17617494
7	Mindu Gyeltshen	Sr. BI	17906609
8	Ratan Bdr. Ghalley	RBP	17829469
9	Ugyen Norbu	RBP	17867453
10	Tshering Wangdi	RBP	17858264
11	Kinzang Thinley	RBP	17441363
12	Jampel Lhaten	RBP	17488195
13	Phub Rinchen	RBP	17803263
14	Nima Tshering	CDA	17606471
15	Sonam Choda	Dungtsho	17170165
16	Sonam R. Chopel	Legal Officer	17265901
17	Sumjay	RBP	17675918
18	Sangay Khandu	RBP	17492189
19	Sonam Dorji	RBP	17823264

Annexure 4: Disaster Search and Rescue equipment's at Gedu, RBP

Sl. No	Particulars	Quantity	Unit Price	Total (Nu.)
1.	LED Search light	1 No.	9250.00	9250.00
2.	Spine Board	1 No.	57000.00	57000.00

3.	Safety Harness	6 Nos.		
4.	Life Jacket	5 Nos.		
5.	Dynamic Rope	1 No.		
6.	Static Rope	1 No.		
7.	Screw Carabineer (70 kn)	2 Nos.		
8.	Screw Carabineer ()	10 nos.	3500.00	3500.00
9.	Plain Carabineer	6 nos.		
10.	Helmets	9 nos.		
11.	Water throw bag	4 nos.	7,850	31,400.00
12.	Hand Gloves	2 pairs		
13.	Safety Harness	5 nos.		
14.	Full body harness(petzl)	1 nos.	21,410	21,410.00
15.	Prusik cord	5 nos.	11,160	55,800.00
16.	Descender (figure of 8)	3 nos.	900	2,700.00
17.	Elbow Pad	2 nos.	2,200	2,200.00
18.	Knee Pad	2 nos.	3,500	3,500.00
19.	Fall Arrester	1 no.	14,700	14,700.00
20.	Single pulley	3 nos.		
21.	Double pulley (Camp)	2 nos.		
22.	Tap sling	5 nos.		
23.	Easy evacuation stretcher	1 no.	6,999	6,999.00
24.	Easy Anchor wedding	2 nos.	1,550	1,550.00
25.	Easy anchor cable	1 no.	2,700	2,700.00
26.	Triangular evacuation harness	4 nos.	1,200	1,200.00
27.	Desk top computer	3 sets	49,9900	1,49,700.00
28.	Computer table (36'x18'x30')	3 nos.	3,600	10,800.00
29.	Revolving chair with arm	3 nos.	6,830	20,490.00
30.	UPS backup APC-3KVA	1 no.	2,640	2,640.00
31.	White board medium (4x6)	1 no.	2,640	2,640.00
32.	Iridium 9555 satellite phone	1 no.	N/A	N/A

Annexure 5: Search and Rescue equipment at Royal Bhutan Police, Chhukha

Sl. no	Specification	Quantity	Remarks
1.	Hard hats (Light weight design, sturdy short birm for better vision)	6	3199/pic
2.	Tansum Prussik Diameter 8mm, breaking strength 20-25KN	5	2500/pic
3.	Single sheave pully: Clean design, sheave diameter of 1 inch easily accommodate ropes from 8 to 11 mm. Strength 35KN (A)	3	1150/pic

4.	Rescue Ascenders (Jummer) (A)	1 PAIR	6850/pic
5.	Figure of 8 (decender) steel type	3 Nos.	820/pic
6.	Static rope 10-11 mm, 200 m roll (B)	1	29200/pic
7.	Seat harness, easy to wear with adjustable buckles, breaking strength of 13-15KN	6 Nos.	5999/pic
8.	Carabineer plain type (steel make) 20-25KN breaking strength (A)	6 Nos.	820/pic
9.	Carabineer screw type (steel make) 25-35 KN breaking strength (A)	10 Nos.	480/pic
10.	Ringer rope gloves light and drable, leather made A	3 pairs	2250/pic
11.	Tape sling 25 meter roll (A)	5 Nos.	4990/pic
12.	Search light(Chargeable with minimum of 12 thousand candle light)	2 Nos.	8999/pic
13.	Basket stretcher with head and leg support with readymade bridle	1 No.	53500/pic
14.	Dynamic rope 10-11, 200 m roll	1 No.	36400/pic
15.	Ring Buoy	3 Nos.	3080/pic
16.	Full Body Harness	1 No.	6500/pic
17.	Ordinary stretcher	1 No.	6999/pic
18.	Double shave pulley	2 Nos.	2150/pic
19.	Anchor plate	1 No.	820/pic
20.	Life vest light bright colour with the head rest	3 Nos.	13000/pic
21.	Portable mic	1 No.	

Annexure 6: Equipment available at Chhukha Dzongkhag to setup Emergency Operation Centre

Sl.No	Equipment/Furnitures	Specification	Remarks
1.	Desk top	Dell	3 sets
2.	Revolving Chair	Blue	3 Nos.
3.	Computer/Desktop table	Wooden	3 Nos.
4.	White Board	Big	1 No.
5.	Photocopy machine	Canon Image runner 2203N	1 No.
6.	Printer	HP Laserjet P3015 series	1 No.
7.	Emerson Network Power System	AC power system	1 No.
8.	Satellite Phone	For Dasho Dzongdag	1 No.

Annexure 7: Contact details of Des-sups

LIST OF DE-SUUPS GEWOG WISE FOR CHHUKHA DZONGKHAG

Sl.No	Name	De-Suung Batch	contact No.	De-Suung ID	Place of work	GEWOG
1	Dasho Pemba Wangchuk	12th	17110127	DS(13)14-1416	Dzongdag	Bjabchok
2	Dasho Sherab Dorji		17673722		Sr. Dzongrab	Bjabchok
3	Tori Wagdi	10th	17899758	DS(10)14-1084	Teacher, GHSS	Bongo
4	CB Moktan	14th	16911500	DS(10)14-1057	Teacher, GHSS	Bongo
5	Sonam Norbu	10th	17806418	DS(10)14-1088	Teacher, GHSS	Bongo
6	Sonam Phuntsho	06th	17667938	DS(06)13-604	Teacher, GHSS	Bongo
7	Yeshi	08th	17627385	DS(08)13-867	Gedu GCBS	Bongo
8	Rasaily	08th	77395161	DS(08)13-868	Gedu GCBS	Bongo
9	Sonam Dorji	16th	17570810	DS(16)15-1809	Technician, GHSS	Bongo
10	Sangay Thinley	16th	17680525	DS(16)15-1806	Lab Assistant, GHSS	Bongo
11	Bhawan Singh	08th	17708487	DS(08)13-869	GHSS, Plumber	Bongo
12	Thinley Dorji	17th	17796175	DS(17)15-1974	Fire Officer, DGPC	Bongo
13	Pema Lhamo	16th	17541414	DS(16)15-1857	Gedu Hospital	Bongo
14	Gyem Lham	14th	17510878	DS(14)15-1617	TLSS	Bjabchok
15	Tashi Dorji	06th	17170551	DS(06)13-638	TPS	Bjabchok
16	Gembo Dorji	14th	17638572	DS(14)15-1535	Education Office, CDA	Bjabchok
17	Karma Wangmo	14th	17664663	DS(14)15-1640	Teacher, WMSS	Bjabchok
18	Dema	06th	17650245	DS(06)13-698	Teacher, WMSS	Bjabchok
19	Deki Yangzom	06th	17804043	DS(06)13-673	Teacher, WMSS	Bjabchok
20	Kinley	14th	17645977	DS(14)15-1598	Kidu Officer, CDA	Bjabchok
21	Karma Gyeltshen	05th	17653382	DS(05)12-501	Chemist, CHPC	Bjabchok
22	Kezang Wangmo	03rd	17960895	DS(03)12-327	Teacher, Tashigatshel	Bjabchok
23	Chencho Lham	10th	17304727	DS(10)14-1142	Teacher, CHSS	Bjabchok
24	Sonam Tashi	03rd	17766908	DS(03)12-313	Teacher, CHSS	Bjabchok
25	Kinley Tenzin	10th	17357199	DS(10)14-1134	Teacher, CHSS	Bjabchok
26	Sonam Rindup	07th	17255918	DS(07)13-750	Teacher, CHSS	Bjabchok
27	Tashi Tshering	04th	17551744	LOST DID	Business, Tshimalakha	Bjabchok
28	Pema Loday	05th	17620989	DS(05)12-486	GAO, Bjabchok	Bjabchok
29	Chador Wangmo	16th	17680917	DS(16)15-1870	Technician, CHPC	Bjabchok
30	Nim Dorji	14th	17897215	DS(14)15-1534	Teacher, Sinchula PS	Darla
31	Ugyen Tenzin	06th	17645976	DS(06)13-605	Teacher, Darla MSS	Darla
32	Dorji Yangzom	03rd	17662363	DS(03)12-332	VP, Darla MSS	Darla
33	Lhakpa wangchuk	05th	17643668	DS(05)12-494	GAO, Dungna	Dungna

34	Ugyen Tshomo	23rd	17801134	DS(23)17-2709	Pakshikha CS	Bongo
35	Karma Sonam Dendup		77613883	Ds(18)16-2063	Tsimakha PS	Bjabchok
36	Jigme Wangpo	18th	17955829	DS(18)16-2018	Tsimakha PS	Bjabchok
37	Dawa Phuntsho	23rd	17631610	DS(23)17-2765	sinchula PS	Darla
38	Deo Kr. Mongar	21st	17744216	DS(21)16-2466	Gedu HSS	Bongo
39	sangay Dema	6th	17604064	Ds(06)13-693	Chhukha CS	Bjabchok
40	kuenga Sonam	6th	17639122	Ds(06)13-614	Chhukha CS	Bjabchok
41	Pem Tshering	21st	17256905	Ds(21)16-2471	gedu Hospital	Bongo
42	tashi Dema	18th	77309274	Ds(18)16-2134	Arekha MSS	Bongo
43	Dampel Dorji	21st	17619141	DS(21)16-2503	gedu College	Bongo
44	Cheten Lhamo	19th	17111227	Ds(19)16-2206	BDBL, Gedu	Bongo
45	jamyang Tsheltrim	18th	17998966	Ds(18)16-2038	Chhukha CS	
46	Pem Dorji	18th	17658495	Ds(18)16-2040	Chhukha CS	
47	Chencho Tshering	18th	17618610	Ds(18)16-2022	VP, wangchu MSS	
48	Shomo Tshering	18th		Ds(18)16-2041	Chhukha CS	
49	Thinley Gyem	18th	17691829	DS(18)16-2110	Gedu HSS	
50	Karma Dorji	14th		DS(14)15-1536	Wangchu MSS	
51	Richen Choden	21st	17388394	DS(21)16-2417	Gedu Hospital	
52	Gembo Tashi	13th	17717592	DS(13)14-1445	Dasho Drangpon	

Annexure 8: Contact details of Principals of Chhukha Dzongkhag

Sl No.	School	Name of Principal	Office No.	Fax No.	Personal No.
1	Chukha Central School	Mr. Namgay Wangchuk	08-478230/314	08-478413	17670997
2	Gedu HSS	Mr. Tshochu	05-282313	05-282368	17693217
3	Pakshikha Central School	Mr. Gyeltshen Drukpa	17160511	16481367	17160847
4	Chapcha MSS	Mr. Karma Tenzin	08-471001	08-471013	17515761
5	Chumigthang MSS	Mr. Leki Wangdi	05-261144	05-261180	17698320
6	Darla MSS	Mr. Tshering	16540616	17116308	17974360
7	Kamji Central School	Mr. Pema Rinchen	17160556		77242084
8	Wangchu MSS	Mr. Dhan Singh Tamang	05-290133	05-290116	17663064 / 77355412
9	Arekha MSS	Mr. Tshering Dorji	05-272830		17781818/77658080
10	Dungna LSS	Mr. Dorji Wangdi	17161014	77191095	17686627/77191095
11	Logchina LSS	Mr. Ugyen	05-240880		77609914/17609910
12	Alaykha PS	Mr. Nima Tshering			17628349
13	Baikunza PS	Mr. Thukten Jigme			17440294
14	Bongo PS	Mr. Dhinakar Dungana			17633292
15	Chapcha PS	Mr. Pashuram Chhetri	08-471032		17420981
16	Chimuna PS	Mr. Dorji Tshering	77105741		77690185/17690185

17	Chongaykha PS	Mr. Tshewang Nidup	05-240823		77106293/17664030
18	Chungkha PS	Mr. Rinzin Wangdi	17160505		17610705
19	Getena PS	Mr. Nima Tshering			17160712/77438170
20	Ketokha PS	Mr. Dorji Tshering	16572511	171193511	17658276
21	Kezari PS	Mr. Laxman Gurung	17118717		17170710/17118717
22	Khatoeykha PS	Mr. Namgyel Dorji	77161005		77161005
23	Lingden PS	Mr. Tobgay	17160211		17160211
24	Lobneykha PS	Mr. Ugyen Dorji			17509859
25	Meretsemo PS	Mr. Lhendup Gyeltshen			17607736
26	Metakha PS	Mr. Thinlay	77836552		17836552/ 77170078
27	Pachu PS	Mr. Nima Dorji			17629396
28	Paga PS	Mr. Aita Gurung	08-240738		17664140/77607979
29	Rangaytung PS	Mr. Ugyen Wangdi			17757180
30	Rinchenling PS	Mr. Ten Dorji	08-240731		17684228
31	Shemagangkha PS	Mr. Norbu Gyeltshen	08-240717		17170710/17696596
32	Sinchula PS	Mr. Dawa Phuntsho			17631610/77237255
33	Tashilakha PS	Mr. Cheoku Dorji	05-240606		17626124
34	Trashigatshel PS	Mr. Karna Chamling	5290603		17941468
35	Tsimakha PS	Mr. Ugyen Dorji	08-478421		17511044
36	Wangdigatshel PS	Mr. Duba Tshering	05-240016		17620783
37	Chief DEO, CDA	Mr. Kinley Gyaltsen	08-478747	08-478747	17611045
40	Dy. DEO, CDA	Mr. Chhimi Tshewang	08-478220	08-478747	17170133
41	Dy. DEO, CDA	Mr. Lhama Tshering			17623643

Annexure 9: Contact details of Gewog Administrative Officers

Sl. No	Name of the GAO	Gewog	Contact No.	Email
1	Tenzin	Phuntsholing	17666521	tenzin@chhukha.gov.bt
2	Sonam Jamtsho	Logchinna	17783560	sjamtsho@chhukha.gov.bt
3	NamgayTenzin	Darla	17642437	namgyeltenzin21@gmail.com
4	Lhakpa Wangchuk	Doongna	17981385	lwangchuk@chhukha.gov.bt
5	Lhachoe Wangmo	Chapcha	17709014	lhachoe7@gmail.com
6	Tshering Pem	Bongo	17868125	
7	Pema Lodey	Bjabcho	17620989	plodey@chhukha.gov.bt
8	Santosh Rai	Getena	17620989	
9	Pema Lhazin	Sampheling	17634437	plhazin123@gmail.com
10	Namgay Tenzin	Meadtakha	17642437	
11	Offtg. Adm Officer	Geling		

Annexure 10: Dzongkhag Incident Management Team:

Sl.No	Name	Designation	Responsibility in ICS	Contact:
1	Dasho Minjur Dorji	Dasho Dzongdag	Incident Commander (IC)	17984024
2	Dasho Sherab Dorji	Dasho Dzongrab	Alternative IC	17673722
3	Dasho Sherab Dorji	Dasho Dzongrab	Operation Chief	17673722
4	Dasho Karma Rinchen	Dasho Drungpa	IC in Drungkhag level	17117003
5	Dasho Wangchukla Dasho Chencho Gyeltshen	SP, RBP OC, RBP	SAR and evacuation Head Alternative SAR &Eva. chief	17604626 17614412
6	Kinley Ugyen Chada Sangay Norbu Nakila Drukpa Jigme	Kidu Officer Cultural Officer Environment Officer Cultural Asst. Census Office	Shelter and Relief Head Shelter and relief team Shelter and relief team Shelter and relief team Shelter and relief team	17645977 17120570 17454638 17817127 17659109
6	Gopal Hingmang	DHO Doctors and other health staffs	Medical Team Head Emergency Medical Team	17605824
7	Tshering Chopel	CDE Engineers	Immediate Restoration Head Immediate Restoration team	17627590
8	Wangdi Gyelpo	Planning Officer	Planning Section Head	17647580
9.	Tshewang Dorji Dorji Wangdi Sonam R. Chopel	DDMO DSO Legal Officer	Documentation Team Documentation Team Documentation Team	17752005 17401960 17265901
10.	Namgyel Pelzang	Internal Auditor	Resource Tracking	17767428
11.	Gyem	LRO LR Staffs	Demobilization Head Demonization Team	17653106
12.	Choney Dorji Ugyen Choden	Procurement Officer Election Officer	Logistic Section Chief Logistic Team	17455880 17359398
13.	Tshering Zam	ICTO	Communication	17323919
14.	Dorji Phuntsho Nado Pema Nidup	HRO RSTA ADM (MTO)	Transportation Head Transportation team Transportation team	17700244 17701227 17653211
15.	Saha Bir	DAO DLO	Supplies and food	17731586
16.	Bhim Raj Yogi	Accounts Officer Accountants	Finance Section Head Finance Team	17491048

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; or c) 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: Reinforcement 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.