

DISTRICT DISASTER MANAGEMENT PLAN 2022-2023



KAMRUP DISTRICT

District Disaster Management Authority
Office of the Deputy Commissioner
Kamrup District, Amingaon

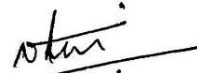
Foreword

The District Disaster Preparedness and Response Plan, includes the facts and figures that have been collected from various departmental and informal sources with a view to meet the challenges during any Natural Disaster.

Collection and classification of data are to be updated twice in May and November every year. The plan has been prepared with the following viewpoints:

1. District D.M Plan in a continuous process
2. All are not equal in a crisis situation.
3. During relief measures social auditing ensures transparency.
4. Involvement of women and PRIs is a must in the entire process.

All are cordially invited for their kind suggestion to be incorporated in the plan.



(Sri Kallash Karthik N., IAS)
Deputy Commissioner & Chairman, DDMA,
Kamrup, Amingaon

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ABBREVIATION

- A & H : Animal Husbandry
- APDCL : Assam Power Distribution Co Ltd.
- A.P President : Anchalik Parishad President
- AWW : Angan Wadi Workers
- BDO : Block Development Officer
- CBOs : Community Based Organizations
- CWC : Central Water Commission
- C.O : Circle Officer
- CHCs : Community Health Centers
- DDMA : District Disaster Management Authority
- DEOC : District Emergency Operation Center
- DCR : District Control Room
- DIPRO : District Information and Public Relation Officer
- DRDA : District Rural Development Agency
- DEEO : District Elementary Education Officer
- DEO : District Emergency Officer
- DFO : District Forest Officer
- DDMC : District Disaster Management Committee
- ESF : Emergency Support Function
- EOC : Emergency Operational Center
- E.E : Executive Engineer
- G.P : Gram Panchayat
- GIS : Geographical Information System
- LM : Lot Mandal
- MVI : Motor Vehicle Inspector
- MLA : Member of Legislative Assembly
- MO : Medical Officer
- NGOs : Non-Government Organization
- N.H : National Highway
- NCC : National Cadet Core
- NYK : Nehru Yuva Kendra
- NSS : National Social Service
- PHE : Public Health Engineering
- PRIs : Panchayati Raj Institutions
- QRT : Quick Response Team
- RTO : Regional Transport Officer
- SOP : Standard Operational Procedure
- SOC : Site Operational Center
- SHGs : Self Help Groups
- SDO : Sub – Divisional Officer
- ULBs : Urban Local Bodies (Town Committee / Municipality)

- UNDP : United Nation Development Programme
- VDP : Village Defence Party

GLOSSARY:

DISASTER

A serious disruption of the functioning of a community or a society causing widespread human, material, economic and environmental losses which exceed the ability of the affected community / society to cope using its own resources

- ❖ Hazard - Potential threat to humans and their welfare
- ❖ Vulnerability - Exposure and susceptibility to loss of life or dignity
- ❖ Risk - Probability of disaster occurrence
- ❖ Capacity - Availability and potential resources
- ❖ Prevention - Activities designed to provide permanent protection from disasters
- ❖ Mitigation - Measures taken in advance & reducing its impact
- ❖ Preparedness - Ability to predict & Respond to cope

TELEPHONE NUMBERS OF OFFICERS AND STAFFS

Name of officers & Staffs	Designation	Office No.	Res. No.	Cell No.
Shri Kailash Karthik, IAS	DC, Kamrup	Nath Driver:- 96788-84819 Boro Driver:- 78965-12494 0361-2684404 (O) Mail ID- dc-kamrup@nic.in	0361- 2680032 Forest Inspection Bungalow	95310-69185
Shri Norsing Bey, ACS	DDC Kamrup			94351-68523
Shri Prasanta Pratim Kathkatia, ACS	ADC Kamrup			94350-56682
Subhankar Dutta Lahkar, AFS	FAO, Kamrup			94014-73067
Shri Gunajit Roy Choudhury, ACS	ADC Kamrup			94350-58920
Shri Satyajyoti Baruah, ACS	ADC Kamrup			70027-17801 87619-43123
Smti Kanta Das, ACS	ADC Kamrup			94350-25053
Sri Manash Saikia, ACS	ADC Kamrup			97069-34413
Ms Manali Jain, ACS	ADC Kamrup			84865-95335
Shri Sujit Baglary, ACS	ADC Kamrup			60015-78130
Mayuri Ojah, ACS	ADC Kamrup			80110-18569
Shri Swapneel Paul, IAS	SDO RANGIA (Civil)			99718-35061
Mayur Pankhi Borah, ACS	Assistant Commissioner			97071-99532
Shehnab Sahin, ACS	Assistant Commissioner			70860-11455
Shri Ajit Kumar Nath	DIO, NIC (Kamrup)			70027-52955
Shri Mitali Barthakur	ADIO, NIC (Kamrup)			70022-57686 98641-76679
Matinur Rahman	DDS, FCS&CA			99544-10933
Shri Chiranjib Das	Supdt. Excise			73991-91222
Shri Biren Deka	Dy. Supdt. Of Excise			94350-87649
Chandana Goswami	Treasury Officer			94353-06872
Shri Ramenjit Das	Sr. Sub-Registrar			94351-60448
Shri Juri Doloi	Project Director, DRDA			70024-15099 96131-69080
Apratim Goswami	Election Officer			86385-53041
Sri Pranab Kumar Das	DIPRO, Kamrup			98646-09009
Shri Pathak	SPO, Kamrup			94351-24261
Samiur Rahman	APO, Kamrup			98640-86890
Dr. Rajiv Dutta Chowdhury	District Project Officer, DDMA			94350-23991
NAZIR	Shri Jogen Sarma, Sr. Asstt			94350-19419 75780-08309
Ritu Goswami	DPS, NRC			70020-85201
Emergency Contact Nor DEOC (District Emergency Operation Center), Kamrup, Amingaon		0361-2684407 (toll free nor-1077)		96784-71071

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Sl No	Name of Circle	Officers Name	Mobile	E-mail ID
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3	N. Guwahati	Shri Rahmi Pratap, ACS	88407-46403	northghyrevcircle2016@gmail.com
4	Rangia	Smti Leena Kumari Pawe, ACS	94010-72229	lkumari.pawe@assam.gov.in
5	Nagarbera	Banashree Malakar, ALRS	60008-79546	malakar.banashree@yahoo.com
6	Chamaria	Pritom Das, ALRS	88110-84140	das.k.pritom@gmail.com
7	Boko	Raj Baruah, ACS	98208-06877	dipshikhagogoi@gmail.com
8	Goroimari	Shri Arup Birkamiya, ALRS	80112-58493	arupbirkamiya@gmail.com
9	Chhaygaon	Shri Soroj Sonowal, ACS	84730-77701	sorojrupai@gmail.com
10	Kayan	Khired Kamal Hazarika, ALRS	97075-42974	khiredkamal1@gmail.com
11	Palashbari	Dhrubajyoti Pathak, ACS	91013-23770 69019-70905	dhrubajyoti1989@gmail.com

Disaster Management Field Officer, Kamrup District

Sl No	Name	Circle	Contact No	E-mail ID
1.	Jayanta Deka	North Ghy	97073-21436 99579-96115	seiaajayanta1989@gmail.com
2.	Nitul Islam	Chhaygaon	88761-64439 70020-63327	nitulislam12@gmail.com
3.	Bhaswati Kalita	Kayan	97073-73943 70026-38170	bhaswatikalita100@gmail.com
4.	Pritam Kalita	Boko	81349-41960 91275-95538 93658-64352	prtmkalita@gmail.com
5.	Saurav Borkakoti	Rangia	70023-70681 87248-07956	sauravborkakoti@gmail.com
6.	Moidul Islam	Nagarbera	84862-44018 86385-49715	islammoidul581@gmail.com
7.	Subhash Baruah	Hajo	95085-74993 93655-42005	subhashbaruah15@gmail.com
8.	Jiaur Rahman	Chamaria	7399479207 86382-02812	rjiaur29@gmail.com
9.	Arpana Das	Goroimari	75760-83493 60023-91938	arpanadas00@gmail.com
10.	Injamul Hoque	Kamalpur	8822214692 86380-03109	injunitu@gmail.com
11.	Chinmoy Saikia	Palashbari	8876164439	chinmoysaikia345@gmail.com

Contact Number of Block Development Officer, Kamrup

Sl No	Name	Block Name	Contact No.	E-mail ID
1	Nandita Saharia, ACS	Hajo	86382-30565	hajodevblock11@gmail.com
2	Shafikul Islam	Boko	60007-66624	bokodevblock11@gmail.com
3	Nagen Das	Rampur	70023-63669	bdorampur@gmail.com
4	Rajita Hazarika	Chayani Barduar	94351-54664	bdocbdb123@gmail.com
5	Dhanjit Dutta	Rangia	70026-87907	bdorangia@gmail.com
6	Lina Hazarika	Chaygaon	94014-02964	bdochhaygaon@gmail.com
7	A. Rahman	Bongaon	97070-16426	bdobongaon@gmail.com
8	Moni Devi	Goroimari	94356-34956	bdogoroimari@gmail.com
9	Archana Das	Sualkuchi	98641-58873	bdosualkuchi@gmail.com
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11	Hemanta Deka	Bihdia Jajikona	91011-20853	bihdiajajikonadev.block@yahoo.in
12	Remsiami Naidiang	Rani	84740-78435	brbdorani@gmail.com
13	Usha Deka	Chamaria	63951-51697	bdochamariadevblock@gmail.com
14	Kanta Kakati	Kamalpur	97077-43290	bdokamalpurdo@gmail.com

4.6 FIRE STATION INFORMATION:**Contact Details of Kamrup Fire & Emergency Service Station/Section Officer**

SL. No.	Name of the Fire & Emergency Service Station	Name & Designation		Contact Nos.	
		Name	Designation	Office	Email-ID
1	Station Officer, North Guwahati F&ESS	Sri Bipul Saharia	03612-690052	98644-10418	sahariabipul@gmail.com
2	Station Officer, Baihata Chariali F&ESS (in Kamalpur Circle)	Sri Ganesh Deka	03621-286477	74291-21580	
3	Station Officer, Rangia F&ESS	Sri Jitu Boro	03621-240517	97077-25458 86385-82519	
4	Station Officer, Sualkuchi F&ESS	Sri Tapan Ch. Deka	03612-830110	78969-18613 94357-80878	
5	Station Officer, Hajo F&ESS	Md. Abu Taleb	03612-820988	86386-69397	
6	Station Officer, Mirza F&ESS	Sri Sukla Boro	03623-230089	60006-22650	
7	Station Officer, Boko F&ESS Looks after Nagarbera	Sri Kamal Kalita	03623-292061	70024-94001	kamalkalita86@gmail.com
8	Station Officer, Chhaygaon F&ESS Looks after Chamaria & Garoimari	Sri Gajen Kalita	03623-261838	99576-93204	
9	Station Officer, Pandu Fire & ES	Sri Himangshu Baruah		97064-82443	
10	SDRF/ F&ES Control Room, Panbazar	Ram Chandra Bhakat	0361-2737680	94355-13496 94357-25450	
11	NDRF Control Room, Patgaon		0361-2840284	94351-17246 94010-48790 96382-84053	

List of mobile phone numbers of Police Officer in respect of Kamrup District:-

Designation & Address		Name of officers	Contact Nos.
SP, Kamrup		Shri Hitesh Chandra Ray, APS	94355-39728 0361-2684400 (O) 0361-2684403 (Fax)
SP, River Police		Nitai Ch. Ghosh, APSF	94350-77357
Add. Suptd. Of Police, Kamrup		Shri Ashif Ahmed, APS	94355-55655 0361-2684401 (O)
Dy. Supdt. Of Police (HQ), Kamrup		Shri Kalyan Kumar Pathak, APS	0361-2130782 (O), 98640-39133 84149-96179
Dy. Supdt. Of Police (B), Kamrup		Shri Hamidur Rahman, APS	69005-96785
Dy. Supdt. Of Police (B), Kamrup		Shri D. Gogoi, APS	86381-11814
SDPO, Rangia		Ms. Mrigakhi Deka, IPS	93652-93345
RI, Kamrup		Shri Bichitra Kr. Buragohai	80114-96531 94351-87902
IBI, Kamrup		Inspector, Shri Narayan Patangia	0361-2132361 (O), 96786-33655
ABI, Kamrup		Shri Nazrul Islam Hazarika	99543-75140 88227-34092
CI, Baihata Chariali Circle		Inspr.(UB) Loknath Deka	94350-83064
CI, Chaygaon Circle		Inspr.(UB) Shon Kr. Sarmah	99541-75098
Reserved Officer, Kamrup		SI(UB) Gunajit Pathak	81359-32871
MTO, Kamrup		ASI, Anup Sarma	97060-54017
Police Control Room, Kamrup			0361-2684402 60269-00747
O.C., Rangia P.S.		Inspr. (UB) Ratan Das	87610-13386
	I.C., Tulshibari O.P.	SI(UB) Umesh Bordoloi	99549-84755
	I.C., Dobok P.P.	ASI Krishna Pd. Sarma	99577-97450
O.C Kayan P.S.		SI (UB) Prafulla Talukdar	99577-23525
O.C., Kamalpur P.S.		SI(UB) Insp. Mrinal Kr. Das	94351-03816 69010-30409
O.C., Baihata Chariali P.S.		SI(UB) Rupam Hazarika	98599-66373
O.C., Changsari P.S		SI(UB) Bhaskar Barman	70024-13159
	I.C., North Ghy (Gauripur) O.P	SI(UB) Dimple Gayari	99542-16699
OC North Guwahati		INSPR (UB) Subhas Ch. Das	86381-48744
	I/C Amingaon O.P	SI(UB) Mukut Baishya	99579-35810 91014-34328

O.C., Hajo P.S.		SI(UB) Bipul Kr. Medhi	70022-73254
	I.C., Ramdia O.P	SI(UB) Dimbeswar Pathak	99574-17379 85386-61272
	I.C., Dadara P.P.	SI(UB) Birinchi Das	98540-34276
O.C., Sualkuchi P.S.		SI(UB)Deba Kt. Saud	94353-14889 86382-47678
O.C., Chaygaon P.S.		SI(UB) Kapil Pathak	98541-90191
	I.C., Jorsimalu O.P.	SI(UB) Bishnu Pd. Gayari	60008-08157 60269-00489
	I.C., Kukurmara P.P.	ASI Balen Kalita	94356-7330
	I.C., Goroimari O.P.	SI(UB) Munna Pachani	99540-84405
O.C., Palashbari P.S.		Insp. (UB) Satendra Singh Hazari	94350-56311 70020-47340
	I.C., Rani O.P.	SI(UB) Tagul Boro	99579-27478 69018-22499
	I.C., Bijaynagar P.P.	SI(UB) Anjad Brahma	91010-87077 94356-06018
	I.C., Palashbari TOP	ASI, Hem Kanta Sarma	98640-79318 99577-58808
O.C., Boko P.S.		SI(UB) Sanjit Kr. Ray	94351-52338
	I.C., Sontoli O.P.	SI(UB) Arjun Talukdar	93654-26735
	I.C., Hahim O.P.	SI(UB) Vikram Basumatary	99572-44668
	I.C., Chamaria P.P.	ASI, Kalicharan Ray	98542-49666
	I.C., Mandira O.P.	SI(UB) Ashok Kr. Singh	99571-58904
	I.C., Jambari	SI(UB) Kabindra Rabha	86387-36286
	I.C., Lower Lumpi P.P.	SI(UB) Raju Kr. Kurmi	94356-06138
O.C., Nagarbera P.S.		SI(UB) Bishnu Basumatary	99570-33010
	I/C, Tupamari O.P.	ASI Krishna Kr. Das	88764-63531 80119-82300

OTHER IMPORTANT CONTACT NOS:

Sl No	Department	Mail-ID	Contact No
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2	Police Control Room		0361-2684402 75789-82561
3	NDRF Control Room	ndrf01@hotmail.com	9435117246 0361-2840284
4	DEOC Control Room, Kamrup, Amingaon	ddmakamrup@gmail.com	96784-71071 0361-1077
5	Flood & Metrological Office		0361-2840201
6	CWC	cwc@gmail.com	0361-2674267
7	Brahmaputra DC Court		0361-2674186

Contact nos. of SDM & HOs, Kamrup

1.	Dr. Gunindranath Dev Sarma	Jt. Director, health Services, Kamrup	97067-03518
2.	Dr. Dhruva Jyoti Baruah	SDM & HO, Azara	94350-45114
3.	Dr. Mahitosh Banerjee	SDM & HO, Boko	94351-13544
4.	Dr. Radha Charan Das	SDM & HO, Chaygaon	98546-49589
5.	Dr. Gouranga Das	SDM & HO (i/c), Hajo	94351-17339
	Dr. Kartik Patowary	SDM & HO, Nagarbera	94355-55736
7.	Dr. Padmini Mahanta	SDM & HO, Rampur	94353-00429
8.	Dr. Guna Gobinda Sarma	SDM & HO, Rangia	98641-14455
9.	Dr. Dipak Ch. Das	SDM & HO, Sualkuchi	94351-05540
10.	Dr. Shyam Prasad Rajmedhi	SDM & HO, Uparhali	94351-18028
11.	Dr. Dimbeswar Sarma	SDM & HO, Kamalpur	94351-09777
12.	Dr. Abu Md Mustafa Kamal	SDM & HO, Bihdia	94355-54631/ 97066-91809
13.	Dr. Geeta Bordoloi	SDM & HO, North/ Ghy	98640-24806

1

CHAPTER

INTRODUCTION

1.1. INTRODUCTION:

Disaster refers to a serious disruption of the functioning of a society, causing widespread human, material, or environmental loss, which exceeds the ability of the affected society to cope using its own resources. To put it in other words, it is the occurrence of a sudden mishap/calamity/grave occurrence that disrupts the basic fabric and normal functioning of a society (or community).

The Present Assam was referred to as Kamrup in many of the ancient Indian literature. It was also known as Pragjyotishpur due to the astrology (Jyotish Shashtra) practices that prevailed in this part of the country during that time. However, "Kamrup" became a more predominant name in the later part of the history. There is a famous story which says the reason behind the naming of this place "Kamrup":

1.2. VISION

The District of Kamrup, situated on the western part of Assam has always been at the centre stage of natural calamities like floods, cyclones, earthquake, epidemics etc. Keeping in mind these very probable disasters in the district that cause major setbacks to lives, livelihoods and property (both movable and immovable), the District Administration, Kamrup felt the urgency of the need of preparing an emergency response planning. The devastation caused by floods and cyclones has posed a challenge before the Kamrup district administration to analyze each and every decision making process to gear up the rescue and restoration during such situations as well as building up the capacity to face further calamities in future.. The District Administration has realized the necessity to compile a plan to prevent/minimize the loss and also to facilitate faster recovery during an emergency of this kind. This booklet is more of a guidebook, which can help the administration, remains better prepared for floods and cyclones to safeguard lives, livelihood and property.

1.3. OBJECTIVES

The objectives behind the preparation of the District Disaster Management Plan is

- To mitigate impact of natural and man-made disasters through preparedness at District, Block, Goan Panchayat and Village level.
- To provide effective support and resources to all the concerned individuals, groups and departments in disaster.
- To assist the line departments, block administration, communities in developing compatible skills for disaster preparedness and management.
- To disseminate factual information in a timely, accurate and tactful manner while maintaining necessary confidentiality.
- To develop immediate and long-term support plans for vulnerable people in/during disasters.
- To create awareness among the people about hazard occurrence and increasing their participation in preparedness, prevention, development, relief, rehabilitation and reconstruction process
- To have response system in place to face any eventuality
- To affect or elicit the least possible disruption to the normal life process when dealing with individuals in disaster
- To ensure active participation by the government administration, communities, NGOs, CBOs and volunteers at all levels making optimal utilization of human and material resources at the time of disaster.

1.4. PERSPECTIVE

A formal plan for managing disaster would include:

- Pre planning a proper sequence of response actions
- Allocation of responsibilities to the participant agencies
- Developing codes and standards operating procedures for various departments and relief agencies involved
- Inventory of existing facilities and resources
- Mechanism for effective management of resources
- Coordination of all relief activities including those of NGOs to ensure a coordinated and effective response
- Coordinating with the state response machinery for appropriate support
- Testing the plan including mock drills
- Defining levels of acceptable risk
- Monitoring and evaluation of actions taken during relief and rehabilitation

1.5. STRATEGY

The preparation of a Disaster Preparedness Plan involves the following steps:

Steps	What is to be done	Who are to be involved	How it is to be done
I	Review and Analysis	Deputy Commissioner, ADM, Emergency Officer, BDOs, Goan Panchayat, Village community, NGOs/CBOs, Community/Village level workers	<ul style="list-style-type: none"> ▪ Past history of disasters to be discussed and documented ▪ Extent of severity and damage to be recorded ▪ The nature of the Warning issued to be analyzed ▪ The nature and extent of the rescue and restoration done, to be revisited
II	Situation Analysis	Circle Officer, BDOs, Line Deptts, Goan Panachayat ,Village community, NGOs/CBOs, Community/Village level workers	<ul style="list-style-type: none"> ▪ Mapping the geography and topography of the risk prone areas, block-wise, GP-wise and village-wise ▪ Demographic details to be recorded ▪ Mapping of the habitation in the concerned areas ▪ The natural resources to be marked on the maps ▪ Listing all the livelihoods and properties ▪ The existing risk prone/ safe infrastructure to be marked on the map
III	Hazard Analysis	-do-	<ul style="list-style-type: none"> ▪ Identification of all possible hazards in the area based on past experience and available records ▪ Identification of the most vulnerable areas with relation to threat to life, livelihoods and property
IV	Vulnerability Assessment	-do-	<ul style="list-style-type: none"> ▪ Locations of the vulnerable areas are to be mapped separately ▪ Identification of the vulnerable people such as, the elderly, the disabled, children and pregnant women, families living in thatched houses, fishermen (if any), ailing people, etc. ▪ Identification of property or

			<p>assets which are likely to be affected, such as, cattle and other livestock's, kachcha houses, weak structures, pumpsets, tube wells and other installations, crops, horticulture and plantations, boats, nets, etc.</p> <ul style="list-style-type: none"> ▪ Identification of weak points on embankments (if any) ▪ Marking the drainage system in the concerned area
V	Opportunity Analysis	-do-	<ul style="list-style-type: none"> ▪ Identification of the existing resources which may help to reduce risks to life and property ▪ Identification of the raised platform, safe houses and hillocks for shelter and storage ▪ Listing the existing flood/cyclone shelters, if any ▪ Identification of the elevated and up-lands which can act as natural barriers to protect livestock ▪ Listing of the existing health and sanitation facilities ▪ Identification of safe routes for evacuation ▪ Identification of the sources of funds to carry out the preparedness activities

2

CHAPTER

DISTRICT PROFILE

2.1 HISTORY:

The Present Assam was referred to as Kamrup in many of the ancient Indian literature. It was also known as Pragjyotishpur due to the astrology (Jyotish Shashtra) practices that prevailed in this part of the country during that time. However, "Kamrup" became a more predominant name in the later part of the history. There is a famous story which says the reason behind the naming of this place "Kamrup":

2.2 LOCATION:

Kamrup district is located between 90° 48' – 91° 50' E Longitude and 25° 46' - 26° 49' N Latitude.

2.3 AREA AND POPULATION:

Area: 1346.26 s.q. mile (3486.6 sq. km)

Population: 15, 34,500 (as per 2001 Census)

2.4 ADMINISTRATIVE UNITS:

- This district has two Sub-Divisions-Kamrup Sadar and Rangia Civil Sub-Division.
- The Kamrup (Sadar) Sub-Division has 8 (eight) Revenue Circles and Rangia Civil Sub-Division has 3(three) Revenue Circles.
- There are total 15 (fifteen) development Blocks in Kamrup district, out of which 11(eleven) development Blocks are under Kamrup (Sadar) Sub-Division and 4(four) are under Rangia (Civil) Sub-Division.
- This district has three municipality Rangia, North Guwahati & Palasbari

2.5 CLIMATE:

Climate: Sub tropical with semi -dry summer & cold in winter.

Annual Rainfall: Ranges between 1500 mm to 2600 mm.

Natural Calamity: Flood occurs generally in the low lying areas of the district during May to August every year. Late flood during the later part of September & October also occurs. The occurrence of flood in the district is due to the river Brahmaputra and its Tributaries. During rainy days the city of Guwahati also witnesses localised flood due to poor drainage system of the city.

Average humidity: 75%

Max. Temperature: 37-39 degree C

Min. Temperature: 6-7 degree C.

2.6 TOPOGRAPHY:

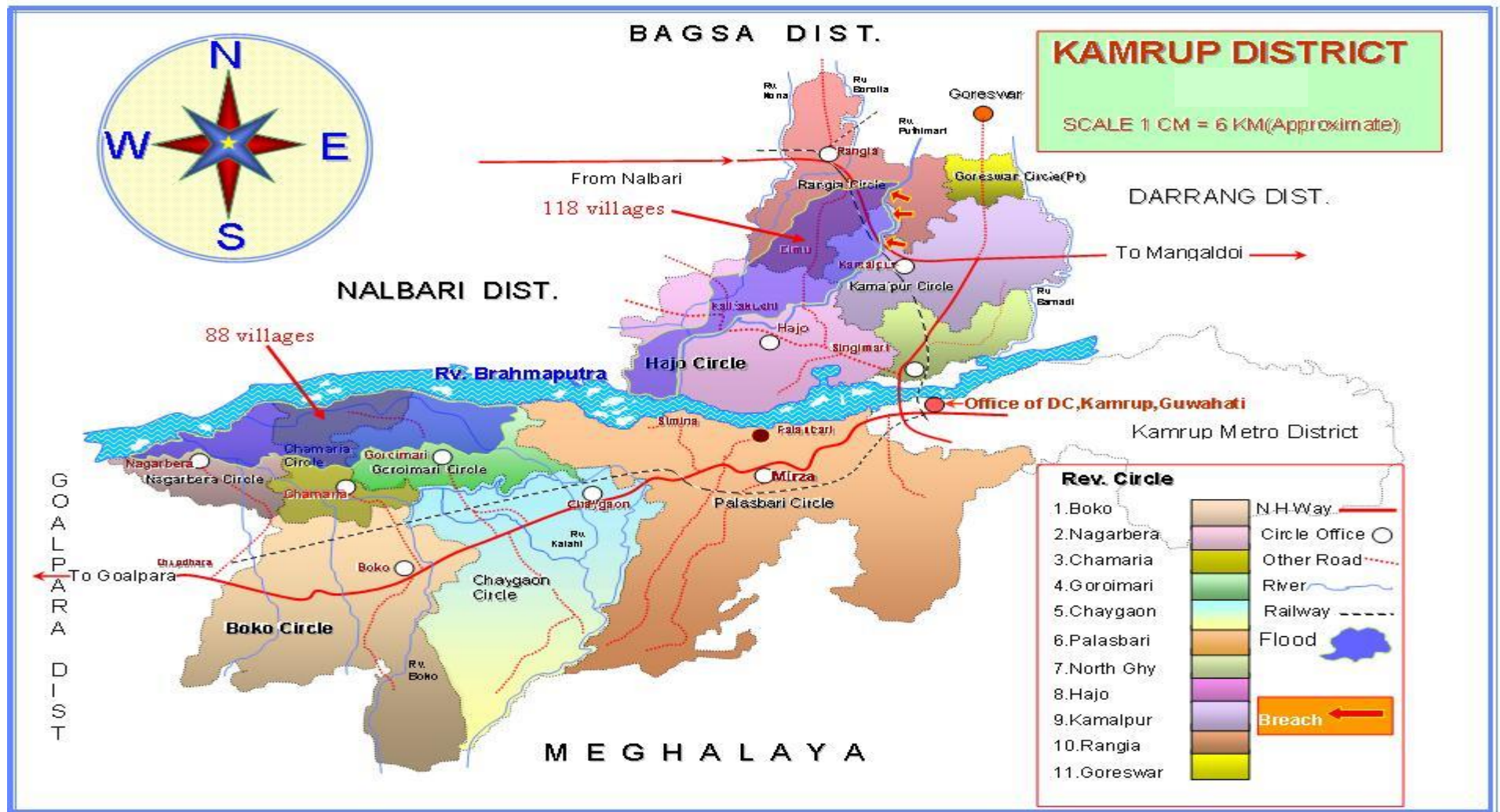
The district is bounded on the North by Baga and Nalbari district, on the South lies the state of Meghalaya, in the East we have Kamrup Metropolitan District, while on west we have Goalpara District.

2.7 RIVERS:

R. Brahmaputra, Puthimari, Bornoj, Nona, Kulsi, Pagladiya , Kalajal etc.

2.8 NATIONAL HIGHWAYS:

NH 31, NH 37



3

CHAPTER

HAZARDS AND VULNERABILITY ANALYSIS

3.1 OVERVIEW:

There is abundant evidence that natural disasters disproportionately affect developing countries. Between 1991 and 2005, more than 90% of natural disaster deaths and 98% of people affected by natural disasters were from developing countries. Moreover, disasters are increasing in number and size every year due to a number of factors including rapid population growth, urbanization and climate change.

3.2 DEFINITIONS

Disaster: -

Disaster is defined as the occurrence of a sudden or major misfortune, which disrupts the basic fabric and normal functioning of a society (community). It is an event or series of events which gives rise to casualties and/ or damage or loss of property, infrastructure, essential services or means of livelihood on a scale that is beyond the normal capacity of the affected communities to cope with unaided.

Hazards: -

Hazards are defined as “Phenomena that pose a threat to people, structure or economic assets and which may cause a disaster. They could be either manmade or natural occurring in our environment.

Vulnerability:-

It is defined as “the extent to which a community, structure, service and geographic area is likely to be damaged or disrupted by the impact of particular hazard, on account of their nature, construction and proximity to hazardous terrain or a disaster prone area”. The degree of vulnerability depends on the condition of human settlements and the infrastructure, the way in which public policy and administration is engaged in disaster management, the level of information and education available about various hazards and how to deal with them.

3.3 TYPES OF VULNERABILITY

Physical vulnerability: It relates to the physical location of people and elements at risk buildings, infrastructures etc and their proximity to the hazard.

Socio-economic Vulnerability: This relates to the degree to which a population is affected by the calamity in relation to the prevailing social and economic conditions. The impact of a disaster is determined by the event, its effects on people and their environment, as well as the consequential effect on human activities within a given society.

Capacity: Capacity is the resources of individuals, households and communities to cope with a threat or resist the impact of a hazard.

Risk: Risk is a measure of the expected losses due to a hazard/ event of particular magnitude occurring in a given area over a specific time period. Risk is a function of the probability of particular occurrences and the losses each would cause.

$$H \times V - C = R$$

3.4 CLASSIFICATION OF HAZARDS:

The High Power Committee of the Govt. of India has classified the hazards as follows

1. Water and Climate Related	<ol style="list-style-type: none"> 1. Floods and Drainage management 2. Cyclones 3. Tornadoes & Hurricanes 4. Hailstorm 5. Cloud burst 6. Snow Avalanches 7. Heat & cold Waves 8. Thunder & Lightning 9. Sea Erosion 10. Droughts
2. Geological Related	<ol style="list-style-type: none"> 11. Earthquakes 12. Landslides & Mudflows 13. Dam Bursts & Dam Failures 14. Mine Fires
3. Chemical Industrial and Nuclear Related	<ol style="list-style-type: none"> 15. Chemical and Industrial Disasters 16. Nuclear Disasters

4. Accident Related	17. Road, Rail and other Transportation accidents including Waterways 18. Mine Flooding 19. Major Building Collapse 20. Serial Bomb Blasts 21. Festival Related Disasters 22. Urban Fires 23. Oil Spill 24. Village Fires 25. Boat Capsizing 26. Forest Fires 27. Electrical Disasters & Fires
5. Biological related	28. Biological Disaster & Epidemics 29. Flood Poisoning 30. Cattle Epidemics 31. Pest Attacks

3.5 HAZARDS SPECIFIC PRONENESS IN KAMRUP DISTRICT:

VULNERABILITY ANALYSIS OF KAMRUP DISTRICT

➤ Earthquake :-

As per the latest seismic zoning map of India, the Kamrup District falls under High Risk Zone- V, where a maximum intensity of IX can be expected.

➤ Flood :-

The general reason of occurrence of flood in Kamrup District is due to overflow of Rv. Brahmaputra and its tributaries, namely Pagladia and Puthimari, and also rivers Borolia, Nona, Kalajal, Chesa and Kulsi

➤ Soil Erosion :-

The soil erosion is major threat to many places in Kamrup District, such as Palasbari, Sualkuchi & Gumi etc areas under the threat of River Brahmaputra.

➤ Fires :-

The fire takes places in Kamrup District due to short circuit, thatched house. Mainly fire takes place from March to April when the climate remains very dry and probability is more instance of fire breakout.

➤ Cyclone:-

In Kamrup District places mainly affected due to cyclone are Palasbari Rev. Circle and Nagarbera Rev. Circle recently in 2007, some causality has also been reported from the concern authorities.

3.6 DISASTER SPECIFIC PRONENESS TO VARIOUS TYPES OF HAZARDS IN KAMRUP

The following table depicts about the various type of natural hazard that are prone in Kamrup, its period of occurrence, potential impacts and the vulnerable areas of Kamrup District.

Type of Hazards	Time of occurrence	Potential Impact	Vulnerable areas
Flood	May to Aug	Loss of life, livestock, crop and infrastructure	Annexure-1 (History of floods & flood prone areas)
Cyclone	June-October	Loss of life, crop, infrastructure and animals	-
Earth Quake	Anytime	Loss of Life, Livestock and Infrastructure	Entire District
Epidemics	Anytime	Loss to human life	-
Fire Accidents	March-May	Human Loss and house damage	-

6.2.1.1.1 PROBABILITY PERIOD / SEASONALITY OF DISASTERS													
Name of Disaster	Month												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
Flood			←————→										
Cyclone						←————→							
Fire Accident			←————→										
Earthquake	←————→												

3.7 HISTORY OF FLOOD & FLOOD PRONE AREAS IN KAMRUP DISTRICT –

Please see Annexure- I for ready reference

3.8 DISASTER MANAGEMENT:

Disaster Management can be defined as the body of policy and administrative decisions and operational activities, which pertain to various stages (pre- disaster, disaster occurrences & post-disaster) of disaster at all levels.

There are mainly three key stages of activity that are taken up within disaster management: -

PRE DISASTER (Before the disaster strikes)	DURING DISASTER (Disaster Occurrence)	POST DISASTER (After a disaster)
Activities taken up to reduce human and property losses caused by the hazard and to ensure that these losses are also minimized when the disaster strikes. Risk reduction activities are taken up during this stage and these are termed as prevention, mitigation and preparedness activities.	Activities taken to ensure that the needs and provisions of the victims are met and the sufferings are minimized. Activities taken up at this stage include emergency response activities.	Activities taken to achieve early recovery and does not expose the earlier vulnerable conditions. Activities taken up at this stage are called as response and recovery activities.

- **Prevention:** Measures to eliminate or reduce the incidence or severity of emergencies/ disasters.
- **Mitigation:** It involves long- term measures to reduce the effects of disaster causing phenomena.
- **Preparedness:** Measures to ensure that communities and services are capable of coping with the effects of disasters.
- **Response:** Measures taken in anticipation of, during and immediately after a disaster to ensure that the effects are minimized.
- **Recovery:** Measures that support emergency and help the affected communities in the reconstruction of the physical infrastructure and reconstruction of economic and emotional well- being.

3.9 INVENTORIES AND EVALUATION OF RESOURCES ANALYSIS:

Analysis and assessment of the resources and opportunities form the stepping-stone in the preparatory stage. Authentic assessments can make the planner aware of their tenacity and wants, so that they can equip themselves with all the required items and materials well in advance. The resources necessary for disaster preparedness and during and after disasters are listed below:

3.10 BOATS:

Deployment of powerboats in different areas is indicated in ANNEXURE-II & III.

3.11 SHELTERS:

Accommodation for rescued/evacuated people has to be planned in advance. People living in low-lying areas have to be shifted to places at a higher elevation in flood situation. Advance identification of such sites is an important element of disaster preparedness. Schools and other public buildings should be inspected and strengthened before announcing relief shelter. The floodplains are very densely populated and availability of suitable lands for raised sites of villages in the vicinity of vulnerable low-lying areas is a major problem. People are not prepared to move to distant locations away from their sources of livelihood. Institutions located at higher elevations have come in handy to provide shelter to people who have to be evacuated from low-lying areas.

Apart from these, the school buildings in different places can be used as temporary flood-cum-temporary shelter during calamity. The list of the identified schools that can serve the purpose is given in ANNEXURE-VII.

3.12 STORAGE OF FOOD

Storage of food in accessible pockets is as vital as building shelters. All the Circle, Block headquarters and Gaon Panchayat Offices are used as storage points when need arises. The C.O & BDO's and the storage agents in charge of the respective blocks are the contact person for the block headquarters and the Panchayat Secretaries are the contact person for the G.P. offices. Adequate quantity of rice has been kept with each storage agent at each block headquarters for distribution to the victims as immediate relief. These locations are used as storage locations for medicines, blankets. It has been decided to keep adequate stock of rice in the following places for distribution of emergent relief.

Sl.No	Name of the Block	Type of storage structure	Location	Capacity	Contact Person	Remarks
1	Bezera	3 Nos	G.P.S.S go-down	75/20 mt	N. Ghy w/s Co. Soc., Sarighat G.P.S.S (1500 Qtls), Bagbangshar G.P.S.S 15000 Qtls	Godowns Block-
2	Chamaria	Assam type Pucca Wall	H.Q	500 M.T	E.O.P	Ranjit Kr Baishya E.O.P
3	Sualkuchi	RCC Assam Types	Attached to GPSS Lts	150 MT 150 MT	Secretary No 1 Pub Bongsor GPSS Secretary No 2 Pub Bongsor GPSS	

3.13 CAPABILITY ANALYSIS OF THE INSTITUTIONS/OFFICE IN DISTRICT:

All the departments at the Deputy Commissioner are connected with telephone (both external and internal),. A detailed account has been given in the section “Disaster Specific Capability Analysis, point 5.5. The Sub- Div officers have assumed their responsibilities and their areas of operation have been defined by the district authority. All the line departments have been directed to keep themselves ready as per the guidelines mentioned in this booklet. The NGOs and CBOs operating in the district have been asked for preparing area specific hazard plans and forming task groups involving local volunteers. Other institutional arrangements have been elaborated in the coming pages.

3.14 COMMUNICATION AND MEDIA:

Wireless and V.H.F. stations are the quickest means of communication of weather warning and other important messages on flood and cyclone. Regular wireless, V.H.F. sets are available in all police stations.

Sl.No.	List of Places Helipads exists or Helicopters can land	Land / Place
1.	Chaygaon	1. F.A Ahmed Collage field Goroimari 20 km N/W 2. Ratanpur High School field- 5 km North 3. Chaygaon Mini Stadium- ½ Km East 4. Chhaygaon H.S (Alekjari
2.	Palashbari	1. Sarpara R.B School Field 2. Rampur Play Ground 3. RAzapara PHC Field 4. Chimana High School Field.
2.	Hajo	1. Hajo High School Field 2. Domdama H.S Field
3.	Sualkuchi	Brahmaputrabati Rash Mela Feild
4.	Kamalpur	1. Kamalpur Mini Stadium Field 2. Puthimari HSS Field 3. Puthimari Puja Mandap Field 4. Chagsari HS Field 5. Rajib Gandhi Stadium
5.	Baihata P. S	1. Malibari Pub- Kamrup HS 2. Dumuni Chacki, High School field 3. Bihdia Mini Stadium Field
6.	Rangia P.S	1. Rangia Stadium 2. Army Helipad Rangia Septi 3. Koniha H.S. School field 4. Rangia H.S.School field 5. Barness Field Rangia
7.	BOKO P.S	1. Gandhi Maidan Field 2. Bondapara Foot Ball Field 3. Singra Field 4. Boko College Field
8.	Amingaon	Numalijalah Parade Ground
9.		North Guwahati Reserve

(Source: Information provided by office of S.P Kamrup District)

MEDIA:

Sl.No.	Newspaper	Name of the Person	Contact No.
1.	Prati Din	Haider Hussain	2664594/ 2660420
2.	Doynik Agrodoot	Kanaksen Deka	0361-2261929/2269147
3.	Amar Asom	Prasants Rajguni	2544355/56/57
4.	Nooton Dainik	J.N Borgohain	2334802/2334803
5.	Telegraph	Dipankar Roy	2636849/
6.	Senitel	HareKrishna Deka	2452048/2529237
7.	Assam Tribune	R. Dutta Choudhary	2664144/
8.	Times of India	Prabin Kalita	2456731

Sl.No.	TV	Contact No.
1.	Doordarshan	2207728
2.	N.E TV	2607071
3.	Prag News	2664915
5.	Aaj Tak	2603570
6.	Zee TV	2667729
7.	Star News	2452835

3.15 ADMINISTRATIVE PREPAREDNESS FOR DIFFERENT DISASTERS:

The following steps have been taken as a part of administrative preparedness to combat any eventualities during and immediately after the disaster:

1. Control Rooms are functioning round the clock in 15 blocks, ADM's Office, Offices of the Joint Director of Health Services, DA&VO, District Agriculture, PWD (R), PWD (B) All Executive Engineers of Irrigation, R&B (PWD), CWC, PHE, and since 1st March 2005.
2. Senior Level Officers from different departments will be assigned charges for all the flood/cyclone zones along with the BDOs of respective blocks.
3. Telephone Numbers have been made available to the Regional Meteorological Centre, Guwahati to intimate about the adverse weather
4. SDO Telegraphs / Telephones have been requested to keep the lines in order at the time of calamity
5. Rain recording stations installed in each of the 15 blocks.
6. Daily report of rainfall is being obtained from the BDOs.
7. The Executive Engineers E & D have been intimated to report Gauge reading of the rivers, daily during flood and to keep drainage clean & repair all weak points/ breaches caused in the last flood and complete the left out work before the onset of monsoon, keep a close watch on the embankments passing through the habitations, remain alert with men and materials to face any eventualities (Primary Data ANNEXURE- IV)
8. Executive Engineer, PHE has been directed to repair / replace the defunct tube wells on war footing basis before the rainy season
9. The Superintendent of Police has been intimated to monitor the installation of Police Wireless Stations and make arrangements for army assistance.
10. VHF's to be installed at DEOC/ Circle Offices/ Block Offices .
11. Satellite phone (to be installed at DEOC)
12. ADM (Relief) have been directed by the Deputy Commissioner and District Magistrate to store adequate foodstuff at interior, vulnerable strategic and key areas for immediate relief.
13. NGOs have been identified block wise and task force been formed in collaboration with the district administration to carry out relief operation, rescue and evacuation, etc.
14. DAO has been intimated to supply HYV paddy seeds to the blocks as a part of agricultural measure. (Primary Data ANNEXURE- V)

15. Jt. Dir of Health Services has arranged Medical Relief Camps and doctors have been deployed for the purpose and the Jt. Dir of Health Services has been directed to keep the mobile medical team ready for the purpose. (Contingency Plan/ Ambulance Facilities/ Blood Bank/ Free Oxygen Services ANNEXURE-XI)
16. DA&VO, indent of different vaccines has been taken to protect animals against contagious diseases, medicines supplied to the field functionaries for routine treatment as part of veterinary measures. (Infrastructure / Equipments/ Contingency Plan ANNEXURE- VI)
17. Inspector of Schools and PWD (B) Magazine Department will remain in charge of safety of relief Shelters (Used in Flood, Cyclone & other calamity)
18. PWD (R) Officer will look into the repairs major roads, bridges, concrete steel work and make other necessary arrangements as per requirement.
 - Earth moving and Road cleaning equipments ANNEXURE- VIII
 - Main accessible road to revenue circles at ANNEXURE - XII
19. NGOs / CBOs have been organized by the respective BDOs as relief parties
20. Review of pre-flood/cyclone arrangements have been carried out and the contingency plan for flood and cyclone prepared by all the BDOs.

3.16 DISASTER SPECIFIC CAPABILITY ANALYSIS WITH THE HUMAN RESOURCES AND SKILLS:

All the line departments such as Health, Veterinary, Irrigation, Police, Revenue, Electrical, PWD (B &R), CWC, ULBs etc. are instructed to stay prepared with the equipments and manpower before the specified disaster seasons. They will give a list of their resources and requirements to the Deputy Commissioner well in advance so that proper preparatory measures will be at place. The NCC, NSS and Paramilitary Forces will have to prepare a list of task force for the rescue, evacuation and relief operation. They will be provided with a relief kit each and a training manual. Training should be conducted at the District, Block, GP and village levels to ensure that the awareness for disaster mitigation is built up among the communities. Mock drill should be conducted in anticipation of disasters to enhance the skills of the task force.

3.17 PUBLIC AND PRIVATE SECTOR RESOURCE INVENTORY AND CAPABILITY ANALYSIS:

The detailed information on the resource inventory with regard to private and public distribution system, traders, list of CBOs and NGOs and list of financial institutions for the requirement has been enclosed in ANNEXURE-IX.

3.18 FIRE STATION INFORMATION CIRCLE / BLOCK / GP:

Sl. No.	Name of the fire station	Telephone Number	Disposition of Vehicle	& Pumps	Disposition of Man Power.
1	Guwahati Fire Station	2540222	8	3	37
2	Dispur Fire Station	2260221	6	3	26
3	Chandmari Fire Station	2550489	4	1	24
4	Pandu Fire Station	2674817	4	2	25
5	Santipur Fire Station	2637680	2	1	15
6	Mirza Fire Station	230089	3	1	20
7	Rangia Fire Station	240517	3	2	23
8	Sualkuchi Fire Station	2830110	2	2	20
9	Hajo Fire Station	2820988	1	2	18
10	Baihata Fire Station	286477	1	2	21
11	North Guwahati Fire Station	2690052	1	2	17
12	Boko Fire Station	03623-292061		1	18
13	Chhaygaon Fire Station	03623-261838		1	19

3.19 Mapping of New Vulnerabilities in the District**Landslide affected areas at Joyguru, Amingaon**

There are two locations along National Highway - 31 which are affected by landslides. In both the locations the materials affected by landslide are red lateritic soil and boulders of quartzo feldspathic gneiss.

2. Visual inspection of the failure surface indicates infiltration of surface runoff and subsequent loss of cohesion of soil, as the primary cause of failure of the hill-slope. Infiltration of water through the joint planes within the quartzo-feldspathic gneissic rock had led to further aggravation of the situation. The GPS Latitude of Longitude of the Rockslide location near Gauripur is N= 26°12'48.2" E= 91°41'35.2"

The immediate remedial measures that could be taken up to stabilize the slope are -

1. Construction of contour drain along the crown of the slide. This would help in channelizing the surface runoff away from the affected slope.
2. Removal of unstable boulders from the affected slope surface through blasting and other mechanical means.
3. Construction of a shallow ditch at the toe of the landslide to trap and arrest movement of debris which might slide down the slope face.
4. Placement of a Dynamic Rockfall Barrier along the road margin to arrest movement of detached stones / boulders from the slope face.
5. Placement of waterproof sheets over the slope face to check downward infiltration of surface runoff on the slope face.
6. Placement of landslide hazard sign-plates and temporary rumble strips on the road for vehicular speed reduction.



3.20 INDUSTRIAL HAZARDS

Kamrup District has numerous industries in designated industrial belts and among those industries there are a few industries which use hazardous chemicals in the production of finished products.

Mention may be made of the following industries :

1. LPG Bottling Plant at Sarpara, Mirza, under Palashbari Rev. circle
2. L.P.G. Bottling Plant at North Guwahati, under North Guwahati Rev circle.
3. Ashoka Paper Mill at Baihata under Kamalpur Rev. Circle
4. Eco-Tech Papers at Dalma Gaon under Kamalpur Rev. Circle

Proper management of the industries using hazardous chemicals must be the topmost priority of the Management of the industries and constant monitoring from the District Administration regarding the rules and regulations which are to be adhered to by the Industries should be done on a regular basis. The Disaster Management Plan of those particular industries are to be regularly updated and checked by the District Disaster Management Authority and any anomalies found are to be rectified immediately so that there is no chance of the occurrence of any major accidents within the industrial complexes. There should be periodical sittings between the managerial staff of the industries and the District Disaster Management Authority to wipe out any irregularities.

4

CHAPTER

Institutional Mechanism

(FUNCTION OF DISTRICT DISASTER MANAGEMENT COMMITTEE)

4.1 DISASTER MANAGEMENT COMMITTEE AT THE DISTRICT LEVEL:

The District Disaster Management Committee (DDMC) came into currency because of the frequent occurrence of disasters in the district. The primary aim of the committee is to have proper coordination among all the line departments. The Deputy Commissioner is the Chairman or District Disaster Manager of the DDMC and the district level response is coordinated under his guidance. The District Disaster Management Committee exists to assist the Deputy Commissioner in

- Reviewing the threats of disaster
- Analyzing the vulnerability of the district to such disasters
- Evaluating the preparedness and
- Considering suggestions for the improvement of the District Disaster Management Plan

4.2 7.2 RESPONSIBILITIES OF THE COMMITTEE

- ❖ To educate the public on different flood and cyclone hazards and what protective steps should be taken
- ❖ To make arrangements for emergency action
- ❖ To effect evacuation from the Coastal Villages when necessary
- ❖ Rescue and Rehabilitation
- ❖ Post Flood /Cyclone action/ other calamity and review

4.3 TIMELINE FOR MEETING AND MEMBERSHIP:

The DDMA must meet at least once in six months i.e. in the month of March and September* before the Disaster Season (Flood & Cyclone) of Kamrup district under the chairmanship of the Deputy Commissioner to update the plan. For this one month's prior notice should be given to all concerned departments before convening the meeting. The President of the Zilla Parishad should be invited as a "Special Invitee" in the meeting of the DDMA. Deputy Commissioner should review the work of DDMA regularly. An emergency meeting will hold whenever information is received regarding calamity.

AS PER GOVERNMENT NOTIFICATION, VIDE MEMO NO RGR/DM/6/2008/67-A DATED 24/07/08 UNDER THE PROVISION OF SECTION 25 (1) OF THE NATIONAL DISASTER MANAGEMENT

AUTHORITY, 2005, THE GOVERNOR OF ASSAM HAS CONSTITUTE THE DISTRICT DISASTER MANAGEMENT AUTHORITY FOR KAMRUP DISTRICT OF ASSAM

The DDMA would consist of following functionaries:

Sl.No.	Name	Position
1.	Deputy Commissioner, Kamrup	Chair person
2.	CEO, Zilla Parishad	Co- Chairperson
3.	ADC	CEO
4.	SDO (C) Rangia Sub- Div	Member
5.	Supttd. of Police	Member
6.	Jt, Director of Health Services	Member
7.	PWD (B)	Member
8.	PWD (R)	Member
9.	Other Departmental Heads, Civil Defence	Member

The Deputy Commissioner should include in the agenda of the District Development Committee Meeting, the subject of updation of the district disaster management plan by incorporating the changes in names of officers, of telephone numbers and addresses of the officers concerned. The Deputy Commissioner should also take review of changes in other indicators pertaining to the district like creation of additional infrastructure, development projects, changes in inventories, etc. and incorporate these changes while updating the Plan. The members should substantiate/assist the Committee with all the updated information about their concerned areas of operation time to time.

4.4 ROLES AND RESPONSIBILITIES OF THE DEPUTY COMMISSIONER / DISTRICT MAGISTRATE:

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
Pre-Disaster	<p>☀ Preparedness Before the Disaster:</p> <p>Reviewing and analyzing the calamity situation in the district over the next one-year through a meeting at the District level involving all the departments of the district as well as block and Village levels and the locally active NGOs/CBOs</p> <p>Identifying disaster prone zones and strategies to stay prepared for the worst.</p> <p>Ensure IEC through Emergency section/C.O/ BDO's /NGO's: Movies/Street plays/ Workshops / Walling's/ Painting.</p> <p>Reviewing the DEOC and making it functional</p> <p>Making the DEOC well equipped and depute senior officers from time to time to review the receipt of information and dissemination.</p> <p>Calling a meeting for NGO/CBO co-ordination. And discuss issues such as Capacity assessment of different NGOs/CBOs and ask them to adopt certain vulnerable areas to avoid overlapping and duplicity.</p> <p>Preparing a checklist (containing the dos and don'ts) and pass that on to the NGOs/CBOs</p> <p>Ensuring/installing communication system to the inaccessible villages.</p> <p>Checking stock of the Public distribution system and arrangement of the temporary godwons.</p> <p>Checking the Resources with other department such as Police, Fire, Civil Defense and of NSS/NCC/NYKS.</p> <p>Preparing a list Power Boats already deployed and/or to be deployed on hire during crisis.</p> <p>Keeping stock of road cleaning equipments and vehicles for relief operation.</p> <p>Assigning specific duties to different officers/Sr. Officers at Headquarters.</p> <p>Staying in constant touch with other line</p>	<p>All District level officials.</p> <p>ADM</p> <p>All BDOs</p> <p>DIPRO (District Information and Public Relation Officer.)</p> <p>Dist. Fisheries Officer.</p> <p>Health</p> <p>Veterinary</p> <p>Leading NGO/CBOs</p> <p>NSS/NCC/NYK, Police,</p> <p>Fire, Civil Defense.</p>	<p>Special Relief Commissioner, SEOC</p> <p>POLICE/FIRE</p> <p>R&B/NH</p> <p>Fisheries</p> <p>RTO</p> <p>Civil Defense.</p> <p>Commandant/coordinator of NCC/NSS/NYKS/</p> <p>Zilla Sainik Board.</p>

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
	<p>departments.</p> <p>Ensuring proper functioning of warning systems & communication systems.</p> <p>Ensuring Mock drill of the rescue and relief teams.</p> <p>Preparing a map showing the location of temporary shelter camps and cyclone shelters with accessibility.</p> <p>Identifying flood/cyclone Shelter/Temporary shelter in high elevated places and arrangement of tents etc</p> <p>Identifying and mapping of Disaster (of all kinds)</p> <p>Prone areas</p> <p>Ensuring formation of village level Disaster Management Committee through Block Development officers.</p> <p>☀️Dissemination of Warning:</p> <p>Receiving Warning from reliable sources and crosschecking them for authenticity.</p> <p>Disseminating warning to District level officials /Block /PRIs & coordination with others</p> <p>Keeping the Control Room active round the clock.</p> <p>Distributing duties to the District level officials, Circle officers and Sr. BDOs/BDOs.</p> <p>Arranging vehicles and public address systems for information dissemination.</p> <p>Establishing coordination with the NGOs/CBOs and the village communities and assigning them duties.</p> <p>Issuing warning to fisherman through Circle officers/Fishery Department well in advance</p> <p>Asking the people in the vulnerable areas to move to the shelters and to move their domesticated animals to safer places and to cooperate with the volunteers and other officials engaged in similar activities</p>	<p>All District level officials.</p> <p>All Circle officers.</p> <p>All BDOs</p> <p>DIPRO.</p> <p>Dist. Fisheries Officer.</p> <p>Leading NGOs.</p> <p>Police and relevant department</p>	<p>VHF from the Police-Mike-set</p> <p>/Batteries/Generators available in the district office/ from the Private parties on requisition</p>

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
During Disaster	<p>☀️ Search, Rescue and Evacuation:</p> <p>To co-ordinate with Civil defense, NGOs/CBOs. Zilla Sainik Board/Police for support.</p> <p>Arrangement & Deployment of boats/vehicles etc. for evacuation</p> <p>Evacuating people from marooned areas and administer emergent relief.</p> <p>Organizing trained task force members and deputing to be marooned & Cut-off areas for evacuation.</p> <p>Deployment of police for maintaining discipline and peace keeping during evacuation</p> <p>Mobilizing people to move to flood/cyclone shelters.</p> <p>Deployment of Power Boat/Country Boat (Govt./Private) for evacuation wherever necessary.</p> <p>Deployment of Police/Fire Brigade for search and rescue.</p> <p>Co-ordination with the NCC/NSS/Civil Defense/Zilla Sainik Board etc. for rescue operation</p> <p>Ensuring proper utilization of the rescue materials.</p> <p>Providing Rescue kits at the affected areas</p> <p>☀️ Distribution of Relief Materials:</p> <p>Keeping a record of the affected area and people so as to account for the relief materials needed.</p> <p>Procurement and transportation of relief materials to affected areas</p> <p>Arrangement of free kitchen in the shelter camps & affected areas and assigning the responsibilities to officials for proper distribution</p> <p>Coordinating with the NGOs/CBOs</p> <p>Encouraging other voluntary organizations from outside for rescue and relief operation.</p> <p>Distribution of basic medicines and disinfectants to prevent epidemic</p> <p>Ensuring Health care activities by the CDMO in the shelter camps & through mobile Units/Temporary Health in regular intervals</p> <p>Ensuring Cattle health activities by the CDVO through Mobile units/Temporary Health</p>	<p>Police</p> <p>Fire Brigade.</p> <p>Leading NGO.</p> <p>Circle officers.</p> <p>BDOs.</p> <p>Programme Co-coordinators of</p> <p>NSS/NCC/Defense units.</p> <p>Circle Officer</p> <p>DDO,</p> <p>BDOs,</p> <p>Medical Officers,</p> <p>Veterinary Officers,</p> <p>Paramilitary Forces,</p> <p>Police.,</p> <p>PHE,</p>	<p>Power Boats /Country Boats/vehicle/rope/rescue kits and trained resource personnel from SRC/Army / Air Force Unit/Civil Defense/ Hired from the private parties according to the requirement</p> <p>FCI, Private stockiest, SRC, Director Health services, Director Animal Husbandry, UNICEF/ UNDP/Other NGOs/INGOs</p>

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
	camps in the affected areas Ensuring that there is enough storage of food and pure water in the shelters. Monitoring all the activities in the affected areas.	RTO, Leading NGO and relevant departments.	

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
Post-Disaster	<p>☀ Short-term Measures:</p> <p>Formation of special task force with required equipments.</p> <p>Assigning responsibilities for specific areas.</p> <p>Emergency cleaning of debris to enable reconnaissance.</p> <p>Clearing fallen trees and branches from the roads to facilitate local relief work.</p> <p>Forming a work team carrying emergency tool kits.</p> <p>Deployment of towing vehicles, earth moving equipments, cranes,</p> <p>Construction of temporary roads.</p> <p>Keeping National & other Highways clear from disaster effects</p> <p>Assessment of damage.</p> <p>Temporary supply of food, drinking water and medicines to the shelters and affected areas</p> <p>Arrangement for safe shelter for animals.</p> <p>Providing the lighting facilities for shelter places.</p> <p>Deployment of home guards and constables to maintain law and order</p> <p>Providing temporary arrangements for income generation for the affected people</p> <p>Drought resistance short duration paddy seeds to be made available to farmers.</p> <p>Encouraging NGOs/INGOs from outside to carry out restoration and reconstruction works</p> <p>Ensuring crop insurance</p> <p>Supervising all the activities</p>	<p>All the district level officials /officers at district Headquarters/ Circle Officer /BDOs./ /POLICE/PARAMILITARY FORCES and relevant departments</p>	<p>Cranes, Road cleaning equipments, Water tankers, funds, vehicles, Gen sets, Earth moving equipments, seeds, fertilizers, pump sets,</p> <p>/Military cantonment / PED, District Agriculture Officer</p>

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
	<p>☀ Long Term Measures</p> <p>Immediate restoration of Road communication, Irrig. System, Educ.Inst, Govt. Inst, Electrical installation, Drinking water supply, Construction of IAY houses for the BPL families.</p> <p>Meeting with district level officials /Officials at Head quarter and chalk out emergency plan with vulnerable areas and resource list</p> <p>Co-ordination meeting of NGOs /PRIs. &Assignment of duties.</p> <p>Pre-positioning of staff in the likely cut off areas</p> <p>Arrange food and other basic requirement for emergency response.</p> <p>Collect information from different areas and to act accordingly.</p> <p>Co-ordination meeting with officials at Headquarters by 12 hours intervals and 24 hours intervals with the field officials.</p> <p>Regular collection of situation report of the risk and vulnerable areas from the officers assign for the purpose.</p> <p>Provision for administering emergent relief and the other basic needs</p> <p>Contact with SRC for supply of Temporary shelter materials.</p> <p>Keeping in touch with ADC (Relief) for supply of food articles procuring from FCI/Whole sellers.</p>	<p>Public Works Department/Water Resources /Education and youth services/PRIs/Forest Department/Social Forestry etc.</p> <p>All District level officials/NGOs/CBOs/ Officials of the District office/SRC</p>	<p>Funds from all possible Sources</p> <p>Materials for temporary shelter procured from DFO/SRC/ UNDP/NGO/ etc.</p> <p>Vehicles – RTO/Private agencies.</p> <p>Medical requirements from DMO</p> <p>Cattle feed from DVO, NYK for Volunteer</p>

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM
	Deputation of Volunteers to different probable affected areas. Helping the evacuees for returning to their houses. Immediate arrangement of free kitchen in the cut-off and inaccessible areas Relief distribution. Monitoring of Relief distribution. Provision of drinking water Provision of Medical facilities. Repair/Restoration of Roads. Transportation of Relief and Human Resources		

4.5 ROLES AND RESPONSIBILITIES OF THE SDO (C) & ADDL. DISTRICT MAGISTRATE (A.D.M)

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS REQUIRED	REMARKS
Pre Disaster	✨ Preparedness: Playing a second in command to the Deputy Commissioner in all aspects ✨ Warning Dissemination: Ensuring proper dissemination of warning both downward and upward level improper interval of timing. Ensuring proper functioning of Control room Deployment of Office in charges of D.C in control room round the clock basis.	EO, POLICE, Circle Officer, BDOs, PRIs Other officials of the dist office. Nodal officers of other Line depts. Involve Warning Group a Task Force at Block, GP & Village level formed	VHF, Telephone, HAM Internet Connection	Comprehensive planning and proper situational and hazard analysis

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS REQUIRED	REMARKS
		under DRM programme		
During Disaster	<p>☀️ Rescue and Evacuation: Inform Specialized Search & Rescue Team Arrangement of Vehicles Keeping the Police and Fire Personnel ready Keeping staffs at the DEOC ready Deployment of additional staff if necessary</p> <p>☀️ Distribution of Relief: Proper allocation of relief materials to the affected areas Allocation of officials for proper distribution of relief materials Supervision of relief distribution</p>	RTO, IWT, POLICE, Circle Officers, BDOs, Telecommunication, Other officials of the dist office. Paramilitary forces, NCC/NSS/NYK NGOs/CBOs Involve Search & Rescue Group a Task Force at Block, GP & Village level formed under DRM programme Involve Relief & Coordination Group a Task Force at Block, GP & Village level formed under DRM programme	Vehicles, Police personnel, Other staffs VHF, Telephone, HAM Internet Connection	Things to be done on war footing and with careful monitoring
Post-	<p>☀️ Restoration: Keeping liaison with all line departments Restoration of roads, transport and communication systems Collection of progress report on restoration and reporting to the Govt/SRC/LAD Periodical visits to the affected areas to supervise the restoration works</p>	All Circle officers, BDOs, Officials of Revenue Department NGOs/CBOs & Line department	Reports on repairs/ restoration	Careful listing of beneficiaries and proper distribution

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS REQUIRED	REMARKS
Disaster	<p>☀️ Distribution of Relief Materials:</p> <p>Procuring the list of the affected people and property from the C.Os & BDOs</p> <p>Preparing a comprehensive damage report</p> <p>Allotment of relief materials/financial assistance</p> <p>Monitoring to make sure that everything is at its place</p> <p>☀️ Coordination:</p> <p>Coordination with line departments and civil society organizations</p> <p>Supervision of restoration activities under taken by different voluntary agencies.</p>			

4.6 ROLES AND RESPONSIBILITIES OF THE JOINT DIRECTOR HEALTH SERVICES:

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
Pre-Disaster	<ul style="list-style-type: none"> ☀ Preparedness and Warning Dissemination: ☀ Stock piling of Life saving drugs/ORS packets/Halogen tablets on receipt of warning from the D.C <p>Transmission of messages to all PHCs to stock medicines and keep the medical staff ready</p> <p>Disease surveillance and transmission of reports to the higher authorities on a daily basis.</p> <p>Vaccination.</p> <p>To obtain and transmit information on natural calamities from the DEOC</p> <p>Advance immunization programme in the flood/Cyclone prone areas.</p> <p>Ensuring distribution of areas of operation among the mobile team.</p> <p>Pre-distribution of basic medicines to the people who are likely to be affected</p> <p>Shifting the patients who are in critical situation to the District Hospital</p> <p>Awareness messages to stop the outbreak of epidemics</p> <p>Conducting mock drills</p>	<p>Jt. DHS Medical Officers of PHCs/CHCs.</p> <p>ICDS NGOs/CBOs</p> <p>Private Practitioners in the locality/First Aid Trainers</p> <p>Involve First Aid Task Force at Block, GP & Village level formed under DRM programme</p>	<p>Medicines, Required medical equipments, First Aid kits</p> <p>Ambulances, Public Address systems, Mobile vans, Tents</p>	
During Disaster	<ul style="list-style-type: none"> ☀ Rescue and Evacuation <p>Coordination with Specialized Search & Rescue Team</p> <p>Constitute mobile teams and visit the worst affected areas.</p> <p>Dis-infection of Drinking water sources.</p> <p>Opening of site operation camps</p>	<p>-do-</p> <p>Rescue team, Volunteers at the Shelters,</p>	<p>-do-</p>	

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
	Regular Health Check up at Shelter camp/Cyclone shelter & affected areas Assigning responsibilities to the CM& HOs/ SDM& hOs for close monitoring of Health camps.	Police, Fire officers, Trained volunteers		
Post-Disaster	<p>✳️ Restoration and Rehabilitation</p> <p>Organization of Health Camps, Deploying mobile fully equipped and manned Medical vans Close monitoring of Health camps. Ensuring adequate quantities of medicine/disinfectants Making sure that there is no out break of water borne diseases/Malnutrition Co-ordination with the District Rehabilitation Committees, other line departments, NGOs /ICDS projects, village committee, PHE, etc.</p>	-do-	-do-	

7.7 ROLES AND RESPONSIBILITIES OF THE SP:

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/EQUIPMENTS TO BE PROCURED FROM	REMARKS
Pre-Disaster	<p>☀ Preparedness and Dissemination of Warning</p> <p>Reception of Warning from the DEOC or other Source</p> <p>Communication establishment with District and Block Control rooms and departmental offices within the division.</p> <p>Alerting the Police force for deployment at the time of calamity</p> <p>To issue directive to police field functionaries to co-operate with Revenue Personnel in management of Relief operation & Patrolling.</p>	Home Guard/Para military force/ APR forces EO,	VHF, Other improved telecommunication systems SP signal.	
During Disaster	<p>☀ Rescue and Evacuation:</p> <p>Involvement of Specialized Search & Rescue Team.</p> <p>Clearance of roads and other means of transportation</p> <p>Traffic management and patrolling of all highways and other access roads to disaster sites</p> <p>Making sure that discipline is maintained</p> <p>Assistance to district authorities for taking necessary action against hoarders, black marketers and those found manipulating relief material</p> <p>Co-ordination with fire personnel.</p> <p>Provision of security in transit camps/feeding centers/relief camps/cattle camps/cooperative food stores and distribution centers</p> <p>Safe guarding of belongings of evacuees</p> <p>☀ Distribution of Relief:</p>	-do- NCC, NSS Trained Volunteers Local Youth NGOs/CBOs	-do- Rescue kits, Vehicles Equipments for clearance of roads and water logging Boats and other related stuffs	No Scope for Complacency

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
	<p>Maintaining laws and order at the Shelters and the relief camps</p> <p>Coordination with military service personnel in the area</p> <p>Deploying officers/ police personnel to record death cases</p> <p>Assisting the community in organizing emergency transport</p> <p>Assisting the District officials/NGOs in distribution of relief materials.</p> <p>Providing escorts in transit of relief materials to the relief camps/affected areas.</p> <p>☀️ Patrolling</p> <p>N.H, Bridges, Public Institutions, Godowns etc.</p>			
Post-Disaster	<p>☀️ Short term Measures:</p> <p>FIR of the disasters, the damages and the death cases.</p> <p>Assisting in collection of damage statistics of private properties.</p> <p>Maintaining law and order</p> <p>☀️ Long Term Measures:</p> <p>Close Coordination with district administration and local/external NGOs in reconstruction and rehabilitation process</p> <p>Assisting the District authority whenever the need arises</p> <p>Periodical visits to the affected areas to ensure law and order</p>		Vehicle communication systems.	

4.7 ROLES AND RESPONSIBILITIES OF THE DISTRICT EMERGENCY OFFICER

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES	REMARKS
Pre-Disaster	<p>Making sure that everything stays at place in the control room.</p> <p>Seeing to it that the DDMP and the contingency plan for flood/cyclone reach all the line departments.</p> <p>Receiving the Warning from SRC and crosschecking them with IMD and in websites for authenticity</p> <p>Disseminating the warning to the Circle & block offices and asking them to disseminate further to reach each and every household through DMC Committee.</p> <p>Deploying the staff of the control room for round the clock alertness.</p> <p>Making sure that all the shelters receive enough water and food stocks in advance</p> <p>Establishing contact with all the line depts. Over phone, email, wireless, sat phone and VHF</p> <p>Procuring all the required resources from all the possible sources.</p> <p>Regularly updating the information received from the blocks</p>	C.Os, BDOs, NGOs/CBOs, DEOC Staff,	VHF from the Police/. HAM RADIO Mike-set /Batteries/ Generator s available at the district office/ from the Private parties on requisition	
During-Disaster	<p>Coordinating with all the line departments for rescue and evacuation.</p> <p>Checking the stocks with the DEOC and asking for more if needed.</p> <p>Distributing the relief materials to all the places.</p> <p>Checking every bit of receipt and dispatch of relief items</p>	D.C, ADM, SP, Jt DHS, DVO, C.Os and Sr.BDOs / BDOs, NGOs/CBOs, DEOC Staff, NGOs,	Relief Items, Food Stocks, Rescue and evacuation	

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES	REMARKS
	Establishing round the clock contact with all the depts., C.Os and Sr.BDOs / BDOs and with the shelters.	Community level Volunteers	equipments, Vehicles,	
Post-Disaster	Receiving the list of beneficiaries from different BDMC and GPDMC Crosschecking the list of beneficiaries to avoid fabrication	C.Os and Sr.BDOs / BDOs, Beneficiaries		

4.8 ROLES AND RESPONSIBILITIES OF THE DISTRICT VETERINARY OFFICER:

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
Pre Disaster	Adequate skilled manpower First aid facility Identification of safer place (like open space/ high land) Network of communication with skilled personnel Immunization against any outbreak of prevalent diseases. Train Crass Disposal Team at grass root levels	C.Os and Sr.BDOs / BDOs, NGOs/CBOs, DEOC Staff, NGOs, Community level Volunt, DRM Committee	Fodder, Vaccination, Medicine, Vehicles, Tents, Mobile Van	
During Disasters	Warning He should communicate the warning of flood received by him immediately to the sub-ordinate officers Deployment of skilled personnel in the affected areas and work with local Disaster Management Team. Rescue and rehabilitation of affected	-do-	-do-	

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
	animals to safer places Arrangement of feed and fodder. Rendering first aid where necessary			
Post-Disaster	To arrange Veterinary Health Care camps in the affected areas. Collection of damage statistics and inform D.C Crosschecking the list of beneficiaries to avoid fabrication (While assessment include DMC members)	-do-	-do-	

4.9 ROLES AND RESPONSIBILITIES OF THE CIRCLE OFFICERS (C.O) AND SR.BDOS/BDOS:

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
Pre Disaster	<p>☀ Preparedness:</p> <p>Providing authentic information required by the DEOC</p> <p>Preparing a record of previous disasters in the locality and analyzing the effects</p> <p>Preparing hazard maps of the Block & the GPs in minute details</p> <p>Mapping the cut off areas with alternate route map.</p> <p>Identification of shelter places in the maps</p> <p>Keeping a List of storage Points & facilities available, dealers of foodstuffs.</p> <p>Keeping a list of vulnerable people and area and weak points on embankments (if applicable)</p> <p>Creating a Control Room at the respective level and assignment of duties to the staff.</p> <p>Pre-positioning of staff for site operation centers.</p> <p>Uninterrupted communication with the DEOC</p> <p>Arrangement of alternative communication/generator sets, etc</p> <p>Formation of Block/GP/village level disaster committees and task forces</p> <p>Arrangement of boats on hire available locally.</p> <p>Deployment of Boat in the most vulnerable areas.</p>	<p>All the C.Os and Sr.BDOs / BDOs functionaries.</p> <p>Police/Fire personnel/RTO / Village/GP level task force/trained volunteers</p> <p>Local NGOs/CBOs</p> <p>Line departments</p>	<p>Vehicles, Police personnel, Other staffs</p> <p>VHF, Telephone, HAM</p> <p>Rescue kits</p> <p>Mobile Vans, Boats(country& power)</p>	<p>If possible prepare Contingency plan for all the Vulnerable GPs and Villages</p>

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
	<p>Organizing awareness camps at GP/village levels</p> <p>☀️Dissemination of Warning: Crosschecking with the DEOC for the authenticity of the warnings Arrangement or requisition of Jeeps/Trekkers/ Auto Rickshaw to disseminate received warning information's to the population of vulnerable / weak places Dissemination of warning/ coordination with District control room. Warning the people about probable affected areas Mobilizing the people to leave for identified shelters with their domestic animals and personnel belongings.</p>			
During Disasters	<p>☀️Rescue and Evacuation: Deployment of Police/Fire Brigade for search and rescue. Alert the Specialized Search & Rescue Team Co-ordination with civil defense/NYK/NCC/NSS/Zilla Sainik Board for rescue operation. Ensuring availability of rescue materials. Guiding the evacuees in the identified shelter places and arranging all common needs for them. Provision of rescue kits. Clearance of roads and water logging for restoring communication to affected</p>	-do-	-do- Food stocks and other indispensable items	Things have be done on war footing and effectively

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
	<p>GPs/Villages.</p> <p>Assisting the District Team in every possible ways</p> <p>Coordinating with the NGOs/CBOs for rescue work</p> <p>Mobilizing the local youth to help the rescue team</p> <p>Assisting the Para military etc.</p> <p>☀️ Distribution of Relief:</p> <p>Keeping the record of everything at the shelters</p> <p>Arrangement of free kitchen in the shelter camps./worst affected areas.</p> <p>Deploying staff for proper distribution of relief materials in coordination with GP & Village level Disaster Mgmt Committee</p> <p>Arrangement of communication system in the worst cut off areas.</p> <p>Ensuring supply of safe drinking water & health facilities in the effected areas/shelter camps.</p> <p>Coordination with NGOs/Other voluntary organizations</p>			
Post-Disaster	<p>☀️ Restoration and Reconstruction:</p> <p>Collection of damage statistics like ICDS/school buildings etc.</p> <p>Ensuring just distribution of ex-gratia and other financial assistance</p> <p>Provision of temporary income generation activities for the worst affected people</p> <p>Supervision of Relief operation and restoration work in the affected areas.</p> <p>Restoring the transportation and</p>	-do-	-do-	Careful assessment to be done for facilitating the reconstruction and restoration

PHASE	ACTIVITIES	OTHER OFFICIALS TO BE INVOLVED	RESOURCES/ EQUIPMENTS TO BE PROCURED FROM	REMARKS
	educational institutions on high priority Helping the local economic activities to come back to normalcy Provision of grants/loans for the local traders and shop-keepers Keeping liaison with District administration and other line departments Ensuring coordination with the G.P and Village committee. .Co-ordination with NGOs/Civil society organization etc.			works

4.10 RESPONSIBILITIES OF OTHER LINE DEPARTMENTS:

DESIGNATION OF THE OFFICER	DUTIES TO BE PERFORMED IN NORMAL TIME.	DUTIES TO BE PERFORMED AFTER RECEIVING 1 ST WARNING	DUTIES TO BE PERFORMED AFTER THE DISASTER.
Dist Fishery Dev. Officer.	<p>He should educate the entire fisherman regarding the measures to be taken before flood to avoid loss of their properties, lives of men and cattle.</p> <p>He should arrange publicity and visual education regarding flood.</p>	<p>He should communicate the warning of flood received by him immediately to the subordinate officers and see that they in turn disseminate the warning to fisherman in village.</p> <p>All the Staff should return their Hqrs. if on tour and be available on telephone to be identified.</p> <p>His field staff should see that the fishing people evacuated to the relief shelters fixed</p> <p>The field staff should contact with local Goan Borah / Warning group and keep them informed of the situation at frequent intervals.</p>	<p>Seen after the Hazard the field staff should assess the craft and tackle and report to the Dist Fishery Dev. Officer under intimation to the D.C</p>
CEO of A.S.E.B	<p>He should see that the field staff checks the electrical line and replace old materials used in the power supply.</p> <p>He should see that all had wiring in service connections are rectified.</p>	<p>On receipt of the 1st warning it should be communicated to all the subordinate staff.</p> <p>He should see that all the vehicles under his control be kept in perfect order.</p>	<p>Restoration of power lines on priority to: -</p> <ol style="list-style-type: none"> 1.Hospital, Water supply 2.Control Room 3.Railway station 4.to other

DESIGNATION OF THE OFFICER	DUTIES TO BE PERFORMED IN NORMAL TIME.	DUTIES TO BE PERFORMED AFTER RECEIVING 1 ST WARNING	DUTIES TO BE PERFORMED AFTER THE DISASTER.
	<p>He should enumerate the diesel sale available and his jurisdiction and keep it available.</p> <p>He should see that the report regarding flood /cyclone warning should be reported to other subordinate offices.</p> <p>He should see that trees, branches etc. fall on electrical lines are out and removed.</p> <p>The field staff should see that electrical supply in the places where flood/ cyclone may be serve is cut off.</p> <p>The field staff should be in touch with Disaster Management Committees members and inform the situation at frequent intervals.</p> <p>To provide Diesel generators to hospital water works. Control Room D.C office in case of failure of powers.</p>	<p>Alert the entire staff to return their Hqrs. And get in touch with immediate requirement.</p> <p>They should give wide publicity that houses consumers should arrange lanterns and battery light for use in case of power is out off.</p>	<p>office on priority as per list appended.</p> <p>Live wires on ground should be removed promptly.</p> <p>Damaged or felled electrical poles should be immediately replaced and obstructions on roads should be got removed.</p>
Irrigation.	<p>The branches to canal drain bandha to be closed.</p> <p>The Embankments should be Strengthened.</p> <p>It should be checked whether the passage bridge and channels are in good condition.</p> <p>The obstruction in the canals if</p>	<p>1st warning should be communicated to all the subordinate staff And employees.</p> <p>They should be alerted to check whether the canals and drains are in proper condition to allow free flow of water.</p>	<p>Damages due to Hazards to Govt. properties lives of man and cattle etc. should be assessed and reported to C.Os & SR. BDOs/ BDOs, EO concerned</p>

DESIGNATION OF THE OFFICER	DUTIES TO BE PERFORMED IN NORMAL TIME.	DUTIES TO BE PERFORMED AFTER RECEIVING 1 ST WARNING	DUTIES TO BE PERFORMED AFTER THE DISASTER.
	<p>any should be got removed immediately to be enabling free flow of water.</p> <p>The bocks and shutters of the canals are to be checked and satisfied that they are in good condition.</p> <p>The instruments and materials etc. required attending to immediate repairs breach of closures etc. should be stacked at places where they may be required locating such places early.</p> <p>Navigation in the canal should be stopped.</p> <p>Water supply in to canals should be out off by closing the sluices.</p> <p>The canals and drains should be free from constructing and they should be made available for free discharge of drain water.</p>	<p>The stations tour should take their duty places and be readily available.</p> <p>Keep sufficient no. Of vehicles for one by the staff on Flood duty.</p> <p>Lunches to be requisitioned.</p>	<p>immediately.</p>

<p>Fire officers</p>	<p>The Fire Engineers should alert and other vehicles should be kept in good working condition.</p> <p>Materials required for use in emergency should be indented for and kept in reserve</p> <p>Message received from public on disaster for help should be immediately attended.</p> <p>Keep in touch with each of the other fire stations in the district.</p>	<p>The 1st warning should be immediately communicated to fire stations.</p> <p>The staff should be called on for duty.</p> <p>Full complement of the staff should be available for the vehicles should be obtained and kept in reserve.</p>	<p>Removal of collapsed houses, walls etc. should be attended</p> <p>Persons involved in house collapsed should be promptly reserved.</p> <p>Report on the relief activities, under taken should be promptly reported.</p>
<p>Chief Engineer roads and buildings</p>	<p>Govt. buildings should be inspected and necessary repairs to be got executed to with standing hazards affected.</p> <p>Script for slides, pamphlets, and cultural programmers should be got prepared immediately.</p> <p>Arrangements should be made to obtain poster and films for awareness generation among the community by addressing the Chief Engineer through the D.C.</p> <p>Public addresses equipment should be obtain kept ready.</p> <p>The public should be fully educated regarding the precautionary measures & after Flood through available</p>	<p>The 1st warning should be communicated immediately to all subordinate officers.</p> <p>Wide propaganda should be arranged.</p> <p>The Sub-Divisional public relation officer should be available at their Hqrs.& got ready for flood duty with short notice.</p> <p>Ensures that all will be informed immediately and prepare accordingly like bamboo, rope, wire, wood, sand filled bags with palasiding, spur etc., for breached and damaged portion.</p>	<p>Photographs of damages should be taken. The field staff should conveying formation regarding the quantum of disaster loss of property lives men and cattle.</p> <p>They should be posted with up-to-date information and the information should be passed to the D.C immediately.</p>

	<p>media.</p> <p>Specific duties should be assigned to the field staff.</p> <p>The field staff should proceed to the place of work allotted and be ready to attend to flood duty.</p>		
<p>Regional Transport Officer</p> <p>Motor Vehicle Inspector</p> <p>Civil Supplies Officers</p> <p>Divisional Manager Tel.</p>	<p>List of vehicles running condition to be requisitioned kept ready.</p> <p>The MVI/Asst. MVI will report before A.D.M. (Relief)</p> <p>The Asst. Engineer & Jr. Engineers will remain alert.</p> <p>Based on the experience on the previous flood sufficient no. of trucks should be procured and kept in District head quarters.</p> <p>To contact all Block Control Room and D.C Office.</p>	<p>Availability of petrol, oils should be ensured.</p> <p>The requisition orders on owners of vehicles for flood duty.</p> <p>Soon after receipt of 1st warning all the public call officers to be informed to instruct the village Goanborah/ Headman/ Postmaster/ Warning group for dissemination of warning in the villages.</p> <p>Provision of vehicles.</p>	<p>Electricity Deptt. for restoration.</p> <p>Roads and buildings for clearance.</p> <p>Restoration of Telephone lines to control room to Collector, Hospital, fire station S.P. and other offices as per the list appended.</p>

4.11 DISTRICT EMERGENCY CONTROL ROOM (DEOC):

This section is prepared to help the members of District Emergency Control Room (DEOC) to understand the structure and functioning of Control Room. Following the important Three C's i.e. Command, Control and Communication for effective response in an emergency, we will be able to minimize the hardships of the community and improve the quality of the process of recovery. This control room will be able to provide timely, supported and well thought of interventions to the grass root staff as well as volunteers as it will be the hub of three C's.

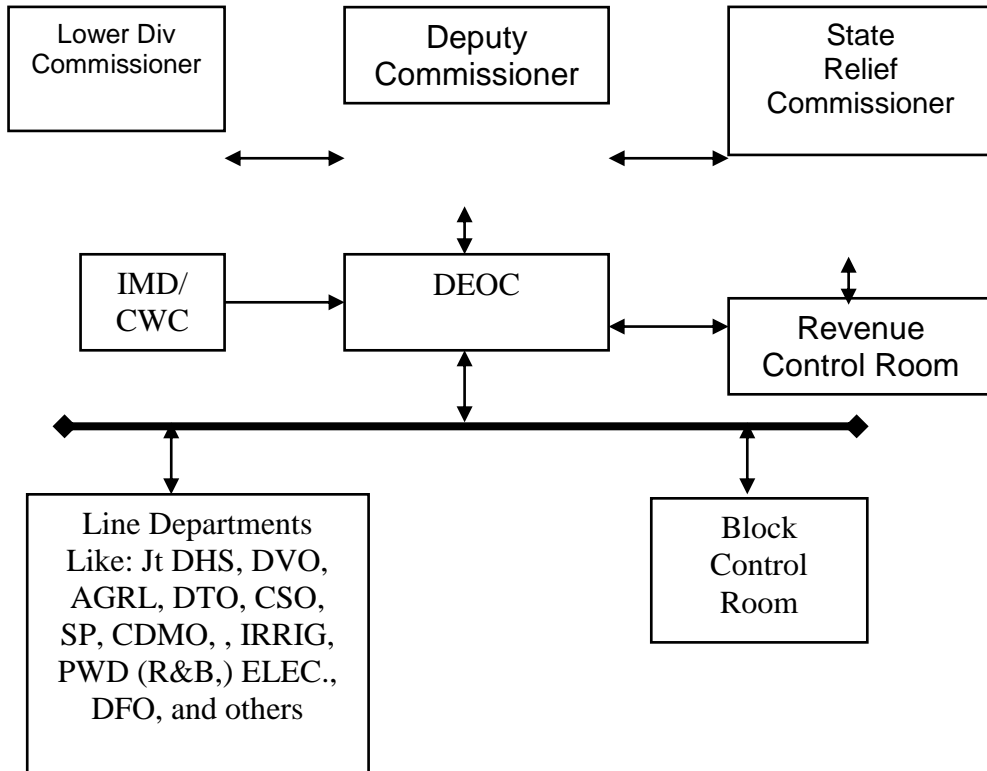
4.12 PURPOSE OF THE DEOC

The District Emergency Operation Centre under the control of Deputy Commissioner, Kamrup will operate round the clock and will be the nerve centre to

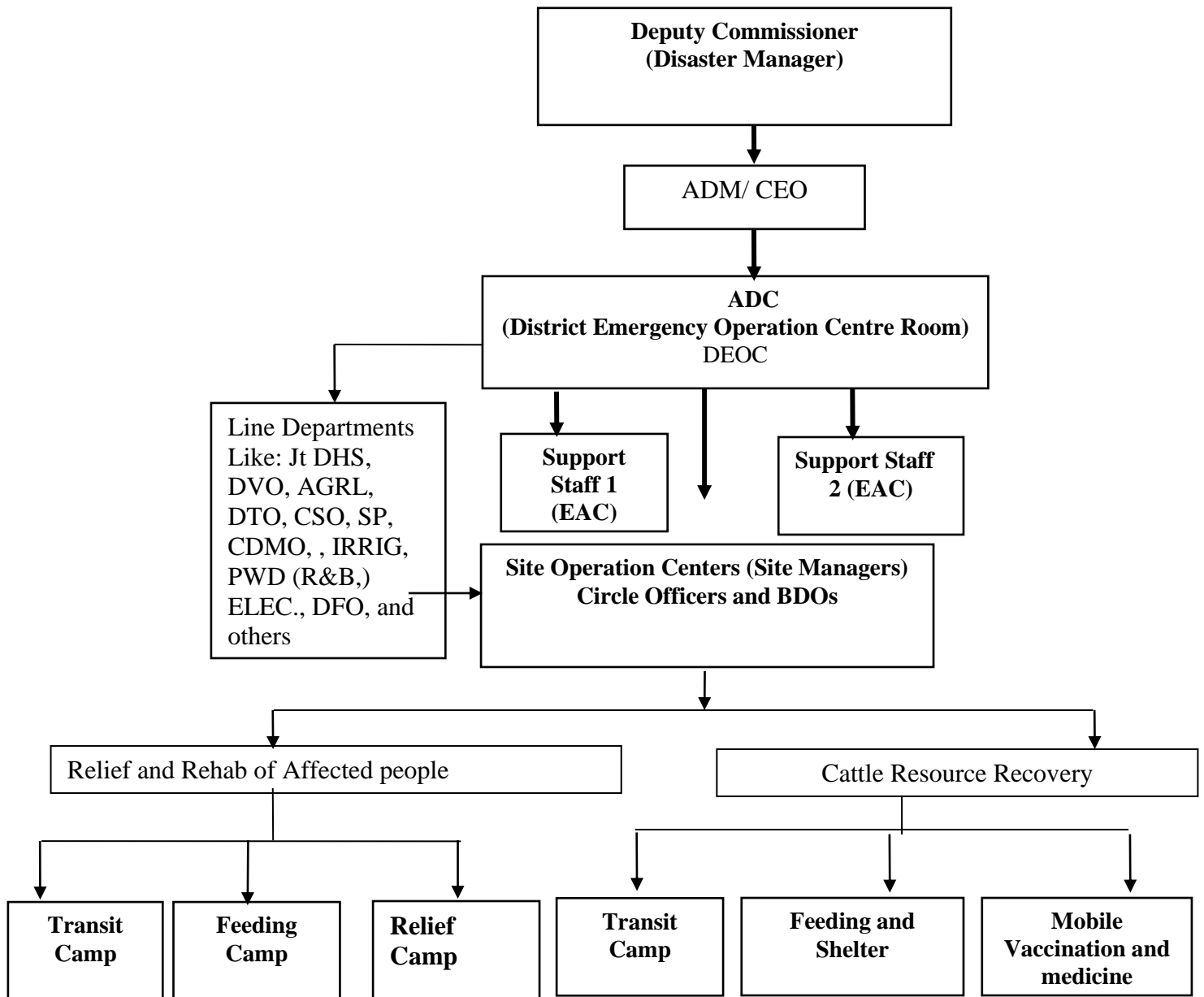
- ❖ Monitor
- ❖ Co-ordinate
- ❖ Implement the actions/activities for Disaster Management.

In a disaster time, the DEOC will operate under the central authority of the Deputy Commissioner, exercising emergency power to issue directives to all departments to provide emergency response service. He will also co-ordinate with the State Response Machinery like: State Relief Commissioner, Dispur, Assam and. The Control Room should be manned round the clock.

4.13 INFORMATION FLOW CHART OF THE DEOC:

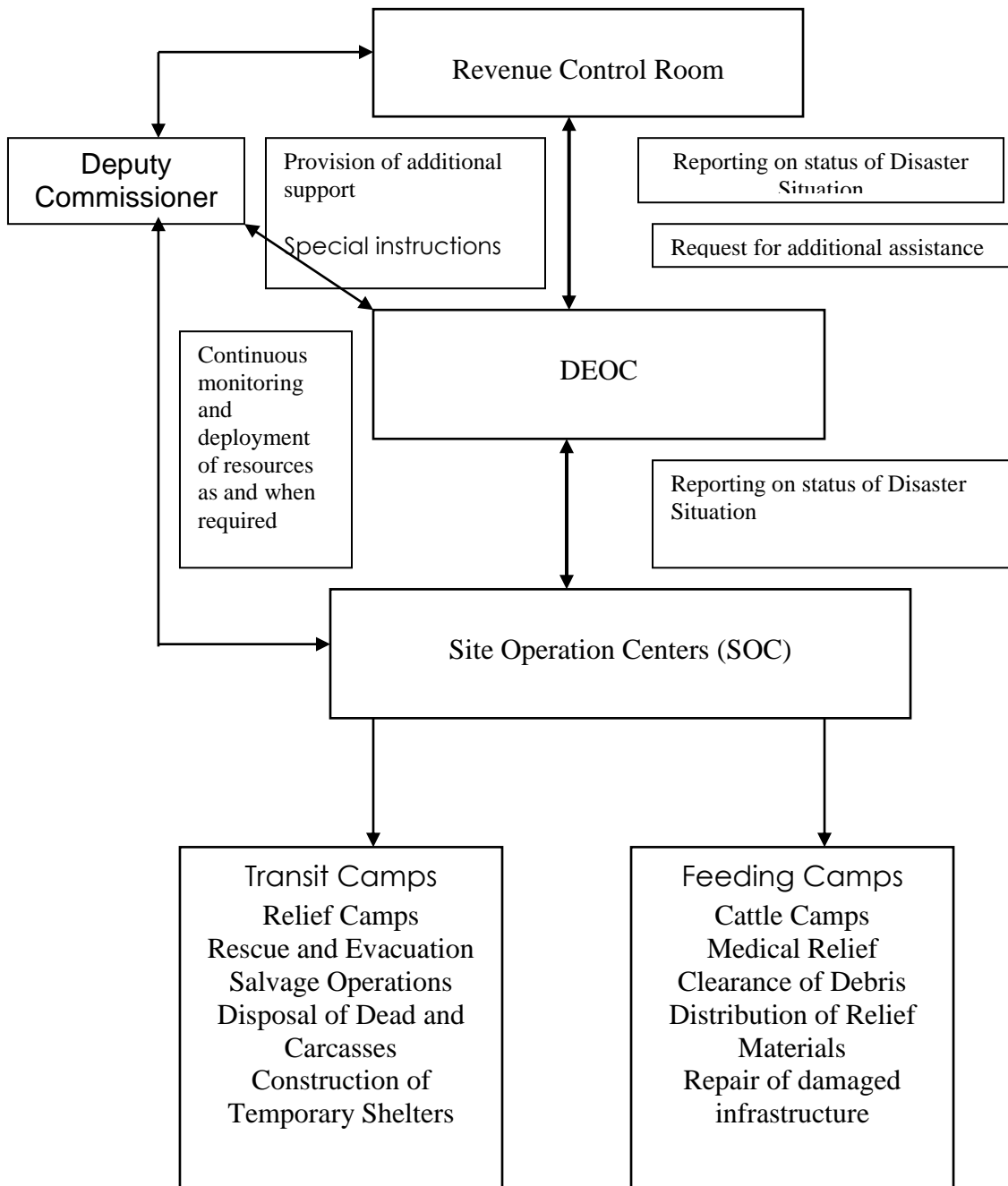


4.14 CO-ORDINATION STRUCTURE AT DISTRICT LEVEL CONTROL ROOM



4.15 FLOW CHARTS AND OTHER FUNCTION OF DEOC

4.16 FLOW CHART AMONG REVENUE CONTROL ROOM, DEOC AND SITE OPERATION CENTER:

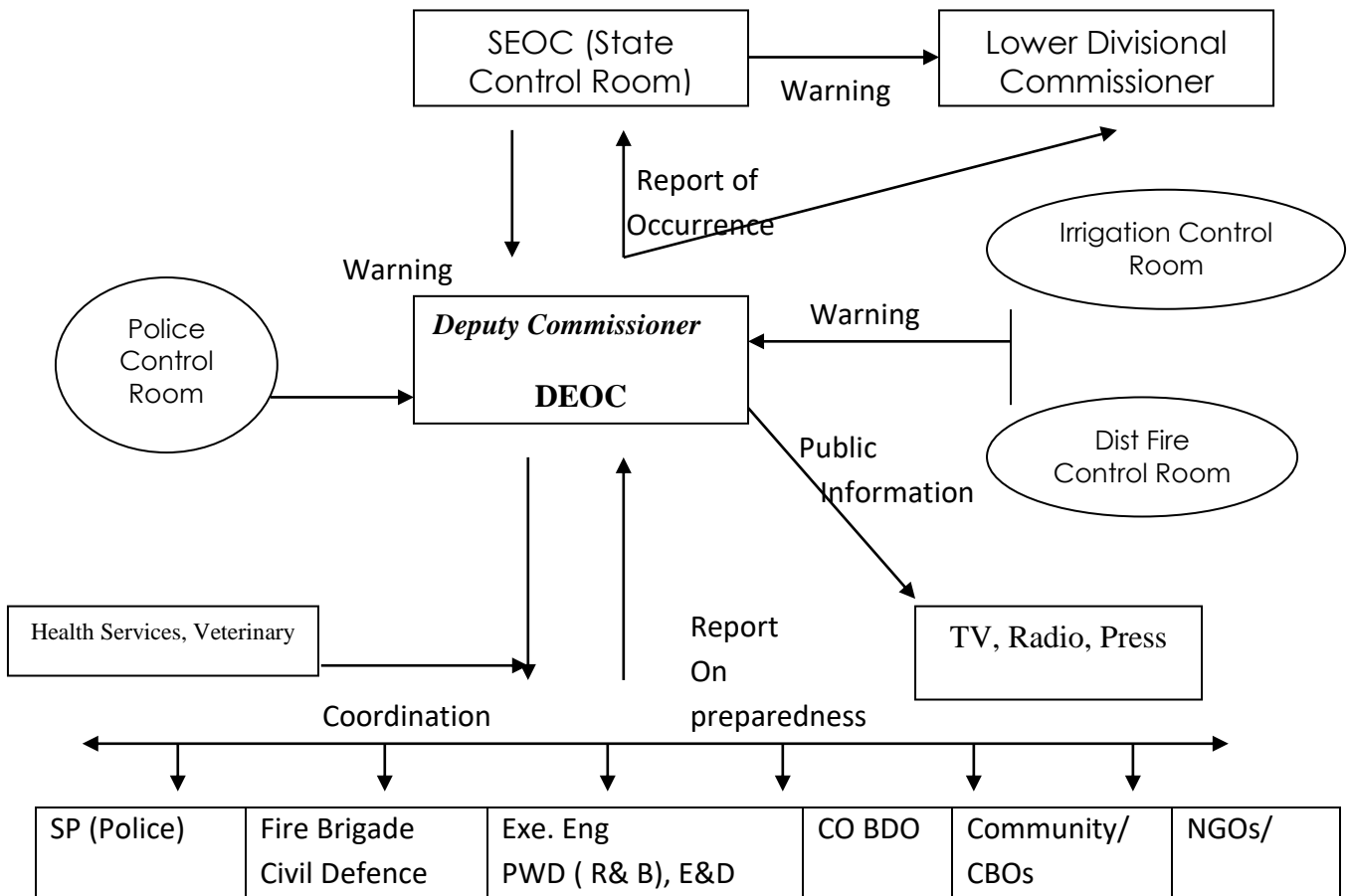


4.17 SCOPE OF WORK OF THE DEOC

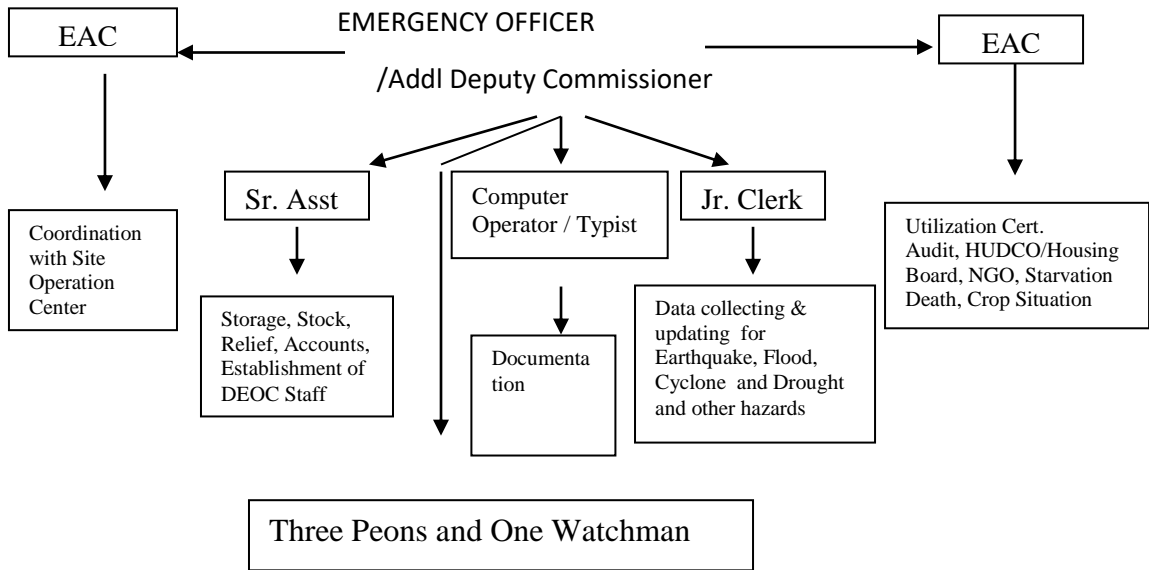
Time Frame	Activities
Normal Time	<ul style="list-style-type: none"> ➤ Ensure that all warning and communication systems, instructions are in working condition ➤ Receive information on a routine and regular basis from the departments on the vulnerability of the various Goan Panchayats and Villages to disaster ➤ Receive reports on preparedness from the relevant district level departments and other departments, as per as the formats. Based on these reports, the DEOC will forward the Preparedness Measures details on behalf of the Deputy Commissioner to the Revenue Control Room, and inform State Relief Commissioner ➤ Upgrade and update DEOC system according to changing scenarios in the district update data bank and maintain an inventory of resources. ➤ Update all information in the GIS. ➤ Inform Revenue Control Room, State Relief Commissioner of any changes including updating of data bank and annexure ➤ Monitor preparedness measures including simulation exercises undertaken by various departments. ➤ Ensure proper dissemination of information about DEOC System at the district level, local level and disaster prone areas. ➤ Identify appropriate NGOs/Private Sector Organizations, which can be assigned the task of community level preparedness. ➤ Organize post-disaster evaluation and update DEOC System accordingly ➤ Prepare reports and documents on district level disaster events and submit the same to Revenue Control Room, & State Relief Commissioner.
Disaster Time	<ul style="list-style-type: none"> ➤ Weather tracking and early warning dissemination ➤ To collect and transmit information regarding matter relating to natural calamity. ➤ Mapping of vulnerable areas ➤ Database on civil society organizations and their activities

Disaster Time	<ul style="list-style-type: none"> ➤ Database on volunteers ➤ Facilitate regular meetings of civil society organizations and issue updates ➤ Flow of information to central control room in Relief Commissioner's office ➤ District level training of officials and NGOs in emergency response ➤ Men and material management in emergencies with proper inventORIZATION
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4.18 EARLY WARNING DISSEMINATION



4.19 DIAGRAM OF RESPONSIBILITIES OF THE DEOC STAFF:



4.20 WARNING OR OCCURRENCE OF DISASTER

The warning or occurrence of disaster will be communicated to:

- Chief Secretary, Relief Commissioner, Emergency Operation Center
- Office of the Lower Divisional Commissioner
- All district level officials, District Disaster Management Committee, Municipality Special Officer
- The officials of the Central Government located within the district
- Non – officials namely Guardian Minister of the district, *Zilla Parishad* President, MPs and M.L.As from the district or affected area
- Local units of the Defence and Paramilitary Services

4.21 INCIDENT RESPONSE SYSTEM

In the absence of the Deputy Commissioner, ADM / ADC will officiate and exercise all the powers and responsibilities of the District Disaster Manager.

On the receipt of warning, all community preparedness measures and counter-disaster measures would come into operation.

4.22 SUGGESTED PERFORMA FOR “IN” MESSAGE

Date	Time of receipt	In Message Sr. No.	Received From	Addressed To	Message transferred to	Copies to	Mode (WT/Tel/Message of receipt)	Instruction/ Follow up to be done	Remarks

4.23 SUGGESTED PERFORMA FOR “OUT” MESSAGE

Date	Time of dispatch	Out Message Sr. No.	Related In Message No. If any	Addressed From	Addressed To	Copies to	Mode (WT/Tel/Message of receipt)	Instruction /Follow up to be done	Remarks

4.24 ARRANGEMENTS IN DISTRICT EMERGENCY OPERATION CENTRE (DEOC)

The DEOC is equipped with

- Action Plans
- Vulnerability maps
- List of key contact persons during emergencies
- Database on resources of the district

During disaster provision will be made in the office of the Deputy Commissioner for

- First aid and other basic medical relief for the staff
- A rest room with adequate facilities and
- A kitchen and lunch room

4.25 COMMUNICATION ROOM

The Communication facility is made in the room of next to the DCR that function as the Communication Room. The existing police VHF system continues to be in contact with the DEOC.

In addition, the following facilities are available in the DCR

- Telephones, Fax
- One PC with modem and printer
- Mechanical typewriter
- Generator
- Thermometer
- Fire Extinguisher
- A soft board (LCD Projector or Overhead Projector) to display information
- A hard board to note important information

2 ROLE OF ZONAL AND ADDL.-ZONAL OFFICER (CIRCLE OFFICER & BDOS ETC)

For proper division of tasks during disasters, the district of Kamrup has to be divided into several flood/ Flash Flood/ /cyclone/Earthquake/ Drought hit zones and sub-zones.

The Zone/Addl. Zone Officers receive weather/flood warning from SDEOC/ DEOC, T.V. Radio/C.W.C. etc. Immediately on receipt of warning they will act as follows:

- ❖ They will depute Sub-Zone Officers to their appointed areas.
- ❖ Warn the people especially in low-lying areas through Lot Mandal/ Goanburah/ Ward Members/ Home Guards/ Religious Places/ Volunteer Organizations by bit of Drums in the villages and local markets.
- ❖ If the devastation is large loudspeaker may be used for dissemination of the messages and alert the people.
- ❖ They will assess and locate the nearest (cyclone) relief shelters and sound school building for evacuating the people.
- ❖ They will arrange vehicles/ boats (power boat & country boat) to shifting the people to the shelter point.
- ❖ They will assess the requirement of foodstuff, medicines, fodder etc. and take necessary measures accordingly.
- ❖ Co-ordinate with Line Departments for early restoration.
- ❖ Evacuate people from low-lying areas if situation so warrants. For this they may enlist
- ❖ Co-operation of local Youths, volunteers, Nehru Yuva Kendra and Marwadi Munch etc..

- ❖ Keep the Government power and country boats ready in vulnerable points and appoint boatman for the country boats
- ❖ They should see that sufficient quantity of rice/wheat/Kerosene oil/Match Boxes/fuel etc., are made available through retail sale center and local markets.
- ❖ To take steps to guard the weak and vulnerable points in embankments through VDP, Home Guards and Police constables etc.
- ❖ If situation so warrants, start distribution of emergent relief in marooned areas after obtaining approval of Deputy Commissioner concerned.
- ❖ There may be necessity of more vehicles for undertaking rescue and relief operation. In such circumstances they will immediately contact the District Transport Officer.
- ❖ Apart from Govt. Country boats there may be necessary of private country boats. In such cases the Zone and Addl. Zone Officer may hire private country boats under intimation to DEOC.
- ❖ To keep DEOC informed about the situation and relief measures.
- ❖ To assess damages through field staff and submit preliminary report within 3 days of the occurrence of the calamity.
- ❖ To assess detailed damage and submit final damage report to District office
- ❖ The Circle Officers will assess damage to the private houses through Sr BDOs/ BDOs , staff deputed from other offices and Disaster Management Committee. After assessment of damages they will conduct at least 10% test check to ensure correctness of the enumeration. Sr BDOs/ BDOs and other officers deputed from different offices may also be engaged for check. After final assessment, proposal is to be sanctioned by Circle Officer concerned and submitted to Deputy Commissioner for approval requirement of funds.
- ❖ In case of human casualty, the Circle Officer concerned will submit report to Deputy Commissioner in 24 Hrs, for consideration of sanction of ex-gratia.

5

CHAPTER

MITIGATION PLAN

Pre- disaster planning consists of activities such as disaster mitigation and disaster preparedness. Disaster mitigation focuses on the hazard that causes the disaster and tries to eliminate or drastically reduce its direct effects. The best example of mitigation is the construction of embankments and construction of proper drainage system in flood prone areas to avoid floods. The other example includes retrofitting of weak buildings to make them earthquake resistant.

And preparedness focuses on plans to respond to a disaster threat or occurrence. It takes into account an estimation of emergency needs and identifies the resources to meet the needs. The first objective of the preparedness is to reduce the disaster impact through appropriate actions and improve the capacity of those who are likely to be affected most. The second is to ensure that ongoing development continues to improve the capacities and capabilities of the system to strengthen preparedness efforts at community level. Finally it guides reconstruction so as to ensure reduction in vulnerability. The best example of preparedness activities are the development of community awareness and sensitization system through community education and administrative preparedness by way of stockpiling of supplies, developing emergency plans for rescue and relief.

Specific Disaster Mitigation Measures

1. Earthquakes

Kamrup District falls under earthquake zone-V so following mitigation measures should be taken to reduced the impact of earthquake: -

- Adoption and enforcement of building codes for new construction in various areas.
- Public utility buildings must be located in stable areas or in consolidated soil.
- Retrofitting of weak structures.
- Relocation of people settling in the steep slope areas and near the river bank to avoid secondary effects viz. floods, landslides, etc.
- Life line buildings to be made seismic sound

2. Flood Mitigation:

Flood mitigation refers to the measures aimed at prevention and preparedness. It reduces the actual or probable impact of floods on the people and their environment.

Floods in Kamrup district are inevitable, considering the topography and the river system. What is required is a system of adjustment with floods, so that the people experience minimum of disruption and damages. The objective of flood mitigation is to control changes in the volume of run-off, peak stage of the flood, time of rise and duration of floodwaters, and location of flooding.

The main causes of floods in Kamrup District are:

- Run off heavy rainfall water from Meghalaya Mountains to plain areas.
- Natural water bodies has been obstructed or filled up for construction purpose
- Increase in siltation in riverbeds due to erosion in the catchment areas.
- Breaches of embankments because of inadequate maintenance.

The mitigation measures should be oriented to take proper care of these problems and thus will automatically reduce the impact of flood in the district. The various measures adopted for flood mitigation may be categorized in two groups structural and non-structural.

Structural:

- Construction of embankments / floodwalls along the river bank and improvement of the channel (by WRD).
- Construction of drainage system in the town and other parts of the district (by PWD/UD).
- Diversion of flood water (by WRD).
- Preservation of Natural Water Bodies and stop construction on those areas
- Careful location of new facilities, particularly community facilities such as schools, hospitals and other important infrastructure away from flood prone areas.

Non-structural:

- Collection of daily rainfall data (by WRD).
- Flood forecasting and warning (by WRD & General Administration).
- Prepare detailed floodplain map of the district, based on extent of land submerged, and assessment of damages. Analyze how the pattern of flooding has changed over a period of time (by WRD & GA).
- Plantation in the catchments areas to check soil erosion (by forest dept),
- Preparation of DDMP and awareness programme through IEC (information, education & communication).

3. Cyclonic storm:

Kamrup is frequently strike by cyclonic storm during pre-monsoon season causing widespread damage to the crop and other properties. The main mitigation strategies for storm hazards are a well informed public and an effective warning system. The following mitigation measures can be adopted to reduce the impact of cyclonic storm: -

- Location of key facilities in leeward sides of hill/ less vulnerable areas (by District Administration and Land Management).
- Planting windbreaks in the most vulnerable locations (by DFO (T)).
- Construction of strong, wind safe public buildings which can be used for community shelter in settlements (by UD & PWD).
- Crops can be protected by introducing agricultural practices and cultivation of those crops which are more resistant to high winds.
- Compilation of meteorological data for forecasting of storm (By Dept concerned).
- Public dissemination of information through mass media, poster campaigns and village meetings (by Distt Administration).

4. Landslide:

Landslide in the hilly terrain of Kamrup District which damages crop, agriculture field, irrigation canal, roads and bridges and other infrastructures. Also Loss of Human lives and animals' lives are also some times reporting during rainy season. Landslide can be caused by poor ground conditions, geomorphic phenomena, natural physical forces, improper land use pattern and quite often due to heavy spells of rainfall coupled with impeded drainage. The major mitigation measures to be adopted in the district are: -

- Landslide prone areas by maintenance of natural drainage channels both micro and macro in vulnerable slopes (by BRTF/PWD).
- Regulation of land use pattern (Land Management).
- Afforestation of areas occupied by degraded vegetation (by DFO (T)).
- Re-location of settlements that are in the landslide prone areas (by GA).
- Construction of gabion structure in important areas (by WRD).
- Creation of awareness among local people (by GA).
- Regular observation of rainfall pattern (by WRD).

5. Fire Accident:

Fire accident occurs due to urban localities and thatched roof houses which is very prone to fire. The following mitigation measures may be taken up to contain Fire accident: -

- Installation of fire extinguisher in all institutions (by concerned institute) and schools are in the process of installing them as per recent supreme court order
- Construction of fire hydrant in fire prone areas (ULBs)
- Installation of fire warning systems in community facilities such as in school and hospitals (by concerned institute).
- No attachment of thatch houses in govt buildings (by GA).
- Awareness about the causes of fire accident in rural areas and motivate the villagers to construct their houses at sufficient distance from one another (by GA).

6. Forest Fire:

Forest fire is probable hazard due to joom cultivation in some areas causing damage to flora fauna in the area. Following measures should be adopted to deal with this disaster: -

- Deployment of forest watcher in strategic locations with wireless set (by Forest Dept.).
- Awareness to the local people about forest fire and importance of flora and fauna.

7. Epidemics:

The Health Department & Veterinary dept is the nodal agency responsible for monitoring and control of epidemics. Mitigation measures for control of epidemics would include: -

- Identification of areas prone to certain epidemics must be updated to access field requirements (by DMO & DVO).
- Testing laboratories in district hospital must be well equipped and updated (by DMO).
- Regular flow of data from both govt establishment (by DA).
- Analyzing and collating the data at regular intervals to access epidemiological monitoring requirements (by DMO/DVO).
- Awareness campaign to the PRI members and the villagers about various kinds of disease and their causes that are prevalent in the area (by DMO/DVO/DA).

8. Erosion

In Kamrup District, many areas affected due to erosion due to that people have loosed their valuable land and they have to settle down far place. The most affected areas are Palasbari- Gumi area and another Sualkuchi eroded by mighty Brahmaputra.

Structural:

- Construction of floodwalls along the river bank
- Careful location of new facilities, particularly community facilities such as schools, hospitals and other important infrastructure away from flood prone areas.

Non-structural:

- Affected people to be give proper rehabilitation alternative and livelihood support options.

9. Road accidents:

Many lives were lost and casualties are reported annually due to road accident, which is cause due to reckless driving and poor road conditions. The following measures may be adopted to mitigate road accidents: -

- Opening of traffic model school in every district.
- Installation of speed monitoring machine in busy areas (by DTO & police).
- Strict implementation of motor vehicle Act (by DTO & Police).
- Installation of traffic sign boards (by Police).
- Carry of First Aid Box in every vehicle must be made mandatory (by Police/DTO (transport)).
- Insurance of all vehicles must be updated (by Police).
- Awareness about traffic rules should be imparted to all drivers and commuters through IEC (by police).

ASSAM DISASTER MANAGEMENT MANUAL 2015

Disaster management which includes both risk management and crisis management falls within the roles and functions of the state government. However, this holistic approach to disaster management came about only after the introduction of the Disaster Management Act, 2005. Till very recently, the widely practiced approach to disaster management was that of administering relief and rehabilitation. The central government had communicated certain guiding principles in 1883 in the form of a provisional code. Accordingly, a set of executive instructions were issued in 1959 and subsequently the “assam relief manual” was prepared in 1976.

1.2. The 1976 manual lays stress on emergency situations arising out of floods, as floods are recurrent phenomena. It also briefly deals with such situations arising out of other natural calamities and certain special calamities like international border disputes not amounting to war or acute economic distresses. This manual is now revised in the light of the disaster management act 2005(appendix i) to incorporate other hazards like earthquakes, flash floods, landslides, cyclones and other manmade disasters and to reflect the new approach embodied in disaster management act 2005.

1.3. The duties and responsibilities of deputy commissioners have been specifically laid down and are flexible enough to allow them to operate according to exigencies of situations. the duties and responsibilities of the other district officers have been broadly laid down and will need to be supplemented by detailed instructions of the respective heads of department. The detailed instructions would be reviewed by them annually and re-issued if necessary.

1.4 This manual endeavours to cover as many aspects of the problem as could be envisaged to combat any emergency situation resulting from earthquakes, floods and other natural and man-made calamities. There may be certain unprecedented situations and gaps in knowledge. In these situations the officers concerned will act in the spirit of this manual, which is to ensure the state of preparedness, swift and co-ordinated action and proper maintenance of accounts.

1.5. Much of the work which is expected under the manual to be done every year could be rationalised if all districts and sub district level administrative units up to the gram panchayats and local authorities prepare a disaster management plan. Such a plan should take into account all local conditions, identify specific vulnerable areas, initiate necessary preparedness and mitigation measures, draw up capacity building plans, work out shelter sites, stockpile emergency provision of food, fodder, medicine, drinking water plan for deployment of personnel including utilization of the resources of non-official agencies and work out budgetary provisions that would be required. it should be carefully studied by commissioners, heads of departments and the required provisions for resources at the district or sub divisional levels arranged. the annual exercise would then be limited only to updating the disaster management plans and making

detailed changes as might be warranted in the light of experience or changes expected in the situation.

1.6 the plan schemes of each department should be so devised that it addresses the disaster risk reduction issues (structural & non-structural) and minimizes damage that may be caused by different hazards.

1.7 this manual supersedes the earlier assam relief manual 1976.



RESPONSE PLAN
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CHAPTER

(EMERGENCY SUPPORT FUNCTIONS)

6.1 EMERGENCY SUPPORT FUNCTIONS (ESF):

The Emergency Support Functions (ESFs) are various identified response teams, which will assess their strength before any emergency and accordingly will prepare their Standard Operational Procedures to mitigate any disaster. Their well preparedness will help to reduce the damage of any disaster/emergency. These ESFs will be identified as per the certain need felt during any disaster such as ESF-Warning (Communication), ESF-Road Debris Clearance, ESF-Relief etc. Hence The Emergency Support Functions (ESFs) provide vital response functions. The Emergency Support Functions at District level (Office of the Deputy Commissioner) will be replicated at Block level (by Block Administration) and the Incident Management Team consisting of all the ESFs would also activate itself by asking for some or all ESFs to be represented in it, according to need of the crisis.

For an effective operational system of the ESFs the following points are to be ensured:

- Individual ESFs must prepare their Standard Operational Procedures (SOP) and Plan
- These plans would be integrated to form the District Response Plan
- Time to time each ESF will practice their simulation exercise (Mock Drill) to under their lacunas.
- They have to update their response system regularly.

To act as a bridge to support an information base among the emergency Operation Centres of State, District and Onsite level, there as to be one DISTRICT EMERGENCY OPERATION CENTRE (DEOC) operation system and is to be operational under district EOC to collect information from grass root level, district level as well as from State level. As said, the DCR will act as a vital linkage among the Emergency Operation Centre of State, District and Onsite.

The list of 16 identified Emergency Support Functions, its Team Leaders and the supporting agency (headed by Deputy Commissioner) is briefed in the following table :

Emergency Support Functions, Team Leaders and Participating Agencies

Emergency Support Function (ESF)	Function	Team Leader	Participating agencies
ESF 1	Warning (Communication)	S.P., Police,	Meteorology (IMD), CWC, Water resources (E&D), Radio, Doordarshan, DIPRO, Telephones, IWT, Police
ESF2	Evacuation (Search and Rescue)	Addl. District Magistrate	Police (VDP), Fire services, Civil Defence, Home Guards, Zila Sainik Board, (NCC), NYK, NSS, Forests, Social forestry, Soil Conservation, PWD(R), PWD(Bldg), Sports, IS (Scouts & guides) Inspector factory & Boilers, PRIs.
ESF3	First Aid & Medical Response	Jt. Director Health Services	Health & FW, Red Cross, DSWO, ICDS, Medical, Ayurveda, Homeopathy faculty/ Students, Asst Labour Commr, Veterinary
ESF4	Relief & Coordination (Food-Shelter)	ADC (DM Branch)	Food & civil supplies, FCI, Statfed, Warehousing Corporation, Revenue & Relief (Circle officers, BDOs, LM/ Gram Sevak/ Gaon-Bura), Veterinary, Fisheries, Agriculture, Agri(Marketing)
ESF 5	Water & Sanitation	E.E (P.H.E)	PHED, DRDA, PRIs, Municipality /T & C, Irrigation, Agri (Eng)

Emergency Support Function (ESF)	Function	Team Leader	Participating agencies
ESF6	Shelter Management	ADC (DM Branch)	Revenue (CO, BDO, LM/ Gram Sevak /Gaon-bura), DRDA, PRIs, Police (VDP), NCC, NSS, DTO, Railways, Taxes, IWT, PWD (for boats etc) ,Water resources (E&D), ASEB, Forests, DIC, Housing, IS, DEEO
ESF7	Carcass Disposal	District Animal Husbandry Officer	Animal Husbandry department of Block level and district level, ULBs Animal medicine stockiest, NGOs, Voluntary Organizations, CBOs, religious organizations
ESF8	Damage Assessment Team	Deputy Commissioner (Land Reforms)	Revenue & All departments
ESF9	Trauma Counseling	Jt. Director Health Services	Medical & FW, DSWO, Red Cross, ICDS
ESF10	Patrolling	Suptd. Of Police	Police(VDP, Nagarik Samities), Zila sainik Board, IS(NSS), YC(NYK)
ESF11	Logistics (Traffic-Electricity-Water)	ADM (Law & Order)	DC Office, Electricity Board, Transport Dept,Public Health Engineering Dept.,Municipality, Private Road Ways, PWD (Road), NH Division
ESF12	Transport	District Transport Officer	Railway, PWD, Municipality, Civil Defence, Scout, NCC etc.

Emergency Support Function (ESF)	Function	Team Leader	Participating agencies
ESF13	Volunteers	District Youth Coordinator NYK	NCC, NYK, Zilla Sainik Board, Blood Bank, Red Cross, NSS, Rotary Club, Lions Club, NGOs & other organization
ESF14	Public Works	Superintending Engineer, PWD (Road),	PWD (Road and Building), Electricity Board, Public Health Engineering Dept, Municipality etc.
ESF15	Road Debris clearance	Special Officer, Municipality,	Municipal Office, NCC, Scouts & Guides, Zilla Sainik Board, Divisional Forest Officer, NH Division I and II PWD (Road) and Nearest Army Cant.
ESF16	Public Information and Help lines	DIPRO	NGOs, Media (print/audio-visual), NSS, Scouts & Guides, Education Dept.,

6.2 MULTI HAZARD RESPONSE PLAN

Kamrup district is a multi hazard prone district. The district has experienced many episodes of disasters in the form of storm, floods, thunder and lightning in the higher side. Additionally, emergencies and disasters of any kind can cause multi-million-dollar economic losses and can significantly undermine the performance of disaster response systems.

Today, more than ever, it is necessary at the district level to improve the preparedness and response to various emergencies and disasters.—a need expressed by the National Disaster Management Authority (NDMA) at the State and district level.

The main aim of the NDMA is to improve the capacity of countries to manage their response to emergencies and disasters in a more efficient and timely manner. The NDRF facilitates an operational model that makes it possible to identify response activities, taking into account all existing hazards and to carry out those activities within a ground level (district level) framework based on the organization of the response sector.

The Multi Hazard Response Mechanism is designed mainly for Disaster Management authorities and managers responsible for emergency and disaster risk management, guiding them in the process of updating or developing response planning. This ranges from describing the operational model to implementing emergency functions involving various actors, identifying preparedness tools in the response sector, and developing standardized operating procedures, organizational analysis, and specific contingency plans.

Implementation of this framework will provide districts with adequate response planning based on a multi-hazard approach. This will lead to better use of available resources and greater flexibility to deal with any type of event.

6.3 RESPONSIBILITIES AND FUNCTIONS OF OPERATION BRANCHES

INCIDENT COMMANDER: DEPUTY COMMISSIONER

In anticipation of any disaster, the district administration has taken various precautionary measures. Functioning of the Control Room, Closure of past breaches in river and canal embankments and guarding of weak points, rain recording and submission of rainfall report, communication of Gauge reading, functioning of flood/cyclone zones, deployment of power/country boats, installation of temporary VHF stations, arrangement for keeping telephone and telegraph lines in order, storage of food stuff, arrangement for keeping drainage clear, agricultural/health/veterinary measures, selection of flood/cyclone shelters, etc. have been properly planned. The government officials of different departments have been apprised of their duties for pre, during and post disaster periods.

The Circle Officers, B.D.Os, ULBs, Executive Engineers of Irrigation Department, Health, Police, A & Veterinary and PHE etc. have been requested to take all precautionary and preparatory measures and to remain alert to face the challenge of any disaster. Every possible kind of cooperation from all the line departments has been sought for by the district administration in combating the severe natural calamities that may occur anytime. Accordingly the government officials have also been apprised of their roles and responsibilities to be played during pre-disaster arrangement and during/post-disaster management.

ESF 1 Warning (Communication):

The Emergency Support Function (ESF) 1 having the prime function of “Warning” (communication) will be led by the Superintendent of Police, Kamrup. However, during the crisis, when the ESF 1 will be deputed to the onsite EOC, the DSP (I) may lead the team on behalf of SP, Police. The supporting agencies for the ESF 1 will Meteorology (IMD), CWC, Water resources (E&D), Radio, Doordarshan, DIPRO, Telephones, IWT, Police and any relevant dept as decided by the ESF 1 during preparation of their Standard Operational Procedures (SOP). The primary functions of the ESF 1 (Communication) will be:

Primary Functions:

- Warning for any eventuality of calamity
- Restore Communication facilities after disaster
- Provide emergency communication for response to government: link EOCs, Sub- Div Control Rooms, Quick Response Teams (QRTs) etc.
- Provide communication facility to communities
- Coordinate state actions to assure the provision of telecommunication to support the state and district.
- Coordinate the requirements of temporary telecommunication in affected areas.

ESF 2: Evacuation (Search and Rescue)

The Emergency Support Function (ESF) 2 meant for ‘Evacuation -Search and Rescue ’ will be led by the Addl. District Magistrate, Kamrup. The supporting agencies for this function will be Fire Stations, Police (VDP), Fire services, Civil Defence, Home Guards, Zila Sainik Board, (NCC), NYK, NSS, Forests, Social forestry, Soil Conservation, PWD(R), PWD(Bldg), Sports, IS (Scouts & guides) Inspector factory & Boilers, PRIs and any relevant dept. as decided by ESF 2 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 2(Evacuation -Search and Rescue) will be:

Primary Functions:

- Establishment of evacuation plans

- Identification of fastest evacuation routes and all alternative routes.
- Establish maintain and manage District search and rescue operations.
- Coordinate search and rescue logistics during a field operation

ESF 3 & ESF 9: Emergency First Aid / Medical Response and Trauma Counselling.

The Emergency Support Function (ESF) 3 meant for 'Emergency First Aid / medical response and trauma counseling' will be led by the Jt Director of Health Service, Kamrup. The supporting agencies for this function will be Health & FW, Red Cross, DSWO, ICDS, Medical, Ayurveda, Homeopathy faculty/ Students, Asst Labour Commr, Veterinary, Dispensaries, Mobile Dispensaries, Hospitals, Ambulance Service, Blood Bank, etc and any relevant dept. and fore ESF 9 "Trauma Counseling" the supporting agencies will be Medical & FW, DSWO, Red Cross, ICDS and any relevant dept. as decided by ESF 3 & ESF 9 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 3 (Emergency Medical Response and Trauma Counseling) will be:

Primary Functions:

- Direct activation of medical personnel, supplies and equipment.
- Activation of Mobile Medical team with first aid at each block.
- First aid for minimum 25 persons should be kept in reserve with Mobile Medical team On rotation basis.
- Appropriate mass vaccination to check the waterborne epidemics.
- List out the available ambulances with all in formations.
- Mobilize emergency treatment for the injured people.
- Send quick response teams (QRTs) at various affected sites and establish temporary medical camps.
- Set up Trauma Counselling Desks.
- Perform medical evaluation and treatment as needed.
- Maintain patient tracking system to keep record of all patients treated.

ESF 4: Relief & Coordination

The Emergency Support Function (ESF) 4 indicated for 'Relief & Coordination' will be led by the ADM (Relief). The supporting agencies for this function will be Food & civil supplies, FCI, Staffed, Warehousing Corporation, Revenue & Relief (Circle officers, BDOs, LM/ / Gaon-Bura), Veterinary, Fisheries, Agriculture, Agri(Marketing) any relevant dept. as decided by ESF 4 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 4 (Relief & Coordination) will be:

Primary Functions:

- Enter into a pre-contract system with the local Civil Suppliers for immediate arrangement of food and relief materials during the crisis.
- Ensure coordination of activities involved with the :-
Emergency provisions of temporary shelters,
Emergency mass feeding and
Bulk distribution of relief supplies to the disaster victims as also the disaster managers and relief workers.
- Control quality and quantity of food for relief
- Ensure timely distribution of food to people
- Make emergency food supplies available to population

ESF-5: Water & Sanitation

The Emergency Support Function (ESF) 5 indicated for 'Water & Sanitation' will be led by the E.E (P.H.E). The supporting agencies for this function will be PHED, DRDA, PRIs, Municipality /TC, Irrigation, Agri (Eng) any relevant dept. as decided by ESF 5 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 5 (Water & Sanitation) will be:

Primary Functions:

- Ensure provision of safe drinking water in the relief camps
- Arrange sufficient stock of hand tube wells
- Distribution of water disinfecting packets
- Ensure better sanitation arrangements as per Gender
- Ensure proper drainage facility
- Launch campaign for safe potable water to create awareness
-

ESF-6: Shelter Management

The Emergency Support Function (ESF) 6 indicated for 'Shelter Management' will be led by the ADC (Relief). The supporting agencies for this function will be Revenue (CO, BDO, / PRIs members /LM/ Gaon-bura), DRDA, PRIs, Police (VDP), NCC, NSS, DTO, Railways, Taxes, IWT, PWD (for boats etc) ,Water resources (E&D), ASEB, Forests, DIC, Housing, IS, DEEO any relevant dept. as

decided by ESF 6 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 6 (Shelter Management) will be:

Primary Functions:

- Provide adequate and appropriate shelter to all population
- Locate relief camps close to open traffic and transport links.
- Develop alternate arrangements for population living in structures that might be affected even after the disaster.

ESF-7: Carcass Disposable (Cattle Resource Recovery and Care)

The cattle resource, as one of the important sustainable economic resources are highly affected or perished during any severe damage, though the same evolves as the vital input to revive the economy especially in the rural areas after any severe disaster. The (ESF) 7 designated for 'Carcass Disposable (Cattle Resource Recovery and Care)' will be led by the District Animal Husbandry Officer. The supporting agencies for this function will be Animal Husbandry department of Block level and district level, animal medicine stockiest, NGOs like Peoples For Animals, Voluntary Organizations, CBO's, religious organizations and any relevant dept. as decided by ESF - 7 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF Carcass Disposable (Cattle Resource Recovery and Care) will be:

Primary Functions:

- Ensure proper vaccination
- Keeping in view of Cattle as sustainable economic resource of rural people, ensure immediate Animal Feeding Camp with shelter at a distance of 500 mtr away from human Relief Camp.
- If possible the human relief camp should be at higher contour height than the animal feeding camp.
- Ensure proper carcass disposal
- Mobile Veterinary medical team in the affected area.
- Ensure cattle transit camp at distance of 500 meter away from transit camp of affected people
- The astray cattle shall be kept in City level Gosalas (cattle charity mission).

ESF8: Damage Assessment Team

The Emergency Support Function (ESF) 8 designated for 'Damage Assessment Team' will be led by the Deputy Commissioner, Land Reform. The supporting agencies for this function will be

Revenue, All Line depts, Block Damage Assessment Team, GP Damager Assessment Team, Village level Damage Assessment Team and any relevant dept. as decided by ESF 8 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 8(Damage Assessment Team) will be:

Primary Functions:

- In coordination with relevant depts. assess the type of damages
- Number of lives lost.
- Number of People Affected.
- Number of Houses damaged (category wise).
- Damage of Infrastructures like School, Hospitals, Govt. Buildings, Road, Electricity, Water Supply etc.

ESF 9 : Trauma Counselling (Refer point ESF 3 & 9 previous pg)

ESF 10: Patrolling

The Emergency Support Function (ESF) 10 designated for 'Patrolling' will be led by the Suptd. of Police, Kamrup. The supporting agencies for this function will be Police(VDP, Nagarik Samities), Zila Sainik Board, IS(NSS), YC(NYK) and any relevant dept. as decided by ESF 10 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 10(Patrolling) will be:

Primary Functions:

- Ensure necessary security arrangements for public amenities
- Proper coordination with relevant departments
- Necessary security arrangements at Roads (N.H) Bridges, Culvert etc.
- Ensure necessary security to the officers and personnel's engaged in Relief & Coordination

Further for effective coordination among all the Emergency Support Functions identified before any emergency, during the emergency and after any emergency. For this function, suitably the Deputy Commissioner, Kamrup will carry out the Task. Under this function all the Team Leaders of identified 'Emergency Support Function' such as S.P., Police, Addl. District Magistrate, Jt. Director Health Services, ADC (Relief), E.E (P.H.E), District Animal Husbandry Officer, CEO Zilla Parishad, Fire Services, Civil Defence Officials, ULBs, para military force. Besides above, NGOs, NSS and other relevant departments of Kamrup may represent as per the requirement during any emergency. This

team will keep direct link the District Control Room Operation and liaison with Block control Room Operation.

The Deputy Commissioner, Kamrup will include the review of emergency support function system in the agenda of the District Coordination Meeting, will review the updation of the district disaster response system by incorporating the changes in names of officers, of telephone numbers and addresses of the officers concerned. The Deputy Commissioner should also take review of changes in other indicators pertaining to the district like creation of additional infrastructure, development projects, changes in inventories, etc. and incorporate these changes while updating the Plan and Standard Operational Procedures of each ESFs. The members should substantiate/assist the Committee with all the updated information about their concerned areas of operation time to time.

ESF-11: LOGISTICS (Traffic- Electricity-Water)

The Emergency Support Function (ESF) 11 indicated for 'Logistics (Traffic- Electricity-Water)' will be led by the ADM (Law & Order). The supporting agencies for this function will be Deputy Commissioner Office, Electricity Board, Transport Dept, Public Health Engineering Dept., Municipality, Private Road Ways, PWD (Road), NH Division and any relevant dept. as decided by ESF 11 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 11 - Logistics (Traffic- Electricity-Water) will be:

Primary Functions:

- Ensure smooth transportation links at all levels and to all nodal and support agencies.
- Assess damage to power supply infrastructure for assistance from other states.
- Restoration of power supply or temporary power supply to critical areas.
- Restore major electricity failure anticipated during disasters due to falling of cables/poles.
- Facilitate restoration of electricity distribution systems at most affected sites on priority to help in Search and Rescue operations.
- Provide electricity in lifeline buildings.
- Procurement of clean drinking water.
- Transportation of water with minimum wastage.
- Ensure quick restoration of drainage system.
- Sewer pipes to be kept separate from drinking water facilities.

ESF 12: Transport

The Emergency Support Function (ESF) 12 designated for 'Transport' will be led by the District Transport Officer. The supporting agencies for this function will be Railway, PWD, Municipality, Civil Defense, Scout, NCC etc. and any relevant dept. as decided by ESF 12 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 12 (Transport) will be:

Primary Functions:

- Overall coordination of State transportation capacity.
- Pre-contract with the private Ambulance owners (during registration).
- Restoration of roadways services.
- Arrange transportation to and from affected area.
- Ensure smooth transportation links at all levels and to all nodal and support agencies.
- Coordinate the use of transportation resources to support the needs of emergency support forces requiring transport facility to perform their emergency response, recovery and assistance missions.

ESF13: Volunteers

The Emergency Support Function (ESF) 13 indicated for 'Volunteers' will be led by the Youth Coordinator, Nehru Yuva Kendra. The supporting agencies for this function will be NCC, NYKS, Zilla Sainik Board, Blood Bank, Red Cross, NSS, Rotary Club, Lions Club, NGO's. and other organization. as decided by ESF 13 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 13 (Volunteers and Donations) will be:

Primary Functions:

- Encourage various voluntary agencies and organizations to depute the volunteers.
- Gather general youth mass to volunteer.
- Operation wise categorize the volunteers.
- Identify any specialized skills and area of interest among volunteers.
- For each team, reserve a back up force to replace the tired and engaged teams.
- During natural calamity (mass donation) collection of relief material & resource such as, food, clothes, medicines, essential items, cattle feed, and cattle medicines.
- Maintain a record of donations and its supply to the needy area.

ESF14: Public Works

Restoration/reconstruction of Road is one of the important aspects during any disaster. Once road network is restored, relief and rehabilitation works becomes faster. On the above, it has been always noticed that the donating organizations proceed their relief distribution activities till the accessible areas. The Emergency Support Function (ESF) 14 designated for 'Public Works' will be led by the Executive Engineer, PWD (Road). The supporting agencies for this function will be PWD (Road and Building), Electricity Board, Public Health Engineering Dept, Municipality etc and any relevant dept. as decided by ESF 14 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 14(Public Works) will be:

Primary Functions:

- Restore the road communication system
- Assess the damage for reconstruction of road ways
- Restore the infrastructure like health centers, school, important buildings,
- Initiate the reconstructions unrecoverable important infrastructures like health centers, school building, and important buildings.

ESF15: Equipment support- Road Debris clearance

During any major disaster, road blockage occurs because of which, rescue, relief and emergency medical response is severely affected. Under such situation the district administration at first phase starts its road debris clearance works to clear the blockage in road but lacks in high graded equipment support and skilled manpower during the need. This delay in clearing the road blockage. Looking in to the above aspect, one separate Emergency Support Function for road debris clearance is thought for constituting to develop its well prepared Standard Operational Procedures. The Emergency Support Function (ESF) 15 designated for 'Equipment support- Road Debris clearance' will be led by ULBs /PWD (R) supporting agencies for this function will be NCC, Scouts & Guides, Zilla Sainik Board, Divisional Forest Officer, NH Division PWD (Road), Fire Service, Civil Defence and Nearest Army Cant etc And Any relevant dept. as decided by ESF 15 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 15(Equipment support- Road Debris clearance) will be:

Primary Functions:

- Assess the gap-need of equipment support before any disaster.
- Emergency clearance of Debris to enable reconnaissance.
- Establishment of priority list of equipments which will be opened first.
- Coordinate and provide manpower and equipments for debris and road clearance
- Provide alternative routes, if main routes are affected
- Demolish unsafe buildings

ESF 16: Public Information, Help lines and Awareness generation

It is observed that, a chaotic situation due to rumor and panicky is created during any crisis. Under such circumstance a need for help lines and awareness generation is felt. Therefore a separate 'Emergency Support Function' titled as "Public Information, Help Lines and Awareness Generation' is suggested for constituting. The Emergency Support Function (ESF) 16 designated for 'Public Information, Help lines and Awareness generation' will be led by the District Public Relation Officer. And the supporting agency will be NGOs, Media (print/audio-visual), NSS, Scouts & Guides, Education Dept., **etc** and any relevant dept. as decided by ESF 16 during preparation of their Standard Operational Procedures (SOP). The Primary Functions of the ESF 16(Public Information, Help Lines and Awareness Generation) will be:

Primary Functions:

- Provide and collect reliable information on the status of the disaster and disaster victims for effective coordination of relief work at state level.
- Setting up of toll free numbers for emergency information assistance.
- Process and disseminate information about the welfare of citizens of affected area
- Manage flow of information and warning dissemination.
- Establish help lines for providing, directing and coordinating logistical operations.

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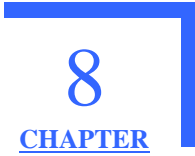
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RECOVERY & RECONSTRUCTION PLAN

Sl. No	Planning	Preparedness	Response	Recovery/ Rehabilitation	Training & Awareness
District Adm/ Line Deptt/ Zilla Parisha d/ C.Os/ BDOs	*Meeting at regular intervals to update/modify the DDMP	* Following all the preparatory measures mentioned in the DDMP	*Helping the rescue team in all aspects & close coordination	*Coordinating with the district/block/GP level administration	Carrying out mock drills for the task force Walling posters and disseminating warning using public address systems like loud speakers, etc.
NGOs/C BOs/ Mahila Samities / SHGs/ Youth Clubs	*Organizing NGOs according to their specialization to form response groups *Review and analyze past disasters *Prepare Community Contingency Plan in their area of operation	*Work closely with the community in identifying the risk population such as elderly and disabled, children, pregnant women, sick, single women and people residing on the seashore *Formation of Task Forces by involving their own volunteers and young boys and girls of the (17 to 25 years) village *Capacity	*Mobilizing and utilizing the community funds during the time of emergency * Specifying roles and responsibilities of the Task Force *Maintaining transparency in activities	* Coordinating with the District administration and Block/GP level administration	*Equipping the task force with proper training and providing them a contingency manual *Awareness building within the community * Mock drills for finding out the suitability / adequacy of preparedness

Sl. No	Planning	Preparedness	Response	Recovery/ Rehabilitation	Training & Awareness
		building of the Task Forces			
Religious Institutions	* Help the Administration in providing information	* Staying aware of their responsibilities	* Helping the district administration in relief activities	* Coordination with the dist/block/GP level administration * Carrying out rehabilitation activities * Providing Counseling to morally distressed	Creating awareness among the people for preparedness
Public and private Corporations	* Coordinating with the administration	* Keeping stocks for emergency needs	* Making the stocks available during emergency * Supplying the materials to the Control Room	* Direct contact with the Control room and the Shelters * Coordinate with district administration for rehabilitation	
Armed and Paramilitary Forces	* To identify, access escape routes to be followed during emergency so as to ensure passing of vehicles with least inconvenience * To document traffic control, measures to be followed during emergency	* To plan adequate contingency measures for manpower, transport and communication * To assess and plan for augmentation of existing facilities if needed	* To help the response groups in carrying out activities in a organized manner	* To help the District administration whenever needed	* Mock drills for finding out the suitability / adequacy of preparedness

Sl. No	Planning	Preparedness	Response	Recovery/ Rehabilitation	Training & Awareness



STANDARD OPERATION PROCEDURES & CHECKLISTS

8.1 STANDARD OPERATIONS PROCEDURE (SOP)

FOR DISTRICT EMERGENCY OPERATION CENTER, KAMRUP

TELEPHONE : 91-361-2684404

FAX : 0361-2684412

Control Room : 0361-2684407/ 9678471071

▶ START IMMEDIATELY ON RECEIVING CYCLONE / FLOOD WARNING OR INFORMATION ABOUT ANY OTHER EMERGENCY

8.2-OFFICER IN CHARGE OF CONTROL ROOM:

The control room shall be in overall charge of the Deputy Commissioner. In the absence of Deputy Commissioner, ADM or any other officer or staff on duty at that point of time shall remain in charge of Control Room. The person in charge of control room shall be personally responsible for implementing the SOP. S/he shall take all decisions as outlined below and sign for the Deputy Commissioner on all reports mentioned below. S/he shall not wait for orders from anybody.

8.3- ASSEMBLY IN CONTROL ROOM:

Following staff and officers shall assemble in the Control Room on getting any information from any source about any emergency. Apart from these, any other officer or staff who gets the information from any source will reach the Control room.

- Deputy Commissioner, ADM, All departmental heads
- All staffs of emergency section, representatives of development section, Stenos to Deputy Commissioner & ADMs.

8.4- GETTING THE CONTROL ROOM READY:

Following preparatory steps will be taken up for keeping the control room functional during emergency.

- Shift two more phone lines to control room.
- Arrange VHF to Control room.

- Keep a radio with new batteries ready.
- Hire 3 generator sets.
- Stock 2 barrels of Kerosene and Diesel for running the generator sets.
- Charge the battery of VHF set of control room and staff car.
- Charge the battery of inverter.
- In case of cyclone warning, arrange four extra batteries.
- Charge the satellite phone and test it.

8.5- ALERT ALL FIELD OFFICERS:

Circle officers, BDOs, DMOs, DA&VO, Police, Industries, Telephone, Agriculture, PHE, PWD (R& B), , ICDS, Irrigation, NH, Municipality, MLAs, MPs, Fire Services, Civil Defence, All India Radio. DIPRO shall inform the media. Warning shall be issued in the following format:

8.6- INFORMATION DISSEMINATION FORMAT

Emergency Warning Message No.	Dt.
To: SP/ All Circle Officer/ BDOs/ Medical Officers/ EE R&B/ EE RD/ GM NIC/ DIPRO/ DDA/ DIs of Schools/ PHE.....	
(Space for message)	
Deputy Commissioner, Kamrup	

8.7- CHECKLISTS

1. Call up the officers and ensure that they remain in headquarters.
2. Prepare a logbook for recording chronological sequence of events.
3. Food and Kerosene:
 - 3.1. Check up availability of food (rice, Chira and M. Dal) and kerosene at block headquarters, with storage agents and other inaccessible pockets. BDOs shall contact all Storage Agents. They shall personally visit the godowns and verify the stocks. The Agents shall remain present at the store round the clock. BDOs shall immediately depute one officer to the place where the storage godowns are located.
 - 3.2. Seize the godowns. Supply Department and one ADM shall remain in charge of godowns. Owners of the godowns shall be actively involved.
 - 3.3. Direct the godowns and FCI to remain open on all days, including Sundays and holidays, till situation gets back to normal.
 - 3.4. Start movement of food stock and Kerosene Oil from block headquarters to areas that are likely to be cut-off.
 - 3.5. Start movement of food stock and K. Oil from district headquarters to block headquarters.
4. Check availability of sand bags
Get sandbags from the nearest locations.
5. Health sector: Make a rapid assessment of the following.
 - 5.1. Check up the stock of medicines, bleaching powder, and halogen tablets. If necessary, send immediate requisition.
 - 5.2. Start movement of medicines, bleaching powder, etc. to PHCs/CHCs.
 - 5.3. Ensure that medical officers are in place at the PHCs and CHCs through police stations, Circle Officers & Sr. BDOs/ BDOs.
 - 5.4. DMO shall decide the locations of camps.
 - 5.5. All Paramedical Officers shall be teamed up with the MO of PHC/ CHC with their vehicles and supervisors.
6. Vehicles: Requisition 15 small and 15 big vehicles immediately. Further requisition will be made as per need.
7. Empower field officials to requisition vehicles. Send 10 requisition forms to each Circle Officer, BDO and Police station.
8. Boats: Requisition boats from other districts.
9. Ask Deputy Commissioner of other districts, to remain ready for supply of stocks of rice and Chira, if required.
10. Close educational institutions after making an assessment of the seriousness of the emergency.

11. Veterinary measures: Immediately contact MD, OMFED and tie up the supply of cattle feed. DVO shall make assessment of vaccines and fodder availability.

12. Air Dropping Zones: Use the lat-long book for identifying the air dropping zones. Make an advance list of villages where air dropping may be needed.

13. Each JE of R&B, and NH & Irrigation shall keep ready a gang of 20 persons (severe flood or cyclone- 40-person gang) with axes and saws. They will also have one chain-pulley system ready.

14. Requisition the services of officers who have been effective in the past. Allot areas to them with full powers of decision making on the spot.

15. Make a thorough assessment of relief items available in stock at different places.

16. Functional distribution of work: Following functional distribution of works shall be done. Each team will have staff and resources. The team leader will have full powers to take decisions

- Transportation Team
- Stock and Store Team
- Finance team
- Information and Office Documentation Team
- Food and other relief items team
- Civil Society and International Organizations' co-ordination team
- Civil Society Organizations: Get in touch with civil society organizations. Allot them areas or functions. Get them introduced to the field functionaries. Ask them to prepare a list of volunteers. Make a quick inventory of their resources. Contact UNICEF, UNDP, OXFAM, Action Aid, CASA and other international agencies. Make a quick assessment of district needs and expectations from different agencies.
- Press briefings: Press briefings play a very important role in disaster management. Daily press briefs will be issued at 1600 hours. Written information will be issued. Following format will be used.

Kamrup District Press Note No.		Dated:		
		Total	Affected	Remarks
1	Blocks/ towns			
2	Villages			
3	Population			
4	Severely affected areas			
5	Rescue measures			
	Boats deployed			
	Army/ Navy/ Coast Guard			
	Police/ Fire brigade			
	Other agencies			

Exemplary events				
6	Relief measures	Qty	Villages covered	Days covered
	Rice			
	Chuda			
	Other dry food			
	Kerosene Oil			
	Polythene sheets			
	Tents			
	Cattle feed			
	Halogen tablets			
	Medicines			
	Air dropping sorties			
7	Casualties			
8	Missing reports			
9	Cattle death			
10	Civil Society Organisations			
11	Damage to property	Number	Approx Value	
	Roads			
	Embankment breaches			
	Schools			
	Other public buildings			
	House damage			
	Electrical installations			
	Others			
12	Prospects in next 24 hours			
13	Message for people			
14	Other details			

17. Message to public over All India radio should be specific. Apart from the warning, it should include the following three points.

- 17.1. Take shelter in nearest pucca building.
- 17.2. Keep cattle tied in open spaces.
- 17.3. Keep sufficient dry food.

18. Regularly contact S.R.C., Home Secretary, Revenue Secretary, Addl. Secretary to Chief Minister, Chief Secretary and Health Secretary.

19. Give written orders for identifying places for starting free kitchens. Issue clearance for 3 days.

20. Regularly check up <http://sdmassam.nic.in>, www.imd.ernet.in, [www.bbc.co.uk/ weather](http://www.bbc.co.uk/weather) and other web sites.
21. Keep spare copies of district maps. Jurisdiction maps of all irrigation divisions shall be kept ready in good numbers.
22. Get mobile phones of Head of Departments
23. Contact State Bank of India and BSNL for making available VSAT network in case of failure of all communication channels.
24. Contact Flood Cell of the Govt. of Assam.
25. Requisition all IB/ Rest sheds.
26. Requisition School/ College for army/ police forces.
27. Direct all field officers to hire generators and keep sufficient oil for running them.
28. Direct all police stations to keep spare batteries for VHF.
29. Looking at the onset of emergency and after making quick preparations, convene Emergency meeting of important official and non-official agencies. Give them clear instructions.
30. Make a duty roster. Important officials cannot afford to break down together.

8.8- LINKAGES WITH BLOCK/ GP / VILLAGE AND OTHERS

Coordination / Linkage	Block Disaster Management Committee (BDMC)/ Grampanchayat Disaster Management Committee (GPDMC)/ Village Disaster Management Committee (VDMC) & Task Force
Preparedness	Block disaster management committee will meet every month
Pre (after warning)	<ul style="list-style-type: none"> • Meeting immediately under the chair person of BDO and chalk out a emergency plan with vulnerable areas and resource list • Coordination meeting of NGO/CBOs • Delegation of duty • Pre-positioning of staff in cut off areas • Arrange food and other basic need for emergency response • Getting information from different areas and take appropriate steps • Record keeping

During	<ul style="list-style-type: none"> • Coordination meeting continue at every 6 hour intervals • Regular collection of situations (status) of the risk and vulnerable areas • Provision of food and other basic needs • Contact with District Administration for supply of food and other materials • Deputation of NGO/CBOs/Volunteers to different areas • Record keeping
Post	<ul style="list-style-type: none"> • Helping community to go back home • Immediate start of free kitchen centers in the cut off areas • Relief distribution • Maintenance of law and order • Monitoring of the relief distribution • Record keeping • Provision of drinking water • Provision health service • Repair of roads • Transportation of relief and human resources • Renovation of Block / GP / Villages contingency plan according to the felt experience / need

8.9- CHECK LIST FOR PREPAREDNESS

1. Block Development Officer

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> • Vulnerable and risk assessment map • Cut off area with safe route map • Storing facilities • List of dealers for food • List of volunteers • Control room set up • Boat and transportation for rescue • Transportation for food supply • Pre – positioning of staff • Site operation centers/staff • Evacuation and rescue of people • Coordination and linkage • Damage assessment • Address and telephone list • Alternative communication system • Pulling resources from outside if enquired • Having network with neighbouring blocks 		

2. A.P President Chairperson

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> • Ensuring the function of Block Disaster Management Committee • Approval of Block Disaster Management Plan in the Panchayat Samiti • Awareness generation 		

3 MO, PHC / CHC

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> ➤ Stock positioning of life saving drugs , ORS, IV fluids and other equipments ➤ Distribution of ORS, Halogen ➤ List of contact address of field staff ➤ List of trained volunteers on first aid ➤ List of AWWs ➤ List of epidemic /risk prone areas ➤ List of site operation areas ➤ Mobile health clinic / unit ➤ List of private and local doctors ➤ Awareness through propagation of healthy practices during the disaster time ➤ Train the village taskforce members on the use of medicines and provide first aid ➤ Daily disease report collection and analysis ➤ Propagation and carrying out preventive measures ➤ Taking help of other Blocks 		

4 JE Irrigation

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> ➤ Stock piling of materials like sand bags, bamboo at vulnerable points / places ➤ Provision for guarding of weak points ➤ List of volunteers ➤ Taking help of the community for maintenance of weak embankments. ➤ Taking proper measures for protecting the weak points ➤ Coordinating with other line department 		

5 Junior Agriculture Officer

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> ➤ List of different areas to be affected by different hazards ➤ Crop pattern with land holding ➤ List of irrigation points with status ➤ Alternative crop ➤ Trained for food preservation and protection ➤ Assessment of damage ➤ Provision of seeds and others ➤ Helping in raising of community nursery for seedling/sapling ➤ Crop insurance ➤ Generate seed bank/grain bank at village level ➤ Coordinating with others 		

6 Veterinary Officer

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> ➤ Animal population with categories ➤ Possible problems related to different hazards ➤ Dealer of feeds / fodder ➤ List of cow sheds ➤ Site camps with volunteers ➤ Programme for mass vaccination ➤ Trained the taskforce to use of medicine ➤ Coordinating with others 		

7 JE PWD (R& B) / JE E & D

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> ➤ Identification of weak points ➤ Repair the weak points before hazards season ➤ Stockpiling of building materials ➤ List of dealers for building materials ➤ Promotion / training of people on retrofitting / resistance building ➤ Arrangement of equipment for road clearance ➤ Plan for vulnerable reduction ➤ Coordinating with others 		

8 Control Room

Activities	Yes/No	Remarks
	Use tick marks with Pencil	Use Pencil only
<ul style="list-style-type: none"> ➤ Assignment of Duty ➤ Maintain inventory of resources ➤ Provide information who needs it ➤ Receive information on routine basis and keep record ➤ Receive preparedness reports from various relevant epts.. ➤ Based on the reports, provide feedback to the district authority and others ➤ Display of vulnerable area map ➤ Display Imp. Tel. numbers 		

9

CHAPTER

MONITORING & EVALUATION

9.1 PLAN DISSEMINATION AND EVALUATION

The responsibility of plan dissemination is vested with the DEOC, at the Office of the Deputy Commissioner.

In order for the DDMP to be effective it must be disseminated at two levels:

- a. To the district authorities, government departments, NGOs and other agencies and institutions within the district and
- b. To general public

9.2 DISSEMINATION OF OTHER IEC MATERIALS

The DI & PRO at the district level will carry on the dissemination of IEC materials and NGOs at the block and village level during normal time (selected during Post Natural Calamity Committee meeting, presided over by the ADM). The activities of these DI & PRO and NGOs would include

- Walling,
- Posters, Pamphlets and Brochure preparation and distribution
- Padayatra,
- Street plays,
- Volunteers training,
- Task force training, etc.

9.3 UPDATION OF INDIA DISASTER RESOURCE NETWORK (IDRN)

9.4 TRAINING AND DRILLS

The training programmes are organized for different levels of functionaries from district level officials, identified NGOs, Private Sector Organizations in order to equip them to extend training facilities to functionaries at blocks and village level as well as organize simulation exercises within the community.

The objective of full scale drill include evaluation of the following

- Practicality of the plan (structure and organization)

- Adequacy of communication and interactions among the agencies and the public
- Emergency equipment effectiveness
- Adequacy of first aid and rescue procedures
- Adequacy of emergency personnel response and training
- Public relation skills
- Evacuation and count procedures
- Coordination with the CBOs / NGOs

9.5 COMMUNITY BASED DISASTER PREPAREDNESS AND MOCK DRILLS

Role of the Community

- First respond to disaster
- Participate in preparedness programme
- Sharing of disaster preparedness cost
- Playing as pressure group / advocacy
- Stockpiling and Coordination
- Supporting communication System

The Community Based Disaster Preparedness should be done as per the following stages

- ☞ Formation of Block Level Disaster Committee
- ☞ Training of line department and volunteers
- ☞ Formation of GP level Committee
- ☞ Developing Community Contingency Plans in the Villages
- ☞ Training of Task Forces
- ☞ Periodic mock drills
- ☞ Coordination of GP and Block
- ☞ Updating information

Mock drills are important in normal times as well as during the emergency. The mock drill and preparedness for disaster are considered as a part of police duty. Every six months, there should be a mock drill in all of the police stations of the district to make them alert / fit to cope with any situation. Security Plan for all industries to be reviewed and approved by CISF at regular intervals. Similarly all police stations should have internal security scheme, based on which they should have mock drills and update it for safety measures as per requirement.

Besides a contingency drill should be enacted during the cyclone/ flood season so that everyone knows what he/she should do and where he/she should go. It is advisable to have a mock drill at night during the rain, by cutting of the electricity in the village/ block/ district (as per the time

chosen for the mock drill at each level). This exercise will help learn possible problem that would be faced. These learned lessons could be utilized in preparing the contingency plan in a much-prepared manner.

9.6 SETTING UP OF DISASTER VOLUNTEER FORCE – IDENTIFICATION AND TRAINING

An analysis of the situation of the village community forms the first task for preparedness. After analysis, the villagers would form different groups to carry on the activities for disaster preparedness. The motivated and willing male and female group members have to find out the roles and responsibilities of each group. The groups may be formed for warning, rescue and evacuation, water and sanitation, relief and food, damage assessment, shelter management, etc. This will form the Disaster Management Teams.

For warning group, members could be young boys and girls of the village (17 to 25 years) who will be trained to understand radio warnings and act fast to spread the warning throughout the village.

The members for Rescue And Evacuation Group need to be physically strong (both men and women) and in the age group of 18 to 35 years. Inclusion of civil defense personnel would be useful if available in the village. This team can coordinate with the government to avail the facilities for rescue and evacuation, both in terms of rescue training, rescue infrastructure and equipment and ensuring the alertness of the rescue team of the government.

Both men and women members may look after the Water And Sanitation responsibilities at the shelters as well as outdoors

The members of the relief group collect distribute relief materials such as food supply, utensils, clothes, kerosene, diesel, etc and coordinate all the relief requirements of the other action groups. Both men and women members have to be capable of interacting with the local authorities to ensure adequate supplies reach the village in time.

The members of shelter management group shall have more women members preferably SHG members and Anganwadi Workers. They will be at the shelters and safe houses looking after the evacuees' food, water and medication requirements. This group can also coordinate with the government authorities to ensure that health and sanitation facilities are available for extra vulnerable like women and children.

There can also be a First Aid and Medical Group, with equal numbers of men and women, those with some knowledge of nursing (such as trained dais and AWW/ ANMs) will be preferable. The members have to go through intensive training and drills for first aid and medical responsibility.

Other such group might be the Patrolling group and the Liaison group.

ANNEXURE – I

HISTORY OF FLOODS IN KAMRUP DISTRICT

Every year large areas of Kamrup district are inundated and considerable tracts of land is swallowed up by erosion. The tributaries of the Brahmaputra on both banks have considerable hill catchments. The heavy monsoon rains that fall on them soften the topsoil on the steep slopes. The streams and rivers carry these sediments easily down the steep hill slopes, the sediments are deposited on their beds, thus choking the channels. The resultant rising of the bed naturally has reduced the volume of the channels making the rivers shallow.

The heavy water and silt discharges occurring in upper region of the rivers during the peak monsoon find their way through numerous streams and rivulets resulting in excessive spilling on the banks of the rivers and their tributaries and consequent water logging in extensive areas of the plains region. Presence of an adequate forest cover with a wider forest belt along the northern fringe of the district would have mitigated the problems of flood in Kamrup district to a great extent.

A shift in the course of Brahmaputra and certain other rivers has been observed over the years. Besides other reasons, the seismic instability of the region also contributes to such shift. The result is that the rivers due to the shifting of their course causes devastation through floods and bank erosion.

Flood Vulnerability of Kamrup district

- Annual Rainfall: - Ranges between 1500 mm. To 2600mm and is concentrated in 4 months of June – September.
- Flood occurs generally in the low lying areas of the district during May to August every year
- Late flood during the later part of September & October also occurs
- The occurrence of flood in the district is due to the river Brahmaputra and its tributaries - Pagaladiya, Puthimari, Noona, Borolia, Kalajal etc.

Another factor adding a new dimension and greater severity to the problem is the great earthquake of August 15, 1950. This earthquake disturbed the courses and beds of many rivers like the Brahmaputra, Subansiri, Buri Dihing, Jia Bharali, etc. Due to this earthquake there have been extensive hill slides in the catchments of the Brahmaputra and its tributaries. Rivers have silted up in varying degrees and a number of rivers changed their courses.

All the plain districts were hit by floods during 1977, though the impact was more severely felt in Kamrup district. The total cropped area affected by the flood in Kamrup district was of the order of a lakh hectares; the number of people affected was 7 lakhs and the number of houses was more than 26,000. In 1977, unprecedented continuous and heavy rain and cyclone caused very extensive damage in all the 3 sub- divisions of the district.

Erosion is also no less important a problem for the plains districts of Assam. Every year large blocks of areas are eroded by the currents of the rivers. In 1974, considerable area of the Palashbari circle was eroded by the river.

The floods were quite severe during the years 1980, 1983 and 1984. However, in the years 1988 and 1998, the whole of Assam and especially the Kamrup district experienced the worst wave of floods ever. In 1998, in Kamrup district alone about 75 thousand hectares area was affected. The 2004 floods are being compared to 1988 and 1998 floods in terms of magnitude of area & people affected and damage caused.

Flood Control Efforts since independence

Prior to 1951- 52, the need for flood control works was not so much felt as in the years that followed. In fact, the real the beginning in the flood control work was made since the first Five- year Plan. Extensive protection works like dykes, embankments covering a length of more than 3000 km along the Brahmaputra and its tributaries were made. But these protection works done during the first 2 plans were of emergency and adhoc nature. From the 3rd plan onwards the emphasis was shifted to consolidation of existing structures like raising and strengthening of existing embankments etc. in addition to new schemes where necessary e.g. construction of new embankments in unprotected reaches, setting up of sluice gates for drainage, construction of drainage channels etc. The problem is that these embankments being very old are losing their capacity to prevent floods and hence breaches in embankments often occur.

Flood Prone Areas in Kamrup district

- (1) Nagarbera Circle :- Medhipara, Malancha, Kalubari, Palahartari, Nagarbera, Khameri, Kalyanpur, Maitarbhela Reserve, Pizupara, Dokuchi, Jamlai, Malibari satra, Malibari, Jogipara, Habilapathar, Mandirapatar, Dola gaon, Topamari, Bodalapathar, Rangeswari, Bhakuradia,

Sagunbahi, Mandira Reserve N.C, Jamlai N.C. No. 1 Uttar Rangapani, No. 2 Uttar Rangapani, Jalijali khela Reserve NC, Agarchar N.C. (Total Flood Affected Population : 62523)

- (2) Chamaria:- Salmara, No.1 Makeli, No.2 Makeli, No. 2 Baruapathar, No.1 North Rangapani Nankay, No.2 South Rangapani Nonkay, Chouradia Nonkay, Rowmari, Lateria Nonkey, Jawpata goan, Kismat Kathami, Jowkatadia Duramari, Malibari pathar, No.1 Malibari pathar. (Total Population : 98507)
- (3) Boko Circle:- Alagiri, Duri, Pairangan, Naranja, Kaith para, chandra, Ghelabari, Mariachora, Simila, Jalukbari. (Total Population 101493)
- (4) Goroimari:- Torigaon, shialmari, Ameripam, Aggumi, Majgumi, Rasgumi, Jahirpur, Bhakuamari, Toparpathar, Saralpara, Dekria, No.1 Bhogedia, No.2 Bhogedia, No.1 Balagaon, No. 2 Balagaon, Nowpara, Maghuwabilar pathar, Dewridona, Khetrapara, Kalardia top, Batahdia, Berehuita, Kharidol, Rangadhokua, Bihapara, Kharidol, Nonkey, Singimari, Habi, Alikash, Mazartop, Khalihamari, Borabhat, Katohi pathar, Dighaldopa, Chowdhury para, Toparpathar, Bagmara, Salarsuti Pam, Asalpara, Baghmar, Baghleu, Gohainpara, Uzzan Deramari, Setaimari, Lorowajan, Bharuabheta, Champuparagaon, Koraibeel, Shatishholapam, Bholakabari, Shatishhola gaon, Chowdhury pam, Puran Kuchia. (Total Population: 64000)
- (5) Chaygaon Circle:- No.2 Balashidi, Nowpara, Nowmati, Batakuchi, No.1 Ratanpur, No.2. Ratanpur, Falaghat, Dakuwapara, Jwgipara, pubdhuli, Paschimduli, Majpara, Kuliagaon, Bangakata, Chowdhurykhat, Dobargaon, North & Dakhin Bangakhata, Ganakpara, Haganjuli, Belguri, Kurshala, Bamunigaon, Paneri, Bahjari, Karakarabari, Sonamukh, Dewchar, Kolohikash, Dhalishar, Burhasara, No. 1 & 2 Jambari, Tokoradia, Hathipara, Kuburmar, Bengalbata, Behdia, Makari, Dagaon katahi, No.1 Baladhi, Dhelsanabari, Andheri, Bokalipara, Kowaimari, Jamuguri. (Total Population: 209668)
- (6) Palashbari:- Hudumpur, Hudumpur, Mazirgaon, Kendukuchi, Dharapur, Parli town, Abshia, Kokjhar, Parli, Borjhar, Azara, Charneheli N.K., Char Majuli N.C. Sadilapur town, Kobjar town, Amtola, Jiakut 2, Rampur No.1, Rampur No. 3(P) , Tezpur, Uparhali P, Saspakhali, Swapantari, Panikhaita, Gurabari town, Bongsar, Bezartari, Dhalipara, Chapathuri, Keutpara, Chulikatapathar, No.2 simaria, Bhurakatapam, No.1 Kalapani, No.2 Dokhala, Pagladia N.C., Bhathewmodia, Bordia NC, Nehira, Gewmari, Rowmari, Jalanidari No.1 Jiakur, No.1 & 2,3 Phuturi, Jaralearithar, Kandhalimari, Ssengiatari, Daruatari, Kolardia, Charaimari. (Total Population 239455)

- (7) North Guwahati:- Athiaboi, Bonmoza, Melong, Uttarlenga, Dakhin lenga, Uttar phulung Dakshin Phulung. (Total Population : 110159)
- (8) Hajo:- Japia, Akhoara, Dihina, Hainadi, Abadi, No.1 Bapta, No.2 & 3 Bapta, Heerajani, Ddakhin Sewra, Kanwarpara, Chorabari, Haplakha, Deharkuriha, Soniadi, Bihdia, Khenikuchi, Borni, Kismat Kuriha, No.1 & 2 Khalihamari, No.1 & 2 Chowlmari, Andupara, Bongapara, Topaburi, No.1 & 2 Blkur, Uzankuri Haldia, Satalbari, Gandhelitari, Sarubakara, Borbokara, Bongltula, Dokonia Reserve, Bamundi Ganakpara, Sewuldia, Panditarpam, Rabitilapam, Subanchua No.3, Khetri Hardia, Niz hardia, Hardia pam, Sarudampur, Borla, Sirihati, Bathan, Bamun Sualkuchi N.C., Rakhhakhini chari & Amarjuli gaon, Gandhmou, Kismat Bangshar, Singimari 2 & 3, Roumari, Gauipara, Racharia, Dakshin Pakarkhana, Uttar Pakarbhona, Khudra Kulhati , Pacharia, Keotarbari, Barijani pathar, Pacharia, Guimara pathar, Pacharia, Pacharia Dalorpathar, Paschim Dadara, Borgaon, No.2 Dolibari, No2 Kulhati.
(Total Population: 142535)
- (9) Rangia Subdivision:- The entire Rangia subdivison including Rangia, Kamalpur circles was severely affected by floods in Year 2004. The communication was disrupted as stretches of the National Highway were submerged.

ANNEXURE II

DEPLOYMENT OF POWERBOATS

Name of the Circle	Powerboat with Hp	Ruber Boat	Boats (Manual)	Place of deployment	Name of River/Nala	Name of Controlling Officer
D.C Office	1 No	2 Nos				
SDO(C) Rangia	1 No					

Name of the Circle	Power HP	Engine Boat	Boats (Manual)	Place of deployment	Name of River/Nala	Name of Controlling Officer
Palashbari		9 Nos				Circle officer
Chhaygaon		11 Nos				Circle officer
Hajo		11 Nos				Circle officer
PALASHBARI		9 Nos				Circle Officer
Boko		6 Nos				Circle Officer
Kamalpur						
Goroimari		25 Nos				Circle officer
Nagarbera		15 Nos				Circle officer
North- Ghy			4 Nos			Circle officer
Chamaria		24 Nos				Circle officer
Rangia						Circle officer

Note: The Circle Officers were given authority for requisition the boats during the rescue and relief operation while flood seasons.

ANNEXURE-III**DEPLOYMENT OF COUNTRY BOATS**

Name of the Circle	No. of. Boats	Location	Contact Person	Address	Type of the Boat
Chhaygaon					
Palasbari	58 Nos		Circle Officer		
HaJo	17 Nos				
Goreswar					
Boko	36 Nos		Circle Officer		
Kamalpur					
Goroimari					
Nagarbera					
North- Ghy	3 Nos		Circle Officer		
Chamaria	8 Nos		Circle Officer		
Rangia	5 Nos		Circle officer		

Note: The Circle Officers were given authority for requisition the boats during the rescue and relief operation during floods.

ANNEXURE – IV**E & D DEPARTMENT (RIVER / CREEK & DANGER LEVEL)****RIVER & CREEKS:**

Sl. No	Name of the river/creek	Name of the Place	Danger Level (Metre)
1.	River Brahmaputra	Guwahati D.C. Court	49.68
	- do -	Pandu	48.77
	- do -	Dakhala Sluico	47.20
	- do -	Gumi	45.00
	- do -	Alikash	44.20
	- do -	Siliguri	47.30
2	River Pagladia	R.C.C Bridge at Bijulighat	47.00
3	River Puthimari	N.H. Crossing	51.82
	- do -	R.G.P.W.D Road	59.77
	- do -	Baramboi Bridge near Barambaoi Bazar	50.20
	- do -	N.H. Bridge at Baramboi	48.20
4	Baralia	N.H. Crossing	51.98
5	Hajo Suti	At Khetrihardia P.W.D Bridge	46.74

LIST OF EMBANKMENTS:

Sl. No	Name of the Embankments	Type of Embankments	Length of Embankments (KM)
1.	Brahmaputra Embankment		
a	From Palashbari to Satrapara on left bank.	Earthen	4.5
b	Gumi to Nagarbera on left bank	Earthen	42.5
c	Hatimura Hill to Adabari on Right bank	Earthen	19.60

d	Sontoli Ring Bund		3.00
2.	Pagaladia embankment	Earthen	
a	Dusutumukh to Adabari on left banl	Earthen	7.5
3.	Puthimari embankment		
a	Habibari to its outfall on right bank	Earthen	60.80
b	Mukaldonga to its outfall on left bank	Earthen	65.66
4.	Baralia embankment		
a	N.T. Road to out fall on right bank	Earthen	9.50
b	R.A. Rly Line to Dusutumukh on left bank	Earthen	17.50
5.	Kulchi Embankment		
a	Kulshi Bazar Chowk to Bagapani on right bank	Earthen	5.20
6.	Sossa embankment		
a	Bagals roag to N.H. way on right bank	Earthen	5.05
7	Hajo Suti emnbankment		
a	Outfall to R.H.P,W,Droad on right bank	Earthen	4.43
b	Outfall to R.H.P.W.D Road on left bank	Earthen	4.00
8	Jaljali embankment		
a	Rangeswari Guide Bund	Earthen	2.60
b	Jaljali Guide bund	Earthen	1.60
9	Bhairatolajan embankment		
a	Bhairatolajan Guide bund	Earthen	2.43

RIVER CARRYING CAPACITY;

Name of the River	. Gauge Station	Zero Level (in Mts.)	Danger Level (in Mts.)
River Brahmaputra	Guwahati D.C Court		49.68
	Pandu		48.77
	Dakhala Sluico		47.20
	Gumi		45.00
	Alikash		44.20
	Siliguri		47.30
River Pagladia	P.W.D Bridge at Bijulighat		47.00
River Puthimari	N.H. Crossing		51.82
	R.G.P.W.D Road		59.77
	Baramboi Bridge near Baramboi Bazar		50.20
	N.H Bridge at Baramboi		48.20
River Baralia	N.H. Crossing		51.98
Hajo Suti	At Khotrihardia P.W.D Bridge		46.74

IDENTIFICATION OF WEAK AND VULNERABLE EMBANKMENTS:

Sl. No	Name of the Weak and Vulnerable Embankment	Location	Reason of its vulnerability	Population likely to be affected	Remarks
1	Puthimar embankment on L/B from Mukaldonga to outfall	At Chainage 13.60 Km Sonmohari	Embankment was breached during flood of 2004	1,00,000	Population likely to be affected is assessed on rough estimation
	- do -	Chainage 3.50 Km (Halongbari)	- do -		
	- do -	At Ch 8.00 Km Uttarharijor	- do -		
	- do -	At Ch 9.00 Km Harijora	- do -		
	- do -	Barpathar	- do -		
	Puthimari embankment on right bank form Barmboi to its outfall	At Chainago 55 th Km Bagta	- do -	40,000	
	- do -	At Ch, 57 th Km Satdola	- do -	20,000	
	- do -	At Ch 58.50 Km Panipara	The embankment was cut by miscreants.	5000	
	Puthimari embankment form Habibari to R.G. Rly line	At Ch 14.50 Km Bagribari	Embankment was breached during flood of 2004	40,000	

CONTINGENCY PLAN

EARLY WARNING DISSEMINATION AND RESPONSE PLAN

(Note: roles and responsibilities should be defined for flood, cyclone, Drought, fire, earthquake, chemical hazard depending on the vulnerability of the area)

<i>Department</i>	<i>Response System</i>			
	<i>Preparedness</i>	<i>Pre (after Warning)</i>	<i>During Disaster</i>	<i>Post Disaster</i>

<p>Guwahati West E & D DEPARTMENT Water Resource Department</p>	<p>Before the onset of flood, necessary precautionary steps are take-up to tackle any eventuality during flood. The work and vulnerable reaches of the embankment are strengthened to withstand the flood. Flood fighting materials like empty cement bags, bamboo etc, ate stocked at vulnerable points for use during any emergency, earth is stacked on the crest of the embankment for use during flood time, Also permanent and temporary anti- erosion measures are taken up at the vulnerable erosion affected reaches as per availability of resources.</p>	<p>Round the Clock patrolling is carried out on all weak and vulnerable reaches so as to detect any leakage / Seepage of flood water of any damage to the embankment. The departmental officers ad staff keep close watch over the weak and vulnerable reaches in particulate and over the whole embankment system in general so that immediate steps could be taken up in case of any damage. Sufficient quantity of flood fighting materials alig with adequate labout forces ate maintained at all weak and vulnerable reaches to tackle and eventuality.</p>	<p>After occurrence of the breaches of embankment the end points are strengthened as as to prevent further widening of breached gap; the breached partion of the dyke is closed temporarily by Bamboo Mahorrio etc. where it is practically possible.</p>
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ANNEXURE -V**AGRICULTURE DEPARTMENT**

Geographical Area (in Hect.):

a) Paddy

Sl. No	District	Agricultural Land (ha)			Grazing land	Forest Land (ha)	Others	Total area
		High	Medium	Low				
1	Kamrup	NA	NA	NA	21236	116694	126864	264794

b) Non-Paddy

Sl.No	Name of the District	Non-Paddy	Agricultural Land (ha)		
			High	Medium	Low
1	Kamrup	65009 Ha	NA	NA	NA

2.5 Land Holding Pattern: (No. of HH)

Sl.No	Name of the District	Big Farmers	Marginal farmers	Small Farmers	Agricultural laborers	Landle ss	Total
1	Kamrup	4820 Nos	135005	53858	47187	7546	248416

2.6 Crop Pattern:

Sl.No	Name of the District	Type of Crops	Area Cultivated (in Hect.)	Area under Crop insurance (in Hect.)
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1	Kamrup	<p>Ahu paddy followed by S/Paddy Ahu paddy followed by rabi Jute followed by Rabi Crops Sali paddy followed by rabi crops</p>	229985	
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ANNEXURE- VI**VETERINARY & ANIMAL HUSBANDRY DEPARTMENT**

Infrastructure of A.H & Vety Deptt in Blocks

Sl. No	Particulars	Name of the Officer	Mobile No.
1	District A.H.& Veterinary Officer,Kamrup,Chenikuthi,Ghy	Dr. Arun Sarma	9126132253
2	Block Veterinary Dispensary,Chamaria,Nagarbera	Dr. Rajib Bhattacharjee	7002715062
3	Block Veterinary Dispensary,Boko & Bangaon	Dr. Mukul Das	8638169813
4	Block Veterinary Dispensary,Chaygaon	Dr. Pradip Sarma	7002930895
5	Block Veterinary Dispensary,Rani	Dr. Jolly Borah Sarkar	9435100764
6	Block Veterinary Dispensary,Chyani Barduar & Rampur	Dr. Deba Kinkar Sarma	7662881460
7	Block Veterinary Dispensary,Hajo	Dr. Gaytri Das	9859911746
8	State (Block) Veterinary Dispensary,Goroimari	Dr. Muhibur Rahman Saikia	9864808599
9	State(Block) Veterinary Dispensary,Halogaon (Sualkuchi)	Dr. Pradip Baishya	7399658815
10	Block Veterinary Dispensary,Bezera	Dr. Nakul Kalita	7099678732
11	Block Veterinary Dispensary,Kamalpur	Dr. Anil Choudhury	9678614593
12	Block Veterinary Dispensary,Rangia	Dr. Sahana Begam	9706012998
13	State(Block) Veterinary Dispensary,Karara (Bihdia Jajikona)	Dr. Jayanta Deka	6002567253

FIRST AID MATERIALS

1	Cotton
2	Bandage Cloth
3	Weak Iodine Solution
4	Potassium Permanganate
5	Surgical Kit
6	Boric Acid
7	Syringe & Needle
8	I.V. Set
9	Hand Glove
10	Plaster of Paris
11	Phenyl
12	Suturing thread & needle
13	Casting Rope
14	Medicine, vis: Antibiotics, Analgesic, Haemostatic, steroid, Antihistaminic, Antipyretic, Antipyretic

EQUIPMENTS

1	Operating Table
2	Service Crate
3	Sterilizer
4	Microscope with accessories

List of Resource Institutions / Organisations

Sl.No	Name of the Organisation	Area of Operation	Address/ Telephone Nos.
1	Animal Health Center	Entire State	2338649
2	Institute of Veterinary Biological	Entire State	2338654

CONTINGENCY PLAN

EARLY WARNING DISSEMINATION AND RESPONSE PLAN

(Note: roles and responsibilities should be defined for flood, cyclone, Drought, fire, earthquake, chemical hazard depending on the vulnerability of the area)

Department	Response System			
	Preparedness	Pre (after Warning)	During Disaster	Post Disaster
V & AH Deptt	<ol style="list-style-type: none"> 1) Adequate skilled manpower 2) First aid facility 3) Identification of safer place (like open space/ high land) 4) Network of communication with skilled personnel 5) Immunization against any outbreak of prevalent diseases. 	<ol style="list-style-type: none"> 1) To alert the skilled deptt personnel's for combating any eventualities. 	<ol style="list-style-type: none"> 1. Deployment of skilled personnel in the affected areas, 2. Rescue and rehabilitation of affected animals to safer places 3. Arrangement of feed and fodder. 4. Rendering first aid where necessary 	<ol style="list-style-type: none"> 1. To arrange Veterinary Health Care camps in the affected areas. 2. Relief and Rehabilitation to the affected animals.

ANNEXURE- VII**LIST OF MULTI PURPOSE FLOOD OR TEMPORARY SHELTERS DURING CALAMITY**

Name of the Circle	Name of the School
NAGARBERA CIRCLE	1) Rangeswari Tupamari L.P. School , 2) Tupamari L.P. School, 3) Bhakuradia Halangpara Madrassa , 4) Bortol L.P. School , 5) No.2 Tupamari L.P. School , 6) No.3 Tupamari L.P. School , 7) Hekera H.S. School , 8) Malancha L.P. School ,9) Sankardev H. School , 10) Fakuruddin Ali Ahmed H. School ,11)Jamlai H. School ,12) Pijupara L.P. School , 13) Hekera L.P. School ,14) Dokuchi L.P. School , 15) Nagarbera H.S. School , 16) Nagarbera L.P. School ,17) Naitor Vidyanagar L.P. School , 18) Dalagaon L.P. School , 19) Jogipara L.P. School , 20) Paharpara L.P. School , 21) B.P. Saliha College , Nagarbera
CHAMARIA CIRCLE	1) Chamaria High School , 2) Chamaria Sr. Basic School, 3) Sontali High School , 4) Sontali ME. School , 5) Sontali Primary School
BOKO CIRCLE	1) Rupnagar High School , 2) Ghilabari L.P. School , 3) Chandra L.P. School , 4) Kamargaon L.P. School , 5) Jalukbari L.P. School , 6) Moirachora High School , 7) Moirachora L.P. School , 8) Durapara L.P. School , 9) Kalibari L.P. School , 10) Khenapara L.P. School
GOROIMARI CIRCLE	1) Majortop H.S. School , 2) F.A.A. College Tukrapara . 3) Jahipur L.P. School , 4) Jakir Hussain Highn School , 5) Mahabir Pather L.P. School , 6) Jorshimalu Gosputa L.P. School , 7) Gumi High School ,8) Borbhita Anchalik High School , 9) Champupara High School , 10) Gharamara High School .
CHAYGAON CIRCLE	1) R.K. Choudhury H.S.S. , 2) Nowpara L.P. , 3) Bihdia L.P. , 4) Chaygaon M.V. , 5) Chaygaon Muktab , 6) D.N.D. Anchalik H.E. ,7) Ratnapur M.V., 8) Jambari H.E. , 9) Andheritari L.P. , 10) Gobardhan H.E. , 11) Pritipur L.P. , 12) Bamunigaon H.E. , 13) Jambari M.E. 14) Kalahikash Muktab , 15) Jambari L.P. School .

<p>PALASBARI CIRCLE</p>	<p>1) Chimina High School , 2) Chimina L.P. School , 3) Futuri L.P. School , 4) Mukadhaj L.P. School , 5) Nahira Guimara High School , 6) Satrapara L.P. School , 7) Bejortari M.V. School , 8) Panikhaiti High School , 9) Bejortari L.P. School , 10) Bortejpur L.P. School , 11) Sarutejpur L.P. School , 12) Dhakala M.V. School , 13) 3No. Amtola L.P. School , 14) 2No Amtola L.P. School , 15) 1No Amtola L.P. School , 16) 1No , 2No Jiakuri L.P. School , 17) Kandalpara L.P. School , 18) Kandulimari L.P. School , 19) Borkurkuria L.P. School , 20) Palasbari Boys High School , 21) Sadilapur L.P. School , 22) palasbari R.B. H.S. & M.P. School , 23) Palasbari Anchalik High School , 24) Gumaibari L.P. School , 25) Soru Agchia L.P. School , 26) Borjarh L.P. School , 27) Dharapur M.V. School , 28) Godabori L.P. School , 29) Chandraprava Girls High School .</p>
<p>Hajo Circle</p>	<p><i>Hajo Mauza:</i> 1. Hajo HS School; 2. Hajo Namasudra LP School; 3. Karia High School; 4. Bagta High School; 5. Hajo Borigog High School; 6. Japia Janata LP School; 7. Japia Milan High School; 8. Hailabori LP School; 9. Masuitula LP School; 10. Dihina LP School; 11. Boromboi High School.</p> <p><i>Ramdeah Mauza:</i> 1. Kalitakuchi LP and ME School; 2. Kalitakuchi Madrassa; 3. Saniadi HS School; 4. Deharkuriha Madrassa; 5. Khalihamari LP School; 6. Borni LP ME and HS School; 7. Doloitola LP School; 8. Borsola Hatkhola School; 9. Ramdia HS School.</p> <p><i>East Bungser Mauza:</i> 1. Bathan LP School; 2. Bathan Bapuji Vidyalaya; 3. Shyam Rai Vidyapith; 4. Gobardhan LP School; 5. Dadara HS School; 6. Sarmajuli High School; 7.</p>
<p>HAJO CIRCLE</p>	<p>Singimari Madrassa; 8. Singimari LP School; 9. Damdama HS School; 10. Damdama College; 11. Pacharia High School; 12. Niz Bongsar High School.</p> <p><i>West Bungser Mauza:</i> 1. Dampur Madrassa; 2. Dampur Girls High School; 3. Dampur HS School.</p>

ANNEXURE – VIII**PWD (R) EARTH MOVING AND ROAD CLEANING EQUIPMENTS:**

Type of Equipment	Contact person and address	Govt / Private	Telephone Office/ Res.	Remarks
Excavator	Shri Derajuddin Ahmed, Bongaon , Rangia	Private		
Tipper	Shri Parag Sarmah Akakhi Path, Fatasil Amabari, Ghy	Private		
Truck	Sri Anil Das Mirza	Private		
	Bum Construction GNB Road, Opp AGP Office, Ambari Ghy	Private		
	T.D. Construction, Naharani Path. Sispur, Ghy – 6	Private		

Larsen & Tubro: - Contact No 0361- 2305416

CONTINGENCY PLAN**Early Warning Dissemination and Response Plan**

(Note: roles and responsibilities should be defined for flood, cyclone, Drought, fire, earthquake, chemical hazard depending on the vulnerability of the area)

Department	Response System			
	Preparedness	Pre (after Warning)	During Disaster	Post Disaster
PWDR)	Preparedness is made to face any eventuality in case of a disaster.	Pre preparedness in case of a disaster like flood. Earthquake etc., collection of some construction materials like bamboo, rope, wire, wood, sand, cement bags etc., will be kept ready	During disaster this department will try to restore communication in case of any disruption by providing foot bridge at washed away or damage bridge portion and also will provide sand filled bags with palasiding, spur etc., at breached and	After the disaster this department will make assess the loss of property and will take up the renovation and construction work subject to the approval of

		at vulnerable area.	damaged road portion.	the Govt.
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ANNEXURE –IX

LIST OF NGOS UNDER KAMRUP DISTRICT

Place /Block	Name of the NGO's	Head of the Organisation	Address	Phone No
Guwahati	Indian Red Cross	Renuka Devi Barkataki	Chanmari, Guwahati	2668323 986438524
Bezera	Dr. Amedkar Mission	Shri Dulal Medhi	Changsari	2680625
Chayani Borduar	NEPTUNE	Shri Trailayka Das	Chayani Borduar Block	98648-13109
Goreswar	Village Development Society	Md. Noor Hussain / Shri Tapan Patwory	Baihata Charyali	9859244835
Rampur	Jawahar Jyoti, Assam	Shri khanindra Mazumbar	Vill- HQ & P.O- Rampur, Dist- Kamrup, Pin - 781132.	953623-250314
Rangia	Ganakalyan	Shri Pankaj Deka	Puthimari, Rangia	9954014371
Bongaon	Kosturba Sewa Ashram	Smt. Khiroma Saikia	Vill- No.1 Batakuchi, P.O & P.S Boko , Dist. Kamrup, Assam	
Nagarbera	Manab Vikash Mission Nagarbera	Najural Haque	P.O. J\Nagarbera, Dist. Kamrup, Pin No 781127,	Phone No- 03623-245010
Nagarbera	Prayas	Anowar Hussain	Village- Nagarbera	9854591277
Rani	Center for uplift of Rural Life	Anil Kalita	Rani Block	9864434936

Kamalpur	Women's Development Forum	Smt B. Baisya	Head	9864270059
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ANNEXURE – X

EARTHQUAKE HISTORY

Much of Assam lies in the Brahmaputra River Valley, except for a few southern districts. The northern and eastern parts of this valley are bounded by the Himalayan Frontal Thrust (HFF). In the eastern parts along with the HFF, there are the Lohit and Naga Thrusts. The major earthquakes in this region were the events in 1969 and 1897. The 1897 earthquake is well known for the dramatic accounts of violent throw ups during the shock.

SEISMIC HAZARD

The entire state of Assam lies in Zone V. Here earthquakes of upto MM intensity IX can be expected.

SIGNIFICANT EARTHQUAKES IN ASSAM

Both instrumented and non-instrumented events may be listed below. Reported magnitudes are listed for instrumented events while maximum observed intensities are listed for non-instrumented shocks. Some of the latter might also have magnitudes assigned to them by various authors, in which case the reference is stated. Please note that Magnitude and Intensity are NOT THE SAME.

The region comprises all Indian territory to the east of north Bengal. This (also other neighboring countries like Bhutan) from the most severe seismic regions in the world having experienced more than 350 known earthquakes of Magnitude 5 and over, among which 15 had magnitude 7 or more on the Richter Scale. The Assam quake of 1897 (M-8.7) is the largest earthquake ever known and the Sadiya earthquake of 1950 (M-8.6) was one which has rarely repeated. These earthquakes were so large that even topographical changes of levels etc., took place but the loss of life was not so great, since the population in 1897 was not as large, and the 1950 earthquake occurred in a rather unpopulated region. The Assam type construction using bamboo posts and Ekra – walling was light as well as strong and remained undamaged during these earthquakes. Recently on August 6, 1988, a M+ 7.2 earthquake occurred in the region.

Northeast India is seismically one of the six most active regions of the world, the other five being Mexico, Taiwan, California Japan and Turkey. It is placed in zone 5, the highest zone, of the seismic zonation map of India. It lies at the junction of Himalayan arc to the north and Burmese arc to the east. The region has experienced 17 large earthquakes ($M \geq 7$) during the last hundred years including the great earthquakes of Shillong (1897, $M=8.7$) and Assam- Tibet border (1950, $M=8.7$)

Major Earthquakes in the Northeastern Region in Recent Past:

Place	Year	Magnitude	Remarks
Bhutan	Sep,21, 2009	6.2	Destruction of property
Cachar	March 21, 1869	7.8	Numerous earth fissures and sand craters
Shillong Plateau	June 12, 1897	8.7	About 1542 people died
Sibsagar	Aug 31, 1906	7.0	Property damage
Mayammer	Dec 12,1908	7.5	Property damage
Srimangal	July 8,1918	7.6	4500 km ² area suffered damage
SW Assam	Sep 91923	7.1	Property damage
Dhubri	July 2, 1930	7.1	Railway lines, culverts and bridges cracked
Assam	Jan 27, 1931	7.6	Destruction of property
Nagaland	1932	7.0	Destruction of property
N-E Assam	Oct 23, 1943	7.2	Destruction of property
Arunachal	July 7, 1947	7.5	Destruction of property
Upper Assam	July 29, 1949	7.6	Severe damage
Upper Assam	Aug 15, 1950	8.7	About 1520 people die. One of the latfest known quake in the history
Patkai Range, Arunachal	1950	7.0	Property damage
Manipur- Burma border	1954	7.4	Property damage
Darjeeling	1959	7.5	Property damage
Indo- Myanmar Border	Aug 6, 1988	7.5	No Casualty reported

Source: R.P. Tiwari Status Of Seismicity In The Northeast India And Earthquake Disaster Mitigation, Department Of Geology, Pachhunga University College, Mizoram University, Aizawl 796001, Mizorm.

ANNEXURE – XI**JT. DIRECTOR HEALTH SERVICES****ACTION PLAN FOR EARTHQUAKE DISASTER MANAGEMENT AND FOR FLOOD AND OTHER NATURAL CALAMITIES IN KAMRUP DISTRICT**

Due to repeated flood and warning from several agencies for probability of Earthquake in the ream there is likelihood of loss of lives including epidemic situation after the calamities. To minimise the suffering of the humanity during and after the calamities plan of action proposes for Kamrup District under the JT. D. H.S. Kamrup.

District and Sub Divisional Disaster Management Committee

i) For District & Guwahati Sub Division

1. Jt. D.H.S, Kamrup Guwahati – Chairman
2. Addl. C.M & H.O (FW) Kamrup. Ghy-I – Member
3. C.M & H.O (CD), Kamrup, Ghy-I- Member Secretary
4. S.D.M & H.O (HQ) Guwahati – Member
5. All The SDM & HO's of the Office – Member
- 6.

ii) For Rangia Sub- Divisional

1. S.D.M & H.O (HQ) Rangia – Chairman
2. S.D.M & H.O (HE) Rangia – Member
3. All Sr. M& H/O & M& HO- I
of the SDM & HO;s office, Rangia – Member

iii) District General Hospital :- Tola Ram Bafna Kamrup District Civil Hospital
 Name of the Superintendent :- Dr. Kandarpa Kumar Das
 Contact No :- 86385-64340
 Staff :- Doctor-21, Staff-5,
 Other Contact No :- 98596-90368

District / Sub- DIV/ Block Level Medical Team for Disaster Management

During and post calamities period the following Medical Team will look after the area under their Zone / Block. There will be 13 Nos. Medical Team for entire district as stated below: -

Sl.No	Name of Team	Avalibility of Medicals and Para Medical Person	Incharge of the team	Area to be covered
1	Rangia Block H.Q Rangia P.H.C	Medical & PM Personnel of the block area.	SDM & HO, I/C, Rangia P.H.C	Entire Block Area
2.	Goreswar Block H.Q Niz-Kaurbaha P.H.C	-do-	SDM & HO. I/C. Niz-Kaurbaha PHC.	- do -
3.	Hajo H. Q, Hajo P.H.C	- do -	SDM & HO. I/C. Hajo PHC.	- do -
4.	Sualkuchi HQ, Sualkuchi	- do -	SDM & HO. I/C. SualkuchiPHC.	- do -
5.	Karara H.Q, Bhidiya PHC	- do -	SDM & HO. I/C. Bihdia PHC.	- do -
6.	Kamalpur H.Q, Kamalpur PHC	- do -	SDM & HO. I/C. Kamalpur PHC.	- do -
7.	North – Ghy H.Q North- Ghy, PHC	- do -	SDM & HO. I/C. North – Ghy PHC.	- do -
8.	Rani H.Q, Azara PHC	- do -	SDM & HO. I/C.Azara PHC.	- do -
9.	Rampur H.Q Rampur PHC	- do -	SDM & HO. I/C. Rampur PHC.	- do -
10.	Uparhali H.Q. Uparhali PHC	- do -	SDM & HO. I/C.Uparhali PHC.	- do -
11.	Chaygaon H.Q Chaygaon PHC	- do -	SDM & HO. I/C. Chaygaon PHC.	- do -
12.	Boko H.Q Boko PHC	- do -	SDM & HO. I/C. Boko PHC.	- do -
13.	Chamaria H.Q Nagarbera PHC	- do-	SDM & HO. I/C.Nagarbera PHC.	- do -

AMBULANCE

Name of the Hospital / Organization	Telephone No./ Mobile
Red Cross	2665114
Lion's Club	2204577
GMC Hospital	2560457
GLP Social Circle	2544356-57
Cool Earth	2566703, 2611382
Marwari Yuva Manch	2517020, 2540441, 2517938
Ujjal Sangha	2512627
Marwari Maternity Hospital	2541201 / 2541202
Mahavir Jain Parishad	2522962
All Guwahati Student Union	2561477/2524069
GNRC	94353-44444/ 2227700
Smiles (Hajo Dev Block)	9435106233

BLOOD BANK

Center	Phone No.
North East Blood Donor's Association	2562434, 2567149
Vivekananda Kendra Blood Donation Unit	2548862
Assam Gujarat Voluntary Blood Bank & Research Center	2524939, 2544892
Ganga Blood Bank	2515316, 2456616
Down Town Hospital	2331003/6906
Guwahati Medical College Hospital	2539561
Mahendra Mohan Choudhury Hospital Blood Bank, Panbazar	2543998
151 Base Hospital, Basistha, Guwahati-28	
Blood Bank Central hospital, N.F. Railway, Maligaon	
Guwahati Neurological Research Centre, Dispur, Guwahati-6	
Dispur Blood Bank, Guwahati-6	
Marwari Yuba Manch	2542074/ 2547251/ 2516798

OXYGEN BANKS (Free Service)

Center	Phone Nos.
Lions Club of Guwahati City	2547736/2541828
Lions Club of Ghy Capital Assam	2522390/2555144
Lions Club of Guwahati Central	2516138
Lions Club of Guwahati Metropolitan	2542939
Lions Club of Guwahati Greater	2542920
Lions Club of Dispur	2564139
Patsons Travels, Dispur	2561841
Rajmalla Deka Welfare Society	2664211

FUNCTION OF THE MEDICAL TEAM: -

1. Pre – Cautionary Measures before, during and post calamities period including all kinds of epidomological situation.
2. To Co-ordinate with Various Govt. Department.
3. To use Medical aid to the affected area and arrangement for first aid to the suffering people. Health Education in the area.
4. To suggest measures for improvement of Medical aid to the Jt. D.H.S. Kamrup
5. To keep sufficient stock of first aid medicals including saline badges and anti – septic drugs. To submit daily report during and after the calamity period

MINIMUM REQUIREMENT FOR DISASTER MANAGEMENT : -

1. Ambulance Van equipped with Oxygen cylinder, first –aid Medicines, Salaine etc.
2. Sufficient stock of medicines, Bandages, Minor Surgical equipments Salanine etc. of the centres. Sufficient nos. of medical & para – medical personnel.
3. Fund for P/O/L and contingencies
4. To fully equip G.M.C.H, A.M.C.H, S.M.C.H, Civil Hospital and M.M.C.H Guwahati during Disaster
- 5.

PRESENT POSITION FOR DISASTER MANAGEMENT: -

1. Total Nos. of Ambulance available- 7 Nos (5 Nos in Block P.H.C & 2 Nos in District H.Q)

2. Stock of first – aid Medicines Bandages, Minor Surgical equipments Saline etc. are very meagre. Medical & Para – Medical Personnels are available
3. No fund available on P.O.L and contingencies

ANNEXURE – XII
ACCESSIBILITY & POL

Sr.No	Name of the Circle	Motorable Road	Req / Availability of POL
1	Nagarbera	Rangjuli Nagarbera Road. Dhupdhara- Hekea- Nagarbera. Chukuniapara- Hekera- Nagarbera.	There are no petrol depot, POL needs to be collected from Boko.
2	Chamaria	Ghy to Boko- Chamaria P.W.D Rd. Chamaria to Sontali.	There are no petrol depot, POL needs to be collected from Boko or Chaygaon Petrol Depot.
3	Boko	Boko- Chamaria PWD Rd. Sukunia- Hekara PWD Rd. Boko (Nabapur) Rupnagar Rd. Boko town- Pairanga PWD Rd. Singra- Tarabari PWD Rd.	Rava High Way Satabdi Service
4	Goroimari	From Ghy to Lampara- Goroimari. Chaygaon- Gumi- Hohua Ghat. Alikash- Kalatolo Rd. Goroimari- Champupara Rd	There are no petrol depot, POL needs to be collected from Boko or Chaygaon Petrol Depot.
5	Chaygaon	NH No – 37. Chaygaon Kulsid Rd. Chaygaon Ukium Rd. Lampara Bakrapara Rd. Chaygaon Gumi Rd. Lamapara Garaimari Rd.	Daibaki Service Station
6	Palasbari	PWD Nahira, Guimara. PWD Dakhala Rd. PWD Jiyakuri amtola Rd. Old A.T. Road	Chandmal Sarawgi & Co
7	North Guwahati	NH NO- 31	M/s Chandal Sarawgi & CO
8	Hajo	From Ghy to Dalibari, Via Dadara Singimari, Damdama, Hajo, Kalitakuchi, Saniadi and Ahdipara to Borni. Dadara to Pacharia to Sessamukh Singimari via Roumari, Gandhmou,	Das Petrol Pump at Hajo Another Petrol Depot is being set up at Baruabari (Hajo)

		<p>and Bongshar to Sualkuchi Bongsor via Bamundi to Dampur. Damdama via Manahhkuchi, Barambaoi, and Ukhura to Dimou. Kalitakuchi via Bullortoop and Chorabori to Bijulighat.</p>	
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Source: Flood Relief Master Plan for Kamrup District 2009

ANNEXURE – XIII**OPERATIONAL GUIDELINES OF WHAT TO DO DURING DISASTERS****11.1 OPERATIONAL GUIDELINES OF WHAT TO DO IN THE EVENT OF A FLOOD**

Do's	Don'ts
<p>Listen to the Radio/ TV/ Public Addressing System for advance information and advice.</p> <p>Disconnect all electrical appliances and move all valuable personal and household goods and clothing out of reach of floodwater, if you are warned or if you suspect that floodwaters may reach the house.</p> <p>Move vehicles, Farm animals and Movable goods to the highest ground nearby.</p> <p>Turn off electricity, gas if you have to leave the house.</p> <p>Lock all outside doors and windows if you have to leave the house.</p> <p>If you have to evacuate, do not return until advice.</p>	<p>Do not enter floodwaters on foot if you can avoid it.</p> <p>Never wander around a flooded area.</p> <p>Do not allow children's to play in, or near, floodwaters.</p> <p>Do not drive into water or unknown death and current.</p> <p>Do not eat food or drink water, which is affected by floodwater.</p>

11.2 OPERATIONAL GUIDELINES OF WHAT TO DO IN THE EVENT OF A CYCLONE

Do's	Don'ts
<p>Listen to the Radio/ TV / Public Addressing System for advance information and advice.</p> <p>Allow considerable margin for safety.</p>	<p>Do not go outside or into a beach during a lull in the storm.</p> <p>Be away of fallen power lines, damage bridges, And structures.</p>
<p>A cyclone may change direction, speed or intensity within a few hours, so stay tuned to the radio / TV for updated information.</p> <p>Tape up large windows to prevent</p>	<p>Do Not go for side sight seeing</p>

from shattering.	
<p>Move to the nearest shelter or vacate the area if this is ordered by the appropriate government agency.</p> <p>Stay indoors and take shelter in the strongest part of the house / society.</p> <p>Open windows on the sheltered side of the house if the roof begins to lift.</p> <p>Find shelter if you are caught out in the open.</p> <p>If you have to evacuate, do not return until advice.</p>	

11.3 OPERATIONAL GUIDELINES OF WHAT TO DO IN THE EVENT OF A HEAT WAVE

Do's	Don'ts
<p>Listen to the Radio/ TV/ Public Addressing System for advance information and advice.</p> <p>Finish the work at the morning or leave it to the evening.</p> <p>Drink Sufficient Water & take Food</p> <p>Keep your head away from the direct heat. Use Clothes, Cap, Umbrella or Glasses</p> <p>Keep Stock water with you</p> <p>Wear light dresses.</p>	<p>Avoid standing under direct sun.</p> <p>Avoid Long Drives.</p>

11.4 OPERATIONAL GUIDELINES OF WHAT TO DO IN THE EVENT OF A DROUGHT SITUATION

Do's	Don'ts
<p>Save Water & Stock Water</p> <p>Arrange for alternate cropping</p> <p>Contact Nearest Agriculture Office</p>	<p>Stop disutility of Water</p>

11.5 OPERATIONAL GUIDELINES OF WHAT TO DO IN THE EVENT OF A TORNADO

Do's	Don'ts
<p>Listen to the Radio/ TV/ Public Addressing System for advance information and advice.</p> <p>Turn off Electricity</p> <p>Keep away from Old, Tall or ditched buildings, electricity wires, slopes and walls, which are liable to collapsed.</p>	<p>Do not run and do not wander round the streets.</p> <p>Keep away from buildings, walls, slopes, electricity wires and cables & stay in the vehicle.</p>

11.6 OPERATIONAL GUIDELINES OF WHAT TO DO IN THE EVENT OF A EARTHQUAKE

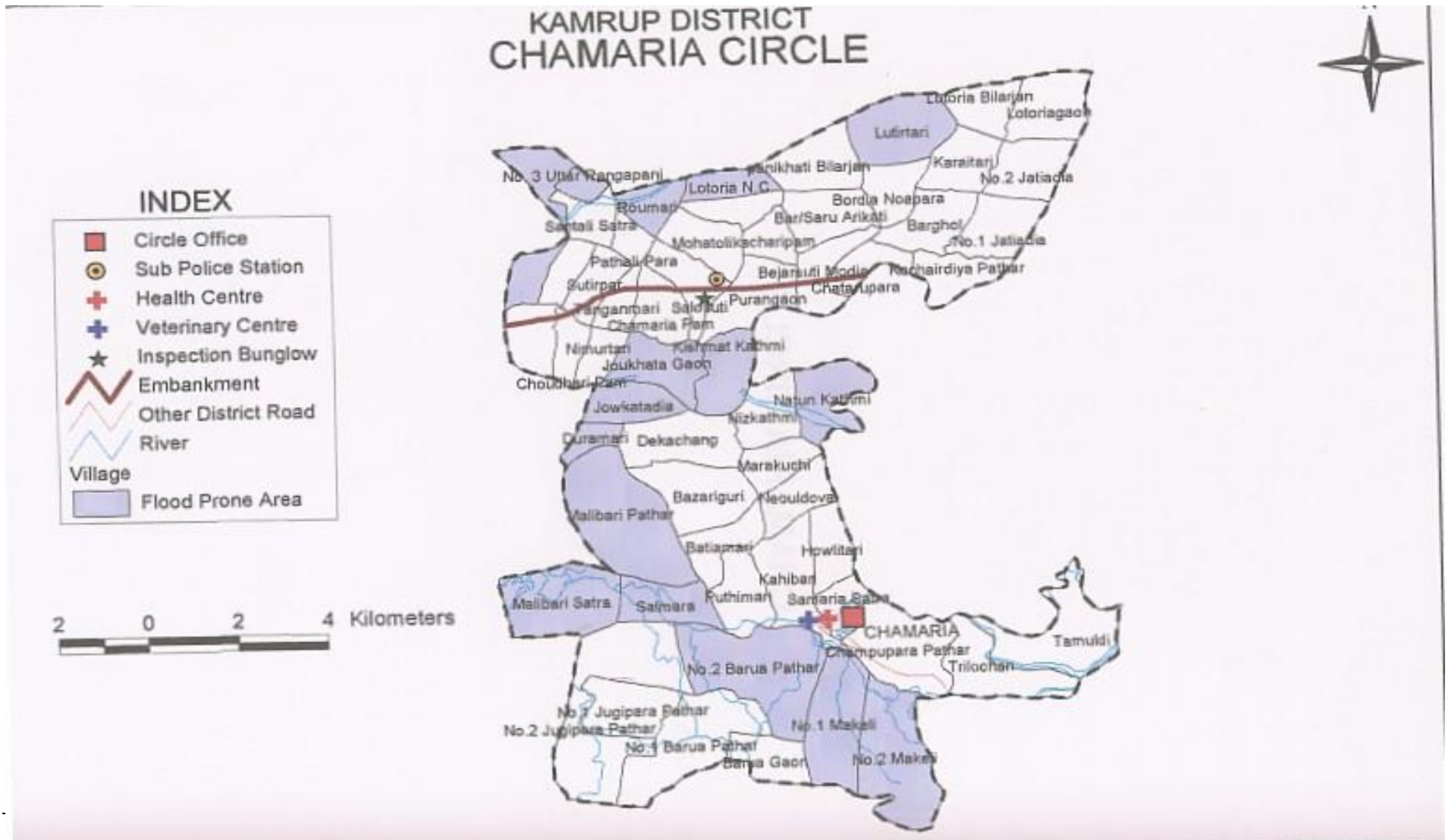
Do's	Don'ts
<p>Listen to the Radio/ TV/ Public Addressing System for advance information and advice.</p> <p>Teach all members of your family how to turn off the electricity, water and gas supply.</p> <p>Protect yourself by staying under the lintel of an inner door, in the corner of a room, under a table or even under a bed.</p> <p>Keep away from Old, Tall or ditched buildings, electricity wires, slopes and walls, which are liable to collapsed.</p> <p>Stop the vehicle away from building, walls, slopes, electricity wires and cables.</p> <p>Live your badly damaged house.</p> <p>Collect water containers, food items and ordinary and facial medicines.</p>	<p>Do not run and do not wander round the streets.</p> <p>Keep away from buildings, walls, slopes, electricity wires and cables & stay in the vehicle.</p> <p>Do not rush to the doors or exits, never use the lifts keep well away from windows, mirrors, chimneys and furniture.</p> <p>Do not rush to the doors or exists, never use the lift.</p> <p>Avoid places where there is a use electric wire and do not touch any metal object in contact with them.</p> <p>Do not re-enter badly damaged buildings and do not go near damage structures.</p>

MAPS OF KAMRUP CIRCLES

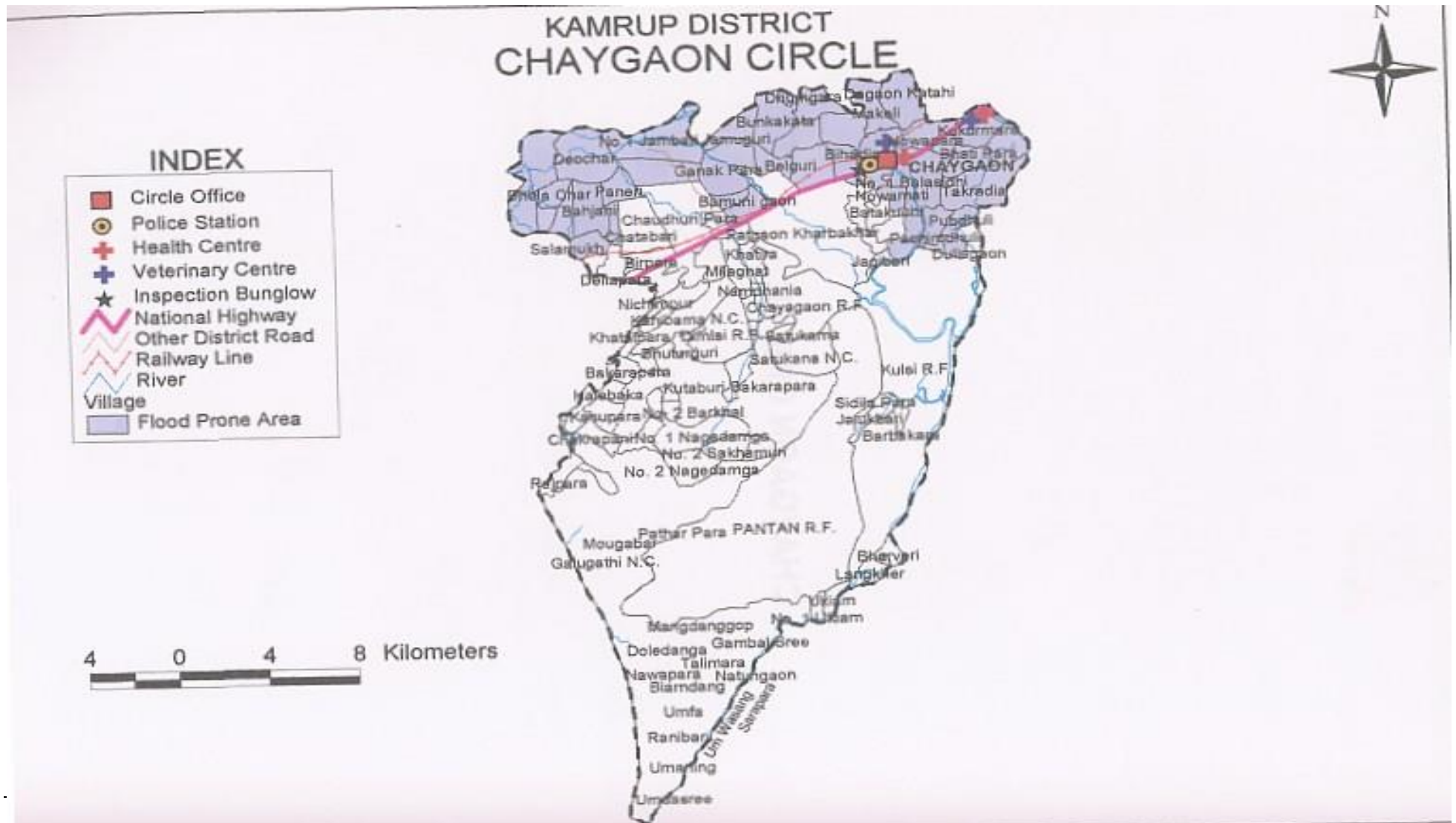


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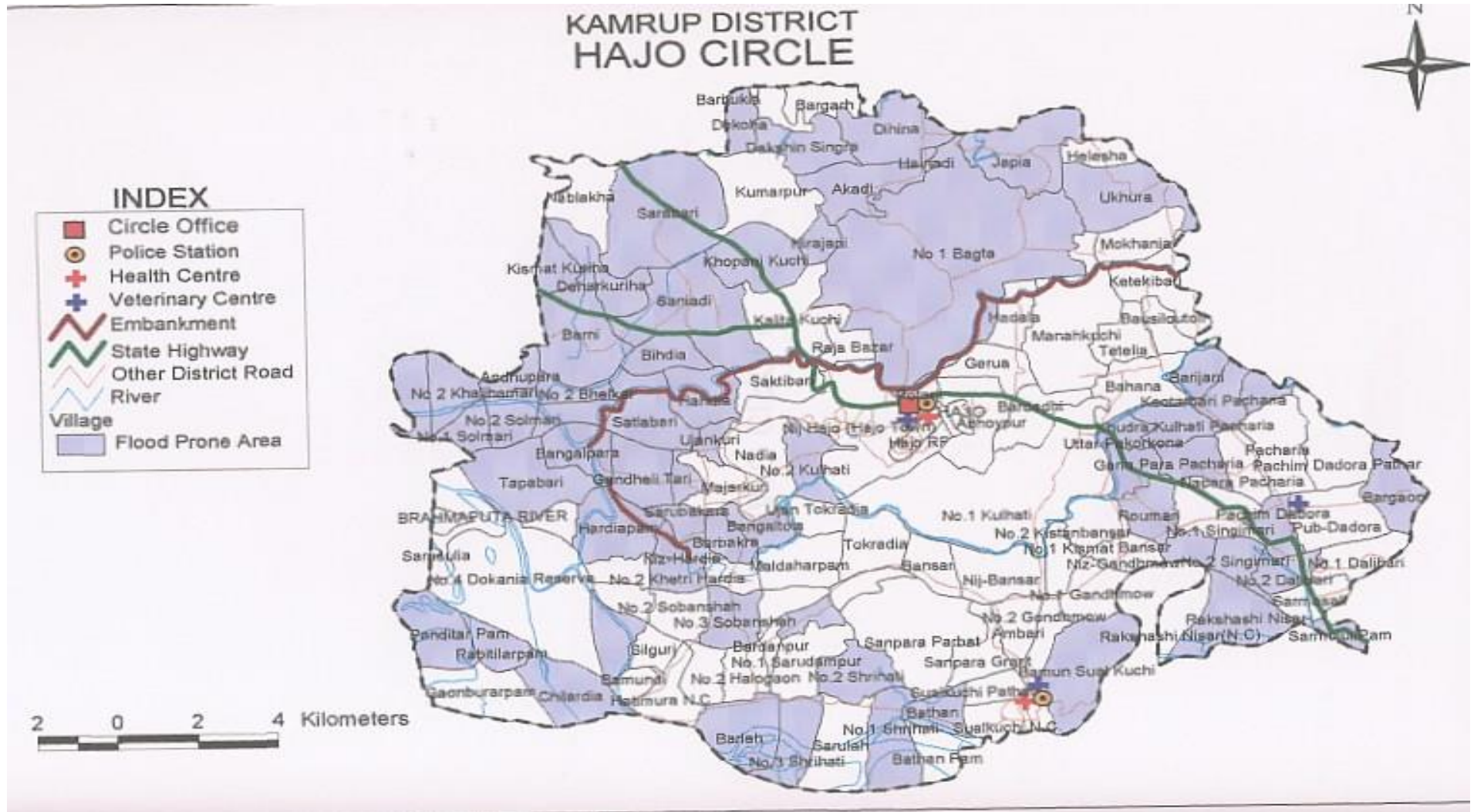


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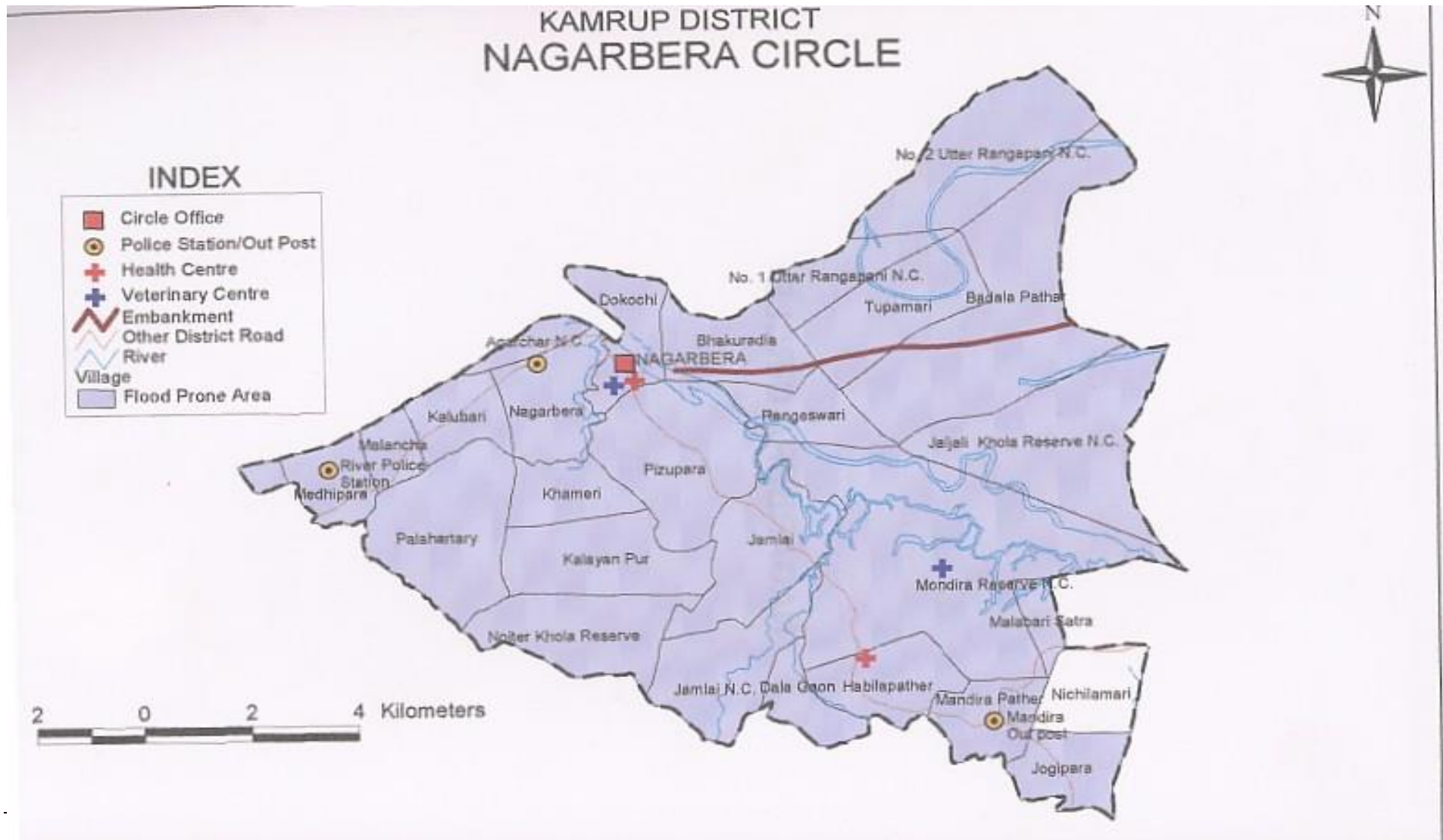
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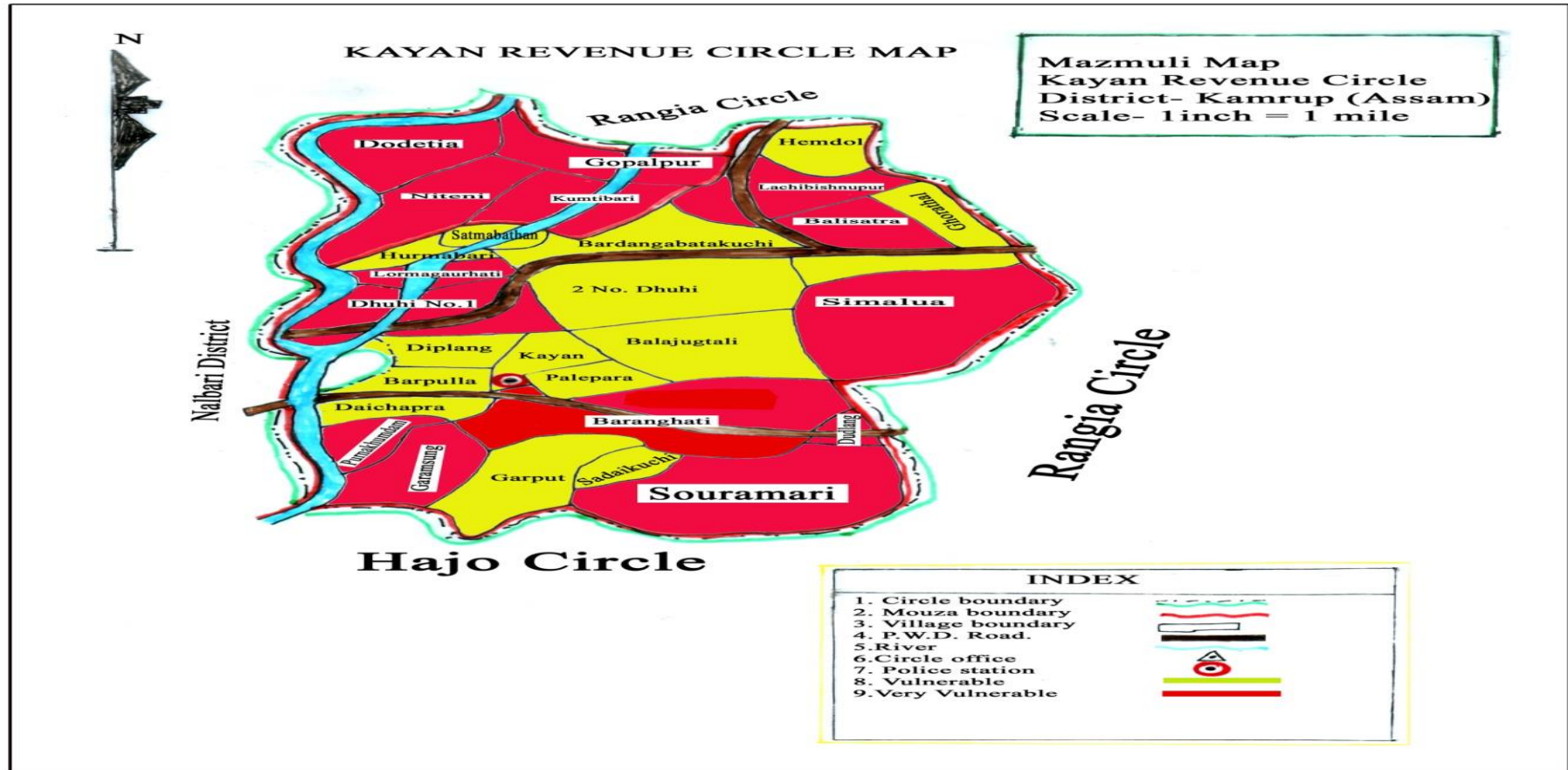
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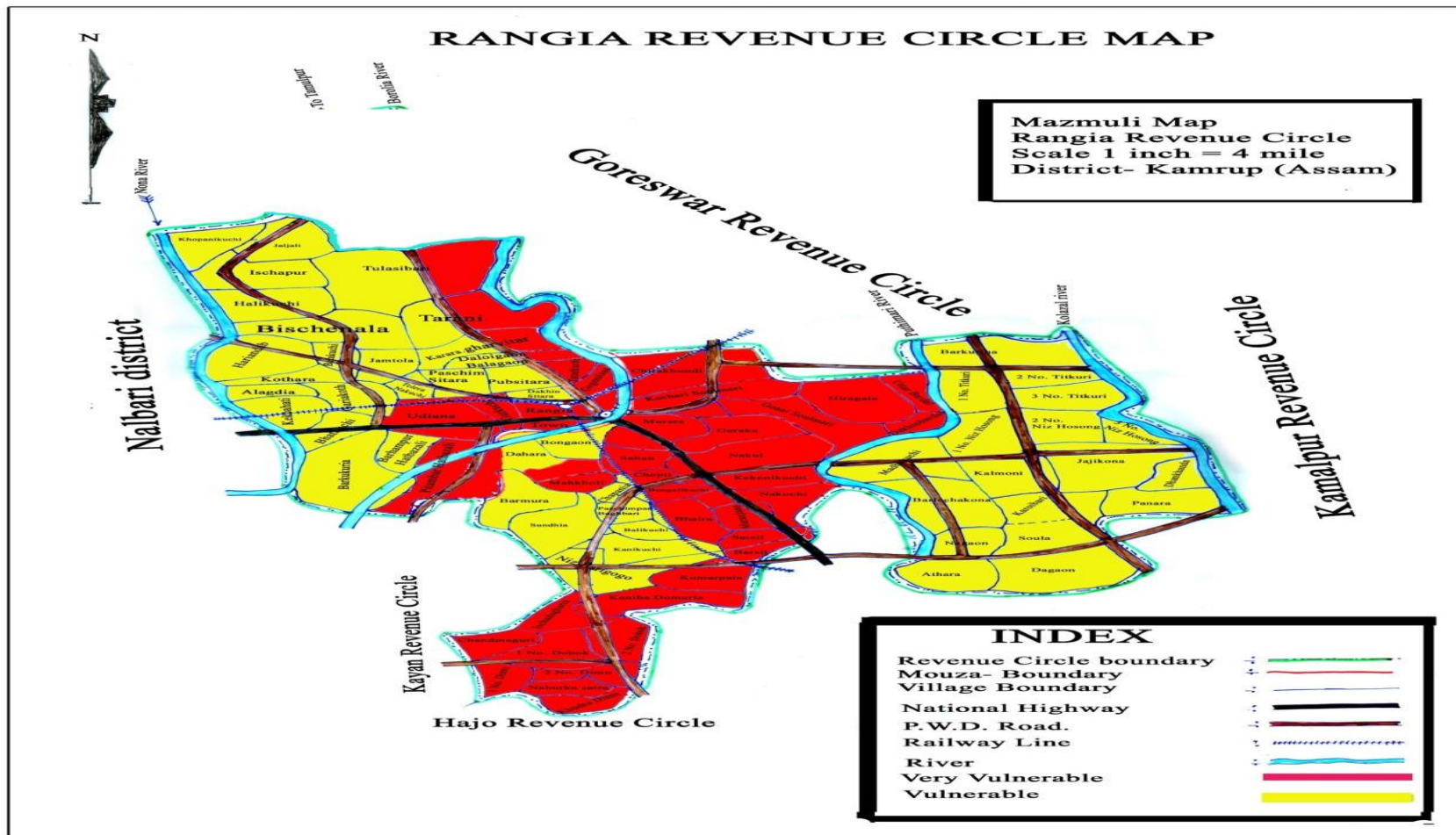


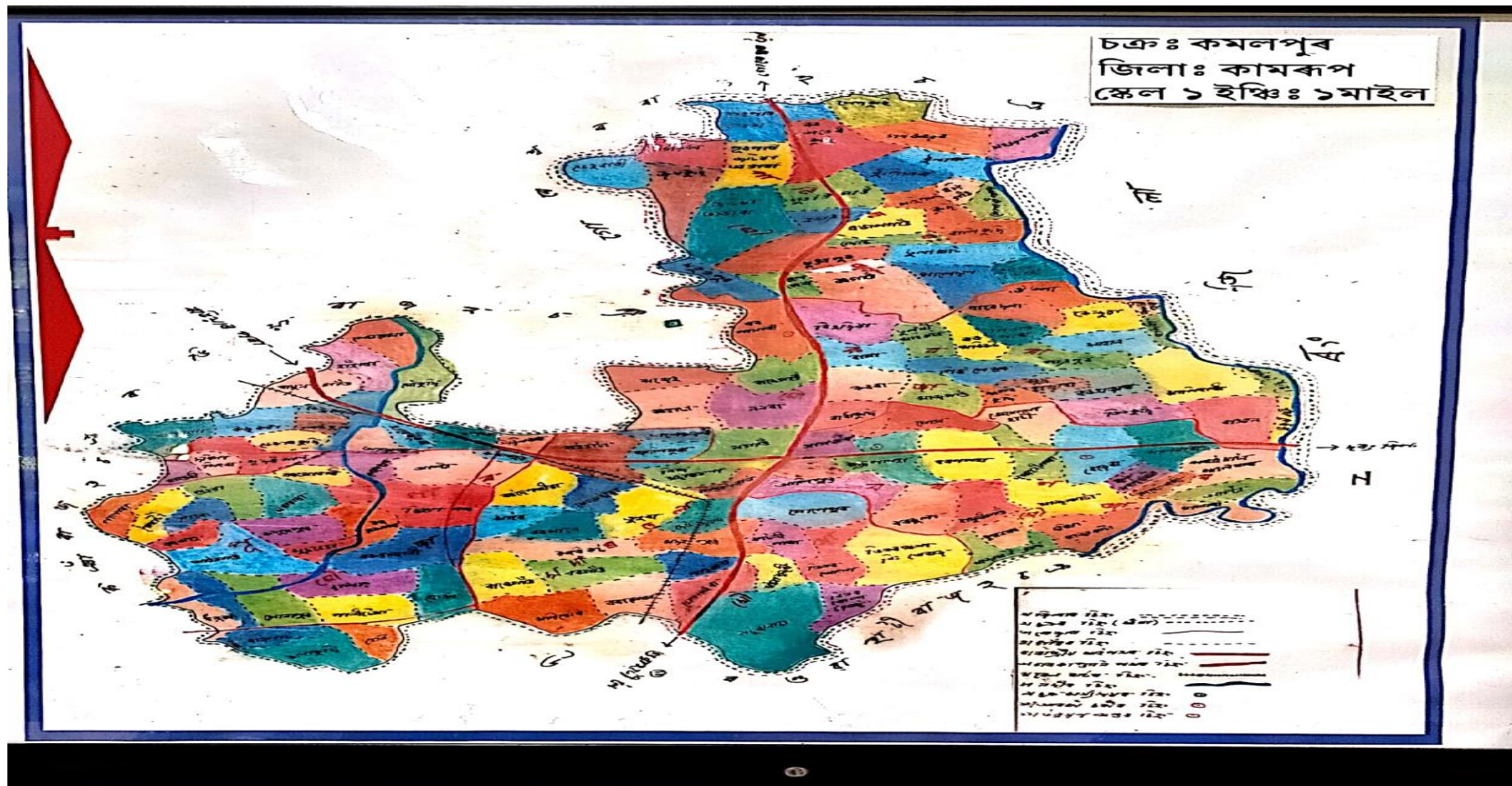
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