DISTRICT DISASTER MANAGEMENT PLAN (DDMP)

SOUTH GARO HILLS

BAGHMARA 2016

OFFICE OF THE DEPUTY COMMISSION & DISTRICT MAGISTRATE, BAGHMARA

FOREWORD

South Garo Hills District Disaster Management Plan is a part of multi-level planning advocated by the Meghalaya Disaster Risk Management Programme an initiative of the Government of Meghalaya. The Plan is prepared to help the District administration not only for effective response during the disaster but also for proactive pre-disaster prevention, mitigation and preparedness.

South Garo Hills District is prone to natural as well as man-made disasters. Earthquake, Cyclone, lightening, thunderstorms, Hailstorm, flood, flash floods and landslides are the major Natural Hazards and fire, road accidents and terrorist activities etc. are the main man-made disasters often faced by the District.

The South Garo Hills District Disaster Management plan includes facts and figures collected from various departments. This District Management plan is unique document of the District Administration and is a comprehensive document which contains various chapters and each chapter has its own importance. The plan consist Hazard & Risk Assessment, Institutional Mechanism, Standard Operating Procedure, Inventory of Resources etc.

It is suggested that the District level officials of different department will carefully, go through the plan and suggestions & comments if any may be conveyed to the District Disaster Authority for necessary updation in the next edition. Basically, format of this plan has been fitted as Der Model framework for DDMP and explanatory note provided by the National Disaster Management Authority (NDMA).

The purpose of this District Disaster Management plan is to provide concrete guidelines towards preparedness and quick response in case of an emergency and assistance in realising sustainable Disaster Risk Management & Mitigate/Minimise the losses in the District during the time of crisis.

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PREFACE

Disaster Management has a great role to play in the present day context. 'Disaster' relates to damage or an extremely bad situation or event which causes a lot of harm, loss of life and property. 'Management', on the other hand, is controlling a situation or event successfully. While Relating this Baghmara phenomena, one can see that this district has seen many disasters in the form of devastating cyclones, heavy floods, landslides, unpredictable earthquakes, etc. The district has also witnessed tremendous cyclonic storms and heavy floods in many of its plain regions. Flash floods and cyclonic storms during monsoons causes great destruction to villages, crops, cattle etc. It is a recurrent feature and hence every year relief measures such as providing drinking water, food, shelter, clothing and supply of medical facilities to deter the calamities are to be augmented. It may also be noted that vital road connections are constructed through the hilly terrain and heavy landslides can cause road blockages which may ultimately lead to shortage of essential commodities. Taking all these into consideration, the District Disaster Management Plan has been prepared for this district.

The main objective of this plan is to fully prepare and envisage management of the situation in the event of devastating disaster and to organize effective disaster measures covering both the urban and rural areas in the district. The plan has been prepared considering every locality under each village headman in the rural and in the urban areas so that they themselves can organize relief and rescue services independently before the outside rescue operation reach their areas. The existing government machineries at the district and the block levels were taken into consideration while preparing this plan. The plan also proposes to utilize the voluntary services of NGOs, elected members such as MLAs, MDCs, MPs, Town Committees, Municipal Board, Village Development Councils, Red Cross, NCCs, Bharat Scouts and Guides and the services of the Civil Defence. The idea of advance warning systems, the use of traditional transportation like Bullock carts, Horse carts are to be included in the plan. The latest mode of communication like the use of mobile phones, WLL, AIR, wireless communication is proposed to be used in the plan.

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ABBREVIATION

- 1. AAI Airport Authority of India
- 2. AC Area Command
- 3. ADC Additional Deputy Commissioner
- 4. AIR All India Radio
- 5. AH&VO Animal Husbandry & Veterinary Officer
- 6. ANM Auxiliary Nursing Midwifery
- 7. ATF Aviation Turbine Fuel
- 8. AWW Anganwadi Workers
- 9. BDO Block Development Officer
- 10. BDMC Block Disaster Management Committee
- 11. BDMP Block Disaster Management Plan
- 12. BIS Bureau of Indian Standards
- 13. BSNL Bharat SancharNigam Limited
- 14. CBOs Community Based Organizations
- 15. CBDM Community Based Disaster Management
- 16. CBDP Community Based Disaster Preparedness
- 17. CD&HG Civil Defence & Home Guards
- 18. CDRN Corporate Disaster Resource Network
- 19. CEO Chief Executive Officer
- 20. CHC Community Health Centre
- 21. CM Chief Minister
- 22. Com. UL Communication Unit Leader
- 23. Com./CUL Compensation/Claims Unit Leader
- 24. CPWD Central Public Works Department
- 25. C&RD Community & Rural Development
- 26. CS Chief Secretary
- 27. CSR -Corporate Social Responsibility
- 28. CUL Cost Unit Leader
- 29. CWC Central Water Commission
- 30. DA District Administration
- 31. DC Deputy Commissioner
- 32. DCMG District Crisis Management Group
- 33. DDMA District Disaster Management Authority
- 34. DDMP District Disaster Management Plan
- 35. DDMF District Disaster Mitigation Fund

- 36 DDRF District Disaster Response Fund
- 37. DEOC District Emergency Operations Centre
- 38 Demob. UL Demobilization Unit Leader
- 39 DM Disaster Management
- 40 DMTs Disaster Management Teams
- 41. DM&HO District Medical & Health Officer
- 42 DP Display Processor
- 43 DPO District Planning Officer
- 44 DRR Disaster Risk Reduction
- 45 DSS Decision Support System
- 46 DTO District Transport Officer
- 47 DUL Documentation Unit Leader
- 48 EOC Emergency Operations Centre
- 49 ESF Emergency Support Function
- 50 Fac. UL Facilities Unit Leader
- 51. FB Finance Branch
- 52 FBD Finance Branch Director
- 53 FOs Field Observers
- 54 FUL Food Unit Leader
- 55. GIS Geographical Information System
- 56 GPS Global Positioning System
- 57. GSU Ground Support Unit
- 58 GSUL Ground Support Unit Leader
- 59 HAZCHEM Hazardous Chemicals
- 60 HF High Frequency
- 61. HQ Head Quarter
- 62 HRVA Hazard Risk Vulnerability Analysis
- 63 IAP Incident Action Plan
- 64 IC Incident Commander
- 65 ICP Incident Command Post
- 66 IDRN India Disaster Resource Network
- 67 IDP -Incident Demobilization Plan
- 68 IEC Information, Education & Communication
- 69 IMO Information & Media Officer
- 70 IMD India Meteorological Department
- 71. IPR Information & Public Relations
- 72. IRS-Incident Response System

- 73. IRT Incident Response Team
- 74. IT Information Technology
- 75. LO Liaison Officer
- 76. L&O Law & Order
- 77. LS Logistic Section
- 78. LSC Logistic Section Chief
- 79. MATI Meghalaya Administrative Training Institute
- 80. MeECL Meghalaya Energy Corporation Limited
- 81. MNREGA Mahatma Gandhi National Rural Employment Guarantee Act
- 82. MPRO Meghalaya Police Radio Organization
- 83. MUL Medical Unit Leader
- 84. MUD A Meghalaya Urban Development Authority
- 85. NCC National Cadet Corps
- 86. NDMA National Disaster Management Authority
- 87. NDMP National Disaster Management Plan
- 88. NDRF National Disaster Management Force
- 89. NEC National Executive Committee
- 90. NEEPCO North Eastern Electric Corporation Limited
- 91. NESAC North Eastern Space Applications Centre
- 92. NGOs Non-Governmental Organizations
- 93. NHAI National Highway Authority of India
- 94. NIC National Informatics Centre
- 95. NO Nodal Officer
- 96. NSS National Service Scheme
- 97. NYK Nehru Yuva Kendra
- 98. ORS Oral Rehydration Solution
- 99. OS Operations Section
- 10 OSC Operations Section Chief
- 101 PHC Public Health Centre
- 10 PHE Public Health Engineering
- 10 PRA Participatory Rural Appraisal
- 10 PS Planning Section
- 10 PSC Planning Section Chief
- 10 PUL Procurement Unit Leader
- 10 PWD Public Works Department
- 10 PWDs People with Disabilities
- 109. QRT Quick Response Team

- 110. RC Relief Camp
- 111. RO Responsible Officer
- 112. RPUL Resource Provisioning Unit Leader
- 113. RUL Resource Unit Leader
- 114. SA Staging Area
- 115. SAM Staging Area Manager
- 116. SAR Search and Rescue
- 117. SBD Service Branch Director
- 118. SDO Sub Divisional Officer
- 119. SDMA State Disaster Management Authority
- 120 SDMP State Disaster Management Plan
- 121. SDRF State Disaster Response Force
- 122 SDRF State Disaster Response Fund
- 123 SDMF State Disaster Mitigation Fund
- 124 SEC State Executive Committee
- 125 SEOC State Emergency Operations Centre
- 126 SMB Shillong Municipal Board
- 127. SOP Standard Operating Procedure
- 128 SO Safety Officer
- 129 SP Superintendent of Police
- 130 SUL Situation Unit Leader
- 131. Sup. BD Support Branch Director
- 132 TB Transportation Branch
- 133 TBD -Transportation Branch Director
- 134 TL Team Leader
- 135. TS Technical Specialists
- 136 TUL -Time Unit Leader
- 137. UC Unified Command
- 138 UHC- Urban Health Officer
- 139 ULB Urban Level Body
- 140 URR Urban Risk Reduction
- 141. VDMC Village Disaster Management Committee
- 142 VDMP Village Disaster Management Plan
- 143 VDMTs Village Disaster Management Teams
- 144 VHF Very High Frequency

Chapter I: Introduction

* Aim and Objective of the Plan

The aim of District Disaster Management Plan is to ensure that all components of Disaster Management are addressed to facilitate planning, preparedness, operational, coordination and community participation.

The purpose of District Disaster Management Plan is to set out Government of Meghalaya's approach to Disaster Management in accordance with the operational and legislative responsibilities of the DM Act 2005 and **Meghalaya Disaster Management Rules 2010.**

District Disaster Management Plan will stand as a high level document outlining the approach to Disaster Management by Meghalaya Disaster Management Rules 2010, Department of Revenue and Disaster Management and allied State Departments. The plan is in alignment of the framework overseeing the following sections: operational, administrative, financial, legal aspects and process. All hazard events, whether natural or man-made the state is vulnerable to, will be managed in accordance with the ASDMP. This Plan will be further supported by hazard specific plans; department wise preparedness, mitigation and emergency response plan; state disaster management guidelines (SDMG).

* <u>Authority to Plan</u>

Section 31 of the Disaster Management Act 2005 provides that there shall be a Disaster Management Plan for every district. The District Plan shall be prepared by the District Disaster Management Authority and shall be approved by the District Authority. Section 30 Para 2 (i) further states that the District Authority may prepare a disaster management plan including district response plan for the district.

This plan is prepared under the provisions outlined in the Disaster Management Act 2005 and Section 10 (State Plan) of **Meghalaya Disaster Management Rules 2010**.

* MANDATORY PROVISIONS OF THE PLAN

Under Section 31 of DM Act -2005 The District Plan:

- 1. There shall be a plan for disaster management for every district of the State.
- 2. The District Plan shall be prepared by the District Authority, after consultation with the local authorities and having regard to the National Plan and the State Plan, to be approved by the State Authority.
- 3. The District Plan shall include-
- a. the areas in the district vulnerable to different forms of disasters;

- b. the measures to be taken, for prevention and mitigation of disaster, by the Departments of the Government at the district level and local authorities in the district;
- c. the capacity-building and preparedness measures required to be taken by the Departments of the Government at the district level and the local authorities in the district to respond to any threatening disaster situation or disaster;
- d. the response plans and procedures, in the event of a disaster, providing for
 - i. allocation of responsibilities to the Departments of the Government at the district level and the local authorities in the district;
 - ii. prompt response to disaster and relief thereof;
 - iii. procurement of essential resources;
 - iv. establishment of communication links; and
 - v. the dissemination of information to the public;
 - vi. such other matters as may be required by the State Authority.
- 4. The District Plan shall be reviewed and updated annually.
- 5. The copies of the District Plan referred to in sub-sections (2) and (4) shall be made available to the Departments of the Government in the district.
- 6. The District Authority shall send a copy of the District Plan to the State Authority which shall forward it to the State Government.
- 7. The District Authority shall, review from time to time, the implementation of the Plan and issue such instructions to different departments of the Government in the district as it may deem necessary for the implementation thereof.

Salient Features

- 1. The plan contains vision, purpose, objectives and the role of District Disaster Management Authority in multi-hazard management.
- 2. The plan makes an assessment of hazard, risk and vulnerability of the district to different types of disasters focusing district specific hazards. District disaster management plans of all the vulnerable villages are reviewed for this purpose. Workshops are conducted throughout district to assess the vulnerability of the villages covering all the 4 regions. A District level consultative workshop of experts from Govt. / NGO's, technical institutions, research organization etc., was conducted to validate the plan.
- 3. The plan includes mitigation strategy and the role of all the stakeholders in the disaster management.

- 4. It explains the Organizational set up, Strategy for Disaster Management Planning, Different Levels of Disaster Management Plans, Hierarchy of Plans and Mainstreaming and Integration of DRR in District.
- 5. It emphasizes on training community efforts, local bodies, Govt. departments and the private sectors.
- 6. Mitigation measures such as structural and non-structural, drought mitigation, coastal mitigation, epidemics, road accidents, fire, industrial and chemical accidents including implementation strategy are explained.
- 7. The preparedness plan includes District Emergency Operation Centre, Incident Command System and modalities of operation of state emergency operation centre and networking with the villages.
- 8. The plan makes an analysis of the existing capacities of the institutions working in disaster management and based on the analysis it proposes the detailed capacity building plan for the state for effective disaster management.
- 9. An important part of the plan is community based disaster preparedness in which preparation of community based disaster plans linking development programmes and the community at decentralized level has been highlighted.
- 10. The plan provides institutional arrangements for implantation of preparedness, prevention, response and recovery. The responsibilities of all the departments within the district before, during and after the disasters have been pointed out.
- 11. The plan indicates tentative budget allocation for training and Information, Education and Communication component.
- 12. It explains the strategy and planning approach for integrating disaster management in development schemes and projects in the district.
- 13. The plan gives SOP, guidelines for CRF, NCCF.
- 14. Contact addresses with telephone numbers of important officers of the state are given at the end.
- 15. The areas covering insurance, departmental plans are yet to be worked out and the departments are to be alerted to prepare the plans.
- 16. The plan highlights the inter-linkages between the departmental plan, district plan and village plan and the responsibilities to be shared among them.

***** Stakeholders & their responsibilities

The DDMA with Deputy Commissioner as the RO and other line departments at district HQ are the main stakeholders in Disaster Management. They are responsible to deal with all phases of Disaster Management (Preparedness, Prevention, Mitigation, Response & Recovery) within the district.

Other technical institutions, community at large, local self-governments, NGOs etc. are also stakeholders of the DDMP. The role of the stakeholders have been prepared with the avowed objective of making the concerned organizations understand their duties and responsibilities regarding disaster management at all levels and accomplishing them.

a) Deputy Commissioner (DC)

- Deputy Commissioner has to Facilitate and coordinate with local Government bodies to ensure that pre and post Disaster Management activities in the district are carried out.
- Assist community training, awareness programmes and the installation of emergency facilities with the support of local administration, non-governmental organizations and the private sector.
- Act as a leader of the team and take appropriate actions to smoothen the response and relief activities to minimize the adverse impact of the disaster.
- He/She can Recommend Relief Commissioner and State Government for declaration of disaster.

b) Different Departments at District level

- Every Government Office or Department should have their own Disaster Management Plan at the District level and inclusion of the following in the Plan:
- Prevention and mitigation measures as provided in the District Plan and as assigned to the department or agency concerned;
- Provisions for taking measures relating to capacity-building and preparedness as laid down in the District Plan;
- The response plans and procedures, in the event of, any threatening disaster situation or disaster;

c) Local Authorities

- Providing the assistance to DC in Disaster Management activities.
- Ensure training to officers and employees on Disaster Management
- Maintaining to Ensure the inventories or resources relating to Disaster Management which is readily available for use in the event of any threatening disaster situation or disaster.
- Carry out relief, rehabilitation and reconstruction activities in the affected area within the district.

d) Private Sector & Corporate

- Encouragement of their active participation in the pre-disaster activities in alignment with the overall plan developed by the DDMA or the DC.
- Adhere to the relevant rules regarding prevention of disasters, as may be stipulated by relevant local authorities.

e) NGOs/CBOs and Volunteer Agencies

- Their duty is to assist during the prevention and mitigation activities under the overall direction and supervision of the DDMA or the DC.
- Active Participation in all training activities organized and should familiarize themselves with their role in Disaster Management.

f) Citizens

The duty of every citizen is to assist the DC or such other person entrusted with or engaged in Disaster Management whenever demanded generally for the purpose of Disaster Management.

* Approval Mechanism of DDMP

As per Section 30 of DM Act 2005, the DDMA act as the district planning, coordinating and implementing body for disaster management and take all measures for the purpose of DM in the district in accordance with the guidelines laid down by the National Authority and the State Authority. Accordingly, the District Plan is prepared by the DDMA, after consultation with the local authorities and having regard to the NDMP and the SDMP.

Plan review and updation

The District Plan shall be reviewed and updated annually as per Section 31 (4) of the DM Act 2005.

Chapter 2: Hazard, Vulnerability, Capacity and Risk Assessment

✤ SOCIO-ECONOMIC FEATURES :-

Agriculture is the main income sources of the District. Some people have business like coal supply, stationary shop in the Municipality area. (Baghmara).

1. OCCUPATION :-

Name of the Blocks		Household					
	Labour	Agriculture	Agri.	Non-Agri	Fishing		
1.	Baghmara	582	837	794	321		
2.	Gasuapara	787	902	817	112		
3.	Chokpot	725	863	760	83		
4.	Rongara	719	778	542	77		
	Total	2813	3380	2913	593		

2. LITERACY RATE:

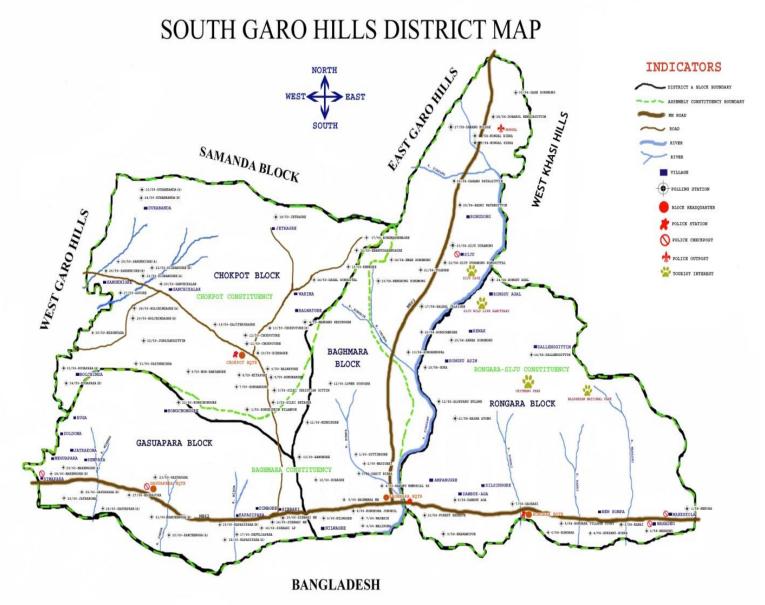
SI.No	Block	Male	Female	Total
1	Baghmara	16402	13513	29915
2	Gasuapara	8839	6918	15757
3	Chokpot	12482	10727	23209
4	Rongara	7280	5901	13181
	Total	45003	37059	82062

***** District Profile

GEOGRAPHIC FEATURES OF THE DISTRICT AND DISTRICT BOUNDARY

The South Garo Hills district lies in the southern part of the state of Meghalaya, and was created on 18th June, 1992. The district is hilly with difficult terrain with its headquarter at Baghmara, the only town in the district. The district is situated between 25°10' and 25°35'N latitudes and 90°15 and 91°0' E longitude. It covers an area of 1887 sq. Km. It is bounded in the North by East Garo Hills, in the East by the west Khasi Hills district, in the West by West Garo Hills district and in the South by Bangladesh. southgarohills.gov.in is your best resource for online information and services regarding the district of South Garo Hills, Meghalaya. South Garo Hills District is divided into four community development blocks (Baghmara, Rongara, Chokpot, Gasuapara) with one Municipal Board to look after the development of rural/urban areas with a total villages of 681 respectively. The district is divided into three Assembly Constituencies viz. Rongara-Siju Assembly Constituency, Baghmara Assembly Constituency and Chokpot Assembly Constituency. The matter concerning the administration including judiciary rests on Deputy Commissioner and matter pertaining to revenues lies with the Garo Hills Autonomous District Council. There is no Panchayati Raj but for the implementation of National Rural Employment Guarantee Act 2005 (NREGA), the Area Employment Councils and Village Employment Councils have been set up in the district. It is an added advantage that all the line departments like P.W.D. (Building and Roads), Irrigation Department, Public Health Engineering Department (P.H.E), Minor Irrigation Department, Forest Department etc have their divisional and circle level headquarters at Baghmara. Agriculture, Horticulture, Fisheries, Soil Conservation, Health and Family Welfare, Statistic and Evaluation and Sericulture Handloom and Weaving, Education Dept., ICDS, CPWD, MRDS (IFAD), Industry Departments have their district and subdivisional level headquarters at Baghmara. This provides an additional infrastructure and readymade set up for administering and implementing various backward district initiative programme.

20 DISTRICT DISASTER MANAGEMENT AUTHORITY, BAGHMARA



SOUTH GARO HILLS DISTRICT AT GLANCE ;-

- * Name of the District
- * No. of Sub-Division
- * No. of Blocks
- South Garo Hills, Baghmara.
- Nil.

:

:

:

- 4 (four) blocks
 - 1 Baghmara
 - 2 Chokpot
 - 3 Gasuapara
 - 4 Rongara

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DISTRICT DISASTER MANAGEMENT AUTHORITY, BAGHMARA

*	No of Rev. Villages	:	595
*	No. of Town	:	1 (one)
*	No. of Assembly Constituen	icy:	3 (Three) 1 58 – Rongara – Siju (ST) L.A.C 2 59 – Chokpot (ST) L.A.C 3 60 – Baghmara (ST) L.A.C
*	Assembly Seat	: -	Three (three)
*	Name of the MP	:	Shri Purno K. Sangma.
*	Name of the MLAs	:	Shri Rophul S. Marak
			Smt. Bluebell R Sangma
			Shri Samuel M. Sangma.
*	No. of Urban Local Bodies	:	1 (one) Baghmara.
*	No. of Police station	:	1 (one) Baghmara Police station.
*	No. of Outpost	:	3 (three)
			1 Chokpot outpost.
			2 Nangalbibra outpost
			3 Rongara outpost.
*	No. of infiltration Check po	st	 6 (six) Gasuapara Dimapara Sibbari Siju Mahadeo Moheskhola
*	No. of CHCs	:	1 (one) Baghmara,
*	No. of PHCs	:	7 (seven) Chokpot
			1 Nogalbibra
			2 Moheskhola
			3 Rongara
			4 Silkigiri
			5 Sibbari
			6 Siju
			v

DISTRICT DISASTER MANAGEMENT AUTHORITY, BAGHMARA

*	No of State Dispensary	:	1 (one) Mahadeo
*	No. of Sub-Centres	:	21 (Twenty one)
	Under Chokpot	:	 Ganchikalak Mitapgre Asakgre Kenegre
	Under Sibbari :		 Gasuapara Dimapara Jatra kona Rugapara Ramchengga
	Under Silkigiri	:	 Silkigiri (Rongsibogra)
	Under Baghmara	:	 Dosogre (mindikgre). Emangre Karukol Nengkong Nilwagre
	Under Nangalbibra:		Rongsa-Awe
	Under Siju Under Rongara	:	□ Rongsu-Agal
	Under Moheshkhola	:	 Dambuk-Aga Balpakram Rongru A.sim Nekora.
*	No. of Leprosy Eradication	:	1 (one) Baghmara,
*	No. of T. B society (RNTCP)		1(one) Baghmara,
*	No. of Fire Stations	:	2 (two) Baghmara Nongalbibra
*	Total Area of the District	:	1887 Sq. kms.
*	Urban Area	•	
*	Geographical Area	:	1887sq. kms

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DISTRICT DISASTER MANAGEMENT AUTHORITY, BAGHMARA

*	Total cropped Area	:	23025 Hac.
*	Net Area for Sown	:	18303 Hac.
*	Cultivable Area	:	12442,, ,,
*	Total paddy Area	:	9346 ,, ,,
*	High land paddy Area	:	540 ,, ,,
*	Low land	:	3815 ,, ,,
*	Medium ", "	:	4891 ""
*	Irrigation Potential	:	Kharif} 823 hac.
	-		Rabi }
*	No. of Irrigation Project	:	4 (four)
	0		Jatrakona, Area Cover 125 Hac.
			Brackchi ,, ,, 600,,
			Rongru A.sim 68,,
			Tainang Area covers 35 Hac.
*	River Gauge	:	
*	No. of the Rivers	:	10 (ten)
			Simsang,
			Rompa,
			Rongdi,
			Kanai,
			Mahadeo,
			Moheskola,
			Nawa,
			Bugai,
			Nitai,
			Dareng.
*	Population (as per 2011 cens	us):	142334,
		:	M – 73170,
			Female – 69164,
*	Literacy percentage of South	Garo I	Hills : 70.41%
*	No. of schools & Colleges	:	
*	No. of colleges	:	1 (one) Captain Williamson
Memo	orial		college.
Baghr	nara.		
*	No. of higher Sec. Schools	:	1 (one) Govt. H/S School,

Baghmara.

- * No. of Secondary schools
- : 34 (thirty four) nos.
- * No of M.E. Schools
- * No. of primary schools
- : 63 (sixty three) nos.
 - 359 (three hundred fifty nine) nos.

Financial Institutions:

*	No. of SBI	:	5 (five)
*	No. of Meghalaya Co-operativ	ve	
	Apex bank	:	2 (two)

Demographic Details

The South Garo Hills has a population of 1,42,574 (2011 census) of which 73,322 are males and 69,252 are females. The hill region is mostly inhabited by the Garos while in the foothills there are Hajong, Koch, Rabha and Boro.

Demography (As per 2011 Census)

	No. of House	Popu			
Name of the Block	Holds	Male	Female	Total	
Chokpot	6938	20647	19831	47416	
Baghmara	8573	26156	24461	59190	
Gasuapara	5037	14480	13736	33253	
Rongara	3979	11887	11136	27002	
Grand Total	24527	73170	69164	166861	

Hazard Risk Vulnerability Assessment (HVCRA):

		Unit/Percentage					
		Area	Population	Impact on	Livelihood	Livestock	
		affected	affected	Life (no of			
		(no/hac)	(nos)	houses)			
	1999	NA					
	2000	NA					
	2001	NA					
	2002	NA					
Flood	2003	1079.8	1771	271	Rs.58,18,009		
Tiood	2004	hac					
	2005						
	2006						
	2009						
	2014						
	1999	NA					
	2000	95 hac	2031		Rs.47,814		
	2001	35			Rs.1,97,250		
	2002	109 hac	495	195	Rs.1,05,750		
	2003	111	540	214	Rs.7,36,800		
Cyclone	2004	132	950	135	Rs.10,55,400		
	2005		4930	139	Rs.87,27,390		
	2006	1299 hac	6576	986	Rs.650,87,250		
	2009						
	2014						
	1999	NA			Rs.4,800		
	2000	NA			Rs.7,000		
	2001	1		1	Rs.6,000		
	2002	1	2	1	Rs.6000		
Fire	2003	NA			Rs.2,30,000		
	2004	5		8	Rs.7,79,080		
	2005	18		28	Rs.3,55,560		
	2006	22		34	Rs.1,98,150		
	2007	8	116	31	Rs.52,41,599		
	1999	8		8			
	2000	10		9			
	2001	NA		-			
Flophont	2002	10		2			
Elephant	2003	80		72			
Depradation	2004	146		150			
	2005	45		10			
	2006	66		62			

* Seasonality of Hazards:

Type of	January – March			April – June			July – September			October –						
Hazards														Dece	mber	
	Н	С	Α	Ι	Η	C	Α	Ι	Η	C	Α	Ι	Н	С	Α	Ι
Cyclone											\checkmark			\checkmark		
Flood										\checkmark						
Earthquake	\checkmark															
Fire													\checkmark	\checkmark	\checkmark	\checkmark
Accident	\checkmark								\checkmark							

H: Human, C : Crops, A : Animal, I: Infrastructure

3. **Risk Assessment** :

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable Areas
Cyclone	April-June	Life, livelihood, crops, livestock, infrastructure etc.	Whole district viz. Gasuapara, Nengkongetc.
Flood	April-June July-Sept	Life, livelihood, crops, livestock, infrastructure etc.	Baghmara Bazar, Karulok, Malikona, Chokpot, Bolsalgre, Rangdokram etc.

Fire	June –Sept	Life, livelihood, crops, livestock, infrastructure etc.	Arapara, Nengbrekgittim, Nengkong, Chokpotgre, Minsi chiringre, Daljagre, Nongalbibra, Balsrigittim, Tainang Karukol, Gagagre, Hangsapal, Mengittim, Horipur, matmagrik, Rongsu agal, Alokpang Nokatgre, Rongrengbibra, Gittingre, Chibrenggre, Chramgre, Eman Songmong, Dareng Akep, Gaobari, Mindikgri, Kokigre, Rekmangre, Bogai, Daramgre, Sempra, Karwengre, Rongma,Dobagre, Siju,
Accident	Whole Year	Life, livelihood, crops, livestock, infrastructure etc.	
Earthquake	Not yet recorded presently	Life, livelihood, crops, livestock, infrastructure etc.	

1. Vulnerability Analysis:

	Vulnerability against each Hazards				
	Cyclone prone area	Flood prone area	Earthquake prone area	Fire area name	Accident area
Road network		BMEroad,Jongkol, Eringri,Mindikgri,Emangre,Siju,Tolegre,Amphangre,DambukAgal,Rongara,Mahadeo,Gulpani,Bibra,RongaraSijuroads,kanai,Panda border rds,Chokpot-SijuandT.DSijuandT.DChokpot rds.			
Water ways					
Water Supply					
Sewage					
Hospital					
Food stock & Supplies					
Communication					
Embankments		Rongru Asim, Nengkong.			
Bridges					

Drinking Water Sources :

Name of	Tube Well				Nos of Tube	PHE stand
the Block					Well	posts
	Government		Private			
	Functional	Defunct	Functional	Defunct		
Baghmara	Functional	-	-	-	18	
Gasuapara	-	-	-	-	-	
Chokpot	Functional	-	-	-	64	
Rongara	Functional	-	-	-	55	

Chapter 3: Institutional Arrangements for DM

On the 23rd December 2005, the Government of India enacted the DM Act which envisaged the creation of NDMA, headed by the Prime Minister; the NEC headed by the Secretary to the Government of India, Ministry of Home Affairs; the SDMA headed by respective Chief Ministers; the SEC headed by the respective Chief Secretaries and the DDMA headed by the respective DCs. The DM Act, 2005 provides for an effective institutional mechanism for drawing up and monitoring implementation of DDMP for prevention and mitigating effects of disasters and for taking a holistic, coordinated and prompt response to any disaster situation. Under Section 78 of the DM Act 2005, powers are conferred to the State Government for making rules to carry out the provisions of this Act and notify such rules in the official gazette.

The institutional mechanism for DM at the District Level, as envisaged in the National Plan and other national guidelines, is as given below:

District Disaster Management Authority (DDMA)

The DDMA under the chairmanship of the DC was constituted as per the Section 25 of DM Act 2005. DDMA acts as the planning, coordinating and implementing body for DM in the District and take all measures for the purposes of DM in accordance with the Guidelines laid down by the NDMA and SDMA. The DDMA will prepare the DDMP and monitor the implementation of the National Policy, the State Policy, the National Plan and the State Plan. The DDMA also ensures that the Guidelines for prevention, mitigation, preparedness and response measures laid down by NDMA and SDMA are followed by all Departments of the State Government and the Local Authorities in the District. As per Section 30, the powers and functions of the DDMA are-

- i) prepare a disaster management plan including district response plan for the district;
- ii) coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan;
- iii) ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities;
- ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district;

- v) give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary;
- vi) lay down guidelines for preparation of disaster management plans by the department of the Government at the district level and local authorities in the district;
- vii) monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;
- viii) lay down guidelines to be followed by the Departments of the Government at the district level for purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance thereof;
- ix) monitor the implementation of measures referred to in clause (viii);
- review the state capabilities for responding to any disaster or threatening disaster situation in the district and give directions to the relevant departments or authorities at the district level for their up-gradation as may be necessary;
- xi) review the preparedness measures and give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation;
- xii) organize and coordinate specialized training programmes for different levels of officers, employees and voluntary rescue workers in the district; facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and nongovernmental organizations.

District Crisis Management Group (DCMG)

As per the State Policy on Disaster Management, 2013 of the Government of Meghalaya a District Crisis Management Group is constituted with the DC as Chairman with the following members:

- i) The Superintendent of Police
- ii) The Commandant of the Battalion Headquarter available in the District
- iii) The Chief Executive Officer, Municipal Board
- iv) The District Transport Officer
- v) The Secretary, Autonomous District Council
- vi) The District Medical & Health Officer
- vii) The Deputy Controller of Civil Defence
- viii) Additional Chief Engineer/Superintending Engineer/Executive Engineer, PWD (Roads)
- ix) Additional Chief Engineer/Superintending Engineer/Executive Engineer, Public Health Engineering
- x) The District Social Welfare Officer
- xi) The Assistant Director, Information and Public Relations
- xii) The Local Area Commandants of the Central Reserve Police Force/Border Security Force Battalion
- xiii) The Members of the Intelligence set up (Central and State) in the Districts

The DPO/ADC in charge Crisis Management Group will be the Member Secretary of the DCMG. The responsibilities of the DCMG will be preparation of the District Crisis Management Plan, to ensure maintenance of law and order during the crisis, to coordinate with the other sub-groups, to ensure timely supply of relief and issue of guidance and direction to set up the control room during the period of crisis.

Duties of DDMT (South Garo Hills) Members

Designation	Responsibilities		
Deputy	◆ Over all planning coordination and supervision of the Disaster		
Commissioner	Management initiatives including Disaster Risk Management		
Commissioner	Programme.		
	 Act as Incident Commander during disaster. 		
Incident	✤ To implement District Disaster Management Programme in		
Commander	consultation of DDMC at district level.		
(South Garo	✤ To direct and coordinate district administration through various		
Hills)	departments and line agencies for the Disaster Management.		
	To set up the District Emergency Operation Centre (EOC) and		
	facilitate setting up of mobile coordination.		
	✤ To constitute DMCs and DMTs at words and village committee		
Chairman	level.		
	✤ To ensure preparedness among communities by generating		
	awareness and building capacities.		
	✤ To ensure community participation in all the stages of disaster		
	operation in order to maintain community morale and confidence,		
	maximize the use of local resource.		
	✤ To reduce the cost of operation and promote a faster recovery.		
	✤ To coordinate activities of voluntary organization and NGOs to		
	ensure community participation.		
	To facilitate DMTs for preparing Community Disaster		
	Management Plans.		
	To procure / hire /purchase/pre-contract material for the DRM.		
	✤ To coordinate with all fields of responses including transit camps,		
	relief camps, feeding centers and cattle camps in an emergency.		
	To facilitate updating of the IDRN and other DM web site.		
	✤ To supervise and monitoring of disaster management and relief		
	activities within the district.		
	✤ To report to the Divisional Commissioner Officer as per		
	notification.		
	✤ To implement district level mock drills at least biannually.		
	Any other as per the need and direction of the Divisional		
	Commissioner of the higher authority.		
Addl. District	✤ To convene DDMA meeting in regular period of times nad		
Magistrate /	circulate the minutes of the meeting among the members.		
CEO (South	To coordinate with the Chairman of DDMA and assist to carry out		
Garo Hills)	any DM activities in the District.		
,	✤ To officiate the DDMA meeting and other proceedings in the		
	absence of DC / Chairman of DDMC.		
	✤ To prepare and send timely report of the DM as well as the		
Convener	minutes of every meeting to the Divisional Commissioner Office.		

	* To facilitate accordination of all line departments in the District for			
	 To facilitate coordination of all line departments in the District for 			
	the disaster management.			
	Any other responsibility as the Incident Commander cum			
	Chairman of DDMA allocates, as per the Disaster Management			
	Act.			
	✤ To ensure that the stakeholders and line departments are carrying			
	out the roles and responsibilities properly.			
	\clubsuit To lobby for disaster management in the policy formulation			
MP, MLAs	meetings.			
CEM	To Oversee and endorse Community Based Disaster Management			
	Plan.			
(GHADC)	✤ To assist the implementation of District Disaster Management			
	Plan.			
	◆ To assist in mass mobilization/campaigns for community			
	awareness.			
Members	\clubsuit To help the Divisional Commissioner during emergency and			
	providing appropriate help especially in the area of warning			
	dissemination, search and rescue, distributing relief material and			
	damage assessment etc.			
Block	 Responsible for disaster management in their own Blocks. 			
Development	 Responsible for disaster management in their own blocks. To coordinate with Deputy Commissioner in all the activities of 			
Officers	the DM carrying out in their own Blocks.			
Officers				
	✤ To facilitate and coordinate preparation of Block Disaster Monogement Block			
	Management Plans.			
	To constitute and coordinate Block Disaster Management Committee.			
Members				
Members	To facilitate preparation of Community/School/hospital disaster			
	management plans in their Blocks.			
	 To exercise Block mock drills at least biannually. 			
	 To report to Deputy Commissioner periodically on progress in the 			
	DM.			
	◆ To head the onsite EOC and its team in rapid assessment and			
	follow up action in time of Emergency.			
	Any other responsibility as the Incident Commander cum			
	Chairman of DDMA allocates, as per the Disaster Management			
	Act.			
All other	✤ To assist the Deputy Commissioner in preparation of District			
members of	Disaster Management Plan (DDMP).			
DDMC (South	 To prepare Disaster Management Plan for his/her own Department 			
Garo Hills)	(DMPD) and the subordinate units of the department like police			
	stations, duty stations, vital installations, schools, hospitals etc.			
	✤ To convey such incidents (DMPDs) to the Emergency Operation			
	Centre (EOC).			
	\clubsuit To provide desirable staff for disasters preparedness among			

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	communities by generating awareness and building capacities.
	✤ To assist in preparation of Community Based Disaster
	Management Plan (CBDM) and training to the DMTs for various
	operations of disasters.
	To organize regular sensitization cum training on disaster
	management for their own departmental staff.
	To constitute/update and train Quick Response Teams (QRTs) and
	Field Response Teams (FRTs) at their department level.
	✤ To coordinate the Support Agencies of the Emergency Support
	Functions (ESFs) and organize periodic meetings.
	✤ To organize Mock Drills in their own departments level and the
	subordinate units level biannually in coordination with the Deputy
	Commissioner.
	To assist the functioning of District Emergency Operation Centre.
	 To coordinate with the Deputy Commissioner during emergency
	and providing appropriate help.
	✤ To report to the Chairman of DDMA periodically on progress on
	disaster preparedness in their department.
	To provide all possible human resource/equipment
	resources/communication resources available in the department to
	the Incident Commander in a disaster situation.
	✤ To provide all possible human resource/equipment resources to the
	Deputy Commissioner for organizing training programmes on
	disaster management.
	To promote the disaster resistant technologies and seismic
	engineering in construction pertaining to the department.
	 To negotiate/implement retrofitting methods for the existing
	vital/lifeline installations under the department.
	Any other responsibility as the Incident Commander cum
	Chairman of DDMA allocates, as per the Disaster Management
	Act.
District	✤ To assist the Deputy Commissioner in preparation of District
Information	Disaster Management Plan (DDMP).
Officer	To update the India Disaster Resource Network
	(www.idm.gov.nic.in) web site and other such web portals
	launched by the government and the district.
	 To prepare Disaster Management Plan for his/her own Department (D) (DD) and assume the presence of t
	(DMPD) and convey the same to the Emergency Operation Centre
Mamhara	(EOC).
Members	To constitute/update and train Quick Response Teams (QRTs) and Field Response Teams (FRTs) at their department level.
	 To coordinate the Support Agencies of the Emergency Support
	Functions (ESFs) and organize periodic meetings.
	 To organize Mock Drills in their own departments level and the
	subordinate units level biannually in coordination with the DC.
	 To assist the functioning of District emergency Operation Centre.

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	To provide all possible human resource/equipment		
	resources/communication resources available in the department to		
	the Incident Commander in a disaster situation and for training.		
	♦ Any other responsibility as the Incident Commander cum		
	Chairman of DDMA allocates, as per the Disaster Management		
	Act.		
Asst. District	◆ To assist the Convener of the DDMA in organizing the		
Project Officer	meeting/reporting and circulating minutes of the meeting.		
(DM) (South	✤ To assist the DDMA Chairman in exercising the day to day affairs		
Garo Hills,	of the Emergency Operation Centre.		
Baghmara)	✤ To assist the Chairman in implementing the DM programme in the		
	district.		
	✤ To assist the Convener of the DDMA in preparing periodic		
Ex-Officio	reports of DM programme in the District and any other		
	documents/reports pertaining to disaster management.		
	 To negotiate with UNDP/NGOs/INGOs/and other bilateral 		
	agencies in implementation of the DM Programme.		
Member	 Any other responsibility as the Incident Commander cum 		
wichibel			
	Chairman of DDMA allocates, as per the Disaster		
	Management Act.		

Incident Response System (IRS)

The Incident Response System (IRS) is an effective mechanism for reducing the scope for ad-hoc measures in response. It incorporates all the tasks that may be performed during DM irrespective of their level of complexity. It envisages a composite team with various Sections to attend to all the possible response requirements. The IRS identifies and designates officers to perform various duties and get them trained in their respective roles.

District Emergency Operations Centre (DEOC)

The DEOC is the hub of activity in a disaster situation in the district. The EOC will have the flexibility to expand when demand increases and contract when the situation comes to normal. The DEOC is connected with the SEOC in the upstream which further connects to NEOC and other EOCs in the downstream including other field offices during emergencies. EOC has been set up in the office of the DC with requisite facilities.

Similarly, at the Sub-Division and Blocks, Control Rooms are to be set up. Sub-Division Committees, BDMCs and the VDMCs headed by the respective Civil Sub-Divisional Officers, Block Development Officers and the Village Headmen are responsible for overall Disaster Management and to keep in close contact with the DEOC/DDMA.

Chapter 4: Prevention and Mitigation Measures

PREVENTION AND MITIGATION STRATEGY FOR DIFFERENT HAZARDS

In this Contingency Plan for Disaster Management in district, basing on past experiences, prevention and mitigation strategy has been developed in Pre, during and Post Disaster days. Flash Flood, Landslide, Fire Accident is some major Natural Calamities, which are experienced in the district very often.

FIASHFLOOD & LANDSLIDE

PRE DISASTER PERIOD

PREPARATION	OBJECTIVE	ACTION
Convening District level Committee on Natural Calamity - in the month of April.	To suggest the list of Relief works to be undertaken, advice on the precautionary measures to be taken, stocking of food articles in strategic or key points.	District Emergency Control Room.
Identification of vulnerable points	 Repairing of bridges. Restoration of damaged Roads and Bridges. Alerting people near highly vulnerable pocket. 	Deputy Commissioner & Addl. Deputy Commissioner [Reporting & Monitoring] RO, Engineering cell & concerned deptt.
Identification & Indent of essential commodities the inaccessible/scarcity pockets.	 Stocking of food grains in the District Headquarter/Block Headquarter 	DC/ADC Food grain stocking and monitoring.
Selection of shelters	Connecting Road Maps, Served Villages with capacity, suitable management.	BDMC/VDMC, PRIs to manage the shelters through local management.
Requirement of medicine and life saving drugs, earmarking mobile teams, identifying probable epidemic area	Stocking of medicines	DH&MO
Checking operation of already installed VHF systems	To operate effectively	Technocrat of Police Signals
Monitoring	To take stock of overall situation	Deputy Commissioner & Chairman

IMMEDIATE PRE- DISASTER

PREPARATION	OBJECTIVE	ACTION
Receipt of Information	 From IMD/ SRC Control Room/Rev. Control Room by District Control Room. From Control Room of other District Also from News Bulletin of All India Radio & Local Cable. From Internet Website 	District Emergency Control Room.
Dissemination of Information	From DECR to All ADC/EAC/BDOs/ All Line Departments/GPs	DCR [Emergency], ADC/BDO/ All Line Departments.
Immediate setting of Control Room round the clock & making it functional.	 All Line Departments, ADCs /EACs / BDOs 	DCR [Emergency] (SOP of DCR in Page), Head of Line Departments, ADCs/EACs.
Rescue and evacuation	To evacuate vulnerable people to identified shelters for the time being and logistic arrangements for the shelters	Police personnel, Armed Forces, NGOs & CBOs, District Fire officer, Disaster management Volunteers [group formation to be done & area of operation be specified, kept in readiness with rescue kits which are to be made available to them. Coordination ADCs/ RO & Line Deptt.
Arrangement of Free	To provide immediate fooding to the	ADCs/Disaster Management
kitchen Sanitation and medicine	evacuees.	Committee/NGOs. DH&MO / Executive Engineers of PHED.
Requisition of sufficient numbers of vehicle, Light/ Medium/Heavy.	To be kept in readiness with proper POL	Transport RTO & ADCs
Immediate freezing of 75% stock of POL Bunkers in the district,	POL is to be used during the time of Disaster followed by scarcity.	Deputy Commissioner / Chairman
Arrangement of Road Cleaners/Power saw etc	To clean the road, Cut the fallen trees and remove the garbage	RTO, R&B, Executive Officer-ULB, Power saw placed by Civil Defense to be arranged with mechanical division - R&B, to be arranged.
Trucks loaded with the Generators	To move to the field immediately after the disaster is over	RTO

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DURING DISASTER

PREPARATION	OBJECTIVE	ACTION	
Alertness & Remain in readiness to gear up in action immediately after the disaster is over	Collecting information from all sources.	All Actors in Disaster Management	
Control Room to Functioning Day & Night	Receiveandgiveinformationonlatestdevelopment.	District Control Room, All Line Deptt. All Sub- Collectors, BOs, GPUs.	
Monitoring	To stake of overall situation	Collector at District levelSub-Collectors at Sub-Division level & Line Deptt.	

POST DISASTER

FOLLOW UP ACTION	OBJECTIVE	ACTION	
Distribution of Relief/ Emergent Relief as per the provision of SRC.	To provide immediate fooding to save affected people from starvation	ADM,SDM,BOs,DisasterManagementCommittee& Teams,Other non-Govt. agencies.	
Assessment & enumeration of damage	To ascertain the exact loss for projection before Govt.	All line Departments/BDOs Coordination - Superintending Engineers, ADCs.	
Monitoring Relief Operation organized by outside agencies /UN Agencies/Red Cross/ NGOs / WHO/ other states etc through District Administration.	To maintain uniformity of Relief administration.	Collector, Additional Collector, Sub-Divisional magistrate at Sub Divisional level, Line Deptt. NGOs.	
Restoration of Communication - Roads & Bridges.	For timely and prompt delivery/transportation of relief articles/deployment of rescue team	Executive Engineers of R&B, Rural Works, Military &Para Military Forces, Police personnel.	
Restoration of Electronic communication system.	Ensure proper coordination linkage	DivisionalEngineerVSNL/TechnocratofPolice Signals.	
Immediate arrangement of free kitchen in the cutoff/ shelter camps and inaccessible areas.	To avoid starvation and further deterioration both health and environment	ADCs, BDOs, BDMC, VDMC & teams.	

Ensuring transportation of Relief Materials to affected pockets.	To reach immediately after abatement of calamity with helping hands for development of confidence among affected people.	Deputy Commissioner / Addl. Deputy Commissioner/ BDOs/RTO
Ensuring safeguarding of belongings of the evacuees & maintenance of Law and Order.	To prevent anti-social activities	Superintendent of Police, (South), Civil Defense Authority, NGOs, CBOs.
Provision of Medical facilities and Minimum sanitation.		
Removal of debris and disposal of carcasses.	For environmental equilibrium	Police personnel, Disaster Management Committee, NGOs.
Helping the evacuees to return to their homes.	For settlement of the evacuees with their belongings after normalcy	ADC, BDO, Disaster Management Committee.
Meeting Officers of both District level and Field level in every 24 hours to take stock of the situation.	For better coordination and cordial carrying of every kind of relief operation and to ascertain the progress thereof.	DC, ADM, Line Deptt.
Collection of Information by a core group of DCR headed by District Collector and submission of daily situation report to Govt./SRC/ through District Collector Keeping liaison with field and state Govt. and interaction.	Triangular linkage between Field, District and State Control Room and other State level Officials for taking further follow up actions on war footing.	Addl. Dist. Magistratge(s), DDO, BDOs, NGOs, CBOs.
Documentation of the entire event - Black & white/Audio & Video.	To assess/apprise the situation to different Central/State level dignitaries of the event and official record.	BDOs
Monitoring	To take stock of the day to day activities, sort-out bottlenecks for proper implementation of relief/ restoration/rehabilitat ion programme	DC, ADMs, BDOs & Line Deptt.

* Mitigation Measures (for all disasters)

Mitigation refers to all measures undertaken in anticipation of a possible threat/hazard. These may include both structural and non-structural mitigation which aim at reducing the physical and socio-economical vulnerability, enhancing capacity and reduce damaging impacts of disasters.

Structural mitigation may refer to both - engineered structures and nonengineered structures. Engineered structures involve architects and engineers during the planning, designing and construction of structures, including buildings, dams, embankments, roads, bridges etc. Many countries have rules and laws providing codes for engineered construction. These codes provide guidelines for appropriate design and construction techniques in disaster prone areas for specific disasters such as earthquakes and cyclones.

Non-engineered structures are generally constructed by people with the help of local artisans like masons, carpenters etc using locally available raw materials. These structures are normally of low-cost but have less strength/resistance for a disaster.

Non-Structural mitigation encompasses those measures that attempt to bring about coordination of efforts between all organizations and persons during all phases of Disaster Management, training and public awareness, legislation, policy making, preparation of action plans etc.

* Multi-Hazards Mitigation Actions

The following structural and non-structural measures may also be considered in addition to hazard specific actions.

***** Structural Mitigation Measures

It is immensely important for the planning community to respond towards disaster management positively. The Master Plan should clearly come out with provisions prescribed in the amended legislations related to disaster management. Urban disaster management is intimately connected to the wholesome process of urban development and therefore needs a sincere incorporation in the development planning itself. The industrial relocation/location, unauthorized-regularization issue, slumming, over densification and continuous influx of population are some of the open concerns and these besides being a planning challenge are a concern for disaster management. The district shall take steps for structural mitigation for disaster management. The departments that are associated with development of residential and commercial plots shall stick to the NOC norms. The Building Codes shall be strictly enforced in the district. Only seismically oriented engineers, contractors and masons shall be given certificates for multi storied constructions. Simultaneously retrofitting will also be promoted with expert advice. The two possible structural measures for disaster protection are

• Retrofitting of the existing buildings and

* Non- Structural Mitigation Measures

The entire Meerut falls in earthquake Zone-IV, which indicates it is at high risk to earthquake. In addition to this fire is also a major concern for the district. The non structural

mitigation is basically framed in such a way that the whole population of the district will be

sensitized on disaster management and their capacity shall be developed to cope up with hazardous situations.

Specific Hazard Mitigation Actions

In addition to the multi-hazard mitigation actions, the following hazard specific mitigation actions should be taken depending on the vulnerability of the village/block

TYPE OF	POTENTIAL	VULNERABILITY	VULNERABLE
HAZARD	IMPACT		AREAS (District)
F L A S H F L O O D	Loss of crop, infrastructure, human and bovine life, livelihood system ,houses, Pvt. Public property etc	 Communication network. Road network Road network Telephone connections. Private Infrastructures. Kutcha Houses, Semi Kutcha Houses. Agriculture. Crop & Others. Irrigation Sources. Private LI- Points, Govt. LI-Points. Electrical Installations. Drinking Water sources Streams and ponds, PHD/ Rural water supplies, Stand Posts Educational Institutes. Primary Schools, High Schools, Colleges. 	Whole of District

		Live stock. Cows, Buffalos, Goats/Sheep, Poultry Farms,	
		 Vulnerable People. Handicapped, Old/Aged Sick and ailing/diseased, Pregnant, Children aged below 5 	
		 Other vulnerable assets. Embankments, Handloom Units Minor Irrigation Channels, cardamom plantations, Hydro- project. Small scale industries, Textile Units, orchard plantation. 	
DROUGHT	Loss of crop, livelihood	Crop Loss, Drinking water scarcity.	Whole of District
L A N D S L I D E	Loss of crop, infrastructure, human and bovine life, livelihood system, houses, Pvt. Public property etc	 Communication network. Road network of the effected block Telephone connections. Private Infrastructures. Kutcha Houses, Semi Kutcha Houses. Agriculture/Horticulture. Crop (estimated Area), Others. Irrigation Sources. Private LI- Points, Govt. LI-Points. Electrical Installations. Drinking Water sources. Stream, pond, PHD/ Rural Supplies Water supplies. Educational Institutes. Primary Schools, M.E. Schools, High Schools. Colleges. Live stock. Cows, Buffalos, Goats/Sheep, Poultry Farms, Vulnerable People. 	

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	I C	~ 0 $\cdot \cdot \cdot$ \cdot 1	
	Loss of	Communication network.	
	property/Forest	Road network	
	area/loss of	Telephone connections.	
C Y	animal and medicinal plants	Trivate Infrastructures.	
С		Kutcha Houses, Semi Kutcha Houses.	
		Agriculture.	
		Crop & Others.	
Ν			
E		Vulnerable People.	
		Handicapped, Old/Aged	
		Sick and ailing/diseased, Pregnant,	
		Children aged below 5	

Chapter 5: Preparedness Measures

Disaster preparedness refers to measures taken to prepare for and reduce the effects of disasters. Preparedness is the state of readiness to deal with a threatening disaster situation or disaster and the effects thereof. The preparedness level at the District has to be checked by the DDMA.

* Stakeholders involved in disaster response

Responsibility of Disaster Management lies with the District Disaster Management Authority. Stake holders like the different Departments of the Government, Local Authorities, NGOs and Community have to support the DDMA in all its efforts for effective management of disasters.

* Response and evacuation of disabled

Immediately after a disaster the following actions are to be taken for disability-related responses-

- PWDs ha to be Evacuated to the safe shelter with care.
- Existing disabilities has to be Identify.

- Persons with disabilities has required specific health care needs such like insulin for diabetics, soft mattresses for people with spinal cord injuries and spectacles for people with low vision.
- Transfer people with severe injuries and/or newly acquired disabilities to referral centers for medical rehabilitations. In settings where such centers do not exist, efforts should be made to ensure that such persons are treated by specialists in existing facilities.
- Multi-disciplinary task force has to be preparing for a long-term rehabilitation program, taking into consideration the resources available and economic conditions of the district/state.

Activation of IRS

The DC being the head of the district and chairman of the DDMA is designated as the RO of the district. The DC may delegate some of the functions to the ADC for the day to day supervision and management of the incident. However, he will remain fully briefed by the DEOC and IC and be aware of all developments and progress of response activities at all times. The hierarchical representation of RO is shown at Fig. 1

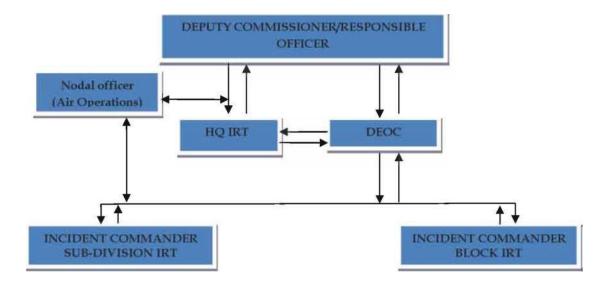


Fig.l: Hierarchical representation of RO

All the heads of different departments in the District will have to play separate roles depending on the nature and kind of disaster. The roles and responsibilities of the members of the DDMA will be decided in advance in consultation with the concerned members. The roles of other line departments also have to be clearly delineated in various disaster situations in the DDMP which will be duly approved by the State Government, so that there will be no ambiguity about their functions during response

Protocol for seeking help from other agencies like Army, Air Force & Central

Paramilitary Forces, NDRF and SDRF 5.4.1 Army, Air Force & Central Paramilitary Forces

The Chairman of the DDMA will write to the Government in the Revenue and Disaster Management Department for requisition of Army, Air force & Central Paramilitary Forces which will take up the matter with the concern Ministries.

* National Disaster Response Force

The NDRF Battalion/Team can be requisitioned by the DDMA directly in cases of rapid onset disasters where early warning/alerts is not available and through the Director General, NDRF and NDMA in cases where sufficient lead time is available. The DDMA will maintain close liaison with the NDRF Commander, Guwahati for rapid deployment in case of threatening disaster situations/disasters.

***** State Disaster Response Force

The Chairman of the DDMA will write to the Government in the Revenue and Disaster Management Department for requisition of SDRF which will take up the matter with the Director General of CD&HG.

***** Mechanism for checking and certification of logistics, equipments and stores

The Logistic Section Chief (LSC) is responsible for checking and certification of logistics, equipments, stores and for all logistics arrangements.

✤ Operational check-up of Warning Systems & EOC

Operational check-up of EOC should be done twice a year. Equipments especially communication equipments should be checked and tested regularly with the assistance of the MPRO.

***** Command & Coordination

The DC/RO will convene a coordination meeting regularly with all the stakeholders including the NGOs for effective management of disaster and for preparedness of South West Monsoon and Cyclone seasons.

Community Preparedness

Community is one of the most important stakeholders and also the first responders to any disaster, hence, community preparedness plays a very important role in – $% \left(\frac{1}{2}\right) =0$

✤ Community warning system

IMD is responsible for warning of thunderstorm, cyclone and earthquake and the DDMA/ DEOC will warn the public through the Information & Public Relations Department to the BDOs for further information to all the Village Early Warning Teams. After receipt of warning, the teams shall communicate the message to the concerning people of the areas by sound system or any locally available resources. The DDMA/DEOC shall ensure fail safe mechanism for timely dissemination of forecasting and warning of impending disaster to the community

Community awareness, education

Awareness and education programmes on DM are conducted regularly under the supervision of DDMA & BDOs by involving the community al the village levels.

***** Community's responsibility

The Community should not only support the DDMA but owned the responsibility for effective DM at their level. Their responsibilities are -

- To promote community education and awareness.
- Training and capacity building in Search & Rescue, First Aid and conducting Mock Drills.
- Preparation of Community/VDMP through participatory approach along with formation of DM teams.
- Provide necessary resources and support for disaster risk reduction at community level.
- Disseminate information to community to deal with any disaster situation and take appropriate actions to enhance community preparedness.
- Take additional care for the most vulnerable sections like children, disabled, aged Etc.

Standard Operating Procedures (SOPs)

- Arrangements for VIP visits: VIP visit to any affected areas is important to build confidence on the people after a disaster. However, minimum protocol requirement is to be maintained so that it will not affect the relief and response operations.
- Procurement: Resources have been updated in the IDRN website. However, procurement of resources like tents, blankets, tarpaulins, equipments etc during disasters will be done by the Procurement Unit Leader. Emergency procurement of resources can be made by the DDMA as per Section 50 of the DM Act, 2005.

* Knowledge Management

- Documentation of disasters and to make it available in easy accessible format Undertake research studies and application of outcomes in disaster management practices
- Documenting field data, experience and indigenous technological knowledge from local community
- Development of plan by using available resources like IDRN.
- Sharing of data/information/reports/proceeding through consultation meeting/ seminars etc.
- Use of Information and Communication Technology at DEOC.

India Disaster Resource Network (IDRN)

IDRN, a web-based information system is a nation-wide electronic/on-line inventory of resources like equipment, skilled human resources and critical supplies collected from all departments in the district. All resources from different departments at the district have been uploaded and updated regularly.

***** Corporate Disaster Resource Network

CDRN, a web-based supply chain management system that helps relief agencies or response agencies and local government to access and feed in real time information on products and services required for humanitarian relief.

* Media Management/information dissemination

Media plays a very important to check rumour and panic, hence, Media Management System and proper coordination with the DDMA is necessary. The main roles of Media are informative, suggestive and analytical. The IPR Department is responsible for Media Management.

Chapter 6: Capacity Building and Training Measures

A number of training program shall be and are already being organized for specialized groups like, district DMTs, sub division and community level office bearers, school teachers and principals, architects, engineers, doctors, masons, etc. The professionals from all departments and sections shall be trained.

All the volunteer based organizations (VBOs) like Civil Defence, NYKS, NSS, NCC etc in the district, which have thousands of volunteers working with them will also be sensitized and given training on disaster management. Besides, RWAs and NGOs in the district will also be given training on disaster management. All the VBOs, RWAs and NGOs shall also b encouraged and supported to organize awareness campaigns in their areas. These havebeen identified as organizations which can help percolate the idea deeper into the society.

Search & Rescue/First Aid training and Mock Drills are the priority of the DDMA which is imparting by CD&HGs. Gender and Disaster awareness is also one of the components in Capacity Building along with preparation of DM Plans by all stakeholders.

> Approaches towards Capacity Building

The approaches of the DDMA are proactive in prevention, mitigation and preparedness and follow a holistic and integrated approach in dealing with disasters.

- Holistic approach is about integrating all aspects of disaster management like preparedness, response, recovery etc with sustainable development.
- Integrated approach is about involving all stake holders, the Government, NGOs and the community with DM.
- CBDM/CBDP approach is about involving the community in every aspect of disaster management planning. Involving communities in disaster preparedness programs provides a venue for these communities to implement their own solutions thus inculcating ownership and an increased probability of sustainability.

Capacity Building Plan

Training & Awareness

Task	Activity	Responsibility
	Sensitization to Representatives & law/ policy makers Sensitization & training to government officials of different departments	Revenue & DM Department, SDMA, DDMA
	• Training to CD&HGs personnel in various aspect of DM including Search and Rescue & First Aid	Revenue & DM Department, SDMA. DDMA.
	 Training to engineers, architects, structural engineers, builders and masons in various aspect of DM Training of doctors & paramedics on Medical preparedness & 1 	DDMA, PWD and all
Training &		DDMA, Health Department
Awareness	• Training to educational institutions, teachers etc on College/School Safety, Search & Rescue, First Aid	DDMA, Education
	• Training to Police and Traffic personnel in various aspect of DM	DDMA, Home Department
	• Training to Fire & Emergency personnel in various aspect of DM	DDMA, Home Department
	 Training to NCC, NSS, NYK & volunteers in various aspect of DM Training to NGOs/CBOs in various aspect of disaster 	DDMA
	management	DDMA
	• Training to Media in various aspect of disaster management	DDMA, IPR

> Community Based Disaster Management

Taking into account the negative impact of the natural disasters in the district and as Community is the first responder to any disaster and the first to be affected. Defining community is the first step towards community preparedness and stressed that any strategy must focus on the community and its problems for effective implementation of the programme. Community is one of the most important stakeholders in DM. Therefore, effective participation of the community which includes all sections of a society is emphasized to capacitate the community and increase their preparedness level so that loss of life & property can be reduced. The concept of putting the communities at the forefront gives rise to the idea of CBDM. The community needs to be empowered for coping with disasters and as well as the need to mobilize their capabilities and capacities for effective DM. It is also known that the local communities have an active part to play in all phases of disasters because:

- A good state of preparedness by the community before a disaster strikes may reduce its impact.
- The Community can save more number of lives during the golden hours after a disaster strikes till the arrival of external help.
- The Community can effectively address the issues of water and sanitation, health, rehabilitation etc in more organized way.

Task	Activity	Responsibility
	• Identification of vulnerable community & vulnerable groups keeping in mind the gender issues	
	Information on risk & vulnerability	
	• Encourage preparation of DM plan through PRA	
Community Preparedness	• Advice and issue direction wherever necessary for community disaster prevention, mitigation and preparedness through local resources and participatory approach	DDMA, BDOs
	Provide necessary resources and support for DRR at community level	
	• Review the preparedness at community level	
	• Promote community preparedness, education, awareness and training	
	• Ensure fail safe mechanism for timely dissemination of forecasting and warning of impending disaster to the community	
	• Disseminate information to community to deal with any disaster situation	

Chapter 7: Response and Relief measures

Response is the set of activities implemented after the impact of a disaster in order to assess the needs, reduce the suffering, limit the spread and the consequences of the disaster and open the way to rehabilitation. Response planning provides rapid and disciplined incident assessment to ensure a quickly scalable, adaptable and flexible response. It also defines the roles and responsibilities for incident response across all levels of the government and private sectors.

The District is in the process of adopting the Incident Response System (IRS) of the Govt, of India to respond to any disaster.

The Incident Action Plan (IAP)

Management of every incident needs an action plan and proper briefing of all personnel. The purpose of the action plan and briefing is to provide all concerned personnel with appropriate directions for the various tasks in hand. Before taking up response activities, the RO/IC will need to take stock of the situation, availability and mobilization of resources for listing out the various tasks and to provide proper briefing to the responders. For this, RO/IC will need to hold a proper briefing meeting at the beginning of each operational period. At the end of the operational period, a debriefing meeting is equally important where he will be able to again review whether the objectives were achieved or not and then decide what further steps need to be taken in the next operational period. Both the briefing and debriefing meetings are the basis on which the IAP will be prepared and tasks assigned. For the convenience of the IC, a briefing form-001 will be used. The briefing form - 001 can also be used for briefing of senior officers who arrive on the scene. In certain circumstances when important developments take place and further immediate intervention is needed in-between the briefing and debriefing meetings, the IC may issue directions even before completion of one operational period. IAP can be written or oral depending on the duration and magnitude of the incident. The incident may be of low, medium or large levels. Low level incident would be of less than 24 hours, medium would be of more than 24 hours and less than 36 hours and a large incident would be of more than 36 hours of emergency operations. In low or medium level incidents, oral action plan may suffice. The directions given orally may be jotted down by the Command Staff and handed over to the PS to be integrated in the IAP. At times there may be sudden disasters without warning and the IC may have to respond immediately. In such cases also the Command Staff will jot down the decisions taken for response and hand it over to the PS when it is activated and it should be incorporated in the IAP. In larger incidents when there is adequate early warning, a written IAP will be required. IAP may consist of incident objectives, organization assignment and division assignment list, incident communication plan, traffic plan, safety plan and incident map etc.

> Incident Response System (IRS) and its activation

The DC being the head of the district and chairman of the DDMA is designated as the RO of the district. The DC may delegate some of the functions to the ADC for the day to day supervision and management of the incident. However, he will remain fully briefed by the DEOC and IC and be aware of all developments and progress of response activities at all times. He will also immediate convene a meeting of the DDMA, IC, OSC, PSC & LSC. The hierarchical representation of RO is shown at Fig. 1

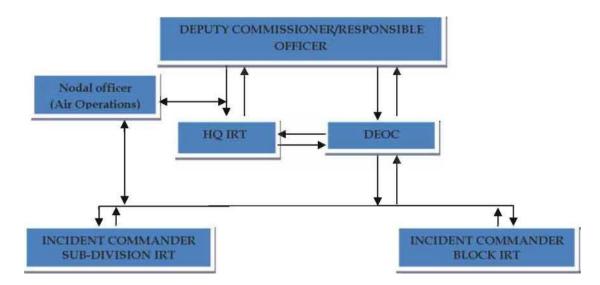


Fig.l: Hierarchical representation of RO

> Roles and Res; ponsibilities of District Magistrate as RO

i. ensure that IRTs are formed at District, Sub-Division, Block levels and IRS is integrated

in the District DM Plan as per Section 31 of the DM Act, 2005. This may be achieved by issuing a Standing Order by the RO to all SDO and BDOs;

- ii. ensure web based/on line DSS is in place in EOC and connected with Sub-Division and Block level IRTs for support;
- iii. ensure that toll free emergency numbers existing for Police, Fire and Medical support etc. are linked to the EOC for response, command and control. For e.g., if there is any fire incident, the information should not only reach the fire station but also the EOC and the nearest hospital to gear up the emergency medical service;
- iv. obtain funds from State Government as recommended by the 13th FC and ensure that a training calendar for IRTs of District is prepared and members of IRTs are trained through MATI and other training institutions of the District;

- v. delegate authorities to the IC;
- vi. activate IRTs at District headquarter, Sub-Division, Block levels, as and when required;
- vii. appoint/deploy, terminate and demobilize IC and IRT(s) as and when required;
- viii. decide overall incident objectives, priorities and ensure that various objectives do not conflict with each other;
- ix. ensure that IAP is prepared by the IC and implemented;
- x. remain fully briefed on the IAP and its implementation;
- xi. coordinate all response activities;
- xii. give directions for the release and use of resources available with any department of the Government, Local Authority, private sector etc. in the District;
- xiii. ensure that local Armed Forces Commanders are involved in the planning process and their resources are appropriately dovetailed, if required;
- xiv. ensure that when Armed Forces arrive in support for disaster response, their logistic requirements like camping grounds, potable water, electricity and requirement of vehicles etc. are sorted out;
- appoint a NO at the District level to organize Air Operations in coordination with the State and Central Government NO. Also ensure that all ICs of IRTs of the District are aware of it;
- xvi. ensure that the NGOs carry out their activities in an equitable and nondiscriminatory manner;
- xvii. deploy the District Headquarter IRTs at the incident site, in case of need;
- xviii. ensure that effective communications are in place;
- xix. ensure that telephone directory of all ESF is prepared and available with EOC and members of IRTs;
- ensure provision for accountability of personnel and a safe operating environment;
 in case the situation deteriorates, the RO may assume the role of the IC and may seek support from the State level RO;

> The Incident Response Team (IRT)

The IRT is a team comprising of all positions of IRS organization as shown in Fig.3, which is headed by IC. The Operations Section (OS) helps to prepare different tactical operations as required. The Planning Section (PS) helps in obtaining different information and preparing plans as required. The Logistic Section assesses the availability and requirement of resources and takes action for obtaining them. The District IRT is enclosed at Fig.3 and also at Appendix-1.

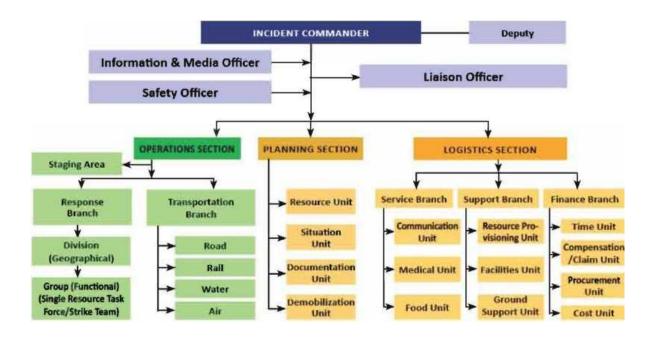


Fig.2: Incident Response Team

Chapter 8: Reconstruction, Rehabilitation and Recovery Measures

Rehabilitation and reconstruction comes under recovery phase immediately afterrelief and rescue operation of the disaster. This post disaster phase continues until the life of the affected people comes to normal. This phase mainly covers damage assessment, disposal of debris, disbursement of assistance for houses, formulation of assistance packages, monitoring and review, cases of non-starters, rejected cases, non-occupancy of houses, relocation, town planning and development plans, awareness and capacity building, housing insurance, grievance redressal and social rehabilitation etc.

> Post Disaster Reconstruction and Rehabilitation

Post disaster reconstruction and rehabilitation should pay attention to the following activities forspeedy recovery in disaster hit areas. The contribution of both government as well as affected people is significant to deal with all the issues properly.

- ✤ Damage assessment
- Disposal of debris
- Disbursement of assistance for houses
- Formulation of assistance packages
- Monitoring and review
- Cases of non-starters, rejected cases, non-occupancy of houses
- Relocation
- Town planning and development plans
- Reconstruction as Housing Replacement Policy
- Awareness and capacity building
- Housing insurance
- Grievance redressal

Administrative Relief

The district is the primary level with requisite resources to respond to any natural calamity, through the issue of essential commodities, group assistance to the affected people, damage assessment and administrating appropriate rehabilitation and restoration measures. The district level relief committee consisting of official and non-official members including the local legislators and the members of parliament review the relief measures.

When a disaster is apprehended, the entire machinery of the district, including the officers of technical and other departments, swings into action and maintains almost continuous contact with each village in the disaster threatened area.

Reconstruction of Houses Damaged / Destroyed

Houses should be reconstructed in the disaster hit areas according to the following Instructions:

- Owner Driven Reconstruction
- Public Private Partnership Program (PPPP)
- Under the PPPP the houses are reconstructed by the NGOs for the beneficiaries to be registered in the joint names of the husband and wife.
- ✤ All the houses should be insured.
- Owner Driven Reconstruction
- Financial, technical and material assistance provided by the government.
- ◆ The designs for seismic reconstruction of houses provided by the government.
- The material assistance provided through material banks at subsidized rates.
- one's own design.

> Military Assistance

If the district administration feels that the situation is beyond its control then immediate military assistance could be sought for carrying out the relief operations.

Special Relief

Along with compensation packages, essential items may have to be distributed to the affected population to provide for temporary sustenance.

♦ Information

Information flow and review is essential part of the relief exercises. Constant monitoring is

required to assess the extent of damage, which forms the basis of further relief to the affected areas.

Social Rehabilitation Disabled persons

- ✤ Artificial limbs fitted to affected persons.
- ✤ Modern wheelchairs, supportive devices provided.

> Children

- Orphaned children are fostered
- ✓ Day centers set up
- ✓ Orphanages established.
- ✓ Child help lines established.

> Old Persons

- \checkmark Aged persons given pensions.
- ✓ Old Age Homes established.

> Women

 \checkmark Pension sanctioned.

Chapter 9: Financial Resources for implementation of DDMP

As mandated by Section 48 of the DM Act the State Disaster Response Fund (SDRF) and State Disaster Mitigation Fund (SDMF), District Disaster Response Fund (DDRF) and District Disaster Mitigation Fund (DDMF) are to be created at the State & District Levels. The disaster response funds at the district level would be used by the DDMA towards meeting expenses for emergency response, relief, rehabilitation in accordance with the guidelines and norms laid down by the Government of India and the State Government.

> STATE ALLOCATIONS

Section 46 to section 49 of Disaster Management Act, 2005 seeks to provide for the constitution of the following funds: 20. Section 46, Constitution of National Disaster Response Fund 21. Section 47, Constitution of National Disaster Mitigation Fund 22. Section 48, Seeks to provide for the establishment of State & District Disaster Response Fund and Disaster Mitigation Funds. 23. Section 49, Seeks to enjoin upon every ministry or department of Government of India to make provision of funds in its annual budget for the purposes of carrying out the activities or programmes set out in its Disaster Management Plan.

State Disaster Response Fund (SDRF)

As per Section 48 (la) of the DM Act, 2005, SDRF is to be created with 90% Central Share and 10% State Share. This fund is to be made available to the SEC for post-disaster activities.

State Disaster Mitigation Fund (SDMF)

As per Section 48 (lc) of the DM Act, 2005, SDMF is to be created for pre-disaster activities and to be made available to the SDMA.

District Disaster Response Fund (DDRF)

As per Section 48 (lb) of the DM Act, 2005, DDRF is to be created for pre-disaster activities and to be made available to the DDMA. However, this fund is yet to be created and the fund is released from SDRF by the Revenue & Disaster Management Department as of now.

District Disaster Mitigation Fund (DDMF)

As per Section 48 (Id) of the DM Act, 2005, DDMF is to be created for post-disaster activities and to be made available to the DDMA.

> Department Fund

As per Section 39 (e) of the DM Act, 2005 each department of the State Government shall allocate funds for measures for prevention of disaster, mitigation, capacity building and preparedness.

RECOMMENDATION BY 13TH FINANCE COMMISSION

The Thirteenth Finance Commission (2010-2015) recommended fund for Capacity Building for Disaster Response at the District, Block and Village levels. This recommendation helps to capacitate all stakeholders in DM and also for preparation and updation of DM Plans. The finance commissioner suggested various recommendations to solve the issue in state and district level. Every state has a State Calamity Relief Fund (CRF) for immediate action after math of a disaster. There is police modernization fund, which is utilized mostly to modernize the police department to fight against disaster. An alternative mechanism is to be constituted in all the districts of South Garo Hills District to tackle the disasters.

Chapter 10: Procedure and methodology for monitoring, evaluation, updation and maintenance of DDMP

In order for the DDMAP to be effective it would be disseminated at two levels

- ✓ to the district authorities, government departments, NGOs and other agencies and institutions within the district and
- \checkmark to general public awareness

Effective dissemination of plan requires a well designed and focused training and awareness programmes. The responsibility for dissemination of the plan is vested with the District Disaster Manager, at the Collectorate, and training activities will be carried out under the guidance and direction of Deputy Commissioner, as well as through awareness programmes organized by each of the agencies participating in disaster management such as Irrigation Department organizing warning and evacuation exercises or Fire Brigade demonstrating rescue operations. The District Disaster Manager would also involve NGOs in preparing suitable public awareness material to be distributed to the public.

The training programmes will be organized for different levels of functionaries. The district level officials and identified NGOs, Private Sector organizations will receive the training under their Training of Trainers (TOT) programme in order to equip them to extend training facilities to functionaries at taluka and village level as well as organise simulation exercises within the community. Some of the select government training institutions at the district level will participate in such TOTs and undertake training programmes for government functionaries. The materials for awareness programmes at community level would be prepared in the local language to ensure widespread dissemination.

> Authority for maintaining and reviewing the DDMP

The DDMA is the authority for maintaining and reviewing the DDMP. As per Sub Section (4) of Section 31 of the Disaster Management Act, 2005, the plan would be reviewed and updated annually. The plan will then be uploaded in the District Website.

> Monitoring & Evaluation- Mock Drill

The DDMP has to be properly monitored and evaluated. This can be done by conducting Table Mock Exercise/Mock Drill and Mock Exercise at District, ULB, Block and village levels. These exercises can be conducted twice a year preferably in the month of May and October. All stakeholders of DM like the Government, NGOs, corporate and community are to be participated for the success implementation of the plan.

> Plan Evaluation

The purpose of evaluation of DDMAP is to determine

- \checkmark the adequacy of resources
- \checkmark coordination between various agencies
- \checkmark community participation
- ✓ partnership with NGOs

The ease of understanding and using the plan will also be important considerations. The plan will be updated when shortcomings are observed in

- \checkmark organizational structures
- ✓ technological changes render information obsolete;
- ✓ response mechanism following reports on drills or exercises;
- ✓ assignments of state agencies
- \checkmark

Adaptation, improvisation and optimization are comer stones of any planning pertaining to disasters. It must be emphasized that the Documents or Manuals as disaster management plan have a limited purpose. These can at best serve as reminder of tasks and activities. Individuals and agencies assigned specific responsibilities within this plan will prepare appropriate supporting plans and related standard operating procedures, periodically review and update alerting procedures and resource listings, and maintain an acceptable level of preparedness. The DDMAP would be evaluated by both the district and the state.

Post-Disaster Evaluation

A post –incident evaluation would be done after the withdrawl of relief and rehabilitation activities in order to asses

- \checkmark the nature of state intervention and support,
- \checkmark suitability of the organization structure,
- ✓ institutional arrangements,
- ✓ adequacy of Operating Procedures,
- \checkmark monitoring mechanisms,
- \checkmark information tools,
- ✓ equipment,
- ✓ Communication system, etc.

The impact studies on the above operations for long-term preventive and mitigation efforts are also be undertaken. At the community level, evaluation exercises may be undertaken to assess the reactions of the community members at various stages in the disaster management cycle to understand their perceptions about disaster response in terms of

- \checkmark adequacy of training,
- \checkmark alert and warning systems,
- \checkmark control room functions,
- \checkmark communication plans
- \checkmark security,
- ✓ containment,
- \checkmark recovery procedures,
- ✓ monitoring

Monitoring and gap evaluation

After the simulation exercises, the DDMA will encourage interactions with all the stakeholders to evaluate the gaps, lessons learnt with proper documentation for further improving the capability to deal with future disasters

Chapter 11: Coordination Mechanism for

Implementation of DDMP

> PREPARATION AND UPDATION OF DDMP

District Disaster Management Plan for the Latur is a public document. It is neither a confidential document nor restricted to any particular section or department of administration. The underlying principal of disaster management is that it has to be part of all departments and none can fold fingers against it. The District Disaster Management Plan is the sum and substance of the *Horizontal and the Vertical* disaster management plans in the district. Horizontal plans included plans prepared by line departments such as Police, Fire Service, MCD, Irrigation and Flood Control, Civil Defence, Department of Food and Civil Supplies, Public Works Departments etc where as the Vertical plan includes Sub Divisional Plans, Community Plans, School/Hospital plans and all other logical units' plan at the lower level and State disaster management plans and National disaster management plans at the higher level.

- Preparation of plan is the ultimate responsibility of the District Disaster Management Committee (DDMA or the person / sub committee appointed by the DDMA in the district. The first draft plan is to be discussed in the DDMA and later the Chairman of the DDMA shall ratify it.
- The same procedure is to be followed in updating of the plan document. The District plan is to beupdated biannually by the District Disaster Management Committee or the s committee appointedby the DDMA. In order to update the document, all Vertical and Horizontal plans shall be collected and incorporated to the District Plan.
- After each biannual updation of the DDMP, version number shall be given serially. A copy of theupdated document shall be circulated to each stakeholder of disaster management in district.

REGULAR UPDATION OF DDMP

Besides the above said procedure of updation of the DDMP, a regular data collection system shall be set up at district EOC. This is just to be ready to face any situation, though the Plan Document has not been updated since last few couple of months. The EOC incharge, under the supervision of the DDMA Chairman shall enter the collected data to an online system or shall be documented properly.

> MEDIA MANAGEMENT

Media Management is one of the core issues related to disaster management. Usually, in case of disaster, hundreds of media crew reaches the site even before the outside disaster management agencies and them asses the situation. The report they release on air is contradicting and creates panic. In order to control the situation certain arrangements shall be made by the district. As a disaster is noticed the Incident Commander shall do the following measures to control the media:

- 1. Along with information dissemination to the vertical and horizontal agencies, press people also shall be called and given preliminary data based on assessment. This shall reduce the guesswork of the media people.
- 2. Only the state owned electronic, print media should be taken to the site. More people mean more confusion and hazard in disaster management.
- 3. In every one hour or so the Incident commander shall give press release in order to control false information to the outside world.
- 4. No media shall be allowed to air or print pictures of dead bodies with worst condition. There is a tendency to do so by the media to make sensitivity. In a disaster situation, only the incident commander or his assignee in district level will communicate with the media and provide brief, No other parallel agency or ESF or voluntary agency involved in the disaster management shall give any sort of press briefings.

Chapter 12: Standard Operating Procedures (SOPs) and checklist

SOPs and checklists could be prepared for various stakeholders" effective response. These can be made based on the functioning of Emergency Support Function (ESF) groups or Incident Response System (IRS).Depending on the hazard profile and level of exposure the district should decide in a participatory way the number of ESF covering all the above.

Standard Operating procedures (SOPs)

Standard Operating Procedures (SOPs) are a common method of implementing instructions. SOPs provide response protocols for carrying out specific responsibilities. They describe who, what, when and how SOPs are appropriate for complex tasks requiring step-by-step instructions for performing a task. The District is having the SOP based from the Guidelines of the Government of India.

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 Emergency Support Functions (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.

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 understand 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 is to be one District Emergency Operation Centre (DEOC) and is to be operational to collect information from grass root level, district level as well as from State level.

ESF – 1: Coordination

Team Leader : Deputy Commissioner/District Magistrate

Participating Agencies : S.S.P.; ADM (F/R); ADM (Law & Order); Nagar Nigam; Special Officer, MDA; District Fire Officer; Joint Director, Health; District Supply Officer; City Magistrate (Nazarat); DTO; Youth Co-coordinator, NYKS; Supdt. Engg, PWD (Building); DIPRO, Dist AH& V Officer, Civil Defence, Home Guards and other relevant departments.

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, Executive Engineers of Water Resource Department, Executive Engineers of PWD Department, Executive Engineers of PHE, Executive Engineers of Irrigation Department, Health, Police, A H &Veterinary, Deputy Director of Supply etc. have been requested to take all precautionary and preparatory measures and to remain alert to face the challenge of any disaster. The other government officials have also been apprised of their roles and responsibilities to be played during predisaster arrangement and during/post-disaster management. Every possible kind of cooperation from all the line departments has been sought by the district administration in combating the severe natural calamities that may occur anytime.

ESF – 2: Communications

Team Leader : Senior S.P., Meerut city

Participating Agencies : Ham Radio Operator Clubs, Existing Wireless Operators (Police, Fire, Revenue), Telecom Dept., Mobile Operators, FM Radio, Signals Regiment- Army, IMD, CWC, Doordarshan, Radio.

The Department of Information and Public Relations in coordination with the Department of Telecommunication (Government of India) will develop an emergency Communications Plan to support the functional concept with the assistance of Secondary Supporting Agencies. Deputy Commissioners, Sub- Divisional Officers and all Supporting Agencies will adapt their existing emergency plans in order that essential functions relating to Communications can be implemented in the event of telecommunications disruption.

The Exigencies:

It is possible that telephone service will be disrupted very badly in a major earthquake for a period of time. Not all components of the telephone system will be equally affected, but initially the failure of land- based components will cause a general failure of the total system's reliability. As the telephone system is gradually brought back into service in accordance with the priorities given to it, it may allow limited use by the competent authorities within a matter of hours after the earthquake.

As this is not a dependable or even predictable situation, this plan must require the capability to carry out emergency response independent of the commercial telephone system. While the use of existing radio systems is an obvious solution, the simultaneous breakdown in delivery of electric power distribution may limit those capabilities as well. Other simple means of communication, such as handwritten memo delivered by courier, and verbal communication through personal liaison, will also be necessary.

Scope: This function is limited to the emergency communications requirements only. As such, the restoration of public sector communication could be carried out as a part of the Department of Telecommunication's emergency functions during disaster.

DISTRICT DISASTER MANAGEMENT AUTHORITY, BAGHMARA

Immediate Tasks:

- Collection of initial reports of damage.
- Status of the affected regions in respect of establishing communication with rest of the State/Country.
- Status of the key officials in the area.
- The main focus of the activities is to coordinate life saving activities concurrent with re- establishing control of the disaster affected area.
- Establish radio communication with the State Emergency Operation Centre, District Emergency Operation Centre as well as Relief Centres.
- ✤ Appoint a Nodal Officer, Communications.
- Renew and update precautionary measures and review with the staff the precaution to be taken to protect the equipment.

Initial Action:

- \checkmark Identify operational telecommunication facilities within the affected area.
- ✓ Identify telecommunication facilities that need to be transported to the affected site to establish the emergency operational services.
- ✓ Identify the actual and planned action of private telecommunication companies towards reconstruction of their facilities.
- ✓ Establish temporary communication facility through mobile exchange on priority for use by District Officials, Officers in the transit, relief camp, NGOs.
- ✓ Establish a temporary communication facility for use by the public.
- Carry out an assessment of overall damage for the following:
 i) Overhead route damage, ii) Cable damage, iii) Specific equipment damage.

Task during sustained Phase: Establish emergency communications in order of priority to the functions and locations most in need of them for the mitigation of lifethreatening situations and the relief of human suffering. Provide a communications advisory function and internal communications organization. Monitor and control, where possible, the reestablishment of telephone services.

> ESF- 3: Emergency Public Information, Help line & Warning

Team Leader:	Assistant Director, IPR	
Support Agencies:	NIC, NGOs, Media (Print/Audio-Visual), Local Cable TV	
	Network, FM Radio, Doordarshan, AIR, NSS, NYK, Scouts & Guides.	

All levels of government and the news media have a responsibility to provide emergency information to the public that is accurate, timely and consistent. Just when public and media demands for information are at their highest following an earthquake, the probability is that most media in the area will not be operational due to power failures. Nevertheless, media will be present to gather information for later local dissemination, and for media outside the disaster area. The media represent the major resource to inform the public about the disaster situation, and some Local Cable TV Network and radio broadcast media have long been oriented to their role. It then follows that the utilization of the media for the benefit of ongoing relief, rehabilitation and restoration activities is essential, and a high level of priority should be set to restore an adequate radio broadcast capability.

Immediate Tasks:

- ✓ Assist in the determination of damage to media public information capabilities
- ✓ Pass prepared and updated public information announcements to the operational

media from the DEOC

Tasks during sustained Phase:

- ✓ Establish the requisite level of emergency public information capabilities; establish the necessary media relations capabilities for release of government information to the general public through the national/international media
- ✓ Control media personnel access through a system of accreditation and access control, in conjunction with the Law and Order function; as capabilities are available, assist media personnel to prepare and send their material from the Operational Area; arrange for official government and media tours of the Operational Area subject to availability of resources; assist district/sub- divisional authorities with their own requirements when requested.

SOP of Nodal Agency

- ✓ Upon finding out about any hazardous event, ESF-TL will contact the DEOC by any means possible (phone, wireless, personally)
- ✓ If asked to activate the ESF, TL will call nodal officers of supporting agencies of the ESF
- ✓ QRTs will be activated and deployed at the affected sites
- ✓ Coordinate with the different ESFs to get regular information in order to compile and prepare updates, situation reports, damage assessment reports, and media briefs
- ✓ Upon finding out about any hazardous event, Nodal officers will contact the ESF-TL/District EOC by any means possible (phone, wireless, personally)

SOP of QRT

The QRT members will reach to the nodal office as soon as they will get instructions

- ✓ QRT teams would reach to the site immediately after receiving instructions from the nodal officer
- ✓ On the site QRT members will take stock of the situation from the RO at the site and their counter parts
- ✓ The QRTs will coordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.

ESF – 4: Evacuation (Search & Rescue)

Team Leader : S.P Fire and Emergency Service

Participating Agencies : Magistrate; Municipal Office; PWD (Roads & Buildings) Fire Service; Police officers cum Dog Handler; Civil Defence; Home Guards; Health; NCC; NYK; NSS; Nearest Army Camp.

In the urban environment, the collapse of buildings may include rescue situations well beyond the capabilities of fire- fighters to resolve (possibly many of them at the same time). These situations are characterized by the extensive rubble, which can make it unclear if a rescue is needed. In some rescue situations heavy objects must be moved or cut to extricate trapped persons; perhaps tunneling techniques may be needed; and in other situations further collapse could occur if an unskilled rescue attempt is made. Often there are circumstances where other specialized skills should be applied, such as on- scene medical care beyond first aid treatment.

While an ad hoc rescue might be put together for many such earthquake scenarios, the lack of a coordinated specialized search and heavy rescue capability in urban areas may turn out to be a contributor to the loss of life in major earthquakes. A level of permanent organizational integrity should exist to allow training and exercising of the techniques and skills required, and to permit the functionaries in other branches to orient their skills in concert with those of the Search and Heavy Rescue function in urban areas. The possible total preoccupation of fire- fighters with fire suppression at the critical time for rescue also suggests that a capability to coordinate the total organized rescue effort would be desirable, utilizing other manpower sources that possess basic rescue skills similar to those of the fire- fighter.

Organizational requirement:

This plan conceptualizes a Search and Heavy Rescue Team, which would meet the needs outlined above.

Immediate Tasks:

The objectives of the team would be to:

- ✓ Locate and remove injured people who are trapped in the wreckage of damaged buildings and other structures;
- ✓ To ascertain the safety of damaged buildings and structures;
- \checkmark To provide on- site medical treatment; and to remove the dead.
- \checkmark Assist in removal of the dead from collapsed structures

Task during sustained Phase.

The Search and Heavy Rescue Team should be organized in such a way that at least one trained personnel remains in command of the team followed by his/her assistants. Apart from this, there should be a district coordinating team with specialists/ experts like one surgeon, one structural engineer, one logistic person, search dogs and laborers, etc. Heavy Rescue Group: This component includes one or more sections, each one of which could be assigned responsibility for search and rescue tasks for a particular site. Skills include basic rescue techniques including improvisation of rescue equipment, tunneling, cutting, shoring, hoisting with mechanical equipment, searching in confined areas, operation in hazardous environments, and providing paramedic treatment to patients in emergency situations. Each section should comprise about five to seven persons and hold some light specialized equipment, including a vehicle.

Heavy Equipment Group : This component holds heavy equipment and heavy equipment operators, or maintains an inventory of where they can be obtained, and trains equipment operators in the application of their skills to heavy rescue situations. Personnel of this group would be assigned to a Heavy Rescue Group for carrying out critical operations and then shall be re-allocated. For these purpose personnel from army, railways, Oil India, and refineries may be included in this group as they have good numbers of bulldozers and cranes, etc.

Auxiliary Rescue Group : This component includes numbers of volunteers, search and rescue personnel whose skills can be used in less demanding tasks than those of the Heavy Rescue Group.

The exact size, composition and duties of the team are subject to further developments depending on the acquisition of skill and modern methodologies.

ESF – 5 : Emergency Medical Response

Team Leader : DM&HO

Participating Agencies : Nagar Nigam, Blood Bank, Indian Red Cross Society; Nursing Homes; NSS; Rotary Club; Lions Club; Ambulance Services; Medicine **Stockiest**

A severe earthquake is characterized by its effects on the health care delivery system perhaps more than any other way. Not only are there likely to be many injured persons, the types of injury experienced by persons rescued after being trapped under the rubble may require urgent hospital care. At the same time, the facilities required by the health care system are subject to damage, which can incapacitate the system and require the evacuation of their existing patients. Disrupted roads interfere with ambulance movement, requiring some dependence upon on-scene paramedical treatment and first aid until removal to places where medical facilities are possible. The decentralized local operation of health services may not suffice in the event of a major disaster.

The function includes:

- \checkmark All state and district level health services responsibilities shall be mobilized to provide emergency medical treatment to the injured; sustained hospital care to the seriously injured or seriously ill;
- \checkmark Continue care at an appropriate level to patients in hospital and out-patients at the time of the earthquake response;
- \checkmark Evacuation of the sick and injured to a location where care can be provided; as well as sustained emergency care until evacuation can be carried out with medical or paramedical supervision;

- ✓ State level coordination of delivery of medical supplies, blood and blood products; operation of ambulance services;
- ✓ Prevention of epidemic through education of the general population;
- ✓ Carrying out of health inspections of food and water supplies;
- ✓ Initiation of vaccination programs under epidemic conditions. Radiological and toxicological services could be in increased demand and require an expanded response;
- ✓ There will also be a need to provide initial establishing of death, and the temporary safe storage of human remains in support of coroner operations.

A major earthquake would require a much greater degree of control of resources within the Operational Area and would necessitate the establishment of a health services coordination center at the State Capital. The Health Department is to identify some safe locations to use as first aid centers and to shift the patients whenever needed. In each ward the general public should be trained up for first aid assistance and dispensary should maintain a rotating reserve stock of blood, saline, bandage, cotton, benzene, dettol and life saving drugs/injections.

Immediate task:

- ✓ Appoint one person as Nodal Health Officer for the district.
- ✓ Ensure that the personnel working within the district come under the direct control of the District Nodal Health Officer.
- ✓ Any other personnel once deployed for the purpose will directly come under the control of the District Nodal Health Officer.
- ✓ Identify emergency patient holding facilities.
- ✓ To prepare and keep ready Mobile Hospitals and stock them with emergency equipment that may be required after the disaster.
- ✓ Transfer patients who can be removed from hospitals to make room for the injured; where necessary implement a system of staging causality collection, treatment, and evacuation to places where facilities are available (probably outside the Operational Area).
- ✓ Arrange delivery of emergency medical supplies; arrange for temporary suitable storage of the dead until taken over by the coroner.

All effort should be made to keep the health care receiving centers and out- patient service centers free from panicky; prevent disease outbreak or spread; attend to mental health requirements; expand local public health services as necessary, particularly the supply of essential drugs and pharmaceuticals in areas where the private sector drug stores have ceased to function; carry out sanitary inspections.

ESF – 6: Relief

Team Leader : ADM (Food and Civil Supply)

Participating Agencies : Superintendent of Supply ; Food Corporation of India; Chamber of Commerce; Local Civil Supplies.

This emergency function involves emergency provisions of temporary shelter, emergency mass feeding and bulk distribution of coordinated relief supplies for victims of disaster. A severe earthquake in the district will leave a large number of people in need of shelter and feeding; family members may be separated from one another and there will be an overwhelming demand for information about survivors' where- about and condition from both within and outside the State. Many people will require immediate emotional support and crisis counseling. Although primary responsibility for provision of Emergency Social Services (ESS) rests with District Administration and Municipalities, a severe earthquake will cut across municipal and district boundaries and demand for ESS will exceed most district and municipal resources.

Damage may be unevenly spread across the affected region, with some communities experiencing a high need for services and few operational resources and others having few evacuees and more resources than required for their residents.

Immediate Tasks:

✓ Establish mobilization center at the different points like railway station, airport, bus station for movement of relief supplies;

 \checkmark Inform all suppliers of relief materials within 2-3 hours of the occurrence of the disaster to keep ready the required supply;

✓ Arrange for transportation of the relief supplies;

✓ Provide assistance in establishing local offices, relief camps, etc., by providing beddings, furniture, etc.

Scope: Emergency Social Services includes feeding, clothing, shelter, reception, registration and inquiry, and personal services provided to evacuees, victims, and response workers. The services are defined as follows:

i. Personal Services- Counseling of victims and response workers, welcoming the evacuees at entrance to relief centers in order to screen for need and to give information, and supervision and support of groups of dependent individuals including children separated from their parents, elderly, and the handicapped.

- ii. Registration and Inquiry- Registering individuals and families involved in the disaster, answering inquiries from relatives and friends concerning victims' whereabouts, reuniting separated family members, and providing information to response workerson the whereabouts and numbers of evacuees.
- iii. Clothing- Emergency clothing, blankets, toiletry articles, baby supplies, and other related goods

necessary to protect health and safety.

- iv. Shelter- Temporary housing or sleeping space for individuals and families forced toleave their dwellings.
- v. Feeding- Provision of meals, hot beverages and snacks to protect health, to maintain strength of response personnel, and to reassure victims.

Immediate Tasks

- ✓ Help the Collector in opening staff reception centers in all affected areas and alert the response workers and the public about the location of these centers;
- ✓ Mobilize feeding units to provide support to response workers on location;
- ✓ Coordinate supporting, debriefing, counseling, and related services for responders and victims;
- ✓ Inventory of the available habitable shelter supply;
- \checkmark Begin registering all persons involved in the earthquake.

Task during sustained Phase:

Continue basic emergency social services to all evacuees, victims and others requiring help; continue the registering process and respond to enquiries from around the world; initiate public information services on emotional responses to disasters; transform reception centers into multi-service centers; lay basis for outreach, self- help, and educational programs.

ESF – 7: Water and Electricity

Team Leader : ADM (City)

Participating Agencies : DM office; Police (Traffic); Transport Deptt; UPSEB; Public Health Engineering; Water Resource; PWD (Roads); NHDivision

Primary Functions:

- \checkmark Ensure smooth transportation links at all levels and to all nodal and support agencies.
- \checkmark Assess damage to power supply infrastructure for assistance from other states.
- \checkmark 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 – 8 : Debris clearances

Team Leader : Municipal Commissioner

Participating Agencies : Nagar Nigam; MDA; PWD (Road & Building); Electricity Board; Public Health Engineering Dept.; Water Resource

The damage to structures in an earthquake will require additional resources to be directed to the Operational Area. While most engineering and construction work which needs to be done will have a responsible government agency (Municipalities, DRDA, HOUSEFED, Housing Board, etc.) which can arrange its own requirements, the need for provincial response covered by this plan is the prioritization of effort to the areas that need it most.

Scope:

The function comprises the gathering of requests for Government assistance, collation and prioritization, and assignment of resources to tasks. In addition to heavy equipment requirements, which may be the most obvious ones, qualified personnel to inspect damage and to supervise engineering works will also be needed. Construction and demolition materials will also be coordinated by this emergency response function. This function should not be mistakenly considered as meeting the requirements of recovery phase construction and engineering tasks.

Immediate Tasks:

- ✓ All technical Officers shall be notified for immediate response function;
- ✓ Make provisions for resources to meet life saving operational requirements;
- ✓ Inspect all roads, bridges including underwater inspection of foundations and piers;
- ✓ Inspect all buildings and structures of the State Government by a competent Officer and identify structures which are endangered by the impending disaster;
- ✓ Helping District Magistrates in identifying locations for setting up transit and relief camps, feeding centers and quality of construction materials;
- ✓ Keep ready the earth moving equipment, cranes, farm tractor (requisitioned) with chain, cables and buffer stock of fuel;
- ✓ Adequate road signs should be installed to guide assist the relief work;
- ✓ Establish priority list of roads which will be opened first which should include roads to hospital and main trunk roads.
- ✓ Construct temporary roads to serve as access to temporary transit to relief camps and medical facilities to disaster victims;
- ✓ Technical damage assessment of potentially life- threatening situations (dams, dykes, etc.)
- ✓ Demolition, shoring, route clearance of debris, etc.

Tasks during sustained Phase:

- ✓ Continuing on to generate cleanup and debris removal;
- ✓ Emergency repairs to prevent further damage, and assistance to other emergency response functions requiring construction and engineering support.

This function will probably continue beyond the response stage into recovery operations and will be involved in detailed recovery planning during the response.

ESF – 9: Law and Order:

Team Leader : ADM (City)

Participating Agencies : SDM; Addl. S.P.; Home Guards; Other Para-military agencies.

The Law and Order function encompasses a broad range of routine policing activities. Certain of these activities are made more difficult by earthquake damage and the general disaster scenario can cause a great increased workload for police forces. The response function has as its primary goal the maintenance of law and order activities, and, if necessary the restoration of law and order should there be breakdown within the normally law- abiding community.

SCOPE:

The Law and Order function in an earthquake hit area is particularly concerned with the preservation of life and the protection of property, traffic control problems, the detection, investigation and prevention of criminal activity, Light and Heavy Rescue, Communications, and Damage Assessment emergency response functions.

Police forces have integral internal radio communications and can be relied upon as an immediate available backup communication system, locally within police departments, and also within districts and sub- divisions.

The possibility exists that an earthquake may cause a breach of physical security at prison or reforms centers and lead to the possibility of an internal riot or escape.

The disruption of transportation routes will inhibit police from performing many required tasks, and is a critical problem to be dealt with by the police forces themselves on behalf of the total response effort.

Immediate Tasks:

- ✓ Carry out any necessary actions to save lives and prevent injury or damage to property;
- ✓ Carry out route damage assessment to permit identification of usable emergency routes;
- ✓ Assess and report other damage within capabilities;
- ✓ Maintain a control over traffic with priority to emergency services;
- \checkmark Assist with the movement of emergency traffic;
- ✓ Assist in investigation of causes of deaths, security of body staging areas, identification of bodies;
- ✓ Assist in the dissemination of emergency notifications;
- ✓ Assist in the manning of coordination centers and the provision of immediate radio communication to them, if necessary.

Sustained Phase:

Maintain emergency functions and restore normalcy as quickly as possible; provide personnel to protect abandoned and damaged properties and areas, which may attract the curious and criminal elements and augment prison staffs as needed to maintain a peaceful situation.

ESF- 10: Animal Health

Team Leader (TL):	District Animal Husbandry and Veterinary Officer
Support Agencies:	Baghmara Municipal Board, Bharat Scouts & Guides, NCC/NSS/NYK
	Volunteers

Tasks:

Public health during disasters is directly related to the safety of animals. Owners may fail to evacuate because they cannot take their animals with them, or owners who left their animals behind will later try to re-enter the disaster area to rescue them. Dead animals may create a threat to public health and safety.

SOP for Animal Health

- \checkmark The TL will coordinate with the district level and block level Veterinarian
- \checkmark Animal related organizations and individuals to provide assistance at the affected site
- ✓ Co-ordinate with the Shelter Task Force on the sheltering of companion animals
- ✓ In case of Animal Disease Outbreak, take immediate actions to control and quarantine the disease and issue the advisory for safeguarding one self and others
- ✓ Injuries and death of animals will be documented
- \checkmark Deceased, diseased or contaminated animals to be dispensed with

> Roles & Responsibilities of different department

Police Department

Preparedness	Pre-Disaster (after	rPost Disaster
• Ensure that Mock Drills are conducted at all levels	• Keeping close contact with the DC	Maintenance of Law & OrderArrange security at relief
 Train volunteers through mock drills for search & rescue operation Formation of teams 	 Deploy personnel to guard vulnerable places, (for predictable disasters) Alert all Police Officers 	 camps. Arrangement for post mortem of dead person & legal procedures for speedy disposal
 Delegation of areas of operation Formation of Zones and Sub 	to remain at the HQ	• Support the District Administration & volunteers during evacuation operations
zones		• Assist fire brigade personnel in their efforts
		• Identify & register the names of the dead & dispossessed persons
		 Assist the District Administration in the supply & distribution of relief materials

✤ Health Department

***** Water Resources Department

	Preparedness		Post Disaster
•	Stock piling of repair materials like sand bags,	•	Taking help of the community
	bamboo at vulnerable points [Place names]		for maintenance of the
	etc.		embankments
•	Provision for guarding weak points	•	Assist the Dist. Adm. in
•	Listing of volunteers		infrastructure restoration.
•	Co-ordinating with others		
•	Equipments to be ready		
•	Delegation of areas of operation		
•	Contact nos./ addresses of staff / officers		

PWD Department

Preparedness	Post Disaster
 Identification of weak points Repair of weak roads /structures/canals before the hazard season Stockpiling of building material 	 Provide all the available resources & manpower Make arrangement for repair of roads, bridges etc, ensure free
• Arrangement of equipment for roads clearance	flow of vehicles
• Arrangement of all important lines & numbers in order	• Provision of equipments for road clearance
Maintenance of record for information	• Clearance of roadside, dead trees
generation & dissemination	posing threat to communication,
	life & electricity.

Annexure 1: District profile - History of past disasters

The South Garo Hills District was created on 18^{th} June 1992. It covers an area of 1887 sq. km. South Garo Hills District is bounded by three inter- State District. In Northern lies East Garo Hills, in Western lies West Garo Hills and in South – Eastern lies an International border Bangladesh and West Khasi Hills.

History of Past Disaster:

		Unit/Percentage				
		Area	Population	Impact on	Livelihood	Livestock
		affected	affected	Life (no of		
		(no/hac)	(nos)	houses)		
	1999					
	2000					
	2001	NA				
	2002	NA				
Flood	2003	NA			Rs.58,18,009	
Flood	2004	NA				
	2005	1079.8	1771	271		
	2006	hac	1771	271		
	2009					
	2014					
	1999	NA				
	2000	95 hac	2031		Rs.47,814	
	2001	35			Rs.1,97,250	
C 1	2002	109 hac	495	195	Rs.1,05,750	
Cyclone	2003	111	540	214	Rs.7,36,800	
	2004	132	950	135	Rs.10,55,400	
	2005		4930	139	Rs.87,27,390	
	2006	1299 hac	6576	986	Rs.650,87,250	
	1999	NA			Rs.4,800	
	2000	NA			Rs.7,000	
	2001	1		1	Rs.6,000	
	2002	1	2	1	Rs.6000	
Fire	2003	NA			Rs.2,30,000	
	2004	5		8	Rs.7,79,080	
	2005	18		28	Rs.3,55,560	
	2006	22		34	Rs.1,98,150	
	2007	8	116	31	Rs.52,41,599	
			_	_		

		83		
DISTRICT	DISASTER	MANAGEMENT	AUTHORITY,	BAGHMARA

Elephant	1999	8	8	
Depradation	2000	10	9	
	2001	NA	-	
	2002	10	2	
	2003	80	72	
	2004	146	150	
	2005	45	10	
	2006	66	62	

Annexure 2: District Disaster Management Authority

SI. No.	Name	Designation		Address	Contact No.
1.	Smt. S. N. Marak	Deputy Commissioner	Chairman	O/o Deputy Commissioner, South Garo Hills, Baghmara	9402507111
2.	Shri Denang Sangma	Chief Executive Member, District Council	Co- Chairman	Garo Hills District Autonomous Council, Tura	
3.	Shri Aloysius Ch. Marak	Addl. Deputy Commissioner	CEO	O/o Deputy Commissioner, South Garo Hills, Baghmara	9436160267
4.	Shri Anand Misra	Superintendent of Police	Member	O/o Superintendent of Police, South Garo Hills, Baghmara	
5.	Smt. Lily Sengme Ch. Marak	DM&HO	Member	O/o DM&HO, South Garo Hills, Baghmara	9856035295
6.	Shri B. Passah	Executive Engineer, PWD (Roads)	Member	O/o E.E. PWD (Roads), South Garo Hills, Baghmara	9862438853
7.	Shri S. D. Shira	District Transport Officer (DTO)	Member	O/o DTO, South Garo Hills, Baghmara	9436113146

SI No.	Name	Designation	Contact
1.	Shri P. K. Srivastava, IAS	Principal Secretary, Revenue and Disaster	(O)0364-2223045
	IAS	Management	(M)08794729659
2	Chri M. Khamaniai IAC	Secretary, Revenue and	(O)0364-2224381
2.	Shri M. Kharmujai, IAS	Disaster Management	(M) 94361-04395
2	Shri B. Hajong, MCS	Joint Secretary, Revenue	(M)9436113592
3.		and Disaster	(101)9430113392
		Deputy Secretary,	(0) 0364-2223615
4.	Smt. M. G. Kharkongor	S- Revenue and Disaster	
		Management	(M) 9774931081
5.	Smt. I. Mawlong, MCS	Deputy Secretary, Revenue and Disaster	(M)9863089263

Annexure 3: Important Names & Contact numbers at the State Level

Annexure 4: Important Names & Contact numbers in the State Disaster Management Authority

SI.No.	Names of Officers	Designation	Contact Nos.
1.	Shri H. B. Marak, IAS	Executive Officer, SDMA	(O) 0364-2226579 (M) A094361-11073 098560- 25902 (F)0364-2226671
2.	Smt. I. Mawlong, MCS	Nodal Officer	M: 094363-33728
3.	Shri S. Bordoloi	Consultant	M: 094025-44433
4.	SDMA	-	(O) 0364-2503022
5.	State Emergency Operation Centre	-	(Fax) - 0364 - 2502098

Annexure 5: Important Names & Contact numbers in the District

Sl. No.	Name of Officer	Designation	Contact number
1.	Smt. S. N. Marak, IAS	Deputy Commissioner	9402507111
2.	Shri T. G. Momin, MCS	Addl. Deputy Commissioner	9436112951
3.	Shri A. M. Sangma, MCS	Addl. Deputy Commissioner	9485176751
4.	Shri A. Ch. Marak, MCS	Addl. Deputy Commissioner	9436160267
5.	Shri P. R. Marak, MCS	Extra Assistant Commissioner	8414061740
6.	Smt. Yosima W. Momin, MCS	Block Dev. Officer, Baghmara C&RD Block	8794835889
7.	Smt. Rezia Ch. Sangma, MCS	Block Dev. Officer, Gasuapara C&RD Block	9436703562
8.	Shri Isaac K. Marak, MCS	Block Dev. Officer, Rongara C&RD Block	9436363462
9.	Shri Diganto hajong	Block Dev. Officer, Chokpot C&RD Block	9856889094
10.	Shri Pipson Ch. Marak	Asst. District Project Officer	8014285571
11.	Shri B. Passah	Executive Engineer PWD (R)	9862438853
12.	Smt. Lily Sengme Ch. Marak	DM&HO, South Garo Hills, Baghmara	9856035295
13.	Shri S. D. Shira	District Transport Officer	9436113146
14.	Smt. N. Ch. Sangma	District Horticulture Officer	9436112499
15.	Shri R.A. Massar	District Agriculture Officer	9615453903
16.	Smt. Mera Kharkongar	District Social Welfare Officer	9862814845
17.	Shri Sengkan N. Sangma	Director BNP Baghmara	9436998841
18.	Shri Albirth N. Marak	Superintendent of Supply	8415903493
19.	Shri S. Marak	District Sports Officer	8974488358
20.	Shri Gamseng Marak	District Statistical Officer	8974271886
21.	Smt. M. H. N. Marak	District Labour Commissioner	8014780554
22.	Shri Clayawanty A. Sangma	District Veterinary Officer	9436114657
23.	Smt. Senritha Sangma	District Information Public Officer	9436730656
24.	Shri G. D. Shira	District Forest Officer	9862530298
25.	Shri Kamal G. Momin	Executive Engineer	9436315543
26.	Shri L. N. Marak	Divisional Officer	9089294536
27.	Smt. Victoria D. Sangma	C.D.P.O. Baghmara	9402195012
28.	Shri Renier R. Marak	Border Areas Dev. Officer	9436323449
29.	Shri Benjamin A. Sangma	Housing Inspector	9089460481
30.	Shri Clay R. Marak	Extension Officer	8131056296

Annexure 6: Name of BDOs with Contact numbers

Sl. No.	Name of Officer	Designation & Address	Contact No.
1.	Smt. Yosima N. Momin	Block Dev. Officer, Baghmara C&RD Block	8794835889
2.	Smt. Rezia Ch. Sangma	Block Dev. Officer, Gasuapara C&RD Block	9436703562
3.	Shri Isaac K. Marak	Block Dev. Officer, Rongara C&RD Block	9436363462
4.	Shri Diganto hajong	Block Dev. Officer, Chokpot C&RD Block	9856889094

Annexure 7: List of Police Stations

No. of Police station :		1 (one) Baghmara Police station.			
*	No. of Outpost	:	3 (three)		
				1.	Chokpot outpost.
				2.	Nangalbibra outpost
				3.	Rongara outpost.
*	No. of infiltration Cl	heck po	ost :		6 (six)
					Gasuapara
					Dimapara
					Sibbari
					Siju
					Mahadeo
					Moheskhol

Annexure 8: List of Fire & Emergency Services

No. of Fire Stations : 2 (two)

Baghmara Nongalbibra

Annexure 9: List of Hospitals

	✤ No. of CHCs	:	1 (one) Baghmara,
*	No. of PHCs	:	 7 (seven) Chokpot 7 Nogalbibra 8 Moheskhola 9 Rongara 10 Silkigiri 11 Sibbari 12 Siju
*	No of State Dispensary	:	1 (one) Mahadeo
*	No. of Sub-Centres	:	21 (Twenty one)
	Under Chokpot	:	5 Ganchikalak6 Mitapgre7 Asakgre8 Kenegre
	Under Sibbari :		 Gasuapara Dimapara Jatra kona Rugapara Ramchengga
	Under Silkigiri	:	 Silkigiri (Rongsibogra)
	Under Baghmara	:	 Dosogre (mindikgre). Emangre Karukol Nengkong Nilwagre

Under Nangalbibra:

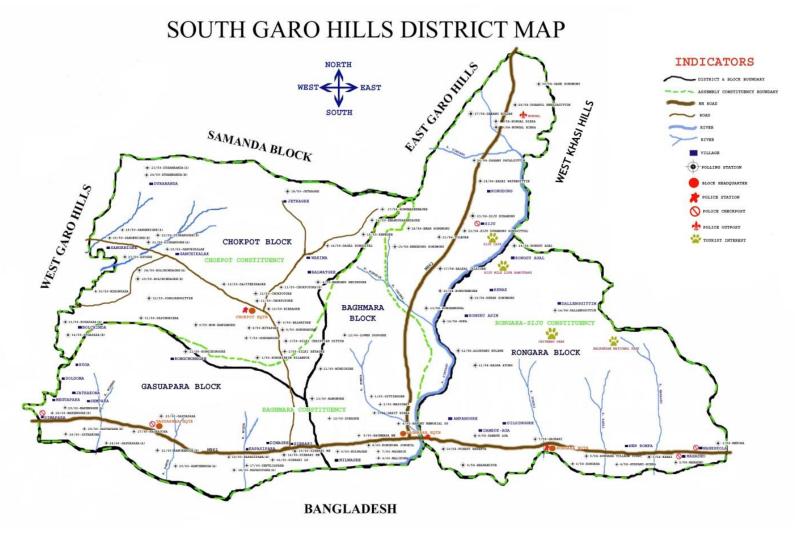
C	 Rongsa-Awe
Under Siju :	
	Rongsu-Agal
Under Rongara :	
	Dambuk-Aga
	Balpakram
	Rongru A.sim
Under Moheshkhola :	
	□ Nekora.

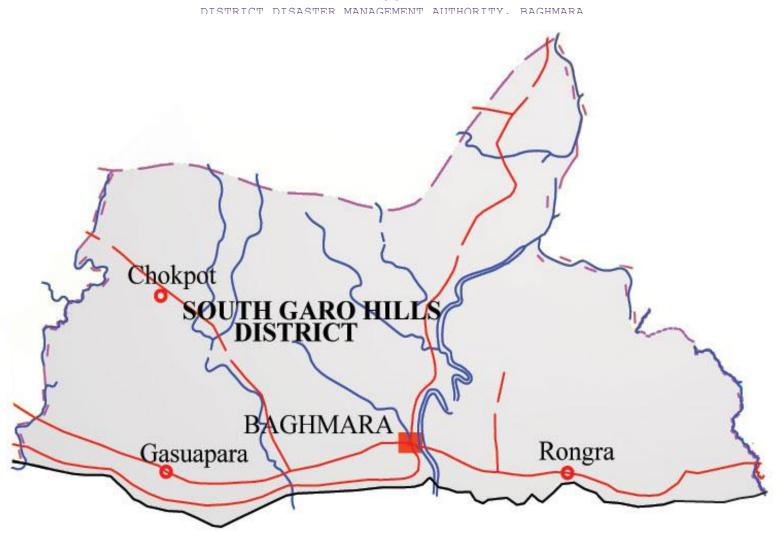
Annexure 10: List of Medical Officers

SI. No	Place of Posting	Name	Designation	Contact No.
1	DM&HO Office	Dr. Lily Sengme Ch Marak	DM&HO	9856035295
		Dr. Bichitrani Ch Marak	Grade 11 Specialist	9436160149
		Dr. Jacob R Marak	M&HO	8731998727
	Baghmara Civil Hospital	Dr. Bijoy Dev Barma	DTO	9436113023
		Dr. Prabir D Sangma	Sr.M&HO	9615321574
		Dr. Bonie D Shira	M&HO	8414025460
		Dr. Ringring Ringme R Marak	M&HO	9612414842
2		Dr. Sengsang Sangma	M&HO	9132007275
2		Dr. Kenilworth R Marak	M&HO	9862958852
		Dr. Rayan Recheng D Sangma	M&HO	9856828831
		Dr. Halleys Tengsrang Ch Sangma	M&HO	8731094892
		Dr. Monchi R Marak	M&HO	8575012334
		Dr. Rio Reeta A Sangma	M&HO (Homoeo)	8132925242
3	Sibbari PHC	Dr. Cline R Marak	M&HO	9706422094
	Chokpot PHC	Dr. Tengshee A Sangma	M&HO	956000290
4		Dr. Chaseng M Sangma	M&HO	8794328563
		Dr. Ananya R Marak	Dental Surgeon	9862259086
5	Sju PHC	Dr. Gautam Sharma	M&HO	9402132979
6	Nongalbibra PHC	Dr. Cheralin A Marak	M&HO	8575686865
7	Rongara PHC		M&HO	9436561299
		Dr. Merycha A Sangma		9856042600
		Dr. Berens Jabath R Marak	M&HO	9436961216
8	Mahadeo State	Dr.Jimrich Marak	M&HO	8017432861
ð	Dispensary	יון אין אין אין אין אין אין אין אין אין אי		9402555146
9	Moheskola PHE	Dr. Xavier S Marak	M&HO	8575803075

Maps:

1. District political Map





In are. (Smt. S. N. Marak, IAS,) Deputy Commissioner & Chairman, DDMA, South Garo Hills, Baghmara

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