

CHAPTER IV

**COMMUNITY BASED FLOOD
MANAGEMENT IN CACHAR**

COMMUNITY BASED FLOOD MANAGEMENT IN CACHAR

4.1 Cachar District - A Brief Profile :

Cachar district is located on the southern part of the State of Assam in the north-east of India. The Cachar district which is land locked and is dependent on surface communication, through Meghalaya for its road connectivity with rest of the country, is disrupted due to floods & landslides. Railway link is also affected in rainy season due to landslides. Katigorah and Sonai Revenue Circle is one of the most flood prone circles in the district. About 70% of total land area of the circle remains inundated during severe flood. It includes agricultural lands as well as homestead. Even NH – 44 at various points also remains submerged in the event of floods. The East and West Katigorah are the most vulnerable areas in comparison to other areas. Other circles viz. Sonai & Lakhipur are also affected by floods. In Cachar, flood becomes a seasonal phenomenon as some parts of the district are affected every year. It may be mentioned that in the year 2007 in the month of September, the district has faced a devastating flood which lasted for about 21 (twenty one) days at a stretch. However, the district administration faced the situation and ensured distribution of relief to all the far flung areas with the help of its own officials and also with the co-operation rendered by Indian Army, BSF and Indian Air Force along with CRPF. Moreover, Cachar along with the whole north-eastern part of India resides in Zone – V of earthquake prone areas. So, chances of major earthquakes could not be ruled out requiring general preparedness. Very recently, severe storm and incessant rainfall in the month of April'2010 hit the entire district causing damages to houses and crops in all the five Revenue circles. Increasing number thunder storm & lightning related casualties needs mass public awareness. District Administration took proactive steps for preparedness and awareness generation for the aforesaid disasters through different DRM programme activities under GoI-UNDP and Assam State Disaster Management Authority (ASDMA) is taking further steps in this direction and thus is widening the scope of community based flood anagement in Cachar.

The district of Cachar in Assam is vulnerable to the natural disaster mainly floods. Other disaster includes cyclones, earth-quakes, etc. This needs a

Comprehensive Flood Management Plan for Cachar District. The DDMP is thus planned by DDMA with a special stress on floods which mostly occur seasonally. Disaster Management covers a broad range of interventions undertaken before, during and after a disaster to prevent or minimize loss of life and property, minimize human suffering and accelerate recovery. The management of a disaster can be viewed as a series of phases including Preparedness, Response, Relief, Recovery (Rehabilitation and Reconstruction.), Prevention, and Mitigation. The district administration is the focal point for implementing all government plans and activities. The actual day-to-day functional responsibility for administering relief and response actions lies with the Deputy Commissioner who supervises and the Circle Officers co-ordinate among all departments at the district level.

The Disaster Management Act, 2005 has further clarified the role of the District Disaster Management Authority (DDMA) as an apex body for implementing for all disaster management related functions and activities. These functions include mitigation and preparedness measures alongside response, relief and rehabilitation. A key role has been assigned to the local authority for ensuring training of its officers and employees, maintenance of resources so that these are readily available for use in the event of a disaster. The local authority shall also carry out relief rehabilitation and reconstruction activities in the affected areas, conforming to the guidelines for mitigation activities. The present roadmap is thus chalked out by Cachar DDMA which intends to strengthen the disaster management activities in this district through the CBFM.

4.2 Location:

District is situated in the southern part of Assam in north-east India, between longitudes 92°24' E and 93°15' E and latitudes 24°22'N and 25°8'N East and 35 meters above mean sea level. The district is bounded in the north by Meghalaya & parts of N.C. Hills district, in the south by Mizoram, in the east Manipur and in the west by Bangladesh and Hailakandi district.

4.3 Geographical Area:

The district has total geographical area of 37,861.1 Sq. Kms with population of 17,36,319 as per Census 2011. Major hills are Bhuban Range, Borail Range and Rengti Range.

4.4 Administrative Set Up:

Cachar is one of the 27 districts of Assam. It comprising of two Sub-divisions – Silchar and Lakhipur Sub-Divisions. Next level consists of 5 (five) Revenue Circles (Tahsils), namely;- Silchar,

Lakhipur, Sonai, Udharbond and Katigorah. Furthermore, the district is divided into 15 Community Development Blocks. Below the Block level set-up, there is 163 Gram Panchayats each comprising about ten villages on the average and governed by local self bodies. From the angle of Police Administration, the district area is divided into 8 (eight) Police Stations – Silchar, Lakhipur, Katigorah, **Sonai**, Borkhola, Udharbond, Jirighat and Dholai.

4.5 Revenue Villages:

1. Silchar Revenue Circle 232
2. Udharbond Revenue Circle 83
3. Katigorah Revenue Circle 147
4. Lakhipur Revenue Circle 151
5. Sonai Revenue Circle 203

4.6 Topographical Details:

The unique geo-climatic condition of Cachar district has made it a unique compared to other districts of Assam. The river Barak flows through the district and its tributaries are *Jiri, Chiri, Jatinga, Sonai, Madhura, Rukni* which are the major contributors of high flood along with massive erosion.

4.7 Climate and Rainfall:

The climate of the district is very damp and humid due to heavy rain and high temperature. June and July are the months with highest rainfall. Generally the period from May end to October is considered as flood season.

4.8 Rainfall:

Year-2006: Total Rainfall (2066.10 in mm)

Year-2007: Total Rainfall (3356.60 in mm)

Year-2008: Total Rainfall (3941.31 in mm)

Year-2009: Total Rainfall (3043.66 in mm)

Year-2010: Total Rainfall (4752.98 In mm)

4.9 Temperature:

The temperature in the region begins to increase from end of February and reaches highest point during June and July. January is the coldest month of the year. The air is highly humid throughout the year and winds are light in the district. But some of the cyclonic storm and depressions from Bay of Bengal occur in the monsoon and post monsoon period with heavy rain. Thunder storm occur during the period from March

to May. Fog occurs in the winter months. The complex physical feature of this district also contribute a great extend to the occurrence of flood.

4.10 Community Based Disaster Management Cell in Cachar:

In the year 1999, the State of Orissa witnessed super cyclone which took thousands of life and caused huge loss to properties. This incident lead to the promulgation of the idea of community based flood management among the Indian Policy Makers, Disaster Managers, United Nations Officials and Social Work Professionals. As a result UNDP started community based disaster management programme in 169 vulnerable Districts of India covering 17 states including 12 Districts of Assam and Cachar was one the selected disaster prone Districts as selected by United Nations. After the remarkable result of CBDM programme Government decided to focus on CBDM aspect rather concentrating all its efforts to relief and rehabilitation. National Disaster Management Act passed in 2005. The Government of Assam adopted National Disaster Management Act, 2005. The National Act is framed in such a way that its provisions lay more emphasis on community coping strategy. The Government of Assam also renamed Revenue, Releif and Rehabilitation Department Department into Revenue and Disaster Management Department. The Government established Assam State Disaster Management Authority (ASDMA) in 2010. ASDMA is intended to strengthen the community coping strategy which is really incredible with respect to flood management is concerned. It is working keeping in view the CBDM aspect and gaining good results in the field of flood management. The State Disaster Management Authority (SDMA) is constituted and notified with Ho'ble Chief Minister, Assam as its Chairperson.

At the District level, the District Magistrate/ Deputy Commissioner who is the chief coordinator will be the focal point for coordinating all activities relating to prevention, mitigation and preparedness apart from his existing responsibilities pertaining to response and relief. The DC is the ex-officio chairperson of the District Disaster Management Authority.

The District Coordination and Relief Committee is being reconstituted/ re-designated into District Disaster Management Authority (DDMA) as per provisions as laid down in the National Disaster Management Act, 2005. The Act was adopted without any modifications by the Government of Assam in the year 2006. As a result Assam State Disaster Management Authority came into existence in the year 2010. The Act is a holistic document with its clauses, instructions, powers and functions etc which clearly depict the role of various stakeholders. The officers from relevant departments being added as members of DDMA. Because of its enhanced mandate of mitigation and prevention, the district heads of the departments engaged in development are now being included in the Authority so that mitigation and prevention is mainstreamed into the district plan. The Act lays much emphasis on community based management of disasters including flood through promoting preparedness and response plans. In view of the above, District Disaster Management Authority and District Disaster Management Committees have already been constituted in all 27 districts of Assam including Cachar.

4.11 Block Level:

Similarly, sub-divisional and Block level Disaster Management Committees are also being constituted. At the village level Disaster Management Committees and Disaster Management Teams are being constituted. Each village in multi-hazard prone district has a Disaster Management Plan. The process of drafting the plans at all levels has already begun. The Disaster Management Committee which draws up the plans consists of elected representatives at the village level, local authorities; Government functionaries including doctors/paramedics of primary health centres located in the village, primary school teachers etc. The plan encompasses prevention, mitigation and preparedness measures. The Disaster Management Teams at the village level consist of members of youth organizations like Nehru Yuvak Kendra Sanghathan (NYKS) and National Service Scheme (NSS) and other non governmental organizations as well as able bodied volunteers from the village. The teams are provided basic training in evacuation, search and rescue, first aid trauma counseling etc. The Disaster Management Committee review the disaster management plan at least once in a year. It would also generate awareness among the people in the village about do's and

don'ts for specific hazards depending on the vulnerability of the village. A large number of village level Disaster Management Committees and Disaster Management Teams have already been constituted.

The role of Block Disaster Management Committee (BDMC) is to reduce distress of flood vulnerable people by taking collective actions in flood affected/vulnerable areas.

4.12 Target Area Where BDMC: Each BDMC is designed in such a way to implement people-centric flood management activities at community-levels. A Block generally is too large for a small Committee to handle. Moreover, every Block, on an average, has a population of about 1- 2 Lakhs. Thus the needs of all of the flood vulnerable population cannot be met by one BDMC at the Block level.

4.13 Composition of BDMC: Each BDMC is comprising of about 10 Block Disaster Management Teams (BDMTs) to take care of various activities targeted at grassroots level. However the study found that, these Committees have not been made functional and effective – a reality that appears to be a major impediment to overall governance system of the country. The BDMC is envisaged to grow and function under the guidance and leadership available in each Block and take advantage of the presence of the local government institute, while operating with the specific goal of reducing flood related vulnerability in their working areas. The BDMC is constituted by up to nine members, ideally having the following composition:

Chairperson: Anchalik Panchay (A.P) President (Elected Representative/ PRI)

Convenor/ Member Secretary: Block Development Officer (BDO) (by virtue of her/his position)

Co-convenor : An elderly member of the Block

Members : Headmaster(s) of High/Primary School(s) (maximum

of two) An elected female member of the Block

An elected member of the Block

Head cleric of religious center(s) (mosque/temple)

located in that Block (selected, maximum of two)

Nominees of all Government Offices working for that Block

On the basis of consensus among the BDMC, one member will be selected to work as the Member-Secretary of the Committee. The general function of the BDMC would be to foster flood preparedness, to devise and implement flood responses, and to coordinate various flood management activities in the community.

4.14 The Functions of The BDMC:

The functions BDMC include the following, but is not limited to the following:

1. To help community people relocate in flood shelters;
2. To negotiate with authorities of government institutions having infrastructure/facilities in the neighbourhood that may be transformed into temporary flood shelter(s);
3. To make necessary arrangements [cleaning of the premises, construction of sanitary facilities, establishment of hand tubewells etc.] for making the facility useful as a temporary flood shelter;
4. In case of unavailability of flood shelters, distribute tents to shelter seeking people as per demand; establish and maintain a camp on flood-free ground (or along an embankment);
5. To keep records of community people who need various kinds of services while in camps/shelters;

6. To arrange food, health care, medicine, water supply and safe sanitation for the shelter seeking people;
7. To keep an eye on (a) safety, (b) health condition, (c) peace within the camps/shelters;
8. To resolve conflicts, if any, within the camps/shelters;
9. To assess needs of the community population (by household) and assess demand for various services on a regular basis;
10. To raise funds (cash or in kind or both) in order to meet the demands of the flood refugees;
11. To distribute relief goods and disburse relief funds as needed;
12. To maintain ledger books on various items received and distributed;
13. To arrange meetings frequently (at least one meeting an alternative days) on the operations of the camps/shelters for improved coordination and smooth functioning of the activities;
14. To check whether a few marooned families still require assistance for relocation, supplies of food/water treatment tablets/fuel or any other services; and provide such services subject to availability of supplies;
15. To help assess losses and damages suffered by each affected household in the community;
16. To make arrangements, in cooperation/consultation with the Thana-level authorities, for providing institutional assistance to enhance quick recovery and rehabilitation following floods;
17. To ensure that flood related information is timely disseminated to the community people (extensive use of hand-hold megaphones; mikes that are used for calls for prayer etc;

18. To liaise with Thana-level officials, if needed even at higher levels, for the collection of updated information regarding flood forecasting and warning; and disseminate among the community people to take preemptive measures;
19. To assess damage of common utilities/facilities/infrastructure (viz., extent of disruption of electric poles, erosion of roads, breach of embankments etc.);
20. To prepare a participatory 'Plan of Action' (time-bound) for the flood affected community for quick recovery/rehabilitation and assess requirement of funds for undertaking such activities;

In order to facilitate the activities of the BDMC, a number of sub-Committees/ Disaster Management Teams may also be formed to deliver specific services. It is proposed that, each of the BDMT be headed by at least a member of the BDMC, and collectively all will be liable to the BDMC. Members of BDMC propose BDMTs (viz., on relocation, sanitation, safe water supply, health care, livestock management, food preparation and distribution, storage of supplies etc.) and name of members of each BDMTs is proposed to the BDMC for its approval. The BDMTs essentially act on behalf of the BDMC and report directly to the BDMC in its regular meetings.

In addition to these activities, the BDMC organizes rallies, community meetings etc. and make people aware through continued education and advocacy, plan and coordinate flood management activities, and facilitate evacuation as and when necessary to save lives. It is envisaged that all these positions found to be temporary and the services sought will be regarded as voluntary, without incurring any financial liability either by the community or by the DDMA/ BDMC.

4.15 Flood Preparedness: An Analysis :

In areas where occurrence of flood is a regular phenomenon, preparedness is considered as one of the main activities to save life and property of the people. Preparedness includes three Ps—plans, preparations and provisions made in advance for carrying out activities when the area is being hit by the flood. The primary

objective is to allow the passage of flood with minimum damage to lives and properties of the community. The study carried out keeping in mind that the flood water is beneficial also as it is benefitting people like fishermen community. It brings humus sediment and deposits on the farm land. It makes the soil rich in fertilizers and nutrients and crop production after the flood is high. Unless the flood causes damages to properties and loss of lives, it will be beneficial to allow the flood water to come. Thus, preparing for the flood rather than driving it away in many instances will be better for rural farm areas.

4.16 Formation of Village Disaster Management Committee:

Community institutions are important to plan, implement and monitor different activities relating to flood disaster and minimize the impacts of flood on the community. Community development will start with the Community Mobilization component, to strengthen the organizational bases for local flood mitigation initiatives. Unlike the past practices in which people are hastily organized primarily for the construction of physical facilities, more focus should be placed on awareness-raising and capacity building of the communities themselves. Prior to the formation of the VDMC, required information such as importance of community institutions, role and responsibilities of VDMC, formation process and involvement of the community, women, affected groups etc. should be disseminated to the concerned VDC and its representatives, local leaders, teachers and the community. It is necessary to organize settlementwise meetings and dialogue with communities regarding the formation of the Committee. Who will do all these things? Some catalyst organization is needed at this point. Depending upon specific situation, there can be a number of institution initiating this process. NGOs, the concerned VDC, Red Cross etc. can play this role. Furthermore, there are some Government organizations working in disaster management such as the, local office of the District Officer, Local Police office, Local Gran Panchayat office which can initiate this process. The elite should seek the possibility of involving themselves in one or more of these organizations. Again depending upon the specific situation of the affected community, there can be a number of ways of forming the VDMC. Interaction with the communities during the field study phase of preparing this manual has indicated two such options as follows:

- a. Village Development Committee (VDC)/ Gram Sabha should establish VDMC representing the affected communities, women and ethnic groups with the chairmanship of local Ward chairman of the affected area.
- b. Affected communities should establish VDMC with the chairmanship of local elected community leader and with the representation of VDC and Ward representatives including women, ethnic groups, teachers, local leaders etc. Initially, an Ad-hoc Committee of 5 to 7 members should be formed before the formation of the main committee. The VDMC will be involved in discussions and interactions among the affected communities, local leaders, teachers, women and different ethnic groups. For such discussions, the VDMC should seek the help of the catalytic organization. The main objective of this committee will be to make draft constitution of the committee and facilitate the formation of VDMC.

Once the draft constitution is prepared, the VDMC should call for a mass meeting for discussing on the draft. The draft constitution should be amended to reflect the suggestions received in the mass meeting. The VDMC should have 9 to 13 members elected from the general assembly according to the constitution of the community. This VDMC will include women, ethnic groups, local leaders, teachers etc. There should be an advisory committee of which concerning district level government organizations, concerned members of VDCs/ Gram Sabhas, school teachers, local health workers, agriculture extension workers, local NGOs and CBOs will be the members.

According to the specific needs of the community VDMC should also form various sub-committees/ Village Disaster Management Teams(VDMTs). Some of the possible sub-committees/ VDMTs are as follows:

- a) Forecasting and Warning Sub-Committee./ Team
- b) Rescue, Evacuation and Search Sub-Committee/ Team
- c) Relief Materials Distribution Sub-Committee/ Team
- d) Rehabilitation and Reconstruction Sub-Committee/ Team

e) Health and Hygiene Sub-Committee/ Team

f) Carcass Disposal Team

g) Trauma Counselling Team

The VDMC with draft constitution will apply for registration to the office of the District Magistrate/ Deputy Commissioner. The format for application and the format of draft constitution and the list of necessary papers.

4.17 Information Dissemination and Training:

Once the VDMC is in place, it should focus on raising awareness and increasing the capacity of the community to be prepared for the flood through training. VDMC should discuss the need of such training with the help of the Advisory Committee. There can be several types of training that the community may need. Following are the sample list of such training:

4.18 Training for Preparedness:

- a) Developing flood warning and forecasting system
- b) Construction method of flood proof housing
- c) Flood resistant crops and their cultivation
- d) Office management and record keeping for VDMC and Sub-committees/VDMTs
- e) Bioengineering methods of river training.

4.19 Training for Flood Response Activities:

- a. *Evacuation, rescue, search methods such as boating, swimming*

- b. Management and distribution of relief materials
- c. Maintaining health and hygiene during flood situation
- d. Food storage and handling during flood.

4.20 Training on Post Flood Rehabilitation and Reconstruction Activities:

Training on income generation activities such as nursery establishment, apiculture, local handicrafts, sewing/cutting and weaving training for women, candle manufacture at local level, Information dissemination is the most powerful tool for public awareness. Information makes people aware about the potential danger from the flood and the training makes the community prepared to cope with incoming flood hazards. VDMC inform the people of its activities, make them aware of the likely flood situation and possible measures. Information dissemination to the community can be done in several ways some of which are given below:

1. Regular talk program in the community
2. Distribution of pamphlets, posters and other materials
3. Raising awareness through mass media (radio bulletins, television, newspapers etc.) in local languages
4. Preparation of documentary films; slides for public shows
5. Inclusion of Flood Management Manual in secondary school syllabus
6. Poetry, debate and essay competition in the schools on flood
7. District level, regional level workshops and national level conference (every year) involving community organizations

The VDMC make a list of possible institutions that can provide assistance in training and information dissemination. The committee should seek the help of such

institutions. The list of possible institutions should be listed. VDMC should note that such training is required at different times and for different groups of persons.

4.21 Assessment of Flood Hazards:

In a community the vulnerability to flood may be different at different locations. The type of damage for those living along the river bank is different from those away from it. Similarly different types of houses in the same area may have different degrees of vulnerability according to the mode of construction. The role of VDMC is to prepare a map identifying the area in accordance with the type of flood prone area. On the map, features like public land, public utilities, high land, roads etc. should be delineated. If possible, the map should also delineate areas having different depths of water or duration of standing water. While preparing the map, VDMC should interact with the people and also seek help of organizations working in disaster management. The local office of Sildubi Dolphin Club and many NGOs and social organizations can also provide technical support for preparing such maps. Preparation of this map would facilitate assessing where the flood is likely to affect the most and accordingly prepare plans to minimize the damages. The map prepared so far would provide list of houses that are likely to be submerged during flood event and the area of crop that is likely to be affected. If at all preparing the map is not possible, the VDMC can prepare a list with its own experiences of previous flood events and interaction with the people.

With the list of houses prepared, VDMC should now try to categorize these houses in terms of their vulnerability to the flood. Use of following nomenclature is recommended.

4.22 Making Provisions for Emergency Relief and Government :

Occurrence of flood is common every year, which may affect partly or fully the local inhabitants of the community. Hence, some of the necessary relief materials should be collected and stockpiled for the emergency period. The VDMC should identify need

of such relief material and quantify them. A variety of relief materials may be required as shown below:

1. Provision of safe drinking water—installation of tube well or other pipe water arrangement
2. Materials for making temporary latrines
3. First Aid medicines especially for water borne diseases; treatment with like paracetamol, Jevanjol. Chlorine tablets, Oral re-hydration powder etc.
4. Fast food items like satoos, beaten rice, noodles, bread, biscuits, beans etc.
5. Cooking utensils, stoves etc.
6. Provision of energy for lighting and cooking—lantern, torches, dry wood, LPG gas cylinders
7. Provisions of clothes, blankets, tents, plastic sheets etc.

It should also be borne in mind that not all the members of the community would need assistance from the resources of the VDMC. Therefore, interaction with the people is needed to identify those who can make their own arrangement and those who cannot do so and provisions should be made considering the needs of those who cannot make their own arrangement. For those who can make their own arrangement, VDMC role is to provide adequate training, especially to the women, on how to keep such provisions.

4.23 Making Temporary Refuge:

There may be houses in the community which are liable to flooding or damage during flood. Temporary refuge may be necessary for the households and cattle residing in such houses. It should also be borne in mind that many households needing evacuation take refuge in the neighboring houses which are suitable for such purpose. Considering the needy people together with those individuals who can provide refuge to their neighbors, the size of temporary refuge can be determined. Once the size of

temporary refuge is determined, one or several locations suitable for such refuge should be selected. Ideally such location should be on higher elevations well above the flood levels and should be easily accessible to the evacuating people. Public land and utilities are usually suitable for such purpose. VDMC's role is to explore the possibility of making use of land occupied by public schools, health post, VDC buildings, temples, churches, community forest, embankments of river/canals, roads, private buildings which could provide temporary refuge. VDMC, with wide public consensus, can also establish housing norms that require new houses to be built on safe locations. Once the temporary refuge is located, VDMC should make arrangement for providing emergency relief to these locations. The relief materials can be stored in such refuges.

4.24 Use of locally available materials in flood management:

Often during the flood, various measures such as filling the breaches of the embankment, deflecting flow from one to other direction, isolating water wells, provision stores, health centers and other structures from being flooded may become essential. Adequate provision of required materials for such activities should be made and stored at convenient places. Based primarily on the experience of the previous flood, VDMC should first assess the need of such materials. VDMC should procure such material from its own resource or from external support or both. A wide range of such materials should be considered. Sand bags, stones, gabion wires, bamboo poles, straw and bush, plastic sheets, nylon ropes, earth cutting tools, grass cutting tools, nails, hammer, lighting equipment, raincoats are some common material for such provisions. Consideration should also be given to sell off the perishable items in time and replenish them before monsoon.

4.25 Generating Financial Resources:

- 1) There can be several ways to generate the resource internally from within the community. Some of the possible ones are:

- a. The community can own forest and grass belt and sell products
 - b. Nursery products in case the community runs nurseries
 - c. Group savings, donations etc.
- 2) VDC can give a part of the money it receives as royalties from the use of natural resources in the area
- a. Local industries can provide support
 - b. Charity shows to raise money

Most of the time when a flood event has to be faced, resources available from the community alone are not sufficient and therefore VDMC should seek support from external institutions. Quite often, it is the capacity of VDMC that convinces such institutions for support. At this point, it is essential that VDMC make convincing and clear proposal for the support requested. VDMC should make a trust fund to collect the money available. The money should be deposited in a bank account which should be operated by two members of the committee.

VDMC make an inventory of GOs, NGOs, CBOs and other social organizations from which support can be requested with their full address and the contact persons. VDMC should then communicate with these agencies with its proposal. A support from a single organization may not be effective and may need supplementary support and therefore an individual organization may shy off from supporting VDMC proposal. In such a situation, organizing meeting of a number of organizations is very effective in drawing various supports from them for executing the proposal. VDMC should take lead in organizing such meeting.

4.26 Adjusting Land Uses:

Flood is destructive in nature. But the flood in inundation prone area deposit fertile loam rich in plant nutrients. Yields of paddy and other crops increase in such soils. Suitable adjustments to the crops can minimize the risk of crop damage. Adopting suitable crop resistant to water logging for the duration of the flood, and also suitable

crop on sedimentation zone after flood can reduce damage due to flood. VDMC should play leading role in adopting various techniques for making best use of the opportunities available. For this, VDMC can seek support from various external agencies for information and training. Another approach could be exchange of experiences through visit of other flood prone areas. To minimize loss to properties, houses and settlements should be located in higher places. The houses should be elevated well above the flood level. The CFMC should advise the community people to adopt such an approach.

4.27 Forecasting and Warning:

Flood Forecasting and Warning sub-committee of VDMC should be vigilant 24 hours during the four months of monsoon season. The sub-committee should keep record of indicators observed, the corresponding warning issued and the actual effect that took place. On the basis of such exercise following some events and continued refinement of the forecasting and warning methods, a sound workable system can be eventually established. Warning follows forecasting. According to the degree of severity of the flood forecast warning should be in terms of different levels applicable to different parts of the habitat of the community. Each level of warning should again be tied up to some action that a resident in a particular area should take. The likely actions are—stay alert, keep your belongings, valuables and relief at higher elevations, prepare for evacuation, evacuate and go to safe refuge. VDMC should make proper arrangement to disseminate the forecast and corresponding warning to the people. The whole area can be divided into convenient sectors of which one or two members of the Flood forecasting and Warning subcommittee can be assigned for disseminating information. There can be a number of mediums adopted for issuing the warning as follows:

1. By showing flags (raising flags of different colors—yellow to indicate readiness to face floods, red to indicate flood is coming, people may evacuate, green to indicate that danger is over) on bamboo poles or hanging flags over tall public buildings at open space which can be seen from all sides of the village)

2. From people to people by word of mouth
3. By playing drums and announcement
4. By using loud speaker
5. By using local FM radio if available

By the time warning is issued, VDMC should also communicate the situation to the concerned agencies outside the community for possible help and rescue operation. VDMC should also respond to the warning by keeping all its subcommittee members alert and within reach to receive instruction and take action.

4.28 Preparing Evacuation Plan:

In areas where standing water depth due to flood is high and it may cause damage to the houses, and houses are likely to be washed away by flood current or by erosion, the area should be evacuated timely to minimize loss of lives and valuable properties. VDMC should prepare evacuation plan after discussion with the people. The evacuation activities should be in conformity with the level of warning issued.

The Evacuation and Rescue sub-committee should assist the people to take a safe escape route and go for the temporary refuge. The whole area can be divided into convenient sectors; one or two member of the sub-committee should take responsibility of each sector. There should be information such as who is going to take refuge in neighbor's house, who is going to the temporary refuge, which temporary refuge is allocated for which area. Such information should be readily available to the members of Evacuation and Rescue sub-committee. This information should be disseminated to all the people in the community by organizing mass meetings before the onset of the monsoon. The VDMC should delineate the escape route. The VDMC should also identify minor works needed to make the routes safer and execute the works in cooperation with the community and external support. The escape route can be a road or a flooded drainage channel. The evacuation plan should include provision of appropriate equipment and tools needed for evacuation. According to specific situation, this may include boats, ropes, empty drums for

floating, rubber tubes, stretchers etc. VDMC should assess the need of such provisions. The VDMC can also make it mandatory for each individual household to keep some of the provisions. The remaining provisions should be maintained by VDMC at locations easily accessible to the Evacuation and Rescue sub-committee members. The members of the Evacuation and Rescue sub-committee should be provided with basic training of evacuation and rescue operation and emergency medical care.

4.29 Ensuring Communication Links:

During the flood, there is no electricity supply and telephone lines are disrupted. The communication systems often fail which disconnects the community from the outside world. Maintaining fool proof communication link to the outside world is essential to inform their situation and call for necessary rescue and relief support. There can be various options that may be utilized: The local Police have wireless communication. VDMC should ensure that the equipment are available during flood emergency for their use and they have enough of energy (battery, fuel for running generator) to run the equipment at least for 3 or 4 days. There can be local PCO office. VDMC should make sure that the office is located at higher elevation and has enough of power to run the equipment. The Community can procure a mobile phone set for use only during the flood.

VDMC should prepare some residents in the area to carry messages out of the area. Basic training on swimming and operating boats may be needed for such people. Depending upon the reliability of each of the options, the VDMC should maintain at least two systems for communication **SELF-HELP IS THE BEST HELP.**

4.30 During Flood Responses : Role Communities in Cachar.

This deals with the situation when the flood has actually arrived and the community has started responding to the situation. It is in fact testing the preparedness of the

community. At this time VDMC members and all other subcommittees should remain active in their respective areas.

4.31 Role of CFMC During Flood:

VDMC and the sub-committee have the following role in this situation:

1. VDMC should monitor activities of all its subcommittees.
2. VDMC should maintain communication link to the outside world and inform on regular basis about the flood situation in the area. It should also call for necessary help for rescue and relief operation to be conducted.
3. The Rescue, Evacuation and Search Sub-committee should carry out its operation in such a way that nobody is left unattended. Priority should be given to any call for rescue. For evacuation priority should be given to the disabled, old persons, women and children. The sub-committee should remain vigilant for a call for search of a missing person and act immediately.
4. The Health and Hygiene Subcommittee should monitor health conditions of the people in the community. The first priority should be given to potable drinking water. The sub-committee should avail of means and chemicals to purify the water. The sub-committee should also monitor the sanitation situation. It should also monitor incidence of water related diseases and provide available medical treatment to the patients.
5. The Relief Material Distribution Subcommittee should start distributing relief material to the people in need. A brief meeting with the CFMC can be held to finalize mode of distributing such materials depending upon the availability of materials and situation obtaining.
6. VDMC should coordinate rescue and relief operation with external assisting institutions.
7. Rehabilitation and Reconstruction Subcommittee should concentrate on flood fighting activities with the help of the people and the material at hand.

8. VDMC should monitor the effectiveness of the preparedness plan and keep record of important activities conducted on day to day basis.
9. VDMC should also keep record of expenditure and use of material on day to day basis.
10. VDMC should assist security institutions in maintaining law and order in the area.

4.32 Post Flood Rehabilitation and Maintenance:

Prioritizing Rehabilitation Activities When flood starts receding, the immediate need is to bring normalcy in the community as early as possible through rehabilitation and maintenance of the damaged infrastructures. Life of the people at this stage is still disrupted and they seek help from their own community and from outside. At present rehabilitation operation in Assam is spread over a large number of sectoral line agencies and institutions and that too is available late after the occurrence of flood. The government line agencies such as PWD, PHED, Revenue & Disaster Management Department, Electricity Authority, Telecommunication Authority/BSNL do the rehabilitation of the damaged infrastructure under their respective jurisdictions. Hence a coordinated approach to delivering necessary help is essential.

The VDMC with the help of proper supporting agencies focus its activities in order of the following priority.

1. Restoration of health care and maintenance of hygiene and sanitation
2. Helping people in need of food
3. Restoration of communication and coordinating external support
4. Prepare restoration plan
5. Start immediate repair and maintenance that the community can do by itself
6. Seek and coordinate external help for restoration of houses and Infrastructures.

4.33 Immediate Rehabilitation Activities:

The immediate relief activities that are done in the community in this stage are as follows:

1. Supply of potable water and monitoring of its availability
2. Monitoring hygiene and sanitation situation and maintenance.
3. Mobilizing health personnel for the needy people, children, pregnant women and the elderly
4. Ensuring availability of basic food items in the market at reasonable prices
5. Informing relief agencies of their need and establishing communication with them
6. Fair distribution of the relief materials
7. Helping establish law and order
8. Mobilizing people to clear the drainages for fast drain out of flood water.

4.34 Intermediate Rehabilitation Activities:

When flood recedes and normalcy starts returning, then the VDMC focus on the following activities:

1. Assess damage caused by the flood through sub-committee.
2. Prepare immediate restoration plan and identify who is doing what (persons, committee and external agencies)
3. Start executing immediate restoration plan
4. Seek external help by communicating with related agencies

5. Coordinate external restoration activities
6. Facilitate people in getting reconstruction materials such as wood, roofing material etc.
7. Educate people in reviving the damaged crops and facilitate them in getting seeds, fertilizers and external support
8. Facilitate needy people in getting work for their day to day maintenance; activities such as food for work can be brought to the area where poorer section of the community can work to earn
9. Facilitate reconstruction by ensuring that the rebuilt constructions, houses, bridges are now safe against the next flood.

4.35 Managing Information for Future Reference:

Keeping an Account of the Events:

Flood relief activities of the past, in most cases are criticized for mismanagement. Relief institutions come to help people only after occurrence of flood and damage to the community. This situation can be better managed if information collected from different sources are communicated to different helping institutions in time. Structural measures are still in vogue to control flood in many communities. Many people of a community mostly demand for structural measures, which they think, are the best method of flood control. The structural measures are often unsustainable due to their inherent technical deficiencies. Non-structural measures of flood management described in the previous section, though sustainable, require much effort on educating people and proper management. VDMC in coordination with different institutions should collect required information on preparedness, forecasting and warning, crop management, before, during and after the floods. The information on the damages caused by each flood is very important for reviewing preparedness plan.

VDMC should keep record of all the flood events and the associated damages caused, together with the activities conducted by the VDMC in response to the flood.

The records should be in writing. It will be a good practice to send a copy of these records to the local office of Deputy Commissioner for safe-keeping.

4.36 Mapping Resources and Services Available at Local Level:

Mapping of resources and services available at local level is necessary to cope with the disasters of flood. Mapping of resources such as cultivable land, forest, grazing land, and villages etc. should be made by VDMC with the help of different organizations. Similarly services available in a community such as schools, health posts, public/private ponds, nurseries etc. should be mapped and a detailed inventory of such services should be made. This resource and service map is instrumental to assess the risk and vulnerability involved in a community as well as for the mitigation planning. The flood risk maps prepared should be updated annually after the end of each monsoon season. The list of organizations available locally for support and their address should be updated periodically.

4.37 Maintaining Transparency:

VDMC maintain transparency at all levels of its activities. VDMC maintain records of all the expenditure incurred in any operation on daily basis. It maintains the record of the use of material in stock. It should also maintain the records of money, relief material received from external agencies and their uses and expenditure. At the end of the monsoon season each year, VDMC should call a general meeting and make public all these records for comments. VDMC should also make public its activities periodically. Maintaining transparency would increase public acceptance of VDMC.

4.38 Risk Assessment: The risk due to flood is on the rise due to rising riverbed level every year. At the same time the embankments and spurs constructed are not maintained regularly and are prone to damages. Narrowing down of the Sonai River in Rangirghat VDMC has posed yet another risk in the community. Because of this

narrowing down of river, breach of embankment occurs every year. The location of breach being unknown to the community it poses great uncertainty to the whole community of Sonai Development Block.

Map 4.1

