

## প্রতিধ্বনি the Echo

A journal of Humanities & Social Science

Chief Editor: Bishwajit Bhattacharjee

Published by: Dept. of Bengali

Karimganj College, Karimganj, Assam, India.

Website: [www.thecho.in](http://www.thecho.in)

### **A Study on the Role of Assam State Disaster Management Authority (Asdma) and Social Worker: Some Aspects of Community Based Flood Management in Assam**

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#### **Abstract**

*The world community now stands committed to reduce impact of disasters by minimizing the loss of life and property, preventing environmental damage and socio-economic disruption caused by extreme natural events. The process of building disaster resilient communities is the most significant step towards achieving the objectives. In recent times there has been marked changes in the approach towards Disaster Management. Now topmost priority is given to disaster risk management instead of confining all our efforts to post – disaster emergency response. This new approach calls for proactive disaster management initiative in which local communities have been assigned a key role. The Communities and their response play a vital role in minimizing the damages caused by the disasters.*

*In this approach, an attempt has been made here to focus certain salient features of community based disaster preparedness in Cachar district. The paper highlights the role played by ASDMA community based disaster management activities and the role of and Social Worker in this aspect.*

**Key Words:** *Community Based Flood Management, Disaster Management, Coping Strategies, Social Work Intervention*

#### **INTRODUCTION:**

Flood has been mankind's constant though inconvenient companion since time immemorial. The fury of nature can be as disastrously beautiful as the gifts of nature received gratis. Natural disasters continue to

strike unabated and without notice and are perceived to be on the increase in their magnitude, complexity, frequency and economic impact. These hazards pose to threat to people, structures and economic assets and assume disastrous proportions

when they occur in areas of dense human habitations. Increasing population and various other socio-politico-economic considerations have forced people to live in areas that are considered uninhabitable like flood prone areas of major river systems and the low lying areas along the sea and islands, which are often inundated. Thus flood is recognized as major disaster due to its frequency and devastating nature.

Disaster can be defined as serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of the affected society to cope using its own resources. The United Nations defines disaster as “The occurrence of a sudden or major misfortune which disrupts the basic fabric and normal functioning of a society (community). It is an event or a series of events which gives rise to casualties and / or damage or loss of property, infrastructure, essential services or means of livelihood on a scale that is beyond the normal capacity of the affected communities to cope with unaided.” Thus a disaster has the following main features: - Unpredictability, Unfamiliarity, Speed, Urgency, Uncertainty and Threat.

Disasters can broadly be classified as Natural and Man-made disasters. Natural disasters includes famines, storms, epidemics Drought, Hurricanes, Cyclones, Tornadoes, Cold wave, Avalanches, Heat wave, Earthquakes Landslides and Mudflows, Dam Failures / Dam Bursts, cloud bursts etc, whereas man made disasters can be described as Air, Rail and Sea disasters, Fire Explosions, Building Collapse disaster, Industrial accident, Terrorism and communal violence. Further for better account of the classification of disasters we may further classify disaster as Water and Climate Related such as Man-made, Geological, Chemical, Biological Disaster Such as Bacterial Related, Food Contamination, Other Fungal, Virus Related. Chemical Disasters such as Toxic Gases and Nuclear Radiation, Food Contamination, Soil

Contamination and pesticides & water contamination.

#### **FLOODS- AN OVERVIEW:**

Floods have been a recurrent phenomenon in India and cause huge losses to lives, properties, livelihood systems, infrastructure and public utilities. India's high risk and vulnerability is highlighted by the fact that 40 million hectares out of a geographical area of 3290 lakh hectares is prone to floods. On an average every year, 75 lakh hectares of land is affected, 1600 lives are lost and the damage caused to crops, houses and public utilities is Rs. 1805 crores due to floods. The maximum number of lives (11,316) was lost in the year 1977. The frequency of major floods is more than once in five years. Floods have also occurred in areas, which were earlier not considered flood prone. An effort has been made to cover the entire gamut of Flood Management. Eighty percent of the precipitation takes place in the monsoon months from June to September. The rivers bring heavy sediment load from the catchments. These, coupled with inadequate carrying capacity of the rivers are responsible for causing floods, drainage congestion and erosion of river-banks. Cyclones, cyclonic circulations and cloud bursts cause flash floods and lead to huge losses. The fact that some of the rivers are causing damage in India originate in neighboring countries, adds another complex dimension to the problem. Thus the problem relating to floods getting more vulnerability day by day. Continuing and large-scale loss of lives and damage to public and private property due to floods indicate that we are still to develop an effective response to floods and as such there is a need of an comprehensive study which will not only bring the effectiveness in the relief delivery service strategies of the Government but will further widen the structured method of CBFM.

#### **DISASTERS AND FLOOD IN INDIAN CONTEXT:**

The unique geo-climatic conditions of India make this region particularly vulnerable to natural disasters. Disasters occur with unfailing regularity and despite better preparedness to meet all such contingencies, the economic and the social costs on account of losses caused by the natural disasters continue to mound year after year. India is the worst disaster prone country. 59% of the land area is prone to Earthquakes, 12% to Floods 8% to Cyclones 70% of the cultivable land is prone to drought 85% of the land area is vulnerable to number of natural hazards 22 states are prone to multi hazards

Damage due to Natural Disasters in India includes 3663 loss of life on an average per year during the last decade. It is due to the floods that cause highest numbers of deaths from 1992-2001. A total of 63 % of reported numbers of disaster affected people is only due to floods.

Thus, India has a history of recurring natural disasters. While the coastal districts of India are exposed to flood and cyclones, India is prone to acute droughts and a large section of the state is also prone to earthquakes. In addition the state is also affected by disasters like heat waves, epidemics forest fire, road accidents etc. The two successive cyclones in October 1999 in Ganjam and the super cyclone that hit the 14 coastal districts of the state of Orissa damaged the infrastructure and disrupted public life. The 1999 Super Cyclone change people's respective. Government policies and approaches towards management of Disasters. The vulnerability of the state to disaster necessitates the preparation of comprehensive disaster management plans, the history of Disasters substantiates the fact that about 80% of the State is prone to one or more forms of natural disasters. (MHA, GoI-2002)

The State of Assam is thus known as multi disaster prone area where the flood and cyclone are recurring phenomena. The state is situated in the seismic zone V which is recognized as most vulnerable zone in the seismic map. On 15<sup>th</sup> August, 1950, Assam witnessed a major earthquake with 8 on Richter scale. It caused havoc among the

people of Assam. The people of Assam witnessed heavy losses to life and property.

The International Decade for Natural Disaster Reduction (IDNDR) has made an effort to mitigate disaster worldwide. Recognizing the rapid rising world wide toll of human and economic losses due to natural disasters, the UN General Assembly in 1989 took a decision to launch a far reaching global understanding during the nineties to save human lives and reduce the impact of natural disasters. With this aim in mind, the decade 1990-2000 was declared as the 'International Decade for Natural Disaster Reduction' [IDNDR]. The main objective of the [IDNDR] is to reduce the vulnerability of disasters through concerted international action especially in the developing countries. Thus it envisaged to mitigate the loss of life and property. Social and economic disruptions caused by natural disasters such as earthquakes floods, Cyclones etc were given due importance due its frequency and severity. The IDNDR workshop in Yokohama in May 1994. a plan of action for disaster reduction called the Yokohama Strategy was evolved. The Yokohama Strategy gave guidelines for Natural Disaster Prevention, Preparedness and Mitigation Shifting the focus and emphasis from disaster management to disaster prevention and preparedness. Thus disaster management has shifted its focus from response centric approach to prevention and preparedness approach and thereby widening the scope of community based disaster management.

Over the years, many authors have called for more coordinated community emergency planning to mitigate against the devastating humanitarian catastrophe that can follow naturally occurring disasters like floods, hurricanes, and earthquakes (Banerjee and Gillespie, 1994; Gandevia 2000; Kasapoglu et al., 2004). Social Workers' skills in communication, networking for community planning, stress management and therapeutic listening (Newburn, 1993) are key in both immediate and longer term responses to disasters. There is also a wider role that social worker can

play in the context of disaster management. A growing body of literature supports the notion of community based disaster management is a useful instrument in sustaining communities from the menace of disasters (Dynes, 2006; Halpern, 2005; kwok, 2003) and social worker can be instrumental in the community based disaster management.

The increasing frequency of the disasters and their severe impact on individuals, communities, society, economy and environment in the last few years, the subject of disaster management has received greater attention for the Community based disaster preparedness (CBDP/CBDM) in India at all levels (UNDP Report, 2003).

Community participation has been recognized as a necessary element to reverse the worldwide trend of the increase in disaster occurrence, particularly small and medium scale disasters (Srivastava, H N 2004). The experiences and practices in community based disaster management show the positive impact of the participatory approach to disaster preparedness, disaster mitigation and disaster risk reduction.

There is paradigm shift from relief of Government side to preparedness at the level of Community. The initiatives taken under community based disaster preparedness is receiving support of the central and state governments to strengthen the disaster management capacities for nearly a decade (Kumar, A, 2006).

The local community is the main focus of community based disaster preparedness programme because of is the community which is adversely affected by a disaster and, more importantly, it is the first responder to the event. In the absence of specialized skill, people use their traditional coping and survival strategies to respond to the event long before outside help reaches them. The more effective coping strategies help the communities to survive from the disasters without any outside help, The best example is flood in Assam. The people of Assam are so well versed with the traditional coping mechanism that the numbers of

casualties are very low as compare to Maharashtra and Gujrat. With the change in approach from post- disaster emergency response to disaster risk reduction, emphasis is laid on proactive pre-disaster interventions such as prevention, mitigation and preparedness. While natural hazards can not be prevented, measures can be initiated for preventing hazards from turning into disasters by strengthening the coping capacities of the communities (Singh R.B 2006). The literature on Community based disaster preparedness focuses extensively on the coping strategies of the individuals, groups and communities to deal with disasters before the arrival of Government or external help. The studies also show how the traditional coping strategies are very much helpful in minimizing the loose of the nations. The communities which have weak coping capacities the loss in terms man and material are more as compare to those who have well structured coping capacities. My study will be focusing on community based disaster management in Assam with special reference to Cachar District.

It is by community preparatory methods that the most significant impact of flood damage and loss of potential can be made. Such preparations currently include basic research, development and implementation of building codes and other structural measures, land use zoning, the provision of information, disaster planning at the level of communities, insurance and rehabilitation planning and budgeting. Prospects for future may include some degree of prediction and control and thereby warnings. (Singh S K, 1998). In Assam the shift from response centric approach to preparedness approach is a new phenomenon, as such there is a need of comprehensive study with will further widen the scope of Community Based Disaster Management.

**The Disaster Management Cycle:** It is the range of activities designed to mitigate the effects of disaster and emergency situations and to provide a framework for helping people at risk to avoid or recover from the

impact of the disaster. Managing disasters includes steps to be taken prior to during and after the disaster and involve preparedness, mitigation, response and recovery. It is further closely associated with the risk, hazard and vulnerability. The Disaster Management Cycle consists of the following broad stages:

- a.) **The Disaster Event:** This refers to the real time event of the hazard occurring and affecting elements at risk. The damage is directly proportional to duration of the event.
- b.) **Response and Relief:** This refers to the first stage after the calamity. Relief materials like food, clothing, medicines and other necessities are distributed to bring life to normalcy.
- c.) **Recovery (Rehabilitation and Reconstruction):** It is used to describe the activities that encompass the three overlapping phases of emergency relief, rehabilitation and reconstruction.
  - I. **Emergency Relief:** Activities undertaken during and immediately after the disaster strikes, which includes immediate relief, rescue damage and need assessment etc.
  - II. **Rehabilitation:** It includes the provision of temporary public utilities and housing as interim measures to assist long term recovery.
  - III. **Reconstruction:** It is an attempt to return communities to improve pre-disaster functioning.
- d.) **Development:** It is an ongoing activity for evolving economy .Long-term prevention, disaster reduction measures like construction of embankments against flooding, increasing plantation for reducing the occurrence of landslides etc. are some of the activities that can be taken up as a part of development plans.
- e.) **Prevention and Mitigation:** Reduction of risk in disasters involves activities, which either reduces or modify the scale and intensity of the

threat faced or by improving the elements at risk. Mitigation too aims at reducing the physical, economical and social vulnerability to threats and the underlying cause for this vulnerability.

- f.) **Preparedness:** The process embraces measures that enable governments, community and individuals to respond rapidly to disaster situation to cope with them effectively. Preparedness includes the formulation of viable emergency plans, the development of warning systems, the maintenance of inventories and the training of personnel. It may also embrace search and rescue measures as well as evacuation plans for areas that may be 'at risk' for a recurring disaster. All preparedness plans needs to be supported by appropriate rules and regulations with clear allocation of responsibilities and budgetary provisions.

#### **COMMUNITY BASED DISASTER MANAGEMENT WITH SPECIAL REFERENCE TO FLOOD:**

Community Based Disaster Management is a disaster recovery technique that attends to the important role of community healing and participation in disaster management ( Victoria, 2001).This method attempts to correct the top-down approach that has failed to meet the needs of vulnerable populations and has ignored the potential of local resources and capacities( Victoria, 2001).Advocates of these community based approaches believe that these are suitable mechanisms for grasping the dynamics and complexity of vulnerability, as manifested at the local level for addressing vulnerability and strengthening local capacities ( Van den Eynde and Veno, 1999:).

Further Community Based Disaster Management can be divided into pre, during and post disaster contexts. This sequence embraces pre, during and post disaster actions that are concerned with the six stages of the following:

- i. Inception of Disaster Planning
- ii. Risk Assessment
- iii. Defining levels of Acceptable Risk
- iv. Preparedness and mitigation planning
- v. Testing the plan
- vi. Feedback from lessons learnt.

Each grows out of the stage before it and leads to further action. Together the sequence can build up a planning and implementation system which can become a powerful risk reduction tool for the communities. If disaster planning is restricted to only preparedness plan then the full benefits of community based disaster planning may not constitute the sequence for disaster management planning.

#### **Importance of Community in disaster management:**

- ❖ Community- First Responder
- ❖ Community- Ultimate sufferer
- ❖ To prevent hazards from becoming disasters
- ❖ To minimize human suffering, socio-economic and environmental loss by reducing vulnerabilities and risk
- ❖ To hasten post – event recovery
- ❖ To make community-at-risk disaster resilient
- ❖ Better preparedness leads to better response from Govt., community and people.

#### **ROLE OF ASDMA AND SOCIAL WORKER IN COMMUNITY BASED FLOOD MANAGEMENT**

Assam is rich in natural resources and has a wealth of valuable flora, fauna, cultures and heritage. It has a complex socio-economic, political and cultural history. The British adopted the principle of non-interference and seclusion in matters of administration in the region. The customary rules and laws prevail till date. Assam have autonomous district councils in Karbi Anglong , Dima Hasao, Bodo etc to manage their affairs, resulting in even greater diversity of law and policy level bodies in thi Our focus is on sustainable

development and flood defence systems, which require people efforts to manage the flood at zero operational cost by Government or Assam State Disaster Management Authority. It does not only reduce the impact of flooding but provide a permanent solution for flooding. Thus Social Worker and ASDMA are playing their role in making the CBFM more effective and structured. Out of my personal experience I can say that the catastrophic results of extreme flood in Assam is only due to the geographical condition. Floods continue to have major damaging effects in both the Valleys of Assam i.e Barak and Brahmaputra due to its geographical locations. The incidents of floods are more due to the hilly terrain covers both the valleys and heavy rainfall in hills result in heavy flood and great loss to the people. The incidence of flash flood more in Brahmaputra Valley as compare to Barak Valley, but both the vallies are equally by long terms flood every year due to its geographical locations. Thus people are bound to develop coping mechanisms which is equally applicable for the entire developing world. CBFM, with the world's most comprehensive range of flood defence systems, offers flood protection solutions for every eventuality. As per the present trend in community based flood management, Government of Assam is giving due importance to make the technique and mechanisms of CBFM more structured and systematic. The international Agencies like United Nations Development Programme (UNDP), UNV, and USAID etc are also contributing sincerely in these efforts. The formation of Disaster Management Committees (DMCs) and Disaster Management Teams (DMT) at the Village and GP level (VDMC and GPDMC) is one of the major steps which can give the structured shape of community mechanisms. The villagers through Gram Sabhas form the Disaster Management Committees (DMC) at their village and assign the responsibilities to the members. Generally the DMC are formed for advisory purposes and Disaster Management Teams (DMT) are for action.

The DMTs are of different types like Search & Rescue, First Aid, Patrolling, Carcass Disposal, Damage Assessment, Early Warning, Relief Coordination, Trauma Counselling Etc. The community people with the use of available local resources equip their concerned teams members. For example for early warning they use the mike of Temple or Mosque, for search & rescue they make banana raft and bamboo raft, for trauma counselling of the affected farmers who have lost their cattle/ livestock and crop they give religious which is generally done by Temple Priest or Mullas. For patrolling they deploy the local youths who are generally trained by Village Defence Party (VDP) and they work on rotation basis. So keeping in view the expertise available in the local villagers the DMTs are formed and moved to work during the time of flood. But there is a long way to go in making these steps more transparent. Till date the efforts received from Government are found to be in-sufficient. Community people also sometimes, show their unwillingness and apathy in making this very important flood management techniques more effective, transparent and systematic. Thus these are some of the problem which needs to be addressed both by the Social Worker and Assam State Disaster Management Authority.

Assam is surrounded of eastern part of the great Himalayan are comprising the whole of Arunachal Pradesh, and the eastern hill ranges comprising of the Patkai Manipur Mizoram-Arakan-Chittagong hill tracts and the Shillong-Mikir Plateau. Scenic blue hills and numerous meandering streams surround the entire region. Dominating the geography of the region is the Brahmaputra River providing the largest drainage network in the entire eastern region of the country.

In Assam Barak and Brahmaputra are the main source of water. Like other parts India, Assam is also a multi hazard prone area. Flood and cyclones affects the State almost every year and cause heavy losses to life and property. The people of the valley have their own coping mechanism to deal with disasters

and as such the loss of human life due to flood is comparatively less in this part of India as compare to other parts . Besides flood, Assam also comes under seismic zone V which is recognized as high risk zone as per as the occurrence of earthquake is concerned but from last 60 years it has not witnessed any major earthquake thus the level of community preparedness is not known and the scope of the ASDMA becomes widened .

There are a number of concerns that are either not attended or partially attended in respect of disaster management in general and community based disaster management in particular. Communities across the globe now stand committed to reducing the impact of natural and man made calamities on communities by minimizing the loss of life and property, preventing environmental damage and socio-economic disruption caused by extreme natural events. Thus the importance of ASDMA on Community Based Disaster Preparedness is very important as the communities of the region face the disasters especially floods almost every year and people are equipped to face the floods which needs to be given a structured shape by ASDMA Team. Unlike Maharashtra and Gujrat the loss of human life is comparatively less in this region due to the indigenous coping strategies which the community people have developed to reduce the impact of floods. Thus lot needs to be done by ASDMA on the coping of the people of Assam which will further widen the scope of community based disaster preparedness.

For development of the region it is important to address the issues relating to proper management of natural resources and minimizing loss of infrastructure and property due to recurring natural disasters like floods, landslides, erosions and earthquakes. The focus of ASDMA today has shifted from post disaster relief to disaster preparedness. The GOI-UNDP programme on Disaster Risk Management also did a lot on these lines and established the base for disaster preparedness and mitigation. ASDMA with full of enthusiasm

is widening this motive of disaster management in Assam.

Due to increasing frequency of the natural disasters and their severe impact on individuals, communities, society, economy and environment in the last few years, the subject of disaster management has received greater attention in India at all levels. UNDP,

USAID, IRG, WHO, UNICEF, FAO and like some other National and International Agencies has been supporting the initiatives of the central and state governments to strengthen the disaster management capacities of the communities for nearly a decade. (UNDP Report, 2003).

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