



Disaster Management: A Contemporary Study of Practical Implementation in Barpeta District of Assam

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Disaster Management, Contemporary Study, Practical Implementation, Natural Hazards, Floods, Earthquakes and Erosion etc.

ABSTRACT:

Barpeta district of Assam consider as natural disasters prone area, faces significant challenges in managing and mitigating their impact. This area of study presents a contemporary study focusing on the practical role of disaster management in Barpeta district of Assam. The study begins by examining the diverse range of natural hazards prevalent in Barpeta district, including floods, earthquakes and erosion. It highlights the frequency and severity of these disasters, along with their socio-economic ramifications, underscoring the urgent need for robust disaster management measures. Drawing upon recent case studies and empirical data, the study evaluates the practical implementation of disaster management frameworks in Barpeta district. It assesses the efficacy of early warning systems, disaster response mechanisms, and community-based initiatives in enhancing resilience and reducing vulnerabilities. The study explores the role of governmental agencies, non-governmental organizations, and local communities in disaster preparedness and response efforts. It analyzes the coordination mechanisms, resource allocation strategies, and capacity-building initiatives aimed at strengthening disaster resilience at various level. The area of study examines the integration of technology and innovation in disaster management practices, including the use of GIS (Geographic Information Systems), remote sensing, and social media platforms for risk assessment, early warning, and response coordination.

Introduction:

Disaster management consider as emergency management or crisis management, is the process of preparing for, mitigating, responding to, and recovering from natural or man-made disasters. It involves a coordinated effort among various stakeholders, including government agencies, non-governmental organizations (NGOs), businesses, communities, and individuals. The primary goals of disaster management are to save lives, minimize damage to property and infrastructure, and facilitate the swift recovery of affected areas. "A disaster can be either natural -rain, flood, cyclone, storm, landslides, earthquake, volcanoes etc. or man-made war including biological, arson, sabotage, riots, accident (train, air, ship), industrial accidents, fires (forest fires), bomb explosions, nuclear explosions and ecological disasters. The discussion here is confined to the natural

disasters. Pre-Independence, droughts and famines were the biggest killers in India. The situation has changed due to a combination of factors like irrigation development, food security measures. Floods, cyclones, droughts, landslides, avalanches and earthquakes are some of the major natural disasters that repeatedly and increasingly affect the country." (Report. DDMA, 2021)

Significance of the study:

The significance of a study on disaster management, particularly focusing on practical implementation in a specific region like Barpeta District of Assam, lays several local relevance in this District, situated in the northeastern state of Assam, is prone to various natural disasters like floods, earthquakes, and landslides. Understanding how disaster management strategies are implemented in this specific region is crucial due to its

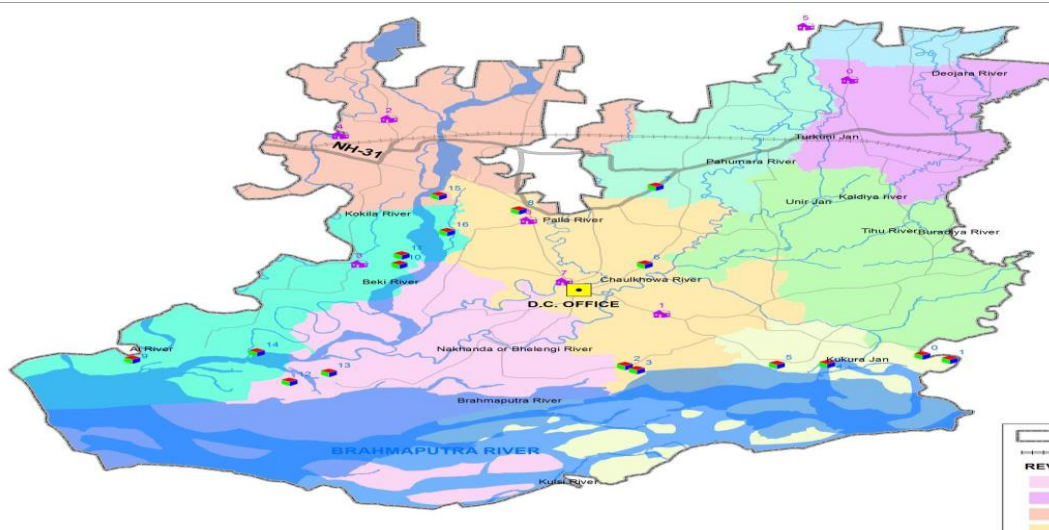


vulnerability to such events. Community resilience studying the practical implementation of disaster management in Barpeta District, researchers can assess the resilience of the local community in facing and recovering from disasters. This knowledge can inform policymakers and aid organizations on how best to support and strengthen community resilience. Policy Evaluation and Improvement analyzing the effectiveness of disaster management policies and practices in Barpeta District can provide insights into areas that require improvement. This information can be used to refine existing policies and develop new strategies to better prepare for and respond to disasters in the region.

Research Question:

1. What is disaster management?
2. What government schemes are available for disaster management in Barpeta district of Assam?

Profile of Barpeta District:



Source: Web Source, Barpeta DC Office

Barpeta district is known as riverine area which is surrounded by 8 rivers like- Brahmaputra, Beki, Manas, Pahumara, Kaldia, Bhelengi, Nakhanda and Chaulkhowa. District Head Quarter located at Barpeta town which was created and started functioning from 1st July'1983. The district is covered across 2282 sq. kms

3. How is the practical implementation in Barpeta District of Assam?

Objective:

1. To know the concept of disaster management
2. To find the availability government scheme for disaster management in Barpeta District of Assam
3. To find the practical implementation of scheme in Barpeta District of Assam

Methodology: This study based on empirical study and adopted Descriptive type of research method in this study. Data collected from the primary sources like – data collected from the MLA of Barpeta district and secondary source like- government website, published article, research paper, text book etc.

within 26*45' to 26*49' North latitude and 90*45' to 90*15' East latitude. Total population of this district is 16, 93,622 (2011 census), population density 632 per sq.km. and sex ratio of male and female 1000:941. In this district have two sub-divisions, 8 revenue circle, 9 developmental block, total 834 villages are there.

Following the Circle wise Flood affected areas of the district:

Table: 01

Sl. No.	Name of Circle	Nos. of Villages	Nos. of village affected
1.	Barpeta	145	145



2.	Barnagar	97	05
3.	Baghbar	141	141
4.	Chenga	72	72
5.	Kalgachia	100	91
6.	Sarthebari	129	129
7.	Sarupeta	81	46
8	Bajali	69	60
Total	08	834	686

Source: DDMA, Barpeta

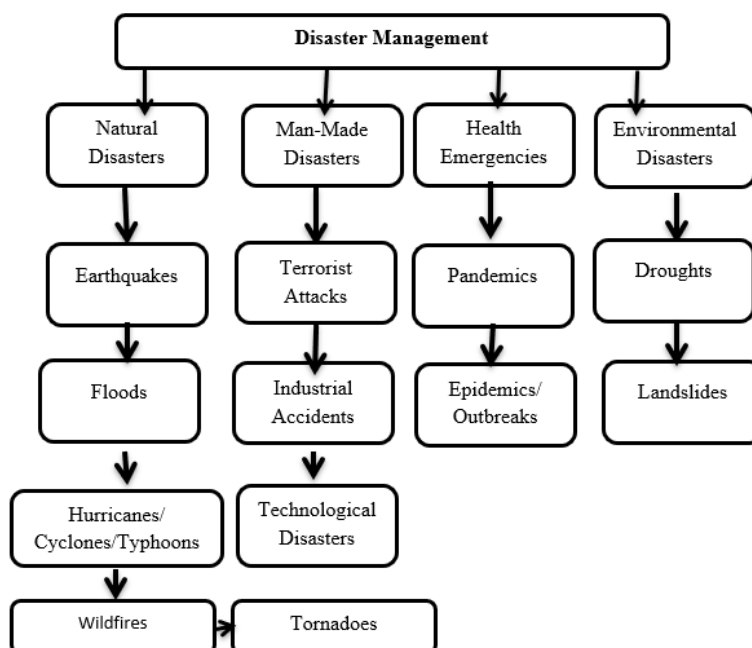
In this district 80.25% villages are affected by blood and erosion and 19.75% villages' safe from blood and erosion. Sanitation and safe drinking water facility (around 40 %) Barpeta is highly prone to health and water related diseases. With very few hospitals are available (3 per 1, 00,000 people) this water and health problems may aggravated during the periods of flood. The major rivers flowing through the district, which also causes for annual floods and riverbank erosion etc., particularly in the char areas, leading to a considerable loss of life and property are Brahmaputra, Beki, Manas, Pahumara, Kaldia, Bhelengi, Nakhanda and Chaulkhowa.

Disaster Management:

Emergency management on natural hazard or manmade hazard consider as disaster management. It is a science and a management system charged with creating the

framework within which communities reduce vulnerability to hazards and cope with disasters. Emergency management, despite its name, does not actually focus on the management of emergencies, which can be understood as minor fact with limited impacts and are managed through the day-to-day functions of a community. "Natural disasters include all types of severe weather, which have the potential to pose a significant threat to human health and safety, property, critical infrastructure, and homeland security. Natural disasters occur both seasonally and without warning, subjecting the nation to frequent periods of insecurity, disruption, and economic loss. Variety of natural disasters, including winter storms, floods, tornados, hurricanes, wildfires, avalanche, explosions, earthquakes, or any combination thereof." (Sephrkiya, 2022) Following the major components of disaster management are represented below:

Figure: 1 Schematic Presentation:





Availability government scheme for disaster management in Barpeta District of Assam

Specific government scheme for disaster management is not available in Barpeta district of Assam but some following the relevance scheme find out in this district-

Data Analysis/ Results:

Table: 02 Fund utilized by District Disaster Management Authority (DDMA)

Sl.No.	Name of Scheme	Funded by	Financial year	Present Status
1	SUHRID" under MLA-LAD program with an additional grant of Rs 50.00 Lakhs per Constituency (LAC)	State Government	2018-19	Discontinued from 2021
2	Aspirational District Programme (ADP) was launched in January, 2018 with an aim to quickly and effectively transform the identified Aspirational Districts.	Central & State Collaboration Schemes	2018-2022	Discontinued from 2022
3	State Disaster Mitigation Fund (SDMF) allotted the scheme 2023 -2024, Assam government received 189.20 Crore (170 from Central & 19 Crore from State)	Central & State Collaboration Schemes	2023-2024	Continue
4	National Disaster Risk Management Fund (NDRMF) and State Disaster Risk Management Fund (SDRMF) The coverage of the funds recommended by 15th Finance Commission goes beyond the disaster response funds that already exist at the national (NDRF) and state (SDRF) levels. Scheme Details for Assam: Central fund – 680 & State fund-76 crores, Total 756 crores.	Central & State Collaboration Schemes	2023-2024	Pending

Table: 03 Fund Distribution

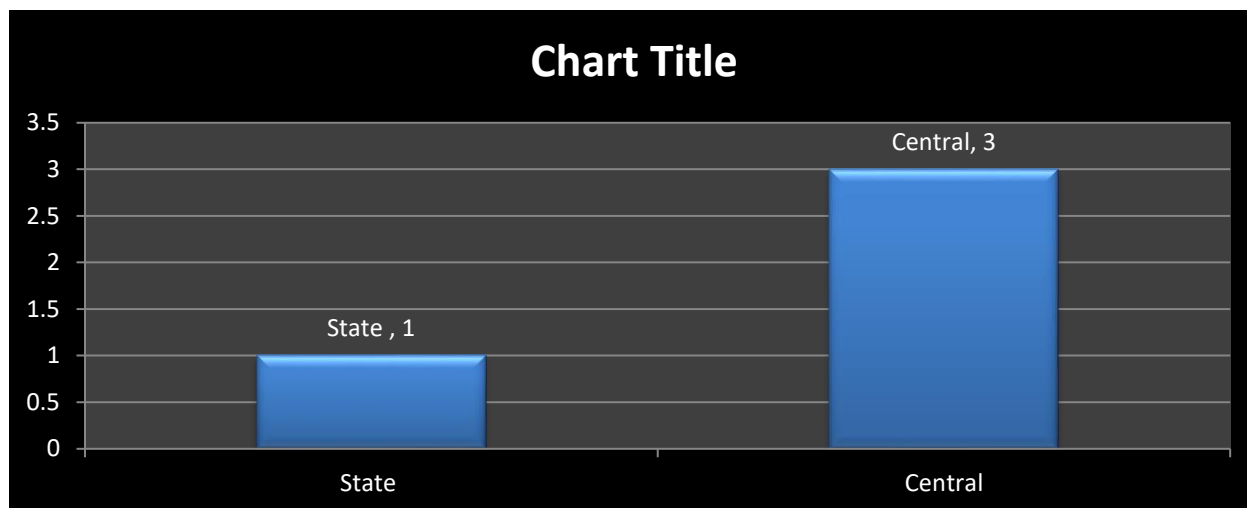
Fund Sponsored	Fund Percentage
State Government	20%
Central Government	80%
	100%

Table: 04 Scheme distribution

Scheme	Availability
State	1
Central	3
Total	4



Figure:2 Graphical Presentation of Table 4



From the above data total 4 schemes found in Barpeta district of Assam and among the 4 scheme two are inactive and two are active. One scheme from MLA fund

of state government and another 3 scheme are collaborative fund, 80% fund provided by the Central government and 20% provided by the state government.

Table: 05 Practical implementation of disaster management Scheme in Barpeta District of Assam

Scheme	Fund allocation for Barpeta District	Implemented area	Present Status
SUHRID" under MLA-LAD program	Rs 50.00 Lakhs per Constituency (LAC) (2018-2019)	40 No Sorbhog LAC -Nil	N/A
		1."SUHIRD" Scheme for Health in 41 No Bhawanipur LAC total 01	Completed
		1.SUHIRD" Scheme for Education in 42 No Patacharkuchi LAC total -01	Completed
		43 No. Barpeta LAC- Nil	N/A
		44 No. Jania LAC-Nil	N/A
		1."SUHIRD" Scheme for Health in 45 No Baghbar LAC total -04 2. SUHIRD" Scheme for Medical & Education total -01	Completed
		46 No. Sarukhetri- Nil	N/A
		1."SUHIRD" Scheme for Health in 47 No Chenga LAC total-01 2."SUHIRD" Scheme for Education in 47 No Chenga LAC total -01	Completed
Aspirational District Programme (ADP) Central & State	Rs. 55000 per month for twelve month	45 No Mandia Aspirational District Programme -01	Completed



Collaboration Schemes			
State Disaster Mitigation Fund (SDMF) allotted the scheme 2021 - 2022	220.00 Lakhs (42 No. Patacharkuchi LAC)	Immediate measures for restoration of flood damages on R/B Embankment of river Kaldia at Upornoi area under SDRF for the year 2021-22	Completed
	210.00 Lakhs (43 No. Barpeta LAC)	Immediate measures for flood damage repairing of breach like damaged section in between ch.3900m to 4400m, ch. 4610m to 4800m and ch. 5800m to 6780m of M/E along L/8 embankment of river Morachowlkhowa including pro-siltation measures under SDRF for 2021-22.	Completed
	150.00 Lakhs (41 No Bhawanipur LAC)	Immediate measures for restoration of flood damages of river Pahumara L/B embankment at Ch. 24th KM Rajakhat under SDRF for 2021-2022	Completed
	230 Lakhs (45 No Baghbar LAC)	Immediate measures to B/dyke from Bahari to Baghbar for recoupment of breach like damages at different reaches in between ch.41100m to 52200m including Pro-siltation measures under SDRF for 2021-22.	Completed
State Disaster Mitigation Fund (SDMF) allotted the scheme 2023 - 2024	Pending	Pending	Pending
National Disaster Risk Management Fund (NDRMF)	World Bank released Rs. 400 Crore under the National Disaster Risk Management Fund (NDRMF)	Manah to Moinbari Chotola in Barpeta district under the initiative of MLA 45 No Baghbar LAC	Continue

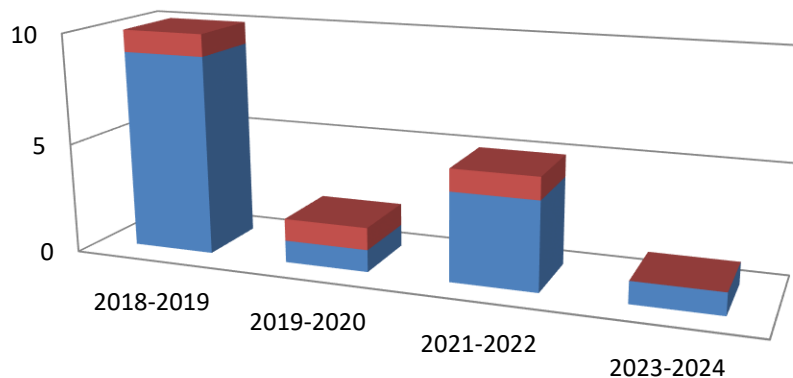
Table: 06 Year Wise Scheme and its Implementation

Financial Year	Sectioned Scheme	Total No. of Scheme	Work status
2018-2019	SUHIRD: Health & Education	9	100% Completed
2019-2020	Aspirational District Programme (ADP)	1	100% completed
2021-2022	State Disaster Mitigation Fund (SDMF)	4	100% completed
2023-2024	State Disaster Mitigation Fund (SDMF)	Pending	Pending
2023-2024	National Disaster Risk Management Fund (NDRMF)	1	Continue

Figure: 3 Graphical Presentation of table 6



Year wise scheme Implementation



	2018-2019	2019-2020	2021-2022	2023-2024
Work status	100%	100%	100%	0
Total No	9	1	4	1

Researcher find from the above analysis total 9 scheme allotted in Barpeta district within 5 years and the entire scheme 100% implemented according to the data of District Disaster Management Authority Barpeta district and one new scheme is going on under World Bank project specially for protection of erosion another State Disaster Mitigation Fund (SDMF) financial year 2023-2024 works are pending under disaster management scheme.

Finding of the study:

1. In the concept of disaster management clearly highlighted natural and manmade hazard and other essential areas of disaster management.
2. The availability government disaster management scheme found total No. 04 in Barpeta district of Assam. Among the 4 schemes, two are inactive and two are active. One scheme from MLA fund of state government and another 3 scheme are collaborative fund, 80% funding by the Central government and 20% funding by the state government.
3. Researcher find after the data analysis regarding the 3rd objective contemporary practical implementation -9 schemes allotted within 5 years and the all the allotted scheme 100% implemented according to the data of DDMA in

Barpeta district and another two scheme are pending under disaster management.

Suggestion or Recommendation:

1. Government should take scheme for permanent solution for the protection of rivers.
2. Government project and scheme should increase according to the need and demand as the situation.
3. Government should increase the hospital facility in this district.
4. District Disaster Management Authority should distribute the fund properly.
5. Government should provide the shelter or land those who are landless due to erosion.

Conclusion:

This study has shed light on the current state of disaster management practices in Barpeta District of Assam. Through a comprehensive analysis of the practical implementation of disaster management strategies, several important observations have been made. Firstly, while there are existing frameworks and policies in place, there are significant gaps in their actual execution on the ground. Issues such as inadequate infrastructure, limited resources, and a lack of coordination among stakeholders hinder effective disaster preparedness and response efforts. Effective disaster management requires a multi-faceted approach that addresses the socio-



economic, environmental, and institutional dimensions of vulnerability. From the study reflects 80% villages affected due to erosion and reflects government's ignorance. There have no proper scheme for Education, Health, flood control and river protection scheme. Newly adopted one scheme from World Bank, it would be effective positive outcome for river protection. All the allotted schemes of last five years are completed according to the DDMA report, Barpeta, Assam.

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