Scientific Report

Flood in North Bank of Brahmaputra River and its Effects on Human Life and Bioresources in the Butikur area of Dhemaji District, Assam

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Introduction

The north east India surrounded by the hills and mountains of Mount Himalaya is enriched by the bioresources as well as famous for mighty Brahmaputra River. The Brahmaputra river flowing from eastern tip of state Assam to the Western and finally to the Bay of Bengal has bifurcate the state into north and south bank. The indigenous native people of the state are living in the fertile Brahmaputra basin since yore. The whole Brahmaputra basis is inundated by flood water from east to west and from north to south during monsoon every year. Dhemaji district at the eastern part of Assam and north bank of Brahmaputra River covers an area of 3237 Sq. Km (Fig. 1) with a population of approximately 7,91,523(Census, 2011). The district is interwoven by a number tributaries of Brahmaputra River namely ,Simen ,Gainadi, Karha, Jiadhal and Subansiri River. People of the district experience flood every year during monsoon that have been described in various literature (Bhoben Pegu, 1990; Umesh Chetia, 1994, 2009). In the Dhemaji district, the Butikur area located about 10 Km south side from Dhemaji town is extremely affected by flood water of Karha and Jiadhal rivers. The persistent floods, occurring from May to September, consistently devastate crops, properties, and livelihoods of both humans and animals in the area. On this background the present study has been carried out in five villages namely:

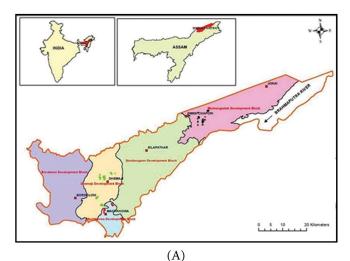




Fig. 1. (A and B) Map of Dhemaji district, Assam (India).

Hatipara, 2., Butikur, 3. Kacharipothar, 4. Bordhekera and
Hiloipara of Butikur area (Fig. 2) with an objective of assessing poverty, literacy as well the quality of life of rural

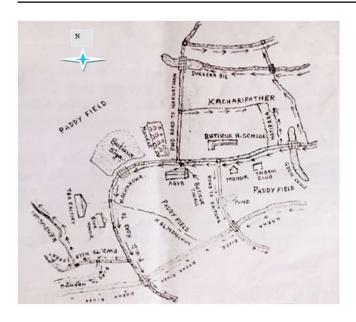


Fig. 2. Map of Butikur survey area (Not to scale). (Prepared by the authors as per the survey area).

communities. First hand information have been collected in the affected villages employing a questionnaire-based data collection method meeting with various sections of the villages.

Impacts of flood in Butikur area

The floods in Butikur bring about detrimental effects on the environment, rendering the land unsuitable for agriculture due to the deposition of sand and silt particles by the floodwaters. Specifically, sandcasting by the Jiadhal and Karha rivers significantly affects the villagers, destroying paddy fields and impacting soil quality. The recurrent flooding leads to the destruction of crops, followed by the outbreak of diseases such as Typhoid fever, Cholera, Malaria, Hepatitis, and Yellow fever, amplifying the suffering of the local populace. Moreover, the inundation disrupts normal life, submerging schools and

hindering daily classes, thereby adversely affecting the educational system.

Causes of poverty in Butikur area

The survey identifies various reasons contributing to the poverty line status of Butikur villagers, including rapid population growth, frequent natural disasters (especially floods), unequal distribution of resources and income, limited employment opportunities, low levels of education, lack of industries, prevalence of child marriages, reduced agricultural productivity due to soil damage, and underutilization of natural resources.

Migration of educated individuals and its impact

The continuous threat of floods prompts educated individuals in Butikur to migrate to urban areas, adversely affecting the village's education system and subsequently lowering the overall literacy rate.

Strategies to alleviate poverty

Efforts to reduce poverty must include the implementation of sustained economic growth policies and programs focusing on healthcare, education, nutrition, and sanitation. Additionally, community awareness initiatives are essential to address population control, promote self-employment, encourage higher education, and prevent child marriages.

Role of government

The Assam government, particularly the Agriculture Department, should provide special incentives and support to farmers, emphasizing the use of scientific methods in cultivation. Adequate measures by the Water Resources Department (WRD) involving the allocation of sufficient funds

Table 1. Population and literacy rate (%) in the villages of Butikur area, Dhemaji district, Assam.

Sl. No.	Name of village	Total population	Male	Female	Literacy rate
1	Hatipara	404	206	198	69.80%
2	Butikur	88	43	45	77.27%
3	Kacharipathar	241	122	119	83.96%
4	Bordhekera	124	72	52	68.26%
5	Hiloipara	398	201	197	77.84%

for embankment construction are vital to safeguard villagers from recurrent floods.

Conclusion

Improving the situation in the Butikur area necessitates a comprehensive approach involving both community-driven initiatives and strong governmental support.

Acknowledgement

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