



IMPACT OF FLOOD ON HUMAN OCCUPANCE: A CASE STUDY IN BOGORIBARI VILLAGE, SADIYA SUBDIVISION, TINSUKIA DISTRICT, ASSAM

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Abstract:

Floods have now been one of the major national problems in India. The river basins of India are frequently visited by floods during every rainy season. In this way floods in Assam have been a recurring feature since early times, especially after the 1950 great earthquake. Bogoribari village of the Sadiya Sub Division being a part of the Brahmaputra valley in Assam bears almost the floods and this impact on land and people.

This study reveals that a large A large number of populations of Bogoribari village are depending upon cultivation for their livelihood. Continuation of primitive labour intensive form of agricultural system with low-level economic and technological development in the region makes it clearly distinguishable in social organization cultural attainments land ownership system. Above all the people of Bogoribari village have been facing various problems created by annual flood of by the river Brahmaputra.

In view of the above problems an in-depth research is therefore highly essential in order to arrive at a logical decision about socio-economic life of the Bogoribari village. For this both the primary and secondary data act as the input for understanding and analyzing the floods and their impact on land and people of the village.

Key Words: Economic, Flood, Intensive, Impact, Livelihood & Occupance

Introduction:

Though floods have some beneficial effects, such as fertile silt deposition on agricultural fields, recharge of soil moisture, washing effect on dirty environment, they cause substantial damages to standing crops, dwelling houses and developmental infrastructures. (Bhagabati, Bora and Kar, 2002). Floods in the plains acts as both the hazards and boon. They create erosional hazards on the agricultural lands and river banks. Floods and their associated problems also cause human migration, change of economic pursuits, etc (Gogoi, 2008). Floods have been observed in most parts of the riverine area of the Brahmaputra valley also. The village Bogoribari is a newly established village. Earlier the people of the village were resided in Amarpur village, which was located on the bank of the river Dibong. But twelve years back the village Amarpur was destroyed in a devastating flood brought by the river Dibong. So that, the government of Assam reestablished the flood affected people in Bogoribari region where they are presently residing.

Objectives:

The mains objectives of the present study are as follows:

1. To find out the impact of flood on socio-economic life of the people of the surveyed village.
2. Analyses of the natural extent and role of cultivation in this region.
3. To analysis various problem associated with the people during the flood and after flood.

The Study Area:

The Surveyed village Bogoribari is located at the north bank of the river Brahmaputra. It is situated in Sapakhowa development block of Sadiya sub-division of Tinsukia district of Assam. It is at 3 k.m. away from the Sadiya ghat of the Brahmaputra

river. The village Bogoribari is bounded by Kundil river on the east and Dibong river on the west, Borgaon is on the north and on the south is the river Brahmaputra.

Geographically the region falls within the sub-tropical region and has received high rainfall and humidity. The average temperature of this region is varies in between 25^oc – 35^oc during summer and in winter the temperature fall upto 16^oc –24^oc. The average annual rainfall measures approx. 150-200 cm. As the region is lies on the riverbank area hence the soil of the region is composed of alluvium as almost every year the region experience flood that dump sediments in this region.

Methodology:

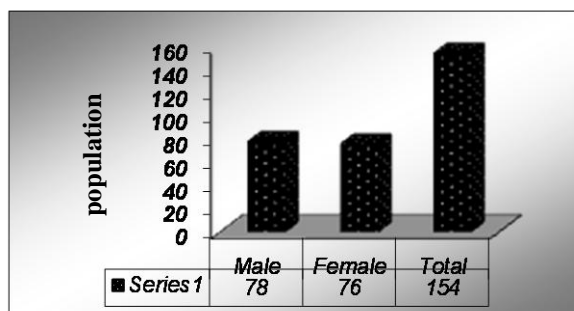
Fieldwork has been done in the village Bogoribari. Primary data on different aspects of sample villages have been collected through personal interview and observation. Schedules, maps, cameras are used as field aids. For spatial analysis of socio-economic condition of the people of secondary datas and informations relevant to the topic has been collected from the headman of the village (Gaon Bura) and Mauzadar.

Analysis and Discussion:

Population Structure:

The table no-1 shows that the total population of the surveyed household is 154. Out of this the total number of male is 78 and the total no of female is 76. The population is composed of the people from different religious groups, such as Hindu, Muslim and Christian. The number of Hindu is highest among them.

**Table-1 and Figure-1
Bogoribari Village
Population Structure**



Source: - Sample survey, 2015

House Type and Settlement Pattern:

Maximum family live in Kaccha house constructed with Bamboo, Wood, Thatch and Takow leaves. A few families have pacca houses. The houses are arranged on either side of the road and form linear pattern of settlement.

Transport and Communication:

The village is well connected by waterways of the river Brahmaputra from Saikhowa ghat that is on the south bank. From Saikhowa ghat to Sadiya ghat various government and private ferry runs daily from 7 am in the morning to 3 pm in the afternoon. A PWD road runs through the heart of the village and connects Sadiya. The road is connected with Sadiya ghat by a narrow gravel road. The conditions of the roads are very poor. They are totally broken, narrow and dusty. Recent flood made the roads more inaccessible and unsuitable for any means of transportation. From Tinsukia various government and private vehicles such as bus, truck, trackers, etc. runs daily and connect Sadiya with the rest part of the state. Moreover, through this road various vehicles from Arunachal Pradesh run daily to Tinsukia. Besides these, auto, tracker and

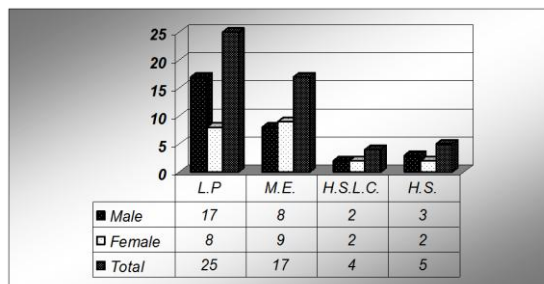
other four wheelers are the local means of communication. In the rainy months the roads are remain under mud.

Though the village is very poor for any means of transportation but mobile network facility is available here. Every household use mobile phone as the means of communication.

Education and Literacy:

The educational standard of the surveyed population is very poor. The number of total literate person is only 51(33.12%). Among them 30 is male and 21 is female. Higher secondary is the highest level of education.

**Table-2 and Figure-2
Bogoribari Village
Educational Structure**



Source: - Sample survey, 2015

It is shows that 25 (49.02%) person are of L.P. standard; 17(33.33%) person are of M.E. standard and only 4 and (7.84%) and 5 persons passed H.S.L.C. and H.S. respectively. There is only one Primary school. Most of the students go to Sadiya College, Doomdooma College and Tinsukia College for pursuing higher education.

Occupational Pattern:

The people of the surveyed household is mainly depend upon agriculture for their livelihood one or two families run small shop but the earning from that shop is not sufficient to meet their need for whole year. Beside a few people engaged in various secondary and tertiary sectors like service, daily wage labour and animal husbandry. Truly speaking 99 % people of the village is living below poverty line. The following table (no-3) shows the various occupational pattern of the surveyed population.

**Table-3
Bogoribari Village
Occupational Pattern**

Agri.	Service	Business	Daily wage Labourer	Animal Husbandry
16	3	3	10	10

Source: - Sample survey, 2015

The above table no-3 indicates that agriculture is the main occupation of 16 persons. Contrary to it only 3 persons are in service and another 3 persons are engaged in small-scale business like shop keeping. Among the surveyed people 10 persons are daily wage labourer and another 10 persons rear animals like cow, goat, pig, etc.

Findings:

Impact of Flood on the Economy of Bogoribari Village

Land Use Pattern:

During the recent flood the land property of the respondent got severely affected. Before flood there are total 179.5 Bighas of land among the respondents. Out of this 20.5 Bighas of land were fall under the category of settlement area and 159 Bighas

of land were as agricultural field. But the recent flood has wasted total 71 Bighas of land by dumping sediments. At present there are 17.5 Bighas of land as settlement area and 91 Bighas of land as agricultural field in the village.

Table-4 (I and II)
Bogoribari Village
Land Use Pattern

Before flood (i)			After flood (ii)		
Settlement Area	Agriculture Area	Total	Settlement Area	Agriculture Area	Total
20.5	159	179.5	17.5	91	108.5

Source: - Sample survey, 2015

The above table no-4 depicted a comparative idea of land use pattern of the surveyed household during pre and post flood period.

Cropping Pattern:

As the villagers are basically agriculturist, they grow various kind of crops season wise. Both Rabi and kharif crops are produced in the village. Among the produced crops paddy is the main. They cultivate the Sali rice every year. Black pulses and mustered are also cultivated there. Besides various vegetables like Cabbage, Radish, Tomato, Potato and other leafy vegetables are also grown here. But because of traditional method of cultivation and non-availability of HYV seeds the production of these crops are minimum and sometimes cannot meet the need of the villagers for whole year. Besides it the quantities of the total production of various crops have declined after flood as 71 Bighas of land got wasted.

Table -5 (I)
Bogoribari Village
Cropping Pattern (Before Flood)

Crops	Rice	Pulses	Vegetable
Yield in Quintal	934.2	8.8	2
Percentage	98.8	0.93	0.21

Source: - Sample Survey, 2015

Table -5 (II)
Bogoribari Village
Cropping Pattern (After Flood)

Crops	Rice	Pulses	Vegetable
Yield in Quintal	174.4	7.2	1.5
Percentage	95.25	3.93	0.82

Source: - Sample Survey, 2015

From the above (Table no-5-i) it is reveal that the total yield of rice was 934.2 quintal (98.86%) before flood. The amount of pulses and vegetables produced during that period was 8.8 quintal (.93%) and 2.0 quintal (.21%) respectively. Compared to it the amounts of production of crops have been declined after flood. Now the total production of rice and pulses is 174.40 quintal (95.25%) and 7.20 quintal (3.93%) respectively and the total production of vegetable decreases upto 1.50 quintal (0.82%) after flood (Table no-5-ii).

Family’s Monthly Expenditure:

During the field survey it has seen that the recent flood has largely change the monthly expenditure pattern of the respondents. If we compare the amount of monthly expenditure of the respondent before and after flood it is seen that the amount of monthly expenditure have been raising gradually in post flood period. The following table no.6 (i) and 6(ii) gives a comparative idea of monthly expenditure pattern of the surveyed people before and after flood.

Table-6 (I)
Bogoribari Village
Family’s Monthly Expenditure (Before Flood)

Expenditure (.000)	No of Household
0-4	09
5-9	10
10-14	01
15-19	01

Source: - Sample survey, 2015

Table-6 (II)
Bogoribari Village
Family’s Monthly Expenditure (After Flood)

Expenditure (in.000)	No of Household
0-5	05
5-10	12
10-15	02
15 <	02

Source: - Sample survey, 201

The above table no. 6 (i) shows that before flood the total expenditure of 9 households were upto Rs. 4000 each and 10 families spent Rs. 5,000 to 9,000 per month. On the other hand within the expenditure group of Rs.10, 000 to 14,000 and above Rs.15,000 one number of family in each group is found. But after flood the total monthly expenditure of the families have been raised. The table no.6 (ii) shows that the monthly expenditure of 5 families have increased upto 5 thousand and 12 families have spent 5-10 thousand per month for necessary day to days commodities. 10-15 thousand rupees per month is required for 2 families and another 2 families spent 15 thousand rupees and more than that as their monthly expenditure.

Livestock Production:

The villagers domesticated various animals like cow, goat, hen and other animals. The recent flood also had destroyed the livestock of the village extensively. The following table no.7 depicts a comparative view of the livestock production before and after flood.

Table -7 (I & II)
Bogoribari Village (Livestock Production)
Before Flood (I) After Flood (II)

Cow	Goat	Hen	Others
97	58	100	37

Cow	Goat	Hen	Others
42	29	41	5

Source: Sample survey, 2015

It is seen in the table no.7 that before flood the total numbers of cow, goat and hen was 97, 58, 100 respectively. But after flood the numbers of these livestock become minimize upto 42 numbers of cow, 29 numbers of goat and 41 numbers of hen respectively on the other hand the number of other animals have decreased from 37 to 5 only .

Problems:

The people of Bogoribari village have been facing various problems in their social as well as in economic life for year after year, which can be treated as hinder on the path of the all round development of the village. Some important problems of the village in these regards are mentioned below.

- The literacy rate of the villagers is not satisfactory. We found some drop out students between upper primary and high school level, which indicates low level of literacy among the villagers.
- The transport and communication system of the village is very poor. The annual flood have been deteriorated the condition of the road year after year.
- Non- respondents use any HYV seeds and fertilizer in their crop field. That is why the amount of production remains stagnant day after day.
- Besides, lack of facilities like higher education, medical, postal and banking has created hinder in front of all round progress of the people of Bogoribari village.
- Because of low per capita income the people unable to save even a minimum portion of their earning for future prosperity of their life.

Prospects:

- The low rate of literacy is one of the major cause of the backwardness of the respondents. So by creating awareness towards the importance of education, the socio-economic status of the villagers can be raised.
- Sound transport and communication system is a pre-requisite condition for every kind of development of any region. So good transport and communication facilities can boast up the socio-economic life of the villagers of Bogoribari. In this matter the Government as well as local administrative authority can help a lot.
- To raise their agricultural production the people can use modern method of cultivation, HYV seeds, fertilizers etc. in this regards various agricultural scheme of the central and the state government can help them.

Conclusion:

The field study reveals that the Bogoribari village is an economically backward region and the economy of the village is basically agrarian. 99% people of the village are still remain below poverty line. They have been confronted numerous obstacles in this regards. During the field study it is seen that the villagers still practiced all the agricultural activities by traditional method. They do not use any H.Y.V. seeds and fertilizer. That is why the agricultural production is minimum. Moreover they do not have any nearest market to sale the surplus product. In spite of these problems we have seen some possibilities to improve the economic status of the people of Bogoribari village. By using H.Y.V. seeds and fertilizer they can yield a sufficient amount of crop, which will help them to improve their living standard. Besides the Dhola market is not far from the village. So the villagers will be able to sale the surplus production in that market.

Apart from these, the village does not have high school, post office, medical centres ,etc. So they have to go Sapakhowa for availing these facilities. But due to poor transport and communication system they unable to enjoy these facilities properly.

Above all the annual flood of the river Brahmaputra has been gradually deteriorating the economy of the village. In this the government has responsibilities to ensure all round development of the villagers. Improving transport and communication system and providing other facilities like establishing higher educational institute and Medical centre and providing bank loan, etc. the government can boost up the socio- economic condition of the people of Bogoribari village.

Through this field study we have presented a view on socio-economic condition of the flood-affected village, Bogoribari under Sadiya sub-division of Tinsukia district of Assam.

Acknowledgements:

The author remains grateful to Miss Jupitaora Phukan former faculty member of Geography Department, Digboi College for her field assistance and cooperation in the preparation of manuscript. The author also wish to acknowledge Mr. Dipangka Dutta , rendered generous help during field investigation.

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