Natural Resource and Landuse Development of Barpeta District, Assam

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Abstract

The present district of Barpeta along with a part of Baksa district of BTAD conforms to the study area. It had twelve blocks maintaining their own regional identity in respect of the physical, social, cultural and economic entities over an area of 3245 sq. km, within the Indo-Bhutan Border in the north, the district of Nalbari in the east, the part of Kamrup district in the south and the Bongaigaon district in the West. The study area lies between the parallels of $26^0 5'$ and $26^0 51'$ N and $90^0 20'$E and $91^0 38'$E meridians. The total population of the district now stands at 16, 47,201 with an average density 508 persons per sq.km. as per 2001 census. This Study include characteristics involved in economic sphere could ooze out socio-economic development, based on resources, land use characteristics, etc. A study of these aspects in terms of community wise and block wise details may reveal a number of significant patterns.

1. Introduction

The relation of man with the earth's material, space and time along with their developmental characteristics had been significant ever since the concept and use of geography came to the midst of men. Such a relationship has assumed increasing importance at the present juncture of time and complex human society. As such the very essence of studies on any area as of now centers to a large extent around population and its distribution is over the earth's surface. Thus population and its distribution over the earths bear a great significance. Population acts as a master tread which brings a great coherence among all the aspects of social and economic issued and even the issued related to the landform dynamics. The study area covers an area of 3245 sq. km., which accounts for only 4.09 percent of the total geographical area of Assam. This area is bounded by the Indo-Bhutan border in the north and the plain district of Nalbari in the east. The southern parts of Kamrup and Goalpara district lie in the south and the district of Bongaigaon in the west. The district lies between $26^0 5'$ N and $26^0 51'$ N parallels and $90^0 21'$ E and $91^0 38'$ E meridians. The district conforming to that plain lies on the Brahmaputra valley below the Bhutan Himalaya. The present Barpeta District and a part of the Baksa district have been carved out of erstwhile Kamrup district of Assam till July, 1983. The district of Barpeta at present consists of two civil sub-divisions, namely the Bajali sub-division in the east and the Barpeta itself in the west. The master stream Brahmaputra flows from east to west along the entire

southern part of the Barpeta district. The district is drained by the tributaries like Manas, Beki, Nakhanda, Chawlkhowa, Bhelengi, Pohumara, Kaldiya etc. The study area falls under humid sub-tropical climatic region. The average rainfall increases from south to north. It ranges from 1000mm to 2000mm. The maximum and minimum temperatures recorded in the district are 36^0C and 9^0C respectively.

2. Database and Methodology

The data required for the purpose are collected mainly from the published works like census handbook and other government organization like forest office, statistical office, block office etc. and non-governmental organization like N.G.O. At the same the time the researcher has to consult the existing unpublished M. Phil. dissertation and Ph. D. thesis, journals and books etc. available at different sources. Unpublished articles, journals, reports available in libraries and even the articles retracted through internet will stand important material source for the study. The data so collected are processed by using simple but appropriate quantitative methods and techniques and the processed data are represented on tables. They are analyzed in order to have a picture of reality favorite the theme of the research work.

3. Results and Discussion

The quantum, quality, accessibility and perception valuation of resources have their far-reaching impact on the nature and dimension of socio-economic development of a region. There are various forms and functions of resources. The natural and cultural resources are not less in the district of Barpeta, even as the study area is not much developed in respect of resource uses, resources are found to be rich.

Some areas of the district are covered by forests. In many areas of the Gobordhana, Gomafulbari and Jalah blocks forest cover takes an important place. In the north of the district there lie the Manas National Park rich in plant and animal diversities. Some of them being endangered ones are available in this National Park. Water resources are rich in the district. The important rivers like, Manas, Beki, Palla, Pohumara, Kaldiya, Chawlkhowa, Nakhanda etc. Yield a good quantum of water and aquatic resources in the district.

The soil as the basic resources bears a good quality mainly for agricultural uses. Rice, sugarcane, potatoes, jute, various kinds of pulses are easily and flourishingly grown in the rich soils of the district. Basically the built up plains are giving a good picture of agricultural landscape. The rural people have their various kinds of engagement with the soil of the district. About 75% of the people in area depend on agriculture for their livelihood. The agricultural practices are mostly of traditional ones dealing with subsistence economy. The human are yet to be equipped with modern technology of production.

4. Land use Characteristics

In the study area land is used mainly for agricultural purposes raising crops in different seasons mainly because of 75% people are engaged in agriculture. A substantial proportion of land goes also to wastelands, human settlements, roads and communication existences etc. The Govt. of India has taken various steps to proper utilization of the land. Lands are found in various types like forest land, agricultural land, wasteland, wetlands, etc. The Barpeta district has also various types of land according to the physiographic, biotic and hydrologic conditions. Assam Remote Sensing Application Centre Guwahati in 1990 had prepared a well designed landuse map of Barpeta District along with other districts of the state. In this table there are land groups such as built up land, agricultural land, forest land, wasteland, water bodies and others. All the types of the land have different micro physiographic characters.

Table: 1 Detailed Land use Pattern in Barpeta District (ARSAC)

Land Use Category	Area (Km^2)	Percentage of area
Forest land	227	.08
Built up land	32	.98
Agricultural land	2343	3.05
Water bodies	396	2.34
Waste land	11	.33
Other	236	.22
Total	3245	00.00

Table 2: General Pattern of Agricultural Landuse in Barpeta District, 2001

Blocks	Forest (in hect.)	Area under cultivated land (Hect)	Hect shown area (in Hect)	Area shown more than one (in Hect)	Total
Bajali		7841 (22%)	19942 (55.97%)	7841 (22%)	35624
Barpeta		11280 (41.32%)	11280 (41.32%)	4735 (17.34%)	27269
Bhawanipur		11428 (41.90%)	10921 (40.09%)	4920 (18.04%)	27269
Chakchaka					
Chenga		16974 (50.00%)	12573 (37.03%)	4401 (12.96%)	33948
Gobordhana	14249 (23.41%)	23306 (38.29%)	16017 (26.31%)	7289 (11.97%)	60861
Gomafulbari	6665 (32.67%)	6866 (33.66%)	5198 (25.48%)	1668 (8.17%)	20397
Jalah	9186 (11.72%)		58629 (74.85%)	10505 (13.41%)	78320
Mandia		54022 (49.04%)	42120 (38.24%)	14002 (12.10%)	110144
Rupsi		12156 (43.94%)	12156 (43.94%)	3349 (12.10%)	27661
Sarukhetri		10337 (50%)	7972 (38.55%)	2365 (11.43%)	20674

Block	% of Autumn rice (in hect)	% of winter rice (in hect)	% of Summer rice (in hect)	% of wheat (in hect)	% of Black gram (in hect)	% of Rapi & Mustered (in hect)	% of Sugar cane (Hect)	% of Jute (in hect)	% of Tea	% of Potato
Bajali	45.57		8.29	12.50		31.19		0.26	0.63	1.52
Barpeta	24.69	40.88	25.83	1.91	0.03	3.71	0.07	1.95		0.89
Bhawanipur	24.46	41.55	13.08	3.43	0.10	9.91	0.11	4.02		3.30
Chakchaka										
Chenga	42.89	34.77	0.85	7.16	1.32	3.94	0.17	4.24		4.61
Gobordhana	27.38	36.48	0.32	14.85	0.10	12.81	0.09	4.29		3.62
Gomafulbari	29.95	22.36	24.35	5.19		6.04	0.21	7.97		3.89
Jalah	34.74	57.98	0.18	4.20	0.066	2.45	0.02	0.12		0.21
Mandia	50.81	29.35	4.59	3.90		7.81	0.39	2.73		0.39
Pakabetbari	27.01	49.34	3.38	5.62	0.12	9.77	0.18	4.27		0.26
Rupsi	26.73	37.58	2.44	4.58	0.38	9.74	0.15	16.92		1.45
Sarukhetri	28.01	63.83	1.40	2.45	0.04	1.90	0.10	1.04		1.18

**Source: Government Statistics Office, Barpeta District, Assam*

Table: 3 Percentage of Area under Important Crops in Barpeta District, 2001

The northern foothills areas have luxuriant growth of forests. Mainly evergreen and moist deciduous forest covers are found due to high rainfall in this part of the district.

The block like Jalah and Gobordhana are falling in to this area and many parts of the blocks are covered by forest land. The Manas National Park is located in the upper part of the district, which covered a large part of dense forest and grass cover. Agriculture is very difficult in this part to unsuitable environmental condition.

The area covered by Manas National Park is mainly reserved for tiger project. This forest area is rich in tiger, mainly Nahar Phutuki Tiger. In the rural areas people grow manily nut trees, betel leave, bamboo, lamons, orange, coconut trees, jack fruit trees, etc.

The people of the rural area in the northern foothills areas use to cultivate mainly rice throughout the year. They also raise Rabi crops which include vegetables, pulses, mustard seeds etc. the Fatimabad tea garden is situated in this area near the Manas National park. At present the garden remains inoperative after Bodoland Movement.

The blocks like Bajali, Bhawanipur, Chakchaka, Pakabetbari and Sarukhetri covering most parts of built-up areas have good plain lands for rich growth of agricultural and historical crops. Both the kharif and Rabi crops are grown in these blocks. Rice, sugarcance, wheat, bananas, jute, oil-seeds, pulses, tobacco and vegetable, coconut and nut trees betel leave, bamboo are found mostly in these blocks. Among the kharif crops rice is important crops. But it is done only once in a year. Both single and double cropping systems are found in this area. But the single cropping system is basically more prevent.

The low-lying flood plain areas are usuable for various types of crop cultivation. Both single and double cropping systems are found in this region. Rabi and kharif crops are grown in this area but they are less in quantities. Bao rice, Sali rice, Ahu rice, various vegetables, jute, mustard seed, pulses wheat are main crops grown in the low lying areas of the Barpeta district. This area is suitable for jute cultivation and famous for the bumper production of Rabi crops. The low laying areas are mainly dominated by grasses.

These areas including the charlands are not good for agricultural crops because of heavy damages the crops caused by regular floods. Single and double cropping systems are followed in this part. But the single cropping system is dominant because of heavy floods in this part. The blocks like Chenga, Gumafulbari, Mandia, some part of Rupsi block are falling in to this part of the district.

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6. Conclusion

The study area is mainly dominated by deciduous species of trees like *Shore Robusta, Lagerstomia parviflora, Dalbergia sisoo* etc. The total forest area is around 22701 hect. and deciduous forest covers 18824 hect. approx.

The district has well maintained forest plantation which cover mainly the reserve forest areas. The area under Rabi crop is more than by kharif crops. Rabi crops are mainly wheat, rice, mustard, pulses etc. Large area under the district seen in forest boundaries are occupied by grassland.

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