

Ecology and ethnicity of the Brahmaputra valley in Assam, India

Haruhisa Asada

Department of Geography, Tokyo Metropolitan University, Tokyo 192-0397, Japan

E-mail: asada@tmu.ac.jp

Abstract: Northeast India surrounded by Bangladesh, Bhutan, China and Myanmar is the place of multi-ethnic society. In the plain area of the Brahmaputra valley in Assam, mixing of different ethnic groups founded the basis of present society and culture, but also often caused the conflict and social disorder. This study aims to discuss how these people have traditionally coexisted in the Brahmaputra valley from the viewpoint of ecological environment. The study area is Lakhimpur district in eastern Assam where many ethnic groups like Ahom, Mishing, Kachari, Khamti, and Bengali living together. Both primary and secondary data were collected to investigate the location, structure and livelihood pattern of the local villages. From the GIS analysis, it was found that people in the study area lived in different ecological zone by ethnic groups. Each group has the unique livelihood pattern based on ecological environment. For instance, the Ahom living in plain zone and the Mishing living in river island zone grow different crops in the different season of a year. They can interact with each other by exchanging their agricultural products and labor services. The fluctuation of micro environment of the Brahmaputra floodplain may enable the coexistence of the different ethnic groups.

Key words: Brahmaputra, Assam, floodplain, ethnicity, livelihood

Introduction

The northeast India surrounded by Bangladesh, Bhutan, China and Myanmar is the abode of different races of ethnic groups, and they are living together over centuries. In the mountainous states like Arunachal Pradesh and Meghalaya, the residential area of ethnic groups is relatively separated in distinct regions because of steep ridges of mountains prevent them to move to other places. In the plain region of the Brahmaputra valley in Assam, however, the residential pattern of ethnic groups is not clear because different groups migrated to settle here in different periods of history. Now they seem to be dispersed in wider area of the valley. Mixing of different ethnic groups founded the basis of present unique culture in Assam, but also often caused the ethnic conflicts and social disorder in the state. This study aims to discuss how these people traditionally coexisted in the Brahmaputra valley by investigating the village location, structure and livelihood pattern of each group.

Studies on ethnic groups in the Brahmaputra valley started in the early 19th century when Assam was annexed into the British territory. Many gazetteers and expedition records which described the characteristics of indigenous people were published for the administration of the frontier region under the British India (Hunter, 1879; Waddel, 1901; Allen, 1906). In the 1870s, the first Census was carried out in Assam province as well as other regions of the country, and population structure by ethnic groups as well as Hindu castes was revealed. After the independence, anthropological studies tried to reveal the characteristics of indigenous groups in the Brahmaputra valley through intensive village survey. With the rise of ethnic movement after the 1980s, the unique custom and social structure of the indigenous groups were focused by those anthropologists (Das, 1987; Gogoi, 2006). At the same time, geographical studies tried to reveal the distribution pattern of these groups in Assam by using state-wise or district-wise statistics (Kar and Sharma, 1997). Historical studies also tried to understand the migration and settlement course of the people (e.g. Nath 2003; Choudhury 2007). These studies provided useful information for understanding the overall structure of the area, but little on the question how the indigenous people could live together in the Brahmaputra valley. Therefore,

the present study attempts to reveal the distribution pattern of revenue villages by ethnic groups and its relationship with ecological environment. The ecological approach will be effective as most of the people in the Brahmaputra valley are engaging with a subsistence farming which is highly dominated by local ecological environment. As district-wise statistics is too large to see the ecological influence on population pattern, village-wise census data is used in the study.

Materials and Methods

The study area is Lakhimpur district in eastern Assam (Fig. 1). The district is located in the north bank of the Brahmaputra, and its tributary, the Subansiri originated in the Tibetan plateau flow through the district before joining the mainstream of the Brahmaputra. In the district, there are many kinds of ethnic groups; *Asamiya*¹, Bengali, Nepali (they belong to Aryan group), Ahom, Khamti (Tai group), Mishing, Kachari, Bodo, Chutia, Deori, Koch (Tibet-Burma group), Ex-Tea labor tribe (Austro-Asia group).

This study used Village Directory of Census 2001 to analyze the location and structure of the villages. The data was obtained from Census Office in Guwahati in MS-Excel format, and it contains code, name, area, household number, population, facilities, land use etc. Information on latitude and longitude of the villages were obtained from India Place Finder (<http://india.csis.u-tokyo.ac.jp/>)². Information on villagers of each village was obtained by hearing survey from local people³. Based on the village name and its location, ethnic community of villager was identified in 981 of total 1170 villages (84%) in Lakhimpur district. Then, the data in Village Directory was summarized by ethnic groups, and the characteristics of village structure was examined.

In order to analyze the relationship between village location and ecological environment, 11 set of 1/50000 Topo-sheets (83-E/15, E/16, F/13, I/3, I/4, I/7, I/8, I/11, I/12, J/1, J/5) covering almost whole Lakhimpur district were digitalized and classified into five ecological zones; mountain, piedmont, plain, floodplain and river island (Fig. 2). Distribution of villages by ethnic groups and number of villages located in each ecological zone were calculated on GIS software, ArcView. Along with the analysis of secondary data, primary information collected from

hearing survey and field observations were also used to reveal the livelihood pattern of different groups. Field

work was carried out in Lakhimpur district on and off from 2007 to 2012.

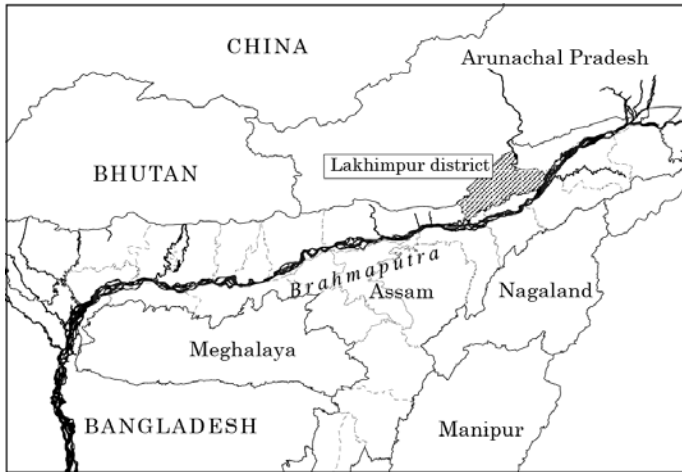


Fig. 1. Study area

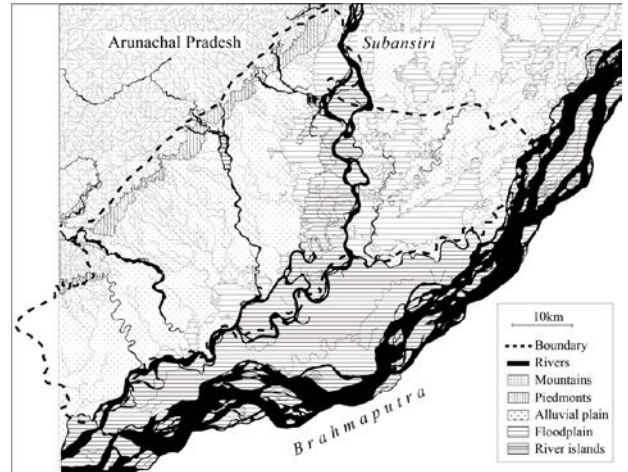


Fig. 2. Ecological zones in Lakhimpur district. (Source: 1:50,000 topo-sheet published from Survey of India in 1971).

Results and Discussion

Location of villages of each ethnic group

From the hearing survey, villager’s information of 981 villages in Lakhimpur district was revealed as follows; mixed people in 348 villages (35%), Mishing 235 (24%), Ahom 145 (15%), Ex-Tea labor tribe 64 (7%), Bengali 43 (4%), Kachari 41 (4%), Nepali 23 (2%), other people 82 (8%). Mixed people mainly means *Asamiya* people including various caste (*Jati*) or mix of different ethnic groups which local people cannot identify the majority groups of the villages. Other people include Chutia in 18 villages, Deori 16, Bodo 4 and Khamti 3 and Scheduled caste such as Dum 13, Boria 5, Nath 3 and Das 3.

The location of these villages shows the distinct pattern of residential area of ethnic groups (Fig. 3). Though the

number of villages with mixed-people is the largest, most groups live in separately from other groups and same groups concentrating in particular cluster areas of the district. When the location of villages is compared with land classification map of Fig. 2, the relationship between ethnicity and ecological environment becomes clear (Fig. 4). Villages of Nepali and Ex-Tea labor tribe are near piedmont zone bordering with Arunachal Pradesh, and villages of Mishing and Kachari are located in floodplain and river island zones in the Brahmaputra and the Subansiri. Villages of Ahom and Bengali are not located in these ecological zones, but mostly in plain zone near to national highway and towns.

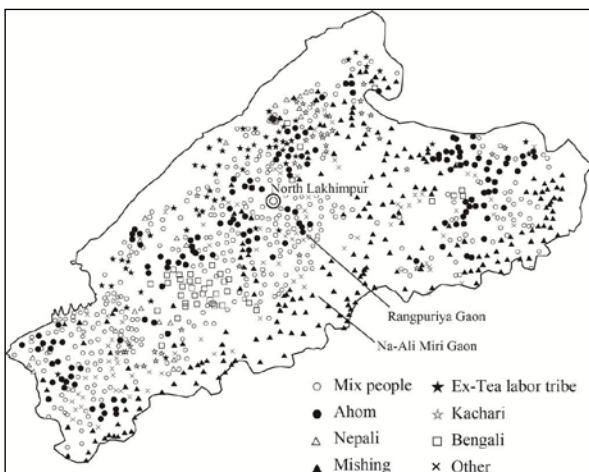


Fig. 3. Location of villages by ethnic groups in Lakhimpur district (Source: Village Directory of 2001 Census, Hearing survey).

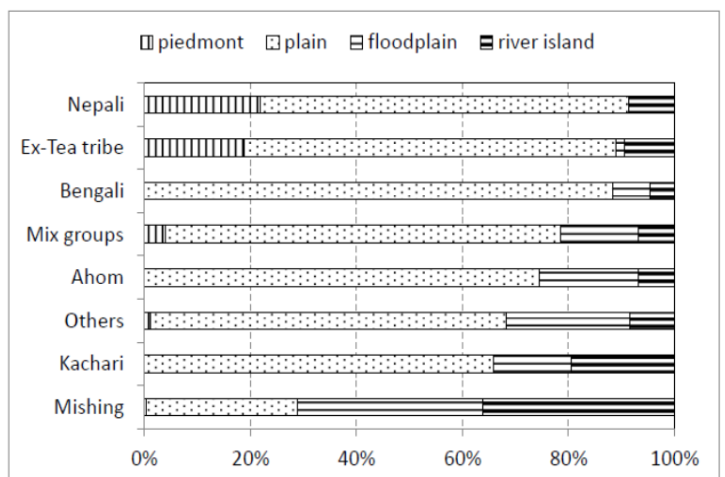


Fig. 4. Relationship between village location and ecological zone. (Source: GIS analysis).

The historical background for migration of each ethnic group is important to consider the residential pattern of each group at present. Until 18th century, the district was sparsely populated with *Asamiya* who came from western Assam and Mishing who came from Arunachal Pradesh.

Asamiya people lived in plain area and Mishing people lived near the rivers. During the 19th century, many Ahom people migrated from southern bank of the Brahmaputra, and founded villages in plain area. At the same time, Ex-tea labor tribe was brought to work in tea gardens

established in piedmont area by British people. Finally, immigrants from Nepal and Bangladesh came to settle in the 20th century (Gopalkrishnan, 2000). Uninhabited waste land was little left for them in the district.

Structure of villages and livelihood pattern: The village structure of each ethnic group was calculated from Village Directory (Table1). The villages of Ahom, mixed-people and other groups show average characteristics in structure. However, villages of Ex-tea labor tribe, Mishing and Muslim show different characteristics from villages of

other groups. For instance, in the villages of Ex-tea labor tribe, the number of female is little in a family, and electricity is available in most of the villages. In the villages of Mishing, the number of households in a village is less, but the number of people in a family is more and cultivate land area per household is also larger. In the villages of Bengali, on the contrary, the number of households in a village is more, and the cultivate land area per household is less.

Table 1. Structure of villages by ethnic groups

	Nepali	Ex-Tea labor	Bengali	Mix	Ahom	Others	Kachari	Mishing
Number of village	23	64	43	348	145	82	41	235
Area (ha)	188	180	224	183	163	193	137	163
Total Household	147	152	244	135	125	134	99	92
Population /HH	5.36	5.21	5.98	5.50	5.46	5.94	5.90	6.92
Male/Female	1.00	1.06	1.04	1.06	1.03	1.05	1.03	1.04
Kilometer from Town	15.3	15.8	16.2	17.4	22.4	20.9	14.9	25.4
Electricity (%)	69.6	82.8	81.4	72.7	61.4	59.8	61.0	20.9
Income	116	116	166	40	46	60	29	28
Expenditure	87	107	142	34	40	52	27	26
Cultivate land (ha)	144	138	166	137	116	144	109	107
Cultivate land (ha) / HH	0.97	0.91	0.68	1.02	0.93	1.07	1.11	1.16
Cultivable waste land (ha)	17.3	16.3	24.5	18.3	20.7	25.2	14.6	28.7
Irrigation from river (%)	0.0	0.2	0.0	2.6	0.1	2.4	1.0	3.2
Irrigation from others (%)	0.2	0.0	0.0	0.6	0.7	1.2	0.0	0.2

Source: Village Directory of 2001 Census, Hearing survey

The differences of village structure also seem to be related with ecological environment. In the villages of ethnic groups (ex. Nepali, Ex-Tea labor tribe, Bengali) live in mountain side, (1) area is larger, (2) household number is more, (3) distance from town is shorter, (4) income and expenditure are more, (5) cultivated land and cultivable wasteland per household is smaller. On the contrary, in the villages of ethnic groups (ex. Kachari, Mishing) live in river side, (1) area is smaller, (2) household number is less, (3) distance from town is longer, (4) income and expenditure is less, (5) cultivated land and cultivable waste land per household is larger.

The structure of villages along with their location leads to differences in livelihood pattern of each group. For instance, in villages of Mishing where cultivation area per household is larger, extensive cultivation of broadcast rice is the main activity of livelihood. In the villages of Bengali, on the contrary, where cultivation area per household is less, intensive cultivation of rice and vegetable cropping in the dry season is found.

Interaction among different ethnic groups: Ethnic groups in the study area live in different ecological environment and have the different livelihood. Those differences enable them to interact with other groups by exchanging farm products and labour services. Here, an example of interaction between Ahom village and Mishing village is explained based on author's field observation⁴.

The livelihood pattern is not same between Ahom village and Mishing village, and the difference enables Mishing people to work in the Ahom village. In the Ahom village, transplant rice (locally called *Sali* rice) is the main crop in

the rainy season (Asada, 2011). The peak season of agricultural labor is May to August for plowing lands and transplanting rice, and October to November for harvesting rice. In the Mishing village, on the contrary, broadcast rice (locally called *Ahu* and *Bao* rice) is the main crop. The peak season of agricultural labor is January to March for plowing land and harvesting rabi crops (e.g. Mustard), and June for harvesting *Ahu* rice. Therefore, Mishing women can come to help agricultural labor for daily wage in the Ahom village in July and August, October and November when they have less work in the Mishing village.

Because most of the Ahom villages are located near town, they have more opportunity to find jobs and earn cash income than Mishing people. Nowadays more people in the Ahom village go to work in town, and they had less time to engage in agricultural activity at their own farm land. It is also difficult to find wage laborers for the agricultural activities in the village during transplant or harvest season. Therefore, they need agricultural labors from other villages. Mishing people have less opportunity to get jobs in town, and most villagers are still doing agriculture which is low productivity. They need money for education and daily expenditures, so go to work in the Ahom village and get wages.

The difference of land use between the Ahom village and the Mishing village is also important for their interactions. In the Ahom village located in plain zone, back swamp is used for paddy fields, and little land on natural levee is available for keeping cow. They have to keep cow on the road during the rainy season. Therefore, some villagers

keep their cows in the Mishing village where plenty of land and grass is available for rearing cow near river side area or paddy field after harvesting *Ahu* rice in the rainy season. The Mishing villager can get milk production and newly-born calf in return. The milk produced in the Mishing village is brought to sell in the market near town. The cows will be back to Ahom village after being enough large to work as draft power for plowing land or to sell in the market.

The Ahom people who ask Mishing people for keeping their cows sometimes take care of the Mishing children at their home. The primary school or secondary school in river island area is often closed in the rainy season due to water inundation and poor accessibility, and they cannot always receive enough education in the Mishing village. The children can go to school in and near the Ahom village for better education, but they have the duty to help house activities as well as farm activities of their nursing family. They will stay in the Ahom village for several years till the graduation of secondary school or higher secondary school.

These kinds of interaction between Ahom and Mishing people are not seen in all households in the village, but a few families have the strong relationship with other ethnic people for long years⁵.

Conclusion: In the Brahmaputra valley in Assam, the unique custom and culture of indigenous ethnic groups are often stressed, and relationships among ethnic groups are not studied much. However, this study focused on interaction between villages of different groups. It has been revealed that people in the study area more or less lived in different ecological zones and their livelihood pattern based on micro ecological environment is quite different. These differences based on floodplain environment may enable them to interact with other ethnic groups by exchanging livestock, people and labor services. More study will be necessary such as human movement or periodical market analysis, for understanding the structure of the multi-ethnic society of the Brahmaputra valley. It will be possible to consider the sustainability of the multi-ethnic society in the Brahmaputra valley by studying the geographical cooperation among the ethnic groups from the viewpoint of ecological environment.

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Notes: (1) *Asamiya* means 'people in Assam' or 'people who speaks Assamese language' in the literature. It is defined as indigenous non-tribal people including various Hindu castes in this study. Most of them belong to Aryan group, (2) This web-based system was developed in the project of Contemporary India Area Studies under National Institutes for the Humanities, Japan. The exact latitude and longitude of all revenue villages registered in Census 2001 in India can be obtained by its name or code, (3) Hearing survey was conducted at five revenue circles in Lakhimpur district. The information was obtained from several male villagers in each survey, (4) The observation was mainly carried out in Rangpuriya Gaon as a typical Ahom village, and Na-Ali Miri Gaon as a Mishing village. Rangpuriya Gaon is located in the right bank of the Subansiri river and about 10 km away from North Lakhimpur town. Na-Ali Miri Gaon is located in the river island of the Subansiri, and about 20 km from North Lakhimpur town, (5) In the Rangpuriya Gaon, interaction is observed not only with Mishing people but also with Chutia people living in the village located in the river island of the Subansiri.

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