HABITAT, ECONOMY AND SOCIETY OF TWO VILLAGES ALONG DULUNG RIVER

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ABSTRACT
Since time immemorial, river basin has been providing the most appropriate place of living. This is the place where people can easily avail their required needs (i.e. food, shelter and clothes). Dulung river basin is no exception. The river traverses through the slightly rugged region of Rarh in its upper reaches and has more or less flattish landscape in the lower reaches. Its confluence with Subarnarekha and the surrounding area provide wonderful place for living with typical agro - economic ambience. Gokulpur and Dangarsai are two mouzas of Sankrail Block of Paschim Medinipur. The rural life here has been largely influenced by its typical terrain character. The study focuses mainly on the economic and social life of the people and tries to establish the relationship among various attributes of the physical and economic factors.

Keywords: Habitat, landscape, agro - economic ambience, landuse pattern, micro-level planning

INTRODUCTION
Village study is very much important as it forms a micro level region. It is geographically significant also from the perspective of planning and development. Actually, village is the first stratum of the analysis to begin with from the 'part to the whole'. Again, when they are part of a watershed, its thematic importance increases manifold. The main components of the watershed i.e. river sculptures the Earth’s surface and shapes the life of the human beings over the Earth (Seshagiri rao, 2000). Land, water and soil are the major natural resources available for the utilisation to their fullest extent by the people. Soil–water relationship in a watershed influences the land capability, which in turn, affects the agricultural production. In fact, micro-level study always gives the details of direct and firsthand information of the economic condition, social life and cultural level of the area concerned.

The two villages along the Dulung river bear their own characteristics in conformity with the physical landscape of the terrain. In both the cases, the land and life of the people are influenced and controlled by the whims of the river. The Study area comprises Gokulpur mouza (J.L.No.86) of Andhari Gram Panchayet and Dangarsai mouza (J.L.No.250) of Rohini Gram Panchayet of Sankrail Block of District Paschim Medinipur. These two villages are located on either banks of Dulung river. Village Dangarsai is on the left bank and village Gokulpur on the right bank of the river (Fig-1). The average elevation of this part of the Dulung Watershed ranges from 30-34 m.

OBJECTIVE
The main objective of the present study is to compare the two villages in terms of geographical landscape, economy and society as influenced by the Dulung River.

LOCATION
Dangarsai village belongs to Rohini Gram Panchayet of Sankrail block of Paschim Medinipur district. Dulung river flows through its western margin, mouza Madhupur and Dhopasole bound its northern part, village Ranjitpur lies in east and Rohini lies in south. So, the village is surrounded by different mouzas of Sankrail block. Gokulpur is a small village with 275 people living in 84.33 hectare area. It is located in the Andhari G.P. of Sankrail block and in the very lap of Dulung river, which flows along the north and north-eastern part of the village. Birdahi village lies in

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the west, Kendudanga-Darikasole in the southwest, Cheliasingh in the south. Along the eastern margin the river passes quietly creating meanders. (Fig- 2)

THE HABITAT-- PHYSICAL LANDSCAPE

Amidst a rural scenario, the village Dangarsai presents a distinctive rural pattern. The village is surrounded by 30 m contour and some of the stations are even higher i.e. 33- 35m along the river bank. A very little undulation is observed in the northern part. The cross profile of river also shows that the left bank where the village located is slightly higher than its right bank (Fig 3).

Basically, the village is situated on the levee area. The slope of the land is negligible 3° or 4° to the east of the levee but to the west it is 25° or more up to the river channel. At Dangarsai, a very little undulation is observed in the northern part. In Fact, the left bank of the Dulung that includes some areas of this village is higher in elevation where depth of water table is much higher creating problems to pursue agricultural activities. From an elevation of 6 or 9 m, the bank descends to Dulung and at some places terrace like formation observed. These lands are used for agricultural practice. During winter period, the water is knee-deep and shoal is found along the channel. Point bar are also observed and main flow is concentrated at the opposite side. Monsoon period observes full to the brim situation but there is no case of inundation of the village as it is on the bank of comparatively higher elevation.

Fig: 3- River Dulung and Dangarsai village (on left bank)
The Gokulpur village is situated in the right bank of Dulung. Micro level study of the landscape reveals that levee area is slightly higher in elevation and then the land is lowered down to some extent and then it very gently rises to the settled areas i.e. in the middle of the villages. In this part, the riverbank is lower in elevation where deposition is a common phenomenon at some parts. At Gokulpur, the river takes a distinct ‘U’ turn in the north and an inverse ‘U’ shape immediately below it. This obviously results erosion at one bank creating steep slope and deposition at other causing convex slope. The cross profile of NE part shows a steep slope in the left bank and comparatively gentle slope in right bank (Fig 4).

The slope of the land is towards the river. During monsoon, the excessive rainfall (approx 200 cm) water enters to the village and submerges the low lying area. However, except some exceptional years it never reached to the settled area. The deposition is distinct in right bank and it seems that river is shifting leftwards and the land area of Dangarsai is engulfed (Leopold, Wolman, Miller, 1964).

Soil characteristics
The soil though loamy in nature, sand percentage is slightly higher reducing the fertility of soil. The sand percentage increases away from the river in both the sides. Although paddy field occupies approximately 55% of the area of the village, the productivity i.e. quintal / hectare is not high enough for the rural poor. So, they take other ways for maintaining their livelihood.

Soil is fertile in nature and ranges from sandy loam to clay loam near the riverside except some location. It ranges from fine loamy (aeric ochraqualfs) to coarse loamy (typic ustifluvents). As the distance increase from the channel, the sand percentage decreases. Dangarsai in its northern portion possesses laterite formation with all possible gradation. The nature of this soil is exposed along the river banks. The size ranges from small grains to pebble and gravel size intermingled with loose particle sized soil. Here, the existence of river provides an added advantage to the agricultural production by providing water to the field in lean period (fig-5).

The land of Dangarsai, though situated along the river bank, is basically dry in nature. Lack of irrigation affects badly the agricultural practices. River lift irrigation system was introduced but at present of no use. This is because of shifting of the course due to erosion and non-availability of water at the river channel at
Cultivators consist of 42% and agricultural labourers include 32%. 14% people are self-employed in household small groceries in own villages or work in repairing and look after sweet shops and tea shops at Rohini. About 90 percent of the people are engaged in agriculture or related activities in the villages. Others run or continue the higher education and help the family to earn the livelihood. As there is no high school nearby, they have to cover 5 km. distance to pursue the practice of cultivation. Girl child of less than 9 years usually go to primary school but after then, they show little progression since 1981. At present, only two graduates are there, one works at Rohini and the other still resides in the village.

Gokulpur, with a larger population than Dangarsai, has slightly lower rate of literacy (31%) that shows a very little progression since 1981. At present, only two graduates are there, one works at Rohini and the other still pursues the practice of cultivation. Girl child of less than 9 years usually go to primary school but after then, they help the family to earn the livelihood. As there is no high school nearby, they have to cover 5 km. distance to continue the higher education.

About 90 percent of the people are engaged in agriculture or related activities in both the villages. Others run small groceries in own villages or work in repairing and look after sweet shops and tea shops at Rohini. Cultivators consist of 42%, agricultural labours include 32%, 14% people are self-employed in household small groceries in own villages or work in repairing and look after sweet shops and tea shops at Rohini. About 90 percent of the people are engaged in agriculture or related activities in both the villages. Others run small groceries in own villages or work in repairing and look after sweet shops and tea shops at Rohini. Cultivators consist of 42%, agricultural labours include 32%, 14% people are self-employed in household small groceries in own villages or work in repairing and look after sweet shops and tea shops at Rohini. About 90 percent of the people are engaged in agriculture or related activities in the villages.
industries like chattai and bamboo basket making. Marginal workers consist of the rest of the total population in Dangarsai village. The agricultural labours consists of much higher proportion i.e. 60 % while cultivators are 34 % and only 4 % engage in other activities in Gokulpur.

ECONOMY

Occupational structure

The land use pattern of both Dangarsai and Gokulpur village reflects that agricultural areas have a great influence in controlling the economy that is typically rural in character. Majority of the people (more than 90 percent) are cultivators or agricultural labourer. While the household industry, construction, other industry or activities employ a very insignificant portion of population.

<table>
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<th>Year</th>
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<th>Household industrial worker</th>
<th>Other Worker</th>
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<td>9</td>
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Source: Dangarsai G.P

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<td>1991</td>
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<td>1881</td>
<td>34</td>
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Source: Gokulpur G.P

On an average, nearly 72 % of the population are engaged in primary sector, 20% in secondary sector and 8 % in tertiary sector in Dangarsai village. A declining trend in the participation in primary activity suggests that the people are trying for alternative occupation to earn their livelihood. Village Gokulpur still depends on the primary sector with 94.5 percent engagement and that also shows a decreasing trend but a negligible proportion. The situation clearly indicates that if facilities are provided, the options for other than agriculture would be welcomed by the people.

Working Status

It reflects the economy and society of the area concerned. Dangarsai with 26% main worker are really in back foot while 50% of the total population belong to main worker category in Gokulpur village. The dependency ratio of Dangarsai is much higher than Gokulpur village. Illiteracy coupled with the non availability of basic facilities to improve the agriculture scenario increase the marginal worker situation. The number of Non-working group is of great concern and gradually weakening the economic structure.

Agriculture and other practices

Agriculture practices, the main occupation, involve multiple cropping and include aman, aus and boro cultivation. Cultivation of vegetables like potato, cabbages, radish and tomato as winter crops especially along the riverbank is a distinctive feature. Pulses are grown in the upland areas away from the river with slightly low moisture content of the soil (Fig-7, 9). Bamboo grooves help to increase their financial situation also, especially in time of need. So, it is evident that land is an important resource the capability of which is accentuated by the river water of
Dulung. The livestock population includes cattle of local breed, goats, buffaloes, fowls and ducks. These help the villagers to sustain their livelihood in difficult times.

**Landuse pattern**

The economy is properly reflected in the existing landuse system. Paddy field dominates the scene with 56% in Dangarsai and 52 % in Gokulpur village. Mixed crop areas also have a good share. In both cases, bamboo groves are important. Fallow land areas are utilised for playing arena of the children. (Fig-7, Fig-9)

Livelihood Status

The survey report indicates that the villagers are working hard to earn their livelihood. Three full meals in a day are really a luxurious thought to the 50% percent people. Only 20% are really well-off with monthly income of Rs.7000-8000. Nearly 25% have a monthly income of approx. Rs.2000-4000.

**Main Features of the Economy**

1. Both the Villages are agriculture-based.
2. Being situated by the side of the river, the agriculture practice and its pattern are of distinctive type. Riverside land is covered with crops in all seasons collecting the river water through pump irrigation.
3. Dangarsai with undulating surface in its northern part experiences dry crops like pulses of different varieties while Gokulpur with annual inundation during monsoons possesses more fertile land and produce different crops all the year round.
4. Main worker constitutes mainly of cultivator and agricultural labour.
5. Tertiary worker percentage is higher in Dangarsai compared to Gokulpur as the land quality is not so good. So the people opt for alternatives in different service sectors.

SOCIETY
In Dangarsai, more than 90 % of the houses are of thatched roof with mud walls. Only 10 % use corrugated tin as the roof. Only 3 % households have pucca houses with concrete floor. 5% households lack toilet and latrine facilities. At Gokulpur, 38 households are made of mud consisting of only one or two room in rectangular shape. Other two are made of brick, eight of bamboo frame, four of concrete and two of brick and mud. Roofs are thatched with straws in maximum houses. Some houses are roofed with tiles or tin or asbestos sloping on two sides. The alignment of the houses along the village road shows a linear pattern. Family size ranges from 3 to 4 in both the villages.

The villages are really backward in terms of the amenities availed and the income generated. The quality of population can be judged properly from the level of literacy which is at much lower level. Absence of educational institution, health care centre increases the woe of the people. Only one sishu siksha Kendra is running and provides mid day meal to the students in Dangarsai. To avail the medical facilities, they have to reach Rohini which is 2 km from the village. Nearest post office is also located at Rohini. Many of the people cover this distance by walking. Only 15 % use by-cycle as the means of transportation.

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The people have hardly any concept of drainage or sewerage facilities. They dump the domestic garbage in the cow dung pit or on the fallow land. The village is still without electricity connection. Kerosene oil helps to remove the darkness of the night. They use firewood as fuel in Chullah. The firewood are collected mainly from own household premises (80 %) and nearby open spaces (10 %). Only 10 percent houses use purchased fuel wood.

The villages have no post office; the nearest one is at Andhari that is 3 km and the other at Rohini 2 km away. There are dearths of medical facilities. So, people have to travel nearly 2-3 km to reach Rohini to avail the facilities. A primary school is the only institution where children can read up to class IV. Then they have to commute daily to Rohini to attend high school for further education. Though electricity is available since last two years only 25 percent enjoy the facilities. The main village road and Gali or small lanes constitute the main arteries of transport and communication system. Radio and newspaper connect them with the outside world. But very few people enjoy the facilities. Diarrhoea and other water borne diseases, malaria etc. are the common health problems occurred to them.

The people here observed Sarhul parab in Maghi Purnima as 70 percent people belong to tribal group (murmu, kisku, saren) in Dangarsai. They also enjoy Durga puja, Kalipuja and Charak puja with other people. Sitala puja and Manasa puja are annual events they observed with strict rituals within the village premises.

The villagers paint their house with different motifs especially the ST people. Apart from all these festivals, local mela, marriage or other ceremonial programme are the main sources of recreation to them.

COMMON AND CONTRASTING FEATURES OF TWO VILLAGES

- In both the village, the landscape is characterized by flatish terrain with 30-32 meters elevation.
- Both the village is on the bank of Dulung river with slight variation in their altitude. Dangarsai is located just on the levee, so of a higher elevation compared to Gokulpur which lies on the convex side of the river.
- More or less flatish landscape with loamy alluvial soil dominates the area. Soil pH ranges from 6.5 to 7.0 i.e. neutral to slightly acidic.
- Vegetative cover containing open scrubs and bamboo grooves and other green coverage varies in two villages. It is 13 % in Gokulpur and 9 % in Dangarsai.
- Flooding situation is very common in the Gokulpur village where water comes up to the village road during excessive rainfall. But being located on the steep bank Dangarsai never experiences inundation to a limited extent.
- Bank Erosion is active at some parts of the river that affects both the villages changing the land use.
THE PLANNING

The knowledge of landuse pattern is essential for the planning of any area (Gupta, et al, 1999). The two villages along the river Dulung exist in distinctive habitats with characteristics socio-economic landscape. In both the cases, for sustained production, reorganisation of land use depending on the capability of land is needed.

The villages are really get influenced by the river Dulung. Though seasonal inundations are the facts in Gokulpur, the life of the people, especially agricultural practices depends on the riverine terrain. The landuse capability maps clearly reveal that the land is mainly used for crop cultivation. The fallow land and the other open space must be used either for grazing or cultivation of seasonal crops using irrigated water. Besides paddy, the attention must be paid to the sugarcane, pulses, and other winter crops. It will be helpful for increasing the income of the villagers. The study also reveals that both the villages are dynamic in nature. They are now looking beyond in search of different occupation. In this respect, increase of educational opportunities may enhance the awareness which will be helpful in the coming future.

REFERENCES


