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## The Influence Of Natural Environment On Social Structure: A Study Between Two Major Dialectal Ethnic Groups Along The Matla River In The Indian Sundarbans

**Sanat Kumar Guchhait**

Associate Professor, Department Of Geography, The University Of Burdwan, West Bengal, India

**Abhik Dasgupta**

Assistant Professor, Department Of Geography, Mankar College, Burdwan, West Bengal, India

### **Abstract:**

*Culture of a group is intricately intermingled with the natural environment to which he belong. Such a relation with the natural environment forms a distinctive pattern of social interaction, social relation and even social structure. This phenomenon is very much prominent in the Sundarbans, wherein living along the river side and engagement in fishing activity produce a distinctive form of cultural system. Such cultural system influences social relation as well as social structure of riverine environment. On the contrary, cultural system of the people staying away from the river differs due to practice of agricultural economy. So social relation and social structure of such location would be different from riverine location.*

*In the Sundarbans, people occupy different social positions in terms of – religion, ethnicity, caste etc. For each type of position, there is separate distribution of population, shaping the social structure of the region. Such a diversification develops pluralistic and amalgamated culture of the region; however the amalgamation varies due to position of locales in respect to distance from rivers.*

*The present enquiry has been designed along the left bank of Matla river. This paper aims to differentiate the nature of social interaction and social integration between two major dialectal ethnic groups in terms of the villages located very close to Matla river and away from Matla river. The enquiry also has been made an endeavour to assess the role of riverine environment for shaping the dialectal ethnicity structure of the region.*

**Key words:** Social structure, social interaction, community, dialectal ethnicity, riverine environment, culture.

### **1.Introduction**

Estuarine environment forms the deepest part of sociological aspects of the Sundarbans. It nurtures men, produces their needs, directs their activities and so likely every bit of social life get particular identity due to living with the natural environment. In this ecological setting a distinctive form of culture is expected to be displayed due to specificity of man-environment interaction (Basu, 2010). The whole estuarine environment is fabricated with criss-cross design of rivers, rivulets along with the immense vastness of sea opening. This opportunity provides the basis of economy in the form of fishing activity. However, this opportunity varies with the position of the locale. With the increasing distance from the sea as well as river, access to the resource base significantly differs. These differences form two separate geographical environments – riverine (NR i.e. near to river) and non-riverine (FR i.e. far from river). Thus, the livelihoods pattern of man has been reflected with fishing economy along the river side and the so-called agricultural practices away from the river.

There is no denying the fact that earlier researchers confirmed about the existence of different socio-cultural region in the Sundarbans (Roychudhury, 1980; Ghoshal, 2006; Pramanik, 2008; Sarkar, 2009). However, they did not focus on the differences in riverine and non-riverine conditions of social space. In a society, people are divided in terms of different social institutions like - religion, ethnicity, caste, class, community, family etc. This division sets barrier of social mixing by which social relation is established (Cummings & Ferraro, 2003). In India, barriers of social mixing are very prominent, especially in rural areas. These barriers are more deeply embedded in religion, ethnicity, caste, and class divisions. Thus, these four pillars construct the macro structure of social relationships in rural India (Nagla, 2008). On the other hand, from the view point of ecological and regional aspects, people of same soil feel united due to living in the same natural environment (Adger, 2000). This brings the relevance of community sentiment of the people and

subsumes macro structural differences exist in the society. This united factor is operated relatively in smaller units and is significantly different from one region to another (Folke, 2006). Sociologist Randall Collins identified this structure as the chains of interactive rituals and so coined the term 'micro structure' (Turner, 1987).

In a rural system social barrier imposed by macro-structure like – religion, caste, ethnicity subsume community feeling in general (Muftic, 2009). The objective of the forgoing investigation is to find out whether the social barrier imposed by differential ethnicity has over taken the community feeling or community feeling has over shadowed the social barrier due to living in the natural environment.

### *1.1. Evolution Of Dialectal Ethnicity In The Sundarbans*

An ethnic group is generally considered to be one whose members share a distinctive social and cultural tradition, maintained within the group from generation to generation, whether as part of a more complex society or in isolation (McIver and Page, 1986). A multi-ethnic culture of different ethnic groups is the most distinctive panorama of the Indian sub-continent. In the Sundarbans people from different stocks came here and adjusted or readjusted themselves in this estuarine environment. By dint of origin they are segregated by geographical location; however living in the same environment they were forced to change their own cultural stock as a part of survival strategy. In this context ethnicity indicates the original culture of the people who migrated to the Sundarbans in different historical episodes.

At the initial stage of settlement development, big landowners came from Calcutta, Midnapore and Jessore-Khulna region of Bangladesh (Bera et al., 2010). Along with this invasion tribal people came from Chotonagpur Plateau region to clear the forest area (Hunter, 1875). With the passage of time two Bengali speaking populations became dominant in this area (Chatterjee Sarkar, 2010). One stream came from the western side with lingual and district identity from Midnapore, while another stream migrated from the eastern part of this region from Jessore-Khulna of present Bangladesh (Mitra, 2006). These two groups were different in terms of their dialect. They were poles apart in state of their food habits, types of garments they used and also economy they were involved. In the earlier periods, these two ethnic groups did not have cultural mingle; rather they would avoid each other. With the process of cultural assimilation, these two groups merged into close alliance due to typical habits and habitation set by estuarine environment of this region (Chatterjee Sarkar, 2010). Over time, two dialects turned into a single mingle language which is neither east bengaline nor west bengaline (Mandal & Ghosh, 1989). The following investigation has been carried out to unfold the degree of assimilation of these two ethnic groups with special references to NR and FR villages.

### *1.2. Rationale To The Problem*

Matla river, the most precious gift for the people living close to it, offers means of subsistence in the form of fishing operation that dates back to the historical past. Though, fishing is an age-old caste based activity, but riverine people (NR) of any caste get ample opportunities in fishing pursuits all through the time. On the other hand, people at distant location (FR) feel deep sensation towards the river, but they are not occupationally connected with it. They earn their livelihoods from land resources, especially through agricultural occupation. The resource-use of two types population is completely different (Buck, 1989). Fishing pursuits are associated with the use of common property resource that frames social norms, customs and social relations of riverine population. On the contrary, agricultural land is personal property resource and its custody depends on the legacy of feudal structure (Fig. 1).

Thus, based on the above discussion a proposition can be formulated. That is social structure, social relation and social interaction among the different ethnic groups may be different from riverine (NR) to non-riverine location (FR).

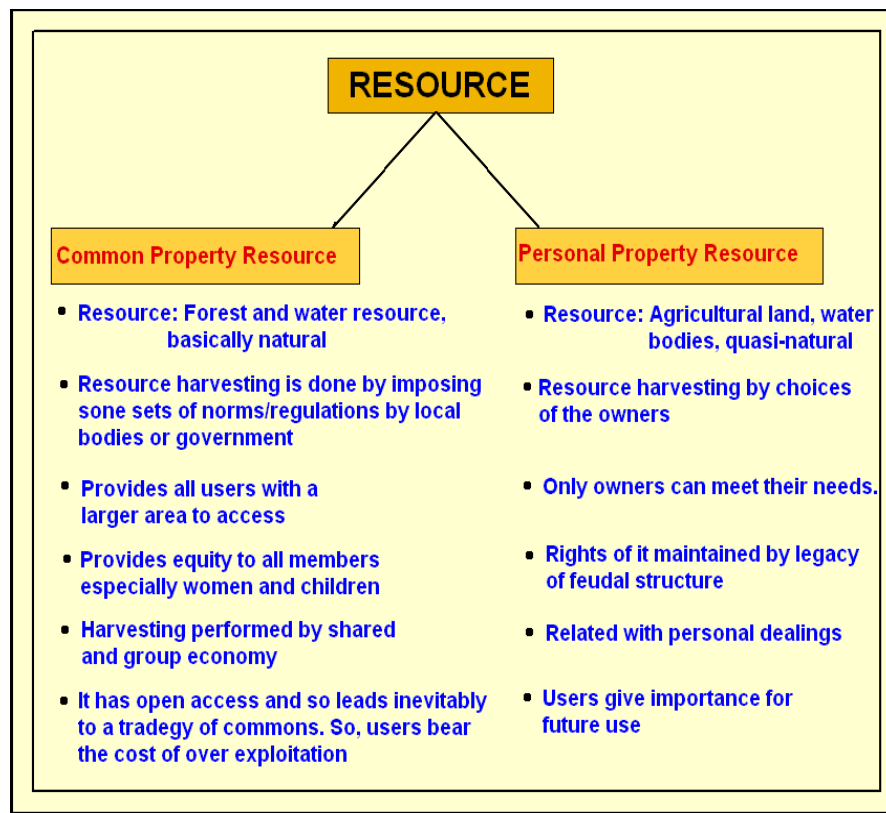


Figure 1: Some Important Features Of Common And Personal Property Resource - Based On Nature Of Group Relation, Social Interaction Are Developed

### 1.3.Spatial Distribution

Composition of these two ethnic groups in the Sundarbans is spatially diversified. In the western Sundarbans, proportion of West Bengalese (Midnapore and Baruipur stream) is quite higher, whereas in the eastern part East Bengalese dominates. Along the left bank of Matla river both the stocks of people are found. The west Bengalese coming from Baruipur as well as from Midnapore are found maximum in the FR villages, whereas along the river side villages (NR) people mostly have come from Jessore-Khulna region. It is necessary to mention here that the people coming from Jessore-Khulna region were involved in fishing activities from generation to generation in their home land. After migration they preferred to settle very close to the riverside to carry on their ancestral life and livelihoods.

Distribution of ethnic groups has been mosaiced in the Fig. 2 with the data through field inquiry. The figure reveals that concentration of particular ethnic group is prominent in maximum villages. Along the river side stock of east Bengalese is found to see relatively higher, whereas in the FR villages the west Bengalese predominates.

## 2.Materials And Methods

The intention of present investigation is to find out the role of ethnicity in framing intra-village relationship. So, study of such villages is required wherein both west and east Bengalese are almost equally concentrated. Considering this requisite, villages with dual-ethnicity have been taken into consideration (Fig. 2, marked by black rectangle). Nine villages in each category (i.e. NR and FR village) have been considered for detailed study to distinguish inter-ethnic relationship between NR and FR villages. The selection of the villages is done by considering two important things. The first is the dual-ethnicity (majority group comprises < 70% of total population) and the second one is inter-village distance for keeping the sample distribution through out the study area. The selected villages are numerically less than the previous study as most of the villages are dwelt by the single ethnicity. Moreover, the responses of people in this regard seem alike in most of the villages during the pilot survey and so huge number of sample villages is not mandatory and effective to perceive the reality.

The samples of respondents have been selected by employing systematic random technique; taking one respondent from five consecutive households. The size of the samples is varied from 28 to 46, includes both male and female members of different ages (age more than 18 considered) from respective ethnic groups according to their estimated share in the total population. Table I is presented to exhibit the design of sample selection.

Type	Village	Sample Size	Sample Proportion		
			B	Ms	Bs
Riverine	Bhangankhali	41	22	0	19
	Naliakhali	38	19	0	19
	Battala	37	10	7	20
	Purandar	45	30	0	15
	Ananda Abad-4	36	18	0	18
	Garanbose-4	32	16	0	16
	Nafarganj	38	15	25	0
	Parbatipur	33	15	18	0
Non-Riverine	Laskarpur	36	18	0	18
	Kharimachan	35	16	0	19
	Dighirpar	46	20	3	20
	Pachapara	28	14	0	14
	Shibganj	40	18	0	22
	Bharatgarh	40	18	0	22
	Hironmoypur	36	17	0	19
	Nafarganj-5	40	15	25	0
	Birinchibiri	36	18	5	13
	Jhorkhali-2	40	25	0	15

Table 1: Selection Of Sample Villages For Inter-Ethnic Relationship

Note: 'B' – from Bangladesh,

'Ms' – From Midnapore and other surrounding districts of West Bengal,

'Bs' – Baruipur and Surroundings like – Sonarpur, Magrahat, Mandirbazar, Bishnupur

Three criteria have been chosen to measure the degree of association of these two ethnic groups. The first one is the functional association in fishing and agricultural activities; the second one is willingness for attending rituals and social occasions of each other and thirdly, the acceptance of inter-group marriage relationship. These three attributes have been named as functional (F), cultural (C) and social (S) components respectively. Based on these components three propositions can be ascertained. First, whether they include people of other ethnic group in forming fishing groups and agricultural practices regularly. Second, whether they attend rituals, social programme of each other frequently. Third, whether they have no objection in inter-group marriage relationship. The response of above mentioned components have been set in five points scale in terms of strongly disagree ( $X_1$ ), disagree ( $X_2$ ), neutral ( $X_3$ ), agree ( $X_4$ ) and strongly agree ( $X_5$ ). All these responses are given into numerical form by assigning arithmetic scale from 1 to 5. Taking considerable number of samples, total score has been quantified for three components by applying same formula:

Total score of (F) =  $(5 \times n_5 + 4 \times n_4 + 3 \times n_3 + 2 \times n_2 + 1 \times n_1) / N$

Type	Village	Component Score			Total	Grade
		F	C	S		
Riverine	Bhangankhali	3.98	4.10	4.10	4.06	H
	Naliakhali	4.08	4.18	4.21	4.16	H
	Battala	4.00	4.24	4.24	4.16	H
	Purandar	4.40	4.29	4.22	4.30	H
	Ananda Abad-4	4.58	4.28	4.33	4.40	H
	Garanbose-4	4.63	4.16	4.25	4.34	H
	Nafarganj	3.68	3.45	2.82	3.32	M
	Parbatipur	4.61	4.36	4.15	4.37	H
Non-Riverine	Laskarpur	4.50	4.58	4.50	4.53	H
	Average Score	4.27	4.18	4.09	4.17	
	Kharimachan	3.80	3.91	3.23	3.65	H
	Dighirpar	3.98	4.04	3.65	3.89	H
	Pachapara	3.96	3.96	3.61	3.85	H
	Shibganj	3.90	4.05	3.83	3.93	H
	Bharatgarh	3.95	4.10	3.83	3.96	H
Hironmoypur	3.89	4.17	3.94	4.00	H	

	<b>Village</b>	<b>F</b>	<b>C</b>	<b>S</b>	<b>Total</b>	<b>Grade</b>
	Nafarganj-5	3.25	3.20	2.88	3.11	M
	Birinchibiri	4.08	4.11	4.31	4.17	H
	Jhorkhali-2	4.30	4.20	4.45	4.32	H
	Average Score	3.90	3.97	3.75	3.87	

Table 2: Village-Wise Perceived Score Of Inter-Ethnic Relationship

**Note:** **VH** – Very High (> 4.50),  
**H** – High (from 3.51 to 4.50),  
**M** – Medium (from 2.51 to 3.50),  
**L** – Low (from 1.51 to 2.50),  
**VL** – Very Low (< 1.51 to 1)

Here,  $n_5$ ,  $n_4$ ,  $n_3$ ,  $n_2$  and  $n_1$  stand for number of opinions for  $X_5$ ,  $X_4$ ,  $X_3$ ,  $X_2$  and  $X_1$  respectively and  $N$  denotes the total number of opinions. Total score of F component ranges from 5 to 1 with its respective meanings stated here. Finally, by taking average of three components (F, C, and S) perceived relationship has been derived (table II). The Tabulated values ranges from 5 to 1 are spatially mosaiced into Fig. 3 to distinguish between NR and FR villages. The study remains incomplete unless and until north-south comparison has not been highlighted. The perceived relationship has been employed in the Fig. 4a and 4b, considering inter-villages distance as a fundamental axis of inter-ethnic relationship.

### 3. Analysis

From the Fig. 5.3, 5.4 and table II, the following noticeable features can be summed up:

First, the figure and table indicate that all the villages are loaded above the value of 3.0. Thus there is no question of barrier of ethnicity in social interaction for NR as well as FR villages. Second, the figures prompt that perceived relation is higher for NR villages in all cases with one exception of Nafarganj village. All the eight NR villages coincide in their opinions in favour of intimate inter-ethnic relationship along with higher loading from 4.06 to 4.40. The situation differs slightly for FR villages due to their relatively lower loading that ranges from 3.11 to 4.23. It affirms that perceived relationship is a little bit weak for FR villages. Third, a slight increasing trend (perceived relationship) is found to be noticed towards the south of the study area (fig. 5.10a and b). Fourth, among three components, F and C components are loaded equally (average 4.27, 4.18 and average 3.90, 3.97 respectively) in two respective cases. However, the loading of S component is significantly lower (3.75) in the FR villages in respect to NR villages (4.09).

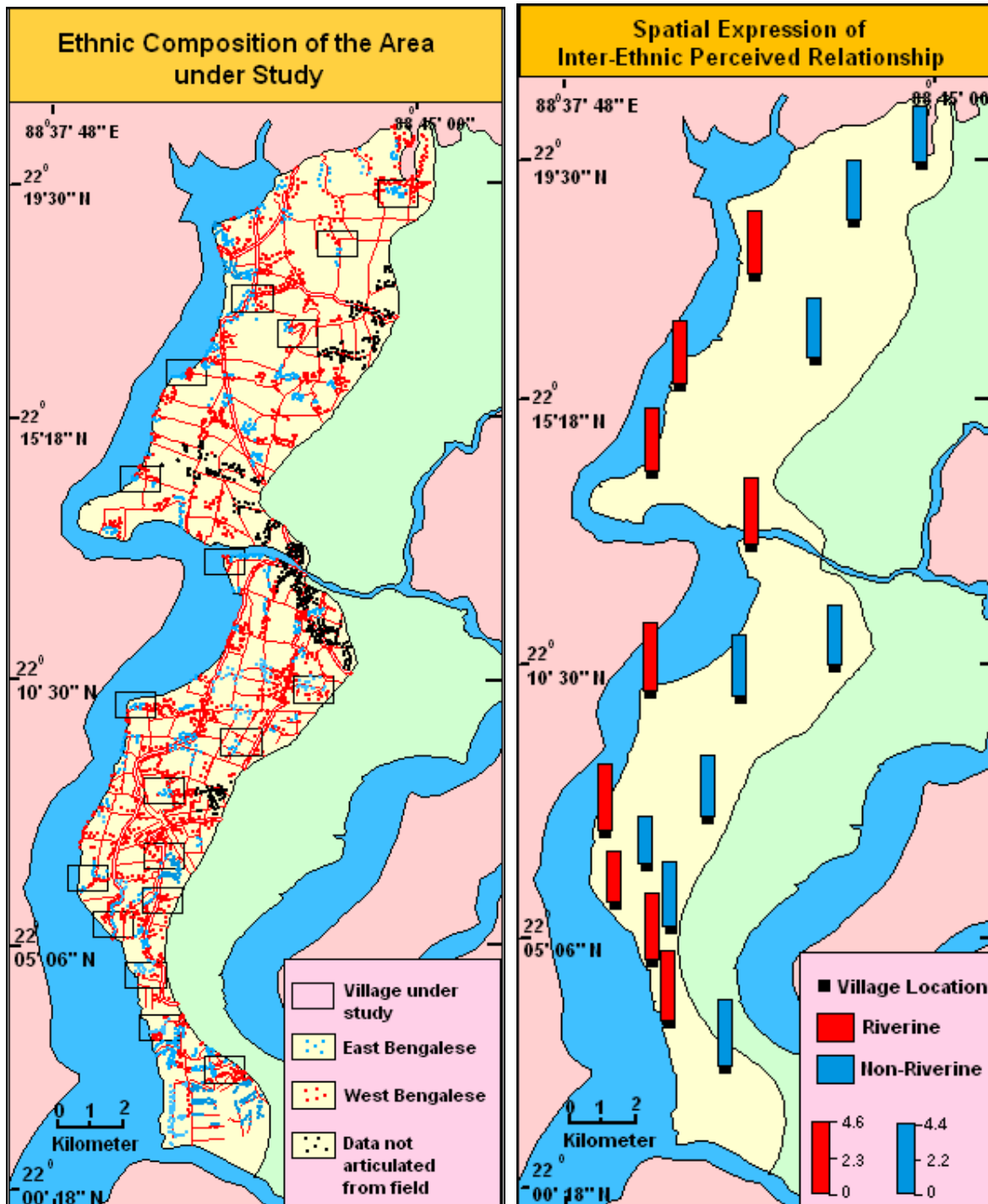


Figure 2: Different Colours Of Dots Depict Spatial Distribution Of East And West Bengalese People And The Rectangle Indicates Selected Sample Villages For The Present Study &

Figure 3: NR Villages Exhibit Stronger Social Interaction And Relationship Than FR Villages



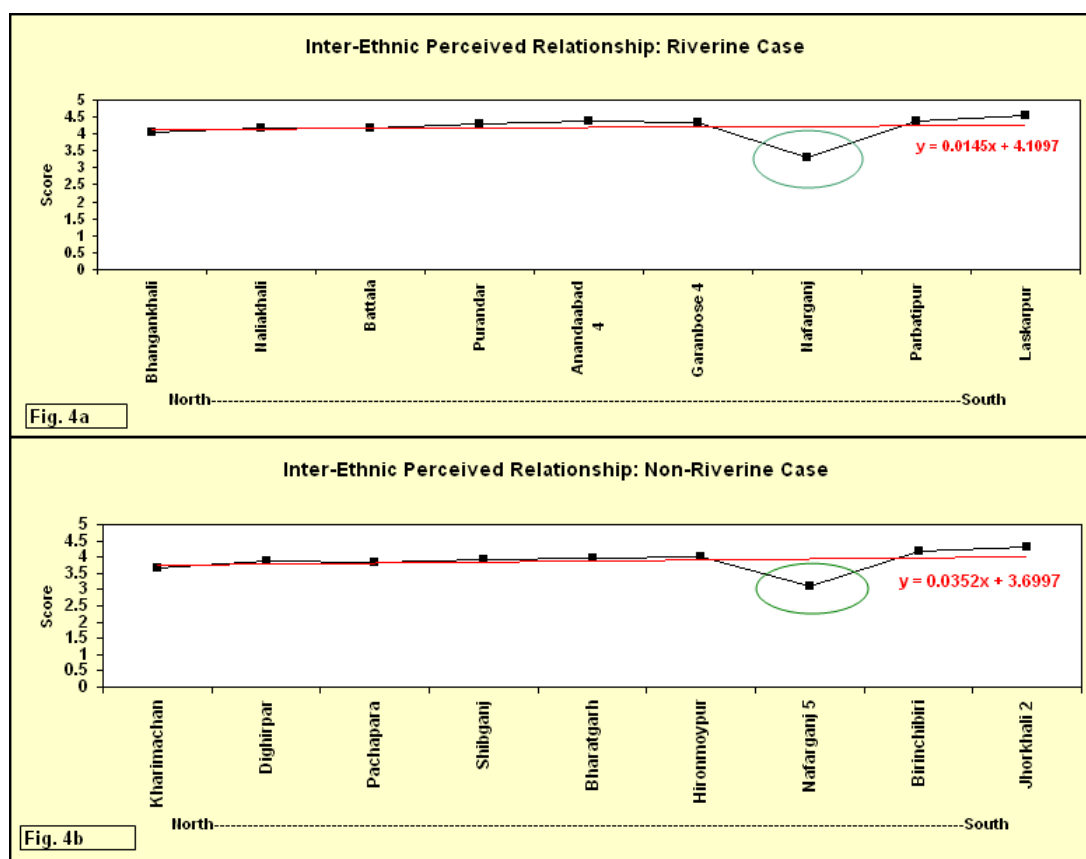


Figure 4: Increasing Trend Of Perceived Relationship Towards South Only With Two Discordances At Nafarganj And Nafarganj 5

True to the fact that in NR villages people to a great extent are dependent on fishing economy. Maximum of them have either no or very small amount of agricultural lands. This compulsion in one hand forces them to be engaged mainly in fishing economy. So, there is ample scope for NR villages to be engaged in more inter-group social interactions through fishing pursuits. As a result, for the formation of fishing groups or attending social programmes like marriage, festivals etc. they do not care about ethnic differences. Over the last seventy to eighty years this tradition has been continued in their social life. With this long practice inter-group marriage relation is gradually established between East and West Bengalese since for the last thirty to thirty five years. Today, endorsing marriage relation between East and West Bengalese is very common for NR villages. The scenario is rather different for FR villages. Here people are engaged in agricultural activity in their own land. So, seldom they have to work together. Being neighbours, they interact in their social life and attend social programmes of each other. But, they restrict themselves for inter-group marriage relationship. This barrier still persists in their psychological set up.

Aforesaid explanation is clear from table II. With higher loading in all three components, NR villages exhibit complete socio-cultural amalgamation. Field observation also grounds the same reality. Responses of people towards each other have been experienced satisfactorily. They feel deep sensation in belonging to each other. On the other hand, FR villages show higher loadings in two components – functional (F) and cultural (C), whereas response in social (S) component is not up to the mark. This is realized from the field inquiry. In FR villages people have inner urge for each other, but in maximum cases they are not ready to establish marriage-relationship. They prefer better half from their own origin due to life style and language differences of other groups. Very recently marriage relationship has been developed between East and West Bengalese due to frequent occurrence of love marriage. As far as the cultural parameter of this society is concerned, younger generation prefers to choose their life partner by their own preference and this trend has broken the barrier of ethnicity in FR villages at least for last five to ten years. At present, old and middle aged people subconsciously are adjusted with this changing scenario of social relationship; but during interview, many of them disagreed to set up marriage relationship between East Bengalese and West Bengalese. Some of them have been left it on the decisions of younger generation.

Out of eighteen villages, Nafarganj and Nafarganj-5 show lower value of perceived relationship. It is interesting to note here that, for Nafarganj and Nafarganj-5, the stock has mainly migrated from Midnapore district, whereas in other NR and FR villages maximum West Bengalese have migrated from Baruipur region which is relatively closer to Jessore-Khulna region. Geographical proximity between these two source regions integrates these two cultural groups of FR as well as NR villages. Needless to say that, from the long past people have migrated to Baruipur from others part of Bengal, especially from Howrah and Midnapore districts and settled there for several generations (Hunter, 1875). Thereafter they migrated to the eastern Sundarbans in search of agricultural lands. Due to prior experience of living in the fringe of Sundarbans (Baruipur), it was easy for them to adjust themselves with East Bengalese.

But the situation for Nafarganj and Nafarganj-5 is something different as West Bengalese from Midnapore are here colonised in a different environment. Such a cultural divide between these two ethnic groups still persists in Nafarganj and Nafarganj-5; however other eight villages signify the presence of cultural mixing.

The trend of increasing perceived relationship towards the south is also evident in this investigation. Figure no. 5.10 signifies steady increase of relationship in FR villages, whereas NR villages are more consistent and homogeneous (slope value quite low i.e. 0.0145) in their perceived relationship. Once again as expected, the result confirms widening command area of Matla river at the south, leading more interaction in the milieu of socio-cultural life.

Assimilation of culture between different cultural groups is now found all over the world. In the era of globalisation, social dogma, taboos and customs are continuously fading out that leads to rapid alteration and transformation of culture. Along the river side of Matla, both the NR and FR villages exhibit slight differences regarding responses (within 3.62 to 4.52 if two extreme cases are excluded); however these differences will perhaps be minimised in future through process of diffusion of modern culture.

#### 4. Discussion

After analysing field based perceptions and opinions, it has been grounded that there are significant differences that exist between NR and Fr villages. The barrier of ethnicity is not prominent in separating the people residing close to the river due to their frequent and intimate social interactions. Whereas, people away from the river have deep sense of belongings to each other, but in respect of ethnicity they feel apartness. The reason behind such observation is not difficult to perceive. The NR villages forms social ties to meet their basic requirements in terms of several occasions. Firstly, cyclones and salt water inundation are viewed as serious threats by the inhabitants of riverine community. To adjust with the negative impacts of such extreme event, human activities are operated through collaborative actions to solve the problem of inundation. Construction and maintenance of embankment provide answer to the real problem of salt water inundation. Thus, group performance develops to cope with the vagaries of nature. Secondly, riverine communities sustain their life by involving in fishing activities. Success in fishing depends on nature and composition of the units. It requires skilled fisherman, boatman and technical staff for various activities associated with the deep river fishing. They form fishing groups by the collaboration of six to ten fisherfolks from their kinship and neighbourhood relations. Thus, the economy they are involved is profoundly a group activity. Such a group level interaction either occupational or need based, is not only performed within a village boundary, rather it encounters at inter-village level. Thus, needs of socio-economic life build strong tie-up between the kin and other than kin relations at intra and inter-village level and form a strong neighbourhood.

On the other hand, construction and maintenance of embankment is not the job of non-riverine communities. Though, their habitats are sometimes inundated but they are neither physically nor emotionally involved for construction or maintenance of embankment in the Sundarbans. In addition to this, maximum farmers of the Sundarbans possess a very small amount of agricultural land. Over times these small amount of land is divided into smaller pieces due to family division from the one generation to the next. Agriculture in the small land requires very few amounts of agricultural labourers and most of the occasion farmers hire labourers within the village reach. Labourers engaged in agriculture are not so much skilled in comparison to fishing pursuits and eventually nearer-village mates are sufficient to fulfil the job. Thus, inter-village level interaction is seemingly low. At the same time kin interactions either intra or inter-village level are not found stronger as it is found for riverine community. Hence, relatively feeble social interaction and integration among them may be the reason behind their apartness or alienation to each other.

#### 5. Conclusion

The analysis and the discussion relating to ethnic social structure of NR as well as FR villages clearly signify two notable things. Firstly, the analysis begins with the aim of distinction between NR and FR villages in terms of dialectal ethnicity. After details investigation there is no doubt about their difference in terms of social interaction and social relationship. Secondly, moving towards the south the openness as well as widening of Matla river are increased, signifying availability of more water resources at the south. This overwhelming dominance of nature increases social interactions between riverine and non-riverine villages, as well as within the villages; because people either riverine or non-riverine use to share their time, their mind, and cognition with the Matla river and sometimes non-riverine people depend on riverine resources too. Such a shadow of riverine environment in mental dimension binds the people irrespective of macro-structural differences in the society.

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