

EVOLUTION OF RURAL SETTLEMENTS IN SUNDERBAN : NALUA, A CASE STUDY

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ABSTRACT : Settlement geographers can offer some explanations regarding the laws of human behaviour and decision-making concerning habitation. This paper intends to understand the human reactions and responds while interacting with nature through the varied location, size, shape and pattern of human settlements in a typical mangrove habitat. The paper also attempts to explain the history of development along with the processes responsible for such growth of settlement with the aforesaid objective, one mouza located at the northern boundary of Sunderban has been chosen as a case. Nalua not only stands as a proper representative of Sunderban's general reclamation processes and linear settlement form, it also manifests distinct size and shape.

OBJECTIVE

This paper attempts to understand the different aspects of the location, size, shape, and pattern of settlements of Sunderban along with their history of development and process of colonisation as well as the functional relationship between settlement forms and social and cultural environments. This paper intends to unearth the mutual interactions between the nature and man's socio - cultural activities through a case study, Nalua.

RATIONALE BEHIND SUCH OBJECTIVE

The colonisation of Sunderban was meant for a thorough exploitation of its large stretches of land, water and forest resources. This motive needed well managed resource processes in which exchange played a very key role. Sunderban was secluded because of its natural environment but has become open to the outer

world due to the process of exchange of men and material. The places of commodity exchange i.e. hats and markets thus reflect quite distinct conditions of human reaction to environment conditioned by their perception and effective participation in resource manipulation. These markets, the outfalls of a basin like Sunderban, acted as the entry points of Sunderban and also as the starting points of the evolution of human settlements in this region. All the big as well as the old Settlements in Sunderban are market based, exhibiting different economic or demographic characters. A comprehensive research on any of these market based settlements gives some clues to the evolution of human settlements in Sunderban during its initial stages. Later changes due to the changing relationship between resources and population have had distinct imprints on space in the form of settlements having different shapes and patterns. Nalua, one of the oldest important

hats in the western margin of Sunderban has evolved as one of the largest villages of Sunderban. So, proper understanding of the genesis and processes responsible for the evolution of settlement in Nalua throws some light on the general pattern of human settlements of Sunderban in a nut - shell with some distinct specificities of its own.

SUNDERBAN IN GENERAL

Sunderban occupies the southern part of the Ganga delta stretching through both West Bengal (covering fifteen police stations under the jurisdiction of North and South 24 Parganas) and Bangladesh. This is a region which is intricately criss-crossed by innumerable rivers and creeks. Sunderban has a very singular combination of certain extraordinary phenomena which include the world's most extensive network of embankments raised around immature salt-marshes, the most dreaded mangrove- clad habitat of tigers and at the same time the only example of a densely settled tropical delta harnessed for the purpose of sedentary subsistence agriculture, a concentration of marginalised people in a marginalised space in close proximity to one of the largest metropolises of the world i.e Calcutta and finally an extremely intriguing history of human settlement. The process of colonisation of this tract has something unique in it since within a span of less than two hundred years the area has seen a transformation from a land- surplus to a labour- surplus situation.

NALUA

Nalua is located at northern margin of Sunderban in Mathurapur police station under the jurisdiction of south 24-Parganas of West Bengal. It extends from 22°5' N to 22°7'30'' N latitudes and 88°26' E to 88°30' E longitudes (Map No.1). The mouza (revenue unit almost

identical to village as noted in census report) Nalua includes about ten to twelve settlement clusters locally known as grams. Lying in a part of the matured delta this mouza has been suffering from a decaying drainage network. History, however, speaks otherwise as the water channel of the Nalua Gang was very active and played a significant role in the economy through trade and commerce and other occupation. The present settlement, one of the largest in Sunderban, owes its origin to the market. The visual aspect of settlements in Nalua, the form and ground layout exhibit a very distinct character which following the general tendency of being linear maintains some unique features.

PHYSICAL ASPECTS

As already mentioned, being a part of the mature delta the landscape shows the decaying channel of the Nalua Gang locally known as Kharir khal which marks the northern, eastern and southern boundaries of the mouza, though the main branch moves straight towards south from the south-east of the mouza. This channel normally remains dry during the dry period; but the monsoon months have moderate amounts of water. This sluggish water channel was very active even in the mid nineteenth century (Rennel, 1788). According to some historians the Nalua Gang is a palaeo-channel of the Adiganga (Mitra, 1914; Dutta, 1989). Continuous eastward shifting of the channel with sedimentation and scarcity of fresh water from the north, have resulted in the present degeneration of the river. A big embankment almost parallel to the course of the Nalua Gang divides the mouza into two halves.

HISTORY OF COLONISATION

According to scholars (Hunter, 1877; Mitra, 1914; Dutta, 1989) Nalua as in other parts of Sunderban had been a populous region in the

SOUTHERN MARGINS OF 24-PARGANAS

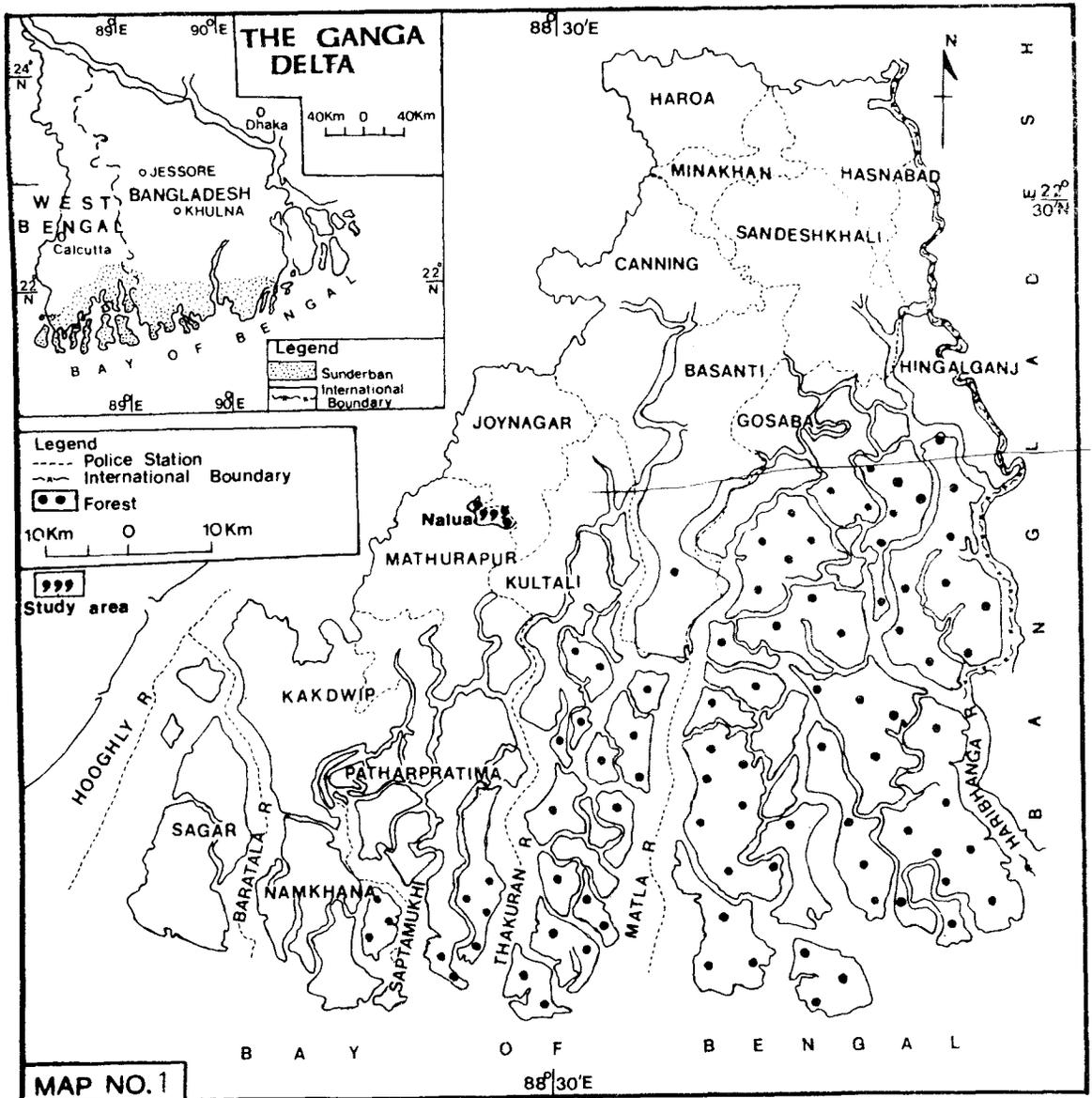


Fig. No. 1 : Southern Margins of 24-Parganas

early period. According to Mitra (1914) the name Nalua has been derived from the name of a very old town 'Nalbandi' which occupied the same place during the fifteenth century.

But this view lacks a scientific basis. There are, however, different evidences which prove that Nalua was an important hat in Sunderban even during the early eighteenth

century. It was the only market where deer meat was sold for the European residents of Calcutta (Hunter, 1877). The hat was also famous for the transaction of wooden posts and hental leaves (Heining, 1892). In the formative stage, just like hats in Sunderban, Nalua also became crowded only during the bi-weekly hat days (Hunter, 1877). In the formative stage just like other hats in Sunderban, Nalua also became crowded only during the bi-weekly hat days (Hunter, 1877). Due to its increasing economic importance at an opportune location, Nalua attracted people to settle permanently. A small settlement emerged around the hat as the nucleus of its habitation.

EVOLUTION OF THE SETTLEMENT

The evolution of contemporary settlements in Nalua can be categorised under five phases of development (Map No.2).

Phase I : The first settlement was developed in the north-central part on the right bank of the Nalua Gang around Nalua hat known as Nalua gram. This settlement extended in different directions but mainly towards the east and the south, commensurate with population increase and spread of cultivation. The embankment remained as the northern limit of settlement.

Phase II : In the succeeding period a second nucleus of settlement seemed to have come into existence at a distance of two kms. north-west of Nalua. Quite a number of dwellings were established at Patnighata.

Phase III : To the south of Patnighata, another small cluster named Datterchak had sprung up. During the same period a new settlement cluster or gram emerged in the central part of the mouza at Kakpukur. This settlement has almost merged with Nalua to the north.

Phase IV : During this phase two localities were simultaneously attracting people from

outside. Musalmanpara located to the west of present metalled road and a moderate cluster to the south of Kakpukur had emerged.

Phase V : The most recent habitation has developed within the last forty to fifty years in the extreme eastern part between the big embankment and the present course of the river Mani Nadi or Nalua Gang. Nataberia, Gambhirnath, Darirchak are a few among these clusters of settlements which have evolved on the new alluvium.

Settlement Form

Regarding settlement form, Nalua presents striking similarities as well as contrasts with Sunderban. Nalua exhibits an overwhelming dominance of linearity in its form in the old settled part, i.e. the western part of the big embankment, considering even each cluster of settlements like Nalua, Patnighata, Datterchak, Kakpukur and etc. A cursory look at the map shows three broad parallel rows of linear settlements broadly stretching from north to south (Map No.2). The western arm located to the west of the metalled road is again subdivided into three small rows parallel to each other. On an average they are half a km. in length from north to south. Two arms to the east of the main road are very large and traverse the entire mouza starting from the Nalua hat on the north to the bank of the river Kharir khal on the south. The shape of settlements in the western half of the mouza Nalua (west of the embankment) clearly produces an open multiple ended geometric form in which parallel rows are loosely attached to the northern limb and are open towards the south. This particular form can be identified as a complex 'toothlike' form. Regarding the site and location of settlement form, Nalua exhibits some distinctiveness. In Sunderban, in general, through the period of transformation from *bada* (unproductive land) to *abad* (productive

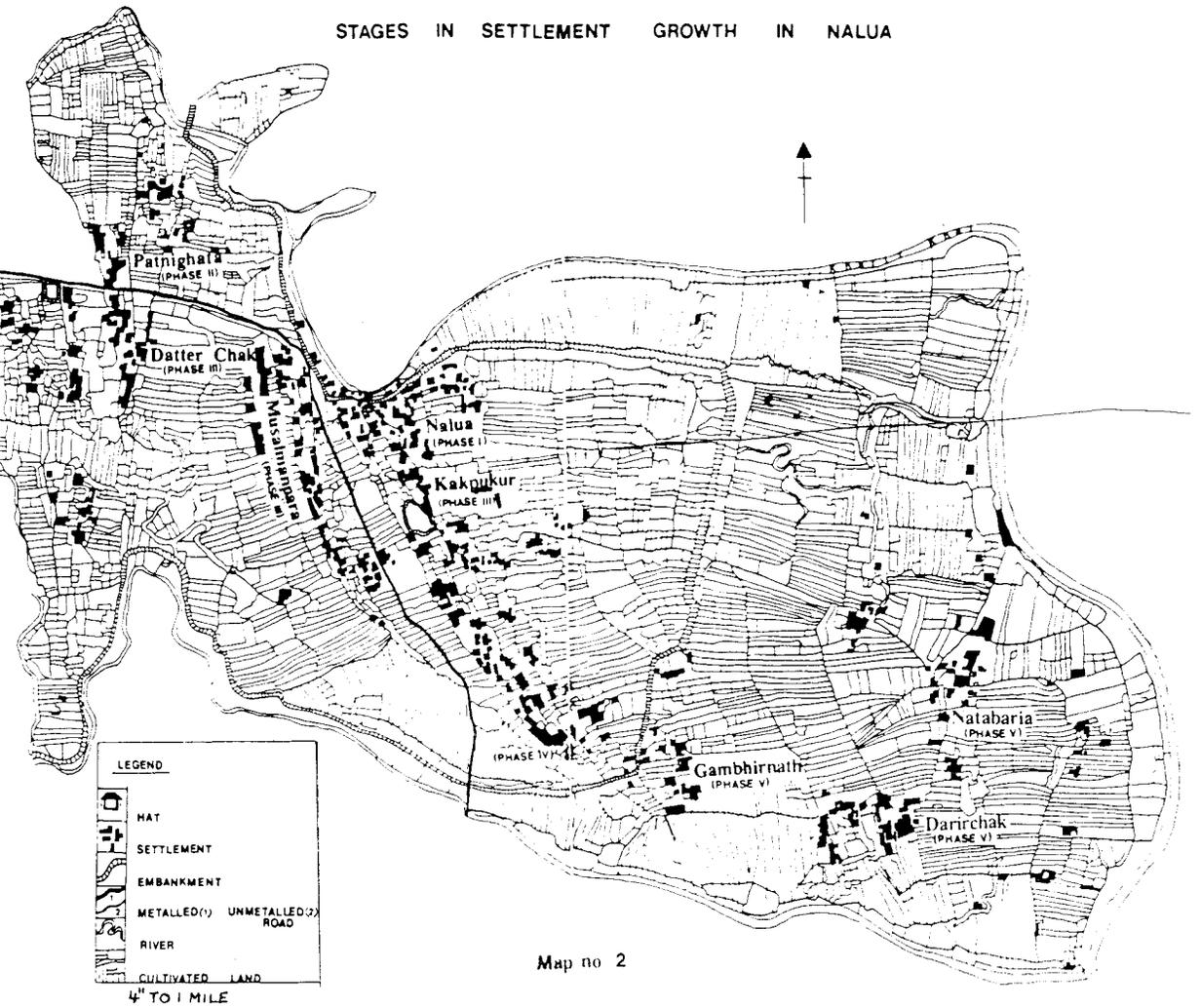


Fig. No. 2 : Stages in settlement growth in Nalua

land), settlements have clung natural levees and man-made embankments. But in the case of Nalua, instead of following the main embankment, the linear form actually has

traversed it. To the east, in the newly settled part, the settlements are yet to produce any distinct form. A few loose-knit amorphous clusters have emerged in this area.

GENESIS AND PROCESSES

Before going into the details of the specific processes related to the evolution of the settlement at Nalua, an analysis regarding the spatial importance of Nalua hat should be made. The particular space, selected for the hat had its own special attributes which resulted in a distinctive cultural landscape. Thus, in a present analysis, we should pay attention to the hinterland during the initial stage of its formation. In addition, the nature of people who used to participate in the economic system and the commodities dealt in, should also be examined.

Nalua rendered a favourable environment to the people to set up a place of exchange, being located at the transition between the old settled northern part and store house of natural resources in the south. Because of an unlimited source of forest products and fishes, a place of exchange was necessary. The place had to be connected by a good network of transport with the resource producing region and consuming centres to the north. In the south, the means of transportation were only innumerable creeks and small channels. The zones situated at the closest proximity to the land and riverine transportation emerged as markets and hats all over Sunderban. Nalua hat, thus grew at the point of convergence between land and water routes. Even during the early stage of reclamation two very significant routes were regularly used. Both the water route through Nalua Gang, and the unmetalled but wide road from the north terminated at Nalua.

The hat was developed on a hump-like relief, a part of the natural levee at a straight side of the river within a broad concavity. This is common for the location of almost all the old hats as well as old villages in Sunderban because of a lesser fluctuation of water level at this side. Along the convex side the

emergence of chars is a very common problem. Ebb tides create problem when the water recedes and mudflats became exposed for quite a substantial period of the day.

The earliest settlers who harnessed land dealt mainly in fish. These settlements thus inevitably developed by water-based community, generally by the Keoras and Kaibartas. The Nalua gram, the oldest settlement of the Nalua has always been peopled by large numbers of Kaibartas. This is still clearly evident from the very concentration of Bagdis (500 families) near the hat, along the big embankments. A distinct east-west stretching linear form has evolved at close proximity to the river.

During the earliest period (Phase I) the entire area located to the south and west of Nalua was covered by mangroves. After a few families of Bagdis had founded a settlement, other family of the same clan or of different clans of the same caste were invited to settle in it. For this purpose, families who joined in later were given plots close to their own habitational site mainly for the sake of security.

Throughout this early stage, people were directly associated with water-based occupations. Slowly and steadily with increasing population new clusters began to take shape at Patnighata to the north-west. The numerous Adikaibartas residents of Patnighata were also dependent on the Nalua Gang and maintained connection with it through very small feeder creeks. Datterchak was developed partly along the road and people were related to outside business with Joynagar-Mazilpur and Bishnupur.

Gradually, the need for permanency of occupation led to the creation of relations with land. The people initiated the clearing of jungles and reclamation for agricultural activities. In order to keep the saline water out and to reclaim the land properly the big embankment

was constructed parallel to the river Nalua. This embankment has exerted considerable impact on the humanised landscape of the mouza. The PWD office and the Kachharibari were also constructed to the east of the hat, the remnants of which are still in existence. With the changing landscape, a section of the population was forced to abandon their ancestral occupation and join agriculture. They were converted into HeleBagdis from Jele-Bagdis. The reclamation work and consequently the cultural landscape was significantly controlled by the action of the river and its changing nature. The cadastral mouza (No.2) suggests that during the early period, the river was possibly much straighter from north to south, and its eastern levee attracted the people for early habitation. The squarish plots along this part occupied by the Nalua gram and Kakpukur justified the fact that this tract became inhabited since a long period. The strip-like plots, generally cultivable fields, stretching from the west to the east just beyond the squarish plots, imply that reclamation started from this habitational site.

After successful attempts at reclaiming a good amount of land, agriculture got a further impetus when land-based people like Mahishyas and Poundrakshatriyas began to settle in the extreme southern part, avoiding the so-called low caste dominated Bagdipara in and around the hat. The settlement extended from Kakpukur towards the south. Kakpukur is higher in elevation, had fresh water, and was thus occupied by the upper caste people. A few Brahmin families also resided here. This southern hamlet had a good footpath communication with the kachhabari and Nalua hat during the early days. In due course these footpaths attracted people to settle along them. A major part of the area located to the west of the metalled road was susceptible to floods

because of its lowlying interior location away from the river course. This part was marshy even 70-80 years back. The reclamation started from the eastern side from the road towards the west. Mahishyas and Poundrakshatriyas coming from Medinipur and lower Khulna built their houses almost parallel to the road only after the road was extended towards the south to contact Gillarchhat, another big village of Sunderban. At the southern margin of this western arm Musalmanpara was developed by the displaced people who were forced to abandon their ancestral fishing occupation due to the degenerating courses of upper Nalua and some of the other tidal creeks.

The continuous eastward shift of the Nalua river has created new land or char between big embankments and present course of the river in the extreme eastern part of the mouza. This char offers multiple activities like agriculture, aquaculture (fish cum paddy) and brick industry. Apart from its economic significance, the land was lucrative because of its recent origin and was yet to be included under land revenue act and therefore tax-free. Land grabbing by the inhabitants of the surrounding settlements was common. Reclamation started from the old settlements of Nalua from the west. Most of the plots here are strips of about 500 metres in length and are mainly perpendicular to the embankment. In the extreme eastern section also, reclamation started steadily from the bund along the feeder creeks. Apart from Nalua, people from Manirtat, Radhakantapur and some other villages which had regular connection with Nalua hat by river grabbed different plots. A heterogeneous demographic composition has been observed in the present clusters, namely, Natabaria, Gambhirnath. Bagdis, Mahishyas, Poundrakshatriyas have their residences juxtaposed with each other. Initially there was a daily migration. People from the old habitation

used to move to the new char early morning, and after a full day's work they would return to their respective villages. This daily migration process helped to form a good network of footpaths from different directions and also connecting different villages. There was thus a better and intricate roadway network in the newly reclaimed land than in the old settled part. During the initial stage very few huts were constructed mainly around the nodes of roads in order to guard crops and the fisheries. These were temporary and seasonal in nature. With increasing population these very small clusters have come to be permanently inhabited.

With the passage of time the eastern part saw the growth of various economic activities as the drainage of this land became better. But this growth has often been retarded by high salinity and continuous siltation in the river Nalua. Even with high population growth in the east, the amount of land per person is high. So with land-man ratio and habitational density clusters have developed haphazardly. People still enjoy the facilities for selecting sites for their houses. This has restricted the development of any definite forms in this recently developed colonies.

CONCLUSION

Human settlements in all environmental settings and in all times can not be studied in isolation from the economic function of the community and from the social perception of those resources which sustain the economic functions. Mingled with the social perception of resources in the concept of the community about itself, particularly how small or how large, how closed or how open and how localised or how extensive the community considers itself to be; because the perceived qualities of the resource base largely determined the size of the manpower unit necessary for transforming the potential resources into realised resources. In this rural tract the forms and pattern of human settlements are nothing but the spatial expressions of the social mode/s of intervention upon the natural resources endowment (water and land) or habitat wherein every dwelling can be considered as a family environmental niche and every hamlet a community environmental niche, a microcosm, containing the signature of the profession of the community concerned circumscribed by all the prospects and constraints of the given space as conditioned by the given time.

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