

# An Analysis on Human Settlement of Haldia Municipal Area in West Bengal

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**Abstract:** A settlement is a community in which people live. A settlement can range in size from a small number of dwellings grouped together to the largest of cities with surrounding urbanized areas. In sum, settlement geography describes and explains the settlements' location, substance, form and structure, as well as the functions and processes that produced them over time. As an applied science, it projects future settlement development and contributes to the sustainable development of human-environmental systems. Settlement is the major component of human life. Human settlement plays an important role for improving social well-being of the society. Present study shows type, pattern and morphology of the human settlement of the study area.

**Keywords:** Settlement, Dwelling, Human-environmental system, Social well-being, Morphology

## 1. Introduction

Human settlement is defined as a place or area with clustered or scattered buildings and a permanent human population ( city, settlement, town, village or hamlet ) referenced with geographic coordinates, which is usually not incorporated and by definition has no legal boundaries. In sum, settlement geography describes and explains the settlements' location, substance, form and structure, as well as the functions and processes that produced them over time. Settlement is the major component of human life. Human settlement plays an important role for improving social well-being of the society.

## 2. Study Area

Haldia is a city and a municipality in Purba Medinipore in the Indian state of West Bengal. It is a major seaport and industrial belt located approximately 50 Kilometres southwest of Calcutta near the mouth of the Hoogly river, one of the distributaries of the Ganges. The latitudinal extension of the study area is 21°55' N to 22°5' N and longitudinal extension is 88°3' E to 88°40' E and height of the place from mean sea level is only 4 meters.

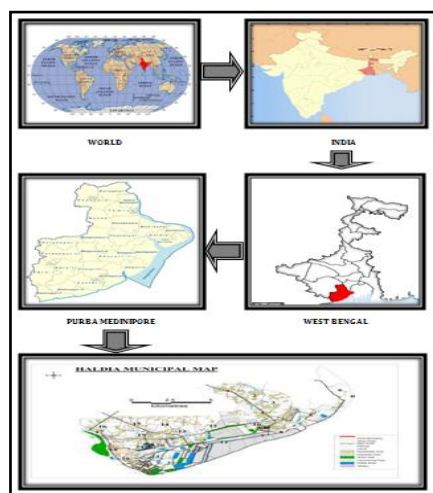


Figure 1: Location map of the study area

## 3. Objectives

1. To know the settlement type and pattern of the study area.
2. To know the house morphology and house materials of the study area.

## 4. Methodology

This study is based on both primary and secondary data. Data collected through observation, interview, research related articles, research paper, reports etc. Data also collected from different website related to the human settlement studies.

## 5. Results and Discussion

The pattern of settlement has been defined as the relationship between one house building to another. There are three types of settlement pattern at the Haldia Municipal Area. These are linear settlement, compact settlement and dispersed settlement. Among the total settlement of the Haldia Municipal Area, 27.5 % are linear settlement, 67.5 % are compact settlement and 5.0 % are dispersed settlement. Compact settlements are situated at the ward no. 1, 2, 4, 10, 14, 17, 24 and linear settlements are situated along the Haldi river bank site.



Figure 2: Settlement pattern



Figure 3: Ownership status

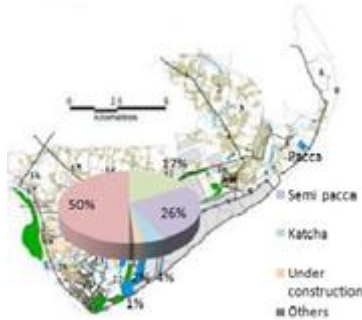


Figure 4: House type

In the study area 78.5 % household have own ownership, 13.5 % have tenant ownership, 5.0 % are unauthorized and 3.0 % are others category. Housing is one of the basic needs of human being. The other two need are food and clothes. A certain minimum standard of housing is essential civilized existence. The house of the study area has been divided into three types viz. Pacca, Semi pacca and Katcha ( house made by mud ) and under construction, for the advantage of field report presentation. Katcha houses are found all over the area where being to lower class facilities. Semi pacca houses are found some area of the Haldia Municipality. Semi pacca house belongs to middle class family.

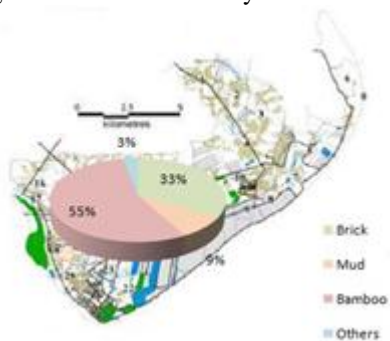


Figure 5: Wall material

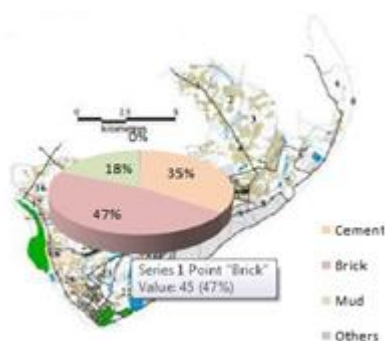


Figure 6: Floor material

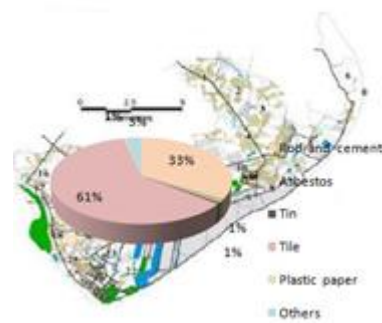


Figure 7: Roof material

Mud is the main material for wall of the village houses. Most of the house floor made by mud and roofs make by tiles. Among the surveyed no. of household 33.5 % houses are Pacca, 52.5 % houses are Semi pacca, 8.5 % houses are Katcha, 3.5 % houses are under construction and 2.0 % houses are others category. In the study area maximum houses are Pacca and Semi pacca and other houses are the Kutchra and Under construction. There are different types of building materials are used for housing purpose, mainly mud, brick, cement, sand, tin, asbestos, tile, bamboo, grill, wood etc.

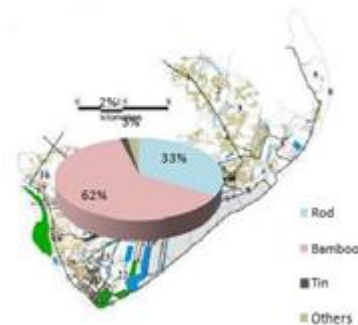


Figure 8: Door material

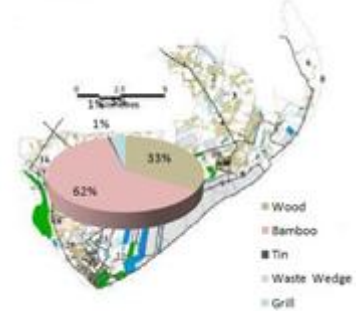


Figure 9: Window material

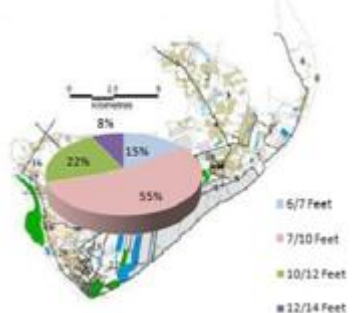
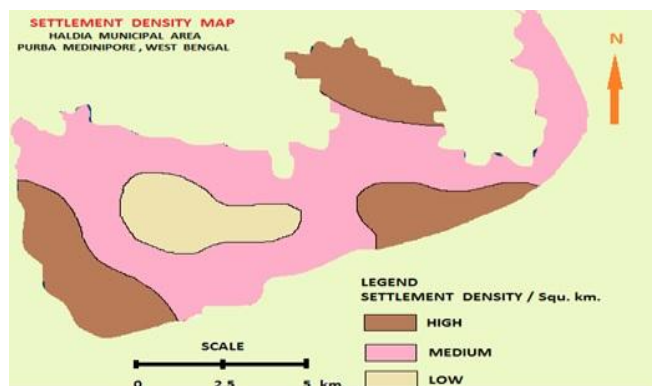


Figure 10: Size of room

The quality of life depends on No. and size of room. The size and No. of rooms are suitable situation of a building facility, as a result of favorable human growth. Good indoor

environment effects on human health. No. and size of the room are the major indicators of quality of indoor environment. If the room size is big, the indoor environmental quality will be good for human health. In the study area of Haldia Municipality among the total No. of surveyed room, 15.0 % are 6/7 feet size, 55.0 % are 7/10 feet size, 22.5 % are 10/12 feet size, 7.5 % are 12/14 feet size.



**Figure 11:** Settlement density map

## 6. Conclusion

Settlements provide a spatial focus for most human activity, and therefore also strongly affect local land cover, water quality, and biodiversity. Analyzing the spatial patterns of settlements can contribute to greater understanding of land use changes, ecological processes, cultures and lifestyles, etc. So, there is a need of detailed human settlement research of the study area.

## 7. Acknowledgement

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## 8. Conflicts of interest

The authors declare no conflict of interest.

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