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A study on human resource development and infrastructural improvement: a case study of Haldia Municipality Area

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Abstract

Man, primarily applies his physical labour, then mental labour in creating a resource. However, culture adds a third dimension in resource creation. The importance of human resource has led to the growth of a new branch - 'Human Resource Development' by the developmental economists in the 1990's. Infrastructure on the other hand is the building base of any economy, the development and growth of which is dependent on the human resource of any region. However, the growing issue of regional imbalance poses bold challenge to the infrastructure planning of any region because it bears a close relationship with the human resource potential of any region. This is particularly alarming among the class I cities in the developing countries of the world. There is a huge array of wide inequality within the infrastructural parameters which bears a considerable impact on the economic status, standard of living as well as the overall well-being of the citizens. The present study is based on the empirical observation focused on the changing human resource pattern in some selected wards of Haldia city and its consequent impact on available infrastructural facilities of the region.

Keywords: *Human resource, regional imbalance, infrastructure, living standard*

Introduction

Rapid growth of urban population has been observed in India since independence. The pattern of growth of population in urban areas depends on the facilities available which are mostly unequal among the towns of different size. The class I cities are growing at a

tremendous rate with pressure of migrants from small and medium sized towns. This lopsided growth has resulted in several social problems including creation of slums, corruption, joblessness, pressure on economic activities and most importantly inadequacy of

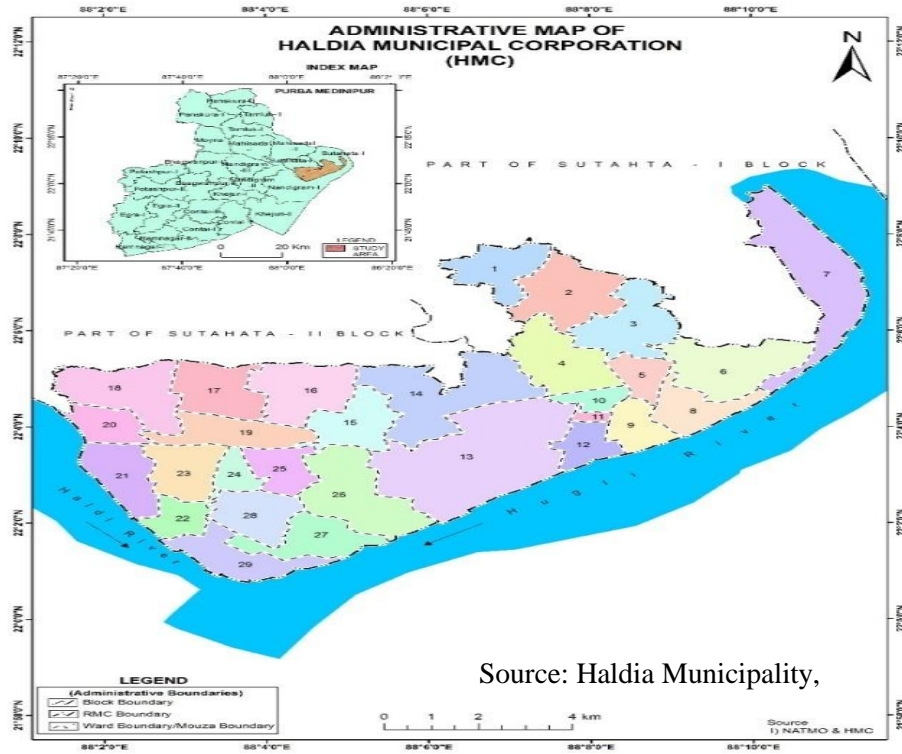


Fig. 1: Location of the study area

infrastructural facilities. The availability of all socio-economic infrastructures is solely not meant for development until and unless it is adequately available corresponding to the population size and extent of area. Narrow politics, diverse physiographic characteristics and socio-cultural heterogeneity have resulted into the differential and non-rational distribution of infrastructure in concerned regions leading to emergence of regional disparities. In this article an attempt has been made to examine the human resource potential and its impact on infrastructural improvement highlighting the inter-ward disparities in levels of socio-economic development of Haldia city.

SELECTION AND LOCATION OF THE STUDY AREA

Haldia is a major riverine port city situated on the river Hugli along the mouth of Haldi River. The city by location has an extension of 22° 1' N to 22° 9' N and 88° 1' 30" E to 88° 11' 30" located with an average elevation of 8 metres encompassing an area of about 109.65 square kilometres. It is serviced by the Haldia Municipality which an autonomous body is devoted to

attain sustainable enhancement of infrastructure to keep pace with the demands of growing population, approx. growth rate being @ 4% per year. However, with changing demographic structure, development seems to be lopsided leading to numerous social, economic, infrastructural problems as well as skewed regional development. With this background, a study on the human resource distribution and consequent infrastructural development of eight selected wards under Haldia Municipality has been undertaken as follows:

AIMS AND OBJECTIVES OF THE PRESENT STUDY

The study is undertaken with the following deliverables:-

- To study the pattern and changes in human resource potential.
- To examine the nature of civic infrastructure in eight selected wards.
- To analyse the nature of population growth and infrastructural development.
- To identify livelihood constraints, faced by respondents.



Fig. 2: Haldia Municipality Building, 2019

DATA USED

- Primary data have been collected through questionnaire survey of the residents of Haldia Municipal wards no.12, 18, 20, 21, 22, 23, 24 and 25.
- Secondary data have been obtained from Haldia Municipality, Haldia Development Authority, Google Map, Census of India, District Statistical Handbook, and from other relevant authorities. Relevant literature acted as a stepping stone along with daily/local newspapers, government reports, articles, research paper etc. also have been consulted.

METHODS AND TECHNIQUES

- Field level primary data have been collected through intensive survey by questionnaires (stratified random sampling). Primary data have also been collected through observation

and direct communication with the residents focussing on changing land use, available infrastructural facilities, livelihood implications and challenges.

- The secondary data on the study area as noted above, have been collected with reference to household and civic infrastructure which have been processed analyzed (both spatially and temporally) by statistical methods and cartographic means using Map Info, MS Word, MS Excel, Adode Photoshop 7 and manual portrayal.

Sample size- The sample constituted of 120 households with 15 households from each ward.

DISCUSSION

Haldia Municipality since its birth on 9th June, 1997, has been playing an important role for the development of Haldia. From a village based agricultural economy, it helped Haldia transform into a land of livelihood based on industrial economy. There are twenty-nine (29) Ward-Committees administering and monitoring municipal services in the entire city. Haldia Municipality is the largest ULB (Urban Local Body) outside KMA (Kolkata Metropolitan Authority), looking after 30 major industries and another about 30 industrial units are in the pipe line.

1. Nature of Land use

The present city of Haldia is comprised of several agricultural villages a few years ago, which has presently been transformed into Industrial Town of Class-II category ULB (Urban Local

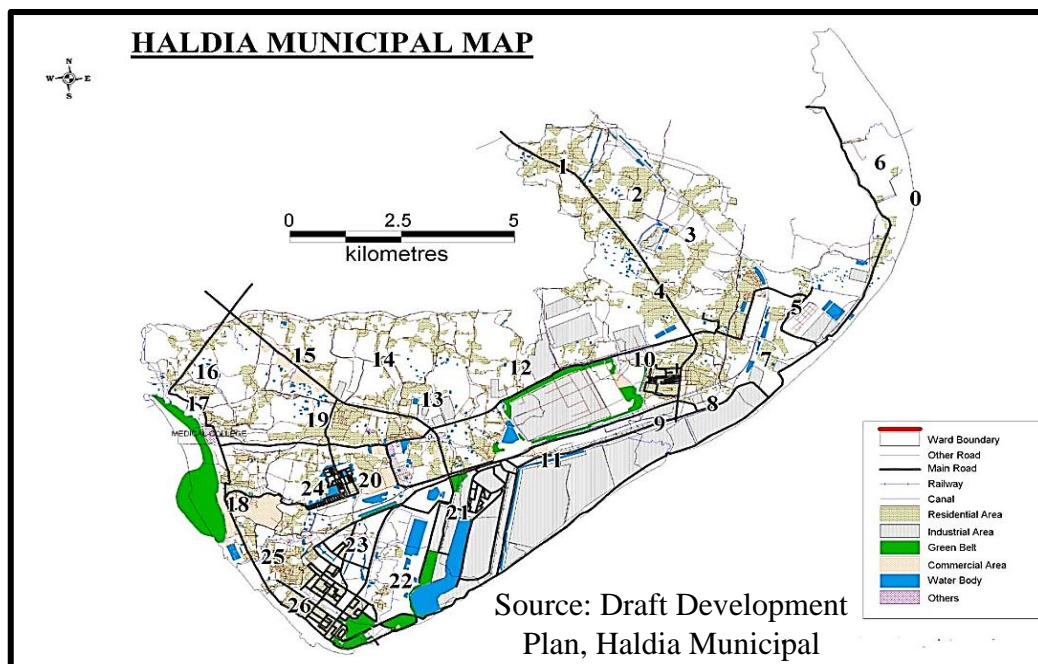


Fig.3: General Landuse of Haldia Municipal Area

Body). In **2019**, the overall landuse of Haldia comprised of 34% of the Municipal area under residential uses, 16% industrial, 15% agricultural, 12% under transportation related activities, 10% is vacant land, 8% is public and semi-public and the rest 5% is under water bodies. The UDPFI (Urban and Regional Development Plans Formulation and Implementation), 1996, guidelines for medium town in plain land speak for the following model viz. is as follows:

1. Residential (40-45%),
2. Commercial (3-4%),
3. Industrial (8-10%),
4. Public/ Semi-public (10-12%),
5. Recreational (18-20%),
6. Transport & Communication (12-14%).

Comparing the state of landuse of Haldia to the UDPFI guidelines there is a vast scope of development of residential area, and public semi-public area in Haldia. The existing Industrial Area matches the UDPFI norms closely. Special attention is to be given in low land areas to avoid inundation and related hazards.

2. Factors influencing Human Resources in Haldia

A. **PHYSICAL FACTORS:** Among the physical factors, fertile alluvial soil with local variations in texture and other characteristics result in variations in landuse leading to spatial diversity in population distribution. The two rivers Hugli and the Haldi serve the required water for commercial, household and industrial use of the township. Mineral resource from Purulia, Paschim Bardhaman, Birbhum and Jharkhand play a crucial role in setting up new downstream industrial units.

B. **NON-PHYSICAL FACTORS:** The primary non-physical factor to influence population distribution is the nature and scale of economic activities. In Haldia the secondary and tertiary activities have resulted in high population density. Moreover, the port facility is an added advantage with the strong industrial base in this region which creates higher employment potential over the years.

Demographic Attributes

The population density of the selected wards of Haldia Municipal Corporation for 2011 shows that the ward no. 20 and 25 have the maximum population density (5680

persons/sq.km.), whereas ward nos.22, 23 and 24 have moderate population densities (3720 persons/sq.km.) while the rest have low densities of population. Distribution of male and female population is more or less uniform in all the wards, though the male population is very high in ward no. 20 and the female population is highest in ward no. 24. The lowest male population is found in ward no. 21 and for the female the least number of population occurs in ward no. 20.

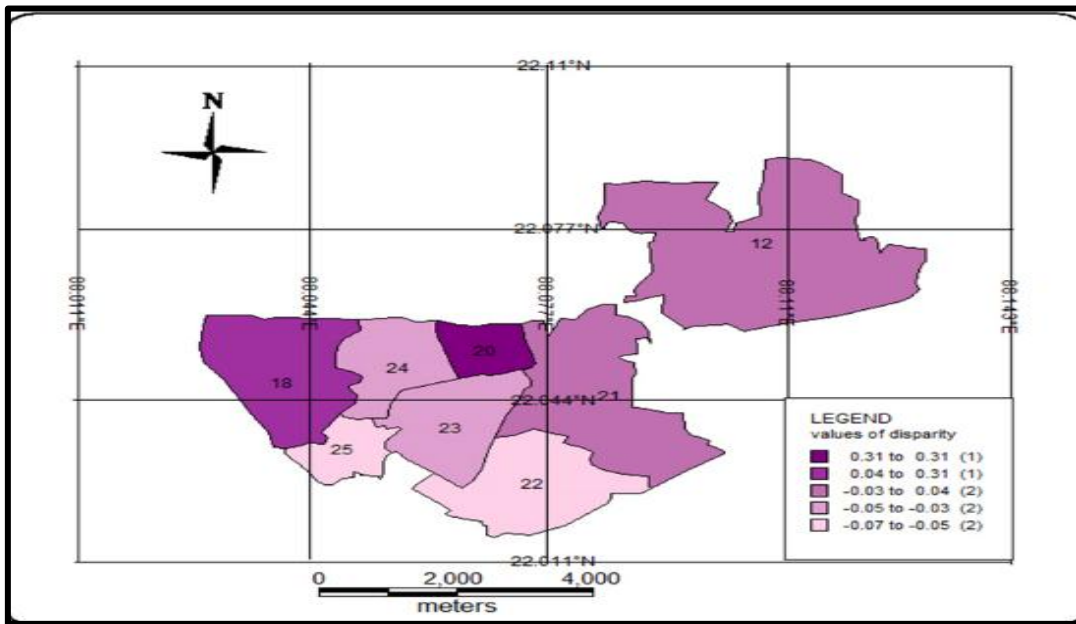


Fig. 4: Disparity Between Male and Female Literacy in The Selected Wards of Haldia Municipality, 2011

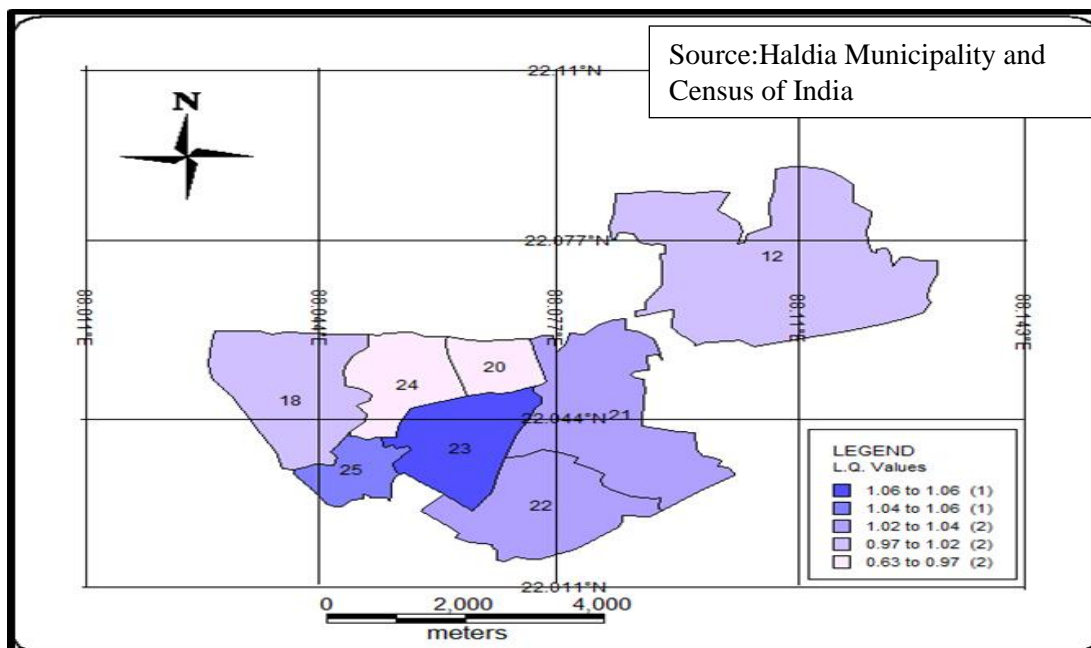


Fig. 5: Concentration of Total Workers (using Location quotient), of Selected wards of Haldia Municipality, 2011

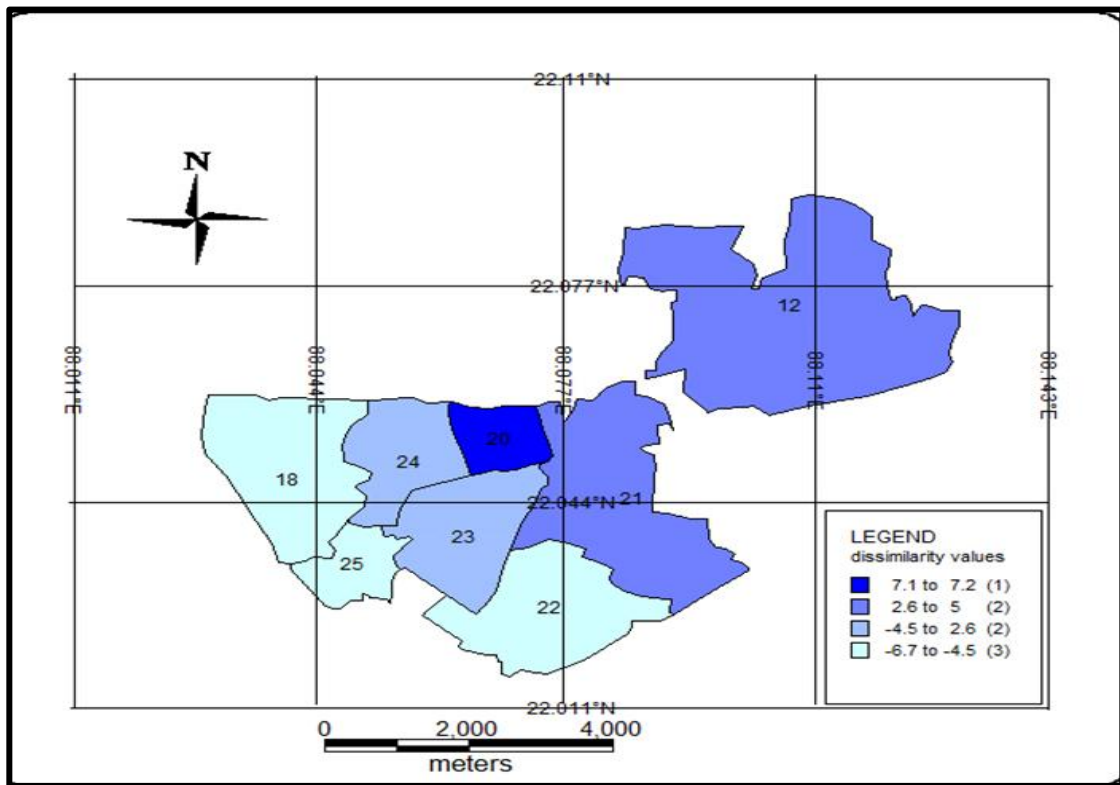


Fig.6: Index of Dissimilarity of Scheduled Caste and Scheduled Tribe Population to Total Population, in Selected wards of Haldia Municipality, 2011

- The Occupational structure of the people in selected wards under Haldia Municipality shows the categories of Main, Marginal and Non workers. In 2011, the non-workers were the highest group in ward no. 24 and lowest in ward no.21. The main workers are highest in ward No.24 and lowest in ward No.21. The marginal workers were relatively high in ward no. 12 and very low in ward no. 20. These show that categories of workers were not uniform in distribution as influenced by the dependent population below 18 years and ageing population. The limited growth of tertiary services in the study area is another factor influencing the size of less main working force.
- As per 2011 data, the agricultural labourers and household industry workers have been found to be relatively more in ward no.12. Concentration of cultivators has been found to be high in ward no.18.

4. Changing Importance of Human Resource

The demographic components of people under Haldia Municipality over the years (2004-2014) have been compared. The size of area has remained the same i.e. 104.9 sq.km. but population has increased from 170,673 to 200,827 persons. The density of population increased from 1627 persons/sq.km. to 1914 persons/sq.km. The no. of households has

increased from 36,161 to 44,065 during the same period with minor fluctuations in ward no. 21 and 22. There were a total of 24 wards in 2004 but it increased to 29 in the year 2015.

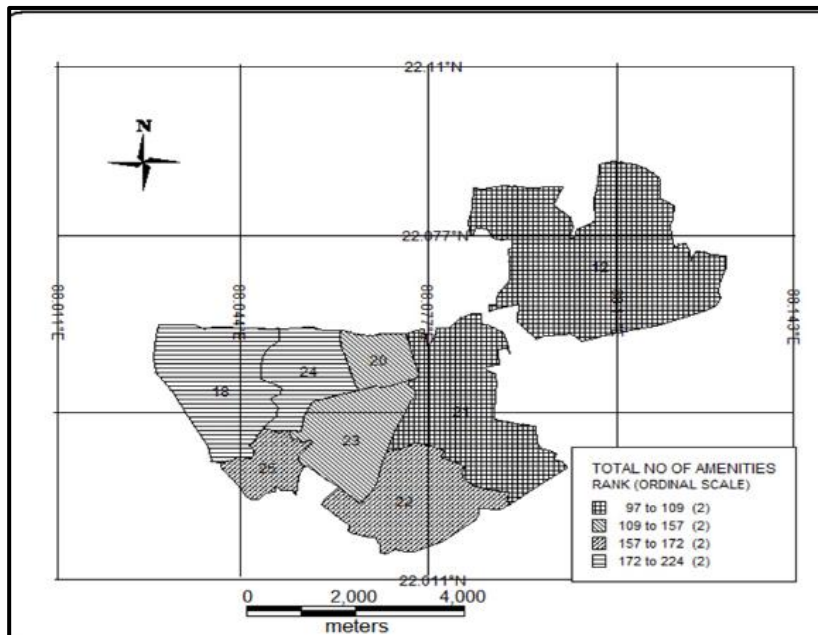


Fig. 7: Hierarchy of Settlement (As per ordinal scale)

5. Distribution of Infrastructural Facilities

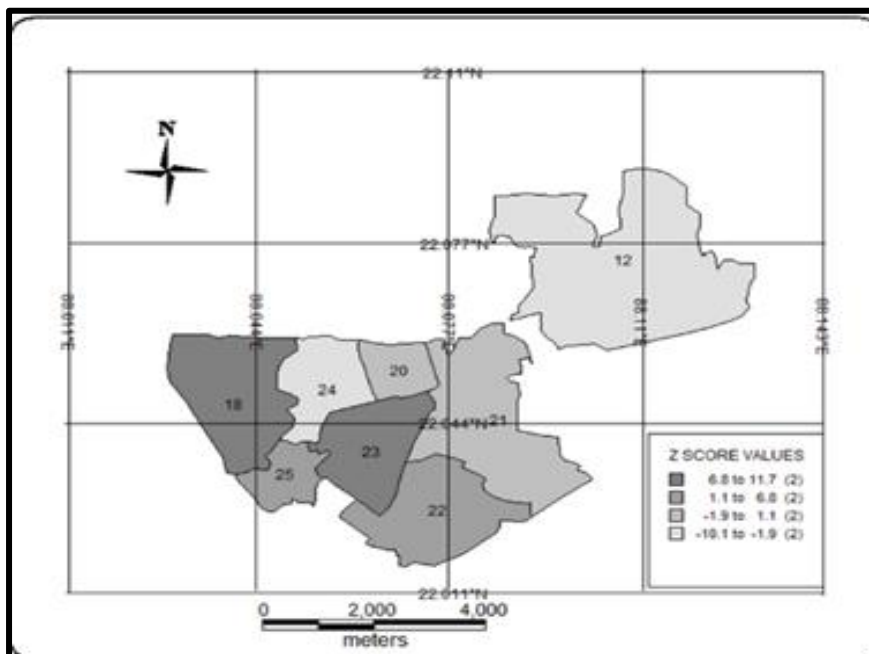


Fig. 8: Differential Infrastructural Development using Composite Standard Scores

The infrastructural facilities here include both physical and social infrastructure viz: education, health care, roads, sewerage, electricity, industrial agglomeration, solid waste management and others for the eight wards under study. The composite index of development has been calculated using 24 indicators of social, physical and economic infrastructure. These are also the component of basic utility services being provided to the residents by the administration. The index shows the highest score for ward no.18 (458.6) followed by wards 23 (305.21), 25 (298.3) and minimum development in ward 24 (139.48).

6. Composition of Members of Household and usable Gadgets

In all the selected wards the percentage of male respondents has been found to be more than the female counterparts. In every Municipal ward the size of general caste people is maximum and is the highest in ward no. 22 (80%) and minimum in ward no. 23 (60%). The maximum size of family members having children of less than 15-year age group has been found to occur in ward no. 20 (40%). The old aged population is very low in size at an

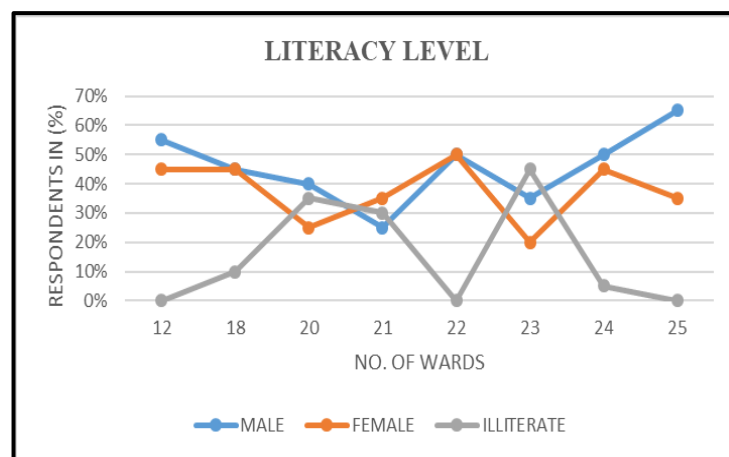


Fig. 9: Level of Literacy

average of 10% of total population in all the selected wards. Married respondents are maximum in ward no. 20 and 25 (75%) and minimum in ward no. 24(55%). Three storied households are maximum in ward no. 12 (65%). The size of immigrants is highest in ward no. 12(70%) and there are no immigrants in ward no. 23. In ward no. 20 and 21, 100 % respondents availed government hospitals for medical help whereas in ward no. 12, 55% of respondents availed private nursing homes. The expensive gadgets like computers, washing machine and microwaves are found mostly in use in ward no. 12 and 22.

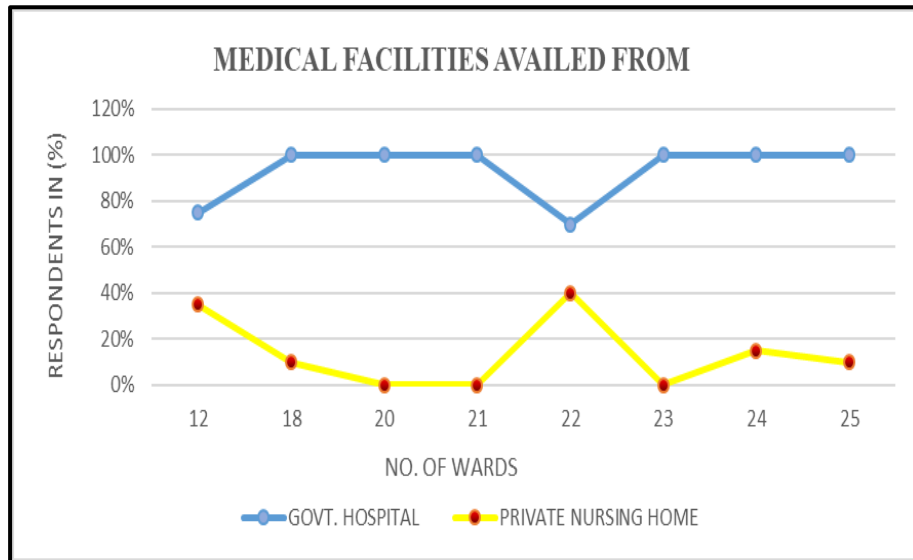


Fig. 10: Size and Nature of Medical Facility

7. Civic Amenities: Respondents View

In all the selected wards, while in ward no. 20 and 21 community dustbins are used. The daily waste is collected by vans regularly. In wards 20, 21 and partly in 23, the drains are open. The market is situated within a distance of within 2-3km. In wards 12 (55%), 22 (50%), 24 (35%) and 25 (30%), residents partially rely on nearby private banks. In all the surveyed wards except in ward no. 24 and 25, cinema halls are located away at over 3 km. In wards 12 (80%), 22 (85%), 24 (50%) and 25 (60%), the parks/playgrounds are located within 1 km.

8. A View on Living Conditions

The Cooking gas is the primary fuel used except in ward no. 20, 21 and 23. Water taps are most important source of water except in ward no. 12 and 22. Tube well is an important source of water in ward no. 18 (85%). The income and expenditure analysis shows that most of the residents in ward no.20, 21 and 23 have income within a range of Rs.15000-Rs.30000 and very high income of Rs.60000 or more is found in ward no. 12 (65%) and 22 (55%). The average expenditure level of more than Rs. 30000 is found in ward no. 12 (60%). A low expenditure level of less than Rs.10000 is found in ward no. 23(60%). On average 80% of the respondents keep their savings in banks.



Fig. 11: MEANS OF TRANSPORT USED BY RESPONDENTS

Fig. 12: ISSUES RELATED TO CIVIC AMENITIES

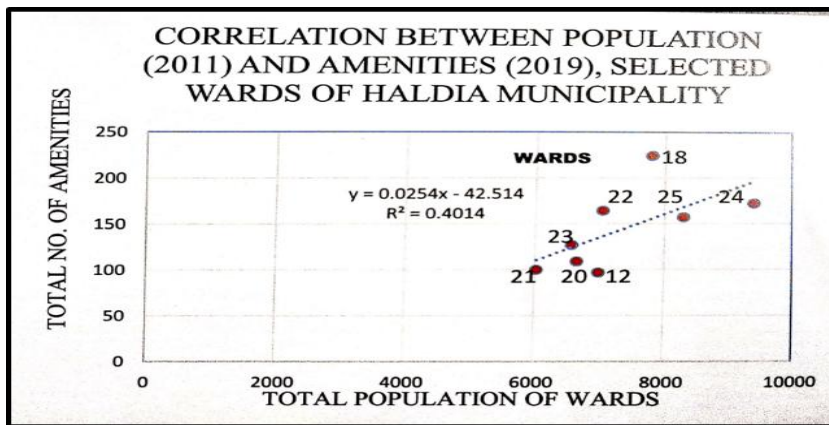


Fig. 13: Correlation between Population and Amenities
Source: Haldia Municipality, Google Earth and primary survey, 2019

9. General Findings

- Analysis of landuse shows that land utilization is mostly agriculture, residential and industrial.
- Male and female population is mostly balanced in all the surveyed wards.
- Concentration of total workers to total population is moderately good for the study area.
- Changing pattern of population distribution is evident through demographic parameters

- In all surveyed wards the growth of amenities is commensurate to growth size of population, except only ward no.25.
- Ward no.18 registered the highest development with minimum disparity and ward no. 24 has less development with high disparity.
- The household survey reveals different aspects of livelihood, amenities and development of wards on a comparative basis

10. Measures taken for Improvement of Quality of Life

- Better quality bituminous roads and construction of flyovers
- Improved water supply
- Maintenance of public properties
- Environmental protection and pollution control
- Improved drainage and sewerage system.
- Maintenance of cultural heritage.



Fig. 14: Office of Haldia Development Authority



Fig. 15: A new Flyover under Construction

Acknowledgement

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