

Influence Of Urban- Industrial Growth In Haldia Town, West Bengal

Krishnendu Sahoo

Research Scholar, Department of Geography Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur (C..G)

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Dr. Kaveri Dhabadker

Associate Professor, Department of Geography Govt. Bilasa Girls P. G. College, Bilaspur chhattisgarh

.Abstract:- Economic development of the country is depending on mainly industrial growth and development. The new setup city are constantly undergoing due to urban-industrial development. Haldia, a port cum industrial town is the secondary employment sector which involves large number of peoples is engage to the various industrial purposes. The Haldia port town grows in early 1970s and popular industrial town in West Bengal. Now The Haldia town is the fastest growing port of the Eastern India. The Haldia port town is situated in the Haldi river bank, this place is nearest of the Bay of Bengal Sea. Kolkata and Kharagpur are join to Haldia by the south-eastern railway. Kolkata and Howrah are join by the national high way no 46. The land surface is plane and soil condition is very eliding. The weather condition is very comfortable. Good location advantage, better connectivity, large number of educated people and different facilities are improve for rapid industrial changes have been seen within 25 years. The development has helped the economic growth of the region and it also related with the formulation of urbanization in Haldia town. Now a days the economic condition, this type of study is very helpful to understand that how this growth of industry and urbanization has helped the economy of the region.

Keyword: - Industrial change, Industrialization, Urbanization, Industrial growth, Population, Development.

1. Introduction :-

Due to the urban-industrialization the new growing cities are constantly undergoing changes. Agriculture denied. Rural become urban. Haldia, such a port town grows in early 1970s, converted into industrial town, became an important secondary sector which involves large number of people after agriculture sector not only of West Bengal but Eastern India too. Due to the location advantage, better connectivity and different other industrial friendly environment, rapid urban industrial changes¹ has taken place within 50 years. But it is not devoid of problem. Fertile agricultural land converted into urban- industrial usage, emission of hazardous gases from industries causes lung problem,

bronchial asthma, headache and irritation. Marine eco-system upset. So the industrialization² and urbanization³ changes the socio-environmental scenario into upside-down positively as well as negatively.

2. Review of literature:-

Brahamachari, B (1988) has described the pre and post independence condition of Haldia Dock Complex chronologically.

Dash. B, (1989) has discussed the social, economic and cultural aspect of undivided medinipur under Mughal and British rule in his book.

Mandal. R.B (1999) the analysis of urbanization, industrialization, pollution of urban environment, growth of slums, transport and housing problem of third world countries are discussed here.

Surekha. B.P.(2006) has mentioned the behavioral activities, the boundary between urban and agricultural society.

Pathak . C.R, (2006) mentioned the industrial growth⁴ and development through 5 year plan, structure of Indian industries, urbanization and economic and regional development of Haldia.

Aftab A, and Halder. A, in their book “A Socio Economic Study of Household” have analyzed about the demographic aspect of migrants, causes of migration, family types and socio-economic pattern of the Haldia planning area through the sample survey.

Chatterjee. S, (2007) has studied the problem of congestion with special reference of decreasing open space and water bodies of metropolitan city due to urbanization and its impact on environment.

3. Study Area :-

Haldia is located at distance of 125 km. south west of Kolkata and 50 km. upper part of Bay Of Bengal Sea. The two most important river Hooghly and Haldia are influence to the Haldia town. The Haldia town is situated in Purba Medinipur district. The town is extended from 22°02' North latitude to 22°03' North latitude and 88°04' East longitude to 88°06' East longitude. The area of the Haldia town is 109.89sq. Km. The total population⁵ of Haldia town is 200827 in 2011 and 207695 in 2020. Good communication facility is covered by the Haldia town. The National High Way No.- 41 and No.- 06 and the south eastern rail way Howrah to Haldia and Kharagpur to Haldia covered by the Haldia town. Otherwise the Haldia port trust authority is to help the communication facility by port for loading and unloading the goods for industries.

**HALDIA TOWN
PURBA MEDINIPUR**



4. Objectives of the study:-

- i) To analysis the environmental condition of the study area Haldia town.
- ii) To analysis the population changes due to Industrialization.
- iii) To analysis the temporal changes of urban area due to Industrialization.

5. Database of methodology:-

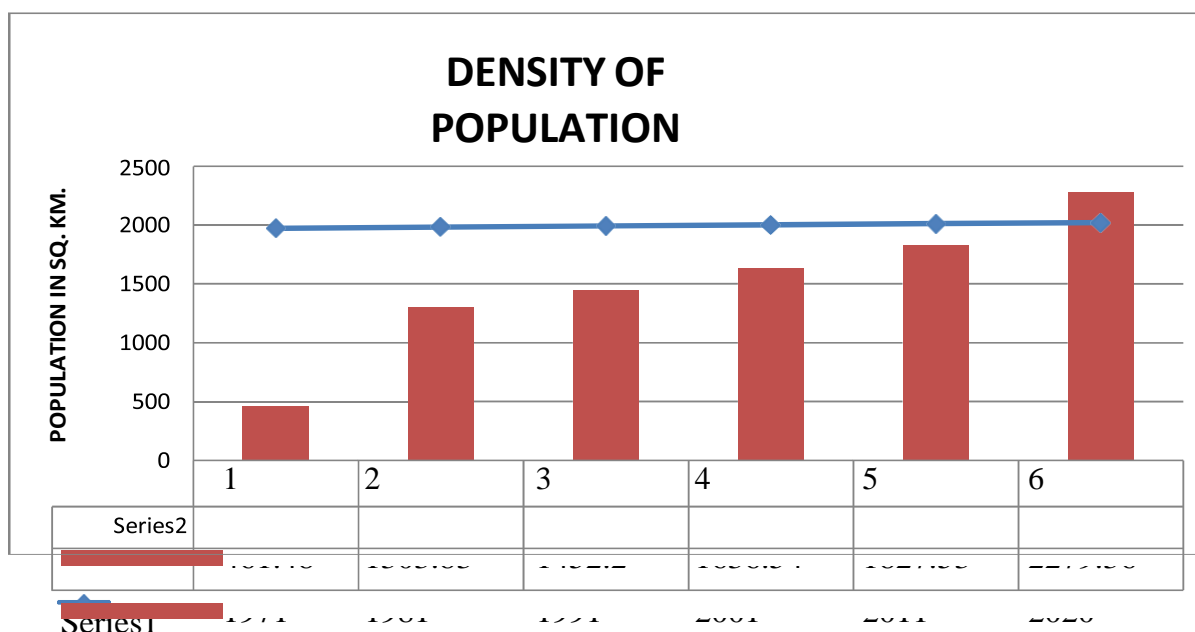
For the detailed study of the sub-objectives, the types are discussed and different methods are adopted. Preliminary data are collected from the surveys of people from different industries area. Secondly, the data are collected from Haldia Municipality, Haldia Dock Complex, HDA, Haldia Block Development Office, Population control board and different books and Published Journal. The various different techniques are adopted in the topic, where are Remote sensing and GIS, Cartography, Statistical techniques.

6. Population Growth and Urban area development :-

The Haldia is the most important port and industrial belt town of West Bengal in South Eastern India. The different Government and private industries are set up since 1997. Now, the present time availability of land, good transport, source of drinking water, population, educated people, port and river communication to enlarge the industrial work phenomena. The urban area growth in Haldia town area, population and density of population have been shown in the table-

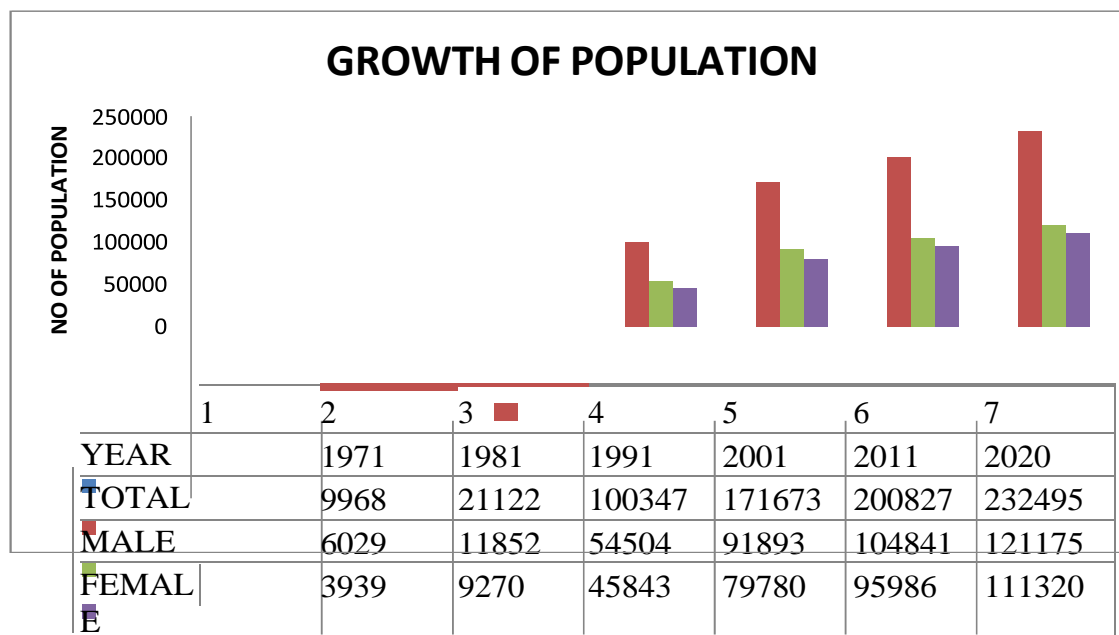
YEAR	AREA (sq.km.)	POPULATION			DENSITY (sq.km.)
		TOTAL	MALE	FEMALE	
1971	21.60	9968	6029	3939	461.48
1981	16.20	21122	11852	9270	1303.83
1991	69.10	100347	54504	45843	1452.20
2001	102	171673	91893	79780	1636.54
2011	102	200827	104841	95986	1827.53
2020	102	232495	121175	111320	2279.36

Source :- District Census Handbook(Purba Medinipur) 1971-2011Haldia Municipality Handbook 2020



As per Census of India 1971, total area of the Haldia is 21.60 sq. km. and total population is 9968, there are male people are 6029 and female people are 3939 and population density is 461.48/sq. km. Then, Census report 1981, Haldia is focus to a completely town. In this time the area of the town is 16.20 sq. km. and total population is 21122, there are male people are 11852 and female people are 9270 and density of population is 1303.83/sq. km. Census report 1991, many major industries are build up in this time, then the area of town is 69.10 sq. km. and total population is 100347, there are male people are 54504, female people are 45843 and population density is 1452.20/ sq. km. Census report 2001 set up the major number of industries, accommodation increase of port and many labor worked in the industries in this time. So, area and population is increase. Area is 102 sq. km. and population is 171673, there are male people are 91893, female people are 79780 and population density is 1636.54/sq. km. According to Census 2011, area of the town is no change but population is increase. The population of the town is 200827, male population is 104841 and female population is 95986 and density of population is 1827.53/ sq. km. because of large no of industries starts their production. At last Census 2020, the population of the town are 232495, there are male people are 121175 and female people are 111320 and population density is 2279.36/sq. km, but area is no change.

1. Growth rate of population is very high from 1971- 2001
2. Area is rapidly developed from 1971-2001
3. Large number of industries are developed from 1981-2011



7. Industrial Growth :-

The Haldia Development Authority (HDA) was build up in 1979. The Haldia industries are growing rapidly between 1995 to 2001. The HDA was build up for the development⁶ of industries and surrounding people and infrastructure of whole area. The HDA is faster growing industrial town of West Bengal in Eastern India. The Haldia industrial belt is faster growing within 30 years because of good location, connectivity transportation system and influence of local Government body. Mainly Haldia industrial belt is growing up into the based on Oil industry, Indian Oil Corporation (IOC). Then, the various followers industries are growing up in based on IOC. HDA gives the various infrastructural phenomena like- houses, markets, hospitals, schools, colleges, play grounds, good transportation systems, shopping malls etc. The category wise major industries and its products are shown in the table.....

CATEGORY		INDUSTRY		PRODUCTS OF INDUSTRY
1.	CRUDE OIL AND PETROLEUM BASED INDUSTRIES	01	Indian Oil Corporation Ltd	LPG Motor, Gasoline, Furnace Oil, Bitumen
		02	IOC Petroleum Ltd, Haldia	LPG
		03	Reliance Petroleum Ltd	Petroleum and Allied Products
		04	Haldia barauni Crude Oil Pipeline Project	Petroleum Storage and transportation

		05	TCG Refineries Ltd	Oil Refinery
		06	Exim India Oil Company Ltd	Liquid Tank Farm Terminal
		07	Bharat Petroleum Corporation Ltd	Petroleum
2.	MANUFACTURING AND WEAVING INDUSTRIES	08	Emami Biotech Ltd	Bio-Diesel Plant
		09	Haldia Paper Boards Ltd	Duplex Board Manufacturing
		10	Priti Plastic	Plastic Goods

		11	Chitral Merchants Pvt. Ltd.	Jute Weaving and Processing
		12	Rejoin Petro Plants	Plastic Goods
		13	Ambhunhume Pipe and RCC engineering	Hume Pipe and Products
		14	Lalbaba Seamless Tube Pvt. Ltd	Seamless Tube
3.	METAL BASED INDUSTRIES	15	Rohit Ferro Tech Ltd	Ferro-Alloy
		16	Electro Casting Ltd	Coke Oven Plant
		17	Manaksia Ltd	Aluminum and Steel
		18	Shamson Ispat Ltd.	Steel Rolling
		19	Rakshit Chemicals	Aluminum Plant
		20	Modern India Con-cast Ltd	Ferro Alloy Plant
4.	CHEMICAL BASED INDUSTRIES	21	Hindustan Liber Ltd.	Detergents
		22	Tata Chemicals Ltd.	Industrial Phosphate and acid
		23	HFC Ltd. Haldia	Fertilizers
		24	RDB Rasayans Ltd	HDPE, PLB and HDPE Ducts
		25	South Asian Petrochemicals Ltd	PET Resin
		26	Sanjana Cryogenic Storage Ltd	Ammonia Storage and handling Terminal
		27	Marcus Oil Chemicals Pvt. Ltd	Lube
		28	Haldia Petrochemicals Ltd	LLDPE, HDPE, Naphtha, Crackers etc
		29	MCC PTA India Corporation Pvt. Ltd.	P.T.A.
		30	Consolidated Fibers and Chemicals Ltd.	Acrylic Fiber
		31	Shaw Wall acc and Co. Ltd.	Dimethanate, Fenijrothion,
		32	Exide Industries Ltd. Haldia	Automotive Batteries,
5.	FOOD PROCESSING INDUSTRIES	33	Madhya Pradesh Glychem Industries Ltd	Edible Oil
		34	Econ India	Drinking Water and Soda Water
		35	Ruchi Soya Industries Ltd	Edible Oil
		36	Gokul Re-foils & Solvent Ltd	Edible Oil Refinery
		37	Shree Renuka Sugars Ltd	Sugar Refinery and Food Complex
6.	DOWN STREAM INDUSTRIES	38	R D B Rasayans Ltd	PP Jumbo Bag and Small Bag
		39	Reliance Industries Ltd	Storage and Handing Petroleum Product
		40	Electro steel Casting Ltd	Coke Oven Plant
		41	URAL India Ltd	Automobile
		42	K.S. Oils Ltd	P Edible Oil Refinery
		43	S.M. Plastic	Plastic
		44	Assent Waste Management Ltd	Storage of goods
		45	M/S Rehab Lifting Co (P) Ltd	Storage of goods
		46	West Bengal Waste Management Ltd	Storage of goods

	47	Ruchi Infrastructure Pvt. Ltd	3 RD Party Liquid Storage Tank Terminal
	48	Hooghly Met Coke &Power Co Ltd	Coke Oven Plant
	49	DMP Net Pvt .Ltd	Fishing Net
	50	Ennore Coke Private Ltd	Coke Oven Plant

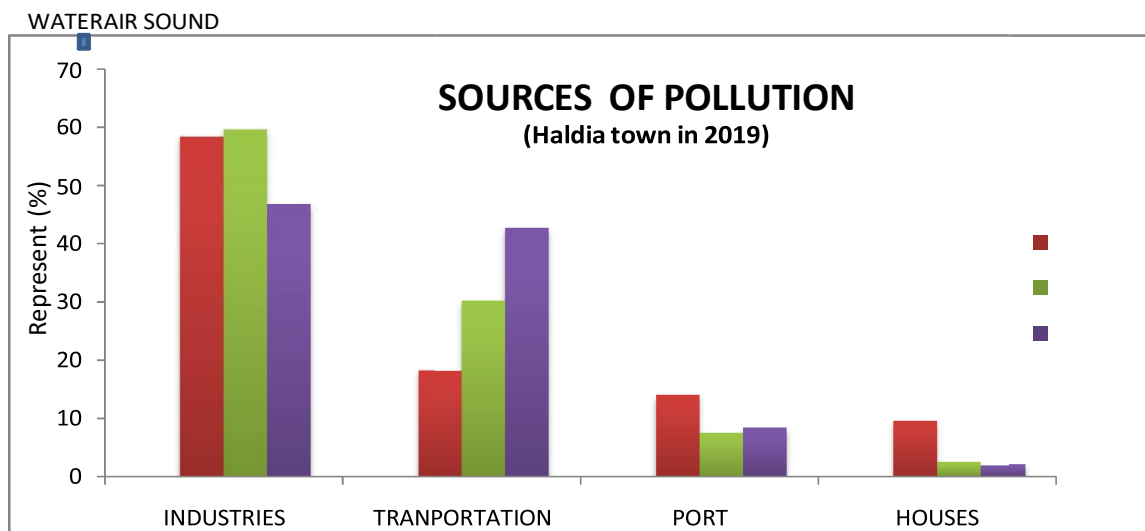
8. Environment and Urban-Industrialization

Relation between environment and urban industrialization are common problem in every industrial town, Haldia is one of them. The cause of urban of pollution are large no of population, large number of industries, highly use the vehicles, Change of land use pattern, etc. The pollution of Haldia town is increase from 1971 to towards. So, different diseases are increase in the town.

TYPE SOURCES	INDUSTRIES	TRANSPORTATIO N	PORT	HOUSES
WATER	58.29	18.25	14.01	09.45
AIR	59.60	30.25	07.58	02.57
SOUND	46.82	42.64	08.48	02.06

Source: [Illegible]

1. The major sources of pollution components are present industrial town.(in the Haldia water, air, sound).
2. Mainly, bad environmental condition of Haldia industrial town is response to the industries for Water (58.29%), Air (59.60%), and Sound (46.82%).
3. Secondly, the transportation systems are cause of pollution for Water(18.25%), Air (30.25%), and Sound (42.64%).
4. Thirdly, Port is respond for pollution of Haldia town Water(07.58%), and (14.01%), Air Sound (08.48%).
5. Fourthly, Houses are responding in pollution of Haldia town for Water (09.45%), Air (02.57%), and Sound (02.06%).



9. Population and Urban-industrialization relationship :-

The relation between population and urban- industrialization are common factors of every industrial town. Haldia town is one of them. The Haldia is mainly industrial town of West Bengal in South eastern India. The town is growth up in 1971 to 1981.

YEAR	DUSTRIES SETUP	POPULATION GROWTH(NO)	POPULATION GROWTH (%)	ANNUAL INDUSTRIAL GROWTH (%)
1971-1981	2	21122	11.19	-----
1981-1991	12	100347	37.52	14.00
1991-2001	18	171673	07.01	05.00
2001-2011	11	200827	01.72	-03.89
2011-2020	4	232495	00.16	-00.63

Source:- Municipality Hand Book, 2020

Firstly, Haldia urban-industrialization is started 2 industries in 1971 -1981.in that time the population of the town is 21122 and population growth rate is 11.19%. Secondly, according to 1981-1991, there are 12 industries buildup and population is 100347 and population growth rate is 37.52% and annual industrial growth rate is 14.00%. According to 1991-2001, 18 industries buildup, in that time population of the town is 171673 and population growth is 07.01% and annual population growth rate is 05.00%. In this time 1981- 2001, many majored industries are founded and population is increase rapidly. According to 2001-2011, number of industries (11) and population growth rate (01.70%) and annual industrial growth rate (-03.89%) is decrease because of highly political issues. At last 2011-2020, number of industries (04) and population growth rate (00.16%) and annual industrial growth rate (-00.63%) because of owner- labour ware, highly political issues, lack of land, lose important of port etc.

10. Effects of developmental aspects

a) Positive effects-

- i) Change the rural to urban economic
- ii) Increase the job opportunity
- iii) Develop the transport and communication system
- iv) Increase the economic system
- v) Increase the health facility
- vi) Increase the education facility
- vii) Increase the quality of life

b) Negative effects-

- i) Increase the pollution (water, air, sound)
- ii) Decrease the agricultural land
- iii) Growth the slum area
- iv) Increase the crime
- v) Increase the refugees and housing problem

- vi) Increase the traffic jump.

c) Problem solving approach-

- i) Control the pollution (water, air, sound)
- ii) Control the land slide
- iii) To maintain the economic balance
- iv) Construction the others optional communication system
- v) Try to provide the 24 hours electric power system
- vi) Needs to proper selection of land for industrial purpose.
- vii) Must needed for highly dressing system of Hooghly river.
- viii) Residential zone is made in particular distance maintain from industries.

11. Major findings :-

- i) Indian Oil Corporation Ltd, India
- ii) Haldia Dock Complex, India
- iii) Tata Chemicals Ltd, India
- iv) Exide Industries Ltd, Haldia
- v) Hindustan Petroleum Corporation Ltd.
- vi) Bharat Petroleum Corporation Ltd, Haldia
- vii) Reliance Industries Limited, Haldia
- viii) Madhya Pradesh Glychem Industries Ltd, MP.

Reference :-

1. Mandal.R.B,(1999), “Urban Geography- A Text Book”, Concept PublishingCompany, New Delhi.
2. Surekha.B.P, (2006), “Spatial Efficiency in Geography”, Concept PublishingCompany, New Delhi.
3. Pathak.C.R, (2006), “Spatial Structure and Processes of Development in India”,Regional Science Association India, Kolkata.
4. Aftab.A and Halder. A, (2001), “A Socio Economic Study of Household in HaldiaPlanning Area”, Haldia Development Authority, Haldia, West Bengal, India.
5. Dash.B, (1989), “Medinipur: Itihas o Sanskritir Bibarta”, Sahityalok, Kolkata.
5. Chatterjee. S, (2007) “Urbanization in Kolkata: An appraisal of the crisis of openspace”.

Geographical review of India, Vol-69, No.3, September-2007, Geographical society of India, Kolkata-70001