



Cover Page



## INDUSTRIALIZATION AND ITS IMPACT ON SOCIETY: A STUDY IN HALDIA MUNICIPALITY, PURBA MEDINIPUR, WEST BENGAL

**Mr. Gouranga Gaunia**

Assistant Professor in Geography, Vivekananda Mission, Mahavidyalaya

### Abstract:

Industrialization is a part of economic development and developing economies adopt policies for the transformation of agro-based underdevelopment regions to industry-based developed regions. Therefore, public awareness about environmental problems emanating from industrialization has expanded significantly and researchers have been trying to evaluate the consequences of pollution through field studies and quantitative analysis. It is now accepted that the benefit from industrialization in a region needs to be examined against the perceived costs of increasing pollution. It has to be carefully studied before allowing any further industries to come up in that area. This paper attempts to evaluate the monetary costs of environmental damages in the rapidly industrializing locality of Haldia Municipality in West Bengal. This is a pointer to the fact that we must look at such costs before embarking on further industrialization processes in the region to protect the ecological as well as environmental balance and keep the system sustainable for future generations.

**Key Words:** Industrialization, Impact, Environmental. Economic, Social

### 1. Introduction

Industrialization is an indicator of the development of every society. Industrialization enhances the employment status of the country. It provides a source of employment to the people of a nation. This work is quite relevant to the present day because it is related to the industrial geographical characteristics, environmental impact assessment, and economic growth of the Haldia Industrial Region. It is one of the growing industries in West Bengal. It extends over the Haldia sub-division of the Purba Medinipur districts. There are some favorable physical and social factors which are determining the location of the Haldia industrial region. Industrial expansion in the Haldia industrial Area has critically contaminated the air as well as water and land. Therefore nowadays, the environment of the study area has decreased its quality and created several diseases due to industrial pollution.

Donald R. Coats, in His book, Environmental Geology, University of New at Binghamton, John Wiley & Sons, New Chichester, Brifbeu, Toronto, states that the environment describes the entirety of our human surroundings and all our work.

Roy, Prithwis, 1997, in his book A economic geography- A study of resources, New Central Book Agency Pvt. (Ltd). Calcutta, N.D., described industrialization as the process of social and economic change whereby a human group is transformed from a pre-industrial society into an industrial one.

Hassan, M. I., 2005 in his 'Population Geography' Jaypur, New Delhi, Bangalore, Mumbai, Hyderabad, Guwahati considered that geography has traditionally been concerned with man's environment relationship and therefore man and it is his activity on the earth's surface and occupied and industrial place in the discipline for a long time.

Battaddar and K.P.M Sudharam (2006) in their book 'Indian Economy' S Chand and company (Ltd) stated that the link between infrastructure and development does not want for all affairs. It is a continuous process and progress in development has to proceed, accompanied and followed by progress in infrastructure.

### 2. Objectives

- i. To know about the historical background of the study area.
- ii. To discuss the causes of the growth of the small, medium, and large-scale industries in the Haldia Industrial Region.



Cover Page

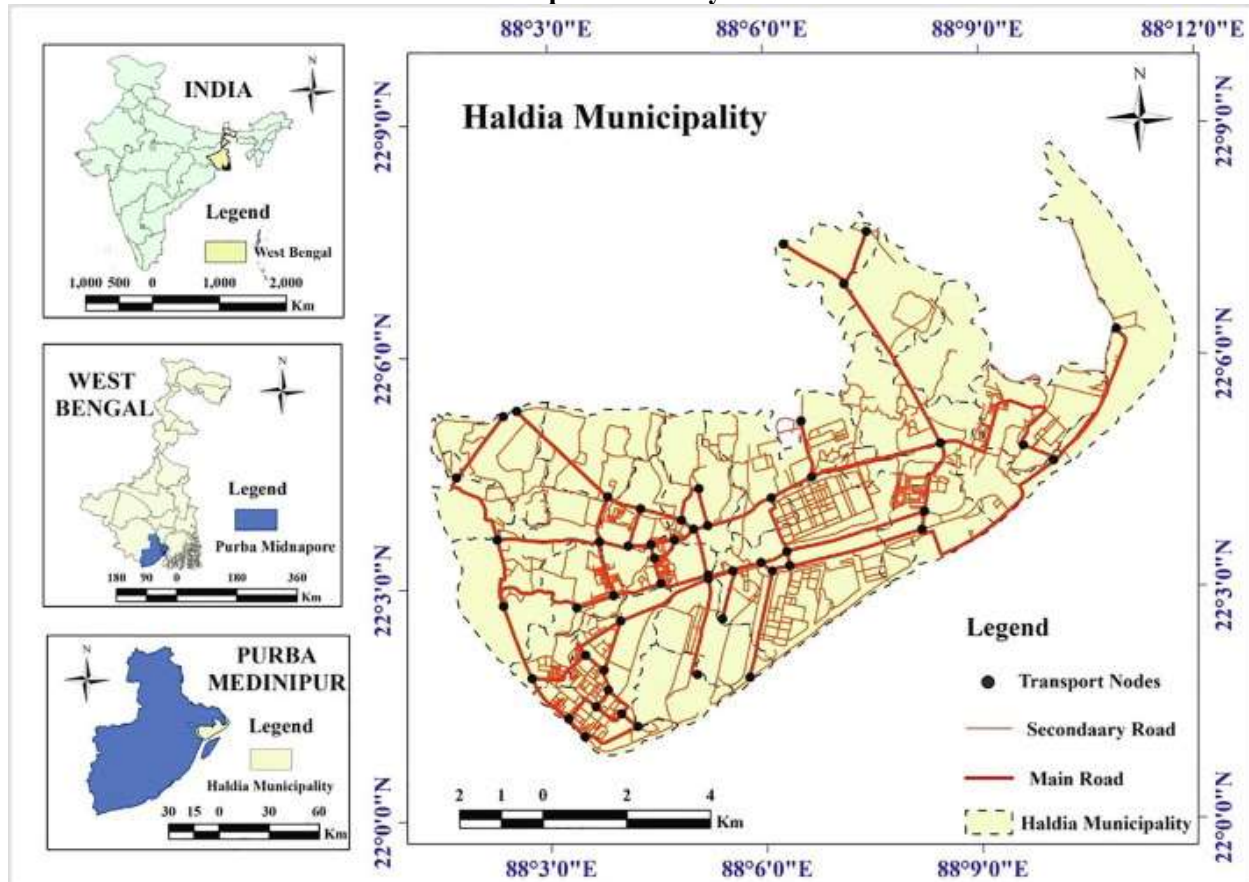


- iii. To formulate a comprehensive investigation of the industrial landscape of the Haldia Industrial Region.
- iv. To discuss the impact of Industrialization on environmental degradation.
- v. To find out the various measures to control environmental degradation.

### 3. Study Area

Haldia is an important industrial center in Eastern India and Gateway to South East Asia. The town Haldia with an existing industrial base is located 77 km downstream of the legendary port of Kolkata. The Gateway of Eastern India in the southern tip of Purba Medinipur District which forms the southernmost district of Medinipur Division in West Bengal. Haldia town is located in the estuarine reaches of the river Bhagirathi and the confluence of river Hooghly and river Haldi. It is situated between 22°03'43.93" to 22°04'53"North latitude and 88°07'53.15" to 88°09'03.61"East longitude. The total geographical area of Haldia town is 109 sq. km. Hooghly River bound detailed study area in East. Haldi River demarcates the southern boundary, and Brajlalchak and Sutahata also demarcate the Western and Northern boundaries of the study area.

Location Map of the Study Area



### 4. Data Used and Methodology

Industrialization is a transformation away from an agricultural- or resource-based economy, toward an economy based on mechanized manufacturing. Industrialization is usually associated with a greater average income and improved living standards. Industrialization is the procedure of social alters whereby a human group is altered from a pre-industrial civilization into an industrial area. Due to industrial processes employment has been generated in the country around. Labor gets more work, railway transport agencies handle more goods, and govt. gets more revenue from taxation. It provides an attractive source of employment to the people of an industrial area of the nation and glittering processions of



Cover Page



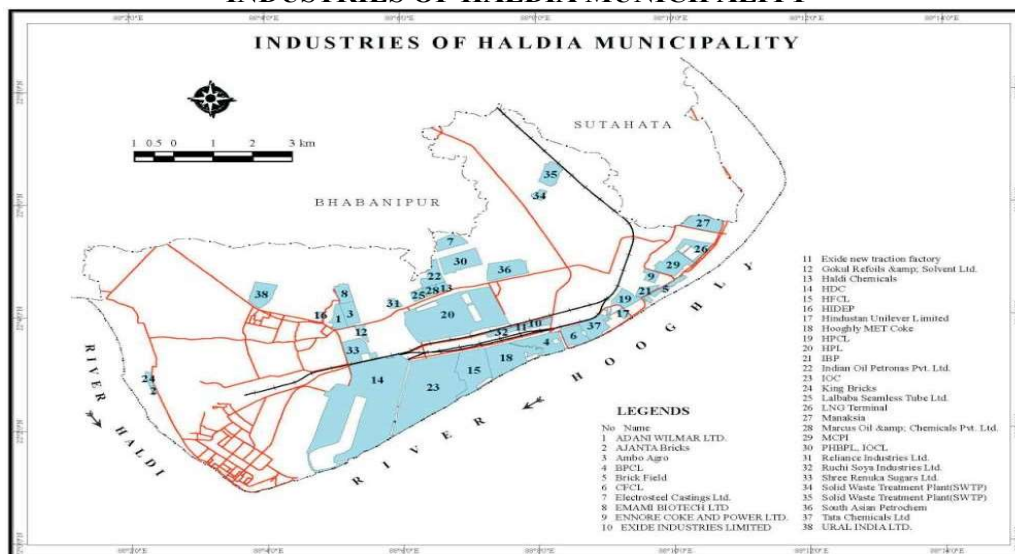
industrialization have so greatly affected. The mind of the general public that industrialization is now seeing is considered as the constrain modernity and a dispensable constituted of social and economic development of nations.

But nowadays rapid industrialization creates various environmental problems. These are as follows:

- i. Firstly the use of resources has remarkably increased.
- ii. Secondly, the vast increase in consumption has created the problem of waste disposal.
- iii. Thirdly the many industrial processes produce by-products that pollute air and water.
- iv. There are numerous undesired outputs from the factories such as industrial wastes, polluted water, toxic gases, ashes, aerosols, and smoke etc which pollute the air, land, soil water, etc.

In this context, the researcher gets an opportunity to study the parallel industry and environmental issues that help to assess to build a framework for industrial and environmental sustainability. Haldia industrial area is the biggest part-oriented place in eastern India.

### INDUSTRIES OF HALDIA MUNICIPALITY



### Year-wise set up of Major Industries in Haldia

Sl no	Name	Year	Sl no	Name	Year
1	IOC	1975	16	South Asian Petrochemicals	2003
2	Tata Chemicals	1977	17	Marcus Oil & Chemicals	2003
3	Haldia Dock Complex	1979	18	Sanjana Cryogenic Storage	2003
4	Swal Corporation	1979	19	Reliance Industries Ltd	2004
5	Hidustan Unilever Ltd	1979	20	Adani Wilmar Ltd	2004
6	Exide Industries	1981	21	IBP Co Ltd Haldia	2005
7	Petrocarban & Chemiclas Ltd	1985	22	Hindustan Petroleum	2005
8	Consolidated Fibres & Chemicals	1992	23	Manaksia Ltd	2005
9	Shamon Ispat ltd	1996	24	R.B.D Rasayans Ltd	2005
10	Haldia Brauni Crude oil pipe line	1999	25	Electrosteel casting Ltd	2006
11	BPCL	1999	26	URAL India Ltd	2006
12	MCC PTA Indian Corporation Pvt ltd	2000	27	Ambo Agro Ltd	2006
13	HPL	2000	28	Hoogly Met Coke & Power	2006
14	IOC Petrons Ltd Haldia	2001	29	Emami Biotech	2007
15	Ruchi Soya Industries Ltd	2002	30	Renuka Sugar Refinery	2009

Source:-Haldia Development Authority



Cover Page



## 5. Results and Discussion:

### I. Impact of Industrialization on the Environment

Industrialization has caused a negative impact on the ecological management of the country. There have been severe problems such as pollution of various kinds, air, water, and sound with discharging of harmful gases such as carbon dioxide.

### II. Impact of Industrialization on the Indian Economy

There has been an increase in population, where people are coming from rural areas in search of jobs, speedy industrialization, industrial employment, increase in the number of vehicles as a result of very high economic growth have been considered as the major powers that are having higher energy consumption (Krishna, 2007). With the impact of industrialization, there has been the advent of machines and equipment, which has reduced the status of personnel to merely that of a component in a machine.

In the production of goods and services, machines are used and most of the work is done by the machines. Men are merely needed to operate the machine. In rural areas, industries are closing down with the impact of industrialization in urban areas and villagers are becoming jobless, some have a low level of education, whereas others do not have any education at all and to sustain their living they are moving to urban areas in search of jobs. Some of the rural people can find work in industries and other sectors of the economy, whereas some are unable to find work and sustain themselves in poverty. With the advent of industrialization, industries such as production, marketing, telecommunications, media, and technology have changed the lifestyles of people. Industrialization has been positive in some cases, whereas negative in others.

### III. Social Effects of Industrialization

- A. **Greater Mobility** The industrial community requires greater mobility, both professional and spatial. With the development of industrialization, men were required to move out of the territories to other places and find an opportunity to enhance their skills and abilities. In their attitude as well as occupation, they become more social and interactive. The social effect of industrialization is they move out of their limited areas and become more mobile and influenced.
- B. **Smaller Family Unit** - Within rural areas, people tend to live mainly in joint families, where two or more nuclear families reside under the common roof, but with the impact of industrialization, joint families tend to break, giving way to nuclear families. Nuclear families are families that comprise of husband, wife, and their unmarried children. Hence, it can be stated that another social effect of industrialization regarding family units is giving way to smaller families.
- C. **Skill Development** – Individuals, before industrialization, came into being produced all their products and goods manually, with the impact of industrialization they have become acquainted with the use of machines, technology, and advanced methods and procedures regarding the production of goods and services. Individuals have become more knowledgeable and skillful in their job which is also considered to be a social effect of industrialization.
- D. **Scientific Control and Change** –In industrialization, the workers are constantly viewing changes in production, new methods, and technologies are taking place and they have to be applied in the production of goods and services. New procedures are introduced and the outcomes differ; an industrial worker or a technologist has to perform his work duties adequately, bring about required changes, and learn to control, organize, and manage his duties (Neale, 1956).
- E. **Growth Rate in the Organized Industry**– With the growth of industrialization, new industries developed; hence there will be either closing of previous industries or there will not be any room for their existence. In rural areas, still there is a high rate of poverty, the reason for this being that rural industries are closing down with the development of new industries within the urban areas, hence people in rural areas are becoming unemployed or have to leave their families and move to urban areas in search for jobs (Rosen, 1957).
- F. **Competition for Resources** – The expansion of government investment programs and the private industrial sector requires the mobilization of resources within the economy as a whole. There has been competition for resources in the entire sectors, private and public; in both these sectors it is essential to have adequate



Cover Page



mobilization of resources; with the impact of the development of industries if the resources remained confined to just one sector then this would cause impediments in the growth of the economy.

**G. Towards Centralization** - In the former industries in today's favorable market situation, small firms would be cost-effective; these firms could support in meeting the shortage of supply and possibly reduce imports of higher priced products. A provision to require a high rate of plough-back for such industries might be a condition of the license. The effect of the indiscriminate use of the size requirement in granting licenses is to limit them to those relatively few businessmen who do have large amounts of capital to set up large plants. This still further centralizes private economic power in India and runs counter to at least one aim of government policy (Rosen, 1957).

**H. Long-term Problems** – The main long-term problem of industrialization appears to be the question of relating the development of the rural sector; within the rural sector agriculture is the main occupation of the people and it is also considered to be the most important part of the projected industrial growth, so that the industrial growth becomes less dependent upon the government demand. In India, 70% of the population resides in rural areas; people are not well educated and many of them cannot read and write; they work as agricultural laborers to sustain their living. With the impact of industrialization, they will tend to lose their jobs or become landless laborers; hence this can be one of the most crucial problems with the impact of industrialization.

## 6. Discussion

With the impact of industrialization, there have been positive as well as negative effects; the positive conditions centered on the development of skills, making people more knowledgeable, enhanced, and educated; they become more itinerant, they learn to manage change, control and work with machines rather than working manually and larger joint families give way to smaller nuclear families. On the other hand, there have been problems associated with industrialization such as rural workers losing jobs and status in their agricultural areas, there has been competition for resources, and centralization of private economic power in India. Finally, it can be stated that with the growth of industries, people have largely advanced in their standard of living and development of personal traits; industries have led to the advancement and modernization of the social, economic, political, and administrative sectors of the country. An example can be stated of a person who used to earn his living by working as a laborer on construction sites, now he has been able to find employment in the industrial sector in the production of garments. This is the way by which industrialization has contributed to securing the living of many minority groups as well.

## 7. Conclusion

Industrialization refers to a process of change in the technology used to produce goods and services. It is a much broader process of economic development that has in view the integrated development of all other sectors, i.e. agriculture, power, transport, and other services. Industrialization has a major role to play in the economic development of underdeveloped countries. The role of industrialization in the development of the country can be analyzed as follows: i. Increase in per capita income. ii. Growth in international trade iii. High level of investment iv. Generation of employment v. meets the requirements of people.

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Cover Page



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