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## GROWING INDUSTRIALISATION AND URBAN ENVIRONMENT

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**Abstract:**-Industrialization means there are changes in the structure, technology and organization of economic activity. Countries environmental resources are affected by the level of economic development-modernization, industrialization, urbanization, chemicalisation, consumerisation and commercialization. The main concern of the world is pollution and resource management. In the pollution air, water, and solid waste problems are leading health impacts.

**Keywords:** Industrialization , Urban Environment , chemicalisation.

### INTRODUCTION:

Industrialization plays an important role in economic transaction but on other hand it affects the environmental resources of the nation and it results in the increase of problems such as air, water, noise, solid waste, etc. Industrialization is a wider process which includes not only development of certain industries but certain changes in the structure of society. Urbanization means increasing rate of population and growing industrialization, it indicates migration of people from rural area to urban area.

### OBJECTIVES:

- 1)To know the process of industrialization and Urbanization.
- 2)To know the effects of industrialization and urbanization on various factors of the urban environment.

### METHODS:

This paper is based on secondary data; the data has been collected from books, journals, articles, government reports, etc.

### CONCEPT OF INDUSTRIALISATION AND URBA ENVIRONMENT:

This definition adopted by the United Nation Committee for Industrial Development runs like this:

“Industrialization is process of economic development where an increasing proportion of home resources are mobilized to establish a technically up-to-date and diversified economic structure. This economy is characterized by dynamical processing industry producing means of production and consumer goods, suitable for making the fast development of the total national economy and the economic and social pressure.”

There was a time when urban environment means only the public health and sanitation. Today the term has assumed vast connotations and its frontiers are ever-widening, covering the large areas. All forms of life live on various products of the environment. To an ecologist, an eco system is defined by a set of organism living in an area, their physical environment and the interaction between them. Wolman (1965) suggested that city should be viewed as an organic body with metabolic processes with shortage of water and pollution of air and water bodies.

After taking in account these two concepts industrialization and urban environment, environmental pollution may be defined as the direct or indirect changes in one or more components of the environment with actual and potential adverse effect. In India National Research Council Committee on pollution, defined environmental pollution as, “Undesirable change in

physical, chemical or biological characteristics of our air, land and water that may harmful affect human life or that of other desirable species, our industrial processes, living condition, cultural assets or that will waste our raw materials resources.”

### **INDUSTRIALISATION AND URBAN ENVIRONMENT IN INDIA**

Urbanization has been a characteristic feature of population redistribution during the 20th century in countries of the third world. Urbanization occurred in consonance with industrialization and the rise in urban population. When the urbanization and industrialization progressed, the proportion of workers in the primary sector consequently declined. In the recent past, urbanization has shown a continuous increase and it is argued that urbanization has gone beyond industrialization. (Mookergee and Morrill, 1973).

Urban areas are home 47 per cent of the world's population. (World development Indicator, 2003). In India, growth of urban population during the past decade indicates higher growth for metro cities. Over the next 40 years, India will overtake China and becomes the world's most populous country. Although the rate of urbanization in India has been quite moderate during this country, due to low level of urbanization and large population base, there has been a rapid growth of urban population and it has doubling itself every twenty years. It can now be said that India no more lives in the villages alone, country was our perception, at the time of Independence since then we have witnessed a phenomenal growth in urban population. In 1947, we had a total population close to 330 million. Urban population form about 14 percent of the total population at that time. Presently it is expected to about 33 per cent. With India's population crossing a billion marks at the turn of this country, urban population over 330 million which was India's total population at the time of independence.

<b>Year</b>	<b>Population (in millions)</b>	<b>Decadal growth rate (in %)</b>	<b>Urban population (in millions)</b>	<b>% of urban population to total population</b>	<b>Density (per sq.kms)</b>	<b>% of population below poverty line</b>
1951	361.1	13.31	62.4	17.28	117	54.88
1961	439.2	21.64	78.9	17.96	142	51.32
1971	528.2	24.80	109.1	19.90	177	44.48
1981	683.3	24.66	159.4	23.33	210	38.86
1991	846.3	23.86	217.6	25.71	267	35.97
2001	1027	21.34	287.6	28	324	-

Source: census of India, Provisional Population Totals, 2001.

By the turn of the century as many people will live in India's urban areas as was the total population at the time of Independence half a century ago. It has six mega cities (4 million plus) and 23 metropolitan cities. Over the last 50 years the growth rate of urban population in India was more than 20 per cent of the total population. By 2021 it is expected that India will have 70 million plus cities as also, 500 large towns (0.1 million) and 4430 medium and small towns with a total of approximately 550 million people living in urban areas. With economic liberalization and expected higher economic growth, rate of urbanization in India in coming decades is likely to increase. This will put an unprecedented demand for growth of urban areas. By 2025 India's urban population will reach 50 per cent mark.

### **INDUSTRY AND ENVIRONMENT**

The Indian industry too suffers from less energy efficient and high emission prone technologies. Environmental governance suffers from low capacity and is overly dependent on command and control type of environmental management (Pandey et.al 2006). As a result small and medium scale industries, that comprise bulk of the production capacity and waste generation, have not been very successful. Due to weak legislation, poor policy implementation and information gap, the general attitude towards management of industrial waste is inadequate.

It is a general phenomenon in most of the developing counties that the industrial development often takes place without concern for environment or the living conditions of urban residents. Although the economic growth provides jobs and improves living standards for some, it often leaves others worse off, contributing to urban environmental problems. For example, as economic growth increases, so does the amount of waste generated per person. In many developing countries most waste is dumped in open sites, including wetlands that are not able to contain flow in to local waters, (Forbes 1996).

Industrialization affects not only the growth of particular urban areas, but also the type of growth in urbanization as well as the relative levels of economic development involved in urbanization. Reddy and Raju have analyzed the existing

trends and patterns of urbanization in four major cities of India: Calcutta, Bombay, Delhi and Madras and consequent impact of urbanization on the quality of life in these urban centers reveals that the quality of life is deteriorating in several ways, such as growing housing shortages, the explosion of slums, strained civic amenities, inadequate transport facilities, drug addiction among youths, and increase in crime, other issues like unemployment, inaccessibility of educational facilities, child labor, prostitution and industrial accidents are emerging as other factors responsible for the deterioration of quality of life in these major cities. The high density of population and industries in the cities lead to vehicular, domestic, and industrial emissions affecting adversely the environment and health of the citizens.

#### **ENVIRONMENTAL POLLUTION IN URBAN AREAS**

Environmental pollution is one of the serious problems faced by people in the country, especially in urban areas, which not only experiences of rapid growth of population due to high fertility, low mortality and increasing rural urban migration, but also industrialization. India is the most degraded environment country in the world and it is paying heavy health and economic price for it. Urbanization in India is characterized by unplanned and uncontrolled growth leading to urban fall. The three big metros in India (Delhi, Calcutta, and Mumbai) are among the 10 most polluted cities in the world. Perhaps the situation is no better in Mexico City, Rio de Janeiro, Bangkok, and Tokyo. Land use planning and the pattern of development, relationship between residential areas and industrial, commercial have a considerable impact on the environment (Sing and Steinberg, 1996). As the trend in the daily pollutant load in Mumbai is a rising one, several illnesses are likely to increase with the attendant cost of treatment. Secondly the component of transport in terms of air pollution levels is increasing; we need to emphasize the importance of its control. Pollution from industries also needs to be brought down. Compared to Mumbai, the air pollutant loads in Delhi and Calcutta, are higher, which leads to greater prevalence of dense smog in winter. The major cause is the greater use of vehicles and wide spread use of coal burning.

Along with increasing levels of pollution there is a serious issue of global warming. India is contributing 8 per cent, China 10 per cent, Western Europe 17 per cent, and Eastern Europe with Russia 16 per cent and is contributing U.S. 33 per cent to this. The photochemical smog, supersonic aircraft flights and uses of refrigerant gases are reducing the stratospheric ozone levels, which is a long term effect, leading to an increase in the rates of diseases like cancer of skin and liver. Hence the multiple effect of industrial air pollution in poorer countries like India will have effects far beyond the national borders.

#### **WORLD BANK SPONSERED STUDY REGARDING ENVIRONMENTAL STUDY:**

Environmental damage in the year 1992 amounted to about US \$ 10 billion or a Rs. 34000 corer, which is 4.50 per cent of GDP in India, urban air pollution costs US \$ 1.3 billion a year. Water degradation leads to health costs amounting to US \$ 5.70 billion every year, nearly 60 per cent of the total environmental cost. Soil erosion affects 83 to 163 million hectares of land every year. (Dewaram A. Nagdev, 2002). The consequences of industrialization make major contribution to the global environmental changes that threaten the very existence life in the future. Due to the recent industrial revolution and developments in the field of science and technology, a huge quantity of wastes in the form of industrial effluents are regularly thrown in to the river, ponds, air, open places and these are ultimately causing environmental pollution.

#### **AIR POLLUTION**

Air is most important aspect for human life. Clean and pure air is essential for health and survival. The World Health Organization (WHO) defines air pollution as "Substance put in to the air by the activity of mankind into concentrations sufficient to cause harmful effects to health, property, crop yield or to interfere with the enjoyment of property". Some of the most air pollutants are Suspended Particulate Matter (SPM), Nitrogen Oxide (NOx), Carbon Monoxide (Co), Lead, Sulphur Dioxide (SO<sub>2</sub>). The urban air pollution has gone across India in the last decade is alarming. The main factor accounts to urban air quality deterioration is growing industrialization- the chimney of industries discharge large volume of toxic gases, SOME

**MAJOR POLLUTANTS, THEIR SOURCES AND THEIR RELATED HEALTH HAZARDS**

Pollutant	Sources	Effect of Human Health
Carbon Monoxide	Incomplete fuel combustion	Fatal in large doses: aggravates heart disorders: effects central nervous system: impairs oxygen carrying capacity of blood.
Sulphur Dioxide	Burning of Sulphur containing fuel like coal in power plants and oil by vehicles	Affects the functions of lungs.
Suspended Particulate Matter	Smoke from industrial, domestic and vehicular sources	Small particles are poisonous. They are carriers of Carcinogenic tracer elements.
Nitrogen Oxide	Fuel combustion in motor vehicles, power stations and furnaces	Affects the respiratory system, irritation of respiratory tract.
Lead	Emission from motor vehicles	Nervous system slow down and brain development is related

Source: Compendium of Environmental Statistics. 1998 and 1999

Fumes vapour and suspended particulate matter. Different industries discharge different type of gases which are all harmful to environment when discharged at great rate by more and more industries.

**WATER POLLUTION**

Water is among the most essential requisites that nature has provided to sustain life on earth. About 80 percent of earth surface is covered by water. The deteriorating quality of water is creating various problems for mankind. The growth in population, about 90 percent of which all occur in urban areas, which also increase the demand for water for domestic and industrial use and treatment of wastes. Water pollution from domestic and human waste water is main cause for much severer water borne diseases. The industrial water pollution is due to inadequate disposal of urban waste and open dumping of garbage (Dewaram A. Nagdev, 2002). The technology employed in many industries today do not give much importance in reduction and recycling and re-use of industrial waste and because that increase the cost of production, and thus most of the industries find it more convenient to discharge their industrial waste in to water bodies directly. Polluting the water bodies is dangerous because generally, water bodies are the primary source of drinking water for towns and cities downstream of the point of pollution. Broadly the cause of water pollution can be attributed to: urbanization, industrialization, and Withdrawal of waste, improper agricultural practices, religious and social practices.

According to the scientists at the National Environmental Engineering and research institute 70 percent of the available water is polluted. Only five states, Maharashtra, Gujrat, Delhi, Uttar Pradesh, and West Bengal generate more than 63 percent of the total waste water in India as they lack treatment facilities.

**CONCLUSION:**

India is in the era of globalization, we have accepted the policies such as Liberalization, Privatization and Globalization (LPG), in present situation of India there is a change in the structure of industrialization and urbanization definitely both things are responsible for overall change in the structure of social institution in terms of family, religion, caste, class, education etc. Industrialisation and Urbanisation are simultaneously growing phenomena's and co related with each other. In India traditional production system has left due to development and change in science and technology, now we have accepted the new trends of production which is responsible for environmental pollution of urban area. For the economic growth point of view industries can play important role in growth of GDP and GNP. But they are lagging behind to remove pollution of water, air and overall environment. Mega and metropolitan cities are not able to manage cities in terms of clean air, clean and pure water and disposal of waste from industrial, domestic and commercial etc., these are the issues which are always in focus to create health problems of human life. Basically this issues such as urbanization and industrialization comes from regional

disparities. In India economic growth is not in equal manner therefore rural people are mostly migrating to urban area, because in urban area there is more sources of income generation. Balanced economic growth of rural and urban area can reduce the problems of migration and once it solved automatically there would be reduction in social problems such as poverty, unemployment, slums, prostitution robbery etc. Another aspect is improper management by urban municipals Industrial Corporation regarding pollution and waste management, they should concentrate on it.

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