

WORLD COSTAL METROPOLITAN CITIES AND WATER POLLUTION

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Abstract

In urban economic and socio-cultural opportunities are attracted by the people. Because the urban population and urban areas are extended and further development by process of urbanization .in this process encourage to rapid growth of population and industrialization. Urbanization and industrialization are growing together. Because it's called a "TWO FACES OFF A SAME COIN". However the studies pertaining to urbanization and industrialization are increased tremendously in the recent years. To study the main process of coastal metropolitan area of the world and coastal water pollution. To highlights of pollution and control of pollution in the world coastal region [in general]. The data sources are based on secondary data collected from internet and view of Chennai coastal region.

Key words: Costal, Metropolitan cities, Water Pollution.

Introduction

In urban economic and socio-cultural opportunities are attracted by the people. Because the urban population and urban areas are extended and further development by process of urbanization .in this process encourage to rapid growth of population and industrialization. Urbanization and industrialization are growing together. Because it's called a "TWO FACES OFF A SAME COIN". However the studies pertaining to urbanization and industrialization are increased tremendously in the recent years. Thus urbanization and industrialization functions are effected on our environment pollution today 56 percent of the world population living in urban areas, a proportion that is expected to increase to 66 percent by 2050.projection show that urbanization combined with the overall growth of the world population could add another 2.5 billion to urban population by 2050, with close to 90 percent of the increase concentrated in Asia and Africa, according to new united nation report launched, today.

The most dangerous type of pollution to our surface water bodies is caused due to untreated discharge of domestic wastes. It has caused severe damage to water quality mainly in river banks near the cities. A fast increasing number of industries and rapid growth of urban population has resulted in the disposal of highly contaminated waste into the main sources of water. It has been observed that wastes of almost every industrial centers viz., Tokyo, shanghai, Jakarta, Guangzhou, Karachi, Shenzhen, Saopaulo, Mumbai, New York, Osaka, Lagos, Kolkata, and Chennai other industrial areas have been badly polluted as the discharge of untreated water into the main stream is rather a rule than exception.

Objectives

To study the main process of coastal metropolitan area of the world and coastal water pollution. To highlights of pollution and control of pollution in the world coastal region [in general].

Methodology

The data sources are based on secondary data collected from internet and view of Chennai coastal region. **Process Of Coastal Metropolitan Cities And Water Pollution**

The rapid growth of urbanization in the world is accompanied by a change in the urban structure. The large cities are increasing their share in the total urban population. While in 1900 36.6 percent of world urban population lived in large metropolitan cities. Each having a population of more than million. The growth of pattern of urban population has been varying in inter census periods.

Table 1. Growth of world urban population in %

Census year	Growth of world urban population in %
1900	36.6%
1910	46.6%
1920	51.2%
1930	56.1%
1940	56.5%
1950	64.0%
1960	69.9%
1970	73.6%
1980	73.7%
1990	78.0%
2000	79.0%
2010	80.7%
2017	81%

Among the various continents, the continents of Asia is highest coastal metropolitan continent, with 64.15 percent of the total population living in coastal metropolitan area. The second place of South America 10.81 percent, North America 9.32 percent, Africa 7.25percent and Australia is lowest population of coastal metropolitan area in1.62 percent.

Table.2 World coastal Metropolitan cities

Sl. No.	Name of Contienent	No.of metropolitan cities	Total population	% population of population
1	North America	10	55355922	9.32
2	South America	05	6420700	10.81
3	Asia	26	380915826	64.15
4	Europe	05	40472428	6.81
5	Africa	05	43100000	7.25
6	Austrelia	02	9650500	1.62
7	Middle America	=	=	=
Total		55	597301676	99.96(100)

World coastal Metropolitan cities population in %

IN developing countries, china has 12metropolitan cities.At present there are 12 metropolitan cities located in coastal region, 196514600 population living in coastal metropolitan cities 64 percent of industries are located in metropolitan cities. Such as the china metropolitan cities discharge of untreated sewage, refuse, heavy metals and other toxic chemicals into the

coastal water bodies, oil spills, aquatic waste, and industrial wastages from the metropolitan cities. Because the effects of 81 percent were heavily contaminated with water pollution. In the same case of Chennai, big east coastal metropolitan cities, and world IInd largest coast and hundred percent polluted Air, Water and soil.

The study area, the Chennai, one of the four Metropolitan cities, is located on the south eastern coast of India in North eastern part of the Indian state of Tamilnadu. Its Geographical co-ordinates is 13°-04' north latitude and 80°17' E longitude. An urban city, it is located along the shore lines of coromandal coast, with the gorgeous marina beach adorning its beauty. Interestingly, it is also the second longest urban beach in the world, running for 6 km. The average elevation of the city is 6.7 (22 feet) metre while the highest point in the city is at 60 m. The two rivers flowing through Chennai, the Cooum which flows through the centre and the Adyar River to the south are linked by the Buckingham canal which runs parallel to the coast. While the third river the Kortalayar, flows through the outside boundary of the city before draining into the sea of Ennore. Besides these there are many lakes of different sizes located on the western fringes of the city. Cooum is one of the most polluted rivers in the south of India and serves as potential health hazard to the people living in around the river.

In Chennai, the quality of water is no better. A survey by the Department of water and sewerage in December 1996, showed that 16 percent of the representative samples collected from different parts of the city were bacteriological poor and hence unfit for drinking water at many points, mostly hand pumps and taps was whitish and turbid. The iron content was in excess of the agreeable limit of 1gm / liter. Such as, in Chennai 50000 to 100000 liters of waste being sent into the ocean every day through these illegal channels.

The existence of more than a tenth of total slum population in Chennai on these banks means serious health issues. Apart from the fact that the environment around these rivers affects slums holistically, the PWD has identified 8164 families, from all the three riversides as posing problems to desalination activities on the rivers. That explains how these families have encroached into the relatively dry areas of the rivers and need immediate attention.

Surveys conducted by the CPR foundation over three consecutive years from 1992-1993, showed ground water to be of poor quality in many areas 1995-96, only two out of the 20 samples collected from different parts of the city were potable in terms of chemical and bacteriological quality. The study also noted a high probability of ground water getting contaminated free to seepage of sewage water from the water ways.

The study identified 12 percent of the continental U.S. Coastal line-including the northern gulf coast from Mississippi to the Florida panhandle, northern Atlantic coast and Pacific northwest—where the once-hidden drainage system make the ocean most susceptible to freshwater contamination from septic tanks and fertilizer runoff. There, excess nutrients in the water can cause harmful algal blooms to form and remove vital oxygen from the water. This contamination from land to sea endangers fisheries and coral reefs as well as water recreation and tourism.

In United States of America has contributed in our environment 1.5 million metric tons of nitrogen pollution into the Gulf of Mexico each year, because it creating a “dead zone” in the Gulf each summer about size of New Jersey. Americans make up an estimated 5 percent of the world’s population. However the US uses 25 percent of the world’s resources—burning up nearly 25 percent of the coal, 26 percent of the Oil, and 27 percent of the world’s natural gas. Each year 1.2 trillion gallons of untreated sewage, stormwater, and industrial waste are dumped into US water.

Conclusion

water is an essential resource of biosphere because on one hand it is vital for the maintenance of all forms of life and on the other hand it support in the movement circulation and cycling of nutrients in the biosphere. Hence, some following points should be recommended of government all developed and developing countries, Public awareness on water value and source of water in the world. Control of coastal population growth and development of coastal Industries. To restriction of new petro-Chemical Reminder Industries and control of Oil spill. Construction of New drainage system and control of flowing sewage water. To ban sales and usage of plastic things in the coastal areas.

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