

MANCHESWAR INDUSTRIAL GROWTH AND ANALYSIS

Pabitra kumar Sethy, Deepak Kumar Sahoo, Kamal Kumar Barik And Siba Prasad Mishra

^aDepartment of Civil Engineering, Centurion University of Technology and Management, Bhubaneswar-761211, Odisha, India.

ABSTRACT

This current world order the countries which has good industrial infrastructure are taking leverage of various opportunities. Be it geo-politics or defence, a strong industrial setup made countries like United States of America, Germany, France, China superpowers in present scenario. Take example of China, this country faced a devastating food scarcity in the mid decades of the last century. But now China has become a giant in every sector and its level is no less than any western developed countries. It is giving befitting reply to every country in every sector, be it defence, machinery or space industry. Now the whole world depends upon China for tiny-to-tiny things. It was possible only for industrial development. Industrial development is one of the major factors in socio-economic growth of any nation. Even modern history gives us many examples of rise in economic growth led by industrial development. All the developed countries are gained the status of developed only because industrial development. In our country the Government of India highlighted the role of industrial development for economic growth after independence. All the industrial setup in our country regulated by IPR (Industrial Policy Resolution) 1956. After adopting the IPR 1956, there was a predominant growth in industrialization during years 1956-1961 & 1961-1966. Public sector was the major contributor to that growth then. But now public sector along with private sector both are contributing in the industrial growth in our country. In this study our focus is on the industrial development analysis of Mancheswar, Bhubaneswar over a time period. The study involved technologies like GIS and Remote Sensing for data acquisition and analysis.

INTRODUCTION

Bhubaneswar is the largest and the capital city of Odisha with a population projection of about 1.2 million as of 2022. It is one of the first planned cities after independence. Since its establishment as the capital of Odisha after Cuttack in 1949, the city is the educational and economical hub of the state. Bhubaneswar is categorized as a [Tier-2](#) city. Bhubaneswar is one of the smart city missions from Odisha. Bhubaneswar urban development area consists of the Bhubaneswar Municipal Corporation area, 173 revenue villages, and two other municipalities spread over 1,110 Km² (430 Sq. Mi). The area under the jurisdiction of the Bhubaneswar Municipal Corporation covers 186 Km² (72 Sq Mi). The Bhubaneswar Municipal Corporation (BMC) administers public infrastructure for the city's 67 wards. With all these achievements Bhubaneswar stands as a model city not only in India in the world too. To appreciate its achievements the city of [Cupertino in California](#) of the [United States](#) and the city [Bloemfontein](#) of [South Africa](#) became the sister cities of Bhubaneswar. Even having all these accomplishments the city is lacking in some of the key aspects of development like the other side of a coin. The lack of industrial setup is one of the most important roadblocks in the development of our country. Mancheswar locality in Bhubaneswar is found to be one of the well-known industrial area after the inception of the capital city, which has shown tremendous growth during the last two decades. Even the city is having the largest area in the state spanning over 256 acres and containing a population of over 100,000. Failing rural conditions and an expectation of getting better jobs, income, and quality of life in the urban areas has produced a huge flow of poor migrants to the city. There has been an huge shortfall in many sectors, primarily housing. Unavailability of the required number of houses and the incapability of the poor migrants to afford a house inside the urban area has led to rise of in the city. In this research, our area of study is one of the Mancheswar named of locality in Bhubaneswar.

OBJECTIVES OF THE PRESENT STUDY

The specific objectives of the present study are as below

1. To find out the data inside the city which are degrading the architectural beauty of the city in field of planning and management.
2. Mancheswar belongs to a place where most of the part is developed.
3. The development is done by looking into the perspectives of sanitization, living conditions, space management, and blockage to the development of the ward.
4. The resettlement plan area is of exact area as of the mancheswar the designing and management of the space is done according to the bda approved statistics, where each of the elements like living/parking/ recreational centers/hospitality area/ transporation parameters are maintained according to the govt. Society plan.

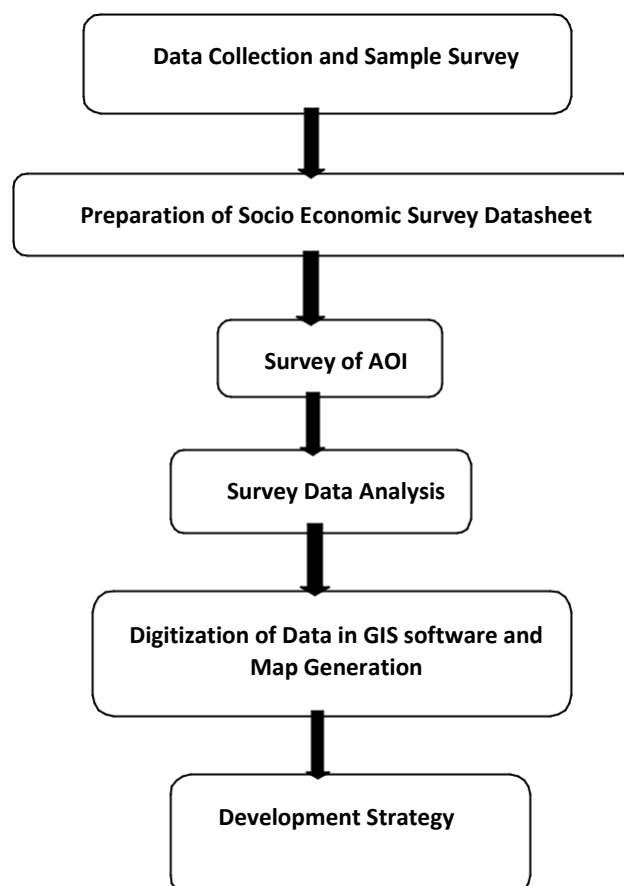
5. The site is selected according to the availability of space in the ward by keeping the view point of road & railway connectivity for the means of transportation, and health care system like things.

AREA OF STUDY



PROCESS

The flow chart below is prepared to understand the thorough process.



DATA TO BE USED

Satellite imagery:

Artificial Satellites are one of the key elements that helped our generation to study our Earth in various aspects. It may be ocean observation, forest mapping, earth monitoring, or navigation. Satellites in their orbit continuously give images of Earth that are being used in various industries. Satellite images can be obtained in various resolutions. These images go through various processing techniques before being available for general use.

IDENTIFICATION OF PROBLEMS

The industrial growth and resultant demographic changes described above have naturally brought in its wake certain problems relating to shelter, infra-structure, community facilities and transportation etc. The problems identified are categorized into two categories, viz.,

1. General Problems :

Problem of mixed land use, e.g., industrial residential, commercial residential, and commercial-industrial.
Lack of parking facilities in commercial areas and lack of semi public and public facilities.

Traffic congestion in the city especially in old city areas of Bara Bazar, Shyamatganj, Khutubkhana and no separation of light and heavy traffic on the N.H. 24.

Linear development along the N.. 24 from Qila crossing to clutterbuckganj thus resulting in encroachment on N.1. 24.

Acute shortage of dwelling units.

2. Industrial Problems

Industries are located in a haphazard and unplanned manner. Khandsari and Cane furniture units are located in the older parts of city where majority of buildings are in a dilapidated condition thus creating safety problems for nearby residents. Acute shortage of housing for industrial workers.

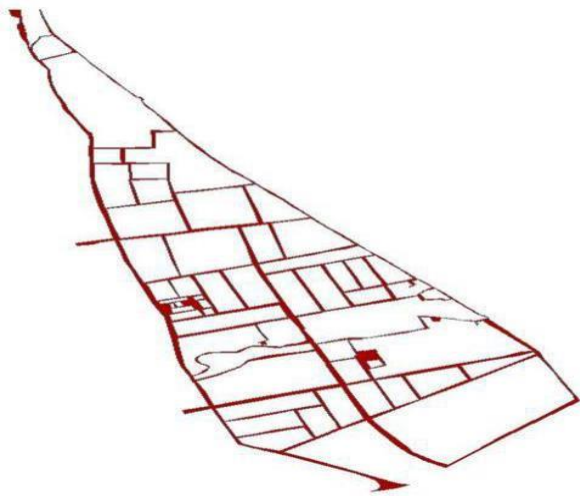
Hazardous industrial effluents are discharged in surface run offs without treatment as in case of all Khandsari units and other chemical units thus creating environmental problems. Presence of a large amount of particulate matter in the air due to smoke emitted by the large units without any treatment.

Problem of odours and degeneration due to decomposing of molasses which is discharged by

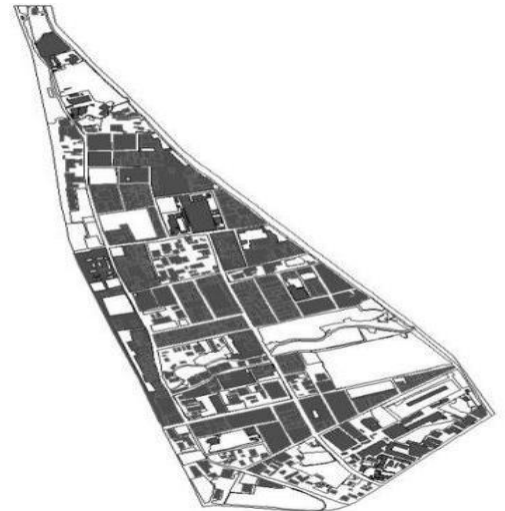
Khandsari and Sugar units and used by Chemical units.

No proper facilities, e.g. Shopping areas, Open spaces etc. for workers near the industrial areas. Transport agencies are located quite far away from the major industries. Mostly child labour is employed in the 'Manza' and 'Surma' industries.

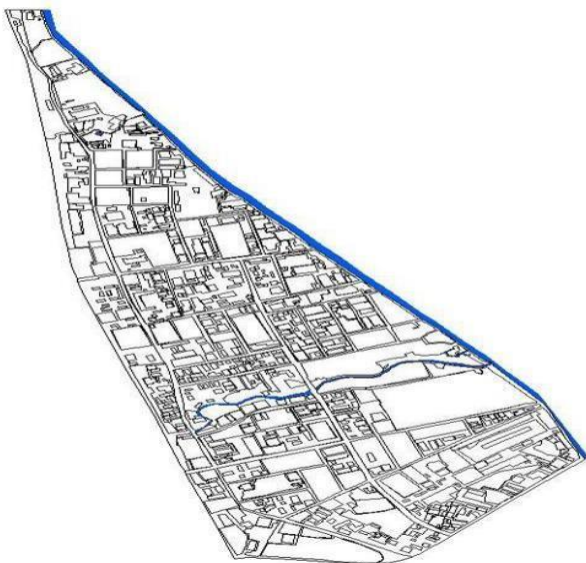
Mapping of Road of Year 2022



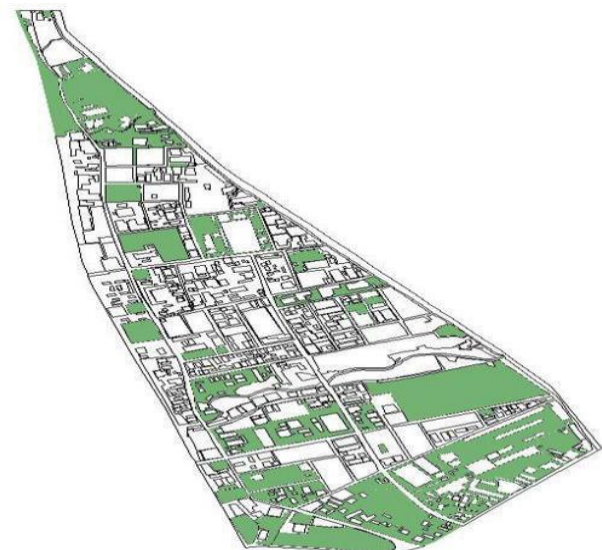
Mapping of Commercial building of year 2022



Mapping of water body of year 2022



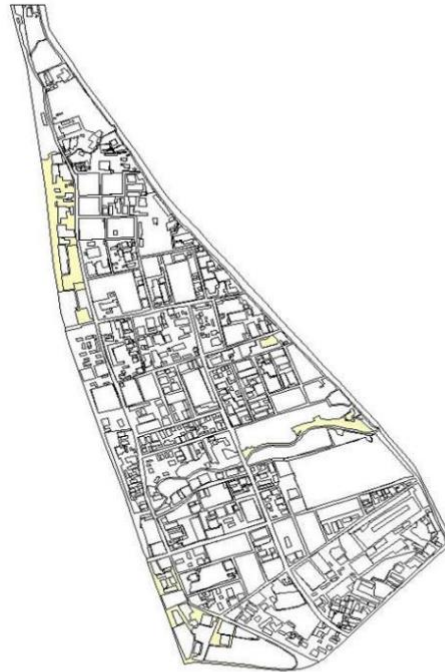
Mapping of vegetation of year 2022



Mapping of Residential areas of year 2022



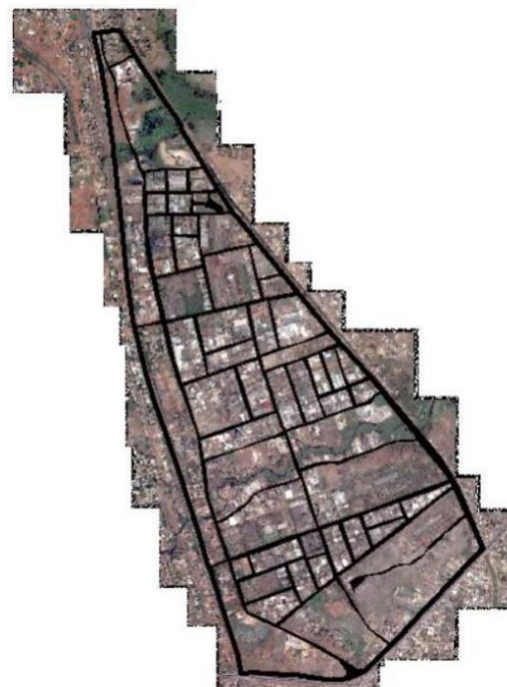
Mapping of open space of year 2022



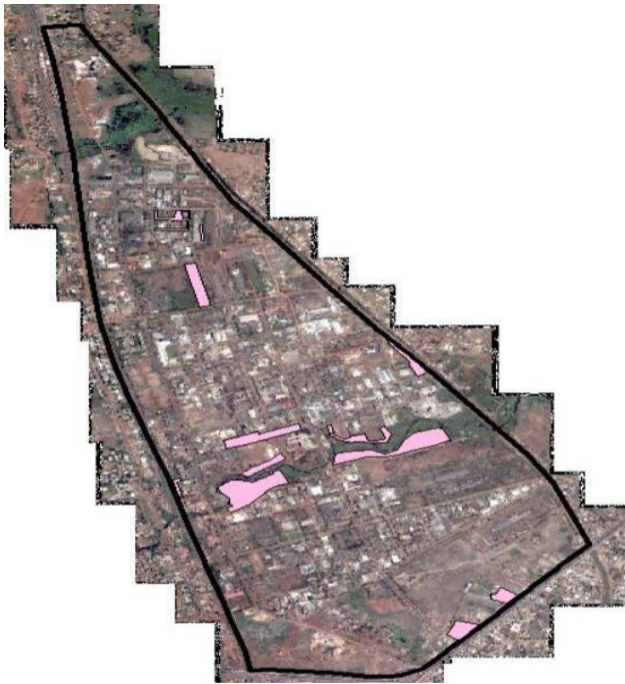
GIS Mapping of AOI with Satellite Imagery year 2022



Mapping of residential areas of year 2002



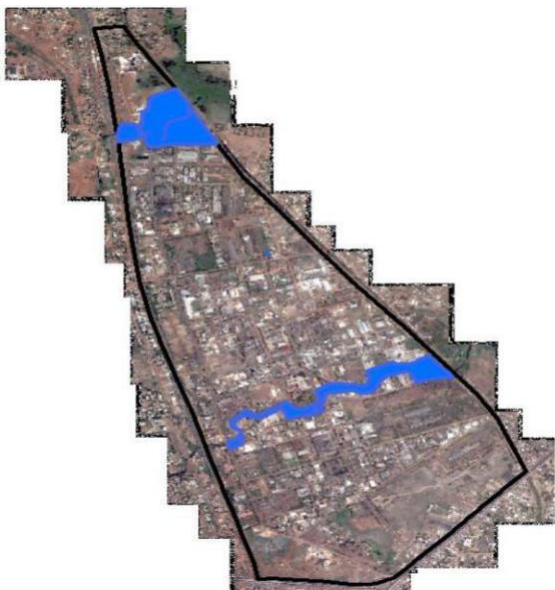
Mapping of Residential areas of year 2002



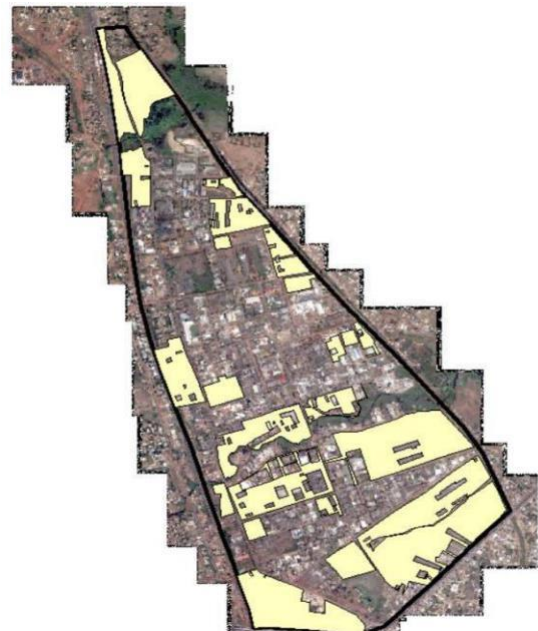
Mapping of Commercial building of year 2002



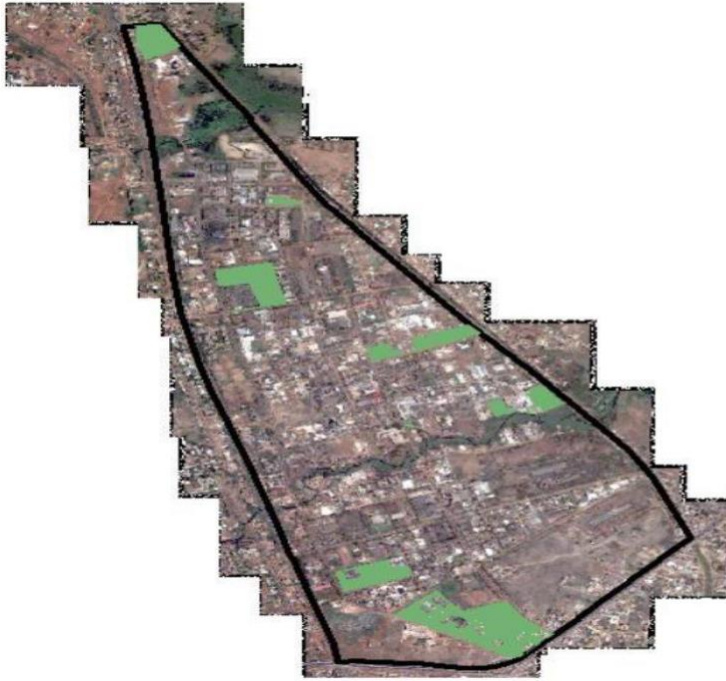
Mapping of water body of year 2002



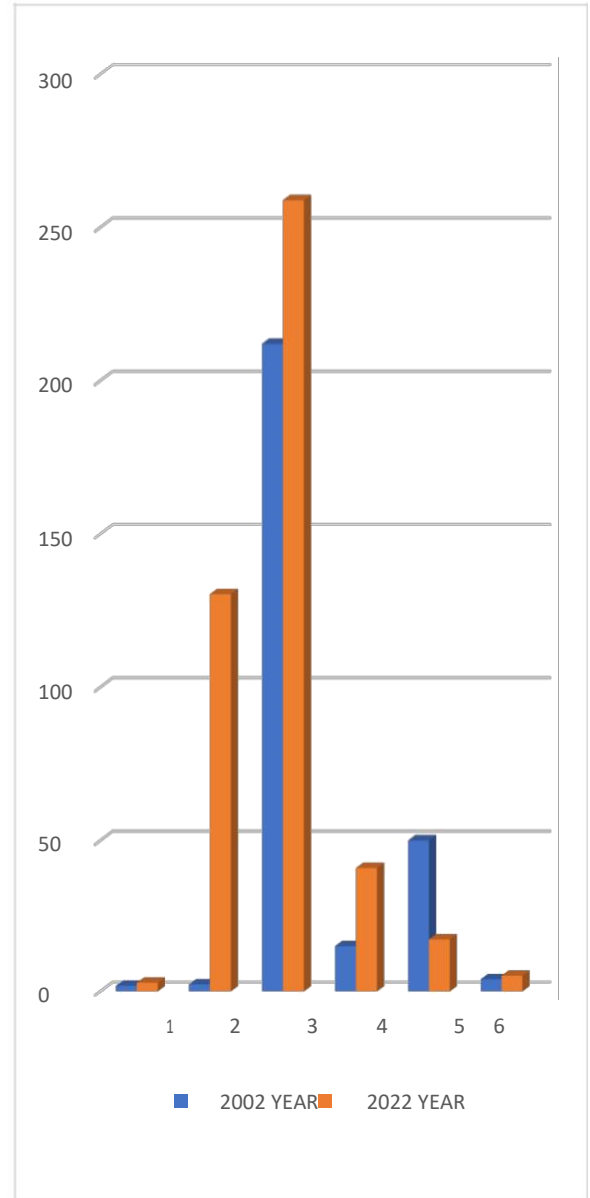
Mapping of open spaces of year 2002



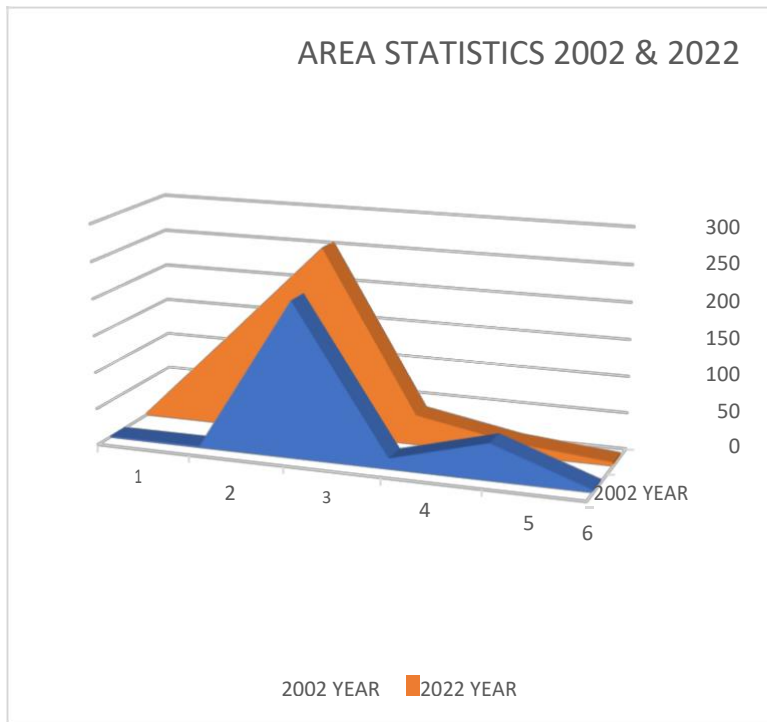
Mapping of vegetation of year 2002



GROWTH COMPARISION



AREA STATISTICS 2002 & 2022



AREA TYPE	YEAR	
	2002	2022
ROAD	1.82	2.83
VEGETATION	2.3	130.33
COMMERCIAL LAND	212	258.84
RESIDENTIAL LAND	15	40.9
OPEN SPACE	50	17.23
DRAIN / WATER BODY	4	5.17

FUTURE SCOPE:

This settlement plan is not only for the Mancheswar dwellers but also can be implemented for other Mancheswar redevelopment plans. As Bhubaneswar city is still expanding and the population from rural Odisha is migrating into the capital city it's only a matter of fact that the Mancheswar problem in the city will be intensified in near future. There are numerous other small and medium-sized Mancheswar still present in the city which also don't fulfill the basic necessities of its inhabitants are necessary for enhancing living circumstances and enhancing the environment in which Mancheswar residents live..These area can be recreated or resettled in this resettlement plan. Those area dwellers can become part of socio-economic development like the residents of mancheswar. So this settlement plan can be used as a benchmark for other Mancheswar development plans. The settlement plan can accommodate other area dwellers as the plan was designed keeping the Mancheswar area problem issue in mind. The physical infrastructure was created to offer residents of Mancheswar greater transit options as well as amenities for water supply, sanitation, solid waste management, and public health protection. This expansion in physical infrastructure will help to improve the habitat, quality of life, and living conditions.

CONCLUSION

From the above study we can say that Mancheswar Industrial Area has developed over the course of time and can be properly managed for the coming years as there is enough space with in the boundary of Mancheswar and its surroundings to cater other industries.

Remote sensing data obtained by various satellites like LandSat, Worldview were very helpful in mapping existing status of land use and land cover features. Conventional methods like various survey devices are expensive and time consuming to provide correct and speedy information of land use and land cover in a short time period. Various tools in GIS are useful in producing various thematic layers from input dataset like topographic maps, road network maps, drainage maps, vegetation map, structure map and etc. and remote sensing data, as required for socio-economic growth analysis.

REFERENCES

- Das, P. K. (2003). 'urban development: The Continuing Struggle in Mumbai. In Sujata Patel and Jim Masselos (Eds), Bombay to Mumbai, Oxford University Press, New Delhi
- DNA (2016). Mumbai in top 20 of most expensive cities in the world. Daily News and Analysis (DNA), March 3, 2016
- MGI (2010). India's Urban Awakening: Building Inclusive Cities and Sustaining Economic Growth, McKinsey Global Institute (MGI), Mumbai
- Mukhija, V. (2003). Squatters as developersurban redevelopment in Mumbai. Ashgate Publishers, Eldershot, England
- Nallathiga, R. (2012b). Slum Redevelopment in Cities: Current Approaches and SRA (2007). Slum Rehabilitation Scheme of Maharashtra, urban Rehabilitation Authority (ARA), Government of Maharashtra, Mumbai
- UNDP (2009). India Urban Poverty Report 2009, United Nations Development Programme (UNDP) of the United Nations, New.