

THE HAZARDS WE PRODUCE: A STUDY OF ENVIRONMENTAL CRISES IN MALEGAON CITY

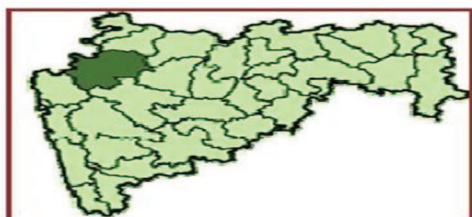
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Abstract: Environmental resources and the crisis of development is a study of humanistic geography, which depicts the human world and its relations with nature. It embodies the people’s relations with a set of geographical environment which impart a variety of behavior, feeling and ideas in regard to place and space. The interaction of man and environment has so far tended to produce unintended dysfunctional consequences like poverty, unemployment, and explosive growth of urban slums, environmental degradation and irrational management of natural resources, which are borne by people who are not in a position to influence the socio-economic decisions that initiate, affirm and reinforce them. Air, water and land constitute natural environment in which we live. These are slowly polluted due to dust, smoke, sewage, sullage, industrial discharge and city refuses. There is a close relationship between environment and healthy living and all problems regarding pollution have to be examined in this context.

Introduction: The problem of environmental pollution and its effects in India and mostly in the metro cities is more acute. This is due to several seasonal unprecedented growth of population, greater influx of immigrants to the cities, depleting resources, industrialization and encroachment upon land due to urbanization Malegaon city, also called as Manchester of Maharashtra, is one of the important cities in Nashik district. Being an

important city of textile industry (power looms and handlooms) and important market for agricultural produce, it has rapidly industrialized and recorded remarkable growth in population, but has seen the infrastructure and quality of life deteriorate over the years. While the population growth is large, the roads, drainage systems, educational facilities, water supply and other amenities are very poor.

Malegaon Map:



Objectives:The present paper attempts to identify and analyse the various types of environmental hazards which are pervading in the city of Malegaon and which need to be discussed and solved urgently. There are various types of environmental hazards in Malegaon city like the problems of landuse, various types of pollutions including river pollutions, the problems of housing and locational patterns, business structures, industrial structure, traffic and transport, urban services and amenities, congestion and overcrowding of the city, pitiable conditions of the slums, recreation and amusement facilities. This

paper also attempts to gain an insight into the nature of the problem of urban backwardness in certain fields like MIDC, Railway Station, etc, while comparing to another cities. These environmental hazards and their direct or indirect effects depict a close correlation with relief, luxury, pain, disturbances, etc in the lives of the citizens of Malegaon. The paper also attempts to highlight the shortcomings and problems of the city and to provide some easy solutions that can be implemented for the effective improvements in the environmental problems.

Existing Water Supply Scenario



Chankapur Dam was constructed in 1911 on the river Girna in Kalvan Taluka of Nashik District.

Study Area: Malegaon City, in Nashik district of Maharashtra state, is located on the Mumbai Agra

National Highway (NH.03) at the confluence of Girna and Mosam rivers at the elevation of 478.44 meters

and at 20.32° N and 72.35° E. Administratively it Comes under Malegaon tahsil and governed by Malegaon city records the highest temperature 45° in May and the lowest 5° c in January. According to 2011 census the city has 4, 81,228 total population. Malegaon is the largest area i.e.12.95 sq.km, the first ranking area in Nashik district. The average annual temperature in Malegaon is 26.0°c and the average annual rainfall is 944 mm. About 90% of the annual rainfall is received during the four monsoon months. The economic base of the city is textile industry based on power looms and handlooms. According to 2011 census the literacy rate in Malegaon city is 73% [Male 70% and Female – 61%]. The city occupies people belonging to various religions such as Islam, Hinduism, Buddhist, Jains, Christianity and others. The main source of water supply to Malegaon city is Girna River (Chankapur dam – Girna Left Bank Canal of Chankapur dam at about 25 km near village Talwade).

Methodology: The present study is based on the primary and secondary data collected from various agencies such as Malegaon tahsil records, district census handbook, the municipal corporation record, Town and Urban Planning department record of Malegaon, Land record office, socio-economic reviews and actual visits to the various fields of the city. The data obtained from these agencies have been analyzed, interpreted to highlight the various environmental hazards and their impacts upon the residents. The primary data has been collected as and where necessary for assessing the pollution, Congestion and overcrowding, lack of services and amenities. Field studies and observations have been made to introduce salient features of environment which affect Malegaon city in general and create hazards in particular.

Discussion: For the study of environment hazards, the geographical set up, land use, population, water supply facilities, transportation and traffic, congestion, slum areas of Malegaon City are taken into consideration. The City of Malegaon is divided into two parts by the Mosam River that flows from north to south and confluences in the Girna River near Chandanpuri Village. Majority of Muslim people live on eastern bank while majority of Hindu people live on western bank of the river. Malegoan Camp and Sangmeshwar are the important localities in Malegaon. Malegaon has the only road facility for entire transportation network. Being an important textile industry center, it has about 1.1 lakh power looms with 84,000 workers who get the salary less than 2000 a month. Malegaon is the only city in the country that has 100% growth in the population according to the census of 1967. It was reported that the rapid growth of population was due to the

Malegaon Municipal Corporation. The area of expansion of power loom industry. The growth of population is continued till today.

Environmental Hazards in Malegoan City:

The problems Association with Land use: The study of the existing land use pattern of the city reflects the inconsistent concentration as a result of successive unplanned development in the past. The central area of the city from Mosam Bridge to Ramsetu Bridge and from Satana Naka to Daregaon Naka (including Saraf Bazaar, Mahatma Phule Bhaji Mandi, Sardar Chouk, Gul Bazaar, Tamba-Kata, Qidwai Road, Islampura and Nayapura) has residential, commercial, industrial, educational land uses adjacent to each other, which deteriorate the quality of environment essential for such uses. There seems no proper correlation among these land uses. As a result the problems like intermixing of non-conforming use, conflicts of goods and passenger traffic congestion in the city condition, lack of open spaces and other amenities rose. The open spaces of the city are encroached upon either by slum dwellers or commercial establishment. There is no relationship between the people's residence and their place of work. For example some power looms and the spinning mills are located far away on the eastern fringe of the city while most of the workers live in the congested middle part of the city. Some power looms & handlooms are situated in the residential houses. Similarly the location of most of the educational institutions that are scattered in the north, east and south of the city makes the journey long. Most of the recreational areas, which are scanty, also located far from the residential area of the city (amusement parks, cinema theatre etc.). Most of the godowns of various goods, vehicle workshops, saw mills, timber depots, slaughter house, cremation ground, the old bus stand and new bus stand, fire station are of incompatible uses. They are the big source of air, noise and water pollution and add to the environmental problem of the city. The bhargar bazaar on the Old Agra Road, some scattered offices within the city's developed area and the Mosam River polluted by the city waste, create environmental hazards.

The Problems Associated With Housing: Like Other Indian cities, Malegaon is also suffering from housing shortage due to continuous increase in population and comparatively slow pace of newer establishment. The house problem, the chronic disease of the city, is mainly the result of the increasing population and low economy. With the fast growth of population, Malegaon city is

witnessing the fast growth of slums. The population of the Malegoan city has been increased from 1,91,847 during the year 1971 to 4,81,228 in the year 2011. Out of the total population 2,64,892 Population belongs to slums which can be counted as 55% of slum population. So the major concern of the city is the

sprawl of slums. Nearly 90% of the slum population is engaged with the power loom associated workings. Low operating and maintenance cost, cheap material and simple living standard are the main boosting and supporting factors for the growth is slum areas.

Table- 1 yearly growth of the city

Census Year	Area	Population
1971	12.95	1,91,847
1981	12,95	2,45,769
1991	12.95	342,431
2001	12.95	409,403
2011	12.95	4,81,228

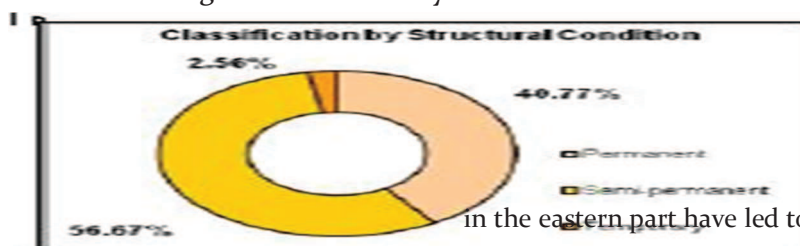
Most of the structure in the developing area of Camp and Sangmeshwar (western part of the city) are modern, having A type structures with burnt brick walls plastered with cement. But in the eastern part C

and D types of structures with wooden plank partition walls and tin sheet roofs are predominant.

Table 2. Types of Structures

Area	Total number of house hold	Type of census houses			
		Permanent (A)	Semi-permanent (B)	Temporary (C)	Unclassifiable (D)
Malegoan City (Urban)	55,611	22,672	31,516	1,423	0
		40.77	56.67	2.56	0.00

Fig.1 Classification by Structural Condition



in the eastern part have led to the overflow of traffic

The above figure indicates that 90% houses in slum areas with poor living conditions (Jhuggi Jhopdi or Kutcha Houses) are unfit for human habitation. So there is an acute shortage of proper dwelling units. The poor housing condition of some slum area is also problematic. These slums exhibit mainly in the central area along the Mosam river and adjacent to Bhuikot fort, Old Agra Road, Rahul Nagar, Dyane and Daregaon. Out of the total area of Malegaon (12.95 sq.km) 129 declared and undeclared slums are located. These slums are characterized by congestion of structures on land in a haphazard manner i.e. overcrowding, lack of basic amenities, poor environmental conditions and physical deterioration of houses. So they do not fit with the urban character of the city.

The Problems Associated with Business Structure: The Commercial activities of Malegaon city along the main roads which pass through Sangmeshwar and Camp area in western part and Qidwai road, Gulbazaar, Sapati bazaar, Sardar Chouk

and create an unsuitable atmosphere for customers. The worn out and old type of residences in the commercial core have almost marred the look of the area. The chance erected establishments of different land uses injected in the commercial harmony of the area lead to serious inconvenience. In the absence of any planning or control, the different wholesale and retail markets of the city have sprung up at various places and are facing various problems such as shortage of space, poor accessibility overcrowding, intermixing of goods and passenger traffic. These problems are associated with grocery markets in Sardar Chouk, Gulbazaar, Mahatma Phule Road, Qidwai Road, Mahatma Phule Mandai and food grain market, hardware shops in Gulbazaar, Shivaji Putla Chouk, New bus stand Chouk, vehicle work-shops and repair shops on Old Agra Road etc. The inadequate loading unloading space and storage facilities create inconvenience to the city vehicular traffics. The timber market, grass mandi, weekly

market in front of Raje Bahadur palace create traffic hazards and cause inter mixing of vehicular traffic. Footpath shops and thelas around the whole market place are another hazards which create congestion and obstruction for the city traffic.

The Problems Associated with Industrial Structure: Malegaon is a city with a predominantly working class population and its urban economy is heavily dependent on the power loom and plastic industries. The establishment of industrial units around the city has accelerated the growth of industrial activity. A number of new small and medium sized industries are springing up but haphazardly due to lack of planning or control. They mix with commerce or other uses of the city and ultimately create more congestion. Though an industrial area has been established on the north

eastern fringe of the city, yet it cannot provide space for all the industries. Presently the textile industry, the plastic pipe industry, Oil Mills, Ginning and Pressing Mills, Spinning Mills, black soap factories, flour mills, saw-mills and food industry are the major small-scale industries which are scattered all over the city area, and which require higher land utilization. These are all inharmonious and incompatible industrial units which create noise, and nuisance. Besides, industries working in congested areas have no proper facilities like sanitation, hotels and restaurants, fresh and clean drinking water, enough light, etc. The slaughter house, the mutton market and the black soap factories on the eastern part of the city create the hazard of air pollution.



Land Problems for Offices: Being the tahsil Headquarter, Malegaon has all types of offices of central and state government, local bodies, autonomous bodies and banks, etc. Most of these offices are functioning on the Camp road area and Satana Naka area; the remains are distributed on the entire city. The offices scattered in the city occupy residential buildings and therefore are not suitable for efficient functioning of offices and seriously affect the administrative functions. They are established without giving proper consideration to the need and potentiality of the surrounding area. Most of the offices and banks are functioning in rented buildings mostly structured in the residential colonies of the city. Though the offices are small in size yet they disturb the residential peace of the localities.

The Problems of Urban Services and Amenities

Water Supply: At present the main source of Malegaon water scheme is Chankapur dam on Girna River and Talwade Lake. Water from all available sources is brought into the water treatment plant located opposite to the existing new bus stand. Water is distributed to the city through seven elevated service reservoirs and through distribution network pipes. The current water supply is at the rate of 45 liters per capita per day where as the desired norm is of 135 liters per day per person. The duration of water supply is half an hour for alternate days. This indicates that the current level of water supply is poor in the city. Out of the 55,611 households nearly 90% of the population gets water supply through tap

while the remaining 10% of population gets water from either hand pumps or tube wells. The ground reality is that there is a huge shortage of water supply. The tap water facility is available for only 70% of the total households within the MMC limits. The problem of water supply is a serious one due to the increasing demand for water both for drinking and domestic purposes.

Sewerage and Sanitation: The sewerage system in the city is not working effectively. In the outer areas houses with independent latrines and septic tanks are coming up. In most of the developing area pucca surface drains are not provided which result in unhygienic conditions. The city has just 6.00% of the households having closed drainage for waste water disposal whereas around 76% of the households have open drainage channel for waste water disposal. Nearly 19% of the household has no proper drainage connectivity. For the population living in slums there are about 10 septic tanks public latrines and 3 public latrines in Camp area. Proper maintenance and cleaning of these latrines do not take place resulting in unhygienic conditions. There are just 3000 number of public toilets in the slums for the population of 264892. The effluent arising from the dyeing process of newly produced clothes in power looms is not disposed off in a scientific manner. Disposal of solid waste, biomedical waste, sludge water and improper and unplanned storm water drainage leading to water stagnation in monsoon are another environmental hazard which create health related problems.

Recreation:The city lacks reset of recreational and entertainment facilities such as play ground, gardens, libraries, cultural centers, etc. as the number of open space areas are encroached upon by slum dwellers. There are few cinema halls which are not sufficient for recreational purpose. The riverbanks of Mosam which are polluted by the city waste need to be developed into active and passive recreation spaces for the citizens.

Health: There are good number of small and big hospitals and dispensaries and nursing homes providing necessary health facilities in the city. But, on the contrary, the slum population is also high which put pressure on the health infrastructure. There are rural hospitals on Satana Road, Civil hospital and Wadia hospital run by MMC. But the city lacks government hospitals that can provide the major health related and specialized facilities for advanced surgeries and infectious and complicated diseases. Few authorized blood banks and Rotary Eye Hospital provide good facilities, but the city requires adequate provision of medical facilities.

Education: Malegaon is still a backward region in educational activities, though it is closely connected to the prominent cities of Nashik and Dhule. There are around 25 high schools available in Malegaon M.S.G.College, JAT college Soygaon College, City college, Night college, Hiray Polytechnique, Pharmacy Colleges, MBA College, ITI and Technical High School, Mansura college are the various private institutions – which cater the need of the city but the city lacks well equipped engineering and medical colleges and more Polytechnique and technical colleges & schools. More over some educational institutions are at unsuitable locations (Madarsas in congested residential areas), some of them have no play ground facilities.

The Problems of Traffic and Transport: Malegaon has good external road connectivity with almost all important cities in state. It is also well-connected to cities like Mumbai, Hyderabad, Bangalore, Delhi, Kolkata and Chennai. Manmad Railway Junction is just 36 km from Malegaon. It is also well connected to Nashik which is the nearest domestic airport. But the city's connectivity needs to be improved by means of setting up railway terminus in the city which is the age old demand of the city. The current situation of the major roads in the city needs to be improved. Traffic signals need to be employed at all the main traffic points. Foot paths need to be made clear from all types of encroachments for efficient circulation. The road patterns of the commercial areas are irregular and narrow and have poor road geometrics. Traffic on city roads is highly heterogeneous. All movements of passenger and goods, slow and fast, occupy the same road space intermixing of the

various modes of the roads. Encroachment on the roads by the hawkers and thelas is another hazard in the city. The traffic of the city is aggravated by the stray animals which also use the same roads meant for vehicular traffic.

Recommendations:In view with the existing problems of the city, the basic considerations for formulation of the development can be suggested in the form of recommendations. Some of them are

- Minimizing the daily and occasional concentration activities in the commercial area from Satana Naka to Daregaon Naka and from Mosam Bridge to Ramset Bridge by relocating of incompatible land uses, providing parking space flyover road links and a separate route exclusively for the regional traffic. Decentralizing work centers, providing commercial sites concentrated industrial sites.
- Improving the slum area by providing minimum facilities like water supply, sanitation, roads, electricity, etc.
- Providing integrated daily water supply by the conservation of the Girna left bank canal of Chankapur dam.
- Providing proper sewerage system
- Rehabilitation of slums should be co-ordinated with housing schemes, working places, economic and social status, as well as the amenities of domestic life like retail shop, electric and water supply, health & recreational facilities.
- The overcrowding of the core can be avoided by constructing new market centers in the close proximity of the core.
- The traffic generating nodes should be shifted to other desirable areas in order to lessen the load and volume of the traffic.
- Allocating of land for the cultural and recreational use adjacent to the central area.
- The thelas standing on and patrolling the roads, rickshaws standing on the intersections, tea, pan and refreshment stalls on footpaths, parked vehicles of the merchants and stray animals required to be cleared off with strict hand.

Conclusion: The analysis of the problems and requirements of the city lead to the conclusion that Malegaon city is in urgent need of orderly and planned development based on some well conceived plan, prepared by a board of planners of various disciplines. The plan formulated must include the city, suburbs, fringe and resources of the land. It should consist of urban, renewal and redevelopment of the city and its surroundings. The city and its surroundings should be treated as one unit. Peripheral developments of residential and industrial areas should be encouraged instead of changing the old city pattern and control the deterioration of the

inner zone.

References :-

1. Nashik, District Census Hand Book (2011).
2. Dr.Khan, Z.T. - Environmental Crisis and Urban Planning, Ashish publication,New Delhi (2000).
3. Gazateer of the Bombay Presidency (1883), Nashik district. Vol.-19 P. 1-15.
4. Socio Economic Abstract of the Nashik District (1971-72 to 2011-2012)

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