

Urbanization in Asansol: An Impact Assessment

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Abstract

Urbanization refers to increase in population and the amount of industrialization, people move from rural to urban areas. Asansol is one of the most urban agglomeration and industrial area of West Bengal. Due to urbanization in Asansol, its effects on the current socio-economic, environmental condition. A case study of urbanization in Asansol has been carried out some environmental problem.

Keywords: *Urbanization, Growth of wards, Socio-economic, Environmental pollution.*

1. Introduction

Urbanization is a process that leads to the growth of cities due to industrialization and economic development. It is an process of transformation from traditional rural economics to modern industrial one. In Census of India, 2001 towns were classified into two parts:

- a) Statutory towns- All places with a municipality, corporation, cantonment board or notified town area committee etc.
- b) Census towns- Places which have a minimum population of 5000 with at least 75% of male working population engaged in non- agricultural pursuits and density of population for at least 400 persons per sq. k.m.

The urbanization in Asansol region during the past independence period 1951-2011. The urban growth of this region is a combined impact of emergence and growth of some new wards as well as the increase in population of these towns. Asansol is also largest industrial town. The history of the area under review is a history of evolution from forest-based subsistence economy to mining and industrial economy which changed the population characteristics and socio-economic, cultural aspects of this region. A hierarchy of urban settlement was created in Asansol region based on coal, transport work, steel and linkage industries since the colonial period. The area has been facing a great change both

in physical ecosystem and socio-economic condition. The changes outcomes of rapid decline of coal mining and industries. Due to urbanization in Asansol proceeds in the right path causing minimum impact on environment. Environmental degradation has impact on environmet. Environmental degradation has been occuring very rapidly and causing many problems like worsening water quality, excessive air pollution, noise, intense dust pollution, solid waste disposal system, transport problem etc.

2. Objectives

The paper is to analyze the trend of urbanizatrion in Asansol area. To find out its impacts on socio-economic and environmental conditions.

3. Materials and Methods

Secondary data are used to analyze the study that have been collect from different published materials namely- District Statistical Handbooks 2011 District, Census Handbook, relevant writintgs of some scholars Journals available of Internet, some census related data collected of municipality office. After collecting secondary data have been tabulated different cartographic techniques have been applied to trend urbanization, occupational structure, demographic status etc.

4. Study Area

Asansol is in Paschim Bardhaman district in the Indian state of West Bengal. It lies between the longitude 86.99E-23.68N latitude between the Damodar and Ajoy River. The western part of Bardhaman district is located on the most important mining- industrial zone. The whole area lies in the tropical sub-humid monsoon climatic region. The maximum temperature upto 39°C and minimum temperature goes down to 29°C.

5. Trend of Urbanization in Asansol

Table no 1- Trend of Urbanization in Asansol Municipality (1991-2001)

Year	Total Population	Urban Population	Rural Population
1991	262188	-	-
2001	475439	475439	-
2011	563917	563917	-

Density (/sq. k.m.)	% Literacy	Decadal Growth Rate(%)	Sex Ratio	No.of Households
-	-	-	-	-
3718	80.05	81.3	895	89243
4410	83.1	18.6	929	113739

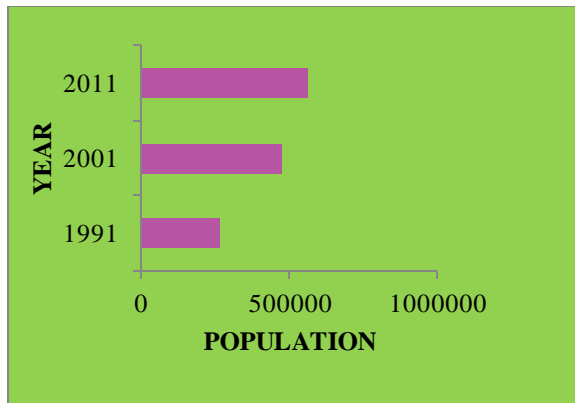


Fig.1 Bar indicate growth of population

Table no-1 urban population was 262188 in 1991 and it became 563917 in 2011. From this table population density, literacy rate, sex ratio, no.of household are also increased from 2001 to 2011 census years.

Table no 2- No.of wards and their area in Asansol Municipality Corporation (1951-2011)

Census Year	No. of Wards	Area(sq.km)
1951	7	10.44
1961	7	10.44
1971	25	10.44
1981	25	20.02
1991	30	25.02
2001	50	127.87
2011	50	127.87

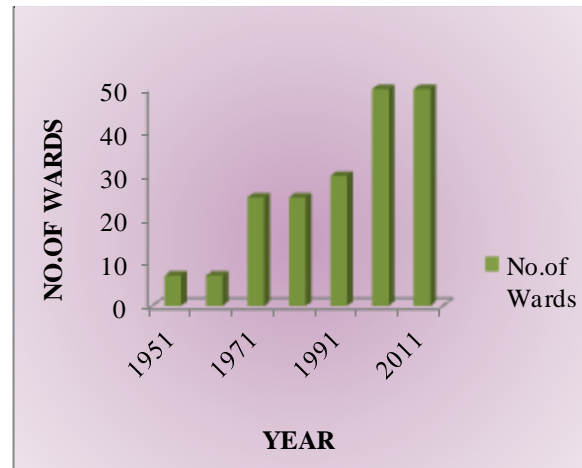


Fig.2 Bar indicate year-wise increasing no. of wards

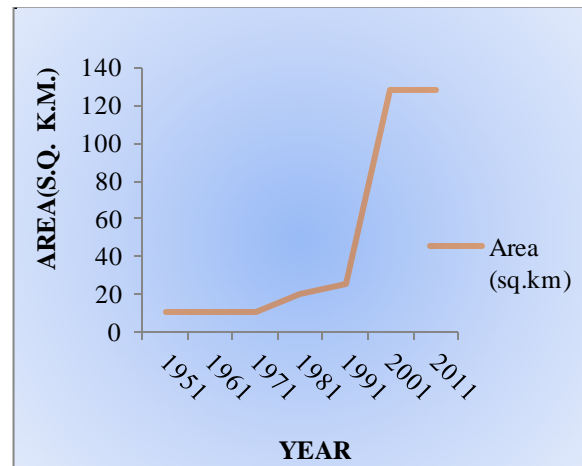


Fig.3 Line indicates year-wise increasing area of the wards

In 1951 Asansol was a mono centric town then the no. of wards increased from 7 to 25 during 1951-1981. The spatio-economic changes also led to the rise in urban growth during the next decade. The wards became bigger in size. The no.of wards also increased from 25 to 50 with expansion of the area. The city is transforming from mono centric to multicentric. As mining and manufacturing industries played a dominant role for urbanization.

The urban growth of this region is a combined impact of emergence and growth of some new wards as well as increase of population and area of these wards.

6. Impacts of Urbanization on the socio-economic conditions in Asansol Region

Table no 3- Changing occupational structure of population of Asansol Municipal Corporation in 2001 & 2011 census

Year	Classes of Total Workers	Cultivators	Agricultural Labours
2001	Total	2409	2231
	% of Total Workers	1.79	1.66
2011	Total	2879	3602
	% of Total Workers	1.57	1.96
Year	Household Industry Workers	Other Workers	Total Workers
2001	2515	127070	134225
	1.87	94.67	100
2011	5452	171944	183877
	2.97	93.51	100

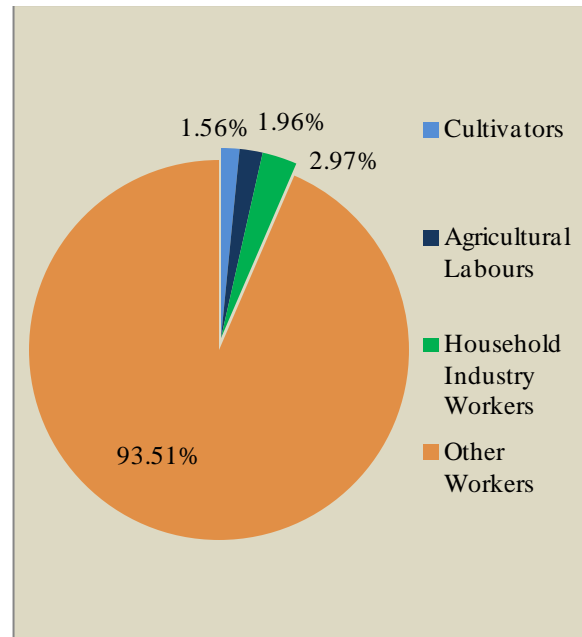


Fig.5 Pie indicates occupational structure of the population in Asansol, 2011

From this table occupational structure also changed during 2001-2011. Here population are working in different activities like cultivators, agricultural labours, household industry workers and other workers. The no. of workers increased in different fields. Most of the workers are other workers like coal mines and industries.

Table no 4- Caste-wise distribution of population of Asansol Municipal Corporation in 2001&2011

Year	General	Scheduled Caste	Scheduled Tribe	Total Population
2001	395965	61514	17960	475439
2011	476131	67759	20027	563917

From table no.- 4 we see the no. of total population increase during 2001-2011. The population is distribution by caste-wise- General , S.C. , S.T. . Maximum population are found in general caste. Caste-wise all types of population increased from 2001 to 2011 census years.

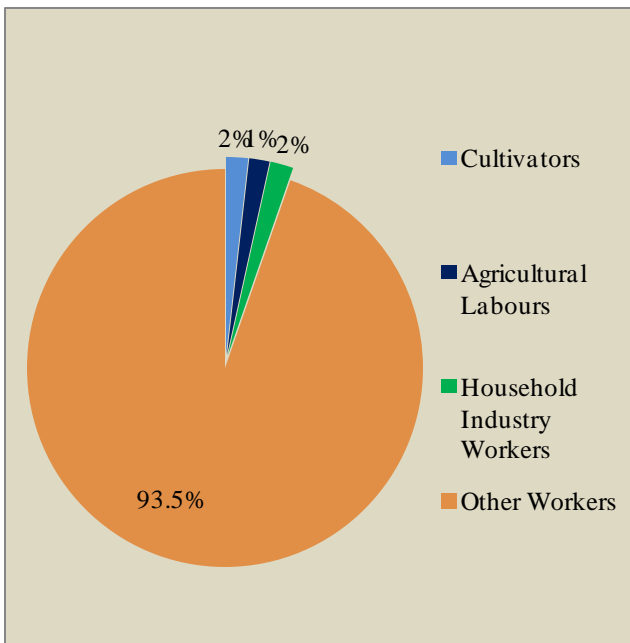


Fig.4 Pie indicates occupational structure of the population in Asansol, 2001

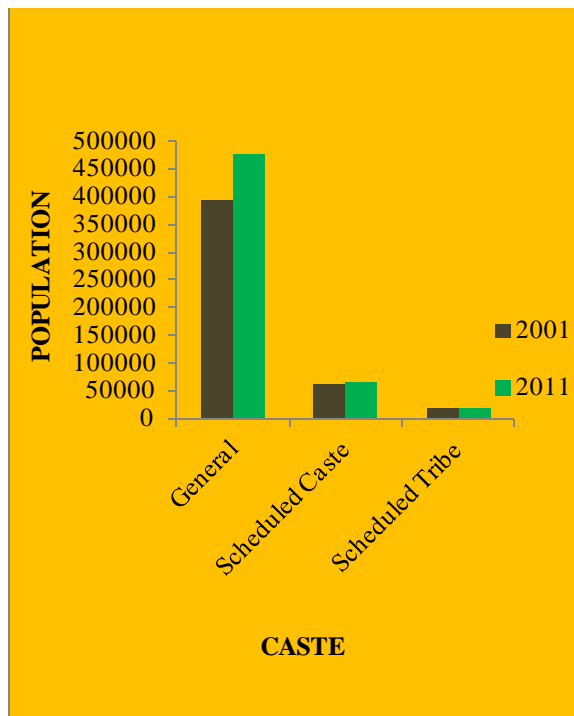


Fig.6 bar indicate caste-wise growth of population in Asansol from 2001to2011

7. Impacts of Urbanization on environmental conditions in Asansol Region

- The area change from agricultural to mining and industrial with the extraction of local extensive coal and consequent rapid industrialization.
- The recent small scale sponge iron industries with very low capacity of job opportunities and are really the 'dirty' industries which have a random role in environmental pollution.
- Extensive area of rich forests had to be cleared to establish mine sites, roads, transport of coal.
- Ground water sources are affected through seepage. The water quality of both treated and untreated. Water is unsatisfactory and unsuitable for drinking.
- River Damodar is the main sources of water supply through distribution system. This river is polluted with copper, zinc, lead, nitrite, mercury from discharge of effluents of mines, industries and urban sewers.
- Court area along with other administrative offices attracts a lot of traffic jams. The

increasing number of vehicles playing on the narrow congested roads of Asansol city. The chief pollutants from transport sources are carbon monoxide(CO), oxides of nitrogen and lead. Others pollutants are SO₂, CO₂ and SPM etc.

- In the recent past the urban tract of Asansol has witnessed the slums. These are the problem areas of the urban units. In the slum area poverty, deprivation, illiteracy and water logging during the rainy season.
- The air quality in Asansol subdivision particularly in view of Suspended Particulate Matter, Oxide of Nitrogen is poor. According to report on Environment Management Plan of Asansol-Dugapur Industrial corridor the primary cause of this deteriorating air quality are the large volumes of industrial emissions including those from plants or factories and mining operations.
- The urban centres are also characterized no waste water treatment plant. So, untreated sewage is discharged into the water channels which ultimately drain into Damodar, Ajoy, Barakar Courses.
- Many people of this area has a tendency to throw the waste materials on street or nearest drain instead of storing these materials at available dustbins. It is also polluted our area and environment. The wastes are dumped at by-pass road.

8. Management

- Establishment of sewerage and drainage treatment plants.
- In recent times regarding slum area's taking short term measure for improving their environmental aspects, various schemes like improvement of roads, proving shelter for the homeless, providing drinking water in the slum area have been undertaken for improvement of slums by the concerned authority.

9. Conclusion

After the overall discussion about the urbanization on Asansol it is clear that due to urbanization, its

impacts on socio-economic and environmental condition. The impact of urbanization as well as industrialization has changed the land use pattern on Asansol region and created a lot of problems to its ecology and environment. Open lands are being converted to residential and industrial area. Air pollution, Water pollution and Noise pollution increase day by day. The local planning body should take step to improve drainage body, transport routes, quality of water supplied.

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