ENVIRONMENT AND URBANIZATION IN INDIA - A CASE STUDY OF CHENNAI CITY

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Abstract

Degradation of environment not only intensifies disasters but also increases the potential for secondary disaster. In India, environmental degradation has been occurring very rapidly and causing many problems like shortages of housing, worsening water quality, excessive air pollution, noise, dust and heat, problems of disposal of solid wastes, and hazardous wastes. Therefore, it is necessary to review the related studies. The present study deals the impact of urbanization on environment in India and a special reference to Chennai city. It is noted that there is close association between the urbanization and environmental degradation.

Key words: Urbanization, environmental degradation, environmental pollution, migration, etc.

1. Introduction

Urbanization is a structure of social transformation from urban societies. The rate of increase in urbanization in India is much less than other developed countries. In India, urban areas have sufficient infrastructure facilities and employment opportunities than the rural areas and this attracts still more people to the urban areas. As a result, rural people have migrated to urban areas for benefit from these facilities. Therefore, there is more pressure on facilities like transport services, housing and drainage facilities, as well as more production of other goods required by the urban population, which in turn results in the release of large amount of wastes and pollutants. Due to increasing urban population, cities face many environmental problems like declining contaminated water supplies, accelerating atmospheric pollution, severely inadequate sanitation facilities and enormous quantities of solid and liquid waste for disposal.

2. Problem of the study

Even the industrialized countries, with higher standards of living and greater number of cars, produce far more air pollution and green house gases than the developing countries. They can reduce the environmental hazards by using technology or clean up technologies are economically impractical for these countries. The traffic jams are extremely bad in many cities and vehicle traffic in the city area at least during the rush hours is really slow. The population is high due to constant traffic and causes respiratory diseases to city habitants. Lack of sanitation and sewage treatment is the biggest factor regarding water pollution.

3. Objectives of the study

1. To estimate the growth and trends in urbanization, in India, Tamilnadu and Chennai city.

2. To assess environmental degradation due to urbanization at metropolitan cities in India.

3. To study the impact of urbanization on water and air quality in Chennai city.

4. Methodology

The objectives of the study have been verified within the use of primary data. The necessary secondary data have been obtained from various published works such as books, reports, journals, periodicals and web materials. Primary data are collected through in depth interiors and decide observation.

5. Sampling design

The study is based on multi stage proportionate random sampling method. In the first stage, with a view to study the impact of urbanization on environment, Chennai city as the sample city was purposively chosen. In the second stage, three zones were selected among the fifteen zones from city that Thiruvottiyur, Anna Nagar and Perngudi. In the third stage, from the Thiruvottiyur, Anna Nagar and Perngudi zones 166, 140 and144 sample respondents were selected respectively.

6. Analysis and interpretations

6.1. Rural-urban migration

H_0: The growth of rural urban migration will not increase the growth rate of urbanization.

Ha: The growth of rural urban migration will increase the growth of urbanization.

TABLE 1

Significant Level of Rural Urban Migration in Chennai City

Rural Urban migration-urbanization	Rural Urban migration-urbanization		Std. error	95 confidence interval level of the difference		t	D f	Dig (2 tailed)
	Mean	Standard Deviation		Lower	Upper			
	13.763	46.27	13.95	106.54	168.72	9.865	10	.000

The calculated t value (9.685) is greater than the tabulated value (3.69) 1 per cent significant level. Thus, it is concluded that we accept null hypothesis. It means the growth of rural urban migration will increase the growth rate of urbanization.

6.2. Pollution and health cost

H_0: The lower rate of water pollution leads to the higher rate of health cost in Chennai city.

H_a: The higher the water pollution leads to the higher rate of health cost in Chennai city.

TABLE 2

Chi-Square Test

	Value	DF	Asymp.sig (2 tailed)
Pearson chi- square	34.711	5	.000
Likelihood ratio	35.936	5	.000
Linear by linear association	1.280	1.258	
Number of valid cases	121	-	.258

The calculated chi- square values of water pollution and health costs are greater than the table value at 1 per cent level of significance. Hence, the alternative hypothesis is accepted. It means the higher rate of water pollution leads to the higher rate of health cost in the sampled areas in the Chennai city.

7. Findings

1. The study revealed that the poor people are willing to pay more than the rich people in order to access the good water even though they have low income category.

2. Out of the total sample respondents, 60 respondents express their opinion that the transport sector is the main source to emit pollution from various vehicles.

3. Most of the respondents have nose and throat infections problems due to solid waste generation.

8. Suggestions

1. It is need of the hour to spread social awareness about the dangers of pollution. It is also required how each individual can contribute to check this problem.

2. If environment is to be protected it is essential to check population growth.

3. The Environment Protection Act was passed in 1986 in India. Its objective was to check deterioration in the quality of environment. This legislative measure should be strictly enforced.

4. Planned management of solid waste is very essential. It is suggested that rural garbage be converted into compost.

5. Living places of the people should be made neat and clean. Slums should be replaced by airy and well lighted dwelling houses. It is said that economic development and environment protection should be made complementary to each other.

9. Conclusion

The relationship between urbanization and environmental degradation is complicated, involving interactions with the natural and the human made environment. In the case of ambient pollution, vulnerability of large cities to the adverse impacts of vehicle emissions depends on certain natural features. Design of built environment including infrastructure, sanitation facilities will advance growth, effects haphazard decentralization of some slum settlements to nearly cities can be considered.

10. Reference

Adepoju (2000). Regional Organization and Intra Regional Migration in Sub- Saharan Africa: Challenges and Prospects. *International Migration*, 39 (6), 43-57.

Ganesh, K., Malhotra. G., & Das Mishra, M. (2007). Economic Development and Environmental Degradation in India. *Man and Development*, 29, 55–70.

Kundu, A., & Gupta, S. (1996). Migration, Urbanization and Regional Inequality. *Economic and Political Weekly*, 3391-3398.

Lakshmana, C.M. (2013). Population, Development, and Environment in India. *Chinese Journal of Population Resources and Environment*, 11(4), 367-374.

Sunil Kumar, et al. (2009). Assessment of the Status of Municipal Solid Waste Management in Metro Cities, State Capitals, Class I Cities, and Class II Towns in India: An Insight, *Waste Management*, 29, 883–895.

Vij, D. (2012). Urbanization and Solid Waste Management in India: Present Practices and Future Challenges. *Procedia-Social and Behavioral Sciences*, 37, 437-447.