

**SLUM ENVIRONMENT AND ITS EFFECTS OF BHAT NAGAR SLUM IN
PIMPRI CHINCHAVAD AREA NEAR PUNE IN MAHARASHTRA,
INDIA.**

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Abstract:

*“A **slum** is a heavily populated urban informal settlement characterized by substandard housing and squalor. While slums differ in size and other characteristics from country to country, most lack reliable sanitation services, supply of clean water, reliable electricity, timely law enforcement and other basic services. Slum residences vary from shanty houses to professionally built dwellings that because of poor-quality design or construction have deteriorated into slums. Slums were common in the 19th and early 20th centuries in the United States and Europe. More recently slums have been predominantly found in urban regions of developing and undeveloped parts of the world, but are also found in developed economies. This respective study focus on all such conditions in Bhat Nagar slum in Pimpri-Chinchwad area, Pune, Maharashtra, India. This report contains the study solid waste pollution, water pollution, sewage and its adverse effects on human health.*

Key Words: *Slum Deterioration, Field Survey, Spatial Analysis.*

1. Introduction:

Slums form and grow in many different parts of the world for many different reasons. Some causes include rapid rural-to-urban migration, economic stagnation and depression, high unemployment, poverty, informal economy, poor planning, politics, natural disasters and social conflicts. The slum in Pimpri-Chinchwad (Pune) India , is one of prosperously growing urban area having near about 71 slum pockets which contribute 12.85% population out of that population of the city in Pimpri-Chinchwad municipal corporation (census of India 2001). The existence

of slums can be traced back to the decade of industrialization in Pimpri-Chinchwad. So Strategies tried to reduce and transform slums in different countries, with varying degrees of success, include a combination of slum removal, slum relocation, slum upgrading, urban planning with city wide infrastructure development, and public housing projects

2. Aims & objectives of study:

1. To study the status of deterioration of local Environment in study area.
2. To study the water pollution and its effects on human health in study area.

3. Methodology:

3.1 Selection of site:

One slum region is selected for study in Pimpri-Chinchwad Municipal Area. Selection of slum pockets with base of stratified random sampling method were performed in the ratio of 1:3 and Bhat Nagar Slum in Pimpri-Chinchwad area is selected. This slum is situated on western bank Pavana River. Deterioration and polluted environment is observed in slum area with varying effect on local environment

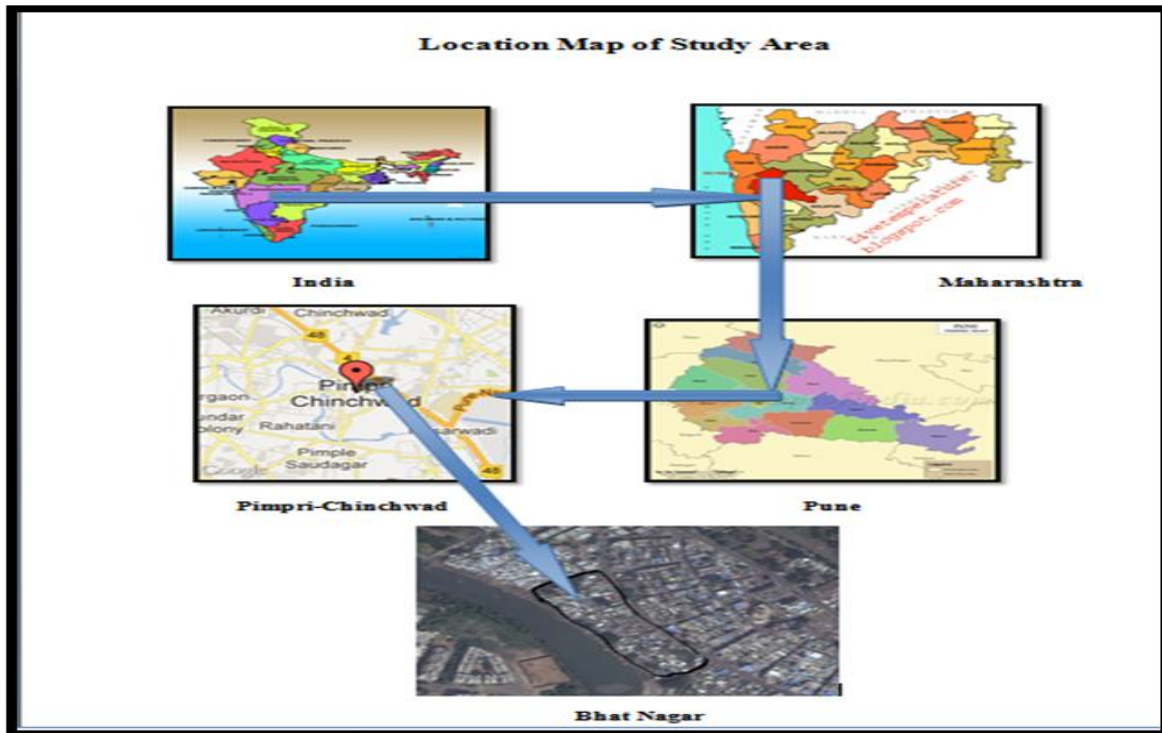
3.2 Data collection and management:

Data collection has done with the help of the observation, interviews, photos, Google images and field survey. Questionnaires have prepared for obtaining information of solid waste & tin-bin system, polluted environment, health status. However spatial analysis of study area has been done on Google image using ArcGIS in to calculate area and related features. This paper shows living environment of slum, sanitation, solid wastes pollution, water pollution and its effect on human health with the help of graphs, figures.

3.3 The location of study area:

The location of Pimpri-Chinchwad is situated near the western margin of the Deccan plateau on the leeward side of the Shyadhri ranges and Western Ghats, 589m above sea level. Baht Nagar is located on 18°38'18.36"N latitude and 73°

49°21.87' E longitude. Bhat Nagar slum is situated in South West side of Pimpri-Chinchwad. The total area of this slums is 21712 sq meter. The total area covered these slum is 10514 sq.mts



4. Slum environment and its effects on human life:

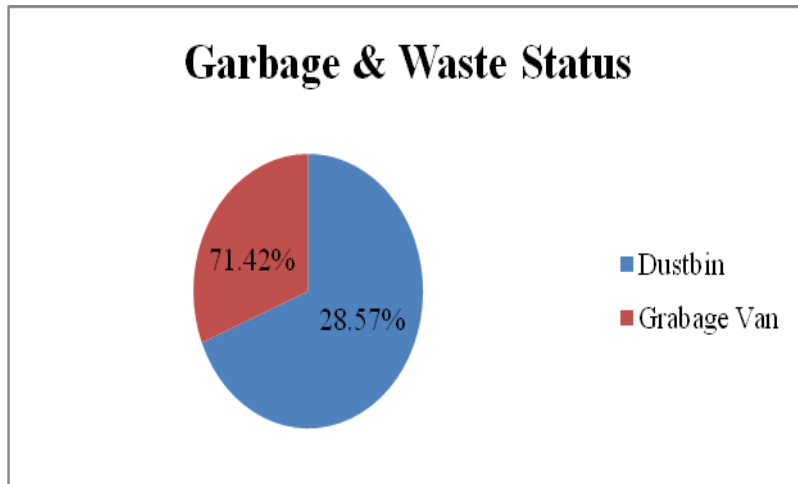
4.1 Status of Garbage & solid waste pollution in study area:

In Bhat Nagar slum of Pimpri-Chinchwad having daily generation of Garbage and according to the study we observed no of houses garbage management and percentage respectively.

Table no.1: Status of solid waste pollution in study area.

Source	No. of Houses	Percentage
Tin bin	35	71.42%
Garbage Van	14	28.57%
Total	49	100%

Figure no.1: Solid waste pollution in study area.



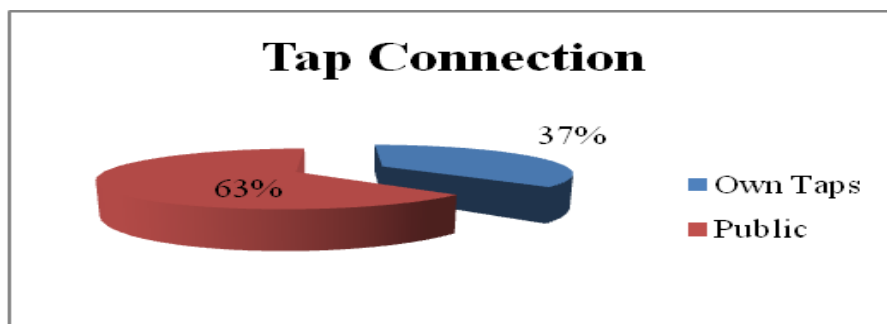
4.2 Water supply system:

The status of drinking water supply and location of water taps is a very important aspect for sanitation in Bhat Nagar slum area. In the study area we have observed that there are 36.73% of people having own tabs in their houses and nearly 63.26% of peoples are still using public tabs.

Table no.2: Status of Water Supply

Own water taps	Public water taps
36.73%	63.26%

Fig no.2: Status of Water Supply



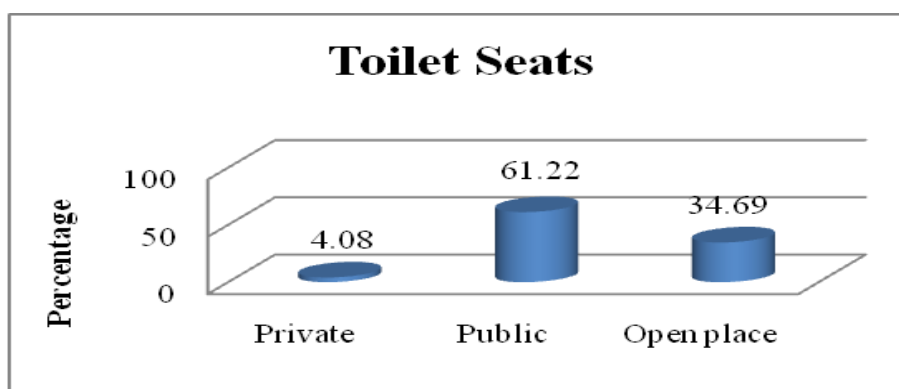
4.3 Status of Toilet seats in study area:

In the study it is observed that there are only 2 houses having their own toilet and 30 houses are using public toilets. And Peoples of 17 houses are using open place for toilet which may cause pollution.

Table no.3: Toilet Availability Status

Use of toilet seats	No. of Houses	Percentage
Private	2	4.08%
Public	30	61.22%
Open place	17	34.69
Total	49	100

Figure.3: Toilet Availability Status



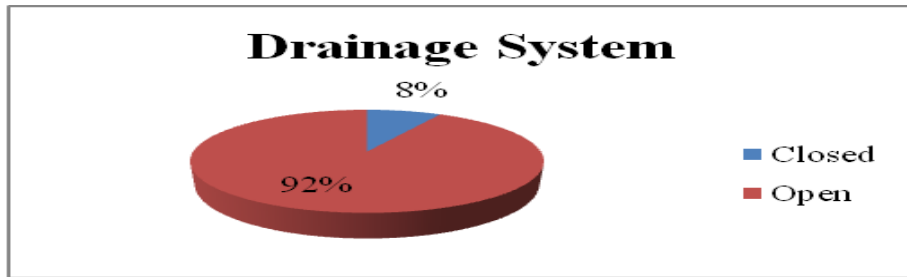
4.4 Status of sewage system in study area:

The Bhat Nagar slum is having open and closed sewage gutter, flowing openly very close to slum huts. It can be observed that there are 04 houses which are having close sewage canal near their houses and there are nearly 45 houses which are having open sewage gutter near their houses.

Table no.4: Drainage & Sewage System

Types	Drainage System	Percentage
Closed	04	8.16%
Open	45	91.83%
Total	49	100

Figure no.4 Drainage & sewage system



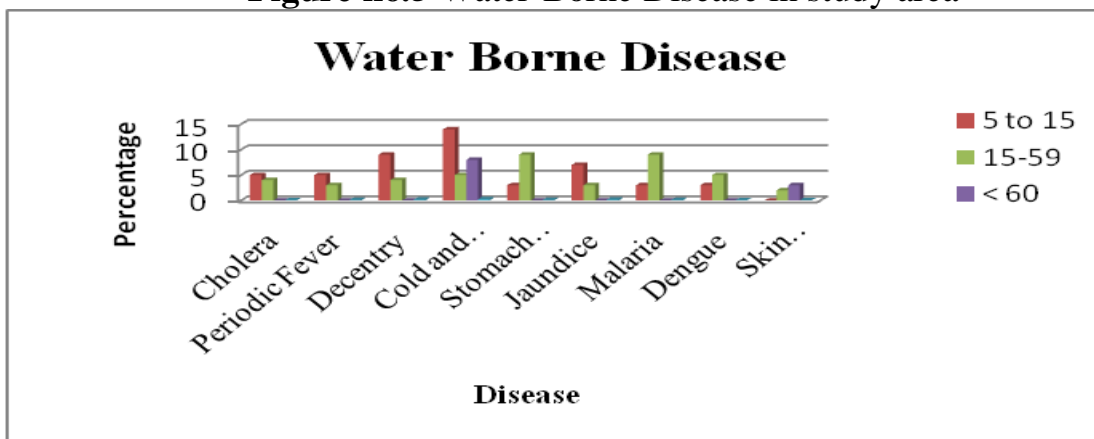
4.5 Disease spread by water contamination:

There are a many problems in Vikas Nagar slums such as solid waste pollution and water pollution and these all conditions leads to result in different types of diseases which are observed in study area. It is shown in following table and Graph.

Table no.5: Disease spread by water contamination

Diseases	< 5 age group	5 to 15 age group	15 to 59 age group	<60 age group	Percentage
Cholera	0	5	4	1	5.4%
Periodic Fever	6	5	3	0	5.4%
Dysentery	5	9	4	0	10.81%
Cold and Fever	10	14	5	8	32.43%
Stomach Infection	5	3	9	0	21.62%
Jaundice	4	7	3	0	5.4%
Malaria	0	3	9	0	10.81%
Dengue	0	3	5	0	8.1%
Skin Infections	0	0	2	3	5.4%
Total	30	49	44	11	--

Figure no.5 Water-Borne Disease in study area



5. Conclusion:

From the overall study it can be concluded that the slum area of Bhat Nagar is under low quality of life and low standard of living. Peoples in this area are facing problem of pollution, sanitation, improper management of garbage. Thus peoples are also affected by several diseases. And hence there should be proper management of garbage, maintenance of sewage, and proper town planning by government and private agencies.

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