

URBAN SUSTAINABILITY AND THE CREATION OF SLUMS: CASE STUDY OF THE DHARAVI SLUMS IN MUMBAI, INDIA

Sonia Raza¹, Shaheer Ellahi Khan², Hamza Ellahi Khan³

¹Department of Environmental studies, York University Canada

²Cluster Head Development studies, Bahria University Islamabad

Corresponding author: shaheer_ellahi@hotmail.com

ABSTRACT: *Cities have changed vastly over a large period of time and have shaped a new era of development in the world. These urban centers have powerful networks, which help them function at a national and international level. On the other hand, the number of models also explains how slums are by-product of cities. With the economic growth and development in infrastructure, there is a vast area/field to be explored by various researchers and that is the creation of slums and challenges of liveability in it. The present research has explored the Dharavi Slums in Mumbai, India.*

Keywords: Urban planning, Economics, Urbanization, Poverty, Settlements

INTRODUCTION

Lewis Mumford defined a city as “a theatre of social action and everything else- art, politics, education, commerce...” [1]. Powerful cities such as, New York, Tokyo, London and Hong Kong are known to hold the strongest political and economic power [2]. As a result, these cities are known to have a well-established and maintained health care system, education system and, infrastructure, which includes public transportation. Urbanization in cities started with the arrival of industries and new opportunities, and as a result, there was an increase in population within these cities. People from rural communities migrated to these centers for new opportunities, which people from different countries immigrated to these cities for the same reasons.

Sustainable cities are those which can provide proper accommodation to the residents. This is known to be infrastructural needs such as roads, transportation, housing, buildings, etc. Along with infrastructural needs, they also are provided with necessities such as street lighting, waste management, clean water, and employment. As cities maintain a balance in, what the residents need (demand) and how much the city can provide (supply), demand and supply this can help them maintain sustainability. There are many issues which can question the sustainability of a city, and one issue is the supply of adequate housing. There is a need to provide affordable housing to all the residents within the city, and if this does not happen, the residents who do not have proper housing, it can lead to an outbreak of slums.

METHODOLOGY

The present study explored the creation of slums, and how they affect the sustainable development of a city. Definitions of slums are given, along with different examples of different slums around the world. In specific, the case study of Dharavi Slums in Mumbai, is explored in detail. There are a lot of political, economic, and social issues which are linked to the creation of slums, and the case study looked at each issue, and also examined how they are connected to sustainable development.

Findings

The study is bisected in various themes as discussed below:

Urban Planning- Designing Sustainable Cities: Planners have a difficult task of trying to create a sustainable and liveable city. They have a challenging time trying to figure out which elements, and structures belong in the city, and

which do not. As a result the residents have to use the resources provided within the city boundaries. For example, planners have to arrange schools in neighbourhoods, according to the age of the residents. If they place an elementary school in a neighbourhood where majority of the population is passed 10 years of age, then it is not useful for those residents. As a result, it is seen to be as a neglectful move of the planners. Planners have to monitor the neighbourhoods, and the place needs accordingly. Infrastructure plays a very important role in a growing city, and planners have to make sure the infrastructure is always maintained, or it can cause a lot of problems. As more people migrate into the city, the planners have to accommodate the growing population. In other words, they have to build, maintain, and repair roads, transportation systems, waste management, sewers, etc., and this helps sustain the population.

Sustainable cities also have environmental criteria to follow. This includes reduced average carbon footprint, and creative ways to establish a greener way of living [3]. Planners have to work to better the environments, and have to maintain a healthy lifestyle, which is reflected in the ways of living. Cities have implemented many by laws and rules which ban specific practices by residents. In Vauban, Germany there was a large housing complex built in the 1990s, which was to accommodate 5000 people. There were practices such as driving cars were banned in this neighbourhood, and this encouraged people to use the public transportation and other means for travelling. Cities are created for people, and development then is a result of how the people function with the resources provided.

There are many cases where planners have failed to accommodate residents with proper infrastructural needs, and as a result, those cities have seen many problems such as outbreaks of diseases due to lack of sewage systems, or even cases where residents use open areas as bathrooms because there is no sewage system set up. Cities which see rapid urbanization but do not have, but because these cities are poor, they are unable to build or repair the systems which are a necessity for the residents. As a result, people are left to find their own solutions, and which because a plague for the city, because as the population increases, it becomes harder to take control of the out of hand situation.

Slums: Planners have to be careful in planning, designing, and developing a city or the consequences will be hard to

face. The creation of slums is an outcome of the failures experienced in a city. If a city cannot provide for the residents, then the residents will start coming up with alternative solutions to their problems. High poverty, low literacy, malnutrition, and low human resource development are all reasons which lead to the creation of slums [4]. According to the United Nations, the definition of a slum is “a heavily populated urban area characterised by substandard housing and squalor” [5], and the UN has also gone on to identify them as “poorest quality housing, and the most unsanitary conditions; a refuge for marginal activities including crime”. These are unplanned settlements and they grow in large numbers because the people residing there have no other alternatives, and the city also cannot provide for such a large population.

Slums are formed in open and vulnerable spaces, such as an open area between buildings, or an open ground which is not used for any other purposes. There are a lot of problems with slums, such as social, economic, and political, which have to be dealt with and hence these slums become a problem for the greater city. In 2003, the United Nations stated that one third of urban dwellers lived in slums [6] and since then these numbers have increased. Kibera district of Nairobi, and Dharavi area in Mumbai have known to have the largest slum settlements, which means large populations are residing within these unplanned settlements. The creation of Dharavi slums will be expanded on to show the effects on political, economic, and social factors of the city.

Dharavi Slums and Politics: Mumbai is known to be a very prominent city in India. It is the political and economic center of the nation, and holds great value. Mumbai was seen to be a city with a lot of opportunities, from employment, to education, and a “better life” for the migrants who came to the city. It currently accounts for 20 percent of nation’s total employment, and holds a population of 12 million people [7]. The shocking numbers are seen when calculating the population of people living in the slums, which is known to be 60 percent of the city’s population, and a whopping total of approximately 7 million. In the 1960’s to the late 1970’s Mumbai saw a large increase in population due to people coming for the opportunities, as a result the city was not prepared for this increase [8]. As a result people had to find and build their own homes which are now seen as slums. Politics plays a great role in the creation, and even in removal of these slums, how that happens will be looked at in greater details now.

Politics plays a huge role in the creation of unplanned settlements. Politicians have to seek the approval of their colleagues, which are also the big industrialists and land owners. Politicians are voted in on the basis that they will listen to all rich and poor communities, but ultimately the approval of money makers is more valuable than the needs of poor communities. As a result, land owners refuse to give up spaces for public and affordable housing, and the spaces which are government properties would rather be transformed into luxury housing. Mumbai gets a lot of attention, and for that reason it has a lot of tourist value attached to it. There are a lot of attractions which attract people from all over the

nation and the world. As a result, luxury living accommodation is an asset for the city, because it brings a lot of money into the area. If places which were used to build high rises and estate houses would have been used for affordable homes, it would not benefit the city. The people who end up in slums are “industrial workers, construction labour, domestic servants, rag picker and in a whole range of petty trades such as vegetable and fruit-selling” [8], and since they are considered to be from poverty stricken backgrounds, it becomes harder to fight for their rights. The government of India also declared that the slums were considered to be illegal, and there was no need to put effort or manpower into cleaning them up [4]. Mike Davis, in his book called *Planet of Slums*, talks about ‘landlordism’ [9], a term which he used to describe the relationship between the dwellers and the owners of slums, and how this is also politicized. These are landowners, also known as slumlords, who create these unplanned settlements, and put them up for rent, and at times, there are the land mafias who take control of government spaces and create slums on them. They then put these little places up for rent, and make sure that these places are bringing money to them. If there are any attempts by the governments to take back these places, these land dons create havoc for the politicians and hence they remain silent. These tiny spaces are still considered to be expensive for the residents, because they are getting low wages, and are unable to provide for the high prices of the slums.

Economics: Economics plays a vital role in the development of slums. These cities provide new opportunities for the newcomers because these cities have so much to give. As the flow of population starts to come into the cities, there are more chances of unemployment because a lot of jobs have been filled by the previous flow. People have a harder time finding jobs which they came for, and as a result they have to be jobless. These migrants then have to settle for jobs such as labourers, street vendors, and other low paying jobs, which then results in an increase of population living below the poverty line. As this continues to happen, these people are then forced to seek shelter within these slum settlements, and have to pay rent to the landowners.

Bigger cities become prone to problems of slums. The people, who live in the Dharavi slums, are known to be living under the nation’s poverty line. Slum dwellers are often found to be living under the living standards of the nation; it can include unemployment, education, and patterns of consumption. A sustainable city would be able to find a solution to the removal of slums, in such a manner where the people are able to find affordable housing, and the city would be able to invest in different programs, such as education, and employment, which would guarantee a better living for them. The city itself is unable to take care of the growing slum population, and now that these slums have become such a huge part of the city, it is hard for a growing economy to take care of them. The UN has stated many times, that the gap between the rich and the poor is growing very fast, and because of this poverty rates are increasing. There are a lot of authorities watching the problem of the slums in Dharavi, such as the Planning Commission, which has to record if the

daily consumption needs are met, but so far there have not been any discussions on this issue.

The infrastructure within these areas is also very poor, because the government is not spending money to improve the road side conditions within these regions. These areas see very little development, because the investors refuse to build anything in these areas. This also results in less employment, and a lot of people are forced to beg on streets. The rates of homelessness, or people living on pavements are very high, because those who cannot even live in these slums have to live on the streets [4].

Socio-Cultural: Socially, these slums are very hard places to live in. They are impossible places, but because these people are helpless, these slums are the only places to live in. The living conditions are dire, and unhygienic. The two main important systems required for any human being, are water filtration and sewage treatment, and these are the two which slums lack. Dharavi slums do not have a water filtration system, and residents then have to buy water from local 'water goons' (national). In an article, there was one resident who had to walk two kilometres to get water for the day, and even then she had to pay people to get a bucket of water [10]. The city does not provide the dwellers with drinking water supplies also. As well as electricity is also to be bought from 'electricity goons' [10]. People in slums have to pay a large sum for necessities which should be provided to them by the city.

The material used to make these slums is often vulnerable to rain, and wind. These structures are poorly constructed of materials such as mud or clay, and the roof is often just a plain sheet of metal. At times, these structures are not even built, and pieces of cloth are used to build a wall. The biggest problems these area have are sewage collection, and sewage system. Houses often are located in front of an open sewer, which has flowing waste from all around the slums. These open sewers over flow during the monsoons, and end up flooding the houses of many. As a result there is a wide spread of disease, which can be very deadly. There are no places for proper toilets set up in these places, and as a result people are often seen using the streets as a toilet.

People living under these conditions are unable earn enough money to be able to support their families (economics), and because of that, families are unable to develop or get out of the slums. Residents have been living in slums practically their whole lives, and they are still unable to see any way out. The basic human rights of these people have been restricted because they are unable to get better opportunities. Dharavi slums have increased in size over the period of time. Even though a lot of NGO's and the United Nations have set up special programs to help them out, they are still unable to remove these slums and transform the area into a place which benefits everyone. At the moment, these slums are seen as a nuisance, but the actions to bring change the areas are close to none.

Stabilizing the Slums: The situation of cleaning up slums is a hard task for the planners, but they have to be very motivated to make sure this act gets done. Each organization, non-profit or governmental, has to think of the betterment of

the city rather than the betterment of themselves. Since politicians have a strong power to bring change in these areas. They have to plan along with the planners, to motivate the population residing within the slums, and the rest of the nation that the only way this city can become sustainable is through cooperation. Residents of the slum will be able to get affordable housing, at the same time the stakeholders will not be at a loss. It will not be an easy task for the city of Mumbai, but it has to be done. Economically, the city has to provide the residents with better employment opportunities so they are able to come reach the nation's standards of living. By providing jobs, these residents will be able to leave these slums, because they would be able to afford non-slum housing. Socially, these people have to be taken care of right away. These dwellers make up more than 50 percent of the city's population, which means that they need more attention because they are a large number. They need to get proper drinking water, and proper sewage system which can avoid the outbreak or deadly diseases. The city has to make take better care of these slum dwellers if it wants to become a sustainable city, and if this problem continues, and then this city will be unable to provide for the residents living within.

CONCLUSION

Dharavi slums are known to be the largest slums in Asia [9], and this makes it an unsustainable city. The planners and the decision makers are unable to take care of the city's responsibilities, and because of that, the slums are growing at a very fast rate. A sustainable city is one which can fulfill the needs of the growing population, and provide them with proper infrastructure, water filtration systems, sewage and waste management, and electricity. Growing cities, which are unable to plan for the growing population, result in unplanned settlements, and long term effects which could have been taken care of in the beginning. Planners can take specific precautionary measures before the city is on its way to becoming a center of the nation.

REFERENCES

1. Mumford, L. (1937). What is a City? Architectural Record, 92-96.
2. Zumbun, J. (2008, July 15). World's Most Economically Powerful Cities. Forbes. Retrieved December 1, 2010, from http://www.forbes.com/2008/07/15/economic-growth-gdp-biz-cx_jz_0715powercities.html
3. Peach, J. (n.d.). Five Sustainable Towns the World's Cities Could Learn From. In This Big City: Ideas for our urban world. Retrieved December 4, 2010, from <http://thisbigcity.net/post/1156039189/five-sustainable-towns-the-worlds-cities-could-learn>
4. Aggarwal, S. C., & Kumar, N. (2003). Patterns of Consumption and Poverty in Delhi Slums. Economic and Political Weekly, 38(50), 5294-5300.
5. What are slums and why do they exist? (2007, April 16). In U N - H A B I T A T. Retrieved December 1, 2010, from

- http://www.unhabitat.org/downloads/docs/4625_51419_GC%2021%20What%20are%20slums.pdf
6. Whelan, S. (2004). One third of the world's urban population lives in a slum. In World Socialist Web Site. Retrieved December 1, 2010, from <http://www.wsws.org/articles/2004/feb2004/slum-f17.shtml>
 7. Mumbai (1999). In Mumbai. Retrieved December 1, 2010, from
 8. Swaminathan, M. (1995). Aspects of urban poverty in Bombay. *Environment and Urbanization*, 7(1), 133-144.
 9. Davis, M. (2006). *Planet of Slums*. New York: Verso.
 10. Jacobson, M. (2007, May). Some call the Dharavi slum an embarrassing eyesore in the middle of India's financial capital. Its residents call it home. *National Geographic*.