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The Influx of Rural Migrants: Socioeconomic and Environmental consequences in Swat Valley, Pakistan

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ABSTRACT

This paper reports the findings of a study recently conducted in Swat valley Pakistan. The study seeks to explore how the influx of migrants from rural areas to the city in Mingora has impacted the socioeconomics, demographics, health facilities and environment during the last decade. Primary data were collected through a questionnaire administered to respondent's vis-à-vis personal observation of the area. Urbanization has a lot of economic, social and environmental impacts on the internal economy of both leading and lagging economies. The present study explores the urbanization and its impact on environment in Mingora, Khyber Pukhtunkhwa. It explores problems which have affected the social life, health and hygiene of the local area. Moreover, multi-dimensional techniques were applied for the exploration of environmental problems of urbanization. The major findings of the study suggests that urbanization leads to unplanned industrialization, lack of drainage system, noise, water and air pollution, insufficient management of solid waste materials and evolution of toxic gases from the existing industries. All these problems give birth to very serious diseases which affect the survival and life standard of the residents. The study suggests that the government and social workers must plan awareness programs, industrial sites should be transferred from the residential areas and sanitation and drainage system must be built to conform to environment friendly set up in order to minimize environmental issues.

Keywords: *Urbanization, Environment, Industrialization*

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INTRODUCTION

The shift of rural population to urban areas during a particular period of time is the case of urbanization. The concentration to urban centres is the outcome of political, social and economic development and change in demographic compositions of cities. Urbanization and environment are co-related, hygienically cleaned clear environment is the basic need of all humans. With the passage of time as population increased, random and unplanned construction is practiced in most of the under-developed countries because no master plan is formulated for new

built up areas. Lack of urban planning for the newly constructed areas affects life in every aspect like health, hygiene, sanitation, water related problems, pollution of the environment, relative temperature and improper solid waste management (Adams, 2013).

In developed countries urbanization exists but there is a well-planned urban area, the whole area is divided into various zones of construction with a well-designed network of roads, drainage and sewerage system, water supply and sanitation system and all basic utilities like gas, telecommunication etc. The area is surrounded by green belt which helps to maintain the temperature balance and keeps the atmosphere clean and clear. Also, the commercial zones are well planned which are easily accessible to all the inhabitants in a limited space and area without disturbing the whole area. The rural urban migration increased by leaps and bounds in Mingora city during the last few decades and recorded 15% growth per year; the reason for such tendency is the socio-economic tendencies prevailing in the area (Afsar, 2016).

Unfortunately, major environmental problems attained lesser attention from policy makers. It needs proper attention in all major countries otherwise the situation will be out of control in years ahead. Some of the major issues include: clean water scarcity, deforestation, climate change and air and water pollution. These issues are of complex nature and not easy to rectify it. The link between these problems/issues still needs more research and effective measures are needed for its effective solution. The integration of water and land utilization to provide a solution to water and food scarcity must be used efficiently (Anderson, 2015).

The Mingora city had been selected for the study because it is the main city of district Swat; Basic facilities like education, health, telephone, gas, water supply are available in the city. It is the main commercial city and areas like Madyan, Kalam, Malakand, Bunir, Shangla mostly depends on Mingora city for the aforementioned facilities. Population of the city is about 2,309,570 (PBS, 2014). Being a busy business hub, people from all parts of the district as well as from other districts of KPK have settled here. Due to high population in Mingora, a lot of problems exist such as traffic related problems in narrow roads create noise pollution. Improper solid waste management invites serious diseases to human beings. Water pollution exists in the random populated areas with no proper drainage system and the water remains stagnant at the topographically depressed locations which creates a favorable environment for mosquitoes breeding, consequently viral diseases increase, resulting in bad smell in the adjacent areas. Also by seepage of this polluted water into the ground pollutes the underground water physically and chemically too, and as a result water related diseases like dysentery, cholera, bones and teethes related diseases may increase with a rapid geometric order.

The inflow of migrants to Mingora city has manifold effects on the social and physical capital. It also creates a lot of problems for the local communities and hinders pressure on health and other important sectors of the economy (Afsar, 2016).Poor and unplanned drainage system in the Mingora city originates from a natural channel from Islampur side and flows through the southern portion of the city. All the drainage water and the water of the streams are contaminated because drainage from houses and hotels as well as from hospitals enters this stream which has resulted in the worst condition. The sewage of the slaughter houses and industries are also entering it without proper treatment. All these have created a serious disturbing situation. The biological life in this condition for the aquatic animals is also not possible. Human beings are badly affected by it. The hygienic condition in the area from where this meandering stream circulated is the worst. On the other hand, the solid waste from the commercial shops, hospitals, hotels etc. are disposed off here which accumulates in the stream, thus disturbing flow of the channel and water seems stagnant at various locations. Such a situation of the stream provides an ideal environment for breeding of mosquitoes (Arif, 2005).

Therefore, considering the mentioned issues this study was designed to achieve the following objectives:

1. To examine the trend of urbanization and its environmental impacts on the cities
2. To examine the non-stop process of urbanization in environmental perspective.
3. To examine how the current urbanization is threat for the environment.

MATERIALS AND METHODS

Mingora is the largest city and economic hub for the people of Malakand division including Swat, Buner, Dir and Shangla. According to the latest census the population of Mingora city grew at the rate of 3 percent per year. The present study was conducted in the urban area of Mingora. The target population was from different regions of Mingora city. The sample size was 300 which were equally distributed to all areas of the Mingora city. For this study, a random sampling tool was applied for the selection of 300 respondents.

An interview schedule was prepared for the purpose to explore the objective of the study. The questions were mainly structured in interview schedule. These questions were pre-tested for actual application and necessary amendments were also made. The questionnaire was designed for the purpose to explore the environmental impacts of urbanization on Mingora city. Different environmental variables like environmental degradation, air pollution, noise pollution, solid wastes materials, the status of drainage system and drinking water were examined and

measured for data collection.

RESULTS AND DISCUSSION

Mainly the data were collected from 300 males of the area for study, in which most of the respondents' i.e. 43.3% were in age of 20 to 30, while 33.3% were in age of 30 to 40, 6.6% were in age of below 20 and also 16.7% aged 40 and above. The following Table 1 shows the age of respondents.

Table 1. Age wise distribution of the respondents

Age	Frequency	Percentage (%)
Below 20	20	6.7
20 to 30	130	43.3
30 to 40	100	33.3
40 and above	50	16.7
Total	**30**	**100**

Most of the respondents who were 170 out of 300 (56.7%) were educated and the rest 130 persons (43.3%) were uneducated, however all the respondents answered the questions fluently because urbanization and environment is an understandable phenomena for the residents. The following table 2 shows the ratio of educated and uneducated respondents.

Table 2. Education wise distribution of the respondents

Education Status	Frequency	Percentage (%)
Educated	170	56.7
Un educated	130	43.3
Total	**300**	**100**

The quantity of educated persons were 170, out of which 100 were master degree holders, 60 were bachelor and only 10 persons studied till metric level. The following table 3 shows different level of education of the educated respondents.

Table 3. Level of education of the respondents

Level of Education	Frequency	Percentage (%)
O level	50	16.7
A level	10	3.3
Bachelor	60	20.0
Master	100	33.3
Illiterate	80	26.7
Total	**300**	**100**

Most of the respondents were married, 200 out 300 (66.7%) were married while one third (33.3%) of the respondent were unmarried. The following table 4 shows the ratio of marital status of the respondents.

Table 4. Marital status of the respondents

Marital Status	Frequency	Percentage
Married	200	66.7
Unmarried	100	33.3
Total	**300**	**100**

Most of the respondents i.e. 150 out 300 (50.0%) were employed in private sector, 50 respondents (16.7%) were government employees, 20 were farmers, 20 were employed in semi-private sector and the remaining 60 were unemployed. The following table 5 shows the percentage of respondent's occupation.

Table 5. Occupation of the respondents

Occupation	Frequency	Percentage (%)
Government Employee	50	16.7
Private Employee	150	50.0
Semi Private	20	6.7
Farmer	20	6.7
No job	60	20.0
Total	**300**	**100**

The Table 5 shows the occupation of respondents. A major share (50%) of the respondents was private employees, while 16.7% were government servants and 6.7% respondents were farmers. The following table 6 shows the replies of the people about environmental impacts of urbanization. Also table 7 shows the views of local community of the concerned area about impacts of urbanization on environment.

Table 6. Do you think urbanization has a negative impact on environment?

Response	Frequency	Percentage (%)
Yes	26	86.7
No	3	10.0
Don't know	1	3.3
Total	**30**	**100**

Data showed that majority of the respondents were of the view that urbanization has a negative impact on environment and its related issues while only 10 percent of the respondents claimed that urbanization has nothing to do with environmental issues.

Table 7. Does rapid urbanization increased pollution in the cities?

Response	Frequency	Percentage (%)
Yes	290	96.7
No	00	00
Don't know	10	3.3
Total	**300**	**100**

The analysis of the data indicates that urbanization is a major source of environmental degradation, because unplanned construction and industrialization is a common practice of the citizens of the less developed countries particularly the south Asian countries, where the people have limited knowledge to protect the environment which may leads to different hazards in the natural environment. The following table 8 shows the opinions of the people of Mingora city about environmental degradation as a major cause of urbanization.

Table 8. Does urbanization causes environmental degradation?

Response	Frequency	Percentage (%)
Yes	200	66.7
No	10	3.3
Don't know	90	30.0
Total	**300**	**100**

According to 66.7 percent of the respondents proclaim that urbanization causes environmental degradation while 30 percent of the respondents were unaware about its causes. They hold the view that the industries and factories are established in order to fulfill the demands and different needs of the people in a particular country. Although, these industries and factories produce useful products but on the other hand they also generate waste materials in different ways like solid, liquid and gas which further give birth to different hazards and pollutants. The contaminated water is discharged freely on the ground and water bodies which creates many threats to human beings as well as to ecosystem. Mostly in our country, main pollutants to the surface and underground water are the wasted products of different industries and factories.

Table 9. Does urbanization made the sewerage and drainage system worst?

Response	Frequency	Percentage (%)
Yes	280	93.3
No	20	6.7
Don't know	00	00
Total	**300**	**100**

Henderson (2002) holds the view that the growth and increase of non-communicable diseases in the less developed countries is being associated with the indefinite socio-economic changes in which one of the popular determinants is urbanization growth. Urbanization is linked with visible changes in nutrition as well in its quality to a greater extent which resulted health in related issues. Oda (2007) analyzed that in Pakistan unhygienic and unsafe drinking water with industrial wastes liquids and municipal sewage system are the main causes of waterborne diseases. According to the report of UNICEF (2012), 20–40% of patients in hospitals of our country are suffering from water borne diseases including hepatitis, typhoid, dysentery, cryptosporidiosis and cholera which results deaths in the country. The following table 10 shows the replies of the respondents about diseases caused by urbanization and industrialization.

Table 10. Are diseases caused by urbanization and industrialization?

Response	Frequency	Percentage (%)
Yes	270	90.0
No	20	6.7
Don't know	10	3.3
Total	**300**	**100**

Table 10 shows that 90 percent of the respondents proclaimed that various diseases are causing by urbanization and industrialization while 6.7 percent of the respondents oppose the same concept.

The same situation of polluted streams and water channels are found on greater extent in Mingora city. The opinions of the residents of the concern area are mentioned here as under in the following Table 11.

Table 11. Polluted streams and water channels

Response	Frequency	Percentage (%)
Yes	270	90.0
No	20	6.7
Don't know	10	3.3
Total	**300**	**100**

CONCLUSION

This paper has explored the impact of the influx of the migrants in the recent years in Mingora city, Swat valley Pakistan. The research adopted a quantitative approach to examine the opinion of the residents with respect to the impact of the rural migration to this locality. Results have shown that excessive influx of the migrants has caused several socioeconomic and environmental problems. As revealed from the interviews, pollution has increased in the city as well as the volume of the city wastes has increased several folds. It was also revealed, that underground water pollution, solid wastes disposal and sanitation are the major problems that have erupted due to increasing urbanization. In the research area that is Mingora city, where education ratio is higher i.e. 56.7% of the total population. It shows that urban areas, due to better facilities of education, there is better quality of education than rural areas and the age of higher education is much more. However, there also exist negative impacts of urbanization particularly on environment. These include noise, air, water pollution, solid waste materials, worst drainage and sewerage system. Also, un-planned and un-designed routes, the traffic jams have become a routine problem. As the industrialization increases, there is big problem of air pollution i.e. evolution of toxic gases, and liquid wastes. Since there is no proper cycling of solid wastes, hence dumping of solid wastes in open air have created a lot of problems. Availability of clean and safe water is rare in urban area such as in my research area. Due to pollution and no proper drainage and sanitation facilities, the surface as well as underground water has become polluted. Due to all the environmental problems, the life and health of the locals is affected badly.

It is recommended that the current status of the studied area should be modified. The industrials centers should be transferred out of the residential areas. The drainage and sanitation should be built with a new design taking a large design life after forecasting for a long time. Also the state and local authorities should adopt such policies and strategies which help to protect the environment as well as to reduce the activities leading to environmental degradation.

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