

Impacts of Industrialization on Disproportionate Urban Population Growth and the Remedial Measures

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Received: 18/05/2014

Accepted: 24/07/2014

Published: 30/07/2014

Abstract

Industrialization brings economic prosperity for any nation. It creates livelihood opportunities for large masses of the community. Such development shapes the demographic trend and the rate of rural to urban migration. Industrial units in and around the main cities have resulted in population imbalance in urban areas of Pakistan, degradation of its resources and environment. New settlements in unpopulated areas may help in decentralization of the population clusters and paving a way for sustainable development.

Keywords: Industrialization, unplanned settlements, population outburst, mega cities.

1 Introduction

Industrialization plays a vital role in development of a nation's economy. Industrial growth creates employment opportunities for masses. Rapid industrialization influences the demographic trend and rural-urban migration. People often tend to settle in the vicinity of industrial areas in search of better livelihood prospects. Rapid urbanization and concentration of the urban residents in large cities, the slouch of cities into wider geographical areas and the rapid increase of megacities are some of the noteworthy transformations of human settlements. According to an estimate, there will be a rapid increase in urban settlement of majority of the world's population, creating an imbalance of the rural-urban population and constraint of resources to meet the requirement of the inhabitants of these unplanned settlements [1]. Data analyzed from the 1961 population census reveals that 12 of the largest cities of Pakistan are experiencing a rapid rate of rural to urban migration, whereby about 15% of their total population being migrants from other cities [2]. According to Irfan et al. internal rural-urban migration is increasing at a rapid rate [3]. The leading cause for this demographic trend being lack of employment prospects coupled with insufficient income from farming/agriculture (Table. 1). During 1950–2011, Pakistan's urban population expanded over an estimated sevenfold, while the total population increased by over fourfold [4].

According to the World Bank statistics in 2010, rural population (expressed in percent of total population) in the country was measured at about 63 in 2010 (Fig. 1), while urban population was estimated at 6422951.71 (Fig. 2). Population in the largest city (percent of urban

population) in Pakistan was last measured at about 20.43 in 2010 [5, 6].

Table: 1 World Bank Indicators: Population trends in Urban and Rural areas of Pakistan [4]

| Indicators | Previous | Last |
|--|-------------|-------------|
| Population density (people per sq. km) in Pakistan | 213.3 | 217.2 |
| Population in largest city | 12219812.0 | 12517030.0 |
| Population in the largest city (% of urban population) | 20.8 | 20.7 |
| Population in urban agglomerations (of more than 1 million) | 29192206.0 | 29932560.0 |
| Population in urban agglomeration of more than 1 million (% of total population) | 17.8 | 17.9 |
| Rural population | 105672740.0 | 106895137.5 |
| Rural population growth (annual %) | 1.2 | 1.2 |
| Rural population (% of total population) | 64.3 | 63.8 |
| Urban population growth (annual %) | 3.0 | 3.0 |
| Urban population in Pakistan | 58772856.0 | 60547120.5 |

Dramatic social changes, economic benefits and law and order concerns have led to rapid urbanization and the emergence of megacities. During 1990–2003, Pakistan continued its historical lead as the second-most urbanized country in South Asia with city occupants making up 37% of its population. Furthermore, 50% of Pakistan's population now resides in towns of 5,000 people or more [7].

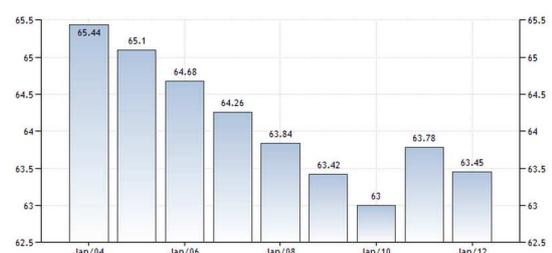


Figure 1: Rural population distribution from study carried out by World Bank, 2010.

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This paper focuses on the impacts of increasing industrialization in and around major cities and its resultant population outburst around industrial units, the ill effects of such unchecked development, and suggests remedies to minimize any future hazardous situation.

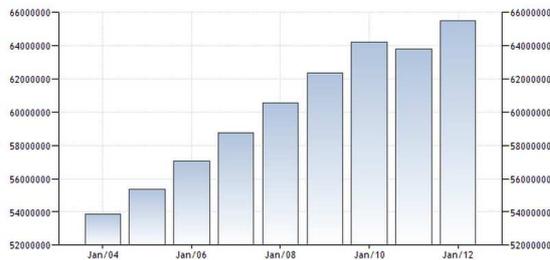


Figure 2: Urban population distribution from study carried out by World Bank, 2010.

2- Industrialization- as opportunity for the marginalized population

Setting up industrial units in an area creates numerous livelihood opportunities for the community, especially the poor and low income marginalized groups. Hundreds of people earn their living from industries directly, while others are indulged indirectly for earning their livelihood from this sector. For instance if a textile industry is setup in a locality it requires hundreds of labor for its functioning which creates employment opportunities for the local community. The needs for raw material are fulfilled by the farmers and traders; similarly the transportation industry is involved for carrying good and materials to and from the industrial units. The entire circle of beneficiaries from industry owners to labor and communities involved usually tend to cluster around their work places. The industrialists mostly focus on the cheap work force, thus attracting the low income class groups to settle in marginalized and hazard prone areas with the hope of better jobs prospects.

The perception of readily available opportunities for economic sustainability in urban areas has aggravated rural to urban migration in recent times. The urge of economic benefits creates a problem of rapid unplanned settlements around the development units creating an increased demand for resources to meet the needs of the population. With the opportunities of living, prosperity and real and perceived employment opportunities for many, disorganized and unplanned development often bring with itself voluntary and involuntary migration. This put undue pressure on the civic services and infrastructure of the cities and jeopardizes the planning process. This trend not only lowers the overall living standards but also create number of social issues like increased crime rate and lower health prospects.

The main reasons for setting up industries in the vicinity of main cities are the economic benefits for the traders and owners, who get readily available labor for their working units and relief from the responsibility of providing residence and basic utilities for their employees. Another reason is the unrest and poor law and order situation in the suburbs which makes people reluctant to travel to deserted areas in search of livelihood. Despite the economic benefits for the government and industrialists, there are numerous ills associated with the current trend of industrialization around the major cities of the country. Pakistan, an

agricultural country, the economy of which heavily depends on the agricultural lands and water resources, industrialization near the agricultural lands creates the problems of water contamination and land degradation. In addition, poor industrial waste management practices pose a greater danger to the health and environment.

The numerous livelihood prospects associated with industries creates an issue of unchecked influx of various masses of the community making the cities vulnerable to security threats and unrest for inhabitants. Economic contrasts among various sections of the society create a psychological stress on the low income groups and their urge to meet the basic economic needs forces them to indulge in crimes. The uncontrolled population expansion makes it difficult for the authorities to maintain law and order and disrupts the smooth functioning of the society. A typical example is the present law and order situation in Karachi, which is facing violence and unrest due to economic disparity. It has become virtually impossible for the law enforcing departments to effectively check the criminal activities at densely populated areas.

3- Urban Population Outburst

Urbanization, the demographic transition from rural to urban, is related with transition from an agriculture-based economy to mass industry, technology, and services. During the present times, majority of the world's population is living in cities, and the proportion continues to grow. About a hundred years ago, approximately 2 out of every 10 people lived in urban area. By 1990, less than 40% of the global population resided in a city, but as of 2010, more than half of all people live in urban areas. By 2030, as estimated 6 out of every 10 people will live in a city, and with this continued trend by the year 2050, this ratio will increase to 7 out of 10 people. Currently, around half of all urban inhabitants live in cities with population of 100 000 - 500 000 people, and fewer than 10% of urban residents are living in megacities (described UN HABITAT as a city with a residents of more than 10 million) [8].

Globally, urban growth peaked in the 1950s, with a population growth of more than 3% per year. The number of urban dwellers is increasing by nearly 60 million per year. Between 2025 and 2030; global urban population is anticipated to grow approximately 1.5% per year. By the middle of the 21st century, the urban population is estimated to almost double, increasing from about 3.4 billion (2009) to 6.4 billion (2050). Analysis of the current trend of urban settlements reveals that nearly all urban population expansion will occur in cities of developing countries in the next 30 years. Between 1995 and 2005, the urban population growth of developing countries was estimated to be at an average of 1.2 million people per week, or around 165 000 people every day [8].

Pakistan is a developing country and has been focusing on strengthening its industrial sector ever since its independence. Majority of the industries are either functioning within or around the major cities of the country. New industries are also being developed in the vicinity of the pre-existing industrial zones. Development on these lines has resulted in population outburst in almost all of the major cities of the country, whereby people from rural areas prefer living in urban areas. This demographic trend has caused severe problems of managing huge masses of population, production and

consumption imbalance, poor land use, law and order issues, environmental degradation and resource depletion.

Most of the cities are on the verge of turning into mega cities due to rapid growth, creating a potential threat to the economic harmony and stability of the entire country. One such example is the city of Karachi. Being the hub of trade and industry, people from around the country would tend to Karachi in search for employment. The continued population influx has given rise to numerous unplanned settlements. Such demographic trend has resulted in settlement in hazard prone areas, unhygienic and unsafe living condition for the inhabitants of this city.

Similar scenario prevails in other main cities of the country. Industrial zones in the vicinity of cities not only creates the problem of land use for the incoming population but also results in depletion of resources for the inhabitants of these cities. Another problem with these units is waste disposal that causes water contamination and damage to the environment making the living conditions unsafe for the people settled in the locality. It is but natural that a city will only prosper if it does not expand from a specific size. After a city grows from a standard size, it becomes even more expensive to improve an already existing facility then to create the same one in a smaller town.

4- Remedial Measures

There is a need to give a serious consideration to the impacts of such disproportional population in urban areas and devise possible solutions to minimize the existing damages and set a trend of sustainable development in the country.

(1) The above mentioned adverse effects can be minimized by planning industrial units outside main cities and making proper use of the barren lands, developing new cities to disperse the population clusters and reduce the economic and environmental pressures from such focal density points. This will not only create opportunities for sustainable development but will also help in minimizing the potential threat of any hazardous event that can result from industrialization. There must be check on the population limit of these newly developed cities to avoid overcrowding and outbreak of new hazards.

(2) Government and decision makers need to concentrate on devising policies and plan to establish industries and development projects whereby the non-cultivated land is brought to use and agricultural lands are reserved for meeting the national requirements of agricultural products. Water logged and salinity affected areas can be effectively utilized for the purpose of industrial setup by the government, providing all the required facilities to the new dwellers at a much economic cost rather than facilitating people with equal benefits in large cities. Utilization and exploitation of agricultural lands decrease the production rate of crops increasing the dependency on imports to meet the national needs at a costly rate.

(3) Setting of unplanned residential areas in the marginalized land should be discouraged by the district and city administration. Government should focus in the small cities too for their infrastructure development. This will help in reducing the migration trend from rural areas to the urban areas. This policy will facilitate the overall security situation in the country as establishment of new

towns and cities in barren areas will automatically come under some administration and the miscreants will not find safe heavens.

(4) Government must enforce legislation to maintain minimum living standards for the poor and marginalized community. This would avoid the outburst of slums in the vicinity of large cities or industrial units.

(5) Government should provide incentives to the people and owners of the industrial units to encourage and motivate them in setting up new industrial units in relatively backward areas rather than keeping focus on the existing ones.

(6) Relaxation in commercial and property taxes and provision of basic commodities at cheaper rate from the government will encourage the development of new settlements and help in tackling the problem of overpopulation as faced by almost all major cities of Pakistan.

(7) Exploration and exploitation of new ground water resources for setting up agriculture based industries in the provinces of Khyber Pakhtunkhwa and Baluchistan will provide livelihood opportunities for people and development of the area.

(8) Shifting from a trend of expanding the existing industrial units to development of new ones will help in overcoming the problem of population imbalance and help in providing livelihood opportunities to the people in their own locality without any financial constraints for the poor.

5- Conclusions

The present scenario of urban population growth and industrialization around settlements is a potential threat of any future natural as well as industrial hazardous event. There is a rapid increase in rural to urban migration for economic benefits and livelihood opportunities. This has resulted in concentration and overpopulation of our cities and making it difficult for proper and effective management of the available resources and infrastructure. Following measures are recommended for development of new industrial estates:

- Sites for new industrial units should be located significantly away from major cities.
- Any developmental plan must take into consideration its impacts on the community and resources in the future.
- Barren or non-agricultural land may be utilized for new settlements. This will help preserve precious fertile lands.
- Incentives should be given to the communities in terms of tax exemption/reduction for carrying out developmental activities in remote areas. A viable option, which many developed countries have experienced is the establishment of "Education City", where private sector may be encouraged to participate.
- New settlements of industrial units act as a catalyst for sustainable development for the poverty struck population whereby numerous livelihood opportunities are created within their surroundings.
- Dispersing the population rather than concentration in the main cities help in maintaining law and order and overcoming the crime rate in densely populated cities.

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