

Lessons to Be Learnt from Irregular Land Use Pattern of Dhaka City

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No matter what strategy of economic development a country has followed, urbanization has become an inevitable outcome across the world. Already half the world's population is urban. The connection between urbanization and economic development has long been a popular issue of debate. While this is a real dilemma in Bangladesh, the question is not whether Bangladesh should urbanize; the question is how Bangladesh will handle the challenges of urbanization. Here, cities are faced with the challenges of rapid population increase characterized by crises such as lack of economic dynamism, severe infrastructure and service deficiencies, inadequate land administration, massive slums and social breakdown. Thus, urban areas in Bangladesh have exceptionally high population density, but relatively low economic density. Dhaka city, the capital of Bangladesh, is one of the most densely populated urban areas in the world. However, the economic density of Bangladesh's urban areas (GDP or value-added per square km) is relatively low from an international perspective. About 9% of the Bangladesh population lives in the Dhaka metropolitan area, which contributes to 36% of the country's GDP. An additional 11% of the Bangladesh GDP is generated by Chittagong, the second-largest city and home to 3% of the population. The economic gap between Dhaka and Chittagong compared to other medium and small-size cities is large and widening. The artery of economy, transportation network is one of the worst sufferers of rapid and unplanned urbanization. Now, if the concept of large scale decentralization is introduced and implemented will the responses be positive, especially in transportation sector?

The answer is critical to find out. There are several examples around the world where countries, especially of transition economies, have gone through a considerable decentralization process. Industrial revolution not only gave economic prosperity to England but also carved stories of indignity to human lives. Mono-concentration and uneven growth of the areas in a country lead to increase in inequality of transportation infrastructure and resources distribution. History also delineates how and why cities with efficient transportation network are at the center of attraction. In

rich countries it is planned cities that drive economic growth and prosperity. For example, if the whole of the US was as productive as New York city with planned transportation system, the size of the country's economy would increase by 43 per cent. What is the future of Dhaka then?

Many believe, Dhaka is going to become a 'waste land' soon. But still we all are rushing towards it. People are coming here for business, job, education, healthcare etc., but we are sure that a noticeable share among the people who came here from outside Dhaka are here without any meaningful reason. Overpopulation, heavy traffic jam, shortage of roads and streets, worsening law and order situation, sudden emergency situation like Rana Plaza tragedy in the concrete jungle, growing up of slum areas- all these things are making the city unlivable gradually. We have already seen so many flyovers and new link roads are introduced, but still there remain intolerable gridlocks on road. We have tried newer techniques to control traffic flow (like introducing lane system, banning rickshaw from major junctions etc.), but still we could hardly achieve smooth traffic flow. On the contrary, both public and private vehicles are facing early damage due to aggressive driving and competition, pedestrian are facing fatal injuries and city dwellers are affected by serious air pollution on road. It seems like to perform surgery on a damaged body part we are applying every possible option. But, instead of recovering, our experimental approach is affecting other good parts. Elevated expressway, Bus Rapid Transit (BRT), Metro rail projects are on the pipeline, but experts are still doubtful about the possible success rate.

Only planned decentralization of Dhaka city and other major cities can contribute to achieve our goal to a good extent. As Dhaka is expanding outward, new areas can be brought under strict city planning. Urbanization spreads like a contagious disease, we have to come up with a smooth plan for rural areas to make the transition successful of transforming it into planned city. Before decentralization, why not we learn from Dhaka city with its existing peculiar land use pattern? In the past few decades, massive privatized land development has occurred in Dhaka city. But lack of integration between land-use pattern and transportation system planning is severe here. According to Dhaka Metropolitan Development Plan (DMDP), the road proportions in Dhaka are - primary road 6.7%, secondary road 3.7%, feeder 5.21% and other narrow roads 84.6%. But no specific road width proportion is followed while developing main road to narrow side roads in Dhaka city. Also most of the Dhaka city transport developments have been driven by ad hoc considerations. It lacks specific focus on analysis of present travel demand or future requirements. Hence, city road network is not organized or integrated considering connectivity or mobility. City Transport system is based on weak skeleton of irregular road pattern

with less productive junctions. In the following Figure 1, grid pattern in Baghdad is shown while in Figure 2 radial road pattern in New Delhi is given. In grid pattern, signal coordination by linked signal is possible. Also one way traffic operation or tidal flow can be introduced in grid pattern which ensures smooth traffic flow. But most efficient road pattern is the radial one (hub and spoke pattern) which exists in developed cities like New Delhi, Paris etc. Such patterns act as catalysts of achieving



Fig. 1: Grid road pattern in



Fig. 2: Radial road pattern in New Delhi, India



Fig. 3: Dhaka city with haphazard road connection

smooth traffic flow in those cities.

If proper initiatives are taken to develop small townships with respect to the region's own potentials providing necessary administrative, economic/industrial activities, health, educational, recreational, housing and infrastructural facilities within the same town boundary, this decentralized urbanization can reduce rural to urban migration to a great extent encouraging local inhabitants reside in the surrounding villages and engage themselves in the economic industrial activities at the thana or district headquarter level. Thus the process of urban decentralization with a balanced land use pattern and planned road connection can ensure a sustainable local development throughout the whole country. Mono-centric urbanization have crucial role to play in the economic development of Bangladesh. Relative high levels of urbanization may

not be sufficient to ensure higher levels of economic welfare in Bangladesh. This has happened in Latin America with levels of urbanization, above 80%, yet with real per capita incomes about a third that of developed nations. It could happen in Bangladesh as well unless the urban managers rise from their prolonged slumber. We must develop planning for our majority (around 80%) of the total population living in the rural areas first with a systematic land use pattern and planned road network. Therefore; this is the time to go for evaluation of the past; and accordingly, let's try to rethink matters from a different perspective from now on.