

Bloated Dhaka

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ASHRAF DEWAN

REMOTE sensing is an important tool for mapping and monitoring environmental issues. Apart from mapping large and inaccessible areas, remotely sensed data are invaluable in detecting changes over a long period of time. This write-up provides an account of urban expansion in Dhaka over the last 48 years.

Historical maps, multi-temporal remotely sensed data, and socio-economic information from field surveys were used to quantify urban growth in Dhaka. A geographic information system (GIS) was used to elucidate urbanisation and its driving factors. Multiple regression technique was also used to depict the factors responsible for massive growth of the city. A rectangle covering 42,000 Hectare (ha) of area was extracted from satellite images to study the urbanisation trend. The rectangle covers the Dhaka City Corporation area and adjacent zones in all directions.

Dhaka has been experiencing rapid urbanisation since independence of the country. The degree of urbanisation is

one of the fastest in the world, having a moderate level of inequality in terms of Gini coefficient, according to a recent report by the UN-Habitat. The environmental condition of the city is rapidly deteriorating. Most of the wetlands have been encroached on, rivers have become terribly polluted. Increasing air, water and noise pollution is a significant threat to public health.

Losses from floods and water logging have increased due to rapid growth of impervious surfaces, and there are limited facilities to minimise huge flood flows during wet season. In addition, slums are increasing at an alarming rate. Since the urbanisation is mostly unplanned, the city is said to be extremely vulnerable to probable climate change.

Spatial pattern of urbanisation shows that the growth of Dhaka was mainly confined to elevated lands in the 1960s and '70s. Only 4,625 ha of lands were urbanised in 1960. This shot up to 5,550 in 1975, signifying 20 percent growth in 15 years. Since then, urbanisation increased dramatically. A 95 percent increase of urban built-up area was estimated

between 1975 and 1988. Analysis revealed that urban land of Dhaka reached to about 20,549 and 24,889 ha in 2005 and 2008, respectively. The analysis further shows that urban land increased by about 344 percent compared to 1960.

The growth has been phenomenal as the city is the hub of administrative, cultural and commercial activities. Since urban built-up areas are increasing at a faster rate, concurrent decline of other land use categories has been observed. For example, wetlands decreased from 13,514 ha in 1960 to 7,128 ha in 2008. Substantial loss of cultivated land was also observed in the same period. A recent newspaper article warned that Bangladesh, on average, is losing 220 ha of agricultural land per day, which has an effect on food security, and the situation may exacerbate in the context of climate change that would bring changes in agricultural production.

Inadequate housing, haphazard development, ubiquitous urban poverty, absence of proper land use policy, inequity of lands, pitiable coordination among responsible agencies and absence of reliable information on current land use practices are contributing to urban sprawling, which is leading to uncontainable emergence of slums and squatters. A recent study by CUS showed that the slum population in Dhaka had risen to 3.6 million in 2006 from 1.5 million in 1996.

Apart from population growth, increasing rural-urban migration, industrial growth, and economic devel-

opment of Dhaka are believed to be the major factors contributing to rapid urbanisation. Hence, selected physical (e.g. elevation and slope) and socio-economic variables were used to identify the factors stimulating urbanisation. A multiple regression model was used for this purpose. The model result exhibits that population growth and economic development of Dhaka contributed to urban expansion more than other factors.

Dhaka's expansion cannot be explained by the traditional growth theories such as concentric, leapfrog, linear and multi-nuclei expansion, or by their hybrids. Urban land expansion on isolated tracts separated from other areas by open space is known as leapfrog expansion. It is clearly observed on fringe zones or peripheral rural areas rather than in the city centre. Expansion of a city in all directions is called concentric expansion. When a city expands along the main transportation axis such as highway, expressway or river, the expansion can be termed linear expansion. When a city expands on the basis of more than one nuclei apart from the central business district (CBD), it is called multi-nuclei expansion. In this expansion, the cities act as nodes of activity at the junction of major crossroads in the outer parts of urban areas. Dhaka's expansion may be described as a hybrid.

The above statistics clearly indicate Dhaka's phenomenal growth over a few decades. Since wetlands and fertile agricultural lands are being encroached



Bursting at the seams.

upon without considering environmental consequences, unplanned urban expansion is creating tremendous pressure on limited resources in Dhaka. For example, flood loss in Dhaka is mounting as water-bodies and reservoirs have been filled up. A recent study showed that Dhaka suffered \$5.6 million in 2004 though the magnitude of flood was significantly lower than the 1998 flood that accounted for a loss of \$4.4 million.

Probable climate change may intensify the flooding condition of the city if necessary steps are not taken to stop

urbanisation on precious wetlands and cultivated lands. Lack of coordination among responsible organisations is also hindering the dynamics of urban growth, which should be taking into account. The government has to introduce land-use zoning so that natural lands can be saved, otherwise environmental degradation would make the city uninhabitable at the end of the day.

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A rising tide lifts all boats: A myth

So, Mr. President, a rising tide does not lift all boats. Some boats suffer damages, some lose their occupants, and others become too costly to run. And while the big boats and newer boats can sail away, the ones that stay behind need a little help to join the rest to sail out.



ABDULLAH SHIBLI

DURING these bad economic times, the aphorism "a rising tide lifts all boats" (ARTLAB, for short) has received more than its fair share of public attention in the media and policy circles in the USA. The idea

behind this concept is the age-old faith that economic growth and rising GDP benefit all citizens. Believers in ARTLAB contend that the government does not need adapt its policies to help any group or industry specifically, but needs to focus on broader macroeconomic goals and, eventually, when the country is out

of recession, there will be jobs for everyone.

Unfortunately, we've seen time and again that a rising tide does not necessarily lift all boats, for example boats that have a hole or need to be otherwise repaired. Also, a macroeconomic stimulus, including general tax cuts and an easy money policy, may be beneficial for the vast majority of the population, it does often bypass many segments of the economy and various vulnerable groups of people even when the economy is moving forward.

ARTLAB supporters, most of whom advocate free-market policies, are not necessarily all entrenched in the Chicago School. The phrase actually gained circulation in the early 1960s during the presidency of John F. Kennedy, who in a speech delivered in 1963 referred to this home-grown wisdom popular among fishermen in his native Cape Cod in Massachusetts.

Recently, the Obama administration, in confronting very bleak economic and financial conditions, and in reaction to growing expectations among the labour movement and minority groups, has used this argument to deflect criticism that its policy is helping the "fat-cats" more than the average Joe.

ARTLAB has also served as a refuge for the Congress and state governments in the face of pressure to provide special assistance to construction workers, teachers, and other laid-off adult workers. Unfortunately, data clearly show that even as the economy in the USA and other countries picked up momentum in response to government stimuli, many segments of the American economy are still hurting and have suffered more than

others. The blacks, particularly black youth, and the workers in industrial belt of the Midwest fall in this category. A recent statistic showed that while the national unemployment rate is 10 percent, the jobless rate among blacks is 15.6 percent, and it is close to 25 percent among black youths. Another study shows that only 4 out of 100 low-income black students found work last fall.

At an event early during his administration, President Obama said that he did have not any special programs for the black people, since he expected that the stimulus package would help the blacks as much as the rest of the economy. A rising tide lifts all boats, he added. Since then, evidence indicates that this has not happened. However, his administration still believes in the now discredited view that "what's good for General Motors is good for America." In a radio interview the president said: "I am passing laws that help all people, particularly those who are most vulnerable and in need. That in turn is going to help lift up the African-American community."

While it is not clear whether politicians use the ARTLAB defense to justify their inability to assist the poor and often disenfranchised segments of an electorate, its applicability has been questioned in public debates in the last half century. To take the example of boats, it is common knowledge that vessels that have leaks or have run aground will not be lifted by rising tides.

When President Kennedy originally used it, some of his advisors were adherents of the "trickle down" theory in economic policy, which was popular among the "development economics" experts of the 1960's. However, some of his close

economic advisors were voicing doubts about ARTLAB even during his administration. Walter Heller, his Chairman of Council of Economic Advisers said: "The government must step in to provide the essential stability [of the economy] at high levels of employment and growth that the market mechanism, left alone, cannot deliver."

Economists and social analysts have noticed that while, during sustained economic growth, all segments of the economy experience growth in income and employment, during a period such as now, when the economy is recovering from a recession, some sectors will grow faster than others and the distribution of the gains will be uneven.

The assertion that all will benefit historical data, and, even in the best of times, to state that everyone is able to share in the economic largesse is a myth. In the year 2010, it is feared that foreclosures and prolonged periods of unemployment will continue to be two of the sore points in the economy, the "Achilles Heel," as it struggles to regain its momentum. A rising tide might not be able to lift these two boats.

Last week we saw some encouraging news in the housing market. According to reliable sources, more than 850,000 homeowners facing foreclosure were able to renegotiate their monthly payments to 30 percent of their income. Unfortunately, those who lost their jobs do not benefit from this program, known as Home Affordable Modification Program. "The existing program was almost explicitly designed not to help people who had lost their jobs," says Paul S. Willen, a senior economist at the Federal Reserve Bank of Boston. "It's a

huge hole in the program. It's the hole in the program."

As social scientists are aware, unemployment and foreclosures leave an indelible mark on a family that "rising tides" do not help to erase. Family life, children, and health (including mental health) frequently take the immediate hit, and close on their heels are one's credit ratings and marriage. As the duration of unemployment gets longer, the collateral damages become even more severe.

Then there is the so-called the "ratchet effect." As GDP increases, many economic agents are able to move up, but when the GDP stops growing, it is not as easy to scale back. Contracts are harder to renegotiate instantly, nor is it easy to cut costs that were scaled up in boom times. More than businesses, households have the hardest time in ratcheting down their consumption.

Some of the impact goes deeper. As a consequence, when you experience a job loss, and health insurance is no longer there, even a rising tide does not lift you up. A prolonged period of recovery might help those who are hit the hardest, but one is not sure how long this might take. And, in the long run, as Keynes said, "we are all dead."

So, Mr. President, a rising tide does not lift all boats. Some boats suffer damages, some lose their occupants, and others become too costly to run. And while the big boats and newer boats can sail away, the ones that stay behind need a little help to join the rest to sail out.

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Bone in the throat?

The present day has given more weapons of argument into the hands of the conscious mind of the nation and hopefully it will give much more in the coming days making it possible to ban early marriage not simply by law, but much more strongly by the social behaviour of people.

ALAMGIR KHAN

THERE are many advocates of early marriage, especially for girls, within the society. Our overall social environment is for early marriage that makes it almost impossible for parents in rural areas to keep their daughters unmarried for long when they have "grown up" in others' eyes. Heads of these parents tend to fall on to the ground whenever they meet their neighbours with questioning eyes upon them. The daughter begins to be felt like a "thorn in the throat" for her parents, as was reminisced by Professor Latifa Akand at the National Adolescents' Convention towards

Banning Early Marriage 2010 organised by DAWN (Disadvantaged Adolescents Working NGOs) Forum at Bangladesh Shishu Academy on 6 February 2010 with the presence of hundreds of boys and girls coming from inside and outside Dhaka.

Not only a girl, if a man takes long to marry, he becomes a laughingstock to others in rural as well as urban areas. It becomes a tough struggle for a man to live peacefully if he delays his marriage, and tougher for a girl. In Bangladesh many nights witness the heartbreaking cries of tens of thousands of girls, their brothers, sisters and parents simply because they cannot be married off easily. There is no

limit to which the family with such girls cannot go in order to have a suitable husband for her. One can easily understand the pride in the tone of such parents who can say to an acquaintance, "I have married off all my daughters."

If it cannot be found out what makes members of a society think in this way, the problem of early marriage or even child marriage will remain as it is. From The Child Marriage Restraint Act 1929 to Repression against Women and Children Act 2000, several laws have been made against child marriage in Bangladesh. Despite this, the rate of child marriage is high in this country. Why is there such a gap between the rules and laws and the social behaviour of a country? Because, the social customs have been based on certain conditions and practiced for hundreds of years, which are hard to change only by giving threat of punishment if laws are not followed properly.

There are many reasons for and against early marriage. The subconscious mind of the nation, the traditional behaviour of people is for it; on

the other hand, the conscious part of the national mind, the policy related ideas, is against it. The subconscious says, "It is good for a girl to get a husband as early as possible. Marriage relieves her and her family from painful uncertainties and gives her social security. Boys also begin to behave more responsibly after their marriage." The conscious mind argues, "Early marriage stops education of a girl, throws her into family life unprepared and as a result into more insecurity, leads her to give birth to unhealthy children, and in many cases even to the death of adolescent mothers. The thorn in the throat not only cannot be off by early marriage, it even pushes the thorn deeper into the throat."

The present day has given more weapons of argument into the hands of the conscious mind of the nation and hopefully it will give much more in the coming days making it possible to ban early marriage not simply by law, but much more strongly by the social behaviour of people.

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