



QUANTIFICATION OF PRIVATE RESPONSE TO PUBLIC RESIDENTIAL LAND DEVELOPMENT: A CASE STUDY OF EASTERN FRINGE, DHAKA CITY

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Abstract

Dhaka is one of the most densely populated cities in the world. Accommodation of such number has been a great challenge waits to be met because of lack of buildable land. Different studies have suggested the solution in the private sector involvement in land and housing market. The necessary evil- the private sector is given rarely development permits based on the assumption, and also true, that they violate the rules. However, in Dhaka city, all development takes place in direct political influence under heavy corruption, and legality is a secondary issue to be present as an obstacle. Recently, as part of the intra-decentralization of housing, the government is creating a New Town in the Eastern fringe. Tempted by the availability of service facilities, many housing companies are agglomerated surrounding the New Town. None of these companies have legal permission to operate, and they are violating all the rules. The objective of this study is to quantify the private response to the government project in terms of the land conversion area, and to forecast the long-term implications of such development. Followed by an extensive literature review, an investigation is made among the available land developers. The major findings of the study are- i) private response is higher than government; ii) even though illegal, ultimately, the government cannot control such land conversion; iii) private residential land developments are taking place in the low-lying agricultural areas, and therefore, wide spread urban flood will be a common fact in future. Furthermore, due to illegality and complexity in land handling, security of land tenure is in question.

1. Introduction

Management of land and housing is one of the major problems faced in Dhaka city, Bangladesh. Being one of the most densely populated in the world, along with rural-to-urban migration, the city is struggling to cope with the demand for buildable land, and thereby, housing. According to Sivam (2002), land and housing market in developing countries are inseparable wherein the owner occupied housing is a predominant land market. One of the principle targets of land management is to ensure greater good for wider communities which often been breached under extreme competition due to

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population increase, widespread speculation and above all, management failure to foresee the future.

It has been accepted that in most of the developing world, urban planning refers to government control (Mattingly, 1996, p. 115), Bangladesh is not an exception. In addition, land development has been a monopoly for the government institutions, mainly, by the planning authority of Dhaka city- Rajdhani Unnayan Katripakha (RAJUK). It has taken several land development initiatives to accommodate the growing demand for land and housing. Nevertheless, government projects have been biased since it prioritized government and semi-government employees. What so ever, these provisions proved to be scanty and unable to meet the public demand but attracts private residential development in the vicinity due to the service and transportation facilities. Based on the possibility of financial gain, private land and housing developers came in existence. Private land development and housing provision, which are often illegal, remained as the merely affordable but practical solution for the majority of the urban population. As proven to be more efficient, agile, and has the ability to bypass the legal requirements; private land and housing development has created a socially acceptable and swift mechanism. Solely profit orientation of this sector can be regarded as the main driver for urban expansion and local transition of land.

Against this background, this paper presents a case study of government New Town development in the Eastern fringe of Dhaka city, and tries to quantify the private land developers' response in the vicinity. The following section provides a short detail of land and housing demand, and government planning in the past. The subsequent section details the private response to government project. Provision of land and housing by the private sector thought to be the only market solution in current extreme demand. Even after the involvement of the private sector, how can it complicate the physical expansion is described in next following section. Finally, some concluding remarks to this problem are made.

2. Demand for Land and Planning in Dhaka City

Dhaka ranked 11th among the world megacities with an estimated population of 12.4 million in 2006 (UN, 2006), which turned out to be more than 16 million by 2010 according to the United Nations Population Division, and expected to grow up to 20 million by 2015 as projected by the same source. According to some unsupported sources, about 2,100 people migrate to Dhaka city every day, and if the influx continues, it would be the second largest mega city after Tokyo by 2015 (Chowdhury, 2010).

In accordance with the population growth, the increase in land price has also been unprecedented. Compared to the price of 70's, Dhanmondi, the most expensive residential area of the city, experience about 12,000 percent increase compared to 2010. In comparison, the commercial land price hike has been much lower, about 9900 percent

in Motijheel area (The Daily Star, 2010). Bangladesh Institute of Planners (BIP) estimates land price in some prime locations in Dhaka (value per square foot; 1 USD= 71.3 Tk.): Dhanmondi residential area is the most expensive, average roughly Tk. 3,500 or around \$60; in Gulshan about Tk. 3,194 and in Baridhara about Tk. 3,000. Even in the least expensive residential areas, land price is about Tk. 1,600, around \$27 per sqft which include peripheral areas like Uttara, Pallabi, and Shyamali (WB, 2007, p. 38). In comparison, land prices in most cities of the United States are much lower (in \$/square foot): Boston \$13.10; Chicago \$14.5; Los Angeles \$30.4; Miami \$11.1; New York \$32.3; San Diego \$26; San Francisco \$64 (Glaeser and Gyorko, 2003; see WB, 2007, p. 38). The escalation in land price restricts middle and low income group from accessing urban land pushing further to the peri-urban areas creating leap-frog, low density and discontinuous pattern of urban development.

The distinct characteristics (interplay of supply, affordability and price/speculation) of low and middle income land and housing market has resulted in private developers housing, sites and servicing as the most lucrative business in Dhaka city. In 1991, Real Estate and Housing Association of Bangladesh (REHAB) established with only 11 members. By 2007, the organization had 260 registered members which turned out to be 1004 by the year 2010. About 9,000-10,000 apartments and 5,000-6,000 plot units were delivered by the REHAB members in 2010. Considering the population growth, at least 50,000 dwelling units are required every year to meet the backlog and present housing demand in Dhaka city (REHAB, 2005, p.16). With the joint efforts from the private developers, individual initiative and government provisions; the current housing situation fall far behind the required, and is being aggravated over time. Government interventions in the land market have distinct effect over the market since it distorts the generic growth.

Apart from the population growth and failure in land management, there is several other factors effect land price. According to Brennan (1993), one of those is extreme level of land speculation in most of the developing countries which often depends on the national economy whether it is expanding and alternatives avenues exit for investment or characterized by stagnation and high inflation acting as a reliable investment against inelastic land for secure revenue generation. Bangladesh is one such example where people are working in foreign countries investing in land and housing market in Dhaka city creating artificial demand and speculation.

3. Multiplicity of the Problem

Government intervention in land and housing market adds complexity to the overall situation. Since government projects enjoys better transportation and service facilities like electricity, gas, garbage disposal etc., there is a tendency among private developers to be adjacent to the government ones. The attraction to the government projects by the

private ones has shaped different parts of the residential areas, and this technique has been applied in numerous cases e.g. Nikunja, Uttara, Gulshan.

Another problem associated to planning in Bangladesh is that government is the protector of the law, and also the violators. Usually, the violations from the government side have been legalized, but considered illegal for private sectors. Even though private sectors are able to bypass the laws, it is always a nagging and acts as continuous threat.

Dhaka Metropolitan Development Plan, 1995-2015 extended the formal boundary of the city to comprise 1528km² under the jurisdiction of the development control authority of Dhaka (RAJUK). The third stage of the DMDP, the Detailed Area Plans (DAPs) considered the development of a New Town in the eastern fringe of the boundary. The government land project- Purbachal New Town comprises an area of 6150 acres. From the Map-1, the Detailed Area Plan (DAP) of Dhaka city delineates the area of New Town and the peripheral land use. The plan is successful in producing a land use copied from ideal definition of New Town. The surrounding areas existing and proposed land uses are dominated by agricultural, flood flow zones and rural settlements. According to the Residential Land Development Act, 2004, no private residential land project can take place in agricultural and flood flow zones.

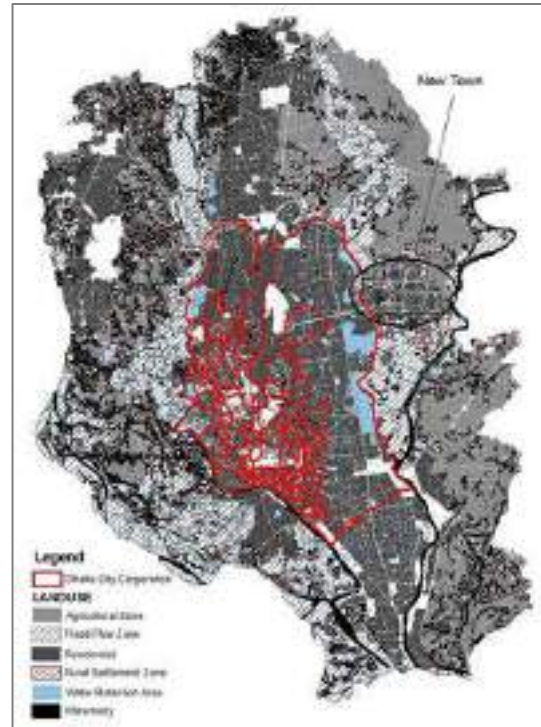


Figure 1: Detailed Area Plan of Dhaka City

The New Town will be connected with major commercial and residential centers of Dhaka city by roads, and major cities like Chittagonj and Sylhet by six lane highways. Furthermore, since it is a government project, crucial services like water, electricity, gas and waste disposal are ensured by the government.

4. Material and Methods

4.1 Study Area

Due to the extreme demand for land and housing, expectedly, urban area will expand horizontally and along the major highways. The proposed New Town is in the periphery of the Detailed Area Plan (DAP). Therefore, the actual impact of the New Town will be out-bound, and so, for the present study, the area considered for quantification of private

response extends towards mainly to the East, North and South. A total of 163.78 km² of the DAP area including the New Town has been selected as the study (figure 2). From the proposed land use of the DAP, there is, almost, no provision (0.01 km²) for residential land development. Most of the areas are designated as agricultural, flood flow zones and rural villages. According to the Residential Land Development Regulation, 2004, land conversion for residential or other uses is prohibited. Recently, the planning agency has banned all private residential land development in the vicinity of the New Town. It must be noted that the New Town itself is a violation of the Residential Land Development Regulation, 2004 since it was developed filling out the low-lying agricultural and flood flow areas.

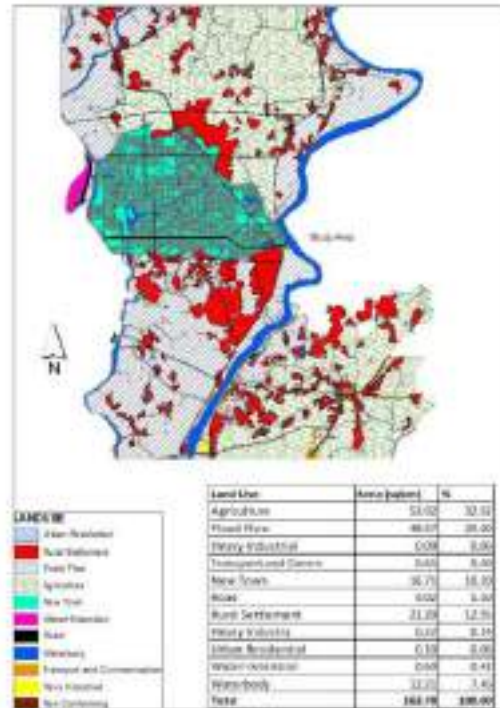


Figure 2: Study Area

4.2 Data Collection

The New Town has attracted many private residential land developers in the vicinity. The most recent newspaper reports indicate the existence of more than 100 companies. However, most of those are leapfrog, meaning, small and unrecognized companies subject to disappear under government pressure. However, more than 60 established companies are operating in the area. In total 30 established companies were randomly selected for the field investigation and data collection.

In depth interviews were conducted with the company representatives. Information was collection about: land area, price, possibility of investment in land and housing, government intervention in the future and distance from the major locational hubs.



Figure 3: Location of the Land Developers

Figure 3 shows the existing location of the 30 land developers. Most of these, if not all, overlap the proposed area. Presumably, this situation becomes worse if all of the companies are considered. Therefore, tenure security for land buyers is the biggest challenge in this informal and illegal land market.

5. Quantification of the Private Response

From the table (1), 12 recognized land developers are operating in surrounding the New Town inside DAP area comprising an area approximately 6269 acres. At the same time, 17 companies situated outside DAP area with about an area of 16312.59 acres. There are two important noticeable facts: first, land area covered by the private residential developers outside the DAP areas is much higher than within (comparison is shown by figure 4), and second, several companies overlap each other's area which is higher inside DAP area than outside (figure 3).

Table 1: Private Response Inside and Outside Detailed Area Plan (DAP)

| Inside DAP | | | Outside DAP | | |
|------------------------------------|--------------------------------------|--------------|--------------|----------------------------|----------------|
| No. | Name | Area (acres) | No. | Name | Area (acres) |
| 1 | Lotus Valley | 284 | 13 | Purbachal Eastwood City | 1523 |
| 2 | Purbachal Pixel City | 247 | 14 | Purbachal HL City | 423.9 |
| 3 | Rose Land City | 203 | 15 | Platinum Purbachal City | 991.3 |
| 4 | Gold Man City | 978 | 16 | Ananda City | 664 |
| 5 | Purbachal City (Vision 21 Purbachal) | 650 | 17 | Purbachal American City | 2072 |
| 6 | Ashalaya | 500 | 18 | East American City | 995 |
| 7 | Dhaka Village | 1020 | 19 | Purbachal Nobodoy Housing | 1283 |
| 8 | Shikhder Royal City | 380 | 20 | Purbachal Bestway City | 2991 |
| 9 | Biswas Purbachal Hill City | 257 | 21 | Purbachal Regent RiverView | 268.5 |
| 10 | Purbachal Marine City | 500 | 22 | Purbachal Probashi Palli | 366.2 |
| 11 | Asian City- Shitol Saya | 968 | 23 | Purbachal Garden City | 467.5 |
| 12 | Vision 21-Park View City | 282 | 24 | Purbachal Park Town | 427.5 |
| Total | | 6269 | 25 | Eastern Japan City | 725 |
| Overlapped Area Inside DAP= 27% | | | 26 | Eastern Park City | 984.8 |
| Overlapped Area Outside DAP= 6.89% | | | 27 | Purbachal Regent Town | 1152 |
| | | | 28 | Probashi Palli-2 | 627.7 |
| | | | 29 | NRB Homes | 350 |
| | | | Total | | 16312.6 |

Source: Field Survey, 2010

Table 1 is the list of the selected housing companies in the study area. The overlapped areas among inside DAP (27%) shows scavenging of lands by the housing companies. This trend is less outside DAP (6.89%) due to availability of land. Furthermore, many landowners became self-motivated land developers who have very little idea about private residential land development criteria. Therefore, one conclusion is that most of

these housing companies cannot implement the proposed area, rather, have to compromise among different land owner, developers and rural settlements.

Figure 4 shows that the private response is about 3.67 times higher than the government project. However, this result shows the response from only 30 selected developers. If all the existing companies are considered, this is much higher than 3.67 times. The total area of these companies surpasses the actually available land in the study area referring to the problems of illegality and tenure security.

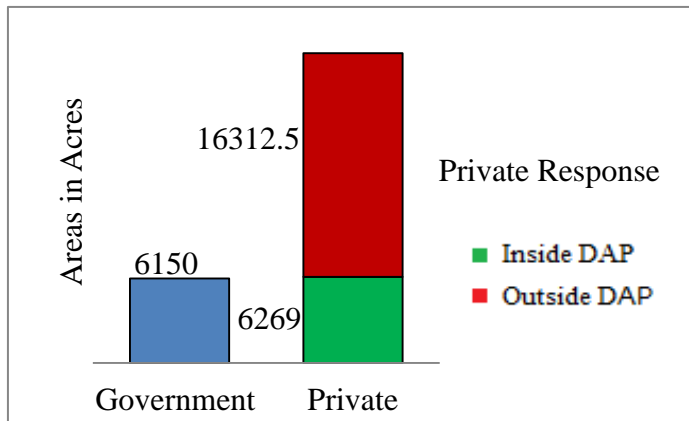


Figure 4: Private Response to Government Project

6. Implication of Present Land Conversion

Demand for land and housing in Dhaka city cannot be met from the government alone. Unless private sectors are enabled and allowed to participate in a strategic way, in foreseeable future it is going to aggravate. Even though the current private residential land development is associated with illegality, ultimately government cannot control the haphazard land conversion in the future. The past trend in the land market ensures the statement. The present trend will trend may leave irreversible impressions on the future of urbanization:

- The peripheral part of the city is characterized mainly by low-lying agricultural land, and acts as water retention area during rainy season. Unless natural drainage and water bodies are protected, which is just the opposite of residential land development; urban flood will be a common phenomenon in coming future. Figure 5 shows the existing land use of many proposed housing.
- Dhaka is one of the most densely populated cities in the world. Oversupply of urban land by private residential companies does not ensure the density rather it is a medium of land speculation. Ultimately, people who need land desperately will be deprived of land due to the price hike.
- As shown in the map 2, the area surrounding the New Town is completely taken over by the land developers. Dominant land use in this area is agricultural and low-lying one-

season agricultural land. Land conversion to residential plot will ultimately lead to destruction of valuable agricultural land.

- Figure 6 shows layout of the proposed housings. These are basically land subdivisions without provision of any urban social and utility facilities.

- The present land development will lead to low-density functional sprawl dominated by residential land use (this term first used by Ewing, 1997). Different studies, for example Camagni et al., 2002 suggest that functional sprawl increase travel distance, private car-ownership and environmental pollution.



Figure 5: Existing Situation

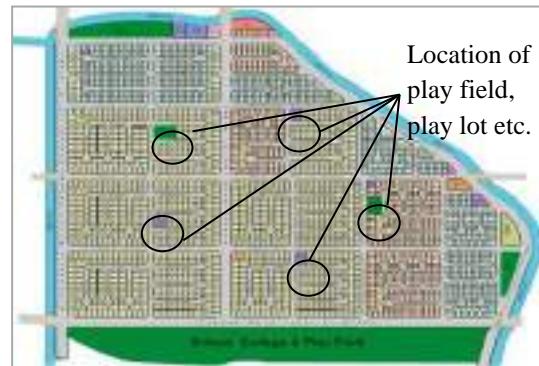


Figure 6: Proposed Layout

7. Findings and Conclusion

Private sectors respond to the government policy decision, and in this case, the private land developers came into existence because of the New Town. The response from the private sector is much higher than the government ones. Restricting the land developments is not a solution to the land and housing problem, and ensuring tenure security is the biggest challenge.

One of the targets of the New Town development was to trickle down urbanization in the surrounding area. However, the DAP land use does not allow any residential land development in the area. This is a double-standard policy of the government. To meet the land and housing demand for the vast majority of the population of Dhaka city, some agricultural area must be sacrificed. There should be a strict guideline for residential land developers to ensure density in this area rather than halting land conversion which would surely be a failure.

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