

The rates of urbanization in the developing countries are far more than their abilities to provide needed shelter and services. Consequently there has been a mushrooming of slums and squatter settlements in and around the periphery of large cities. These settlements are uncontrolled, under serviced, over crowded and ugly habitations consisting mainly of makeshift and improvised housing areas. Most of them are built for human habitation lacking in basic features such as durability of materials and techniques of construction, weather protection, privacy, sanitation, safety and security. It is alarming to note that with continuing rural-urban migration and natural increase, the population of squatter settlements in Dhaka is increasing and will continue to increase at a very fast rate. Consequently squatter settlements will grow either through expansion or through increase in density in a limited area or both.

The effects of the extraordinary growth of urban squatter settlements in the capital city of Dhaka are manifold. Firstly, the overall population of the city is increasing at a very fast rate causing extraordinary pressure on the civic amenities and infrastructure. Secondly, the economic pressure is driving a section of the floating population into anti-social activities causing various social problems. Thirdly, the squatter settlements are not only unhygienic and unhygienic to the squatters themselves but they are also causing and depressing the environment. Fourthly, the government is creating an ecological imbalance between the natural and the built spaces within the city. Lastly and most importantly, the squatters can no longer afford to pay for the preservation of traditional culture and heritage and for useful and meaningful pursuits of life and living.

## **THE 'FLOATING POPULATION' — AN ALTERNATIVE APPROACH TO TACKLING THE SQUATTING PROBLEM IN THE CITY OF DHAKA.**

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### **Introduction**

In this paper an attempt has been made to have a fresh look at the squatters of the city of Dhaka. The nature of the squatting problem as well as the different attempts that have been made from time to time towards its solution have been briefly reviewed. It has been argued that the attempted solutions did not produce the desired results because of the absence of certain fundamental considerations in the conceptions of the solutions. It is further argued that to meet some of these fundamental considerations, new and radical options are to be looked into.

The present population of the city of Dhaka is estimated to be over 2 million with an annual growth rate of 6%. Roughly 50% of this population are below subsistence level, 30% are near subsistence level, 18% are above poverty level and 2% are affluent. A typical family below subsistence level will consist of 6 members and will earn from about Tk. 1000.00 to Tk. 1500.00 per month on the average. About half of such urban families are rural migrants and it is these families that find squatting as the only means of living and working in the city with survival as the only aim in life.

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## The Squatting Problem

The rates of urbanization in the developing countries are far more than their abilities to provide needed shelters and services. Consequently there has been a mushrooming of slums and squatter settlements in and around the periphery of large cities. These settlements are uncontrolled, under serviced, over crowded and ugly habitations consisting mainly of makeshift and improvised housing areas. Most of them are unfit for human habitation lacking in basic features such as durability of materials and techniques of construction, weather protection, privacy, sanitation, safety and security. It is alarming to note that with continuing rural-urban migration and natural increase, the population of squatter settlements in Dhaka is increasing and will continue to increase at a very fast rate. Consequently squatter settlements will grow either through expansion or through increase in density in a limited area or both.

The effects of the extraordinary growth of urban squatter settlements in the capital city of Dhaka are manifold. Firstly, the overall population of the city is increasing at a very fast rate causing extraordinary pressure on the civic amenities and infrastructures. Secondly, the economic pressure is driving a section of the 'floating population' into anti-social activities causing various social problems. Thirdly, the squatter settlements are not only unhealthy and unhygienic to the squatters themselves but they are also pathetic and depressing to the passers-by and are potentially dangerous as sources of pollution in the urban built environment. Fourthly, the squatter settlements tend to spread over all leftover open spaces within the city creating an ecological unbalance between the natural and the built environment. Lastly and most importantly, the squatters can never gain the sense of security which is so vital for the preservation of tradition, culture and heritage and for useful and meaningful pursuits of life and living.

The economic picture of the urban scene in Bangladesh is markedly different from that of the rural scene. The per capita GNP in the country as a whole is around 140 U. S. dollars. A sizable portion of the gross national product is derived from the agricultural sector which includes agriculture, forestry, hunting and fishing. The overall per capita income figures, however, conceal marked disparities with regard to the level of development and consequently of living standards of the population in the urban and the rural areas within the same country. The economic development has hitherto been concentrated largely in the urban areas — thus accentuating the disparities in the distribution of assets and incomes in the urban and the rural areas. Over the years, the relative number of the poor in the rural population has been increasing and this has been causing the serious problem of ever increasing migration from rural to urban areas in search of work and living.

Various available data tend to suggest the following urban groupings as an approximation in case of Bangladesh, particularly for the three metropolitan cities of Dhaka, Chittagong and Khulna :

Group	Yearly income in U. S. dollars	% of urban households
Lowest	0 - 1000	80%
Medium Low	1000 - 2000	12%
Medium	2000 - 3000	4%
Medium High	3000 - 4000	2%
Upper High	4000 and above	2%

## The Attempted Solutions

Since the emergence of Bangladesh as an independent state and Dhaka as its fullfledged capital, attempts have been made for tackling the urban squatting problem of the city of Dhaka in rather hasty and hapazard ways. One such attempt involved acquisition of sizable parcels of land on the periphery of the city by the concerned government agency and erecting small bamboo huts in closely spaced uniform rows giving a camp like appearance to the settlement. Necessary resources for such projects were provided by international relief agencies such as CARE and others. The squatters of Dhaka were forcibly evicted from within the different spots of the city and literally dumped into the hastily set up camps. Even though the huts were allotted free of charge, they could not hold the floating families there much longer and the camps turned into miserable places and suffered high rates of desertion. Lack of accessibility to work opportunities, absence of ownership rights for the allottees, lack of essential community facilities and infrastructures etc. were the main factors which were contributing to the initial chaos and confusion in these camps. Gradually some of these situations were improved and the camps slowly began to take the shape of natural human settlements. But the policy of acquiring parcels of urban land and subjecting them to the so called 'planned' settlements for very low income groups do not offer a viable option because of the following two main reasons :

- (i) Land and specially urban land is a very costly commodity in Bangladesh and the minimum parcel of land required for a family dwelling unit in these settlements will cost well beyond the limit of affordability of a typical squatting family— not to mention the cost of the dwelling unit and the necessary infrastructures. It is estimated that a typical dwelling unit of the type mentioned above will cost, in the minimum, as follows :

Land	:	Tk.	50,000/-
Shelter	:	Tk.	10,000/-
Infrastructure	:	Tk.	40,000/-
<b>Total</b>	:	<b>Tk.</b>	<b>100,000/-</b>

Unless 80% to 90% of this cost is provided as government grant and the rest as loan, such a scheme can not be materialized. Such a subsidy is obviously totally unrealistic for any serious and comprehensive solution of the urban squatting problem.

- (ii) The location of such 'forced' settlements on the periphery of the city tends to keep the urban poor far away from their work opportunities which are usually found in variety and in quantity in and around the heart of the city. The distance between the place of living and the place of work not only causes physical inconveniences but also costs high extra expenditure in commutation. As a result the already meager income of the urban poor is faced with further difficulties.

Apart from the attempt by the government of providing complete dwelling units to the squatting families along with the small parcels of land on which they stand and the basic services and utilities of roads, water lines, sewerage and so on, there were also the so called site and services schemes under which the urban squatting families were offered sites with the basic services of roads, drinking water etc. so that they can build their own shelters on the given land and promote growth of new communities somewhat in an organized fashion. This also did not work because such sites were always far away from the heart of the city and consequently far away from the potential work opportunities for the urban poor.

Very recently the government has undertaken a scheme of building few hundreds of low cost dwelling units for the urban poor on one of the initial camp sites in Dattapara on the north-eastern periphery of the city of Dhaka. The cost of each dwelling unit has been estimated to be Tk. 50,000/-. If the cost of the land and the infrastructure are added to this figure, the cost of each unit will come to atleast 1.5 lacs of taka. A typical squatting family can afford to pay only about 10% to 15% of this cost and this will also have to be spread over a period of 10 to 15 years. This means that such a scheme can only be materialized on the basis of almost total subsidy. No government in Bangladesh can sustain such an endeavor purely from economic considerations alone. In fact none of the approaches adopted so far for tackling the urban squatting problem seems to offer any realistic option for solution of the problem. It is not difficult to understand that the problem needs much more comprehensive considerations and a great deal of imagination if a viable and acceptable alternative is to be found for its long term solution.

#### The Search For a New Approach

Any viable, useful and acceptable approach to the problem of providing 'planned' settlements for the urban squatters must take into consideration certain factors of vital importance, some of which are as follows :

- (i) The squatting families must be settled well within the city so that they have easy access to work opportunities close to their dwelling places.
- (ii) The squatting families must bear the cost of their dwelling units which shall be realized in instalments over a reasonable span of time. This necessarily means that any workable scheme will have to be such that the cost per dwelling unit is within the limit of affordability of a typical squatting family when the family is provided with the necessary amount of loan which is to be paid back in monthly instalments over a period of ten to fifteen years.
- (iii) The squatters and their settlements need not pose as a nuisance to the city environment or to the city life. They need not be projected as a total liability. It is rather important to show that they can play useful role in the overall dynamics of the city life.

On the basis of a careful consideration of all these factors it seems that the urban squatters may have a much better chance of satisfactory existence, both physically and socio-economically if they are settled in house-boats on the low-lying areas within the city rather than in dwelling houses on high priced urban land. This option deserves to be looked into in some details.

The city map of Dhaka reveals that it is bordered by the river Buriganga on the south and on the west. In the old days the city had a network of canals which had connections with the river Buriganga. Besides there were vast proportions of low-lying areas within the limits of the present day city. These vast areas used to remain under water all through the year although the water level fluctuated with the coming and going of the rainy season. Subsequently, many such canals and low-lying areas have been filled up for building new roads and new settlements. Consequently the city has not only lost much of its natural water bodies which were an important feature of its landscape but there has also emerged a new problem of water logging of the city even for an ordinary spell of rain lasting only for 2/3 hours. And yet indiscriminate filling up of low land continues because urban land is in very high demand for the growing city.

The present day city map of Dhaka shows that even after the large scale filling up of the low-lying urban land belonging to both the public and the private sectors, a considerable area of low-lying land still remain more or less as waste land in and around the heart of the city. Most of such low-lying areas are interconnected and either have existing linkages with rivers or such linkages can be established without much difficulty. It is a pity that these potentially excellent and adoptable for multi-use physical features of the city remain neglected, as if awaiting the senseless fate of the filling up operation. Most of such low-lying areas are government properties. Those which are not can be acquired by the city at a nominal cost.

It is estimated that the low-lying areas, if cleared and developed, can provide ten to fifteen square miles of water bodies woven in and around the heart of the city. Selected

spots of these water bodies can accommodate sizable squatter settlements in boat houses. A chain of green parks may be developed along banks of such water bodies. These parks along with the water bodies may provide facilities for rest and recreation to the city dwellers. Above all, these may add significantly to the character and quality of the physical environment of the city of Dhaka.

The proposal for development of the areas within the city as sizable water bodies, creating green parks on their banks and developing low-income communities in boat-houses in selected spots of the water bodies will require large resource commitment. However, the benefits derived from such a scheme will also be very large indeed. The scheme is likely to make very positive contribution towards solving of the water logging and drainage problem of the city, the problem of urban congestion, the problem of shortage of recreational areas and so on and almost the total of the cost of the proposed scheme may be charged against the desired improvements in all these sectors leaving the boat-house communities only to bear the cost of the boat-houses themselves. Since the proposed boat-houses need not be very mobile, they may be designed extra wide using ferro-cement as the main material. Over the ferro-cement hull the super structure of the dwelling unit may be built using such materials as bamboo, wood, asbestos, C. I. sheets etc. It is estimated that a typical boat-house for a family of 5/6 persons may cost around fifteen to twenty thousand taka which the family may be provided with as house building loan repayable in monthly instalments over a period of ten to fifteen years. The boat-houses will be moored permanently in given locations under appropriate license from the city authorities and such licenses may be renewed periodically. In any given location, a pre-determined number of boat-houses will ultimately be accommodated and some basic community facilities may be planned on shore for each such communities. The problem of maintaining a stable enough level in the water bodies through out the year can be solved by using water flow regulators such as sluice gates, water pumps etc. Thus the proposed scheme is indeed broad-based and the cost-benefit analysis for such a broad-based development proposal will not only involve the issue of the low cost dwelling but will also involve a whole series of other important issues affecting the urban environmental scene and the urban life and living.

#### Discussion and Conclusion

Boat-house communities are nothing new in the south and south-east Asian countries. A sizable population of these countries belonging to the urban poor sections in particular live in boat-house communities. In Bangladesh, the local gypsy communities known as the 'Bedeys' live in country boats and travel in small groups along the network of waterways across the country in search of livelihood. Apart from the 'Bedeys' there are also others who, because of the nature of their means of livelihood, live mostly in boats. Thus living in boats can be quite acceptable even desirable to the urban poor if the capital cost is within the limit of affordability and if the locational advantages in relation to the places of work is ensured.

From the environmental viewpoint, living in boat-houses in close proximity with nature and away from the busy roadside shacks may definitely be considered as a significant improvement. Not only the boat-house communities will enjoy a better physical environment but the general city dwellers will also be saved from the various ill effects of squatter settlements on the heart land of the city.

The proposed boat-house communities can promote and maintain various activities on the water ways adding a further dimension to the dynamics of the city life. Some of these activities may have considerable economic potentials and provide new sources of work and earning. The chain of water ways may also open up easier and cheaper possibilities for transportation of men and materials to and away from the heart of the city. The benefits from the viewpoint of water logging and drainage problem of the city will be enormous compared to the cost involved which, in any case, may be found to be favourably comparable with the probable cost of other available options for solution of the problem. Moreover the other available options are unlikely to have the wide ranges of extra benefits the proposed option can bring about.

The present discussion has only attempted to point out a possibility so far as the tackling of the urban squatting problem in the capital city of Dhaka is concerned. On the face of it, the possibility looks like a viable and promising one. However much more study and closer scrutiny of the various relevant issues must be undertaken before a clear, concrete and comprehensive scheme can be drawn. Living with water can be a natural and highly effective option not only for the urban squatters but also for a section of the growing population of tomorrow if we want to preserve our scarce land for productive uses which could be vital for our survival.