Sustainable Urban Development of Slum Prone Area of Dhaka City

S. Ahmed Sinthia

Abstract—Dhaka, the capital city of Bangladesh, is one of the densely populated cities in the world. Due to rapid urbanization 60% of its population lives in slum and squatter settlements. The reason behind this poverty is low economic growth, inequitable distribution of income, unequal distribution of productive assets, unemployment and underemployment, high rate of population growth, low level of human resource development, natural disasters, and limited access to public services. Along with poverty, creating pressure on urban land, shelter, plots, open spaces this creates environmental and ecological degradation. These constraints are mostly resulted from the failures of the government policies and measures and only Government can solve this problem. This is now prime time to establish planning and environmental management policy and sustainable urban development for the city and for the urban slum dwellers which are free from eviction, criminals, rent seekers and other miscreants.

Keywords—Economic and resource constraints, environmental degradation and management, government policy, land management and policy, sustainable development.

I. INTRODUCTION

DHAKA is one of the world's fastest growing cities. Dhaka's population is likely to increase from 13.5 million in 2007 to 22 million by 2025 [22], despite the fact that now it has a declining fertility rate. This rapid urbanization has taken place in last 25 years and the growth rate of the population is 6.9% [22] and 50% of these populations live below poverty level [2]. The major portions of this population are migrant urban poor from rural areas for better economic opportunities due to various reasons. According to International Organization for Migration (IOM), about 70% of slum dwellers in Dhaka experienced some kind of environmental shocks. In 2005, Dhaka had an estimated 3.4 million people lived in some 5000 slums and in 2010, the population of the city has been projected at 17.6 million people, with up to 60% in the slums [4]-[9].

These poor people lives in urban environments with significantly low living standards in terms of environmental, social, cultural and all kind of civic participations.

This 'urban poor' have limited access to essential services, such as land, housing, health, education; water, sanitation, transportation and so forth. The most vulnerable situation is that they have little access to formal employment due to urban competition and lack of their ability. Moreover, these poor communities create along with poverty a significant pressure on urban land and infrastructure, environment and ecology of Dhaka city. Furthermore, in early 1990 majority of the slums were located on public lands and later 90's the government started to evict many slums from public properties [11]. After that private land owners started to rent out the lands to slum dwellers as the return on these lands were attractive because of high densities. Consequently in 2006, 77% of slums were on private lands [11]. These pressures intensified the price of land and also create rigorous unplanned development in Dhaka city. Lack of proper policy and measures, over centralization and bureaucracy of Government is the foremost reason of these situations. There is also no coordination between government and private sector developer to solve the problem of slum dwellers. This is the key barrier towards achieving sustainable urban development. The growing and unpredictable urbanization of this city has now become a threat for the development of Bangladesh. Almost half of the urban settlement as slum are characterized by poor quality of construction and built environments. The whole urbanization process demonstrates lack of proper development plan, and controlled detailed area plan, poor applications of appropriate urban planning policy and collaborative efforts. As a result the rate of urban poor is increasing inevitably in every sphere of Dhaka.

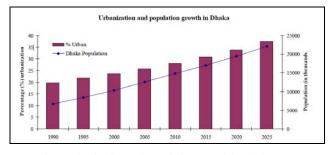


Fig. 1 Urbanization and population growth in Dhaka [22]

II. THE EXISTING FORM OF URBAN DEVELOPMENT OF POOR AND THE NECESSITY

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The increasing rate of migration to urban areas added a challenging dimension to the existing characteristics of the

urban structure. The most important task is to provide accommodation with civic facilities like transportation, water, sewerage, drainage, electricity services. The set up and maintenance cost of the urban infrastructure requires a significant amount of investment by the local government or City corporations and by the development authorities. However the resources and capacities of the urban structure of Dhaka city are very limited. With the high urban growth, the management of urban spatial growth has become a challenging task for the Dhaka development authority-RAJUK (Rajdhani Unnayan Kartripakkha) [11]. They have no systematic approaches towards the situation and expanded the city boundaries without any proper assessment of the existing capacity of services. Especially, this happens before the local govt. election just to increase the number of voters within the electoral jurisdiction. Dhaka has formal municipal planning strategies though the informal development exceeds the regulated development due to political interests [23]. These planned documents could not give any comprehensive solution for conventional urban problems like housing/shelter, transportation and so on. These disappointments are because of land speculation and unfair land ownership pattern, lack of understanding of the people's socio economic condition, lack of implementation, capacity and resources and above all lack of political support and interests. The slow and inadequate responses from different government authorities along with government are the basic reason behind the existing phenomenon of housing the urban poor. There is an example of failure of Government support resettlement scheme for urban poor in Vashantek, Mirpur together with private housing association. Unfortunately the flats were sold at higher prices to a group of people those were not the target group the government aimed at. Also it is claimed that the Developer could not maintain the terms and condition with the government. Therefore it was decided to cancel the project from the government side [13].

III. RESEARCH OBJECTIVES

The urban poor are the integrated part and parcel of urban life. Nevertheless, they are usually ignored and their voices are not taken into consideration when development plans, big or small, are in the process of formulation and implementation. The present study is based on the facts that there is still a big gap between what is outlined in the documents and the practices in the reality. It is also important to identify the role and responsibilities of different actors in different sphere of decision making and implementation process. Based on the above assumption, the research aims at identifying the factors responsible for the lack of slum development or slum up grading projects in Dhaka. Moreover, develop the instruments and intervention to improve the present scenario of urban poor of the city. Hence the study aims specifically:

• To identify and develop proper strategy to revitalize the urban poor of the area

- Policy should be based on sustainable outcomes for the poor people
- To identify the responsibilities and roles played by different actors involved in housing development process for the urban poor of Dhaka
- Urban planning policy recommendation within the current planning framework for Dhaka city.
- To develop a alternative mechanism to mitigate the land problem

A. Selection of the Study Area

For the purpose of carrying out the research and to attain the objective, Korail slum area have been chosen as the study areas. The selection is based on its prime location as it is located besides Gulshan and Banani posh residential area of the Dhaka city. Here the land price is high and the site has a potential for urban development. Moreover, the people of the study area served the surrounding neighborhood for many purpose. Most of them are maid, driver, care taker, garments worker and worked in the small retail store as helper. They are important part of the surrounding area and the city as a whole. On the other hand this is very old and large slum settlements of city. This study area will help to understand the reasons behind the barrier of redevelopment process both for the slum dwellers and for the city as a whole.

IV. ANALYSIS OF KORAIL SLUM

A. History of Slum Establishment

The Korail slum began in 1961, during Pakistani governance. The area was designated for the Department of T&T by its original owner and the condition of the purchase is that it could only be used by T&T. But in 1990, 90 acres of the land were allocated to the PWD, violating the initial agreement. When the previous private owners take legal action against T&T for violating the contract, T&T reclaimed the 90 acres of land they had given to PWD. At this stage, three parties became clear stakeholders in today's Korail slum area- T&T, PWD and the former private landowners [10]. In 1990's, unoccupied pieces of land, slowly became illegally captured by various T&T members, staff as well as gang leaders and godfathers and city ward commissioners [14]. These individuals then began to rent out land and housing to low-income and impoverished populations at low rates. As a result of the growing demand for inexpensive housing, these inhabitants slowly expanded to create Korail slum as it is today. Presently, many of the inhabitants at Korail are becoming owners of their spaces by illegally purchasing from their current landlords, who initially seized the land unlawfully as well.



Fig. 2 Location of Korail slum [17]

B. Socio Demographic Characteristics and Economic Pattern of the Area

The range of total population as mentioned by the slum dwellers is 86,200—115,000 with 31, 950 male; 37,050 female; and, 17,200 under five children [10]. Most of the people live here is Muslims by religion and no educational background [21]. The slum communities came to the city from different districts of the country and they migrate due to diverse socio economic and environmental reasons such as scarcity of land, river erosion, climatic disaster etc.

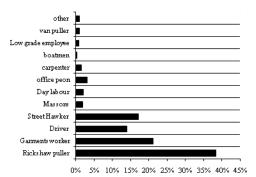


Fig. 3 Household Income pattern [21]

These urban poor are occupied in a range of employment mostly in urban informal sectors. They mostly employed in garments sector, driver of various types of vehicles like taxi, CNG, private car, office car, wheelbarrow or van pushers etc, masons, day laborers, office peon, carpenters, , boatmen, low grade employee in private, government or semi government organization. The Female labor forces is high in urban poor community and are engaged in garments sector, sewing, embroidery, preparing food, maid both in houses and offices etc. The employment catchment areas of these people are mostly Gulshan, Banani, Mohakhali, Badda and the mode of transport they used by and large is walking and public transport [10]-[14]. The monthly income level of the inhabitants living in this area is low. The maximum income of the poor are spent in food and accommodations.

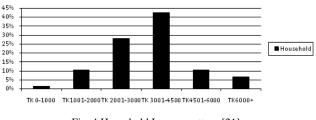


Fig. 4 Household Income pattern [21]

C. Urban Morphological Analysis

The feature of housing of the urban poor is very low. Most of them live in temporary home especially tin-shed housing and very small portion of them live in semi pucca/pucca housing with permanent walls. Very few houses have roof which is made of brick and cement whereas the roof of maximum houses is made of tin (CI sheet). The remaining houses are made of bamboo, straw and polythene which are known as Jhupri. They are used to living in single-room houses with five to eight members which are 14 sq meters (150 sq feet) to 18.5 sq meters (200 sq feet) [1] of the single member households, most live in awful conditions with twenty to thirty people living in a single room. Most of the residents have no individual cooking area and toilet. They shared kitchen, toilet and shower facilities which are very unhygienic.

The dwellings are laid in very irregular pattern and no proper orientation. House to house gap varies in different spaces and the minimum gap is 1 meter and maximum gap is 2.5 meter. There is lack of open space and vegetation. Street pattern are also very chaotic and disorganized; there is very little connection with the surrounding major road [4].



Fig. 5 Image of Jhupri [1]

D. Infrastructure and Services

In Korail slum area 60% water supply provided by DWASA and 40% bought from outside the area with a monthly payment [9]. Very few people used lake water for daily activity but not for drinking. Water sources are limited and they have to make queue to collect water for daily necessities. There are electricity and gas services available in this area but not continues and adequate. The sanitation facilities are very unhygienic and vulnerable and the numbers of water seal latrines are 359, bucket latrines are 250, hanging latrines are 520 [3].

The urban poor have limited access to the city health care services and educational institute. Some NGOs run two high school and twenty primary education center.

E. Neighboring Urban Fabric and Land Prices

The Korail area is surrounded by Gulshan, Banani and Mohakhali which is belong to the high end people of the society. The land use pattern of Gulshan and Banani both are residential and commercial. Mohakhali is predominantly commercial with few residential zones. The land use pattern has changed drastically due to high demand of community and economic activities. Road layouts in this area are grid iron pattern and maintain the hierarchy of the zone.

In Gulshan the official price of per katha of land, which was US \$ 12,070 (TK 10 lakh) in 1993, has now been raised to US \$ 60,352 (TK 50 lakh) by the RAJUK and the land price is same as Gulshan in Banani. However the developer claimed that the actual price of each katha of land in Gulshan and Banani is much more than US \$ 120,703 [18]. On the other hand Mohakhali is one of the busy areas of Dhaka city. According to REHAB data, the price of a katha of land rose by 344 percent in Mohakhali area [20]. The figures below shows urban land price close to the global core of Dhaka city.

TABLE I THE LAND PRICE OF SOME PART OF DHAKA CITY, [16] 1 taka= US \$ 0.01207; 1 Katha= 1.65 decimal

	THE PRICE OF THE LAND (TAKA/ KATHA)				% INCREASE IN PRICE OVER THE PAST TWO DECADES		
Area	Year				Between	Between	
	1975	1990	2000	2010	1990- 2000	2000- 2010	
Gulshan	25,00 0	600,0 00	2,200,0 00	25,00 0,000	267%	1036%	
Banani	25,00 0	600,0 00	2,000,0 00	15,00 0,000	233%	650%	
Mohakhali	25,00 0	600,0 00	1,800,0 00	12,00 0,000	200%	567%	

F. Legal Tenure Rights and Eviction

Tenure rights are highly insecure for Korail slum dwellers. The residents of this area faced eviction for several time. In 1999, two organizations ASK and BLAST rallied together against the high court order of eviction. It is clearly stated in the Bangladesh constitution Article 15 that no eviction could perform without proper rehabilitation [14]. Despite the High court order several times the eviction happened in Korail slum area and there is no proof who ordered to evict. BLAST confirmed a stay petition for Korail slum dwellers but still the fate of these people is depends on the decision of the High court [6].

V. URBAN LAND ANALYSIS

A. Dhaka Metropolitan Development Plan

RAJUK exercise development control function and are responsible for any type of building construction, housing, commercial, industrial and whatsoever need planning permission within its jurisdiction area. RAJUK with joint funding of GOB and the UNDP/UNCHS (HABITAT) prepared Dhaka Metropolitan development plan (1995-2015). Dhaka Metropolitan Development plan comprises of three distinct stages- Structure plan- SP (1995-2015), Urban Area plan- UAP (1995-2005), Detail Area Plan- DAP (2005-2015). DMDP is a government official's gazette which is concern about the housing and land tenure problem of the urban poor. In the above mentioned three sections it describes the policies regarding the shelter of these huge numbers of people.

B. The Realistic Situation of Urban Land

In Dhaka there are scarcity of urban land for its growing urban population which increased the price of land and inaccessible to the low income people. Moreover the land value increases because of its high and relatively reliable returns and a shortage of investment alternatives. As a result, there are no investments prospects which are as profitable as land and there is no serious step from government to stop land speculation by enforcing proper tax, regulations and land ceiling. Less than 30% of the households of the city own more than 80% of the total land (Fukuoka conference, 2000). Recently a study shows that in the fringe areas most of the land owned by private owners/ developers compared to RAZUK and most of them started housing projects by filling these lands [5]. These private developers are so powerful that they can acquire any amount of land by implementing any fair or unfair means. On the other hand, there are another type of land speculators who illegally and forcefully occupied public or private land for setting slum and squatters. The lands grabbed in illegal ways are most often not used for development but kept for speculation. According to the report from Daily Star, recently 1000 acres of land are illegally grabbed [11].

C. The Gaps between the DMDP and Real Scenario

There is a huge gap between real scenario and recommendations regarding housing the urban poor in DMDP. There is no initiative and framework by the political group and government to relocate the urban poor residents from existing situation. Moreover, the urban poor people prefer to live close to their working area despite going elsewhere because of poor public transport system and to mitigate transport cost. Obviously, the settlement policy in DMDP would be impossible to implement without a proper public transport system. Therefore, the Structure and Urban Area Plans do not provide any land use zoning principles which could be applied to design subsequent development. The Plans demarcate broad areas for future development but still there is enough scope for manipulation and encroachment. There is no specific direction to implement the guidelines and also most of the time the implementing agencies ignored the strategies. To resolve the present urban land management problem it is necessary to rectify the present strategy with precise direction and guidelines.

VI. URBAN HOUSING FOR POOR

The urban poor have little access to urban land and they mostly build their houses on vacant private and government land. It is estimated that less than 20 percent of the poor of Dhaka are owners, 56 percent were tenants; 8 percent were rent free dwellers, and nearly 20 percent were squatters or illegal occupants [19]. There are three sub systems to provide housing for the people of Dhaka. These are public sector, private developers and self constructed housing. Only the public sector is responsible for the housing of poor people.

TABLE II HOUSING TENURE FOR URBAN POOR [19]

HOUSING PERCEPTOR CREMETTOR COR [17]						
	Dhaka			All Urban		
	Hardcore poor	Moder ate poor	All poor	Hardco re poor	Moder ate poor	All poor
Owner	16.4	16.2	16.3	28.8	25.5	27.7
Tenant in private house	42.4	49.6	45.4	45.6	48.4	46.6
Governm ent tenant	5.6	5.2	5.4	5.0	7.6	5.9
Sub tenant	5.2	5.7	5.4	3.0	5.5	3.2
Rent free	9.3	5.7	7.8	7.6	5.2	6.8
Illegal	20.2	16.1	18.5	9.5	8.8	9.3
Others	0.9	1.5	1.1	0.5	1.1	0.7
Total	100.0	100.0	100.0	100.0	100.0	100. 0

A. Strategy of Public Sector

Government has taken different policies to fulfill the demand of housing of different income group. Unfortunately, there is a huge gap between demands and supply. Moreover, these housing supplies mostly accomplish the demand of high end and higher middle income society. Generally, the public sector like RAJUK and NHA under *Ministry of Housing and Public Works*, and (PWD) are involved in providing housing to the civil servants, general people and poor according to National Housing Policy 1993. NHA has taken few land development projects in Lalmatia, Mohammadpur, Kalyanpur, and Mirpur to rehabilitate refugees and squatters as well as to provide housing plots to government employees and general public. Due to the corruption and lack of fairness and transparency in the government bodies they mainly serve the rich and powerful people [8]. The above figures show that

there are very little efforts to provide housing for the huge number of poor and low income people in the city. However, after the completion of the project many low income people sold the houses to some well off people and return back to the slum. The UNICEF-funded Slum Improvement Project (SIP) is another government initiation implemented by The Local Government Engineering Department (LGED) for infrastructure development of slum and squatters but they do not have any housing development project for poor.

PUBLIC HOUSING FOR DIFFERENT INCOME PEOPLE [5]							
Public sector housing provider	High Income People	Middle and Low income people	Refugeesand Squatters Resettlement				
RAZUK	260	420					
PWD	RENTAL UNITS FOR 10% OF PUBLIC SERVICE HOLDERS.						
NHA		2969	18268				

 TABLE III

 PUBLIC HOUSING FOR DIFFERENT INCOME PEOPLE [5]

B. Strategy of NGO's

There are different NGOs funded by foreign country for the benefit of the poor community to improve the slum environment, water and sanitation, provide primary health care, and empower poor women living in these communities. The rigidity of Government regulations and controls over land restrict these NGOs to work on providing better housing for the slum dwellers. As the 97% of the slum dwellers do not own the plot where they live [7]. This is probably the main reason why NGOs are not keen to get involved in housing and land tenure issues. The poor do not own land, and squatters cannot be helped to build unless they acquire land title (ibid.)

In Korail, the NGOs are like: BRAC, ASA, DSK, BRISK, RIC, Intervida, Bureau Bangladesh, Glory, and SHAKTI. Most of the NGOs are operating non-formal education program for the working children, health center – mainly focus on pregnant mother, some skill based/technical training and micro credit support for the community people [10]. Some of the NGOs are working with sanitation system and made some community latrine, water point and drainpavement inside the Korail. Though the coverage is very limited but the initiative is very remarkable.

C. Correlation between Government Body and NGO's

There is very little correlation between government authority and NGOs in slum development. NGOs are more concerned with preventive and primary health-care services and environmental improvement. As a result people have good faith on NGOs rather than any government service provider. Government authorities are now more concerned with the up gradation programme due to rapid urbanization and the declining law and order.

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VII. DIFFERENT ACTORS OF AUTHORITY AND POLITICS

RAJUK is the main governing body to develop, improve, extend and manage the city and the peripheral areas through a process of proper development planning and development control. RAJUK is controlled and governed by the Chairman and five other Members appointed by the Government. The overall responsibilities and functions are prescribed and assigned by the government. Though this is an autonomous body, there has been unyielding facts of politicization of the organizational structure. Members and chairman are appointed through indirect political process and many of them have not enough educational ability or experience to be appointed in such posts. There is a proof of mutual financial benefits between public and private actors in regards of land acquisition, development and housing projects. Some people of the authority always seek for personal interests rather than benefit of the city and influence the decision in support of their interests. Now it's widely known that the politicians are the major actors both in the public and private agencies. A major portion of the development projects in Bangladesh are financed by the bilateral or multilateral donors. A large amount of money is invested in different development projects but in the reality most of the funds are misused or embezzled before the outcomes. Moreover, in the present context of land price, mass transport system, land speculation etc. resettlement of urban poor to the fringe areas is very much theoretical. Most of the slum dwellers are city voters or in other way they are made voters for greater political interests of the politicians attached to this slum. So, slum dwellers have been using their agency in one hand for income generating activities and on the other hand they are making a 'space of negotiation' with the politicians for buying temporary tenure security.

VIII. SUGGESTIONS AND RECOMMENDATION FOR SUSTAINABLE OUTCOMES

The study found that most of the people are living in a temporary habitat in vulnerable condition due to low income, lack of support and insecure tenure system. This is because the land lords are very much speculative and under the shelter of political leaders and musclemen. As a result the slum dwellers are silent and reluctant to improve their present condition and they are in constant fears of eviction. On the other hand the Government has no such scheme and financial resource to rehabilitate this huge population. As discussed above most of the government body are corrupted and getting their undue benefit. Moreover there is no evidence of land and housing development for poor from private sphere. On the contrary, it is true that the slum dwellers are occupying a land of opportunity and high value. To rectify this present phenomenon it is necessary to find any alternative solution which is better for the existing dwellers and the city as a whole. Therefore based on above discussion and analysis the future steps should be-

Economic Sustainability-

- Decentralized system of governance. It would create positive impacts on effective allocation of employment, resource allocation, democratic control and enhanced responsibility. It may also improve the institutional strengths, empowerment and participatory development, service delivery and creating more employment effects. The study found that the labor force in Dhaka has increased rapidly due to migrating people and also for female participation especially in garments sector. This percentage is lower in other part of the country. Government should enforced policy for investors to empower in other part of the country like Khulna, Rajshahi, and Sylhet etc. to pull labor force. Also decentralization will create more district oriented service delivery jobs and sectors.
- Expanding earning opportunities for the poor. There should be investment policies to regenerate more diversified manufacturing sector especially creating green jobs rather than Garments like construction materials, electronics goods, food processing sector, automobiles, pharmaceuticals etc. which has potential force to advance the economy by using this labor force.
- By providing education and training can develop skills of poor workers and raised their productivity and income potentials.
- There should be policy for urban poor to access to credit like rural areas which could perform a considerable role in self employment creation by micro enterprises and enhancing the urban poor to develop new income generating opportunities.
- The economy of Bangladesh is primarily agrarian with about 35 per cent of Gross Domestic Product (GDP) [12]. Though the contribution of agriculture in national economy diminish in recent days due to climate change but still it's remain the principal contributor to income and employment generation and a essential element to reduce rural poverty and foster sustainable economic development. The Government should ensure and provide necessary agricultural policy to rectify this sector for future sustainable economic growth such as
 - *a.* sustainable responses to climate change
 - b. Enhanced water and electricity supply for irrigation
 - c. Supply and sustainable use of agricultural inputs
 - d. Fishery and livestock development program
 - e. Proper access to market

Social Sustainability-

Implementation of a strategic sustainable approach to planning. There should be specific sustainable approach to mitigate the climate change by adopting strong ecological tools. Innovative planning tools can introduced environmentally conscious land use planning strategies, sustainable transport management system, use of low carbon materials and tools and overall improved consumption patterns. For that government should organized

- *a.* Training programme to bring together all the expertise, stakeholders, research institutes, private sector actors at local level to exchange their information and views to response to climate change.
- *b.* Creating awareness and guidelines among poor people to address climate change.
- *c*. Enhanced risk management adaptation plan to participate at community level in vulnerable and hazardous situation.
- *d.* Strengthening the national policy to address the climate change impacts.
- Preparation or implementation of proper land use planning to prevent informal settlements. Also to reduce encroachment of agricultural land for urban development. Effective urban planning and its implementation is the response to such problems. For that Government should
- *a.* Allocate land in cheap price for poor people with controlled and proper management plan which will reduce the density and horizontal informal settlements.
- *b.* Enable financial mechanism to lend poor people for improving current housing condition and infrastructures.
- *c.* Integrated housing finance policies by national government.
- Increased public participation in the planning process specially the educated citizen should come forward to share information and data about sustainability to the mass people specially the poor. It is the responsibility of the local authorities and local leaders also to increased awareness among urban poor people to response with their problems. These will create strong democratic environment and enhanced responsive capacity which will help to reform country's policy as a whole.
- Synchronization and strengthen the relation between all of the actors including Government body, politician, private sector developers and NGOs. Government should take initiative to turn the sustainable development as a constitutional principle. This will require strong political commitment to addressing the growing problems of the urban poor in Dhaka within the context of the overall problems of poverty in the country.
- Establishing strong research and development institution for slum up gradation which will provide information and data to response to innovative options to tenure security, climate change, strengthening the financial network and community based performance etc.

Environmental Sustainability-

- Enhanced and increased infrastructure network by using and retrofitting the existing system. The government should intend to
 - *a.* Promote efficient multi-modal transportation systems that will reduce private automobiles dependence.

- *b.* Improved public transportation system to and from urban centers which will ease the movements of poor people from the fringe area to the city centers.
- *c*. Encouraging green building materials and technology such as solar system to reduce the dependency from the fossil fuel energy.
- Increasing water efficiency through investing in storm water drainage system, desalination and reuse and recycling of wastewater treatment.
- Protection and revitalization of urban wet land from informal settlements.
- Community awareness and participation in waste management system. Government should take initiative with collaboration with NGO's like: BRAC, ASA, DSK, BRISK, RIC, Intervida, Bureau Bangladesh, Glory, and SHAKTI which are working with sanitation system and made some community latrine, water point and drainpavement for the betterment of the slum.
- Delivering training and awareness programme among the slum dwellers to upgrade the environmental and physical condition of the area for improved social life style.

IX. CONCLUSION

The slums are not a passing phenomenon. They are the permanent features of urban centers and government can no longer ignore of their citizenry rights. They are the failure of government to implement the necessary redistributive policies to provide low-income residents with sufficient land, infrastructure, services and support for new housing [15]. In many countries the collective power of urban poor created exceptional results in building new homes and upgrading existing slum housing [22]. The government should develop or regenerate mechanism in other urban centers except Dhaka so that all those migrants do not head for major cities. The political and government wills together with the different public and private agencies can change the scenario of the present state of urban poor and create an example of sustainable redevelopment of urban poor.

REFERENCES

- [1] Ahmed, K., personal communication, 22nd September, 2102.
- [2] BBS- Bangladesh Bureau of Statistics (2011, 2001), Bangladesh Population Census 2011, 2001, Dhaka, Ministry of Planning, Gov. of Bangladesh
- [3] Biplob, P., Sarkar, D. C. & Sarkar, R. C., 2011, 'Assessment of Water Supply and Sanitation Facilities for Korail Slum in Dhaka City', *International Journal of Civil & Environment Engineering, IJCEE-IJENS*, Vol. 11, No.5.
- [4] Center for urban Studies (CUS), National Institute of Population research and Training (NIPRT) and Measure Evaluation, 2006, 'Slums of Urban Bangladesh: Mapping and census, 2005', Bangladesh and Chapel Hill, USA.
- [5] Farzana, F., 2004, 'Shortages of middle income owner occupied housing in Dhaka failures of government or market?', MA Thesis, National University of Singapore, Singapore.
- [6] Hammadi, S., 2012, 'Cleaning Korail', South Asian Trust, Featured Article, 11 may, 2012. www.himalmag.com/component/content/article/5058-.html.

International Journal of Business, Human and Social Sciences ISSN: 2517-9411 Vol:7, No:3, 2013

- [7] Habib, E., 2009, 'The Role of government and NGOs in Slum development: the case of Dhaka city', *Development in Practice*, Vol. 19, No. 2, pp. 259-265.
- [8] Islam, N., 1996, 'Sustainability issues in urban housing in a low-income country: Bangladesh', *Habitat International*, Vol. 20, No. 3, pp. 377-388.
- [9] Khan, M., 2010, 'Impact of Climate Change on the Livelihood of the Urban Poor: A case of Dhaka City', MA Thesis, North South University, Bangladesh.
- [10] Mridha, M.K., Hossain, A., Alam, B., Sarkar, B.K., Wahed, T., Khan, R. & Roy, S., 2009, 'The Perceptions of Community Groups to Improve MNCH in Urban Slums: An Exploratory Case study of Korail Slum in Dhaka', Report of Manoshi, Working Paper, Series-9, Published by ICDDRB and BRAC.
- [11] Nahiduzzaman, Kh., Md., 2006, 'Housing the Urban Poor: Planning, Business and politics, A case study of Duaripara Slum, Dhaka City, Bangladesh', MA Thesis, Norwegian University of Science and Technology (NTNU), Norway.
- [12] NAEP, New Agricultural Extension Policy, Government of the People's Republic Bangladesh, Ministry of Agriculture, 1996.
- [13] Nawaz, R., 2004, 'Right to shelter: Bangladesh', International Conference on Adequate and Affordable Housing for All, Centre for Urban and Community Studies, University of Toronto, Canada.
- [14] Operational Context study: An Assessment of Bangladesh Urban Slum situation Report, 2009, DSK-Shiree Project, www.shiree.org.
- [15] Parsons, A., 2010, 'The Seven Myths of Slums: Challenging popular prejudices about the World Urban poor', *Share The World's Resources*, December, 2010, UK.
- [16] REHAB (2012), A Comprehensive study on the Real Estate Sector of Bangladesh, July12, 2012.
- [17] RAJUK (2012), www.rajukdhaka.gov.bd.
- [18] Report on Land price Doubled, written by Admin, Newagebd, March, 2010.
- [19] Report on Dhaka: Improving the Living Conditions for the Urban Poor, Bangladesh Development Series, Paper-17, World Bank, June 2007.
- [20] Sayeda, A., 2009, 'Behind soaring land Prices', Daily star Report, sayeda@thedailystar.net
- [21] Sohail, M. (ed), 2007, 'Accountability Arrangements to combat Corruption in the Delivery of Infrastructure Services in Bangladesh', *Report of Institute for Development Policy Analysis and Advocacy* (*IDPAA*), Proshika & WEDC, Loughborough University, UK.
- [22] United Nations Department of Economic and Social Affairs, Population Division, World Urbanization Prospects: The 2007 Revision, February 2008,
- http://www.un.org/esa/population/publications/wup2007/2007wup.htm. [23] Williams, K., 2004, 'Can urban intensification contribute to sustainable
- cities? An international perspective, URL, http://www.urbanicity.org