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## **Development measures for slums of Dhaka city: Case study area Korail slum.**

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### **KEYWORDS**

Sustainability, economic, social, environmental, development measures, government policy.

### **ABSTRACT**

Dhaka, the capital city of Bangladesh is extremely populated, unhygienic and environmentally degraded city. The growing number of population and environmental degradation are due to natural disaster and economic depression that peoples incline to migrate from other cities to Dhaka for better living. These are mostly resulted from the failures of the government in initiation of proper policies, measures in development. So, investing resources in slum development projects should preferably be based on comprehensible indication of which specific intervention is more effective. What impact do upgrading projects have on the welfare of the population and how can they be improved to meet the needs of the urban poor? This research will focus on specific indication of intervention and suggestion for the redevelopment of the urban poor in case of Dhaka city. This is now prime time to established planning and environmental management policy and sustainable development of the city area. Urban land management, rehabilitation and socio-economic development of the slum dwellers are also very important issues. The key focus of this paper is to find out sustainable development process for urban slum dwellers and build sustainable living place for them which are free from eviction, criminals, rent seekers and other miscreants.

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## **1. Introduction**

Dhaka, the capital city of Bangladesh is one of the most densely inhabited cities of the world (UN Population Division, 2008). The major parts of this population are migrant urban poor from rural areas for better economic opportunities due to various reasons. They live in environments with significantly low living standards in terms of environmental, social, economic, cultural and all kind of civic participations. Although, they 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 competitions and lack of their abilities to match with that capacity. Moreover, these poor communities create along with poverty a significant pressure on urban land and infrastructure, environment and ecology of Dhaka city. This is a 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.

## **2. Research aims and methodology**

### **2.1 Aims and Objectives**

The main focus of this research is to understand and formulate a sustainable development strategy for the urban poor. For this purpose, a case study has been analyzed in the context of Dhaka city to find out the key reasons of urban poverty and their associated socio economic and environmental conditions. Due to high land value in the metropolitan area of Dhaka, it is impossible to accommodate the huge population along with upcoming force. Therefore, the aims and objective of this research has been set to meet the demand of the Dhaka city as well as country as a whole. The main objectives of this research are:

1. To identify the economical sustainability initiatives for the slum dwellers to improve their livability and infrastructure conditions.
2. To provide sustainable community development solutions.
3. Alternative solutions for better land use planning and management for slum up gradation program and urban planning policy recommendation within the current planning framework for the Dhaka city.
4. To develop an alternative mechanism to mitigate the problems associated with land availability and land value.
5. Identify the roles and responsibilities of governments, private sector developers and NGOs and suggestions for current planning framework.

### **2.2 Research methodology**

The study has used qualitative and quantitative methods for data collection analysis. According to the objectives it was necessary to know the demographic character of the slum dwellers, monthly income, house rent, employment and mobility pattern, structure of houses and pattern etc. This study is concerned with the development strategy for the urban poor and to achieve the targeted goals and objectives the case study method was adopted taking 'Korail' slum area as a case. The rationale for choosing a case study as the research methodology was largely based on its ability to answer the 'how' question. For example in evaluating the impact of the project, illustrative information was sought which describes the effect or influence of the independent variables on the dependent variables. This methodology also allows for the consideration of contemporary events in an environment where the behavior of persons and organizations cannot be directly controlled. It also facilitates to taken into account the different views of the actors involved. This method helps to identify the complex dynamics of the site with which it intersects. While it has some limitations also as it established generalized theory from a single case. Therefore the area is vast and there are so many complex issues interrelated. It is difficult to understand the real life situation of urban poor and to identify the related issues that are barrier of redevelopment process of slum upgrading projects from the vast area.

## 2.3 Research Gap

From above discussion it was clear that in developing countries economic distribution is unequal among its population resultant are continuous growing urban poor settlements. The main problem encountered in providing low-income housing in Bangladesh is the financial one and also the practice of urban planning is not appropriate to solve the problem (Choguill, 1988). In another study shows that the public and formal housing sector only addressed the needs of upper and upper middle income people and the poor are left to be exploited by the informal entrepreneurs (Islam, 1996). For the development of these huge numbers of poor people there should be sustainable and systematic approaches. There are various issues which are the barrier to underpin any development. These are -1. Most of the slums settlements are in private properties and the numbers of owner is multiple. 2. High price and high demand of land. 3. Tremendous growth of migrated people. 4. Lack of Government resources and capacities 5. Lack of financial instruments. 6. Lack of association with public and private housing organization. 7. No proper mechanism to initiate and maintain such project.

## 2.4 Study Area

For the purpose of carrying out the research and to attain the objective, Korail slum (fig.1) area have been chosen as the study area. The selection is based on its prime location close to Gulshan and Banani posh residential area of the Dhaka city. The land price is high and the site has a potential for urban development. Moreover, the people of the study area serve the surrounding neighborhoods for many purposes. Most of them are employed as maid, driver, care taker, garments worker and worked in the small retail store as helper. They are important part in providing services to the surrounding areas 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.



Figure 1: Aerial view of Korail Slum, Dhaka Source: Google image, 2005

## 3. Literature Review

“Renewing cities is as old as the city itself; it is characteristic of the organic nature of cities that building and rebuilding are a continuous aspect of the urban environment” (Cross and Collier, 1967, p. ii). From mid nineteenth century poor’s appeared as slum in the city and urban renewal and the movement of slum clearance started (Greer, 1965). The common idea of these programs was to demolish slums and re-housed them in new location - (Doebele, 1987). However, the idea of demolition and redevelopment became less eminent in housing strategy because of the criticism and lack of funds. As an alternative, policy maker pay more attention in housing improvement within existing settlements (Mukhija, 2002). On the other hand, the work of John Turner in Peru proposed that insolvent communities understand their own conditions and are therefore the most effective actors to produce change (Desmarais, 2009). These theories strongly focused the term ‘self-help’ housing concept. The World Bank promoted a policy of tenure legislation through Slum Upgrading program principally inspired by John Turner’s work (1963, 1967). Yet Turner's theories are still at the center of the idea of enablement. Overall, enablement has traditionally fallen into two categories: financial mechanisms that promote efficient markets and credit systems and providing legal land tenure (Mukhija, 2001). According to Abrams and Turner residents are

reluctant to invest in their structures without the security of tenure. The slum residents are always in a fear of eviction as they occupied land illegally and unwilling to invest to improve their physical condition. In Karachi, Pakistan there was an example where poor invested to enhance the physical condition when they got the security of tenure (Angel, 1983). On the other hand along with tenure security income level of residents and the political environment are also very influential in the success of any slum upgrading programs (Poppelwell, 1997). These findings indicate that tenure security can be an effective tool for housing the poor by activates the people (Angel, 1983). Interestingly, neither the literature advocating tenure legalization nor the literature criticizing the strategy which creates some vital questions-

- In what kinds of slums is tenure legalization likely to lead to upgrading (Mukhija, 2001)?
- Under what physical conditions does self-help work?
- Are there any physical attributes of settlements that support or impede slum upgrading?

In most of the developing countries the location of slums and squatters settlement are in the core of the urban cities. Thus the better location leads to a large degree of difference in land values and a prospective enticement for demolition and redevelopment. On the other hand these settlements are major centers for employment and prosperity (Benjamin, 1991). The poor people lived in these settlements also depends on activities within the settlements for their livelihood. As a result, any interruption of those economic activities can have a drastically bad impact on their households (Mukhija, 2001). Moreover, these settlements are unorganized, chaotic and irregularly arranged in a place. Therefore, it is almost difficult for all the slum dwellers to improve their condition through incremental growth strategies. According to social scientists the structure and agency are the more influential factors of any changes like environmental, social, urban etc. and there is strong relationship with actors (in terms of agency) in the development process (Fazeeha, 1999). Giddens theory explained that “the structuring of social relations across time and space, in virtue of the duality of structure. It means that the structure is composed of positioned actors who commence social actions and interaction, and at the same time, the structure is also the rules, resources and social relationships that are produced and reproduced in social interaction” (Giddens, 1984, p. 376). On the other hand, some have considered political institutions and organizations as structures while some others have considered the social structures alone as structures (Sztompka, 1994). Fundamentally all these structure and agency are affected by the rapid and complex nature of urban growth, which surpass the capacity of national and local governments to plan and organize this transformation (Nahiduzzaman, 2007). Certainly, most of the developing countries have been facing these serious challenges. Most of them adopted different policies, strategies and methods, but with few exceptions their efforts have proved generally inadequate. As a result there are continuous expansion of slum settlement, high rate of unemployment, inadequate infrastructure and services, environmental degradation and pollution.

#### **4. Outcome of the Analysis**

The Korail slum area has been analyzed in terms of its socio-demographic profile, economic conditions, habitation types and environmental situations etc. The characters of the surrounding neighborhoods were also analyzed in terms of land values, habitation types and patterns. To justify the analysis the research also analyzed the urban land speculation of Dhaka city, housing provisions for urban poor people. The research also tried to figure out the government and different NGO's initiation to mitigate the problem of urban poor.

##### **4.1 Social, Economic and Environmental analysis**

The range of total population as mentioned by the slum dwellers is 86,200—115,000 people with 31,950 males; 37,050 females; and, 17,200 under five children (Manoshi-WP, 2009). Most of the people live here is Muslims by religion and no educational background (IDPAA, 2007). 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. These urban poor are occupied mostly in urban informal sectors. They employed in garments sector, driver of various types of vehicles, masons, day laborers, office peon, carpenters, boatmen, and low-grade employee in private, government or semi government organization. The Female labor forces are engaged in garments sector,

sewing, embroidery, preparing food, maid both in houses and offices etc. The monthly income level of the inhabitants living in this area is low. The maximum income of the poor is spent in food and accommodations. The feature of housing of the urban poor is very low. Most of them live in temporary home especially tin-shed housing (Fig.2) and very small portion of them live in semi pucca/pucca housing with permanent walls. They are used to living in single-room houses with five to eight members which are 14 sq meter (150 sq feet) to 18.5 sq meter (200 sq feet) (Ahmed, 2012). 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 infrastructure and services are very poor. Street pattern are very chaotic and disorganized; and very little connection with the surrounding major road (CUS, 2005). 60% water supply provided by DWASA and 40% bought from outside the area with a monthly payment (Khan, 2010). There are electricity and gas services available in this area but not continues and adequate. The sanitation facilities are very unhygienic and vulnerable (Biplob, Chandra and Sarker, 2011). They have limited access to the city health care services and educational institute. Some NGOs run two high school and twenty primary education centers in this area.



**Figure 2: Lake Side settlement, outside cooking area, narrow walkway, and tin shade slum habitat.**  
Source: Ahmed, 2012, personal communication

## 4.2 Neighborhood and urban land analysis

The analysis found that the slum area has been located in the posh area of the Dhaka city where the land price has increased more than 200% over the past two decades (Rehab, 2012). Most of the urban lands of the city are under 30% of the household ownership (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 (Farzana, 2004). On the other hand, land speculators 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 (Nahiduzzaman, 2006).

## 4.3 Analysis of government body, authorities and NGO's

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. There are other authorities like LGD, NHA, and PWD whom are also responsible for governing development for Dhaka. The overall responsibilities and functions are prescribed and assigned by the government. Though these all are an autonomous body, there has been unyielding facts of politicization of the organizational structure. Now it's widely known that the politicians are the major actors both in the public and private agencies. 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. There are insufficient budget resources allocated by government to meet demand. Local resources come from property taxes, some cost recovery, and government transfers. There are inefficiencies with each and the resources are well below what is needed to cover the cost-of-service provision. For DCC, 63 percent of resources come from own revenue, and 37 percent from Government grants (Nahiduzzaman, 2012). For the poor, services are even more limited as Government agencies do not work in slum settlements. On

the other hand, 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. As NGOs have become increasingly widespread, there is also apprehension of a diminishing accountability between elected central and local Government representatives and clients. Weaknesses in the regulatory framework and in financial accountability raise questions as to the fiduciary risks of further expansion (World Bank, 2005). Moreover, 97% of the slum dwellers do not own the plot where they live (Habib, 2009). 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.)

## 5. Key Challenges for Sustainable outcomes

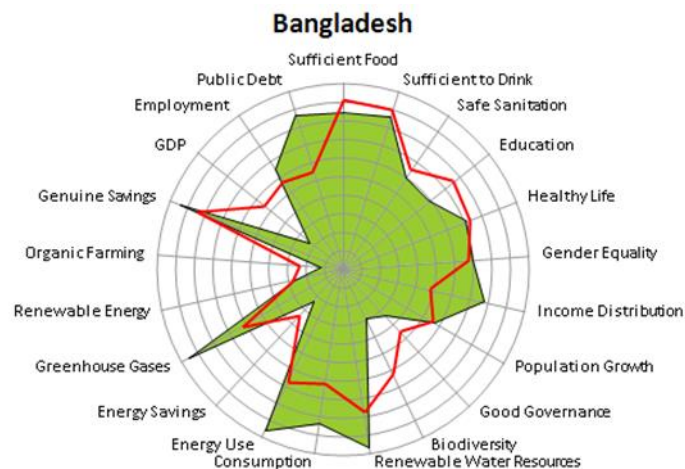
The poverty and sustainability are two very complex issues. In general poverty means "lack of income and productive resources to ensure sustainable livelihoods; hunger and malnutrition; ill health; limited or lack of access to education and other basic services; homelessness and inadequate housing; unsafe environments and social discrimination and exclusion" (UN, 1995). On the other hand Sustainable urban development means to improve the long-term social, economic and environmental health of cities. It is necessary to return to the definition of a successful slum improvement project as one that not only solves the housing crisis, but is also sustainable (Desmarais, 2009). A sustainable project is one in which residents 1) are contented to remain in the environment, and 2) feel a sense of ownership towards their buildings. Comfort and ownership are linked to financial stability and land security (Desmarais, 2009).

The conception of physical planning of new housing areas should not be related to variable factors such as income and tenure but should rather be related to the idea of providing all housing with equal opportunities for growth and development over time (Mosienyane, 1996, p-142). There is an example of successful housing for slum in Botswana under Botswana's Self- Help Housing Agency (SHHA). In this project the government provides basic infrastructure services and residents are given land security to improve their housing with access to building material loans. The project is self-financed with residents and they pay a small fee to cover the costs of the services. This is conventional sites and services approach and successful, but the idea of sustainability still not attained (Desmarais, 2009). The study found that the growing population is the key reason for urban slum in Dhaka city. Most of them are severely affected by climate change due to country's size, geographical location and elevation (Haub, 2013). Due to poverty, there are lacks of basic needs and people fail to finance their needs such as foods, charcoal, and land for settlement, agriculture. Moreover, they are more likely to be affected due to water and food shortages, as well as the rapid spread of diseases. And also fail to build houses and therefore they have occupied environmentally most vulnerable sites like along the banks of lake or river. They are living in a temporary habitat in vulnerable conditions due to lack of support and insecure tenure system. They have been paying a higher amount of money for house rent, getting civic amenities and facilities like water, electricity, and so on. 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.

The economic challenges linked to the uncertainty of future economic growth, the new doubts on market led approaches and the expanding informality of urban activities (UN Habitat, 2012). 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 key challenges are- Population density, Housing/tenure security, Food security, Health, Climate change, Economic growth, Good governance, Humanitarian assistance, Crisis prevention and responses (USAID, 2013).



## 6. Recommendation and suggestion for sustainable development



**Figure 3: The spider web shows the score of each of the 21 indicators of the country in green, on a scale of 1-10 (10=sustainable, 1=not sustainable). The red line is the weighted average score of all countries. Source: SSI-2020**

Poverty eradication, changing unsustainable patterns of production and consumption, and protecting and managing the natural resource base of economic and social development are overarching objectives of, and essential requirements for, sustainable development. The above figure shows the level of inadequacy in 21 indicators of sustainability of Bangladesh (Fig.3). Good governance at all level is essential for sustainable development (World Summit, 2002). There should be appropriate environmental, social and economic policies, autonomous institutions, the rule of law, anti-corruption measures, gender equality and facilitate sound environment for investment are the basis for sustainable development (UN Habitat, 2010). Moreover, as a result of globalization, it is difficult to measures the success of sustainable development in developing countries. Peace, security, stability and respect for human rights and fundamental freedoms, including the right to development, as well as respect for cultural diversity, are essential for achieving sustainable development and ensuring that sustainable development benefits all (World Summit, 2002). For economic sustainability it is essential to improve the income-earning opportunities for the poor by ensuring a vibrant labor market in Dhaka. There are several factors which are likely to influence the labor market over the coming years. First of all, the continuing migration which will both put additional pressure on the labor market, and also bring new capital, new skills and new entrepreneurs (The world Bank, 2007).

For environmental sustainability it is important to incorporate Land use planning and development planning policy to limit the use of specific land and control construction to protect unique habitats where there are high levels of bio diversity (Islam, 2007). Also, there should be law to protect the wetland through land zoning which is one of the key concerns for environmentalists in respect of Dhaka city. Energy and the preservation of resources are currently at the heart of the international debate on sustainable development. Energy occupies a major role in the alleviation of poverty and the construction of sustainable development. This is a basic aspect of the physical and natural world and humanity's socio-economic (Legrand, 2011). As a primary resource, it is crucial for the implementation of all initiatives to combat poverty, and constitutes the engine of socio-economic development (World Summit, 2002).

## 7. Implementations and action plan for sustainable development

There are different schemes and programs in different county in favor of sustainable development. The government's Vision 2021 and the associated Perspective Plan 2010-2021 have set a target for Bangladesh to become a middle-income country by 2021 for which it requires a GDP growth of at least 8 percent, or more than 2 percentage points higher than that observed in the last decade (87656). This plan aims to ensure high economic growth through increased and more productive employment. With 78 per

cent of the labor force engaged in low-income, low-productivity jobs in the informal sector, the challenge will be to boost income and productivity, and to transfer labor to the formal sector. The sixth five-year plan includes provisions for collaboration with the international community to address the adverse consequences of climate change. The plan's well-defined policy and legal frameworks will further strengthen partnerships with the private sector for the provision of critical economic services such as electricity and roads in rural areas. Under the plan, the government will also build on its track record of working with NGOs in the delivery of health, education and microcredit services (IFAD, 2012). This study reflects an inclusive observation at poverty in Dhaka with an aim to provide the basis for an urban poverty reduction strategy for the Government of Bangladesh, local authorities, donors, and NGOs. While the needs in Dhaka are enormous, this action plan focuses on issues of employment, land and housing, basic services, community involvement and social awareness. The sustainable development recommendations provide a platform for policy reforms to meet the growing challenges and urgent needs of the slum of the Dhaka city. In view of the size of the task, sustainable development requires co-ordinate action by all of the economic actors and the public authorities (Legrand, 2011). The political authorities must work to resolve a dynamic economy, a high level of education, protection of health and social and territorial cohesion with protection of the environment. The multiplicity of the objectives of sustainable development involves many policies and actions to be conducted and co-ordinate by the state and by civil society.

## **8. Measures of Sustainability**

### **8.1 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 enforce 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. The economic sustainability may achieve through-

- i. 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 (The World Bank, 2007).
- ii. Building capacity through training. The Implementation capacity could be strengthened at every level including central and local government institutions, NGOs, and community members.
- iii. 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.
- iv. There should be alternative payment schemes. Cost recovery schemes are viable as evidenced by the fact that the poor already do pay substantial amounts for services. The development of alternative schemes could provide more flexibility for the poorest ensuring that they will be able to afford services in times of need.
- v. Government should initiate proper financing mechanism for housing low-income group. They may introduce formal financial institution to lend to low-income group and reinforce the housing information systems to develop a holistic approach to housing finance. There should be integrated linkage between informal and formal housing finance sector. (APMCHUD, June 2010)
- vi. Utilizing alternative delivery mechanisms. For some services, alternative delivery mechanisms may provide a way to reduce cost and improve access. This could include distance learning programs, mobile health units, and shared water points where groups of households could join in purchasing a water



connection. Households would then be responsible for organizing payment, and the operations and maintenance of the equipment.

The economy of Bangladesh is primarily agrarian with about 35 per cent of Gross Domestic Product (GDP) (NAEP, 1996). Though the contribution of agriculture in national economy diminish in recent days due to climate change but still it's remained the principal contributor to income and employment generation and an 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 (Fig.4)



**Figure 4: Agriculture of Bangladesh, Source: IFAD, 2012**

## 8.2 Social Sustainability

To achieve social sustainability government should -

- a. Implement 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 introduce 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-Training program 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. There should be awareness and guidelines among poor people to address climate change and risk management adaptation plan.
- b. 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-
  - Allocate land in cheap price for poor people with controlled and proper management plan which will reduce the density and horizontal informal settlements.
  - Enable financial mechanism to lend poor people for improving current housing condition and infrastructures.
  - Integrated housing finance policies by national government.
- c. Strengthening the performance of RAJUK by separating the multiple functions as planning, planning enforcement, land servicing, and housing projects which generate conflicts of interest and are not implemented efficiently at present (The World Bank, 2007). So for that-
  - Planning functions should be given to the current RAJUK jurisdiction (5 municipalities).
  - Planning enforcement should be given to another body to avoid conflicts of interest.
  - The private sector should be allowed to compete on level ground for land servicing though there is room for a public land service,
  - Construction of housing units for medium or high-income households should be left to the private sector. Low-income housing projects could be done by a specific entity, but RAJUK is not the best candidate since its mandate was never focused on the poor.
- d. Improving legal and regulatory framework to gain efficiency in the land and housing markets, due to constraints caused by the existing laws and regulations applying to zoning, land subdivision, and building. Those include:
  - Suppressing of minimum lot size for land subdivisions;
  - Allowing for the possibility of bringing utilities to housing units built without title / building permit;

- Lowering registration fees and transfer fees for land and housing;
  - Reviewing of the existing regulations, with the aim of removing the main obstacles to the smooth functioning of the market. (Nahiduzzaman, 2012)
- e. Focusing attention on addressing urban poverty. The lack of a clear policy for urban poverty reduction has been raised numerous times as a major constraint. While this requires a major political commitment, developing a strategy through a consultative process including stakeholders is important to focusing attention to the growing problems of poverty in Dhaka and other Cities. An effective policy could provide a strategy for addressing poor areas, including the mandate and specific guidance for prioritizing the delivery of services to the urban poor and dealing with the issue of legal land tenure. Clearly identifying roles and responsibilities within Government, as well as for partners outside the Government (e.g., NGOs, private sector) will help to ensure implementation (UNDP, 2011).
- f. Increased public or community participation (Fig.5) in the planning process. To ensure the participation Government should strengthen the policies and legislation in Housing and Urban Development projects that will benefit all parties concerned, particularly the communities. The educated citizen should also come forward to share information and data about sustainability to the mass people specially the poor. It is the key responsibility of the local authorities and local leaders to increased awareness among urban poor people to response with their problems. (UNDP, 2011)
- g. 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.
- h. 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.
- i. Strengthening the role of local municipalities. Currently many basic services are run by Central ministries who are not always able to respond to needs at the local level. There is much scope for strengthening the role of DCC in urban management, and playing a greater role in improving interagency coordination with the various development authorities responsible for infrastructure development and service provision.
- j. Improving accountability and oversight. There is a need to hold agencies accountable for delivering quality services, with a mechanism for allowing grievances to be handled. Approaches used in other countries include a performance-based monitoring system with credible indicators and feedback system and the introduction of incentives in public sector organizations.
- k. Coordinating between service providers. Given the range of services and service providers who face the same challenges, it would be beneficial to foster coordination across institutions and to identify potential synergies. All stakeholders mentioned the need for improvements in coordination. This includes improved coordination between government agencies, Donors, and NGOs. This could be achieved through activities such as stakeholder workshops and capacity building.
- l. Addressing crime and violence in slum areas to resist the illegal activities of the muscle men's (locally known as mastaans), which are pervasive particularly in slum areas. There are several detailed recommendations for crime and violence prevention stemming from international experience, most of these efforts require intensive effort by the Ministry of Women and Children Affairs, but community involvement is essential (The World Bank, 2007).



**Figure 5: Community Participation Source: DSK-Shiree Project, 2011**

### 8.3 Environmental Sustainability

To achieve the environmental sustainability it is necessary to 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.
- d. Increasing water efficiency through investing in storm water drainage system, desalination and reuse and recycling of wastewater treatment.
- e. Preservation and revitalization of urban wet land from informal settlements. A number of activities may have been put in place to support the conservation and preservation of wetlands, such as upstream storm water retention, rainwater harvesting, effective control of run-off and erosion, treatment of the water in dams by introducing the effective use of micro-organisms, and the introduction of suitable flora and fauna, such as the giant bamboo.
- f. The Government should initiate project (Fig.6) supported the environmental bureaus in the cities to formulate and implement environmental response strategies and detailed action plans which addressed priorities such as air pollution, liquid and solid waste management, and the depletion of water resources through innovative participatory environmental governance mechanisms (UN-Habitat, 2010)
- g. 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 drain-pavement for the betterment of the slum.
- h. Delivering training and awareness program among the slum dwellers to upgrade the environmental and physical condition of the area for improved social life style.
- i. Civic engagement and promoting planning innovations in environmental management. It should necessary to set up of experiences in sustainable service delivery, land use management and urban investment in general.

**Figure 6: Environmental awareness among urban slum community, Source: UNDP, 2010**

### 9. 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 neither the resultant of urban migration from the rural area nor the excessive population growth but 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 (Parsons, 2010). On the other hand, according to anthropologist the poor are not a burden upon the urbanizing city, but are often its most dynamic resource (Parsons, 2010). In many countries the collective power of urban poor created exceptional results in building new homes and upgrading existing slum housing (UN Habitat, 2010). The government should develop or regenerate mechanism in other urban centers except Dhaka so that all those migrants do not head for major cities. They should priorities areas with less agricultural value and ecological sensitivity

with job allocation and better connectivity (Roy, 2009). 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 development for urban poor. At the world summit held in September, 2000 set a target and commitment that has to be achieved by 2015 which was adopted by the 149 nations and signed by 147 heads of states.

The target is to achieve the eight millennium development goals. These are- Eradicate extreme poverty and hunger, Achieve Universal Primary Education (UPE), Promote Gender Equality and Empower women, reduce child mortality, improve maternal health, Combating HIV/AIDS Malaria and other diseases, ensure environmental sustainability, developing a Global Partnership for development (Omar, 2010). In conclusion, there are various challenges affecting achievement of sustainable development in developing countries along with all the responsibility for both obstacles and possibility for its achievement. Under the circumstances, these challenges should be solved in order to promote quality life among generations in terms of resource distribution. Overall, the implementation of the outcomes should benefit all, particularly women, youth, children and vulnerable groups. Furthermore, the implementation should involve all relevant actors through partnerships, especially between Governments and major groups, to achieve the widely shared goals of sustainable development that are key to pursuing sustainable development in a globalizing world.

## Reference

- Ahmed, K., personal communication, 22nd September, 2021.
- APMCHUD, 2010, 'The Third Asia Pacific Ministerial Conference on Housing and Urban Development', Solo Implementation Plan, Central Java, Indonesia, June 2010.
- Angel, S., 1983, 'Land tenure for the Urban Poor', Working paper (Asian Institute of Technology. Division of Human Settlements Development), Vol. 1, Human Settlements Division, Asian Institute of Technology press, Bangkok.
- 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
- Choguill, C., L., 1988, 'Problems in Providing Low-Income Housing in Bangladesh', Habitat International, Vol. 12, No. 3, pp. 29-39.
- Cross, K., J., & Collier, R., W., 1967, 'the Urban Renewal Process in Canada: An Analysis of Current Practice', Vancouver, British Columbia: University of British Columbia.
- 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.
- DSK, Shiree Project, 2011, 'Eradication of extreme poverty among the slum dwellers in Dhaka city', May, 2011, [www.dskbangladesh.org](http://www.dskbangladesh.org).
- Desmarais, F., 2009, 'Designing Slum improvements: Solving the international housing crisis through appropriate architecture', A Thesis, The Colorado College.
- Doebele, W., A., 1987, 'The Evolution of Concepts of Urban Land Tenure in Developing Countries' Habitat international, Vol. 11, No. 1, pp. 7-22, 1987.
- Farzana, F., 2004, 'Shortages of middle-income owner-occupied housing in Dhaka failures of government or market?' MA Thesis, National University of Singapore, Singapore.
- Fazeeha, M., I., 1999, 'Urban poverty and poor housing conditions: a study of Mahayyawa, one of the low-income areas in the city of Kandy, Sri Lanka', MA Thesis, Norwegian University of Science and Technology (NTNU), Norway.
- Greer, S., 1965, 'Urban Renewal and American Cities: The Dilemma of Democratic Intervention', New York: The Bobbs-Merrill Company, Inc.
- Giddens, A., 1984, 'The constitution of society: outline of the theory of structuration', University of California press, USA.
- 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.

- Haub. C., 2013, 'World Population Awareness: How to attain population Sustainability', Population Reference Bureau, June, 2013.
- Islam, S., 2007, 'Physical Density and urban sprawl: A case of Dhaka City', MA Thesis, KTH, Stockholm, 2007.
- Islam, N., 1996, 'Sustainability issues in urban housing in a low-income country: Bangladesh', Habitat International, Vol. 20, No. 3, pp. 377-388.
- 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.
- Mukhija, V., 2001, 'Upgrading Housing Settlements in Developing Countries: The Impact of Existing Physical Conditions', Cities, Vol. 18, No. 4, pp. 213–222, 2001, [www.elsevier.com/locate/cities](http://www.elsevier.com/locate/cities)
- Mukhija, V., 2002, 'An Analytical Framework for Urban Upgrading: Property Rights, Property Values and Physical Attributes', Habitat International, Vol. 26, No. 4, pp. 553–570, 2002.
- 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 ICDDR, and BRAC.
- Nahiduzzaman, Kh., Md., 2012, 'Housing the urban poor: An integrated governance perspective, the case of Dhaka, Bangladesh', Doctoral Thesis, KTH, Stockholm, 2012.
- 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.
- NAEP, 1996, 'New Agricultural Extension Policy', Governments of the People's Republic of Bangladesh, Ministry of Agriculture, 1996.
- Omar, H., 2010, 'The challenges of achieving sustainable development in both developed and developing countries, and their adjustments', Articles base, 2010.
- Parsons, A., 2010, 'The Seven Myths of Slums: Challenging popular prejudices about the World Urban poor', Share the World's Resources, December, 2010, UK.
- Poppelwell, T., 1997, 'Slum Upgrading Revisited: An evaluation of the Tondo Foreshore urban development project', MA Thesis, The University of British Columbia, UK.
- REHAB (2012), A Comprehensive study on the Real Estate Sector of Bangladesh, July12, 2012.
- Roy, M., 2009, 'Planning for sustainable urbanization in fast growing cities: Mitigation and adaptation issues addressed in Dhaka, Bangladesh', Habitat International, Vol. 33, pp. 279- 286.
- Report on 'Dhaka: Improving the Living Conditions for the Urban Poor', Bangladesh Development Series, Paper-17, World Bank, June 2007.
- Report of 'World Summit on Sustainable Development, plan of Implementation', 2002, UN document, A/conf: 199/20, September, 2002.
- Report on International Fund for Agricultural Development (IFAD), 'Enabling poor rural people to overcome poverty in Bangladesh', June, 2012, [www.ifad.org](http://www.ifad.org).
- 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.
- Sustainable Society Index, Sustainability and the SSI – Sustainable Society Index ([ssfindex.com](http://ssfindex.com))
- Sztompka, P., 1994, 'Agency and structure: reorienting social theory', in Sztompka, P. (ed), Gordon and Breach Science Publishers, University of California press, USA.
- United Nations Human Settlements Programme, 'Sustainable Urbanization in Asia: A Sourcebook for local governments', UN-Habitat, 2012, <http://www.unhabitat.org>.
- United Nations Human Settlements Programme, 'Planning Sustainable Cities', UN-Habitat Practices and Perspectives, UN-Habitat, 2010, <http://www.unhabitat.org>.
- United Nations Department of Economic and Social Affairs, Population Division, World Urbanization Prospects: The 2007 Revision, February 2008.
- UNDP Country Programme for Bangladesh: 2012-2016, September, 2011.
- Report on Urban Partnerships for Poverty Reduction Project, 'the poor have a name and story: Urban Poverty in Bangladesh', March, 2010, <http://urbanpovertyinbangladesh.blogspot.com>.

- USAID policy, Draft report, 2013, 'Sustainable Service Delivery in an increasingly urbanized world', USAID.
- US Government Document, 'Bangladesh: The Feed the Future (FTF) Multi-Year Strategies', February, 2011.
- Legrand, 2011, [http://www.legrand.com/EN/sustainable-development\\_12515.html](http://www.legrand.com/EN/sustainable-development_12515.html)
- World Bank, 2005. Economic Growth in the 1990s: Learning from a Decade of Reform. Washington, D.C: World Bank
- Warhurst, A, 2002, "Sustainability Indicators and Sustainability Performance Management", Report for MMSD, project of IIED, WBCSD.

**List of Acronym:**

CUS	Center for Urban Studies
DWASA	Dhaka Water Supply Authority
LGED	Local Government Engineering Department
NGOs	Non-Government Organizations
NHA	National Housing Authority
PWD	Public works Department
RAJUK	Rajdhani Unnayan Kartripakkhya
REHAB	Real Estate and Housing Association of Bangladesh
UNHCHS	United Nations Centre for Human Settlement