Vol. 3 No. 3 2025

RECOGNIZED IN "Y" CATEGORY BY

Research Consortium Archive
P(ISSN) : 3007-0031
E(ISSN) : 3007-004X
https://rc-archive.com/index.php/Journal/about

City Planning and Urban Growth: Case Study of Urban Regeneration & Squatter Settlement in Islamabad

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Publisher : EDUCATION GENIUS SOLUTIONS
Review Type: Double Blind Peer Review

ABSTRACT

Alike many big urban centres in under developed countries, Islamabad is experiencing a high rate of urbanization. Therapid population growth in Islamabad is linked with quality living environment, adequate infrastructure and community facilities, efficient transport network, natural environment, and job opportunities.Corresponding to rapidly growing population, Islamabad is confronting with the issues of unregulated urban sprawl, inefficiency of infrastructure, overstrained public amenities and housing scarcityspecifically for the poor. Rapidly increasing population in Islamabad has amplified the future demand of community facilities and housing. Most vulnerable are the poor people unable to manage housing at affordable price and are left with no option other than to seek refuge on state owned hidden places mostlyon the banks of water waterwaysotherwise inappropriate for human habitat.This paper is aimed at a thorough study on emergence of informal settlements progression in the capital besides its impact on city planning, surrounding communities, city infrastructure and community facilities.In this study, practicing town planning professionals in public and private arena and crucial stakeholders have been interviewed and pertinent literature has been reviewed extensively. This paper determines the undercurrents of squatter settlements such as high land prices, unavailability of formal housing for these groups, inadequate urban facilities and proximity to work place.The paper concludes with recommendations to yoke the unimpeded growth of squatter settlements in terms of urban renewal, decent housing, communal settlement planning, maintain proximity to work place, social upliftment, environmental upgradation and resource generation.

Keywords: Squatter settlements, CDA Ordinance, Master plan, Urban regeneration, Resettlement housing schemes, Sectoral area

Introduction

Around the globe, unparalleled population growth and particularly urban growth has emerged as critical challenge in the recent times (Bhatti & Iftakhar, 2023).The crucial challenge of growing urban population and its accumulation in big urban centres is resulting in scarcity of space for liveable housing coupled with escalating prices, deficient community facilities like health, education, growing burden on existing infrastructure, additional finances to cater for the upward needs, traffic congestions, environmental deterioration and inefficient intra-city mobility (Tariq et al,. 2024). All metropolitan cities particularly in developing countries are confronting with similar issues (Zainab et al., 2023).

As per the Planning Commission of Pakistan, urban population in Pakistan would rise to 50 percent by 2030 and population in seventeen cities would become above one million (Planning Commission of Pakistan, 2016). The fragmented city planning system in Pakistan is unable to address the multifarious physical, social, and economic development problems faced by

rapidly growing urban areas all across the country (Shakeel et al., 2025). The rapid urbanization process in Pakistan has put extreme stress on its natural, built, and socio-economic urban environments. Some major urban development challenges in Pakistan mainly include degradation of natural environment, disturbances in ecological equilibrium, conversion of prime agriculture land into housing, haphazard urban growth, increased slums and squatters, deficient public infrastructure and facilities, and rising urban inequality (Planning Commission of Pakistan, 2024).

Islamabad has been developed according to a Master plan prepared by C. A. Doxiadis in 1960 under the provisions of Capital Development Authority Ordinance, 1960 (CDA, 1960). The master plan is based on the concept of “DYNOPOLIS” and development was concentrated in 220 sq. kms out of 906 sq. kms till inception of ICT Zoning Regulations 1992 allowing development in suburban areas (CDA, 1992). According to the Master plan, development is concentrated in municipal area with allied urban facilities and infrastructure. Sector Layout plan compliant to the guidelines of Master plan, provides for community facilities, mobility network, commercial areas and wide range of residential plots to combat the housing needs of all income groups.

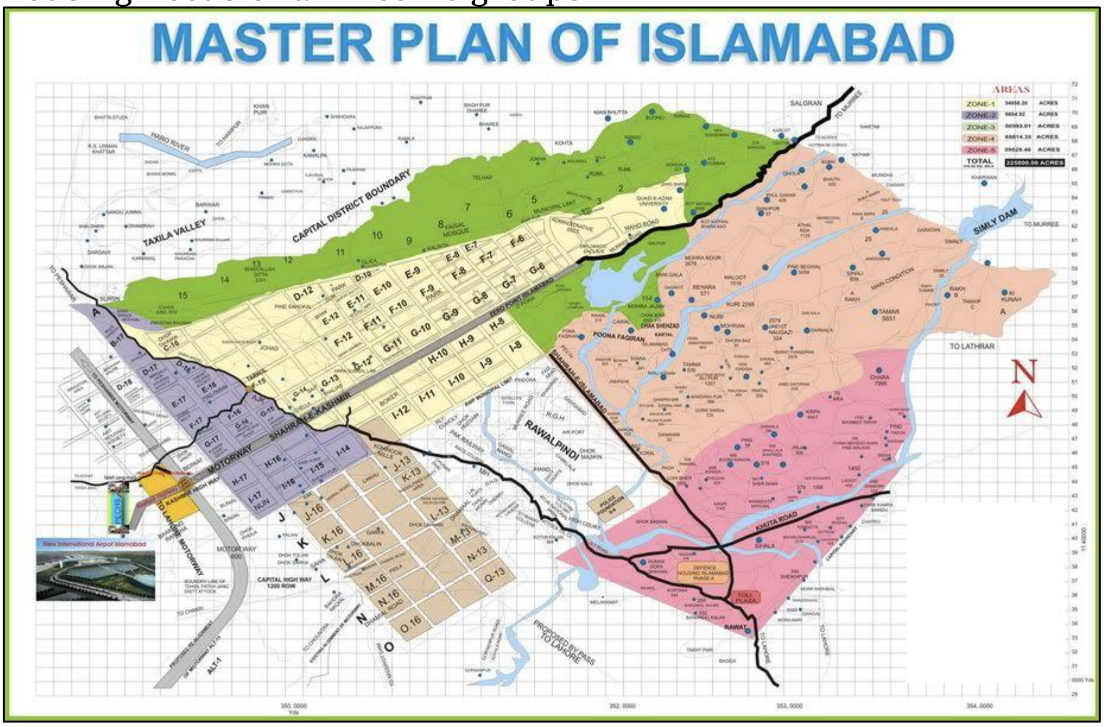

Figure 1: Master Plan of Islamabad. Source: CDA Master Plan

Planned character, adequate community facilities, efficient infrastructure and comparative security situation in Islamabad fascinated large scale migration to Islamabad. The direct consequences of rapid population growth paired with institutional inability to house the poorest – sanitary workers, restriction on development in suburbs, incapacity of city planners in civic agency to espouse innovative initiatives to challenge the emerging encounters most importantly housing for the poorest working class,

are the fundamental reasons of emerging slum in Islamabad (shah et al., 2023). The evolving inefficiency of infrastructure created adverse impacts on surrounding communities and environmental degradation. Within the developed sectoral area of Capital Development Authority (CDA), there are about more than fifteen squatter settlements fulfilling no criteria of liveable habitat without infrastructure and community facilities. There is a lot of potential of applying innovative city planning approaches for urban regeneration in these squatters' settlements and streamlining the urban growth process in Islamabad.

Research Objectives

The specific objectives of the study include:

I. To unearth reasons of growth of slums in planned communities.
II. To uncover the impediments in implementation of slum clearance / urbanregeneration approaches and dynamics supporting the initiative of urban renewal.
III. To identify the agenda of the civic agency management towards such urban regeneration / urban renewal initiatives.

Methodology

The research approach commissioned in this study entails visual observation, in-depthinterviews and semi-structured questionnaire survey. In this research, City planners inCDA, Town planning practitioners, squatter settlement dwellers, community leaders, NGOsand residents of areas adjoining to these squatter settlements were interviewed. The targetinformation included the strengths and weaknesses of city planning strategies, anyinitiatives by the respective city planning authorities to address the emerging issues,reasons to adopt to live in squatter settlements, living conditions in these settlements,initiatives by the community leaders and NGOs, attitude of residents of adjoining areas towards squatter settlements' dwellers, impacts of informal settlements on nearbycommunities and suggestions of the city planning practitioners for rectification of thesituation – slums eradication, decent housing for the squatters, environmental upgradation,area improvement, optimum utilization of under-used land and revenue generation.

Theoratical Background

It is commonly observed in developing countries that rapid population growth, delays in the execution of development plan, developing need of working class, and institutional incapacity to the emerging urban challenges, most prominently housing for the working class, has resulted in slums on state land and unregulated settlements in suburbs lacking infrastructure and public amenities. UN-Habitat, suggests that one-third of Pakistan's population face urban contests and above 50% of its population is forced to settle in slums. The slum dwellers in Pakistan range between 23 to 32 million and about 36% are vulnerable to eviction on account of insecure land tenure (UN, 2020). Such settlements lead to gradual

regression in social efficiency and economic progress. In case of Pakistan, limited resources remained a big hurdle in mitigating the mass scale emerging slums.

New slums can be averted by the civic body recognising that urbanisation is going to happen, focus on rural planning and development, planning of additional spaces for new residents to live and acknowledge incremental up-gradation (UN, 2021a). Upgradation is anexpressionset to measures to improve the quality of housing, allied infrastructure and services in theinformal settlements – slums and developed illegally and unauthorized (Satterthwaite, 2012) Effective slum upgradation plans often target to tackle various disparities of households through a multi-dimensional approach aimed at physical, economic, social, andenvironmental improvementsin specific neighbourhoods.

There is a range of slum up-gradation interventions that can be tailored to the specificity of the country, city, and neighbourhood. They may include the provision of physical infrastructure (water, sanitation, drainage, storm water, electricity, road, public space), social infrastructure (health services, education facilities, community centres, sports facilities), economic interventions (skills, jobs, business support), and legal provision (regularization, tenure security) (Cities Alliance, 2021). It is imperative to broaden the access to finance, construction materials, and skills/knowledge and provide specific self-help support to enable the auto-construction and upgrading of individual housing units.

Mechanisms of land value capture represent attractive options to address land issues and at the same time enable the financing of projects. While different approaches can be distinguished, they all aim at tapping into the added value of urbanization and using the increase in property value and the interest of private markets to raise capital (OECD, 2021). Planning tools such as land pooling and readjustments can also be used to regularize the land parcels of slums and reserve areas for accommodating displaced households (or other low-income residents). With land being articulated as an instrument of financing, it no longer serves a social function. The poor are evicted from inner city pricey lands and housed at the city's edges by way of resettlement. This has huge costs – to the city and to the poor (Khosla, 2021). The challenge of land is strongly connected to another challenge, how to counter market forces.

Community land titles and ownership with reduced rights have been developed to prevent the uncontrolled displacement of beneficiaries. Such restrictions (e.g., not being able to sell the property within a given period) can be powerful in preventing the penetration of large-scale real estate activities into slums. The Barrio 31 in Buenos Aires is a large-scale urban development project in Buenos Aires that included, among other elements, the comprehensive improvement of 10,400 housing units. The poorest

benefiting households obtained a loan with beneficial repayment conditions and a loan period of 30 years (Annez et al., 2021). Mahila Milan (women together - 1986), India and Mukuru (Kenya) among many others are the examples of organizations formed by the slum dwellers and succeeded in managing formulation of standards for informal settlements, and slum up-gradation, displacement of slum dwellers was abridged and ultimately could reach 0% by implementing high-rise buildings (Earle, 2019).

In contrast to the first generation of slum upgrading projects that were often centralised and top-down, current practices rely on community involvement as the essential backbone for intervening in specific neighbourhoods. Participation increases ownership and acceptance and incorporates the residents' knowledge, ideas, and aspirations in the planning and decision-making processes. The community also can contribute to programs, often more effective than other stakeholders, and might contribute to widening the perspective of governments on what is important in slum upgrading. Meaningful participation requires dedicated financial and human resources. Successful slum upgrading practices manage to have an encompassing approach to the community and try to include representatives in every decision-making step, ranging from creating ideas to designing, planning, implementation, and maintenance phases. Experience has shown that slum upgrading projects are associated with social and economic benefits that are particularly high. Slum upgrading makes highly visible, immediate, and large difference in the quality of life of the urban poor (Cities Alliance, 2019).

In Pakistan, various programs have been launched for improvement of slums and low-income housing and state approaches mostly entail forcible shifting to outskirts or more generously, award of ownership rights to the dwellers. These strategies for moderating housing stock are mostly government funded and lack community involvement and therefore, have resulted in greater complications such as enlarged grey footmark, insecurity, social seclusion and urban services. And these initiatives have not supported improving the living standards and alleviate poverty (Mukhtar et al., 2024). There are very few successful models of slums improvements in Pakistan which include Orangi Pilot Project (OPP) and Khuda ki Basti where active community participation led towards improving housing and infrastructure quality. Thus, all-encompassing up-gradation of slums is more relevant for creating equal opportunity for the slum dwellers to social and economic growth and providing tenure security and improved accessibility to urban services.

Slum Up-Gradation in Islamabad

Islamabad like other metropolitan cites combat with the challenge of slums in the city and indecent unregulated developments in the suburbs. Slum upgradation in Islamabad relies on government approvals like Prime Minister (1995), Chief Executive of Pakistan

(2001) and Cabinet (2004). Slum up-gradation in Islamabad involves:

· Rehabilitation at existing location
· Shifting at Model Urban Shelter Project

The project execution strategy included the award of ownership rights and site development and therefore, these initiatives have become liability on public exchequer. This state of affairs warrants the application of comprehensive city planning approach and sustainable urban development planning strategies.

Survey Results And Discussion

Table 1: Summary of interviews and questionnaire survey.

	Category of respondent	Number of respondents
1	City planning professionals	10
2	CDA Town planning professionals	8
3	Representatives of NGOs	5
4	Residents of areas adjoining to these squatter settlement	20
5	Community leaders	20
6	Squatter settlement dwellers	200
	Total	263

Most importantly, 180 slum dwellers agreed to shift within city at a location with adequate facilities and closer to work place. Contrary to the beneficiaries, the community leaders insisted on staying at the existing location and opposed shifting to well-developed locality. Representatives of NGOs by majority demanded high level guarantee in civic body for in time completion of the project. City planning practitioners, Town planners in CDA and residents of adjoining areas supported the concept of providing decent housing to the dwellers of this slum at appropriately developed and convenient location and transformation of slum site into a sustainable and profitable environment friendly development. Based on the consultative process with different concerned stakeholders, the following principles are agreed upon for application in the existing slums/squatters of Islamabad.

· Decent housing for the neglected poor
· Environmental improvement
· Convenience and comfort for the residents
· Optimum utilization of precious land
· Revenue generation
· Funds for cross subsidised community facilities
· Rain water harvesting

Description Of Case Study Area

Though suggesting the strategies for optimum and efficient use of land resource, enhancing space for adequate housing for all, efficient and adequate infrastructure and community facilities and sustainability in development is integral part of this research, but this study is predominantly focused on regeneration of squatter settlements in the centre of posh sectors ‘F-7’ and ‘G-7’ situated in the middle of capital city. Urban renewal project involves the reuse,

replanning and development of two squatter settlement sites in two sectors namely 'F-7 and G-7' each on an area measuring approx.128000 sq. yds and 99000 sq. yds respectively.

Project Site F-7

This site measures approx. 67500 sq. yds and comprises of about 900 dwelling units. It is one of the squatter settlements recognised by local municipal agency for award of property ownership rights to dwelling units built prior to survey conducted jointly by CDA and UNDP in 1992-1993. However, linked with delays in project execution and other official complexities, number of housing units has increased manifolds. So, for sustainable urban development planning project, complete clearance of site is the essential constituent of the project strategy.

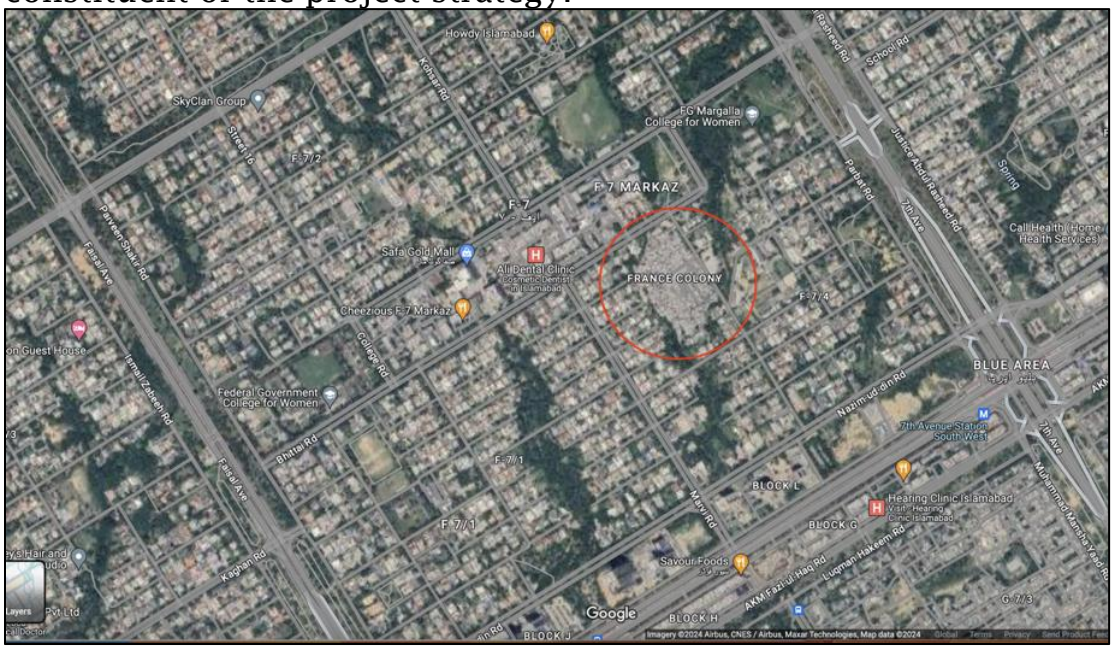

Figure 2. Project Site Sector F-7

Project planning strategy entails comprehensive household survey to ascertain accurate number of dwelling units, identification of site for relocation of dwellers of project area, topographic survey, land use planning of the site, infrastructure development at site for relocation of squatter settlement dwellers at F-7, consultative discussions with the potential beneficiaries, community leaders and management of civic body – land owner and custodian of the project, consultation with Town planning practitioners, residents of adjoining communities and civic body management for land use planning of site, sale / land management and project management after execution.

Site Land Use Planning

The project site has been divided in a ratio of 60:40 for mixed use development and multilevel parking and other amenities respectively (40000:37500 sq. yds). Proposed land uses include Mixed use, shopping mall, Hotel, Hospital, Apartment buildings, community facilities, multilevel parking, mobility network and environmental improvement spaces. Floor Area Ratio (FAR) of 1:12

has been proposed for this project and thus, built up area of 480,000 sq. yds/4320000 sq. ft. Thus, the net land sale proceed is estimated to Rs.72000/ million at a rate of Rs.1.8 million / sq. yd as of 2022.

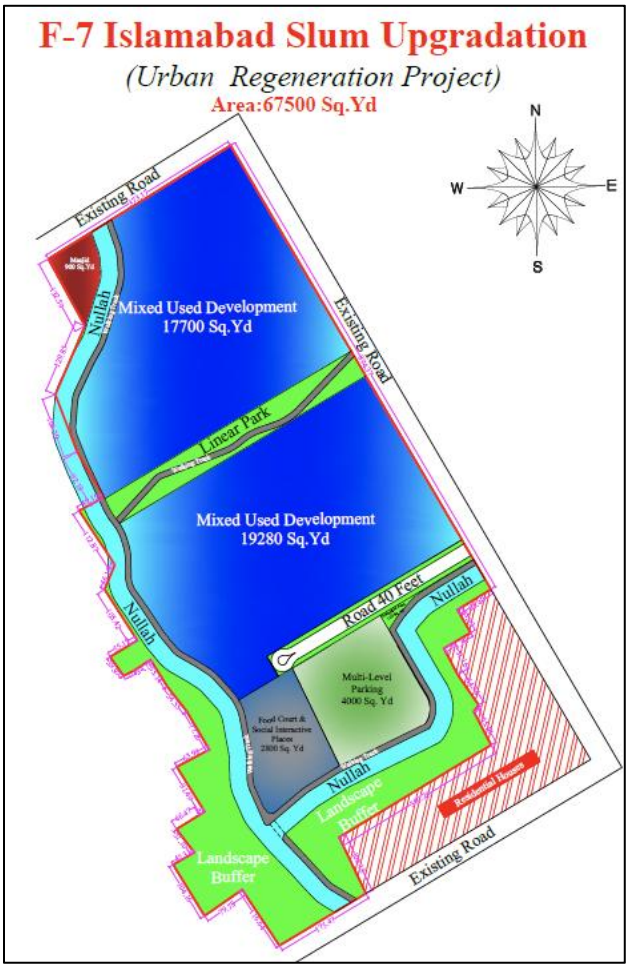

Figure 3. Proposed Land Use Planning, Sector F-7

Project Site Sector G-7

This part of the case study project site is presently a complex of three squatter settlements in sub sectors G-7/1(58000 sq. yds), G-7/2 (63000 sq. yds) and G-7/3 (24000 sq. yds). Dwelling unit size is small and predominantly double storey structures located on irregular narrow streets. These three squatter settlements comprise of approx. 2000 dwelling units. Land measuring 145000 sq. yds under these squatter settlements is proposed to be transformed into low rise (4/four storey) apartments to accommodate approx. 3500 dwellers of squatter settlements against requirement of 3000 to be relocated from sector F-7 (1000) and 2000 residents of squatter settlements of sector G-7.

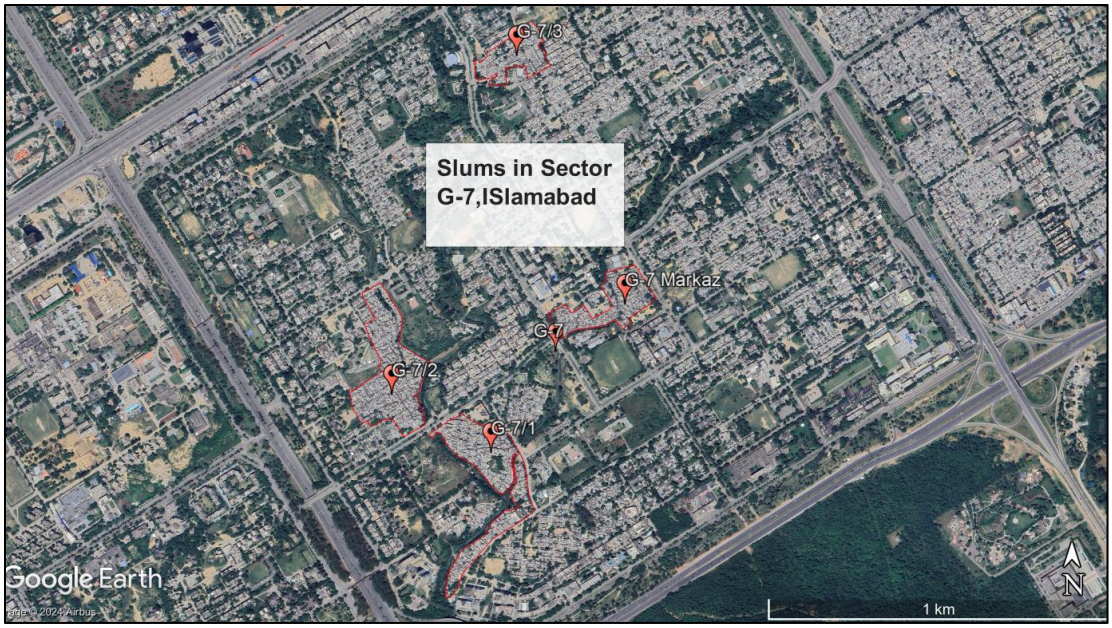

Figure 4. Project Site Sector G-7

Land Use Planning of Site in Sector G-7

All three sites presently under squatter settlements are located along natural water streams meant for rain water drainage by design and are served by services like water supply drainage, sewerage and road at the periphery. The site is proposed to be primarily used for low-rise (4/four storey) apartments over an area approx. seventy percent (70%) and thirty percent (30%) for allied facilities and circulation. The project site is planned to provide 4500 apartments – each of 800 sq. ft. against requirement of 3000 to be relocated from sector F-7 (1000) and 2000 residents of three squatter settlements of sector G-7. Apartments to slum dwellers would be allotted on subsidised price on easy instalments of 30 years. Additional 1500 apartments would be available for sale to general public on competitive price to generate funds for construction of housing for slum dwellers. Although, the commercial area and other facilities are already available close to the project site, education health, community centre and worship places are proposed in the land use plan. The urban regeneration plans for these sites in sector G-7 can be developed on similar lines with the above given proposed regeneration plan for sector F-7.

Urban Regeneration Benefits Of Case Study Slums In Islamabad

This project of reuse of underutilized valuable land in posh sector of Islamabad and slum upgradation is coupled with a number of benefits like:

Social Benefits

The social benefits of the project include decent housing to about 3000 neglected poor families engaged in sanitary services, adequate infrastructure and amenities for the poor, neat and clean-living environment, comfort in community interaction, convenient access to health, education facilities and work place.

Economic Benefits

The economic benefits of the project incorporate job creation for skilled and unskilled labour and professionals, optimum utilization of underused precious land, fund generation, institutional sound financial health, adequate funds for reinforcement of aging infrastructure and community facilities, and large-scale economic activity.

Environmental Benefits

Environmental benefits of urban development project include the neat and clean development with ample landscape spaces in place of dirty, unhygienic and smelly settlements, environment friendly redevelopment of highly polluted water streams, eradication of environmental inconvenience to the nearby communities, more spacing for mixed use developments – less grey area leaving bounteous open spaces, community walking tracks and rain water harvesting.

Project Sustainability

Project sustainability is the fundamental element of project strategy as the project is aimed at taping the potentials of the project site for revenue generation besides provision of decent housing, amenities and community facilities to the poor and engagement of key stakeholders.

Replicability of The Project

In view the social, economic and environment relating benefits of the project approach and financial sustainability, there is plentiful potential of replication of the project concept for achieving the sustainable urban development. There are above fifteen slums in sectoral area of Islamabad, which are probable sites for technically and financially sustainable urban growth within the principles of comprehensive city planning besides the regeneration / redevelopment of unregulated urban sprawl in the suburbs of Islamabad. Further, the unregulated horizontal development pattern of urban development in urban agglomerations all around the country provide ample space for launching sustainable urban development initiatives.

Conclusion And Recommendations

Slums in Islamabad in the aftermath of rapid population growth pose enormous challenge like other fast growing urban centres in Pakistan as these slums congest the city on the one hand and acquire valuable land on the other hand that can be used efficiently for multifarious gainful projects. Therefore, upgradation of these slums ought to be taken as preferred option instead of displacement and trouncing options. The aforesaid methodologies are all-encompassing and can help tackle diverse challenges relating to slums. Such slum upgradation strategies and plans will convalesce the efficiency of the cities and vigour the economic opulence and growth in the long run. In case of suburbs, application of sustainable and compact development urban development strategies is top priority need for sustainable urban

growth. The proposed development model comprising of stakeholders' participation, financial sustainability, public private partnership, social upliftment and environmental considerations has magnanimous potential of replication in Islamabad and other urban centres. For further technical sophistications in application of sustainable urban development planning approaches, suggested way forward includes:

· Regular periodical review of enforcement of development plans
· high level City planning professionals' advisory committee may be tasked for review and suggesting remedies
· Public private partnerships need to be top priority for urban regeneration / renewal urban development projects
· Vertical compact development / mixed use development needs to be incentivized in terms of approval and fees to be charged by CDA
· Approval process for such projects needs to be simplified and standardized for the facility of developers

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