

# Sustainable Housing and Role of the World Bank

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## Abstract

Squatter settlements provide housing to 30-70% of the urban population in many developing countries. They have grown huge in size due to widespread poverty and inadequate housing finance and land development systems. Governments mostly assisted by the international aid agencies have improved environment, tenure security, income and resources in many such settlements. Yet the problems persist as benefits did not multiply due to lack in institutional development, policy implementation, governance, participation etc. The squatter dwellers' ability to bring affordable and sustainable solutions was ignored too. This paper discusses the changing approaches to the issues of low-income groups housing worldwide in the above context. The role of the World Bank in setting the core themes and its support for the low-income groups housing in the developing world is particularly examined as to their effect on policies and solutions.

**Key Words:** Housing Policy, Self-Help, Squatter Settlement, Sustainability, Urban Development, World Bank.

## 1. Introduction

Rapid urbanisation is a critical phenomenon transforming the developing countries, and hence needs to be managed. Now there are more people living in the urban areas than in rural. The recent appreciation of the growing importance of the cities in the national economies recognises dependence of development on the ability of the urban centres to meet the essentials like housing. A rising standard of living and political ideologies increasing the awareness of human needs and social values, forced the governments in the developing countries to intervene in housing provisions. The Habitat Conferences too endorsed such roles of the governments.

Number of squatter settlements with substandard housing in many developing countries is increasing due to abject poverty and inadequate systems to make resources like finance and land available at affordable prices to the low-income groups. Despite the efforts by most governments, aided by the international agencies, the problems persist as project-based benefits did not multiply. There were lacks in areas of institutional development, policy implementation, governance, participation etc. Yet, the strength of the squatter dwellers in bringing solutions within their affordable means was ignored. This paper discusses the changing approaches to the issues of low-income groups housing worldwide in the above context. It was mainly the World Bank, among other international bodies, that influenced housing policies and solutions in the developing countries, and hence many of the failures could be ascribed to the failure of the approaches by the Bank. The Bank was aware of it, and reviewed and revised the effects of its policies from time to time.

This paper shall review the changing approaches to the housing of the low-income groups in the developing countries, brought by the policy orientation of the World Bank, and will explore a more economically and socially sustainable approach.<sup>1</sup>

## 2. Housing policy and practice worldwide

International agencies were involved in the conception and formulation of housing policies and projects in various developing countries. Among others, the World Bank's influence has been stronger due to its ability to dictate policies and strategies in the developing countries through large loans to urban and housing programs (Pugh, 2000). It has led its low-income housing thrusts in three main phases (1972–82, 1983–93, and post-1993; Pugh, 2000). Self help housing advocated in the 1960s by Abrams (1964) and Turner (1967, 1972, 1976) influenced the low-income housing

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<sup>1</sup> The dimensions of sustainability are often taken to be: environmental, social and economic, as the three mutually reinforcing pillars (Serageldin & Steer, 1994). The model has been criticised for not adequately showing that societies and economies are fundamentally reliant on the natural world. Therefore, economy is taken as a component of society, both bounded by, and dependent upon, the environment. Porritt (2006) seeks to establish the values and direction needed to achieve sustainability: "We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace."

theories and policies for decades. Leading the UN missions to developing countries in the 1950s, Abrams (1964) brought the gross housing shortages and huge squatter settlements lacking in basic utilities in the growing cities in those countries to the notice of the world. He suggested using in situ slum upgrading and incremental building in order to reduce the shortage.

Turner's advocacy of sites and services and slum improvement schemes had a human side. With Latin American experience, he identified self-fulfilment of the slum-dwellers and their commitment to housing, expressed through aesthetic marks on the shelters (Pugh, 2000). 'Freedom to build' or 'housing is a verb' emulates a process, not the product, and endorses people's capability to participate. Turner found that households given a scope, would gradually improve their housing with resources they can master. Such incremental upgrading was more sustainable compared to public housing, which is mostly subsidised and often does not reach the target group (Rahman, 1999, 2004). A loan from the Inter-American Development Bank loan for a post-earthquake housing scheme in 1958 in Peru gave Turner a chance to implement his ideas, which was then adapted by the World Bank in the 1960s.

But in next decades, low-income housing moved on from a focus upon self help of Abrams and Turner to a development of the housing tied to the urban development sectors (World Bank, 1993; Kessides, 1997). The World Bank gradually started to encourage more involvement of the private sector entities and the non-government organisations (NGOs). Yet the main theme of Turner's ideas remained valid in the broader context, extended into the 'brown agenda' of the Rio Conference that laid down guidelines for sustainable urban development. This was followed by UN calling the local governments to mobilise their communities for broad-based, participatory environmental improvement.

The 1976 Habitat Conference advocated a large-scale intervention by the government in housing resources like land and finance which are beyond low-income group's reach. A new approach to environmental planning and management 20 years later supported the involvement of stakeholders like government agencies, business, professionals, and representatives of communities, identifying feasible priorities and transforming them into action plans, through public-private partnership. Hence the developing countries were directed to create urban environmental institutions, and increase stakeholders' capacities. However, these could only be sustained by making the economy, environment and society parts of an overall development (Barbier, 1988). In reality project-oriented housing theory, practice and policy remained strong throughout the 1970s and later due to available funding, and short-term benefits satisfying all (Rahman, 1999). Meanwhile, squatters transformed themselves by organising self-help homeownership in many places, often militantly, for example in Latin America and South-East Asia.

Support of the World Bank and other international agencies for sites and services and in situ slum upgrading projects in the 1970s was based on the principles of affordability, cost recovery, and replicability (Choguill, 1987). According to these, capital costs were to be based on the target group's ability to pay, not set by planning and design ideals, though the poor leave only the residue for housing to which they attach lower priority as food takes up 65–85% of their income (Rahman, 2004). But cost recovery formula followed conventional economics where all components had to be repaid according to the Bank's imperative of ensuring recovery of the international credit and make proper economic and social use of the grants (Rahman, 2004; Pugh, 2000). Successful projects could be replicated in similar contexts elsewhere (Choguill, 1987; Pugh, 2000). But Pugh (1990) and Nientied and van der Linden (1985) identified that in reality the costs were seldom recovered; sites were often remote from employment opportunities; institutional capability to implement and monitor was weak, corruption was common; and the projects scarcely led to citywide housing reform.

By the late-1980s, the Bank realised that institutional reform and support had to be placed through urban policies and full programs so that those could be sustained, rather than being founded on isolated projects that could not be scaled up (World Bank, 1983). As the World Bank (1993) recognised that the self-limiting site-based projects could not bring the socio-economic development of the entire urban areas, it was ready to reorient its policies. It also found alternative ways of housing involvement by building and channelling funds through structured finance and purpose-built agencies. This could disburse funds faster, reach target groups better, and increase recovery through small groups (in countries with developed housing finance).<sup>2</sup>

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<sup>2</sup> In Bangladesh as international grants were pouring in after the floods of 1988 and 1989, the government established a Foundation to disburse and monitor fund. Before that such fund was forwarded through the central bank. Similarly, an allocation of US\$ 250 million by the World Bank in 1988 in India helped the Housing Development Finance Corporation to extend its credit coverage down the income ladder and stimulate local institutions. With another innovative Bank loan, Chile introduced housing vouchers for low-income housing.

Thus the World Bank gradually reduced its involvement in sites and services projects towards the late-1980s, except indirectly where central banks on-lent funds through specialised institutions, or through the NGOs and CBOs, into social housing programs with self-help components, concentrated more on policy and structural reform. The squatter upgrading continued in a different path, for example in Brazil.<sup>3</sup> Some of the in situ slum upgrading programs were implemented by retaining more than 85% of the self-help housing units by reorganising the lay-outs through participation, e.g. in Indore.

The projects ensured financial sustainability by setting target according to affordability, and hence met the Bank's imperative of proper fund utilisation and cost recovery. Moreover, the municipality-owned programs divested responsibility for maintenance, cost recovery and social effectiveness through the participation of beneficiaries' groups, ngos, CBOs, etc. Thus compared with the older shelter-oriented approach, the new approach emphasised on institutional reforms and development, creating a basis for future reorientation. However, because of weak security markets in many developing countries, funding through the local bodies proved effective.

Lastly, in the early-1990s the World Bank reformed its housing strategies taking lessons from its past that ignored the role of comprehensive housing in socio-economic development (World Bank, 1993), and did not address the issues of subsidies, poverty, and land policy. Moreover planning and building regulations based on western ideals were inhibiting a proper expansion of the housing sector, extension and remodelling, employment generation, etc. in the developing countries. The Bank took a holistic approach to further develop the finance systems, improve the backlogs and infrastructure, reform negative land policies, introduce financial transparency to accelerate supplies in low-income housing, increase competitiveness of the construction industry, provide subsidies only to the needy, and establish/reform institutions (Pugh, 2000).

This recognised housing as productive item, which multiplies employment and generates income.<sup>4</sup> More significantly, the Bank promoted the idea of 'enablement' through the creation of congenial legal, institutional, and financial frameworks to enhance economic efficiency and social effectiveness. By 1995 besides encompassing institutionally-loaded reform, enablement put governance into focus in all development agendas and state-market-society relations, as it was evident that benefits would not be possible to sustain without good governance (Rahman, 1999). This encouraged the community-based participatory elements in upgrading the squatter settlements.

For developing enablement, emphasis was given on technical know-how, available resources, inclusive participatory approach among various stakeholders, capacity of the development agencies, and recognition and defined responsibilities of all. An underlying socio-economic rationale could guide the roles of each partner in the multi-level environment where firms would contribute efficiency and entrepreneurship; community-based organisations would mediate between households and authorities; public bodies would provide management expertise; and participants would provide finance, self-help resources, and local context in the upgrading efforts. These represented a complex process that risked failure, out of institutional incapacity, politicisation of the process to serve narrow coterie interests, corruption, and market manipulation by firms.

The idea of enablement was relevant to new housing too, where a multi-level framework could facilitate adequate supplies and access of the builders to competitive development funds. Proper land policies co-ordinated with the service agencies could make well-placed serviced land available at reasonable price. The legal system could safeguard the housing and other rights of the low-income group; finance institutions could provide funds and cover various risks. The socially relevant and sustainable policy and enablement framework could have pro-poor and egalitarian elements. Thus sustainability was brought through enablement in the sites and services schemes in India,

<sup>3</sup> In 1983–88, several Brazilian municipalities agreed to participate in Parana Market Town Improvement Project to create a fund based on a seed fund from the World Bank. The terms required to recover the cost through skilled management of the transactions. However, the municipalities and households could have their own sub-projects, and select price according to need, priority and affordability through participation.

<sup>4</sup> Hitherto with 7:1 capital-output ratio, housing investment did not contribute directly to the growth of output or foreign exchange earning. Sectors like agriculture or industry that created employment and added value received priority. Apart from the social benefits, effects of housing multiply through the generation of production, income, employment, savings and consumption (Burns & Grebler, 1977). Its true importance is greater as self-build and independent contractors' activities are often under-reported. Subsidised housing and implicit rents of the owner-occupiers also enhance the claim. While investment leads to increased output of labour and added investments in non-housing elements, it does not reciprocate significantly in low-cost housing, though it makes under-utilised labour productive at low cost (Raj & Mitra, 1990). As low-cost housing has low import requirement, incremental investments generate a higher domestic multiplier than import-sensitive investments (UNCHS, 1995). The price elasticity is thus higher in housing services than in the dwelling as a capital good alone.

and in the small loan program in Sri Lanka (Pugh, 1997), particularly achieved by Chile, Hong Kong or Singapore that already had various institutions. Most other countries experienced gaps, inadequacies, and institutional incapacities due to the less-developed institutions. As a result squatter settlements continued to grow, occupying a good part of total housing in many cities in the developing world.

The World Bank's recent thoughts on development policy were based on presentations to its Board by Stiglitz (1998) and Wolfensohn (1999), who broke away from the concept followed by many developing countries favouring economic stabilisation through export-led growth, and market liberalisation. Besides including the significance of poverty alleviation and environmental issues, these were based on macro-economic stabilisation and market-led development of the early-1980s. Lacking a broad basis in the socio-economic development politics and limited due to the market-led approaches, the drawbacks of such approaches were exposed in the Asian financial crisis of 1997-99.

Stiglitz, a Nobel Laureate, favoured medium-term strategic development policies to alleviate poverty and make socio-economic transformation. He emphasised on holistic societal changes that could be understood specifically as the transitions interrelated the urban, environmental, and health dimensions, and the changing volumes and characteristics of poverty. In overall context, such development policies could use transitions in varying emphasis on different sectors based on the context-based realities of socio-economic opportunities. The Bank emphasised on urban issues in the late 1990s to enhance and sustain economic growth and modernisation. Thus improvement of living qualities, poverty reduction, environmental sustainability, and agglomeration of economies were the strategies for a proper urban development (World Bank, 1999), which prioritised finance and management to squatter settlement improvement.

### 3. Economics of squatter settlements

Jimenez (1982) showed the economics dynamics of self-help housing that produces individual and collective assets in the stock. Changes in wage rates in the formal sector directly influence the availability of unpaid self-help labour, and reflect competitive options and better uses of time. However, self-help is regarded as implicit saving and investment, which creates a social asset. Even after a house is constructed, its value continues to accumulate through use and rent. Rooms added to a house can be a source of income too – rented out or used as a workshop for mainly informal sector activities (Rahman, 2004). Moreover, low-income settlements provide a pool of labour for urban economic and infrastructure development.

Upgraded squatter settlements with improved environment multiply many economic, health, and social benefits accruing to the residents.<sup>5</sup> During investment appraisal, the value of a demolished property is often added to the cost of an urban renewal project, and even in sophisticated costs-benefit analyses. Yet, each investment appraisal would have to address the particular circumstance of a squatter settlement and its comparative redevelopment and rehabilitation options.<sup>6</sup> Pugh (2000) supported rehabilitation by incremental improvement as a better alternative in the developing countries. It provides for an extended life where the existing structure has a real value, the rental differences between old and new buildings are narrow, and the rate of interest and the cost of redevelopment are relatively high.

When the whole housing process is considered, such incremental rehabilitation reduces initial cash requirements for (re)building, perhaps in exchange for social obligations to be met over a long time. Benjamin and McCallum (1985) found that a self-building family can reduce capital requirements by half. The vast majority of such houses is built gradually as communities take shape, needs are felt, and money becomes available (Angel & Benjamin, 1976). Also to be noted that the lower income people can live in unfinished shelters until resources to improve are available in small amounts from time to time.

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<sup>5</sup> Improved housing lowers work absenteeism and incidence of social deviation, raises level of health, increases labour and educational productivity, absorbs surplus labour, and reduces traffic congestion and commuting expenses (Burns & Grebler, 1977). The individual and social returns of improved housing were evident in increased land values, raised incomes, better health, and skills upgrading in training and gender programs in an Indian upgrading scheme (Abelson, 1996), which distributed benefits of the increased land values to households by regularising tenure. While average incomes among the project households rose 50% during 1988–91, the value of housing and land rose 82%, reflecting their increased economic efficiency and social effectiveness.

<sup>6</sup> For example, Needleman (1965) adapted the appraisal formula to take account of the variable needs of public policy, including area rather than single property analysis, variable densities, and different forms of redevelopment.

Financing and resource gathering in self help housing has its own characteristic. The sweat equity of self build management of the process that often replaces up to a third of the labour cost (Payne, 1983),<sup>7</sup> and saving through participatory environmental improvement, can reduce the finance cost (Pugh, 1994). While incremental building and improvement distributes the affordable consumption and saving over time, formal long-term finance may only be required to afford higher standards. But wisdom of formal sector finance is not based on the needs of survival and flexibility of the low and intermittent income patterns of the poor (Smets, 1999).

Moreover, the private sector financiers often make tight and infeasible demands for collateral, and their costs and profit structures favour economies of scale and low credit risks, which screens out the poor. Repayment spread regressively with no grace period cannot secure cost recovery in low-income housing (Pugh, 1990; Smets, 1999; Ward, 1984). In this regard, the informal money lenders cater for the needs for flexibility and economy in the shorter planning horizons of the poor, featured by small budgets and survival strategies (Pugh, 2000).<sup>8</sup> Organised community self help in micro finance has often been successful in stimulating savings and investment, with social co-operation and peer control providing a financial sustainability, e.g. for the Grameen Bank (Rahman, 1999).

#### 4. Process cost, tenure security, and sustainability of improvement

Lower income dwellers can house themselves in an acceptable way for much less than either the public or the formal construction sector cost, in some cases for as little as 25% (Benjamin & McCallum, 1985). Moreover, the type of dwelling that results from people housing themselves is often more suitable to the socio-cultural and economic needs of the lower-income people (Turner, 1976), and hence is sustainable. For the lower-income family the building of a house is an apocalyptic event. Even with humble result, it is an occasion for marshalling all the physical and monetary resources, collecting all debts, and calling upon the community and the family for assuming new debt and obligations. Extended over time, it is the beginning of a longer commitment of constant improvements, additions, and cooperation.

The first way of building low-income and low-cost housing is self-built used by the poorest families in the informal sector, usually with as many family members as can be co-opted for the occasion. However, the middle and upper-income groups use self-management more, where the skilled crew and hired labourers do most works. The procedure works well with incremental process too. The least common way is by the small contractor used by the wealthier people, who have difficulty in raising fund to cover the construction on their own or keep competent track of materials and labour.

Tenure prospect motivates the residents, and dynamically changes the type and expression of built form in squatter settlements. Along with extending their shelter according to need and affordability, they also mark own identity and taste on it. Such improvements in aesthetics and amenities take place due to feeling for the home and its location, perceiving the improvements as a part of wider resident activities in localised sustainability. Although literature is found on the resourcing and organisation of improving infrastructure and making personal investments to squatter houses, little has been discussed on enhancement of aesthetics and cultural amenities.

Marcus (1995) testified to personal meaning attached by the residents to their home that leads them to improve design and express the meanings. Turner suggests that the aesthetic elements marked by the low-income people represent a commitment to home; the personalised expression is seen where occupancy rights are secure or regularisation of tenure is foreseen (Rahman, 2004). More of these can be found if it takes place over a very long period (Pugh, 2000).<sup>9</sup> Expression of local culture, environmental change, and design and construction knowledge in such settlements show colour, adaptability, and space for rituals and festivals; these create specific and varied living environments (Rapoport, 1988). Designers and planners could devise strategies from these spontaneous, open-ended, multi-sensory, and semi-permanent settlements adding on elements.

Even a make-shift shack is an outcome of rational thinking within available limited resources, and therefore is 'architectural' same way as a 'designed' building. It also reveals beliefs, aspirations, and the world-view of the dwellers, simultaneously impacting the political, the visual, and the cultural. Squatter settlements can be seen as aesthetic

<sup>7</sup> Materials cost is reduced by often using recycled items in the informal sector. Family labour is usually free, and skilled labour can be bartered for. In lower-income housing, 35% labour is self-help; another 60% is semi-skilled (Gerrul, 1979).

<sup>8</sup> Public effort could expend in the unorganised money market that has a strong presence in Asian countries, which could be utilised in a productive manner only by linking that to the organised market. Even though a large part of it is needed in agriculture, there is always a potential surplus that can be channelled to use in housing.

<sup>9</sup> For example, *San Miguel*, Mexico, or *Klong Toey* squatter settlement with 70,000 families in Bangkok's Port Authority land.

output by some, or as eyesores to be demolished by others, like the city authorities who loath such view (Peattie, 1987; Rahman, 1995). Thus perception and images have influenced housing policies and actions, including the destruction of communities. However, international policies now favour improvement and regeneration, not eviction. The self help and the modern technology can stand next to each other with reasoned acceptance of both in cultural–aesthetic form.

Spontaneous and informal settlements are necessary; with importance of the product, process and use in built form and socio-economic evaluation (Kellett & Napier, 1995). The people living in these settlements are set in specific institutional conditions and processes that determine their housing and social status, providing contrasting examples.<sup>10</sup> Thus intricacy, variety, accomplishment, and resource efficiency in squatter settlement and built form are simultaneously social, cultural, economic, political, and architectural (Pugh, 2000). Cultural heritages and sustainability have been expressed in the living conditions of the world's poor amidst squalor and disease. Their housing, the locales for the life's drama and human contributions of millions in enormous urban and socio-economic transformations, will remain a dominant form of dwelling on a world scale for many decades.

## 5. Concluding discussions

The self-help housing, spontaneous and mainly outside the formal realm, remained an important part of the housing policies in the developing countries in last 50 years. Varying in terms of theoretical, economic and technical characteristics, and in their role in overall housing, urban and environmental policy had to traverse long till implications of such housing in the developing countries were recognised (Lawrence, 1997; Ling, 1997).<sup>11</sup> There already were assisted self-help housing programs in India (1950s) and Kenya (1960s), before strong advocacies by Abrams, Turner and other contemporary housing experts influenced the World Bank and of other funding agencies later to support such approaches. Experience and periodic reviews enabled the Bank to change its focus from site-specific projects, to programmatic approach mediated through formal institutions, and subsequently to new directions in developing policies, governance, cooperation and participation.

'Good practice' examples can be found among the squatter upgrading schemes.<sup>12</sup> These also add economic and aesthetic value to urban assets. Though the roles of individuals and households could be described by self-help, household economics, affordability, and home sense, researchers dominated by the economists were interested only in market exchange value, the design and impact of subsidies, or social questions of poverty and inequality (Pugh, 1997; Stretton, 1976). They ignored capitals of the low-income families like resources, time and energy used for home building, domestic chores, income generation, housing and environmental improvement, human capital formation, and use of time in personal and community activities as a socio-economic asset. Most of these, e.g. the value of the product and human capital formation, including the value of time and equivalent market products, and attribution of childrearing in human capital formation, are measurable, and thus could add to the economic significance of self-help incremental housing.

Self help, central in socio-economic, political, environmental and developmental sustainability, goes beyond the construction and management of housing and the local environment. The domestic sector is generally sustainable for its use of own resources to produce home-based goods and services, and less dependence on imported materials and technology. Further human development of the sector depends on access to state services and the security of a safe and healthy environment. Thus the domestic, commercial, and the public sectors are interdependent in bringing overall socio-economic development. This raises the importance of domestic economics in sustainable development through affordable housing and environmental improvement that also supplements other areas by contributing to the human and labour development. Thus sustainability cannot be fully accounted and understood without considering the domestic sector. Furthermore, retention and regeneration of squatter settlement would not succeed if isolated of the other areas of development.

<sup>10</sup> The gradually transformed and consolidated *Santa Marta* settlement, Colombia, is recognised and accepted into the formal sector. In Durban, spontaneous settlements are juxtaposed near formal settlements, being impermanent and temporarily linking kith and kin.

<sup>11</sup> Self-help construction existed in old civilisations, e.g. in Rome, medieval Europe, and in early periods in the developed countries. Murals in Pompeii on self-help housing have become part of housing folklore. The Swedish 'magic house' was built by households in their free times, while the local government provided land, materials and technical advice. In Sri Lanka, self-help housing was the norm in urban settlements 2,500 years ago.

<sup>12</sup> Cross-subsidisation in land pricing and plot allocation enabled sites and services and squatter improvement programs to reach down the income rung in India. Housing investment and wealth increased for all, and the related contracting between the World Bank, state government, and the implementing authorities blended state, market, and household self-help (Pugh, 1990, 1997). In the Kampung Improvement Program, the World Bank provided US\$439 million in 4 project loans to improve living conditions, spontaneous housing investment, income and health. Some of the lessons of the project led to wider community participation and deeper institutional reforms (World Bank, 1995).

The upgrading of squatter settlements is not an option that is well-established. Though any community has a right to improve its settlement, the professionals and participatory processes hardly concur to make that happen.<sup>13</sup> Social homogeneity, good community leadership, social co-operation experience, visible tangible outcome, and prospective ownership can often help to achieve consensus on housing improvements (Rahman, 1999). Stable growth of income, recognition of squatters housing rights, affordable in situ improvement, and the development of social capital and empowerment (e.g. leadership, organisation, networking, and civic association) bring housing and environmental improvements for low-income groups. Thereon, social, ethical, and aesthetic expressions cover the full range of living, and encompass environmental, social, economic and political facets, and those that encourage people to value lives. Given a chance for one to participate and express attachment, heightened by ownership, results in more commitments to bring affordable and sustainable improvements in a varied socio-political context.

Proper land policy and housing finance systems based on innovative schemes can facilitate the target groups' access to the two most essential housing resources— land and finance (Rahman, 1999).<sup>14</sup> Environmental improvement often creates conflicts among various interest groups that can be resolved by arbitration, experience and overt output of social co-operation, e.g. community resource, and involvement of all stakeholders. Despite variations in contexts, settlements require development of socio-economic and institutional capabilities, and leadership (Rahman, 1999). The obstacle of converting environmental improvements into action plans and partnership can be overcome by distributing responsibilities, attribution of costs and self help, and agreed-upon participatory and transparent management. In essence, the process and the project need good governance, organisation, management, and policy (Pugh, 2000). Technical and financial knowledge offers more informed choice of options, and adjustments required according to income, age, etc. (ADB, 1983).

In most of the developing countries, activities of the low-income groups including housing belong to a large informal sector. The economy of this sector, if legitimised, can contribute more in socio-economic developments (de Soto, 1989; Fernandez & Varley, 1998), in conserving economy, construction, environment, and health, and hence beckon for sustainable improvement. Regeneration schemes related to living conditions and social opportunities for millions adds more socio-economic and environmental values than high-profile projects do, and hence is more sustainable. As income increases and needs arise, households upgrade houses in terms of materials, space and utilities, often personalising various parts. Thus low quality makeshift shacks are transformed through incremental building into more substantial homely structures, encouraged by tenure security or improved services and amenities through in situ upgrading.

Potentials for conservation and regeneration of squatter settlements vary with their characteristics.<sup>15</sup> Improvement can take place either spontaneously in established settlements where a form of tenure security is envisioned, or in formal sector planned settlements. Political skills and pressures often influence the selection of components of improvements and distribution of costs and benefits among the households. State-assisted regeneration often dwells with redesigning lay-outs and re-alignments (Potter & Lloyd-Evans, 1998), and thus displacement or uprooting of socio-economic ties and identity. But slum improvement should be part of overall housing development and urban macro-spatial planning.

The conventional approach to affordability cannot meet the objectives of mobilising private fund for housing as the public sector's capacity was limited, minimising public intervention in the market to ensure efficient and equitable development, and be flexible to accommodate variety of needs (ADB, 1983; Rahman, 2004). If a low-cost housing program is to be replicated, non-productive offsite infrastructure costs must be reduced to a minimum to keep the cost low. Otherwise it will escalate public subsidies and a shortage in the administration and maintenance fund to make them affordable. Projects could be sustained by setting the standard at affordable level to ensure cost recovery and optimise usage of otherwise expensive and scarce own resource. Households could be let to determine their own affordability in a less dogmatic approach to income targeting.<sup>16</sup> Lack of financial sophistication of the participants and

<sup>13</sup> Social groups in Jordan strongly contended priorities and access to political and economic power (Raed, 1998).

<sup>14</sup> The Grameen Bank (Bangladesh) developed credit and technical advice for women's enterprise, housing, and for transforming social development among the poor; the World Bank and others support such initiatives (Rahman, 1999).

<sup>15</sup> Their population size range between 100 to near million. Often the squatter dwellers have expectations of imminent redevelopment, whereas in others *de facto* occupancy rights are secured. Sometimes a settlement grows its own leadership and organisational structures that can negotiate with politicians and bureaucrats for installing infrastructure; others suffer apathy or powerlessness.

<sup>16</sup> The layout may contain a variety of housing options (size, orientation, payment methods, level and standard of services) to suit all types of households. Commercial uses too could be introduced to cross-subsidise housing. While the repayment for services and infrastructure could be set at an affordable level, residual cost could be recovered through cross subsidy from elements with an optional take up.

the concern of the soundness of the projects could hinder this method. Monetary guarantee and readiness to intervene by the authority should reduce the risk of the beneficiaries taking financial decisions (ADB, 1983). Instead of binding public housing programs tightly, the rules can be redefined to allow more households, previously excluded for being too poor, to participate in the program. This questions the basic nature of public housing that allows households only with above a certain income to benefit, raising the average costs per beneficiary and reducing the number of beneficiaries, instead of reducing housing shortage.

Poverty is the deprivation of capability to expand social opportunity in households, in markets, and in state policy, affecting the freedom of individuals to choose values and worthy lives (Drèze & Sen, 1995; Sen & Wolfensohn, 1999). Poverty reduction needs personal commitment and proper human bondage. Nobel Laureate Fogel (1994) argued that improved nutrition, advanced medical knowledge, and the qualities of housing sustain health and economic productivity over long-term development transitions. The principles are evident in low-income housing, requiring social co-operation to improve environmental conditions in a sustainable way. The welfare role of a state extends beyond taxation to institutional reform, social and private property rights, and governance quality – the main priorities in modern development and urban policy agendas, as recognised in the new reforms of the World Bank (Pugh, 2000). Another Nobel Laureate North (1990) focused on the way quality of institutions influenced comparative performance in long-term growth, putting institutional reform in the policy interest of the developing countries.

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