

## SUSTAINABLE SQUATTER HOUSING IN THE DEVELOPING WORLD: CHANGING CONCEPTUALIZATION.

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### Abstract

Squatter settlements providing housing to a large part of the urban population in many developing countries have grown due to lack of affordability created by widespread poverty and inadequate housing finance and land development systems. Governments mostly assisted by the international aid agencies have improved income, resources, environment and tenure security in many settlements, but could not eradicate the problems as benefits did not multiply due to lack in institutional development, policy implementation, governance, participation etc. Moreover, the squatters' capability to bring affordable and sustainable solutions through their own 'process' was ignored. Accordingly, they were not enabled to make best utilization of their capability and available resources towards sustainable housing. This paper discusses the changing approaches to the issues of low-income groups housing in the developing countries in the above context, and discusses ways to bring about a more sustainable solution. It emphasizes on spontaneous building, and sees how as a process it could be exploited to bring a viable solution to the unabated housing crisis. In doing the above it includes discussion on specific issues like affordability and enablement.

### Keywords

Affordability; enablement; in situ upgrading; self-help; squatter settlements; sustainability; urban development; World Bank.

### Introduction

The rapid urbanization taking place in the cities of the developing world will double their size by 2030; since 2007, there are more people living in the urban areas than in rural. The world-transforming phenomenon has been accompanied by dramatic growth in the number of slums; nearly a billion people today live there— a number to double in the next three decades (UN-Habitat, 2003). The Millennium Development Goals targeted significant reductions in slum dwellers' number; yet an additional 50 million people have been added to the slums of the world during 2005-07 (UN-Habitat, 2007). Over the last few decades, there has been greater appreciation of the growing importance of the cities in the national economies as development became dependent on their ability to meet the essentials like housing where the government should

play a major role- a view endorsed by the UN. Moreover, a rising standard of living and political ideologies have increased the awareness of human needs and social values, putting the onus of addressing housing problems on the government.

Many developing countries' governments have attempted to solve the above problem by clearing old decrepit housing and replacing it with modern buildings. The settlers were not involved in such renewal projects; and the property rights of many of those displaced were not recognized (Rahman, 1994). Relocation to new projects on the fringe areas far from opportunities for generating livelihoods as well as schools, clinics etc., was often opposed by slum dwellers. They also rejected support for traditional sustainable agriculture to reverse the in-migration (Pugh, 1997). Despite many projects, more often with assistance and guidance from international agencies, problems of a large number of urban low-income families in the developing countries were not addressed as either affordability was wrongly perceived (Lee, 1985), or their capabilities were overlooked. Moreover, the projects did not link with other development sectors, and could not multiply into wider reforms.

This paper attempts to establish the changing approaches to the low-income groups housing worldwide starting from the 1950s. It examines the role of the international bodies led by the World Bank in setting the core themes of housing policies and projects. This paper highlights the advantages of self-built incremental in situ upgrading, and argues that it is a form of affordable and hence sustainable housing for the low-income groups in the developing countries.

In this context, the issues of housing process, affordability and enablement, which are often overlooked in finding a sustainable solution to housing problems, are also discussed.

### Housing Policy and Practice

Of many international agencies involved in shaping housing policies and projects in the developing countries, the World Bank with substantial grants was the most influential. Pugh (2000) identified 1972–82, 1983–93, and post-1993 as the phases when the Bank modified related strategies. Abrams and Turner, advocates of self help housing, have influenced the theories and policies of low-income housing for decades. Abrams brought the gross housing shortages and huge squatter settlements lacking in basic utilities in the cities of these countries into the world's notice in the 1950s, and suggested incremental building to upgrade slums in situ. Identifying the aspects of self-fulfillment of the slum-dwellers and their commitment to housing expressed in things that they value, Turner advocated sites and services and slum improvement schemes (Pugh, 2000).

He phrased 'freedom to build' or 'housing is a verb' to define a process, and supported people's capability to participate and control environment (Harris, 2003). Turner argued that households could gradually improve their housing with available resources, in a way more affordable to both them and the government. Therefore, compared to typical public housing schemes that were mostly unaffordable, and did not reach the target groups, incremental building would be more sustainable (Rahman, 1999, 2004). The World Bank leading project assistance in the developing countries adopted

Turner's ideas in the 1970s, but drifted from a focus on self help to a holistic development, relating housing to other urban sectors (World Bank, 1993; Kessides, 1997), in partnership with the private sector. The 1992 'brown agenda' laid down guidelines for sustainable urban development, followed by the UN calling the local governments to mobilize broad-based, participatory, and sustainable environmental improvement, and thus Turner's ideas remained broadly valid.

The 1976 Habitat Conference recommended that the governments intervene to supply housing resources that involve large infrastructure and investment beyond low-income group's reach. A new approach to environmental planning and management through public-private partnership in 1996 Conference meant involving the government agencies, business, professionals, and representatives of communities to identify and transform priorities into action plans, like creating institutions for urban environmental improvement, and building capacities to participate and cooperate, adopting Agenda 21.

In the 1970s, international agencies based support for sites and services and in situ slum upgrading projects on the principles of affordability, cost recovery, and replicability (Choguill, 1987). Accordingly, capital costs were not to be set by planning ideals and design standards, but by the target group's ability and willingness to pay. But cost recovery formula followed old convention where all had to be paid for, matching the Bank's priority for repaying the international credit and making socio-economically responsible use of grants (Rahman, 2004; Pugh, 2000). At the end, the

successful projects could be replicated in similar situations elsewhere (Choguill, 1987; Pugh, 2000). By then, it appeared that sustainability could be brought by making the economy, environment and society parts of an overall development (Barbier, 1988).

Yet project-oriented theory, practice and policy of self help schemes not translated into overall changes remained strong due to available funding, and instant benefits satisfying all (Rahman, 1999). Such conventional low-income group's housing was largely impotent as costs could be seldom recovered, self-help building or relocation sites in reality were sometimes remote from employment opportunities and unaffordable, compounded by gentrification and weak institutional capability and expertise to implement and monitor (ADB, 1983), corruption was often rampant, and the projects did not lead to wider socio-economic development (Pugh, 1990; Nientied & van der Linden, 1985; Skinner et al., 1987; Turner, 1980), and the limited outcome failed to make any impact (Rahman, 1999).

By the 1980s, it was evident that self-limiting site-based projects did not multiply benefits, address the issues of subsidy, eradicate poverty, and strengthen the land policy components that could increase the Poor's access to these essential housing resources, and hence were not replicable (World Bank, 1993). Also planning and building regulations based on western ideals were inhibiting an expansion of affordable mass housing, with scope for extension and remodeling, employment generation, etc. Institutional reform had to be backed by comprehensive urban policies to sustain programs in the long run; yet the Bank

redirected its policies in only the 1990s.

Focusing on policy and reform, the Bank gradually withdrew from direct involvement in sites and services projects, but continued with on-lending funds through specialized institutions, the NGOs and CBOs, or any organized groups, into social housing programs that would have some self-help components. It found alternative means of involvement in housing and urban development, for example by building and channeling funds through purpose-built institutions to disburse fund faster, reach target groups better, and increase recovery by involving small groups, mainly in countries with already developed housing finance system (Rahman, 1999). This was useful in the backdrop of weak financial security markets in many developing countries. Thus the upgrading of squatter settlements continued, not just building houses. Some of them retained a majority of the self-help housing units by reorganizing layouts through participation.

For example, the Bank in 1988 gave the Housing Development Finance Corporation in India US\$ 250 million to extend its coverage to the bottom layer, and stimulate housing finance institutions. In another project in 1983–88, a few Brazilian towns created a revolving municipal fund around the World Bank's seed fund. The local governments and households could have their own sub-projects, select the price according to their need, priority and affordability, through participation (World Bank, 1994). Cross-subsidization in land pricing and allocation enabled sites and services and squatter improvement programs to reach the poor in the 1970s and 1980s in Chennai. Housing investment and wealth of all income

groups increased; the contracting between the World Bank, state government, and the project authorities blended state, market, and household self-help roles (Pugh, 1990, 1997). In the Kampung Improvement Program, US\$ 439 million was lent to improve living conditions, housing investment, incomes, and health that led to wider participation and deeper reforms (World Bank, 1995).

Such a more holistic approach set to develop finance more, reduce the backlogs, increase inadequate infrastructure, reform negative land management and land policy, introduce financial transparency to accelerate supplies in low-income housing, increase competitiveness of the construction industry, provide targeted subsidies only to the poor, and establish or reform institutions (Pugh, 2000). The projects recovered the cost by setting target by affordability, thus remained financially sustainable, and met the Bank's priorities. Social effectiveness in the local government-owned programs was brought by decentralizing responsibility of maintenance and cost recovery through the beneficiaries' groups, CBOs, etc. Thus compared with the earlier shelter-oriented approach, that in the late 1980s was inclined to broader and deeper institutional reforms and development, reaching and sustaining, and thus creating a strong base for future reorientation.

Broader urban issues were emphasized in the late 1990s to enhance and sustain economic growth and modernization. Thus improvement of living qualities, poverty reduction, job creation and production, environmental sustainability, and enhancement of agglomeration economies were included as strategies to strengthen a balanced urban development (World Bank,

1999). This gave priority in program finance and management to improve squatter settlements. Despite identifying the relation between poverty alleviation and environmental issues, development agenda revolved around macro-economic stabilization and market-led growth of the early-1980s. However, countries succumbing to international speculation and bad market governance in the 1997-98 financial crises exposed the limitations of the absence of a broad basis in the politics of socio-economic development (Pugh, 2000).

The World Bank-instigated development policies that favored economic stabilization through relentless export-led growth and market liberalization were followed by many developing countries. Stiglitz (1998) favored medium-term strategic development policies to alleviate poverty and make socio-economic transformation. Rather than development of individual sectors in isolation, he advocated holistic societal changes that can be understood specifically as development transitions, for example, improving the environmental, the health dimension, the changing volumes and characteristics of poverty, etc. In an overall context, such development policies could use transitions in a combination of varying emphasis on different sectors, based on the pragmatic context-based realities of socio-economic opportunities.

### Economics of Self-Help Settlements

The dynamics of self-help housing economics that produces large individual and social assets in the housing stock cannot be ignored. Change in unpaid self-help labor is affected by the changes in formal sector wage rates,

controlled by competing forces and better use of time. Jimenez (1982a, 1982b) argued that self-help can be regarded as implicit saving and investment which creates an asset of economic value for social functioning. The value of a house accumulates through use, rent, and being production locale. Rooms subdivided or added to a house can be a source of income—the low-income groups rent out or use these as a workshop for productive activities (Rahman, 2004; Setshedi, 2006; Mai, 2008).

Housing was also treated as productive item that multiplies employment and generates income instead of as consumptive item. Accordingly, growth in the sector can increase employment (Klaassen et al., 1987), especially among the low-income people, and with lower marginal import, tax or saving propensity than the higher-income groups, greater multipliers of low-income housing would play a more important developmental role during economic stagnation. Low-income settlements provide a pool of unskilled and semiskilled labor for urban economic development, to keep alive the informal sector activities, and make under-utilized labor productive at low cost (Rahman, 1990; Raj & Mitra, 1990).

As housing investment did not contribute directly to the growth of output or foreign exchange earning (Jorgensen, 1977), priorities were placed on sectors like agriculture or industry. But apart from the social benefits, housing multiplies production, income, employment, savings and consumption (Burns & Grebler, 1977). Its real importance is greater as self-help construction and contractors' activities are usually under-reported, enhanced by subsidized housing and hidden rents of the owner-occupiers. While

housing investment leads to increased output of labor and added investments in non-housing, the opposite in low-cost housing is not significant though it required a low import; yet incremental investments generate a higher domestic multiplier than import-sensitive investments (UNCHS, 1995). The price elasticity is thus higher for housing services than for the dwelling as a capital good alone.

Upgraded squatter settlements with improved environment instigate many benefits. Grimes (1976) estimated that the economic multiplier for the low-cost housing construction is about 2. Improved housing lowers work absenteeism and incidence of social deviation, raises level of health, increases labor and educational productivity, absorbs surplus labor, and reduces traffic congestion and commuting expenses (Grimes, 1976; Burns & Grebler, 1977). Increased land values, raised incomes, better health, and skill upgrading through training and gender programs in an Indian upgrading scheme demonstrated the individual and collective returns as benefits of the increased land values were distributed to regularize households by giving tenure (Abelson, 1996). While average incomes in the settlements rose 50% in 3 years, the value of housing and land rose 82%, reflecting increased economic efficiency and social effectiveness of upgrading informal settlements. In Mexico, the escalated value of a developed settlement was recouped to pay off the capital cost (Ward, 1980a).

The value of a demolished property was included in renewal project costs, investment appraisal and costs-benefit analysis (Mao, 1966). However, these had to consider redevelopment and rehabilitation options on

the particular settlement's context. 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. Economics of housing improvement and redevelopment favors rehabilitation extending life where the existing structure has a real value, the rental differences between old and new buildings are narrow, the rate of interest is relatively high, and other options are costly. Therefore, Pugh (2000) supported renewal as a better alternative that offers a substantial improvement. Its occurrence incrementally in the developing countries over a long period increases its affordability and sustainability.

The private sector financiers often make rigid and infeasible demands for collateral, and their costs and profit structures favor economies of large scale and low credit risks that the poor cannot meet. Regressively spread repayment and no grace period make cost recovery in low-income housing often difficult (Pugh, 1990; Smets, 1999; Ward, 1984a). Meanwhile, the informal moneylenders are more flexible with small loans, but tough repayment control and high interest rate. Yet, these fit the immediate needs of the poor for flexibility and economizing shaped by small budgets and survival strategies (Pugh, 2000). Organized community self help has often been successful in stimulating savings and investment, with social co-operation and peer control securing financial sustainability.

### Housing Process

A majority of low-income houses is built gradually over time as needs are felt, resources are

available, and communities take shape (Angel & Benjamin, 1976); until then, these people can live in incomplete shelters. Compared to formal sector that ignores the needs of survival and flexibility of the low and intermittent income patterns of the poor (Smets, 1999), incremental building and improvement distributes the affordable consumption and saving over time to make that sustainable. Thus the low-income group can house itself at much less than the formal sector cost, often at down to 25% (Benjamin & McCallum, 1985). The housing 'process' allows a reduction in initial cash requirements for building, often half of usual construction costs, in exchange for social obligations. The sweat equity of the self-managing 'process' replaces up to a third of the labor cost (Payne, 1983); the participatory environmental improvement is also a saving (Pugh, 1994). Materials cost is reduced by buying recycled and used items in informal sector. Family labor is usually free; skilled labor can be bartered for. Gerrul (1979) calculated that in lower-income housing, 35% labor is self-help; another 60% is semi-skilled.

House building is normally an apocalyptic event for a low-income family, even though the result is humble. It is an occasion of co-opting as many family members as could be 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 to be met over a long time. Extended over many months, this is the beginning of a longer commitment to constantly make improvements and additions. Though the self-help and self-built units provide below-standard housing, these turn out to be more acceptable and suitable to the socio-economic needs of lower-income people (Turner, 1976), and so more

affordable and sustainable. Self-management with skilled crew and hired laborers, a popular system among the middle and upper-income groups, works well with incremental building process too. The least common way is by the small informal contractor, and seldom by large builders/developers used by the wealthier people or organizations; better-off a society is more of such houses emerge (Peattie, 1992).

Residents' motivations regarding tenure change the expression of built form in squatter settlements. While extending shelter according to their need and affordability, they mark own identity and aesthetic on it, brought by a feeling for the home and neighborhood, perceiving the improvements as a part of wider resident activities in localized sustainability. Although the resourcing and organization of improving infrastructure and making personal investments to squatter houses has been discussed, little literature is found on enhancement of aesthetics and cultural amenities. Marcus (1995) focused on the personal meaning low-income residents attach to their home that leads them to improve design and mark the meanings against such functional dominance of housing studies. These improvements represent a commitment to place and home (Turner, 1976). The deeply human expression is instigated by secured occupancy rights or expected tenure regularization (Rahman, 1999), which is found more over a longer period (Pugh, 2000).

These expressions of environmental change, local culture, and design and construction knowledge shows color, adaptability, and space for rituals and festivals; and create specific and varied living environments (Rapoport, 1988). A makeshift shack using available resources

is a product of rational thinking. It also reveals beliefs, aspirations, and the world-view, simultaneously impacting the political, the visual, and the cultural. Thus intricacy, variety, accomplishment, and resource efficiency in squatter settlements and built forms have simultaneous social, cultural, economic, political, and architectural implications (Pugh, 2000). Hence it is 'architectural' same way as a 'designed' building that is about human drive, vision, interest and the identification of place. Designers and planners could learn from these spontaneous open-ended, multi-sensory, semi-fixed settlements adding on elements.

### Housing Affordability

Many housing projects failed as the authorities decided affordability, though evidences show they are not able to determine housing costs, resources available to project household, or amount households will be spending (ADB, 1983). They based financial calculations on recorded income rather than proven expenditure. Many households often have more than one earner. Yet only formal income of the head used to be considered instead of earnings of all members that may increase with time. Such narrow and rigid criteria unjustifiably excluded some of the households from the projects, those with access to additional finance were inhibited from paying more for housing if they were willing, or required others to commit to unaffordable housing. Wrongly judged affordability excluded those who prioritize housing and so would spend beyond what seemed affordable, and thus could afford better housing (Bourassa, 1996).

This channeled scarce public fund into areas where other sources were available, and

reduced the effectiveness of the programs. This tantamount to subsidies, inviting gentrification, benefiting the well-off, and suppressing the people's ingenious and cost-effective solutions (CIVIS, 2003). What depends on external assistance, and increases the government burden, cannot be sustainable. Affordability could be extended with the help of finance based on domestic savings; but institutional finance was mostly availed by the better-off (Moss, 2003) as the others had no collateral.

Financial contribution to housing tied to ownership would be at the cost of other needs, which reflects the willingness, priority and high esteem to owning home (Peattie, 1987; Rahman, 1999, 2004). Though low-income families have little cash savings, some of them could amass wealth in kinds for housing (Keare & Jimenez, 1983), often by selling essential items (Rahman, 1999). With ownership in sight, household would be ready to devote more of their meager resources, both monetary and commitment of non-monetary like spare time (Ward, 1984b). Thus many families appear to be living in housing well above their apparent means, build to a level above what was possible within the assumed affordability as they saved to extend homes beyond the project limits; others could borrow informally from unconventional sources.

Most housing solutions focused on reducing the capital costs of housing and infrastructure to bring them close to the households' ability to pay. But this ignored their willingness to make extra effort to match payment needs; simple averages conceal extent of affordability, enhanced by homeownership prospect (Rahman, 1999). It also ignores each household's preference and desire, as affordability would vary within

apparently uniform groups (Lee, 1985). Even in a narrow range, amounts available for housing vary according to demographic and economic characteristics (Hulchanski, 1995) as household propensities to pay and access to resources vary, and high cost limits options.

The low-income group improves affordability by using allocated space (CIVIS, 2003), for example as workshops, often involving more family members. Therefore, some projects were designed to integrate productive use enhanced by incentives like space and credit in Cairo, Mexico, Nairobi and Senegal (Ward, 1984a), or use future income sources to assess affordability (Lee, 1985). As construction sector absorbs many of the squatters, they could be engaged in the projects to reduce the cost and enhance affordability. Occasional remittance also affects housing affordability; irregular cash flow from either rural areas or overseas, much of which is invested in housing (Awaal, 1982), is an important supplementary source (Keare & Jimenez, 1983).

### Enablement

Against the government being the 'provider', the idea of 'enablement' since the late-1980s involved creation of a congenial legal, institutional, economic, financial, and social frameworks to enhance economic efficiency and social effectiveness so that capability to solve own problems could grow. This came on the heel of changing attitude towards development, and an urge to make it more broad-based. Therefore, 'enablement' in next decade encompassed not only institutional-led reforms, but also put governance into central positions in virtually all development agendas

in economic, education, health, environment, housing, urban and other sectors with a focus upon state-market-society relations, as it was evident that benefits were not sustainable without good governance (Rahman, 1999). This encouraged community-based elements in upgrading the squatter settlements and owning community assets so that processes are more transparent and accountable and people are enticed to improve themselves instead of waiting for the government (Rahman, 1999).

Such enablement can bring together technical know-how, a broad inclusive participatory approach among residents from all strata, capacity of development agencies, use available resources, and recognize and define responsibilities of all stakeholders. The roles of each such partner in the multi-institutional and multi-organizational environment could be guided by the underlying socio-economic rationale. For example, private enterprises contribute efficiency and entrepreneurship, CBOs mediate between households and government agencies that provide urban management expertise, and participants provide various finance, self-help resources, and localized relevance in the upgrading efforts. These represented a complex process with risks of failure out of weak institutions, narrow coterie interests, corruption and market manipulation.

Such enablement framework was also relevant to new housing for others where such structure could supply housing as builders access development finance in a competitive market. Implementation of proper land policies by coordinating with the infrastructure and utility agencies could ensure adequate supplies of well-placed ready land at affordable price. The

legal system could protect property rights of all, developed finance institutions could manage flows of funds and various risks, including liquidity, credit, interest rate and recovery. The overall policy and enablement framework could have pro-poor and egalitarian elements for social-relevance and sustainability.

There are examples where sustainability was achieved through enablement, for example, in sites and services schemes in India, and in the small loans program in Singapore and Chile (Pugh, 1997), which alleviated their housing crises. However, most developing countries could not achieve same effectiveness or comprehensiveness or meet the targets due to poor finance sector and institutions, and institutional incapacities. Hence, squatter settlements and slums kept growing, occupying a good part in many cities.

### Discussions

The spontaneous and informal self-help housing has remained in focus in last half century, though their implications varying in theoretical, economic and technical characteristics, and role in overall housing and urban development in the developing countries, were recognized very late (Lawrence, 1997; Ling, 1997; Dyer, 1994). Though the funding agencies have been assisting self-help [re]housing programs from early-1950s, advocacies by Turner and Abrams were decisive. Through practical experience, the Bank changed its methods from site-specific projects to programmatic approach mediated through formal institutions, and subsequently to new directions in developing policies, cooperation and participation. Some of the projects provided 'good practice' examples.

They have also added economic and often aesthetic value to urban assets.

While some see squatter settlements as aesthetic output, the authorities see them as eyesores and loath such view (Peattie, 1987) — such attitude has led to demolition of shelters and destruction of communities. However, since international policies now favor in situ improvement and regeneration of older settlements (Rahman & Mai, 2010), the self help and the modern technology can co-exist and accept the cultural-aesthetic form. Such houses are necessary and important in terms of both product and 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 influence their housing and social status. For example, the Santa Marta settlement in Colombia was gradually transformed, consolidated, recognized and accepted into the formal sector. In Durban, spontaneous settlements are juxtaposed near formal settlements, being impermanent and temporarily linking kith and kin.

Though self help, household economics, affordability, and home sense could define the roles of individuals and households, only market exchange value, the design and impact of subsidies, or social questions of poverty and inequality interest the economists (Pugh, 1990, 1997; Stretton, 1976). They ignored non-economic 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. Most of these, e.g. the value of the product and human capital formation, including that of time

and equivalent market products, and attribution of childrearing in human capital formation, can be quantified.

Self help, central in socio-economic, political, environmental and developmental sustainability, goes beyond the construction and management of housing and the surrounding. This is generally more sustainable as it uses own resources to produce home-based goods and services, and depends less on imported materials and technology. The domestic, commercial, and the public sectors are interdependent in bringing overall socio-economic development of the low-income groups. Access to housing is like an 'entry fee' (Peattie, 1987), providing a foothold to the poor that facilitate human development through access to services and the security of a safe and healthy environment.

Economics of affordable housing and environmental improvement supplements other areas by contributing to the human and labor development, and contributes to sustainable development. Squatter settlements too cannot be retained and regenerated in isolation of other urban development sectors. Though all communities have rights to improve their settlement, squatter upgrading is not readily accepted, and the legal system, and professionals and participatory processes may not concur in its modality. However, social homogeneity, good community leadership, prior social co-operation experience, visible outcome, prospective ownership, and the affordability can help to achieve consensus regarding development objectives and means (Rahman, 1999).

Stable growth of income, recognition of

squatters housing rights, affordable in situ improvement, and the development of social capital and empowerment 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 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). The Grameen Bank has developed credit and technical advice for women's enterprise, housing, and transforming social development among the poor; international agencies are supporting such initiatives (Rahman, 1999). Despite differences, all settlements require development of socio-economic, leadership and institutional capabilities (Rahman, 1999). The problem of converting environmental improvements into action plans and partnership can be removed by distributing responsibilities, attribution of costs and self help, and participatory and transparent management. In essence, both the process and the project need good governance, organization, management, and policy (Pugh, 2000).

The large informal sector providing for the low-income groups in most developing countries, legitimized and assisted, can contribute 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 improving living conditions and providing social opportunities for millions add more socio-economic and environmental values than high-profiled projects, and hence is the more sustainable. As income increases and needs arise, households upgrade houses in terms of materials, space and utilities, often personalizing them; low quality makeshift shacks are transformed gradually into more substantial and homely structures, encouraged by improved tenure and amenities.

Potentials for conservation and regeneration of squatter settlements vary with their characteristics. Some expect imminent redevelopment, in others de facto occupancy rights seem secure. Sometimes a settlement generates its own leadership and organizational structures to negotiate with politicians and bureaucracies for installing infrastructure; others have either apathy or powerlessness. Improvement can take place either spontaneously in well-established settlements with future tenure security, or in formal planned settlements. Political skills and pressures often influence the selection of improvements and the distribution of costs and benefits among households. State-assisted regenerations often involve redesigning and re-aligning layouts (Potter & Lloyd-Evans, 1998), which disrupt socio-economic network and identity. It can be avoided by making it part of overall housing development and urban macro-spatial planning.

The conventional approach to affordability cannot meet the objectives of making projects mobilize private fund for housing with limited

public sector's capacity, minimize public intervention in the market to ensure efficient and equitable development, and be flexible to accommodate variety of needs (ADB, 1983). The non-productive offsite infrastructure costs must be reduced to a minimum in order to replicate a low-cost housing program. Otherwise it will escalate public subsidies and a shortage in the fund. Housing projects could be sustained by setting the standard at affordable level that enables to recover cost and optimize the use of expensive and scarce resources. Households could be allowed to determine themselves what they can afford in a less dogmatic approach.

The layout may contain a variety of housing options (size, orientation, payment methods, level and standard of services) to suit all. Commercial uses could cross-subsidize housing. While the repayment for infrastructure could be set at an affordable level, residual cost could be recovered by subsidizing optional elements. The lack of financial sophistication of the participants and the concern of the soundness of the projects could be augmented by monetary guarantee and readiness to intervene by the authority in case of default (ADB, 1983). Instead of binding public housing programs tightly, the rules can be redefined so that more of those households previously excluded as being too poor can participate and benefit from the program. Higher income limits increase scope for cross-subsidizing and reduce the political resistance to projects.

## Conclusion

Unprecedented urban growth in the face of increasing poverty and social inequality means that the number of people living in the slums

will be about 2 billion by 2030; the international community should aim improving the lives of at least half of them by 2020 (UN-Habitat, 2007). The absolute number of poor and undernourished in urban areas is increasing through 'urbanization of poverty' (Whelan, 2004). Slum clearance actually ignores the social causes behind it, and redistributes poverty to less valuable land. However, cultural heritages and sustainability have been expressed in the living conditions of the world's poor amidst squalor. 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.

Value of housing depends on many limited and indispensable resources like the quality of design, density, size, materials, neighborhood amenities, access to education and health facilities, human development, security, etc. This composite social good cannot be produced or consumed piecemeal; one must share the land, which defines the community, and the capital jointly created by it. Substantial improvement in the standard requires extensive restructuring of the economy, as the structure of the community's social, moral, legal and business systems refers to that. Long life and high cost of housing combine with its visibility and diversity to make it a unique way to become important in the socio-economic development of which it is a pre-requisite as well as an objective (Klaassen, et al., 1987). Hence sustainability in housing approaches cannot be brought without considering it holistically in the background of other interrelated urban development sectors.

Nobel economic laureates have been (re)

writing the relative roles of the state, the market, and households, necessary in socio-economic terms, where the state's welfare roles extend beyond tax-transfer systems to institutional reform, to social and private property rights, and to governance quality. They focused on the way quality of institutions, defined as norms, property rights, compliance procedures, and the ethical elements in economic activity, influenced comparative performance in long-term growth. Moreover, institutional reform in the developing countries lies at the heart of modern policy interest in governance. These became main priorities in modern developmental and urban policy agendas, as recognized in the World Bank's new reforms (Pugh, 2000).

Poverty is about the deprivation of capability to expand social opportunity in markets, in state policy, and in households, and that all of these development requisites focus on the freedom of individuals to choose values and lives of worth to them (Sen, 1999; Sen & Wolfensohn, 1999). Poverty reduction can follow from personal commitments and appropriate human bondage generated in low-income housing. Fogel (1994) argued that improved nutrition, the advancement of medical knowledge, and the qualities of housing increase 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, to start with poverty eradication.

#### Notes:

Slum population in India has more than doubled in the past two decades. In 2001, 54.1% of Mumbaians

lived in slums (NIHFW, 2006); Dharavi, Asia's second largest slum in Mumbai, houses 800,000 people (Davis, 2006). A quarter of Sao Paolo population lives in poor conditions. Kolkata has more slum dwellers living in higher density. Based on water and sanitation access, 99% of Afghan and 94% in Central African Republic live in slum condition; even a third of the Argentines experience the same. 175 mil China, 158 mil in India, 42 mil in Nigeria and 36 mil in Pakistan live in slum conditions (UNFPA, 2007). 327 million people live in slums in Commonwealth countries – 15% of its citizens (Comhabitat, 2006). In 11 African, 2 Asian and 1 Pacific countries urbanizing rapidly, over two third urbanites live in slums.

## References

- Abelson, P. (1996). Evaluation of slum improvements: Case study in Visakhapatnam, India. *Cities*, 13(2), 97–108.
- ADB (1983). Regional seminar on financing low-income housing: Summary report. Manila: Asian Development Bank.
- Angel, S., & Benjamin, B. N. (1976). Seventeen reasons why the squatter problem cannot be solved. *EKISTICS*, 41(242), 20-26.
- Awaal, S. (1982). A study of the influence of the overseas workers remittance on the land market of Dhaka. Masters Thesis, Bangkok: Human Settlement Division, Asian Institute of Technology.
- Barbier, E (1988). The economics of environment and development. Elgar: Cheltenham.
- Benjamin, S.N., & McCallum, D. (1985). Low-income housing in the third world- broadening the economic perspective. Bandung: Institute of Technology.
- Bourassa, S.C. (1996). Measuring the affordability of home-ownership. *Urban Studies*, 33(10), 1867-77.
- Burns, L.S., & Grebler, L. (1977). The housing of nations. London & Basingstoke: Macmillan.
- Choguill, C. (1987). New communities for urban squatters: Lessons from the plan that failed in Dhaka, Bangladesh, New York: Plenum Press.
- CIVIS (2003). The enabling environment for housing finance in Kenya: Shelter finance for the poor series. Cities Alliance, IV.
- Comhabitat (2006). Briefing paper produced for the commonwealth civil society consultation. London: Marlborough House.
- Davis, M. (2006). Planet of slums. Paris: La Découverte.
- de Soto, H (1989). The other path: The invisible revolution in the third world. New York: Harper & Row.
- Dyer, C (1994). Everyday life in medieval England. London: Hambledon Press.
- Fernandez, E., & Varley, A. (1998). Law, the city and citizenship in developing countries: An introduction. In E. Fernandez and A. Varley (Eds.), *Illegal Cities: Law and Urban Change in Developing Countries*. London: Zed Books, pp. 3–17.
- Fogel, R. (1994). Economic growth, population theory, and psychology: The bearing of long-term processes on the making of public policy. *American Economic Review*, June, 369–395.
- Grimes, O.F. (1976). Housing for low-income urban families. Washington, DC: John Hopkins University Press.
- Harris, R. (2003). A double irony: The originality and influence of John F.C. Turner. *Habitat International*, 27(2), 245-269.
- Hulchanski, J.D. (1995). The concept of housing affordability: Six contemporary uses of the housing expenditure-to-income ratio. *Housing Studies*, 10(4), 471-91.
- Gerrul, B. (1979). Economic effects of housing in developing countries: Vol. III & IV - Types of low-income residential areas in Dhaka. Darmstadt: Technical University of Darmstadt.

- Jimenez, E. (1982a). The economics of self-help housing: theory and some evidence from a developing country. *Journal of Urban Economics*, 11, 205–228.
- Jimenez, E. (1982b). The value of squatter dwellings in developing countries. *Economic Development and Cultural Change*, 31, 739–752.
- Jorgensen, N.O. (1977). Housing finance for the low-income groups: With special reference to developing countries, Kenya: Housing Research & Development Unit, University of Nairobi.
- Keare, D.H., & Jimenez, E. (1983). Progressive development and affordability in the design of urban shelter projects: Working paper no. 560. Washington, DC: The World Bank.
- Kellett, P., & Napier, M. (1995). Squatter architecture? A critical examination of vernacular theory and spontaneous settlement with reference to South America and South Africa. *Traditional Dwellings and Settlements Review*, 6(2), 7–24.
- Kessides, C (1997). World Bank experience with the provision of infrastructure services for the urban poor: Preliminary identification and review of best practices. Washington, DC: World Bank, TWU-OR8.
- Klaassen, L.H., Hoogland, J. G. D., & van Pelt, M. J. (1987). Economic impact and implications of shelter investments. In L. Rodwin (Ed.), *Shelter, Settlement and Development*. Boston: Allen & Unwin.
- Lawrence, R. (1997). Space and text. In R. Lawrence & A. Wallace-Hadrill (Eds.), *Domestic Space in the Roman World: Pompeii and Beyond*, *Journal of Roman Archaeology*, Supplementary Series No. 22, 7–14.
- Lee, M. (1985). Myths of affordability. *Third World Planning Review*, 7(2), 131-142.
- Ling, R. (1997). *The insula of the meander at Pompeii: Vol. 1, The structure*. Oxford: Clarendon.
- Mao, J. (1966). Efficiency in urban renewal expenditures through cost-benefit analysis. *Journal of the American Institute of Planners*, March, 95–107.
- Marcus, S. (1995). *House as a mirror of self: Explaining the deeper meanings of home*. Berkeley, CA: Conari Press.
- Moss, V. (2003). Preview of housing finance systems in different African countries. *NHFC Housing Market Bulletin*, 1(IV).
- Needleman, L. (1965). *The economics of housing*. London: Staples.
- Nientied, P., & van der Linden, J. (1985). Approaches to low-income housing in the third world: Some comments. *International Journal of Urban and Regional Research*, 9, 311–329.
- NIHFW (2006). *Slum population in million plus cities: Slums in India, an overview*. New Delhi: Urban Health Resource Unit, National Institute of Health and Family Welfare, Ministry of Health and Family Welfare, Government of India.
- Payne, G. (1983). *Low-income housing in the developing world: The role of sites-and-services and squatter upgrading*. New York: John Wiley & Sons.
- Peattie, L.R. (1987). Shelter development and the poor. In L. Rodwin (Ed.), *Shelter, Settlement and Development*, Boston: Allen & Unwin, Boston, 263–280.
- Peattie, L.R. (1992). Aesthetic politics: Shanty town or new vernacular? *Traditional Dwellings & Settlements Review*, 3(2), 23–32.
- Potter, R., & Lloyd-Evans, S. (1998). *The city in the developing world*. Harlow: Longman.
- Pugh, C. (1990a). *Housing and urbanization: A study of India*. New Delhi: Sage.
- Pugh, C. (1994). The development of housing finance and the global strategy for shelter. *Cities*, 11, 384–392.

- Pugh, C. (1997). Poverty and progress? Reflections on housing and urban policies in developing countries, 1976-96. *Urban Studies*, 34(10), 1547-1596.
- Pugh, C. (2000). Squatter settlements: Their sustainability, architectural contributions, and socio-economic roles. *Cities*, 17(5), 325-337.
- Rahman, M.M. (1990). Seventeen facts on Dhaka's Bastes. *EKISTICS*, 57(342-343), 172-180.
- Rahman, M. (1994). Bastee eviction: Denial of housing rights. *Social Science Review*, XII(2), 205-226.
- Rahman, M.M. (1999). Role of the NGOs in urban housing for the poor. Robert McNamara Fellowship Report. Washington, DC: World Bank.
- Rahman, M.M. (2004). Housing affordability: Ability or willingness? Symposium of Housing II- affordable dwelling, March 27-30, High Commission for the Development of Arriyadh, KSA.
- Rahman, M., & Mai, M. (2010). Affordability makes housing sustainable: Changing approaches by the World Bank. In S. Ahmad (Eds.), *Issues on Global Energy Crisis and its Impact on Design*, Penang, pp.118-126.
- Raj, M., & Mitra, B. (1990). Households, housing and home-based economic activities in low-income settlements. In M. Raj & P. Nientied (Ed.), *Housing and Income in Third World Urban Development*. London: Aspect Publishing.
- Rapoport, A. (1988). Spontaneous settlements as vernacular design. In C. Patton (Ed.), *Spontaneous Shelter: International Perspectives and Prospects*. Philadelphia: Temple University Press, pp. 51-57.
- Sen, A. (1999). *Development as freedom*. Oxford: Oxford University Press.
- Sen, A., & Wolfensohn, J. (1999). *Development: A coin with two sides*. Washington, DC: World Bank.
- Skinner, R., Taylor, J. & Wegelin, E. (Eds.) (1987). *Shelter upgrading for the urban poor: Evaluation of third world experience*. Manila: Island Publishing House.
- Smets, P. (1999). Housing finance trapped in a dilemma of perceptions: Affordability criteria for the urban poor in India question. *Housing Studies*, 14, 821-838.
- Stiglitz, J. (1998). *Towards a new paradigm for development: Strategies, policies and processes*. Geneva: 9th Raul Prebisch Lecture, UN Conference on Trade and Development.
- Stretton, H. (1976). *Capitalism, socialism and the environment*. London: Cambridge University Press.
- Turner, A. (1980). *The cities of the poor*. London: Croom Helm.
- Turner, J.F.C. (1976). *Housing by people: Towards autonomy in building environments*. London: Marion Byers.
- UNCHS (1995). *Shelter provision and employment generation*. UNCHS-Habitat, Nairobi, 1995.
- UNFPA (2007). *State of world population 2007*. New York: United Nations Population Fund.
- UN-Habitat (2007). *UN-Habitat sustainable urbanization: Local action for urban poverty reduction, emphasis on finance and planning*. 21st Session of the Governing Council, Nairobi.
- UN-Habitat (2003). *The challenge of slums: New global report on human settlements*. UN-Habitat, Nairobi.
- Ward, P.M. (1984a). Mexico- beyond sites and services. In G. Payne (Ed.), *Low-Income Housing in the Developing World*. New York: John Wiley and Sons, New York, 149-159.
- Ward, P.M. (1984b). *Self-help housing: A critique*. London: Mansell.
- Whelan, S. (2004). One third of the world's urban population lives in a slum. *International Committee of*

the Fourth International, [www.wsws.org](http://www.wsws.org)

World Bank (1993). Housing: Enabling markets to work. Washington, DC: World Bank.

World Bank (1994). Twenty years of lending for urban development, 1972–92. Washington, DC: Operations Evaluation Department, Report # 13117, The World Bank.

World Bank (1995). Indonesia impact evaluation report. Enhancing the quality of life in urban Indonesia: the legacy of the Kampung improvement program. Washington, DC: Operations Evaluation Department, Report # 14747-IND, The World Bank.

World Bank (1999). A strategic view of urban and local government issues: Implications for the bank. Washington, DC: The World Bank.

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The World Economic and Social Survey is the annual flagship publication on major development issues prepared by the Department of Economic and Social Affairs of the United Nations Secretariat (UN/DESA). The Survey was prepared under the general supervision and direction of Rob Vos, former Director of the Development Policy and Analysis Division (DPAD) of UN/DESA, and Willem van der Geest, Chief of the Development Strategy and Policy Unit of DPAD. Sustainable development challenges in the follow-up to the Conference. Global sustainable development challenges post-2015. Reconciling Preservation and Stewardship in a Changing World. Photo Credit: Millicent Harvey Media: Please submit high-resolution image requests to [images@asla.org](mailto:images@asla.org). Share This (Left) Remnants of the garden's features existed in the back yard of the 1980s house, which was constructed over the garden's west apse. (Right) With the house demolished and volunteer trees removed, the garden's main axis, defined by a series of pools and fountains along a channel, was rehabilitated. PROCESS: Deep Research, Conceptualization, Interpretation.