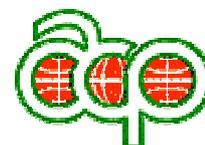


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*Slum in Rio de Janeiro, Brazil. © Acioly, 2007.*

**Addressing the Challenge of Informal Settlements in the Developing World: slum upgrading and slum prevention**  
Claudio Acioly Jr.



## **Addressing the Challenge of Informal Settlements in the Developing World: slum upgrading and slum prevention<sup>1</sup>**

Claudio Acioly Jr.<sup>2</sup>

### ***Preamble***

One of every three urban citizens lives in slum conditions across the world today. According to the United Nations Human Settlement Programme (UN-HABITAT), in 2006 there were nearly 1 billion people who could find housing only in slum settlements in most cities of Latin America, Asia, and Africa, and a smaller number in the cities of Europe and North America (UN Habitat, 2006). The problem is of unprecedented magnitude and complexity and in simple terms reveals that the majority of cities face difficulties in accommodating their residents within the formal, official, and enacted plans governing the use of land and urban space. In Africa, for example, urban growth is a synonym of informal urban development. In Latin America, informal settlements represent the fastest growing segment of metropolitan populations; informally supplied land has been the predominant way large parts of the population can access land for housing. Informal settlement persists despite housing programs, settlement upgrading and land regularization policies. Informal land development – in the form of illegally and informally developed housing and human settlements – typically accounts to 20 to 70 percent of urban growth in cities in the developing world.

This paper presents a brief overview about the problem and challenges of slums and informal settlements giving unequivocal evidences about the scale and scope of the phenomenon of informal urbanisation. It argues that the ill-functioning of the housing sector and the absence of affordable housing options for the different social economic groups are some of the deep-rooted causes of flourishing informal land and housing markets that are observed in cities throughout the developing world. The paper highlights regional differences in Asia, Africa and Latin America. It reveals that bottlenecks in land supply and in the land delivery system fundamentally hinder access to serviced land and adversely affect the supply of affordable housing for large parts of the population. This seems to fuel the resort to informal and illegal land development and slum formation. Rather than only promote slum and informal settlement upgrading, the paper makes a plea towards a concomitant slum prevention strategy. Housing policies and strategies to enable the housing sector to function and play its crucial role in economic development are needed as much as approaches and policies to improve the existing stock of slums where technical, financially and environmentally possible.

### ***The scale and scope of the problem***

According to the United Nations Human Settlement Programme (UN Habitat) nearly 1 billion people live in slums all over the world. The Millennium Development Goal 7, Target 11, seeks to improve the lives of at least 100 million slum dwellers by 2020. But, governments and the international community face an extraordinary challenge not only to improve existing settlements but also slow the growth of new informality. Thus, improvement policies must co-exist with slum prevention strategies that can provide affordable housing opportunities at scale to cope with the growing demand for housing and infrastructure.

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<sup>1</sup> Paper draws from Acioly, Claudio (2007) “The Challenge of Slum Formation in the Developing World”, *Land Lines*, Cambridge: Lincoln Institute of Land Policy. pp. 2-7.

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In addition to typical squatters and encroachments, informal includes the illegal subdivision of privately owned land as it is often observed in many countries, indicating the emergence of a flourishing informal land market. In cities such as Bogotá (Colombia), Rio de Janeiro, São Paulo (Brazil), Mumbai (India), Cairo (Egypt), Lima (Peru), and Tirana (Albania), land is acquired, secured and developed regardless of existing legal and planning frameworks in place. What are the causes of this massive non-compliance with the formal rules and regulations that govern urban development? Why do so many people end up living in slums and informal settlements?

There is no single answer but we know today more than we did 30 years ago when the first UN Habitat Conference in Vancouver placed informal housing processes as one its core concerns. Low incomes and limited household ability to pay for housing are part of the problem but it is increasingly observed that not only the poor lives in these settlements. Thus poverty is not a sole cause of the growth of slums. More and more people with relative high income resorts to housing outside the formal and official systems and finds only housing alternative outside the formal market revealing shortcomings in housing markets and in policies that hinder the delivery of affordable housing opportunities. The lack of local government investment in infrastructure is another obstacle to be considered as it restricts supply of housing opportunities and hinders economic activities. It is clear that neither a city plan nor a sanctioned land use planning system alone can guide urban development and produce slum-free urban spatial structures. Research and practical experience now provide sufficient evidence about the different mechanisms and strategies that individuals and/or organized groups pursue to access land and housing.

The phenomenon of slum formation has grown in scale and has produced a variety of local or regional settlement types with their specific denominations like favelas in Brazil or museques in Angola. Despite these local differences, the phenomenon has many common characteristics: the formal land and housing delivery systems are not working for many people; land and housing prices are skyrocketing; individuals are trading land and property rights regardless of legal status as a way to access a place to live and legitimize their right to the city; and these settlements are plagued by overcrowding, inadequate sanitation, and poor housing conditions. And in some cities urban violence is associated with these settlements.

### ***Informal Land and Housing Markets***

A flourishing informal market already provides housing alternatives for poor, middle-class, and even some high-income families in many cities where sanctions on informality and informal land occupation are lax and /or access to land is constrained in the urban core and held privately in the fringe areas by individual landowners, customary chiefs and tribal authorities. The densification of existing and consolidated settlements in the urban core and informal and often illegal subdivisions of private land in the fringe areas are unequivocal evidence of the privatization of informal land development<sup>3</sup>. It means individuals can access land only through market transactions controlled by private owners, customary chiefs and individual land holders and subject to speculation.

At first sight, it seems that the phenomenon of informal urbanization overpowers the capacity of city governments to respond to the demographic pressure and increasing demand for housing, land, and infrastructure. A closer look reveals though among other things that slums and informal settlements are a symptom of a malfunctioning housing sector earmarked by high house-price-to-income ratios, scarcity of serviced land, and distorted and no transparent land, housing, and real estate markets. The inability of city governments to anticipate, articulate and execute well-designed land and housing policies is also part of the equation. Many policy makers have not fully understood the complexity of informal land development and the nexus of land markets, housing, and slum development in their cities, and therefore their ill-conceived policies continue to stimulate rather than slow informal urban development. Government regulations and costly standards and norms are also part of this equation hindering rather than facilitating land and housing delivery. It is observed

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<sup>3</sup> Acioly, C. *ibid.* 2007

that policy decisions and government measures miss the required evidences and baseline information about the logic of slum formation amongst other things.

Any attempt to tackle the problem of existing settlements must take into account the deep-rooted causes of the informal urbanisation phenomenon in order to design measures that will prevent it from continuing at the present speed and scope. Thus, while addressing the lack of basic infrastructure, accessibility, and public services, as well as unclear tenure rights through settlement upgrading, slum improvement and regularization programmes, governments must look at policies to either stop or decrease the speed at which urban informality grows in its various dimensions. Bringing the provision of serviced land to scale and diversified affordable housing opportunities for different social-economic groups are two fundamental measures for consistent slum prevention. If nothing is done to reverse the current trend, the slum population may reach 1.5 to 2 billion people in 2020 (UN Habitat 2003; 2006; UNDP 2005).

National governments and the entire international community have acknowledged the problem when it revisited and suggested a reformulation of the MDG 7, Target 11 in 2005. It aims at improving substantially the lives of at least 100 million slum dwellers by 2020, *while providing adequate alternatives to new slum formation*" (UNDP 2005, 3). Although this goal still represents a small fraction of the nearly 2 billion slum dwellers projected by that date it is now recognized that we need to design policies and measures that will offer a wide range of affordable housing alternatives that can compete with those offered by the informal land and housing supply systems.

The translation of this goal into action raises a twofold challenge. Local and national governments and international development agencies must focus on slum upgrading, infrastructure improvement, and regularization of informal settlements, coupled with measures that can actually improve living conditions and the quality of life in the existing settlements and those in the process of consolidation. Thus tackling the existing stock of slum and preventing the formation of new ones should be integral pieces of one policy. Governments and agencies must address preventive policies and measures that can offer feasible and affordable alternatives to the informal development model currently in place. Only then can we overpower the "industry of informality" that persists and challenges city governments<sup>4</sup>.

### ***Regional Differences***

The different regions present not only different rates of urbanization but also different response capacities and peculiarities in the way slum formation take place.

#### ***Africa: The Challenge of Customary Lands and the Need to Bring Programmes to Scale***

Local governments in most African countries are ill-equipped in terms of well-trained personnel and specific urban management policies and instruments to deal effectively with the problem. In addition, they often have a low tax base, poor property tax collection, and inefficient and un-transparent land administration systems. Many countries have an intricate institutional framework regulating land use at the local level that involves locally based town and country planning and land administration units operating alongside a variety of central government agencies, including a ministry of lands and national land administration systems. It is also common to have local governments subordinated to a ministry of local government, thus limiting municipal autonomy and adversely affecting local capacity responses to address the problem. Countries that have nationalized land may create frameworks of land administration that are difficult to manage, resulting in inaccurate land records and duality in land allocation systems. Benefits of land lease to support infrastructure development finance are rarely achieved.

Furthermore, Africa's post-colonial institutional and organizational structures must coexist with customary rules and systems of land ownership. In some ways, customary landowners (e.g., chiefs, tribal kings, and their respective traditional councils) operate much like pirate land suppliers of

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<sup>4</sup> Acioly, C. *ibid*, 2007.

Colombia or Pakistan. The latter supply plots by subdividing privately owned land while the former deliver customary lands to individuals and even to developers, all bypassing or disregarding formal rules and official government regulations. Land prices rise dramatically and serviced land becomes scarcer, resulting in large premiums paid on plots where infrastructure is available. The local governments are unable to expand infrastructure and supply serviced land at a scale that might help bring prices down and prevent people to pay significant premium when purchasing housing at locations served by basic infrastructure.

Africa is facing the fastest urbanization rates on the planet. The slum growth rate of sub-Saharan Africa is 4.53 percent, compared to that of Southern Asia, at 2.20 percent (UN Habitat 2006). There is an urgent need to broaden local knowledge about how the informal land market functions and the policy implications for public intervention. Reforms are needed at all levels, not only in the regulatory frameworks. Institutional, policy and regulatory reforms in the housing sector will pave the road to both slum upgrading and slum prevention.



Figure 1: Mathare, Nairobi. © Acioly, 2007.

Unlike Latin America and Asia, Africa does not have a long history with citywide slum upgrading programmes nor does it have the tradition of sustained housing policies and programmes with very exceptional cases like South Africa. The upgrading and sites & services programme of Lusaka and Dakar's Dalifort upgrading programme of nearly 40 years ago, for example, and the more recent national programmes in Kenya and Namibia have not produced new generations of programmes of scale in other countries. The million plus housing programme of South Africa remains as the region's boldest effort in resolving housing shortage at national scale and more recently Ethiopia's condominium housing programme have also set audacious annual production targets of more than 200,000 units. But both countries, like many other African countries, remain struggling with housing affordability problem and growing informal settlements. In countries like Kenya, South Africa, Uganda and Malawi we witness the growing numbers of urban poor federations and savings groups supported by NGO's as a way to increase financing but all are confronted with the problems of

scale. The rise of these federations mostly supported by the NGO Shack Dwellers International is an unequivocal evidence of the failures of formal housing finance that plague most African countries.

***Asia: Involving Private Landowners and NGO's in both Slum Upgrading and Slum Prevention***

NGOs in Asia tend to play a much more prominent role than in other regions in supporting local initiatives to improve access to land by community-based organizations (CBOs) and federations of the urban poor. These federations and savings groups have multiplied in several Asian countries and are an integral part of a national slum upgrading programme in Thailand (The Ban Mekong Programme). The private regime of land ownership seems to prevail, and invasions are rarely successful. Landowners tend to reclaim their land relatively easily when making use of court and legal procedures, resulting in forced evictions or negotiated solutions that open avenues for direct purchase of part or all of the settled lands. With NGO support Community-Based Organisations—CBOs and poor people's and homeless people's federations pursue savings schemes to purchase land through the market—either where their settlements are located or on resettlement sites defined by the government. This principle is applied in another national programme in the Philippines (Community Mortgage Programme). The increasing role and participation of NGO's in settlement and community upgrading schemes throughout Asia help to explain why land sharing has been a popular policy in some Asian countries where governments, landowners, and CBOs and NGOs collaborate. Despite some successes with land sharing initiatives in Thailand and India, however, local governments generally are not well-equipped with land management and land use planning instruments.



Figure 2: Dharavi, Mumbai, India. © Banashree Banerjee

Another widely accepted approach to the provision of housing and serviced land for low- and middle-income groups in Asia is through land readjustment schemes, where large tracts of peripheral lands are held privately (Hong and Needham 2007). Reported difficulties in planning for urban growth in Indian cities are related to the fact local governments can only make use of land resources if it involves these large landowners in the land development schemes. Some national programs, such as the Kampong Improvement Program (KIP) of Indonesia and the Community Mortgage Program (CMP) of the Philippines, combine infrastructure improvement with access to

land and security of tenure and both have remained as long-term and sustained government efforts to improve existing settlements.

***Latin America: Densification and Illegal Land Subdivisions***

In Latin America, the most urbanized continent in the developing world, population growth rates in the largest metropolitan areas are falling, although informal settlements continue to grow rapidly. According to UN-HABITAT (UN-HABITAT, 2006), the physical growth rates of the total urbanized area and of slum areas in Latin America are 2.21 percent and 1.28 percent, respectively, suggesting relatively low levels of expansion onto undeveloped land. Data from the Municipality of Rio de Janeiro show that during the 1990s the population growth rate in the favelas and in illegal land subdivisions were respectively five and three times higher than the population growth rate for the city as a whole (Cavaliere 2005; Municipality of Rio de Janeiro, 2005). This larger disparity in population growth, compared to the UN-HABITAT data for the region, suggests that a process of densification and crowding of population may exist without associated expansion of the physical boundaries of informal settlements.



Figure 3: Barrios of Caracas. © C. Acioly, 2007.

More than a dozen cities in different countries of Latin America have undertaken large-scale citywide slum upgrading programs, in addition to regularization, formalization, and legalization of informal settlements. All these operations have been supported by significant financial resources from the Inter-American Development Bank and the World Bank, such as the Favela-Bairro Program (Rio de Janeiro), Habitat Rosario Program (Rosario, Argentina), COFOPRI (Peru), and Morar Legal (Rio de Janeiro).

What makes Latin America different from the other regions is that in many countries the local governments enjoy constitutionally protected autonomy which allows cities to excel in designing and executing innovative programmes. Some policy innovations and government programs also have had the time to develop better capacity and more experience in dealing with informal urbanization over the last 50 years. The phenomenon of *barriadas* in Peru dates from the 1960s, and many favelas in Rio de Janeiro have existed for more than 100 years. Pioneering upgrading

initiatives in this city date from the 1960s, when evictions and resettlement policies were more common.

### **Addressing This Global Challenge at the City Level**

How can we deal with this global challenge and tackle the problems of informal land development and slum formation? There is no simple answer, but competencies, skills, and knowledge must be strengthened at the local government level and at the levels where legislation is drafted and policy decisions are made. Additionally, institutions and local capacities must be strengthened so that citywide programmes can be designed, prepared, executed and managed in a way that allows for multiple interventions in the existing stock of slums and informal settlements in a sustained and long-term manner. Capacity building and training in support to these efforts is sine-qua-non conditions too.

There is need to develop knowledge about what can be done within the limitations of existing institutional and regulatory frameworks. It is surprising how little is generally known about the underlying causes of informal land development processes and the market mechanisms fuelling the current scale and scope of informality. Thus evidence-based policies and practice needs to find its way.

### ***Housing Policy Interventions and the role of UN-HABITAT***

UN-HABITAT is committed to supporting national and local governments and Habitat Agenda Partners to improve access to land and housing. The Agency is further committed to the following three outcomes (UN-HABITAT, 2009):

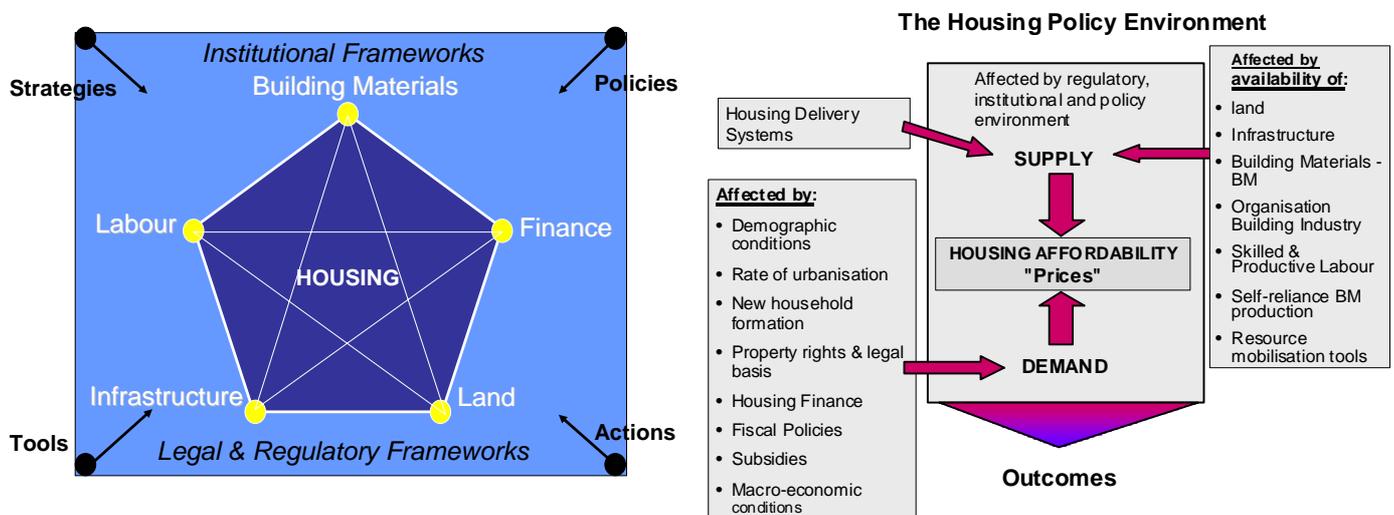
1. Supporting enabling land and housing reforms that can generate diversified and affordable housing opportunities at a scale and accessible to various sectors of the population. In that respect, UN-HABITAT approach is focused on generation of housing opportunities rather than houses, meaning that the focus is on measures that enable individuals, households and different social groups to access different housing inputs which may result in a dwelling that suits their needs, demands and ability to pay;
2. Increased security of tenure so that individuals, households and firms have the opportunity to acquire secure assets and boost equal access to infrastructure and services, and achieve poverty reduction with spin-off effects on property markets. UN-HABITAT approach is based on the axiom that secure rights to land encourage people to invest in improved dwelling and the land itself (UN-HABITAT, 2008);
3. Promoting slum improvement and slum prevention so that a consistent and persistent citywide approach can be established to respond to the needs and demands of those already living in informal areas but also to provide an alternative to informality. UN-HABITAT approach is coupled with participatory planning and urban governance, capacity building, institutional development and policy reforms.

UN-HABITAT's approach will be guided by the recognition that access to a range of affordable land and housing options at scale are sine-qua-non conditions for slum prevention. A well-functioning housing sector, for example, requires a variety of inputs, including land, infrastructure and services, finance, building materials supply and skilled labour, (see Fig 4), in order to enable individuals and different social groups to access the best shelter option that suits their needs and capacity. The institutional, legal and regulatory frameworks that govern the sector are essential for maximizing its impact on slum formation (UN-HABITAT, 2009). Each of these inputs is regulated by their specific normative frameworks and government interventions will focus on the inputs that either helps to bring impact on the demand or supply side, or both. Policies, actions and strategies should be geared to make these fundamental inputs work differently and purposely and in connection with each other in order to increase delivery and decrease costs. The present global financial turmoil has made very clear the linkages between the housing sector and the economy as well as with the regulatory framework in the financial sector. Putting into practice the UN-HABITAT approach means maximizing the backward and forward linkages with other sectors of the economy and accomplish poverty reduction and economic development.

Making formal housing finance work for the poor implies a total different approach than it has been the practice so far. Poor households develop housing through time depending on availability of resources, building materials and land. Housing policies need to adjust to this and financial services need to be tailored and embed practices of the various savings groups and federations around the world which have proved that the poor is capable of saving and leverage resources.

A functional infrastructure and services sector capable to deliver and expand coverage and accessibility of water and sanitation, will enable the supply of serviced land at scale and if this is coupled with flexible and tailored housing finance services and with different incentives to boost building materials supply, then chances to produce affordable housing solutions for the various groups of society will be significantly increased. It needs to be clear from the outset that the approach is focused on intervention that can leverage the most optimal enabling environment, focusing on the holistic view of housing rather than houses! This will vary from city to city and country to country. In Africa, for example, bottlenecks in the land supply systems and particularly the customary land delivery system will have to be addressed with audacious measures so that more housing opportunities can be generated in African cities.

More knowledge of urban economics amongst policy makers will have to be generated in order to increase better understanding of the logics of the market and the strong correlations that exist between land prices, scarcity of serviced land, regulations, and buoyant informal land and housing markets. Because serviced land is one of the fundamental inputs to housing its supply and availability will definitely influence housing prices and consequently housing affordability. If housing policy and government interventions are not capable of bringing prices to affordable levels this may create a never-ending cycle of informal settlements and slum formation that plague many cities in the developing world.



**Figure 4:** Normative View of the Housing Sector and the Policy Environment to Deliver Affordable Housing. © Acioly, 1994; 2003; World Bank, 1993.

A well-functioning housing sector with active government policies will certainly help boosting the delivery of affordable housing opportunities and this is pivotal for slum prevention. Many countries have come to understand that housing policies and active government engagement really matters if the sector is to fulfil its fundamental role in economic development, poverty reduction and employment generation in addition to improve living conditions and residential quality in cities.

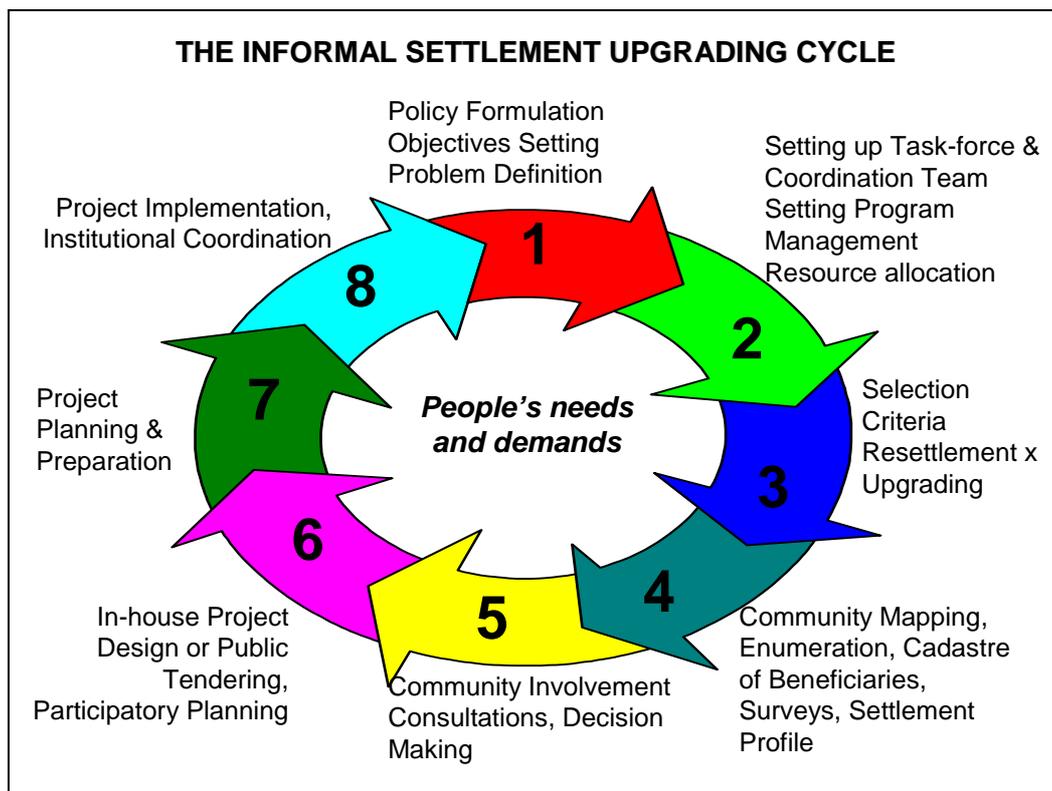
***Slum Upgrading: bringing it to scale from projects to citywide programmes***

At the other end of the policy ladder, large-scale citywide informal settlements upgrading programs, such as those carried out in Rio de Janeiro, Medellin, Indore, Ahmadabad, or Lusaka and Capetown

require a significant institutional effort and sufficient skills to manage multiyear, multi-stakeholder, and technically complex urban operations under extremely volatile environments. Designing, managing, and implementing large-scale operations that deal with existing settlements while keeping abreast of preventive policies and measures within the realm of city governments remain as one of the greatest challenges for local governments in all regions.

As an urban intervention strategy, informal settlement upgrading or more commonly known as slum upgrading is an old theme that has already been around for the last 50 years almost. Experience shows that slum upgrading do require political will and firm commitment of local governments that can sustain long-term programming and implementation. In operational terms, it requires the establishment of an institutional and organizational setting through which (1) the participation of the target groups can be facilitated, (2) the partnerships between public, private and community stakeholders can be realized, (3) financial resources can be mobilized and allocated on a sustained basis, (4) local implementation capacities can be strengthened and (5) the coordination, planning and management of programs and projects can be organized (Acioly, 2002; 2007).

The design and implementation of citywide slum upgrading programme has a general pattern and rationale which can be observed in most experiences of this kind in cities of Latin America, Asia and Africa (Fig 5). Once a city government has taken stock of the problem and properly defined it within a policy framework (Step 1), this is usually followed by the establishment of a programme management framework and a coordinating team. Some of these fundamental phases and steps are often undertaken simultaneously. It is common that cities undertake a review of their aerial photographs and/or satellite images to identify, locate and define patterns of informality, either at Step 1 or 4 of the cycle described in Fig 6.



**Figure 5:** Slum Upgrading Programme Cycle. (Acioly, C. The Rationale of Slum Upgrading. IHS, 2006).

The community mapping, enumeration and settlement profiles (Step 4) will enable governments to assess whether upgrading is the best option or not. Thus one should have an established criterion that informs transparently to the public why a particular community needs to be resettled while others are upgraded on site. The Kampong Improvement Programme of Indonesia and the Favela

Bairro Citywide Upgrading Programme have set up clear criteria to support decision making on this matter.

The experience in several countries shows that these steps and phases are sine-qua-non conditions to bring upgrading programs successfully and efficiently to scale. The last generations of slum upgrading experiences that are known in the world give clear evidences about the move from project to programme scale and from the sole focus on basic infrastructure improvement towards an integrated package that incorporates but not limited to security of tenure, land regularisation and home improvement loans and local economic development. Housing and real estate markets are other driving forces behind the full integration of these settlements into the formal and official planning systems. Upgrading is an old practice that has evolved along the years and today we already know what works and what does not work. The figure below expresses some of this conventional wisdom.

<b>DO</b>	<b>DON'T</b>
Promote good urban governance systems.	Assume that slums will disappear automatically with economic growth.
Establish enabling institutional frameworks involving all partners.	Underestimate the role of local authorities, landowners, community leaders and residents.
Implement and monitor pro-poor city development strategies.	Separate upgrading from investment planning and urban management.
Encourage initiatives of slum-dwellers and recognise the role of women.	Ignore the specific needs and contributions of women and vulnerable groups.
Ensure secure tenure, consolidate occupancy rights and regularise informal settlements.	Carry out unlawful forced evictions.
Involve tenants and owners in finding solutions prioritizing collective interests.	Discriminate against rental housing or promote a single tenure option.
Adopt an incremental approach to upgrading.	Impose unrealistic standards and regulations.
Associate municipal finance, cross-subsidies and beneficiary contributions to ensure financial viability.	Rely on governmental subsidies or on full-cost recovery from slum-dwellers.
Design and negotiate relocation plans only when absolutely necessary.	Invest public resources in massive social housing schemes.
Combine slum upgrading with employment generation and local economic development.	Consider slum upgrading solely as a social issue.
Develop new urban areas by making land and trunk infrastructure available.	Provide unaffordable infrastructure and services.

*Figure 6: The Do's & Don't's of Slum Upgrading. © UN-HABITAT, 2003.*

Several evaluations have been carried out during the past 40 years or so. These exercises reveals that public investments have induced significant improvements in the housing stock, both in quality and quantity terms and property values have also increased. The detractors of upgrading – who argue that people will sell out their houses and plots to economically stronger groups and move back to another slum once their own slum is improved and their property value increased – need to accept that gentrification has been an exception rather than the rule. Public investments are commonly realized in the form of an upgrading package e.g. infrastructure improvements, regularization of tenure, establishment of social infrastructure, community development programs, urban poverty alleviation programs, etc. which in practice helps to establish the rights, duties and obligations of

beneficiaries, public and private actors involved in the upgrading efforts. This means that the public sector invests in the provision of basic infrastructure creating an enabling environment for local development but expects beneficiaries and consumers to pay for the services through users' taxes and tariffs. That calls for land and property regulation strategies. This is actually the single most difficult accomplishment of slum upgrading programmes given the complexity of land registration, legal procedures and lengthy and costly institutional processes to regularise land.

Finally, in order to succeed, slum upgrading must be part of a policy response that recognizes the various dimensions of housing problems and different housing needs and demand that consequently will lead to the design of various different programmes of which upgrading is only one of them. Only then governments will be able to ensure that public investments is equally distributed in cities.

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