Recent housing policies in Lima and their effects on sustainability

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1. Introduction

The lack of appropriate housing is evidently linked to situations of poverty and economic underdevelopment at national level (UN Habitat, 2005). Consequently, housing is a pressing problem in developing countries that have undergone or are undergoing rapid demographic growth and rural-urban migration processes. As a result of rapid urbanization, poor newcomers to cities settle in informal and/or illegal neighbourhoods located at distant or hazard zones, without basic services and insecure tenure.

Consequently, in developing countries, 'the universal aspiration to achieve sustainable development faces three major challenges: the prevailing poverty, increasing urbanization and the continuing assault on the environment.' (Kuroiwa & Salas, 2008, p. 26). Sustainable development in this context is, therefore, strongly linked to adequate housing. Housing is now broadly recognized as a human right, which improves access to education and health, and promotes economic development and social welfare. The right to housing has been stated in legal instruments at the highest international level. Since 2000, the United Nations Office of Human Rights appoints a Special Rapporteur on adequate housing to examine and report back on this topic in specific country's situations.

Following major political-economic shifts – which have led to the 'commodification' of the economy – the housing sector has undergone significant reforms during the 1990s. Housing has become 'another good to be produced, sold and bought' (UN Habitat, 2005, p. xlix). Accordingly, financing shelter for the poor has acquired renewed significance and is now an important issue for governments of developing countries, which have to implement special measures to tackle the housing needs of those without enough income.

The Peruvian housing reform has been designed and is being implemented following the recommendations of international agencies, and is, consequently, strongly oriented toward the finance of urban shelter. The housing policies have promoted visible urban transformations in the large cities, and especially in Lima, the capital of Peru, where a process of 'return to the centre' can be observed. This study explores the spatial effects of the implementation of the (recent) housing policies in the urban development of Lima. Its main purpose is to assess if the resulting urban trends are leading toward a more sustainable development, in both socio-economic and environmental terms, in order to draw conclusions and recommendations for effective planning and policies.

The paper is organized in five sections. After this introduction, the second section describes the main elements and trends of the housing reforms in Latin America, in order to set the scene of the Peruvian housing reform, object of the third section. The fourth section analyzes the spatial consequences of the implementation of the housing policies. The conclusions and recommendations of the study are provided in the last section.

2. Housing challenges and policies in Latin America

From approximately the 1950s up to the 2000s, a demographic transition process, coupled with industrialization trends, turned most Latin American nations into urban populations. The region passed from being the fourth to being the second most urbanized world region (see Figure 1). Latin America is now close to demographic stability. However, due to the rapid

pace of urbanization of the previous decades, the cities have grown according to a 'reversed' process of urban development, by which poor people settle in the land before it has been developed. According to the UN Habitat (2005), at the turn of the XXI century, more than 70 percent of new homes in Latin America were built informally.

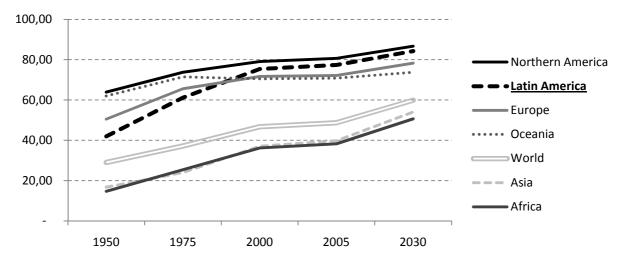


Figure 1: Percentage of urban population by world region, 1950-2030 (Elaborated with data from: United Nations, Department of Economic and Social Affairs, Population Division, 2006).

Housing began to be a matter of national concern in Latin America during the early 1950s, when illegal settlements were rapidly growing in dangerous urban areas. In the context of the Cold War and, later, the Cuban crisis, the huge and illegal land occupations were seen as a possible focus of insurgence and a threat to national security (Fernández-Maldonado, 2007). To tackle this, national governments, supported by US agencies, launched a first wave of housing policies and programmes. Since then, three very distinct phases in housing policy can be distinguished:

- (a) During the post-war period (1950s and 1960s), national housing policies followed the worldwide trends of 'modern urbanism'. The main goal was to eradicate informal settlements considered slums, places of delinquency and social breakdown and to build housing large projects. But rapidly-urbanizing (poor) countries were not able or committed to tackle the housing deficit of the poorest groups.
- (b) During the 1970s and early 1980s, John Turner's 'self-help' approach recommended by international funding agencies replaced the previous policies. The World Bank had an important role stopping slum clearance and supporting housing and land policies for low-income groups. After the First Habitat Conference in 1976, these housing policies were adopted by most developing countries. Governments built fewer housing projects but improved support for neighbourhood upgrading (Fernández-Maldonado, 2007).
- (c) The political economic changes imposed by the World Bank and IMF introduced in the late 1980s and 1990s in most Latin American countries resulted in radical housing reforms. Two key elements were highlighted to improve the housing markets: (a) the regularization of property titles and (b) the development of housing finance systems. National housing agencies began to play an important role, working together with national treasuries and private banks to increase mortgage lending, on the one hand, and with private construction firms and developers to build new homes.

The study of (Sepúlveda & Fernández, 2006) has identified the common elements of the Latin American housing reforms:

1. The new policies have turned the national states into enablers of the good functioning of the housing market

- 2. There is a clear preference for new homes building, which does not take into account the high qualitative deficits.
- 3. The policies, mainly implemented with international loans, are targeted to specific social groups through subsidies to demand and access to credit.
- 4. 'Inefficient' public mortgage institutions are privatized or closed and housing finance is reformed, facilitating the introduction of transnational banking.
- 5. International banks promote the expansion of micro-financing for lower income groups, considered very good payers, at very high interest rates.
- 6. Programmes for regularization of informal settlements are widely promoted, following Hernando de Soto's postulates for the good functioning of the market.
- 7. Programmes for neighbourhood upgrading funded by international agencies acquire a growing importance.

The housing reforms were implemented in different speeds and forms, and generally accompanied by the privatization of the local utilities. Chile, Costa Rica and Colombia are branded as good practice examples in improving the functioning of the housing market and reducing the housing deficits of lower income groups (Held, 2000). On the other hand, Nicaragua, Bolivia, Venezuela, Peru and Brazil have the greatest challenges, and will have to implement effective policies to overcome their huge deficits (Jordán & Martínez, 2009).

3. The Peruvian housing reform

Peru is among the countries with the greatest housing challenges due to its high poverty rates, higher than the Latin American average. But housing is not the only problem. In fact, its most serious environmental problems are slum-related. The World Bank's Sustainable Development Department reported that in Peru 'the environment-related problems with the highest costs are, in decreasing order, inadequate water supply, sanitation, and hygiene, urban air pollution, natural disasters, lead pollution, indoor air pollution, soil degradation, inadequate municipal waste collection and deforestation.' (World Bank, 2006, p. 9)

Decades of (laissez-faire) housing policies have contributed to the proliferation of informal settlements. Between 1961 and 1990, the Peruvian housing policy was based, on the one hand, in exceptional programmes for middle-class groups and funding through small housing cooperatives; and the tolerance toward land invasions linked to practices of patronage and clientelism between the state and poor settlers (Calderón, 2005). Without access to the formal housing system, the poor had to build their homes on public land, and with their own (few) resources. The 1993 Census quantified the total housing deficit in more than one million dwellings, from which roughly 60 percent was coming from substandard housing conditions (see Table 1).

	Quantitative deficit	Qualitative deficit	Total
Urban areas	372,019	416,526	788,545
Rural areas	25,737	207,901	233,638
Total	<i>397,756</i>	624,427	1,022,183

Table 1. Peruvian housing deficit according to the 1993 Census (Source: INEI, 2002)

This high deficit figures should not be a surprise. Due high levels of poverty and no effective housing policies, only a fraction of new homes has been built in a formal way in Peru. Ten years after the 1993 Census, the deficit was even larger. The Special Rapporteur on adequate housing of the UN Office of Human Rights found Peru's housing situation very

grave, with a deficit of 1,2 million units, from which 0,9 million were units in need of improvement (UN Economic and Social Council, 2004).

a. The drastic reform of the housing sector

As in many other Latin American countries, Peru applied of a set of political measures to reduce the state's role in most social sectors, privatizing and liberalizing key urban sectors during the 1990s. The political ideology behind the reforms was 'the market is the solution', while the state was redefined as facilitator of the market's good functioning. The housing reform was initiated in 1992, when the Ministry of Housing, the Central Mortgage Bank, the Housing Bank, development banks, housing cooperatives and public programmes for land delivery were dismantled. ¹ The absence of housing policies during the 1990s is also symbolized in the removal of the right to adequate housing in the Constitutional revision of 1993. Consequently, housing was accorded less priority in the allocation of institutional and financial resources (UN Economic and Social Council, 2004).

But during a period of relatively economic growth (1993-1997), private capital was less interested in housing than in other, more profitable, sectors that were privatized. New homes were individually built only for the higher income segments, whose households could fulfil the requirements of commercial mortgage institutions. These require having a regular household income of more than US\$1,300 a month to qualify for a mortgage loan, which excludes approximately 80 per cent of the Peruvian population.

Under these circumstances, Lima's usual patterns of urban growth deteriorated visibly. On the one hand, informal settlers occupied peripheral land that was increasingly inappropriate to settle (Ramírez Corzo & Riofrío, 2006). On the other hand, residential areas in central Lima decayed due to increased density of occupation and the lack of maintenance. Their owners, from the traditional middle-class, impoverished during this period. 'Meanwhile, working class and popular districts continued its process of deterioration in the absence of urban renewal policies. The city's industrial area, also located in the central area, which had witnessed the splendour of the industrial age of the 1960s-1970s and which had largely disappeared after the neoliberal reform, had been abandoned and it was considered, for various purposes, such as vacant land.' (Calderón, 2009a, p. 154).

In 1996, the World Bank provided a credit to the government, to establish a programme for land titling in informal settlements. This followed the postulates of the Peruvian economist Hernando De Soto, stating that this would facilitate the functioning of the housing market. The Commission for the Official Registration of Informal Property (COFOPRI) was born. It aims at promoting access to the financial system with the title as collateral; to promote housing investment, thanks to secure tenure; and to develop of a citywide real-estate market (Fernández-Maldonado, 2007). However, this process was (and still is) merely legal and completely divorced from housing policies for upgrading of informal settlements (Calderón, 2009b). The UN Special Rapporteur also observed that COFOPRI practice of granting titles is flawed when viewed in the context of Peru's obligations to the human rights instruments.' (UN Economic and Social Council, 2004: 3).

In 1998, the government established Mivivienda fund (FMV) to finance the acquisition of new homes (of less than US\$ 30,000) to population groups who could not easily afford a mortgage credit. FMV's capital is the leftover balance (more than US \$ 500 million) from the liquidation of the National Housing Fund (FONAVI)³ (FMV, 2010).

In order to avoid 'disloyal competition' in the housing market, the government's task would be limited to help to finance new housing. The private sector would be in charge to design the projects, buy and develop the land, and build and commercialize the new homes. Commercial banks associated to FMV would qualify creditworthy beneficiaries without property (FMV, 2010). To help activate the system, building standards were relaxed to allow a reduction in the production costs of the new homes (Calderón, 2009a) in 'acceptable' areas to guarantee enough profitability. To tackle this, the government waived the payment of the

General Sales Tax (VAT) for homes of up to \$ 30,000 (at the time around 18 percent) in 2001. This would allow building new homes of up to US \$ 35,000, located in central areas (Calderón, 2009a).

b. Financing new homes for the middle class

Despite the additional benefits for the private sector, very few new homes were built. After many years of high political and economic instability, the financial sector did not want to assume risks in front of the 'uncertain' credit behaviour of income groups other than high-income. But three things modified the trends since 2001. First, to calm the financial fears, the government established an additional rule to increase the participation of households who did not qualify for bank loans: FMV became the main financer, guaranteeing two thirds of the mortgage loans provided by finance institutions to their customers (Calderon, 2009a). Additionally, Peru's economy began to grow rapidly. After 2001, Peru's average rate of growth (as percentage of the GDP) has been more than 4%, and since 2005, 2% more than the average of Latin American countries. Poverty rates began to decline, but not as fast as expected by the growth of the economy (see Figure 2).

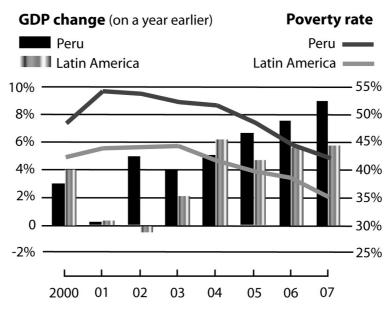


Figure 2. Economic growth rates in Peru and Latin America, 2000-2007 (Source: The Economist, 2008)

Finally, the government launched a National Housing Plan (PNV) for 2003-2007, establishing different programmes to build affordable new homes for different socio-economic sectors (Source: The Economist, 2008). In the Mivivienda credit for the middle-class households, FMV subsidizes the interest rate, bringing it under market level. The programmes for lower-income groups (Techo Propio), however, are more than credit. They follow the A-B-C Ahorro-Bono-Credito (Saving-Subsidy-Credit) scheme borrowed from successful Latin American experiences. This means that: (A) the household must make a down-payment of 10 per cent of the price of the house with own savings; (B) then it receives a subsidy; and (C) then it can get a credit/mortgage from a financial institution. Direct housing subsidies were then created – the Bono Familiar Habitacional (Housing Family Subsidy) (BFH) – to support the demand (Fernández-Maldonado & Bredenoord, 2010).

These three processes – available funds, economic growth, and, since 2003, clear housing policies, programmes and subsidies – gave an unquestionable impulse to the home building activities, in the context of the contained housing demand. In turn, this contributed to the dynamism of the whole construction sector. National economic growth increased the availability of public and private resources. Massive investments began to transform Lima's

face in both the 'formal' and the 'informal city'. Housing became a hot business. Figure 3 shows the relative weight of FMV in the total mortgage market.

Since most FMV-subsidised new projects were located in the central areas, Lima grew vertically. This process constituted a great political success of the Toledo government, and more specifically of the Housing Minister, Jorge Bruce, who was in charge to organize and implement the new housing policies. On the other hand, the housing boom was the result of a sectoral policy without links with the planning of the whole city. The lack of coordination and urban planning increased Lima's traditional urban chaos.

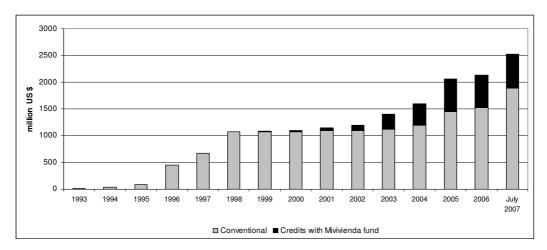


Figure 3. Participation of FMV in the total mortgage market 1993-2007(Source: Davelouis, 2008)

Local commentators stress that the indirect effects triggered by the FMV activities have been much more important than the number of credits it granted. Calderón (2009a) states that the most significant issue was FMV's role as catalyser of home building activities, by pushing downward the property prices and allowing the redirection of construction capital to income segments previously considered as unprofitable by the private sector. He mentions the main effects as: (a) an increased housing supply; (b) the reduction of property prices; (c) the growth of mortgage market; and (d) the 'repopulation' of central Lima as an additional residential space of the middle class.

It was, however, evident that during the first period the FMV activities mainly benefited the middle-class. In July 2006, the recently elected President García announced the readjustment of FMV, stating that in the previous five years (July 2001-July 2006) FMV provided 33,000 loans for middle class households and only 6,000 for lower-income households. During the same period, 100,000 new homes had been built in the formal sector, including those built in the free market sector, which was not enough to tackle the annual deficit (El Comercio, 2006).

c. Social housing for the poor

The new government reoriented the housing policy to involve the private sector for home building activities for the lower-income segments. The new National Housing Plan (2006-2011) re-adapted the finance system to the different socio-economic levels (NSEs) of the population, with the exception of the ones who have easy access to commercial mortgage (A and part of B). Figure 4 shows the proportion of people in the five NSEs in Lima in 2009.

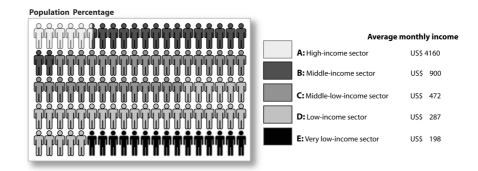


Figure 4. Socio-economic levels in Lima, 2009. (Source: APEIM, 2009)

In this scheme, the E level (very low income) was only considered in neighbourhood improvement programmes (see Figure 5). In 2007, a new programme, Mi Hogar, was introduced, specifically targeted for the C socio-economic segment, which until then had not a tailored programme. In this way, each NSE had a specific programme in the policies. Table 2 shows the different housing programmes and the home values they allow.

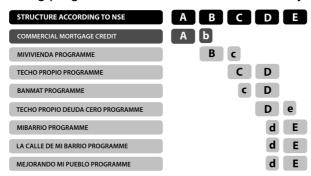


Figure 5. Finance system according to socio-economic level (NSE). (Source: Ministerio de Vivienda, 2006, p. 36).

Program	Home value (in US\$)	Targeted socio- economic sector
Mivivienda credit	Between 31.000 and 62.000	В
Mi Hogar	Up to 31.000	С
Techo propio	Up to 17.400	D
Techo propio (Deuda cero)	4.000	Е

Table 2. Value of dwellings in the different social housing programs of FMV

Currently, the housing policies promote new homes building for lower-income groups (C and D levels) which cost between US \$ 7,000 and 17,500. To expand the demand lowering the costs, the government is supplying vacant land located in central or consolidated peripheral land, property of the army or other public institutions.

More importantly, FMV and Banmat (targeted to poor groups that cannot get bank credits), have developed specific schemes to give attention to the different types of demand of low-income groups (in the Techo Propio programme): (a) to buy a new home; (b) to build a home in an own site; and (c) for home improvement or expansion. Most of the subsidies and loans are addressed to build a home in an own site or home improvement.

4. Consequences for the city

The recent housing policies have, both directly and indirectly, contributed to a feverish construction activity. Lima is growing vertically and without urban plans: 'Blocks of flats or offices are under construction on nearly every street. New hotels and restaurants sprout on every corner, while shopping centres multiply in what were once shantytowns. Across the city, thoroughfares have been torn up to make way for new bus lanes and terminals. Such is the anarchic volume of traffic that just crossing the street has become a time-consuming and perilous exercise... The city is the visible face of a boom that has made Peru South America's fastest-growing economy.' (The Economist, 2008, p. 56)

a. Characterising the 'return to the centre'

Lima's has a centre-periphery urban structure: the central area, which includes Callao (the port area) and three peripheral 'Cones': the North, South and East Cones, mainly developed through self-help processes. Each of the Cones has more inhabitants than any other Peruvian city, while the central area districts have been losing population in absolute and relative terms. According to the 2007 Census, 69,7 % of the 8,5 million residents of Lima lived in the Cones (INEI, 2008). Figure 6 shows Lima's central area and Cones, showing the spatial distribution of poverty according to the 1993 Census. It also illustrates the income differences between the (better-off) central areas and the (poorer) peripheral Cones.

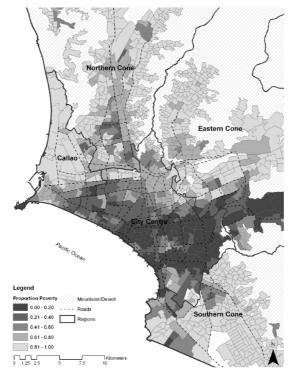


Figure 6. Lima's urban structure and poverty distribution in 1993 (Source: Peters & Skop, 2004)

During the 1990s, however, this pattern of poverty began to change, associated to deep changes in the Peruvian society. The rise of informality, remarkable during the 1980s and 1990s, promoted the emergence of new social groups. Local researchers have argued that a new middle class is emerging in the Cones, formed by informal entrepreneurs. They would has a different background, culture and tastes than the traditional middle class – linked to the post-war industrialisation – living in central Lima (Zolezzi, 2003). Recent statistics confirm that four peripheral districts (in the North Cone) have become the living quarters of the emergent middle-class (El Comercio, 2004).

The new distribution of the middle-class has meant that certain facilities, which were previously only located in central Lima, have expanded to the periphery. Large commercial malls are flourishing in the Cones (especially in the North), including department stores, large supermarkets, discotheques, multiplex cinemas, fitness centres, boutiques, specialised stores, private universities and clinics.

The housing projects financed by the FMV, initially located in the traditional middle-class districts in central Lima, have extended themselves towards peripheral areas after 2003. In the working-class central districts, however, few projects have been built. FMV projects in central areas and in the periphery, attended a different type of demand. While the B level households required locations in central districts, the C level households preferred peripheral but well-serviced areas (FMV, 2004). This 'reminds us that the purchase of a home is not only an economic issue but also symbolic and a way to settle in the social hierarchy.' (Calderón, 2009a, p.163)

In front of the new housing possibilities, the traditional middle class has kept its preference for central areas while the emerging middle class stays in the periphery or ventures into central area districts (such as the historic centre, San Miguel, etc.). Examples of the latter are 'Los Jardines de Tingo Maria' built on vacant land from a former industrial area and 'Los Parques del Agustino', built on land of an old military complex. The latter consists of 3,400 apartments combined with commercial, recreational, and educational functions for the whole district, which have promoted the gradual upgrading of the adjacent areas, previously considered as no-go places (Fernández-Maldonado & Bredenoord, 2010).

Data from the last two censuses (2005 and 2007) confirm that FMV programmes have promoted the re-population of central areas, especially those of the traditional middle-class. In 2005, 15 of the 21 central districts of Lima had lost population, while the whole central area lost population in absolute terms. But in 2007 there was a recovery of the population loss in 13 districts. Thanks to the new projects, districts belonging to Modern Lima recovered 84% of its population. In contrast, working-class central districts only recovered 22.5% of the previous losses (Calderón, 2009).

In a city with a horizontal pattern of urban growth – by the way of one-family houses in an own piece of land – these trends seem very auspicious. New homes are smaller, 98 per cent of them are apartments (Vera, 2009) and the need to lower the housing costs has made land consumption moderate. This change of mindset towards multi-family housing, especially seen in high and middle-income segments, is a step in the right direction for sustainability.

b. A more sustainable pattern of urban growth?

But has this 'return to the centre' contributed to more sustainable patterns of urban growth? Although the fight to overcome the large housing deficit seems better organized and committed than before, as well as directed to those who need it more urgently, it has so far delivered only a fraction of the number of new and/or improved homes demanded. The newly-built homes are largely insufficient to alleviate the housing demand of low-income households. Counting with the new homes built by the private sector, 133,645 new homes built between August 2006 and June 2009, according to the official statistics. Comparing to the number of new households annually (approximately 92,000), these figures give an idea of the immense task ahead (Fernández-Maldonado & Bredenoord, 2010).

It is evident that the city continues to grow horizontally and informally. 'Lima continues to expand at a double process. On the one hand, the central area was repopulated and grows in height. The percentage of families living in one-family houses is decreasing and those living in apartments increasing. But, on the other hand, the population, especially the poor, continues its march toward the periphery without facilities or homes, with illegal and informal arrangements such as land invasions, gradual occupations or illegal markets. On the more expensive land at the outskirts, closed country homes and beach condominiums arise for the

upper class. A "return to the centre" but also a peripheral expansion. A "dual" and fragmented city.' (Calderón, 2009a, pp. 165-166).

The process of densification of central areas has had a cost, fruit of the relaxation of building regulations that accompanied the new housing policies. Growth in height, instead of the necessary expansion of public open spaces – such as plazas, parking spaces, open recreational facilities, and green areas – has led to the reduction of the existing ones. Additionally, the growth in height has been hardly accompanied by a process of adaptation of the existing water and sewage local infrastructures, which were, in many cases, in need of adaptation and improvement before the housing boom. These issues highlight the need of integrated urban planning to achieve a sustainable type of development.

5. Conclusions and recommendations for effective policies for sustainable urbanization

The spatial effects of the implementation of the (recent) housing policies in Lima have been visible, but mixed. At aggregated level, FMV increased housing supply, either directly or through a rebound effect. This was possible thanks to measures that reduced housing prices and extended mortgage credits to middle and middle-low income groups. Trends towards a more sustainable urban form were materialised through the 'return to the centre' of middle-class groups, and the provision of affordable housing to lower-income groups. However, a more detailed picture shows the several problems and limitations of the unplanned return to the centre, as well as the huge difficulties to provide affordable housing to the large amount of poor households, who still solve their housing needs informally. These households are settling in areas that, in many cases, constitute a threat to themselves and the environment.

Regarding planning, the situation is also worrying. The housing policies and FMV's programmes have certainly achieved their aim to give an impulse to home building activities. But the lack of coordination with the planning of the whole metropolitan area is its Achilles' heel. The different attempts to improve the overall urban situation of Lima and to reduce informal processes – improving access to housing, to water and sanitation, improving the public transportation system, providing land titles in informal areas, etc. – are disconnected actions by different public agencies.

The lack of an integrated urban planning strategy makes the current housing policies unsustainable. Serious attempts to provide affordable housing for the poor must solve a crucial issue: low-cost serviced land. 'The struggle for shelter by low-income groups is often a struggle for land' (Satterthwaite, 2009, p.301). Most Latin American housing programmes have approached this issue by developing land in distant areas. But the consequences of these approaches may be very negative for poor groups. Low-quality and high-density housing, located at great distances from work areas and segregated from other city areas, constitute serious problems in terms of quality of life and job opportunities for the poor.

In Lima, most FMV projects for low-income groups so far have been built or are planned to build on vacant public land in relatively central areas. But these are now scarce, or problematic (such as the case of the Collique old airport), so land is becoming a bottleneck. 'It is necessary that the public sector promotes programmes for organised access to urban land in coordination with municipalities, breaking the informal mechanisms that the city generates (land invasions, illegal real-estate markets)' (Calderón, 2009c, p.5). Few good practice examples address this critical issue in Latin America. The Metrovivienda land banking programme in Bogotá stands as the most salient. But evidently, each place needs its own sustainable model for the supply of land for low-income housing that addresses local land issues. The FMV is now increasingly involved in land supply acquisition for the continuation of its housing policies, but this is, again, divorced from overall spatial planning.

Providing adequate housing not only involves building new homes and upgrading the existing ones, but also upgrading and (re)developing vast areas of informal neighbourhoods to provide basic services to all households. In that respect, the provision of basic services in cities of Latin America has also undergone important reforms during the 1990s, being in many cases, privatized. In Lima, the reforms of water, telecommunications, and public transport have produced improvements in overall access to these services, especially for middle-class groups, but not the poorest groups (Fernández-Maldonado, 2009). Weak regulation, few correction mechanisms, and not efficiently targeted subsidies, have penalised the poorest groups. In short, the situation of basic services reproduces the situation in housing: advances for the middle and middle-low income groups and few improvements or new difficulties for the very poor.

These trends go against the achievements of socio-economic and environmental sustainability. Both the Special Rapporteur on adequate housing and the World Bank's assessment on Peruvian environmental sustainability draw attention to the policy efforts and the progress achieved, but remind the Peruvian government of the huge challenges ahead. The former states that the Peruvian housing challenges have to be tackled from a human rights perspective, which implies a holistic approach in which government's policies and actions should take together housing and basic services (UN Economic and Social Council, 2004). The latter stresses the considerable progress in biodiversity conservation, but, in view of the urban bias of the environmental issues in Peru, he recommends increasing attention to environmental health issues (World Bank, 2006), evidently linked to the connection to water and sanitation.

Tackling the huge housing deficit, finding low-cost serviced land, and expanding urban services are fundamental issues for achieving socio-economic and environmental sustainability. An effective housing policy requires integrating land access, land titling, new home building and home improvement programmes, and relating them to the provision of urban services. Effective and sustainable housing policies also require improved knowledge of 'the urban poor's drive for change, their energy and their capacity' (Satterthwaite, 2009; Calderón, 2009c). Finally, the housing strategy should become an important part of an integral spatial planning strategy coordinated among the different urban sectors.

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¹ Only the Building Materials Bank (Banmat) survived, a revolving fund to provide loans in building materials, to be returned with interest rates below the market level, for self-help activities in informal settlements.

² From March 1996 to February 2009, COFOPRI distributed 1.797,836 land titles in urban areas at country level, 25.9% of them in Lima (COFOPRI, 2009). Recently, COFOPRI has been in the national news due to corruption of high functionaries.

³ FONAVI was created in 1979 as a National Housing Fund, a contribution from capital and labor. However, the fund was used for other objectives than housing since 1985, becoming a tax rather than a contribution (Calderón, 2005).

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