

SPATIAL PLANNING AND HOUSING POLICIES IN THE GLOBAL SOUTH: EVIDENCE FROM LIMA, PERU

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ABSTRACT

Until the 1990s, the Peruvian housing policies exhibited a wide tolerance toward occupation of peripheral land by poor residents, while the state solved the housing demand of the poor allocating large extensions of land for new informal settlements. In front of a very weak spatial planning, the housing policy became a de-facto land-use policy, contributing to the proliferation of informal settlements and shaping Lima's current urban structure.

Since the 1990s, however, changing demographic and political-economic issues have drastically transformed the urban scene. A housing reform was established in 2001, striving to turn housing into 'another good to be produced, sold and bought' (UN Habitat, 2005, p. xlix) in the market. The new housing policies, combined with a growing economy, a very high housing demand and the lack of available land for new expansions have led to the strong intensification of land use in central areas of Lima. Thousands of new homes have been built, but yet very few for the poor. In the planning field, on the other hand, after a severe crisis of legitimacy, city stakeholders are now demanding a more relevant role for spatial planning.

Given that adequate housing for all, and a significant role for spatial planning are indispensable for a sustainable type of urban development (UN Habitat, 2009) the present study explores these topics, analysing the effects of the housing policies in Lima's pattern of urban development, and the changing nature of spatial planning. The final objective is to assess up to what extent are the policies and processes occurring in Lima conducing to a more compact and sustainable type of metropolitan growth.

1 INTRODUCTION

Since the mid-20th century the pattern of urban development of Latin American cities developed by means of – for a great part informal – low-density residential developments occupying large extensions of land in the periphery. Such an expansive pattern of urban development is a huge diseconomy, as a regular type of land development is 7.5 times cheaper than the complex process of slum upgrading that would have to be implemented instead (Bouillon, 2012). Such pattern is neither acceptable in terms of sustainability, as it is detrimental for the environment – destroying agricultural land, increasing air pollution and traffic congestion – and for the society as a whole, as it produces peripheral residential areas without sufficient conditions for a satisfactory urban life, increasing the already existing socio-spatial divide.

In the city of Lima, the subject of this study, public policy played a major role in the informal urban expansion during the rapid urbanisation era. Policy efforts to regularize informal areas led to a massive but relatively orderly process of peripheral expansion, in comparison to other Latin American cities confronting similar problems. New demographic trends, the political economic reforms of the 1990s and new housing policies have brought about substantial modifications of this pattern of urban development. 'The reduction of the regulatory role of the state and the idea that the market would assume the solution of the "housing problem" was a real challenge for public policy. The state, whose role in solving the housing problem had been historically poor, would be replaced by the market, which,

incidentally, had not solved the problem in any other time or place' (Calderon, 2009a:152). Policies introduced in 2001 and implemented in 2003 have created a social housing sector which has increased the supply of new homes in Lima. However, their effects have been very limited in those sectors where the demand is more urgent, the lower-income households and those without a formal employment.

On the other hand, changes in the demographic context have greatly increased the housing demand. Even if Lima's average annual rate of growth has decreased in the last decades, the rapid pace of growth in past decades have produced a significant rise in the number of new households, which have increased by 25% between 2004 and 2011, from 1.85 million in 2004 to 2.31 million in 2011 (Orrego, 2012). In front of the few chances to get a new home in the commercial or social housing sector, poor households keep on occupying peripheral land.

In this context, the main objective of this study is to pay attention to the patterns of residential expansion to assess if the policies and processes occurring in Lima are conducing to a more compact and sustainable type of metropolitan growth. The second section describes the planning context in Latin American cities. The third and fourth section describe the evolution of planning and housing policies in Metropolitan Lima, respectively, and their effects on urban growth patterns. The fifth section identifies the current patterns of growth in the different socio-economic groups, and the last one discusses the findings and draws preliminary conclusions.

2 THE LATIN AMERICA PLANNING CONTEXT

Since the late 1980s, most Latin American countries in the region liberalised economic policies to attract foreign capital. The changed political-economic context and the failure of top-down 'technical' planning have inspired a strategic kind of planning that recognises the great influence of the market on urban development (UNHabitat, 2009). The gradual but substantial shift from government to governance has also meant substantial changes in terms of power relations and social values, which have determined a new ideology regarding urban actors and their roles: the state as facilitator, the citizen as consumer and housing as a product in the market.

For the promotion of private investment, governments have granted exceptionally favourable business opportunities for developers. Accordingly, private sector interventions develop with much more freedom and autonomy than in previous eras. This, in combination with the lack of a well-established growth management policy has produced a new wave of low-density peripheral expansion in many Latin American cities since the 1990s. This time, spatial transformations have not been driven by demographic processes as in previous decades, but linked to pressures of economic and cultural globalization processes. In this strong marketization of urban development, urban land becomes the most profitable investment and maximizing its exchange value the main concern. Likewise, homes have become a product to be bought and sold in the housing market, and property rights are considered more important than any other right. Social housing production, in which the financial and construction sectors are important players, also falls within this mercantilist logic.

Despite the mentioned trends, the planning instruments still belong to the typical tools of the traditional 'technical' and top-down style of planning, which are perpetuated by local bureaucracies and educational institutions. 'The rational, technocratic planning model, master or comprehensive planning, and zoning have been common approaches to planning in LAC that have not been adjusted much in decades, except for exceptional cases.' (Irazábal, 2009:52). Most developing countries still practice it, despite its proved ineffectiveness to tackle the current urban challenges (UNHabitat, 2009). Moreover, spatial planning in Latin America generally has a normative and legalistic character, in which different territorial policies coexist and are applied simultaneously, resulting in a huge regulatory confusion, difficult to interpret and therefore difficult to comply (Salazar, 2011). Irazábal (2009:22) adds: 'Urban planning in LAC has often been thwarted by changes in

governing bodies, lack of constituency involvement, financial constraints, natural disasters and other challenges, resulting in failed implementation of plans.’ In many cases, however, the problem goes beyond a failed implementation, into actions and interventions that go against the constitutional mandate in order to benefit the private sector, as evidenced Crot (2006) for the case of Buenos Aires, Stiglich (2012) for the case of Lima, and Rodríguez and Rodríguez (2012) for the case of Chile.

Table 1 summarizes the evolution of planning paradigms and their effects in cities of Latin America since their origins.

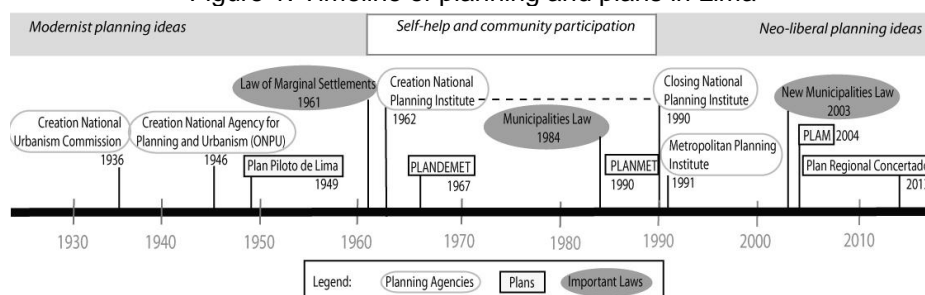
Table 1. Evolving planning principles in Latin American cities

Period	Planning principles	Effects in the cities
1500 - approx. 1850 Colonial rule	Spanish urbanism principles	The compact and concentric colonial city model
approx. 1850-1920 Immigration from and trade with Europe	French urbanism principles (Haussmann)	First peripheral developments, preceded by road, and railroad networks
1920-1950 Change from European to US capital	Modernist planning (CIAM principles).	Suburbanization of the elites soon followed by the middle classes. North American type of modernization
1950-1990 Industrialization and urbanisation	Comprehensive government-centred planning. Self-help housing	Proliferation of informal areas in the peripheries. Socio-spatial segregation.
1990-onwards Changed political-economic context	Strategic and market-oriented planning. From government to governance.	New wave of suburbanisation, fragmentation into islands of wealth, preceded by road and telecommunication networks

3 PLANNING AND CITY EXPANSION IN LIMA

Lima had a first expansion when its city walls were demolished in the 1880s and replaced by broad avenues, boulevards, and parks according to the principles of French urbanism. But the real transformation occurred in the 1920s, in the context of economic and political changes which modified the Peruvian productive structure, and produced the expansion of the middle class. Lima’s population growth accelerated due to a migration stream coming from provincial cities, what led to an outstanding spatial transformation. Lima began to expand itself rapidly along two avenues, the so-called ‘avenidas urbanizadoras’, which connected the centre with the sea side. During the following decades, Lima’s urban development, targeting high and middle income sectors, was structured along the axes of the avenidas urbanizadoras while the poor remained at the city centre, inhabiting the subdivided and run-down former residences of the elite. These developments were framed within the objectives of ‘modernisation’, centralisation and expansion of the State of the Leguía administration (1919-1930). Figure 1 shows a timeline with the main planning agencies, plans and related laws, under the different planning paradigms.

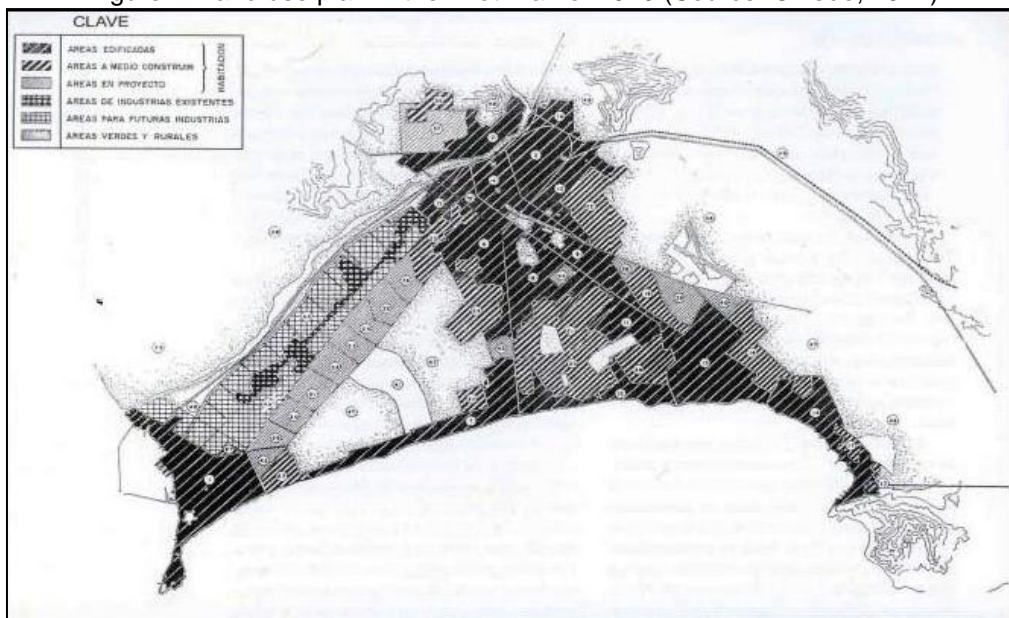
Figure 1. Timeline of planning and plans in Lima



3.1 Modernist Planning: the Sectoral City in Lima

The first plan for Lima, approved in 1949, was elaborated by the National Agency for Planning and Urbanism (ONPU). The Plan Piloto had a clear functionalist approach, where the influence of the ideas of Jose Luis Sert – attention to the regional scale, to ecological considerations and use of empirical sources for the analysis – who was appointed as advisor of the ONPU, gave the plan an innovative character for its time (Salas, 2003). It proposed the regeneration of the city centre to allow more fluid transit circulation and its densification replacing old and low-rise building structures by high-rise buildings for public and residential functions. Only few symbolic buildings would remain. Parts of this plan would be later implemented for the sake of improving transit flow in the city centre, which produced the demolition of valuable historic buildings along those streets that were broadened. However, the expected densification never happened, since gradually the centre began to lose attractiveness and new developments were localised along the ‘avenidas urbanizadoras’ Arequipa and Brazil (see Figure 2). Figure 2 also shows the distribution of land uses in the Pilot Plan, where the built, half-built and projected (residential) areas were localised along the avenidas urbanizadoras, and the land between them; while the existing and projected industrial areas were localised along the road to the port.

Figure 2. Land use plan in the Pilot Plan of 1949 (Source: Oviedo, 2011)



3.2 Comprehensive planning: Lima as the city of *barriadas*

Since the late 1940s, a demographic transition process began to affect Peru, producing a drastic reduction of mortality and accelerating population growth. A new migration stream was heading to Lima, from rural areas. But most migrants were unable to find a place in the job market and informal settlements (*barriadas*) emerged, first in the nearby hills close to the centre, and later in the peripheral areas. In Lima this process was more extensive, but better organised than in other cities of the region undergoing similar processes. The easy availability of land – due to the existence of large extensions of public land in the periphery – the mild climate – with almost non-existing rain, and low variation of temperature – and the very flexible housing and planning policies promoted the expansion of this process (Driant, 1991). The occupation of land by the poor happened relatively orderly: lots had regular sizes, roads had conventional widths and land was reserved for future amenities. Households had the freedom to build according to their own needs, tastes and financial means. According to

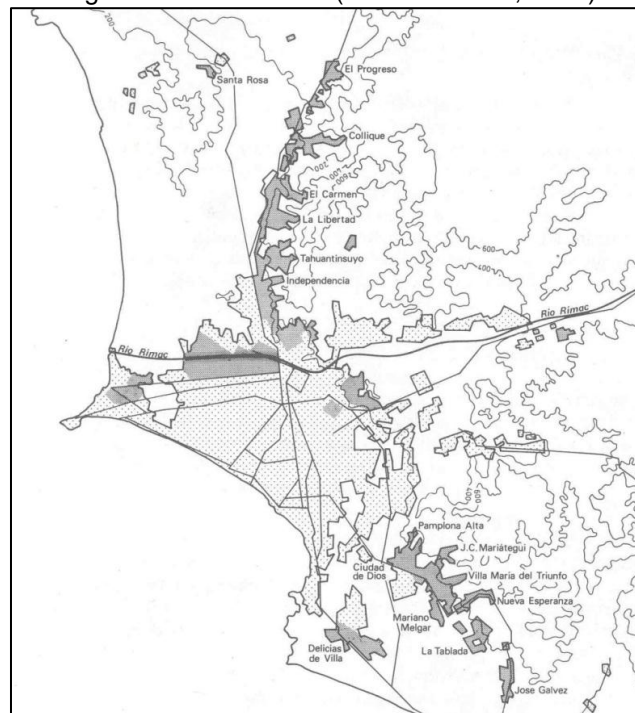
Turner (1968) and other academics that advocated the *barriadas* model, the housing deficit would be solved if the State would promote *barriadas* development along with technical support and community participation.

The Law of Marginal Settlements, approved in 1961, followed this positive view of *barriadas*. It opened up the possibility to grant them municipal authorization (Driant, 1991), what represented a radical shift for that time, when the conventional view considered informal settlements as places to be evicted. Gradually, 'some aspects of the modernist ideal had been called into question. Particularly, the growth of informal settlements, together with a new way of understanding this process, forced the state to consider previously neglected areas when planning the city.' (Stiglich, 2012:21).

In 1967, ONPU with agreement with the Municipality of Lima launched the Plan de Desarrollo Metropolitano Lima-Callao (Esquema Director) 1967-1980, (PLANDEMET). It consisted of a set of principles to guide Lima's future growth and was meant 'to serve as a basis for the formulation of general policies of public action in the long term (1980) and, consequently, to help formulate a five-year action plan' (Salas, 2003:5). But the latter was never formulated and PLANDEMET remained as a guiding policy instrument.

PLANDEMET held the same progressive view towards informal settlements as the Law of Marginal Settlements, that first established the process of physical and legal regularization of these areas. One of its objectives was to integrate informal areas with the rest of the city, implementing Urbanización Populares de Interés Social (UPIS) (social housing developments). To implement the regularization process, special regulatory zones were created as a zoning instrument in which urban services should be delivered in selected areas. The flexibility of both the Law of Marginal Settlements and PLANDEMET was decisive for the formation and expansion of *barriadas*, and for the generalisation of the view of the *barriadas* as 'the' housing solution for the poor in Peru. Figure 3 shows the map of Lima in 1971 (informal settlements in darker colour) illustrating the huge peripheral expansion in the hills of Lima and the important place of these areas in Lima's urban structure. The socio-spatial divide between the 'formal' and the 'informal' city or centre/periphery became evident. On the other hand, the 1970s, became the decade when grassroots movements of all kinds flourished in informal areas.

Figure 3. Lima in 1971 (Source: Driant, 1991)



Since 1979 democratisation processes strengthened, which promoted the intensification of urban social movements and grassroots participation. A process of national decentralization was initiated, with the Law of Municipalities (1984) as an important tool, which granted local governments with decision-making power over planning issues. For the first time, district and provincial municipalities were in charge of 'planning the development of their territories and implementing the corresponding plans' (Article 10.a) and had the function of 'formulating, approving, executing, evaluating, supervising and controlling the Local Development Plans, in agreement with the National and Regional Plans' (Article 12). Zoning and 'urbanism', however, were reserved for provincial municipalities. 'Moreover, the new Law of Municipalities established channels for direct popular participation through local institutions. Planning stopped being dominated by the national state by including both local governmental institutions and citizen participation in the process. ... the calls for participation from below had its consequences in the way the state understood planning practice and its relationship with citizens.' (Stiglich, 2012:23)

However, at local level, the new planning tasks were overwhelming for most governments which lacked both human and financial resources to even formulate their own visions and plans. Therefore, very little was accomplished despite the possibilities granted by the Municipalities' Law. It should be mentioned that the 1980s were also a period of great political instability and economic crisis, in which planning was not among the priorities.

The profound economic crisis, combined with the presence of migrants in Lima produced huge urban transformations. An exceptional growth of informal economic activities was the obvious result. The streets of Lima became open markets and land uses substantially changed. The centre lost great part of the financial and formal commercial functions and began to deteriorate itself physically. The oldest *barriadas* in the North and the South Cone became important centres of informal economic activities. during the period of mayor Barrantes (1984-1986), a Structure Plan for Lima (Plan de Estructuración Urbana) was elaborated trying to implement a decentralized management of the metropolis. Interdistrict Planning Boards were established in the North, East and South Cones (Arroyo and Romero, 2005) with the purpose of coordinating functions and interventions, but again, this planning effort had no real success in middle of the escalating political and economic crises.

3.3 Neo-liberal planning and its effects in Lima

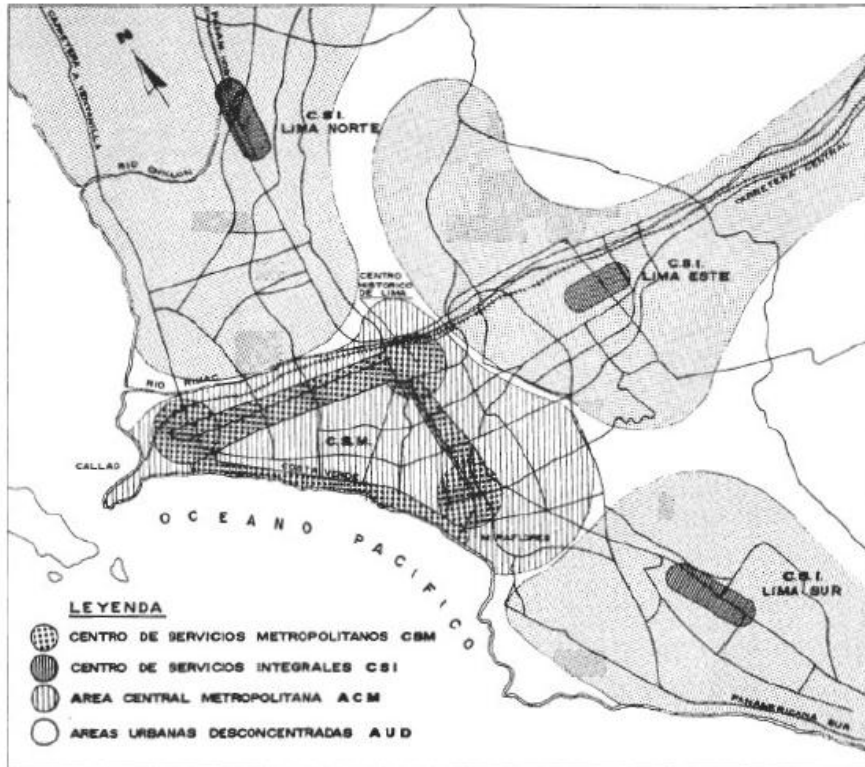
Since 1990, political-economic changes led to a radical structural adjustment along the lines of the neo-liberalism ideology. The Fujimori government (1990-2000) closed the National Planning Institute and other planning-related instances, in the context of a process that has been called hypercentralism, which characterized this government after the Congress was closed in 1992.

The same year, a new plan was presented, PLANMET (Municipalidad de Lima, 1992), which blamed the state for its restrictive and controller approach, and proposed a new one to promote and incentivate private investment and initiatives (Stiglich, 2012). In its V Part, PLANMET states that Lima's physico-spatial structure is monocentric, stretched-out, of low-density and whose patterns of growth have produced urban disorder, in a process characterised as 'underdeveloped metropolization' (p.53). To overcome this, PLANMET proposes a 'polycentric physico-spatial ordering', with four main courses of action: (a) functional-spatial metropolitan deconcentration; (b) de-congestion of the historic centre; (c) increase of urban density; and (d) selective and controlled incorporation of expansion areas.

For this, the 'formal' side of Lima would become an expanded central area (Area Central Metropolitana, ACM), with three metropolitan centres (Centro de Servicios Metropolitanos, CSM), corresponding to the historic centre, the port (Callao) and Miraflores (see Figure 4). The peripheral (north, east, and south) Cones would have their own jobs and commercial centers (Centros de servicios integrales, CSI), while ring roads would be built around the central area. Very much in the spirit of its time, Planmet considered private investment the

key actor in urban development. Consequently, zoning was adapted in order to promote private investment for intervening in the four proposed action lines.

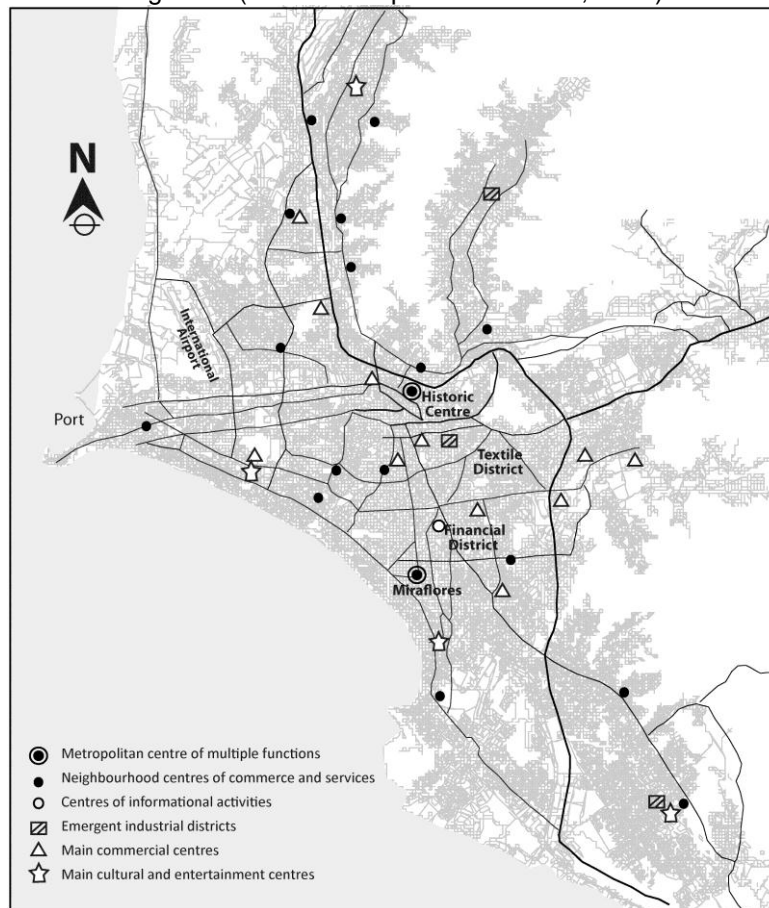
Figure 4. PLANMET Proposal for Lima's Metropolitan Spatial Structure (Municipalidad de Lima, 1992)



In the field of governance, the 1990s represented a lost decade for local governments, which were systematically weakened by the Fujimori regime. Many local competences – as tolls, public registers, transport, land titling, urban development – went back to central government agencies. Fujimori antagonized provincial and district municipalities, and stop the on-going process of decentralisation. He simply annulled the regional government level offering their resources to municipalities, which were never transferred. He passed new competences to the districts without transferring resources, so these had to resort to the central government to be able to execute these functions (Danmert, 2003). In this way, he made them dependent through clientelistic relationships, what resulted in the virtual abandonment of metropolitan planning (Crot, 2006).

PLANMET ended without minimally achieving its goals (García, 2006). However, Lima transformed deeply during this decade, mainly due to processes linked the structural changes in the economy, but also due to processes linked to its own demographic and social development. National and foreign real-estate investment groups pumped huge capitals into new commercial projects in the most profitable areas of Lima, in an order of magnitude that had no equivalence in its history (Ludeña, 2002). Chion (2002) studied the main changes in the metropolitan spatial organisation of Lima during the 1990s, mapping the new metropolitan centres (see Figure 5). Among the most important changes was the displacement of the Central Business District from the historic centre to San Isidro. Most local banks built new corporate office towers there, which were soon followed by exclusive hotels and 'executive office complexes' (Ludeña, 2002). On the other hand, the dynamism of the second and third generation of migrants living in the Cones of Lima, began to be appreciated during this decade. Gradually, they would become an important commercial market, and in the following decade, the object of significant real-estate investment.

Figure 5. (Source: adapted from Chion, 2002)



The limitation of municipal autonomy during so many years had such a strong impact that even after Fujimori was long gone Lima continued to be driven by national policies. 'While the districts regained their autonomy after Alejandro Toledo's election in 2001, the ten previous years of uncoordinated spatial policies and nonexistent metropolitan agenda have frustrated urban planning and become engraved onto the city's territorial organization.' (Crot, 2006: 244). PLANMET expired in 2010 without implementing most of its proposals. However, its zoning rules would have a deep impact on Lima's urban development. 'Since the 1990s, Lima's major planning strategy has been to ... extracting the highest possible monetary value to urban land ("re-activate land use, enhancing its comparative advantages"). Following Lefebvre, the plan proposed granting greater importance to the exchange-value than to the use-value. The plan also proposed the densification and specialization of specific areas of the city to "decentralize" the centre of Lima. One of these areas was precisely what is now the financial center of San Isidro.' (Stiglich, 2013:1).

The following rules and ordinances have continued to enhance the commodification of urban development. In May 2003, a new Municipalities Law was approved, within the frame of the re-stating of the process of national decentralisation that was drastically halted during the 1990s. Following its mandate, the Ordinance 620 of the Metropolitan Municipality, approved in 2004, defined a new zoning instrument, the Metropolitan Plan for Land Use and Urban Development (PLAM) which called for the production of land use plans at district level, that would be negotiated between the district level governments and the corresponding provincial government. PLAM 'opened the space for private investment by allowing private actors to propose any plan in special regulatory zones, to be approved by the Council. Furthermore, national decrees given in 2008 allow any entity to propose "private initiatives" to provide public services or infrastructure through private investment' (Stiglich, 2012:50).

While neglecting spatial planning, local authorities have executed infrastructural projects, hoping to get political dividends. Former mayor Luis Castaneda (2006-2011) focused his government almost exclusively on the construction of roads and transport works, built in an uncoordinated with other sectors and local governments, what produced many urban conflicts. His administration was hardly interested in local economic development or human development issues (DESCO, 2012). Despite this clear planning orientation to favour private developments, Lima's urban evolution has not produced a new wave of peripheral expansion of the middle- and upper-classes, as it has happened in other Latin American cities. The centre-periphery pattern of Lima's rapid urbanisation period has basically remained, and new gated neighbourhoods have not really developed (except at the sea side resorts).

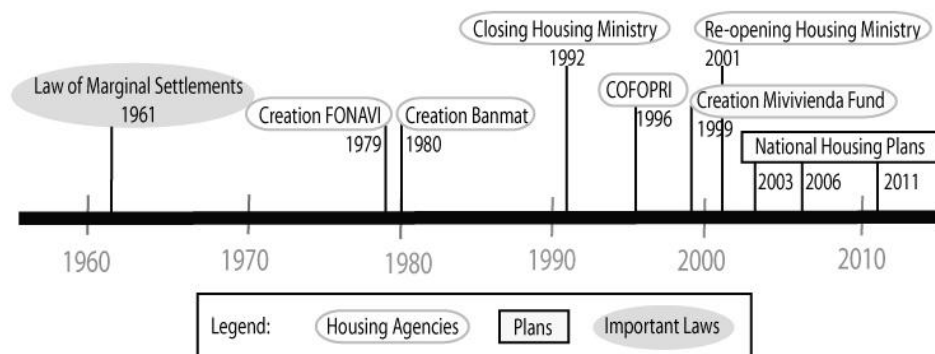
Auspicious governance changes have been occurring since 2011, when mayor Villaran began its period. In February 2013, the so-called Plan Regional de Desarrollo Concertado (Participative Regional Development Plan) was approved by the Council of Metropolitan Lima. For the first time, the plan was not exclusively elaborated by planners, but in consultation with different organisations of the civil society, gathered around ten different topics in each of the main zones of Lima. More than 18000 persons were consulted and worked in teams to identify a shared and strategic vision for each topic through Dialogue Round Tables (Mesas de Diálogo), inter-district events, surveys and focus groups (Municipalidad de Lima, 2013). However, it is still uncertain if these changes will remain after her period expires.

4 EVOLUTION OF HOUSING POLICIES AND EFFECTS IN THE CITY.

The pattern of housing production is a crucial factor of land consumption and urban development. Understanding and monitoring its development is very important in developing cities. The processes of access to urban land and the production of affordable new homes should receive a high priority in urban planning and policies. This section explores how this is happening in the Peruvian housing sector, in the context of a recently implemented social housing policy.

In the absence of explicit urban growth policies, housing policies have been traditionally the drivers of urban growth in Lima. The Peruvian state has traditionally left the housing sector in the hands of the private sector, in a system that excluded those who could not afford their own dwelling. For upper- and middle-classes there were commercial banks and housing cooperatives to help households to acquire and build their dwellings. For those unable to access this system, the implicit policy was the acceptance to occupy public land in the periphery for self-help activities. Figure 5, illustrating the timeline of the housing sector in Peru, shows the main housing organizations, funds and plans from the 1960s on. They have delivered very few social housing units to tackle the huge housing demand.

Figure 5. Timeline of the housing sector in Peru



The most important housing legislation, the Law of Marginal Settlements from 1961, addressed the housing problems of informal settlers through the official coupling of land legalization and urban consolidation processes. This 'pioneering' regulation was the fruit of several years of political pressure from *barriadas* settlers in favour of regularization of the land they had invaded, and heavy political struggles between promoters and detractors of *barriadas* (Fernandez-Maldonado, 2007). The outstanding urban growth of Lima during the 1960s and the 1970s was framed within this legislation. All the hills of the periphery were occupied by informal settlements, be it spontaneously or by initiative of the state, as in the case of Villa El Salvador (1971).

The housing sector underwent significant reforms during the Fujimori regime, which dismantled the central pillars of the housing sector (the Ministry of Housing, the Central Mortgage Bank, the Housing Bank, development banks, housing cooperatives and public programmes for land delivery). Housing received negligible financial resources, and mortgage activity virtually disappeared in the early 1990s (UN Habitat, 2008). Private capital did not invest in housing, since there were other, more profitable, sectors that were being privatized at the time. While the requirements of commercial mortgage institutions excluded more than 80 per cent of the population, the housing deficit grew to enormous proportions.

In 1996, COFOPRI (Commission for the Official Registration of Informal Property), was established to provide property titles to settlers of informal settlements. It was assumed that regularising property would facilitate the integration of the formal and informal the housing markets into a citywide real-estate market (Fernández-Maldonado, 2007). COFOPRI was designed merely as a legal process, completely divorced from housing policies for housing improvement or neighbourhood upgrading (Calderón, 2009a).

To promote the housing sector, in 1999 the government established Mivivienda Fund (FMV) to finance homes (of less than US\$ 30,000) for households who could not afford a traditional mortgage credit. The number of loans granted in the first two years, however, was negligible: 548. The financial sector did not want to take risks for lower-income groups.

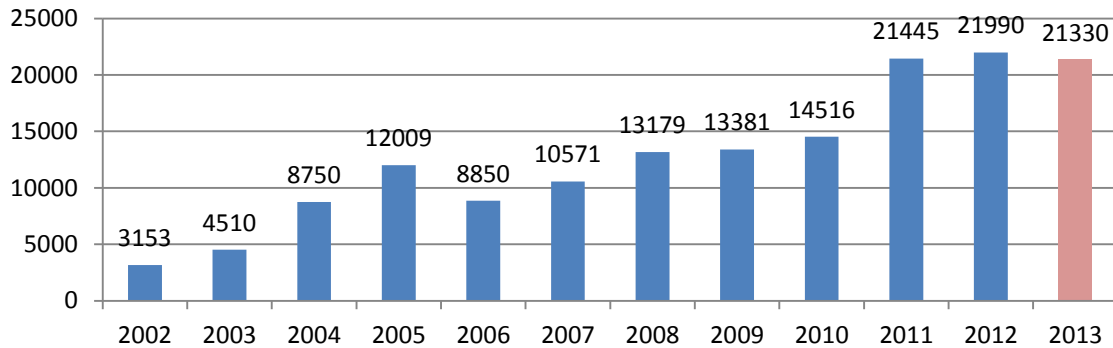
After returning to democracy, the new government gave a complete turn to the neglecting attitude toward housing, which was declared of national interest in July 2001. The Housing Ministry was re-established, and the government elaborated a new housing policy in which private construction firms would produce affordable housing. FMV became the main housing agency for this goal. The reform followed the lessons of the Chilean housing policy whose basic idea is that market conditions should apply for organising housing delivery. For population without sufficient capacity to pay for the homes, the state provides direct subsidies to expand the effective demand.

Since 2003, the city has experienced an acute intensification of real-estate led urban development that has produced a great urban change, rapidly densifying its central districts. The construction sector is the darling of the national government, which has become an important pillar of the national economy. The policy was initially implemented through a National Housing Plan (2003-2007), which established different social housing programmes for segments which could not afford a home through commercial banks mortgage. The government would be in charge to organize the whole scheme, but the private sector would be the engine of the housing sector, organising the activities in most of the phases of the production of new homes. New housing plans have been approved in 2006 and 2011, soon after the new governments were in charge.

The availability of funds for social housing and the establishment of a clear policy with specific programmes and subsidies, gave a great impulse to the housing sector. National economic growth increased the availability of public and private resources, which, in the context of the huge and contained housing demand, contributed to the dynamism of both the construction and the financial sectors. Massive investments began to transform Lima's face, real estate became a hot business and the construction sector one of the pillars of the economy, as it had been expected. A virtuous economic circle was created through the housing policies.

The number of new homes built through these policies is still very low in relation to the huge housing deficit, and has mainly targeted middle-income groups (Fernández-Maldonado and Bredenoord, 2010). Figure 6 shows the numbers of homes built or improved through the social housing policies since 2002, which is not enough to provide adequate housing to the recently formed new households, or to tackle the existing housing deficit.

Figure 6. Numbers of homes built or improved annually in Metropolitan Lima through the social housing policies since 2002 (Source: Ministerio de Vivienda, 2013).



The housing construction boom has led to the densification of Lima's central areas. In a city with a pattern of urban growth by the way of one-family houses, these trends seem very auspicious. Instead of suburban one-family homes, most new homes are apartments built in central areas. The need to lower the housing costs has made land consumption moderate. This change of mind-set towards multi-family housing is a step in the right direction for sustainability. But this intensification of land use is not sustainable, as the price of land in central areas of Lima has become too expensive for building for lower-income households. The unplanned character of the densification process is also bringing about serious conflicts and problems of urban space.

Unlike the situation in other Latin American countries, the private construction sector has not invested in large-scale developments in peripheral land, where the price of land is cheap enough to build for lower-income groups. By far, most social housing projects have been built as isolated projects constructed in small lots. The strong favouritism of the private construction sector toward high and middle-class segments, seems remarkable in view of the huge demand coming from lower-income segments. An important reason for this bias is the lower returns that large construction firms get from building home for lower-income segments. This situation produces a huge mismatch between housing supply and demand, whose extent can be seen examining data from Metropolitan Lima in 2004 (in Table 2), which illustrates the large unmet demand in the lower price categories and a minor oversupply in the higher prices.

Table 2. Supply and demand of housing units in Lima, according to price (Source: UN Habitat, 2008, with data from CAPECO, 2004).

House Price in thousands of US\$	Supply		Existing Demand		Difference	
	Units	%	Units	%	Units	%
Up to 10	4,037	28.90%	93,977	42.70%	89,94	43.70%
10-15	209	1.50%	45,967	20.90%	45,758	22.20%
15-20	818	5.90%	37,34	17.00%	36,522	17.70%
20-30	3,829	27.50%	28,371	12.90%	24,542	11.90%
30-40	1,960	14.10%	9,498	4.30%	7,538	3.70%
40-60	1,547	11.10%	3,8	1.70%	2,253	1.10%
60-80	695	5.00%	616	0.30%	-79	0.00%

80-100	353	2.50%	205	0.10%	-148	-0.10%
100 +	500	3.60%	203	0.10%	-297	-0.10%
TOTAL	13,948	100%	219,977	100%	206,029	100%

In this context, it is not a surprise that the housing deficit continues to be very high, and that poor households continue with the usual practices of occupying peripheral land for self-help housing strategies when they are not able to find an assisted housing solution.

5 BETWEEN DENSIFICATION AND URBAN EXPANSION

This section explores how the different socio-economic groups, with different chances in the land and housing markets, are managing to provide homes for their members through densification of central areas or expansion into outer areas. The location of the most recent urban expansion areas can be seen in a map of the Ministry of Housing, (Figure 7) which shows the evolution of growth in Lima since its Spanish foundation in 1535 until 2010. If we compare the areas occupied during the 1995-2004 period (9 years) (in pink) with the ones of the latest 2004-2010 period (6 years) shown in dark red, we see that in both roughly the same area has been occupied. This means that the usual pattern of consumption in Lima horizontal ground has not changed greatly, and even has increased in the recent period. Except for the expansions in northern Lima, most are isolated urban developments located in the upper parts of the existing streams and occupied by informal settlements.

Figure 7. Urban expansion of Lima 1995-2010 (Source: http://fenix.vivienda.gob.pe/OBSERVATORIO/mapas/LIMA_EVOLUCION.pdf)

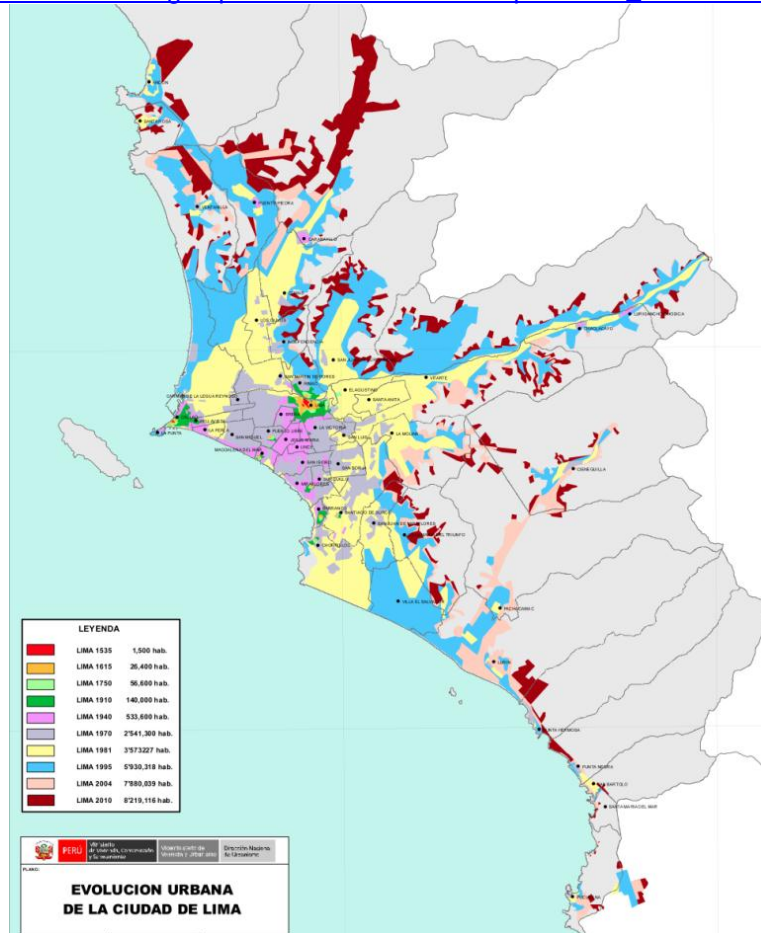


Table 3 describes the main housing preference of the four main NSEs (socio-economic strata) in Lima, in their densification and peripheral expansion forms. Upper middle- and high income households have the best options in the commercial real-estate system. They have decided not to move to the periphery, as in other Latin American cities, and remain in their traditional central quarters, except for the summer months, for which they acquire second residences in coastal, and more recently, country locations.

The traditional middle class has kept its preference for central areas while the emerging middle class ventures into projects built in older central areas, working class districts or even old industrial areas and military terrains (Fernández-Maldonado and Bredenoord, 2010). They may acquire their homes through the commercial or the social housing system, since great part of social housing production is targeted at this segment. There are no remarkable urban expansion trends in this socio-economic segment.

For those households with little financial means (lower-middle class) and not a formal job, the options are fewer because they are not target of the commercial housing sector, while the housing offer of the social housing sector is very much underneath the demand. The most usual options are acquiring a home or building additional rooms through self-help activities in the land/home of their parents or relatives. Their other option is to acquire a home or piece of land in recent developments at the urban fringe, which may be through formal or informal private developments.

For the new-formed households without financial resources, the usual option has been to continue living in the home of the parents, as 'alojados' – a phenomenon very common during the 1980s (Driant, 1991) – until they can get access to another housing option. Finally, those without family support and without financial resources are the ones who don't have other option but to illegally occupy land in faraway locations, with the where the habitat conditions are very difficult.

Table 3. Densification or expansion patterns in Lima, according to households NSEs (socio-economic strata).

Type of household /type of urban trend	Low-income	Lower-middle income	Middle income	Upper-middle and high income
Densification	Staying in the house of parents	Vertical growth in consolidated peripheral areas	New homes through commercial or social housing system	New homes in traditional districts of the central area
Peripheral expansion	Illegal occupation of land in the far periphery or in risky areas	New homes in (in)formal developments in peripheral areas	-	Second residences in coastal or country locations

6 PRELIMINARY CONCLUSIONS

This first exploration into the current patterns of urban growth in Lima has paid attention to two important urban trends: the intensification of land uses/densification of central areas of the city; and the continuation of the horizontal expansion of the city through informal settlements. The policies and processes recently occurring regarding Lima's urban development are evidently conducing to a more compact type of metropolitan growth in central areas of Lima. But: is this leading to a sustainable type of development? Adequate housing for all, and a significant role for spatial planning are indispensable elements for achieving a sustainable type of urban development (UN Habitat, 2009) that are not present in Lima's current situation. Despite a remarkable construction boom, its urban growth is shaped by the commodification of urban development facilitated by the exceptional advantages granted to private developers through local planning policies and national housing policies; and a pressing and huge housing deficit, product of an accumulated deficit of former years and the mismatch between supply and demand in the current housing production dynamics.

Consequently, the process of housing production in both the social and commercial sectors, is developing according to commercial ends, without considerations to the effects on urban space and quality of life, and with little contribution to a sustainable type of development. On the other hand, informal urban development processes continue happening in the faraway periphery.

To plan Lima with an important and well-defined role for the production of social housing is one of its most important challenges for sustainable development, both in economic, social and environmental terms. It will require overcoming the idea that the housing problem is solved by building a certain number of homes per year and also means effective coordination between housing policies and local spatial planning. The current disconnection between local planning and housing policies in Lima reflects antagonistic attitudes between central and local governments. National housing authorities generally present sectoral visions of the problem, in which housing is seen as an isolated problem to be tackled through national policies and technical means. They generally share the private sector vision that local governments are sources of conflicts and barriers rather than the body responsible to plan and guide the growth and development of the cities. This centralized management has been reinforced by multilateral cooperation agencies (World Bank, IADB) which have prioritized the central government for the purpose of housing or formalization of property (Calderón, 2009b).

The weakness of local planning is a strong liability toward the aim for a more sustainable and inclusive Lima. To overcome it requires a joint effort of all the different stakeholders; stopping the antagonism between the different government levels and sectors; allowing greater responsibilities to local municipalities; and trying to implement a mature and effective spatial planning and social housing system. The new Plan Regional Concertado is a step in the right direction, but most of it is still in the making.

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