Poverty and urban inequality: the case of Mexico City metropolitan region*

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Introduction

In Latin American cities, and in particular in Mexican cities, poverty and inequality have been and still are very serious social problems that have been addressed in numerous in-depth social and urban research studies. This has particularly been the case over the last three decades, during which cities underwent a rapid and profound transformation faced with the need to repurpose urban spaces to adapt them to the demands of the global economy. These same globalised economic and social processes in turn take on new connotations when one explores the rapid and profound transformations that have occurred in large cities and, as will be shown, amplify structural inequalities and create new asymmetries in access to urban goods and services.

In this regard, taking an ecological-territorial perspective, our unit of analysis is a megalopolis: Mexico City, a central space that serves the main function of articulating the national and the international economy, while still being the hub of the country’s economic, social, cultural and political life. Generally speaking, this large metropolis has modified its urban morphology significantly to repurpose it in response to the requirements of the global economy, giving rise to a major metropolitan urban region: a sprawling megacity with blurred boundaries, a new urban region typical of the post-Fordism city and generating new territorial inequalities.

To address this issue, I have structured my paper in three parts. The first part revisits the concepts of urban peripheries, poverty, inequality and residential segregation in the context of the megalopolis. The second part addresses the attributes of these new urban macro regions, the main urban spaces that enable certain segments of the local economy to articulate with the global economy. The third part attempts to exemplify and illustrate how these demographic, socioeconomic and territorial processes are expressed in Mexico City, which over recent decades has shown a strong process of expansion and peri-urbanisation, lending a particular dynamic to socioeconomic and territorial inequalities, and evidencing strong processes of residential segregation in the vast territory of its large urban regions.

Urban peripheries: poverty, inequality and residential segregation

In the study of large Latin American cities, the issue of urban peripheries inhabited by popular...
sectors, low-income populations, has been one of the hot topics of urban sociology, anthropology and political science in the region, particularly since the 1960s. These popular neighbourhoods, slums, were the key observatory for the controversial concept “culture of poverty” proposed by Oscar Lewis (1961); for the debates on the theory of marginality sparked mainly by José Nun (1969) and Fernando Henrique Cardoso (1971); for the political potential that Gino Germani (1967, 1971) linked with these poor urban dwellers in his studies on populism and Peronism; and for the pioneering work of Manuel Castells (1974), Jordi Borja (1975) and Ziccardi (1983, 1985) on urban social movements as the new actors driving changes in the city.

The urban peripheries of various Latin American cities, then called “favelas”, “ villas miseria”, “callampas” (slums or shanty towns) or popular neighbourhoods, had a common trait: they were urban settlements built on the outer edges of traditional market mechanisms, often as a result of invasions or processes that were tolerated by the party in office, as was the case for Mexican cities. However, the common attribute in all these experiences is that they were processes led by workers from rural areas, who came to the city in search of better work opportunities and living conditions for their families. For that reason, according to Gino Germani (1967), a renowned sociologist of that time, the city was a mechanism of social integration that served a double purpose: on the one hand, it enabled the geographic integration of society, and on the other, it enabled the social integration associated with participation, mobility and marginality, the latter being understood by the author from an ecological and psychosocial perspective.

However, it is worth noting that the city was at that time a space that provided mechanisms of social integration, including education, healthcare and access to communication media. This integration, as mentioned, was possible because migrants joined the work force in an informal way, with low salaries, no social security, and enduring precarious housing conditions in peripheral tenements or settlements. That is, the inhabitants of these popular neighbourhoods did not accomplish a full integration into the production system (Cardoso 1971; Nun 1969) and consequently were unable to take part in the labour unions that were gaining social and political weight. On the contrary, these popular sectors developed a different type of social organisation that was created based on their place of residence, and which enabled them to improve their rundown houses and to access basic facilities and services. Additionally, in some cases, such as the favelas in Rio or the slums in Buenos Aires, they connected with broader social movements or political parties, paving the way for the emergence of new social leaderships (Ziccardi 1983, 1984).

In the case of Mexico City, this process occurred later on, and had particular traits, as it was in the 1980s that a popular urban movement emerged and thrived, giving rise to leaders who later joined leftist parties, mainly the Democratic Revolution Party (Partido de la Revolución Democrática, PRD) and Labour Party (Partido del Trabajo, PT). Now, many of these popular neighbourhoods, mainly located in the periphery, have been assimilated into the city, are within the political-administrative boundaries of the federal capital, have improved housing conditions, have accessed basic infrastructure and equipment, and have better commuting and public transportation, even though their environmental and social context continues to be problematic (Álvarez and Ziccardi 2015; Ziccardi 1995). In this context, the main factors contributing to the persistence of a certain degree of precariousness are: the lack of public and private investment, the limited wages earned by these workers, adverse orographic conditions, peripheral locations coupled with residential segregation, a lack or poor quality of basic and common goods (such as water, utilities or public spaces) and a dubious legal title. However, in spite of all these processes, an overall positive view of community life and social organisation has prevailed in these popular sectors as a way to overcome material hardships (Álvarez 2004).

Additionally, the city is an agglomeration of population and activities that theoretically offers a set of collective goods and services to the population at large, with a certain independence from the capacity of appropriation of individuals in the market. For that reason, the city generates the capabilities that individuals require for their social functioning (education, healthcare, housing), as Amartya Sen (2001) defined it. However, the city is an asset with a high social and collective value, as well as a space in which access to, and the quality of, basic goods and services are marked by profound inequalities.
Thus, in Latin American cities, the provisioning of collective goods, far from being equitable, has been historically characterised by the serious conditions of prevailing urban poverty and social inequality. Additionally, one of the spatial effects triggered by the neoliberal economic policies applied over the past four decades is that cities have become divided spaces, fragmented and segmented (Fainstein et al. 1992; Jacobs 1992). It is fair to say that, even though these are distinctive features of Latin American cities, at present they tend to be aggravated (Ziccardi 2009).

Furthermore, in recent years some observers of cities in the region have considered that the strong changes noticed in the morphology of urban space—which will bear the hallmark of the new Information Society—are the result of a combination of endogenous factors, of a structural, cultural and historical nature, and exogenous factors, typical of a globalised world (Borja 2003; Castells 1998; De Mattos 2002; Ziccardi 2009). These factors tend to homogenise the urban landscape with their new ways of organising production and consumption, including original designs in office blocks and large malls that represent forms of private sector appropriation of public spaces. At the same time, in the era of inequality, the cities are themselves the producers of new territorial and urban inequalities and this is to a large extent associated with the persistence of poverty conditions that affect the vast majority of working-class families (Reygadas and Ziccardi 2010).

This calls for an analysis of the relations that exist between inequality and poverty, understanding poverty not only as an economic phenomenon but also as a complex, multidimensional phenomenon: a process of deprivation and scarcity of social, cultural, institutional, territorial and political resources particularly affecting the low-income sectors. It is also important to acknowledge a kind of poverty that is associated mainly, though not exclusively, with the conditions of insertion that prevail in the labour market, namely: instability, informality, low wages, labour precariousness, unemployment. That urban poverty, according to Townsend (1970, 2003), is a relative poverty, as in cities there is a historically and socially accepted standard of living, and it is based on that standard of living that the distribution of resources should be evaluated, rather than considering only income. For that reason, it should be noted that to take part in the market and in society, particularly urban society, the bare minimum to meet nourishment needs is not enough: educational and healthcare possibilities should be guaranteed, as well as access to property and infrastructure (particularly housing and communication and transportation means) for people to be able to function and circulate in the society they belong to.

From the perspective of the conditions that create inequality in cities, there is no functional distribution of these goods, resources and capacities; on the contrary, they are distributed in a highly inequitable way. In a previous paper coauthored with Luis Reygadas (2010), we mentioned that in a modernizing context there is no unique trend regarding inequality (Pipitone 2002) and this is true particularly in the case of Mexico City, where there are processes that encourage rights to the city and in which more social equity conditions are created, for instance: the growing empowerment of women, the greater visibility of and attention to demands of indigenous communities, the presence of new organisations of people with different abilities or sexual orientations, young people regaining spaces for culture and entertainment, better living standards for adults, and refurbished public spaces for social life (Álvarez and Ziccardi 2015). At the same time there are new economic and social dynamics that perpetuate or even aggravate the old inequalities, intertwined with the new dynamics, as sources of inequality and exclusion, such as different forms of work precariousness, the emergence of new social exclusion practices, the increase of violence and insecurity, the strong economic criminality rates, and the frailty of a local democracy that slowly progresses towards the construction of social forces that will be capable of neutralising the current social polarity (Reygadas and Ziccardi 2010).

In the case of extreme inequality in access, and particularly the lack of consistency in the quality of collective urban goods and services, one of the effects is the intensification or aggravation of socioeconomic fragmentation (Suárez, Ruiz and Delgado 2012). Inhabiting a settlement or popular neighbourhood in the periphery not only entails access to scarce, substandard urban goods, or wasting many hours to commute from home to work or to school, but these processes of territorial segregation also often generate a social stigma that encumbers the processes of work force insertion and social integration of workers living in those areas (Bayón 2012; Lindon 2007). This is clearly linked with the
analyses that identified the so-called “poverty traps” mentioned by Kate Bird, Kate Higgins and Dan Harris (2010), which, the authors claim, explain the persistence of poverty – a relevant fact to understanding the causes of poverty persistence among the indigenous people in the city.

From another point of view, Stewart and Langer (2012) propose the concept of horizontal inequalities, which « refers to inequalities between ‘culturally’ defined groups such as ethnic, religious and caste-based groups or between different regions. Horizontal inequalities encompass multiple dimensions – political, social, economic and cultural status» (Langer and Stewart 2012, p.665). This territorial reality may be reinterpreted using this concept of horizontal inequalities given that it is in the spaces where the condition of poverty is compounded by the social exclusion and discrimination suffered by the indigenous population. Different authors have also analysed the accumulation of social disadvantages that the Mexican indigenous population suffers, particularly in the case of the so-called “indigenous peoples” of Mexico City (Yanes 2009; Álvarez and Ramírez Kuri, 2012).

On the other hand, in the case of Mexico City and other cities in the country, there have been self-produced peripheral popular neighbourhoods for decades, which have consolidated and offer a relatively good quality of life. However, new peripheries, neighbourhoods or settlements have recently emerged, in areas that are farther away from the main city. Many of these urbanisations are the result of the new production, financing and subsidy policies for the provision of new social interest housing that typically offers a substandard quality of life, with no public spaces or urban facilities, and requiring expensive commuting and social costs from its inhabitants (Ziccardi 2015).

Additionally, these neighbourhoods often compromise the natural environment, as they are usually established in conservation areas and lack facilities, with insufficient or poor quality services (Imaz, Camacho and Ruiz 2011). The creation of these large social housing areas serves a double purpose: on the one hand, to reduce, from a quantitative perspective, the housing deficit, mainly by moving the financial resources of wage-earners available from social security housing agencies, and on the other, to facilitate the action of real estate agents and construction companies that seek maximum profits, so they frequently build massive housing projects in areas where no city infrastructure exists.

This leads us to emphasise that it is governmental policies that create processes of territorial inequality and residential segregation, as well as new forms of urbanisation of the territory that reproduce a dispersed city pattern, dissociated from the consolidated urban structure (Ziccardi 2015). However, there is not only a process of residential segregation of popular sectors, there is also a process of self-segregation of high-income sectors that choose to live in the so-called “gated” neighbourhoods. In this case, they seek not only a house to live in and quality infrastructure, but also security, an appropriate environment and the symbolic value of being among equals sharing socialisation and living codes.

It would be fair to say that when both processes coexist, the city stops serving its purpose of being a mechanism of social integration (Germani 1967), as all these habitation forms create new territorial inequalities. Therefore, one must insist that these new peripheries that are the outcome of different segregation processes or, as Soldano (2008) said, “territory insulation” processes, are growing and expanding in cities. In accordance with these processes, instead of witnessing the development of a citizenship that carries the concept of city of rights, city with meeting points, socialisation and urban coexistence, one observes citizens withdrawing into their privacy, creating a setting that promotes urban violence and insecurity. This happens even when there are experiences that highlight the value of community life, the existence and collective use of public spaces in neighbourhoods, settlements and towns around the city, and make new processes and ways of citizen involvement relevant, with a view to countering the disintegration trends of the twenty-first-century city (Ziccardi 2012b).

The new urban morphology of megacities

Now the focus turns to the relationship between this perspective and the new urban, disperse and diffuse forms that characterise megacities, particularly Mexico City. Large metropolitan regions are marked by processes of residential segregation and urban fragmentation that amplify socioeconomic and structural inequalities. In this regard, there are different perspectives of analysis that address the
issues inherent in this new urban form, emphasising varying kinds of occupation and use of the urban space, evidencing processes and phenomena shared by different megacities. It is important to note here the contributions that offer elements to enrich the socio-spatial analysis.

From a geographic perspective, the first trait of large urban regions mentioned by Castells is the presence of a new spatial architecture built by global networks connecting both the main metropolitan areas and their areas of influence (Castells 2012, p.39). This new spatial configuration, termed the “metropolitan urban region” or “polycentric megalopolis”, is a structure that has different hierarchies across centres and sub-centres, where activities tend to be disconnected and services sprawl across a vast territory, with mixed urban and rural lands or environmental uses, and where the boundaries of functionality are quite blurred. In this regard, the classic urban versus rural distinction no longer holds because the conversion of rural to urban use is accelerated concurrently with processes of de-industrialisation and service outsourcing, which represent both advanced and informal services that are tightly linked with Latin American cities. The existence of better transportation to shorten distances is a phenomenon associated with the processes triggered by urban expansion, creating new nodes of activity and population that in a way are integrated with the physical, territorial and functional perspectives (Castells 2012; Oriol Nel-lo 1998).

In connection with the above, the scale of urban analysis is modified. In accordance with Dematteis (1998, p.32), the new urban periphery “appears, on a macro scale, as one large structure spreading like a network, while on the micro scale, each ‘node’ of this network reveals specific characters and particular identities”. These new spatial configurations are the result of a regional rather than urban-based urbanisation which, according to Aguilar, promotes new forms of centrality marked by socioeconomic fragmentation and urban polycentrism (Aguilar 2004; Aguilar and Lozano 2012).

In this context, new demands for spatial justice have emerged. They were studied by Edward Soja (2010), who focused on the so-called post-metropolis. He refers to the transition from the conventional notion of “modern metropolis” to a radically different entity: “a variety of new post-modern forms and guidelines of urban life involving a shift from a Keynesian and Fordist mass production and consumption system, concentrated in large urban regions . . . to Post-Fordism systems of flexible industrialization, with an intensive use of information” (Soja 2010, p.215).

We should consider the intensification of urban segregation processes, defined by Sabatini (2006) as the “spatial agglomeration of families from the same social stratum, regardless of how social differences are defined”. As this author points out, this implies recognising two objective dimensions: (1) the degree of spatial concentration of social groups, and (2) the social homogeneity that the various internal areas of cities represent. This is also intertwined with the social consequences of these territorial processes, which have been analysed by Kaztman (2011), who argues that residential segregation, work segmentation and educational segmentation can mutually leverage their effects on the “social and progressive isolation of the urban poor” (Kaztman 2011, p.183).

And finally, although it is only to point to the fact, without elaborating on it, metropolitan governance of a multi-scalar system like this one, in a context of weakening of the national state, is an extremely complex endeavour, because the territory has been reorganised strategically, creating other territorial hierarchies without introducing new forms of local and metropolitan government. For that reason, these phenomena call for processes of institutional and social innovation to reconstruct in other spheres – more virtually than in-person – the necessary identity and feeling of belonging among citizens (Sassen 2011).

In summary, in these macro urban scenarios there is a concentration and dispersion of the activities that create material wealth, and new forms of urban expansion appear, made up by a constellation of small cities, centres or nodes that are even farther apart from consolidated urban centers, where the centrality of the foundational city settled. In fact, this is what François Ascher (2004) summarised in his concept metapolis: “large sprawling conurbations, extensive and discontinued, heterogeneous and multi-polarized” (Ascher 2004, p.57). In this context, this article analyses specifically the territorial dimension of poverty and inequality, a phenomenon that has been little studied in Mexico, especially with regard to the complex and dynamic metropolitan region of the Valley of Mexico.
Population growth rates in the valley of México Metropolitan Area, 2000-2010

Source: University Program for City Studies at UNAM (Programa Universitario de Estudios sobre la Ciudad, PUEC-UNAM), 2015, based on INEGI data, 2000, 2010, Population and Housing Census

The new morphology of the urban metropolitan region of Mexico City

Processes of demographic growth, re-densification of the central city and peripheral dispersion

Mexico City’s morphology shows an urban macro metropolitan region that in 2010 had 21 million inhabitants in 16 delegations of the Federal District, 59 surrounding municipalities in Mexico State and 21 municipalities in Hidalgo State. Of the total, over half (53 per cent) of the population lives in surrounding municipalities of Mexico State, 42 per cent in the Federal District, and 5 per cent in Hidalgo State municipalities.

As Map 1 shows, the highest growth rates (from 6.24 to 11.29 per cent) between 2000 and 2010 appear in the second crown of the northern
ring, in the remote periphery away from the central city, particularly in the municipalities of Acolman, Tecámac, Tizayuca, Huehuetoca, in the east of Chicoapan municipality, and in Mineral de Reforma, in Hidalgo State.

Interestingly this urban morphology has territorial expansion as one of its main attributes. According to the Metropolitan Area of the Valley of Mexico Planning Programme (Programa de Ordenación de la Zona Metropolitana del Valle de México, POZMVM, 2012), prepared by a group of National Autonomous University of Mexico (Universidad Nacional Autónoma de México, UNAM) academics, the total growth of the urban surface between 2005 and 2010 was 18,800 hectares, of which 16,500 hectares were the result of peripheral sprawl of both new formal and informal settlements. The remaining 2,300 hectares were the result of the process of inclusion of rural locations into urban locations by 2010. Most of this expansion occurred in Mexico State municipalities, accounting for 68 per cent, while Hidalgo municipalities accounted for 31 per cent. Conversely, the Federal District or central city only represented 1 per cent of that growth.  

The expansion of metropolitan urban growth, as mentioned, is evident in the emergence of a new disperse spatial architecture, as for 40 years the population in the Metropolitan Zone of Mexico Valley (ZMVM) increased 1.42 times, while its urban surface increased 3.57 times (CONAPO, 2012). Furthermore, inside the megacity there are patterns of both dispersion and concentration in nodes that correspond to the traditional demographic nuclei of a cultural ethnic origin, such as indigenous people, and new centres and sub-centres of economic activity or concentration of low density households. In this region, on the one hand, the Federal District is no longer capable of expanding its urban borders without further affecting the natural environment, so a process of re-densification of the central areas and consolidation of some of the closest peripheral areas has started. On the other hand, it should be noted that, even though there are certain municipalities in Mexico State that are inhabited by the popular sectors that have consolidated, such as Ecatepec, Valle de Chalco and Ixtapaluca, in recent years a new periphery has been formed that is farther away, configuring a pattern of urbanisation characterised by low density and uneven growth, with an average height of two storeys, offering a seamless urban-rural landscape without clear boundaries. The lack of quality public transport and the presence of inefficient infrastructure and equipment have led to a situation in which the central city continues to be the main reference of economic, business and financial centrality (POZMVM, 2012), even when there are nodes generated by other centralities, as is the case of Santa Fe on the borders of the Cuajimalpa and Álvaro Obregón delegations.

In this new urban reality, housing developments have represented the main engine of dispersal and low-quality demographic growth. Houses are built with different quality and size parameters, depending on the type of market – private, public, social – and the socioeconomic level they cater for. Although there is a large supply of high-quality real estate targeted at the middle and mid-high segments in the central areas, in the urban peripheries there is a reconfiguration of supply, based on the construction of exclusive high-class gated neighbourhoods on the one hand, and massive production of social housing for mid-low and low-income sectors on the other.

In this regard, starting with the PAN administrations, in 2000 the National Housing Commission (Comisión Nacional de Vivienda) was established, and the public agencies that manage workers’ housing funds were restructured – National Workers Housing Fund Institute (Instituto del Fondo Nacional de la Vivienda para los Trabajadores, INFONAVIT), Housing Fund of the Institute of Security and Social Services for State Workers (Fondo de la Vivienda del Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, FOVISSSTE), Military Housing Fund (Fondo para la Vivienda Militar, FOVIMI) – with the goal of...
introducing a protected housing market that has emphasised the creation of new houses, financing developments with poor quality housing and frequently lacking public services and utilities. The grounds for this policy is the prioritisation of financial criteria that subordinate the quality of housing to the reduction of the quantitative housing gap and to business profit. In other words, the issue of housing, which has historically been at the core of social policies of Mexico, is nowadays primarily conceived as part of the economic policies that generate low-wage employment (Ziccardi 2015, p.57). The surplus generated by converting rural land at very low prices into urban uses is not controlled by public housing agencies, unlike other cities in Latin America that enable a redistribution of the surplus to create better living conditions in the new developments or other popular neighbourhoods of the city.

This is an important observation because, as Harvey (2013) claims, the only way to create a city is to appropriate the surplus, whatever its origin, and to redistribute it to produce the works and facilities required to provide equitable and quality urban development, with the aim of making the right to the city effective for citizens at large.

In ZMVM in 2010, 6.5 million houses were counted, an estimated a quarter of which (26 per cent) was built over the previous five years (2005–2010). Of these houses, more than half were located in the large metropolitan municipalities of Mexico State, mainly in Tecámac, Huehuetoca and Zumpango, in the northern crown, which had demographic growth rates of over 6 per cent (Tecámac, Huehuetoca) and over 3 per cent (Zumpango).

They are macro-housing compounds of low-density single-family dwellings in remote locations entailing time-consuming and expensive commuting, which in turn represents higher urbanisation costs that have to be assumed by local governments without guaranteeing that they have the institutional and financial capacities to do so. These processes are drivers of residential and socioeconomic segregation in the urban space, separating communities of various characteristics and housing systems, but with one key attribute: offering living conditions that are in stark contrast with the central city, particularly in terms of access to quality urban goods and services.

For that reason, Adrián Aguilar (2004) provides an accurate description: “urban development has changed the geographic scale of segregation”, intensifying at the micro scale based on the development of “urban pockets that are isolated from each other”. Meanwhile, at the metropolitan or regional scale, there is a “residential segregation of the poorest groups”, some of which have remained in the inner core of the city, while others have been pushed to the periphery, as the value of central lands has systematically increased.

That process has paved the way for an unprecedented social phenomenon: the response of families from the underprivileged sectors, who cannot afford the high transportation costs and the instalments for acquiring title to the property, has been the abandonment of the houses. House abandonment is explained by a range of reasons: job loss, insecurity, poor facilities and poor community life. However, the main cause is the remote location of these large housing complexes coupled with the poor living conditions, both in terms of infrastructure and in terms of the natural and social surroundings (Ziccardi and González 2015, p.54). That explains why at present there are hundreds of thousands of uninhabited houses. In some cases, to avoid paying for the house, residents quit their jobs and go back to the predicament of finding a place to live in. Undoubtedly, this is an unequivocal indicator of a housing policy that is at odds with the “success” that is proclaimed in speeches extolling the advantages of the new financial model adopted by the government in this area.5

According to the National Statistics and Geography Institute (Instituto Nacional de Estadística y Geografía, INEGI) estimates (2010), in the Valley of Mexico area, 403,971 houses are uninhabited. Over half are located in municipalities of Mexico State (58 per cent), including Huehuetoca, Zumpango, Nextlalpan and Tecámac. In the Federal District, there are 211,245 uninhabited houses, mainly in the Cuauhtémoc and Miguel Hidalgo delegations, and there are 78,959 uninhabited houses in the municipalities of Hidalgo State: Tizayuca, Toclayuca, Mineral de la Reforma, Zempoala and Atotonilco de Tula, where more than a quarter of houses are uninhabited.

Housing agencies have designed programmes to recover this housing stock, but there is no guarantee that the quality of houses will be improved
or that access to public transportation or public services and facilities will be granted. In fact, for the purposes of this study, the effort to produce peripheral social housing is one of the most distinctive signs of this new spatial architecture, which at the regional scale increases structural inequalities, leading to intense residential segregation processes and prevalence of poverty.

### The process of urbanisation of poverty versus income inequality

According to the National Council of Social Development Policy Evaluation (Consejo Nacional de Evaluación de la Política de Desarrollo Social, CONEVAL, 2010), 46.26 per cent of the Mexican population as a whole lives in a situation of poverty, while in ZMVM the percentage is 34.71 per cent, but in round numbers it represents 7 million people living in conditions of poverty. The phenomenon is more acute inside ZMVM and at the municipality or delegation level, where a very high percentage of the population (over 55 per cent) live in multidimensional poverty conditions. As shown on Map 2 the highest levels of concentration of poverty are found in the metropolitan municipalities of the states of Mexico and Hidalgo.

- **Mexico State. Southeast:** Atlautla, Ecatzingo, Ozumba, Tepetlixpa and Juchitepec; **east:** Valle de Chalco, Chimalhuacan, Atenco, Tezoyuca and Chinconcuac; **northeast:** Axapusco, Temascalapa and Otumba; **north:** Hueypoxtla, Apaxco, Tequixquiac, Coyotepec and Nexaltalpan; and **west,** Villa del Carbón.

- **Hidalgo State.** Eight of the 21 municipalities comprised in ZMVM have very high percentages of the population in multidimensional poverty conditions. It is interesting to point out that they are adjacent to the municipalities of Mexico State that have a high multidimensional poverty score. These are: Ajacuba, Tetepango, Tlahuelilpan, Tlaxcoapan, Tezontepec de Aldama, Mixquihua de Juárez; Zapotlán de Juárez and Villa de Tezontepec.

Conversely, the lowest poverty levels are found in the political delegations inside the Federal District: (in white) Coyoacán, Benito Juárez, Cuauhtémoc, Azcapotzalco, Miguel Hidalgo and Cuajimalpa de Morelos; the municipalities of Cuauteitlán and Coacalco in Mexico State, and Mineral de la Reforma, in Hidalgo (Map 2).

However, using the marginalisation index provided by the National Population Council (Consejo Nacional de Población, CONAPO) it is possible to conduct an analysis on a smaller scale which, in turn, allows for the identification of pockets of poverty in which people live in communities that are part of the Valley of Mexico and where they endure the accumulation of socio-economic, territorial and cultural disadvantages. According to this marginality index, in 2010 slightly less than half (48 per cent) of ZMVM locations reported high and very high marginality scores. These are concentrated mainly in the urban areas close to conservation areas, both in the Federal District and in Mexico State and also in municipalities of Hidalgo State combining rural and urban activities. They comprise the delegations in the south of the Federal District – Milpa Alta, Tláhuac, Xochimilco and Tlapalpan (on the border of conservation soil) – and the municipalities of Mexico State located in the vicinity of conservation areas of Sierra Nevada and Sierra de las Cruces. Thus, it is clear that the vast territory of the urban region of Mexico City is sprinkled with locations or constellations of locations with very high marginality scores.

In Mexico State there is a concentration of locations with very high marginality scores in the east and west. At least 21 municipalities in this State have very high marginality in their territories: Axapusco, in the east, and Villa del Carbón, in the west, are the municipalities with the highest number of locations with very high marginality rates. In the case of Hidalgo, most of the municipalities in ZMVM have locations with very high marginality; in Tepeji del Río and Tezontepec de Aldama, on the western limit of the region, there are eight and six of them, respectively; in the east, Epazoyucan also has six locations with very high marginality. In the Federal District, in the three southern delegations –Tlalpan, Milpa Alta and Xochimilco – there are locations with very high marginality scores and these are places inhabited by indigenous people. Thus, “they are more likely to be not only income poor (poverty headcount) but also severely and chronically poor (poverty gap and poverty duration)” (Bird, Higgins and Harris 2010, p.4).
In the same way, in the metropolitan area of the Valley of Mexico there are processes of horizontal inequality, particularly in places inhabited by the indigenous population where conditions of socio-economic poverty and uneven access to public goods and services are worse. Thus, the indigenous population living in localities with high and very high levels of marginalisation represents 4.7 per cent, more than twice the percentage of the non-indigenous population living in such localities (1.79 per cent) (CDI, 2010).

It has also been noted that in Mexican municipalities predominantly inhabited by indigenous peoples, social conditions of poverty and backwardness (Puyana 2015; Puyana and Murillo 2012) as well as conditions of horizontal inequality (Stewart and Langer 2012) prevail. However, in the case of the ZMVM, where the indigenous population represents less than 4 per cent of the total, most of them show medium, low or very low levels of marginalisation (CDI, 2010). This suggests that the urban indigenous population experiences fewer hardships than the indigenous populations living in other locations in Mexico (Yanes 2009).

Now, if we consider only the dimensions of multidimensional poverty according to CONEVAL in the territorial and spatial dimension of analysis, it can be observed that unmet needs in housing quality and space affect slightly over 2 million inhabitants (approximately 10 per cent of the total). The municipalities of Mexico State with the highest concentration of these unmet needs are located in...
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the southeast: Amecameca, Atlautla and Ecatzingo; in the east: Valle de Chalco Solidaridad and Chimalhuacán; and in the centre-north, the municipality of Nextlalpan.

Although to a lesser extent, the lack of basic services for houses also affects 7% of the ZMVM population, which represents approximately 1.5 million inhabitants. A major proportion is concentrated in the southeast of Mexico State, in the Ecatzingo municipality, and in the west, in Villa del Carbón. Of note, the main indicators on access to water services reveal a highly heterogeneous metropolitan reality, even inside the Federal District (González and Ziccardi, 2013; Graizbord and Sotelo, 2012).

Broadly speaking, it is in the east and southeast of ZMVM that the most acute infrastructure deficits occur, where the highest vulnerability conditions and lowest quality public spaces and housing services are found, while the central city concentrates the best urban infrastructure and facilities, indicating the profound inequalities that exist in terms of quality of life between the inhabitants of the two areas.

Decline in income inequality and widening of urban inequality

Going back to what Ramiro Segura observed about Latin American cities, considering that we are confronted with a “complex and paradoxical scenario”, marked by a “(moderate) reduction of income inequality, an (accelerated) continuity of fragmented urbanization and a (significant) deepening of the housing problem” (Segura 2015, p.80), it may be argued that, beyond the specificities linked with the local reality, these processes seem to reappear in the urban metropolitan region in the Valley of Mexico (zona metropolitana del Valle de México, ZMVM).

As in other Latin American cities, between 1990 and 2010 a moderate decrease in income inequality is observed in the municipalities and delegations comprised in ZMVM, as measured by the Gini coefficient. However, in each municipality and delegation different trends can be identified. In 1990, most of the delegations of the Federal District presented conditions of high and very high inequality. Between 1990 and 2000 there was a steady decrease of inequality in 13 of the 16 delegations, while Álvaro Obregón, Tláhuac and Xochimilco showed rising inequality in the period. In the subsequent period, 2000–2010, their inequality decreased to below the levels reported in 1990. In 2010, 15 delegations reported “relative inequality” and one was considered to have moderate inequality (Tláhuac).

As regards municipalities in Mexico State, most saw increased inequalities between 1990 and 2000, but a decade later this trend was moderately reversed. It should be noted that most of the Mexico State municipalities were rated as “moderate inequality” in 1990, and the only municipality with “extreme inequality” in ZMVM was Huixquilucan, a municipality adjacent to Cuajimalpa where Santa Fe is located, a venue for advanced services (banking and IT), a residential area for business elites and the private education system. Although this municipality has steadily reduced its inequality levels, in 2010 it had the highest inequality levels inside ZMVM, jointly with Papalotla and two municipalities in Hidalgo State (Atitalaquia and Mineral de la Reforma), which were categorized as “high inequality” (Fig. 1).

However, in the inequitable distribution of and access to urban services, infrastructure and utilities, it can be observed that inequality as measured by the Gini coefficient hides the profound divides existing in the megacity. The coefficient should be taken as a preliminary indicator, as results vary substantially depending on the spatial scale considered. That is, inequitable distribution of city goods and services requires analysing other sources of data as well as fieldwork.

Conclusions

In conclusion, it would be fair to claim that metropolitan growth in Mexico Valley was triggered by intense peri-urbanisation and poly-centralisation processes, as well as residential segregation and fragmentation of the urban structure (Aguilar and Hernández 2012, p.204). It is a metropolitan zone with a central city that still concentrates the greatest part of the activities and employment, with a poly-centric morphology that is fragmented from the periphery, as well as intense processes of residential segregation across social classes or groups, which should be studied through fieldwork.
However, we may give some conclusions arising from this analysis of the urban region of Mexico City, as follows.

- Throughout the territory, there are regions of poverty that comprise the native communities and the popular settlements that are self-produced by low-income sectors, and at the other extreme, there are nodes with a quality of life that is suitable for the middle sector, as well as luxury housing for consumption of the upper class. Such is the urban landscape of inequality that is observable on a daily basis.

- The new urban configuration has intensified structural inequalities and created new asymmetries in the absence of public policies to overcome the institutional and financial obstacles of local governments that prevent the distribution of quality urban goods and services for the population at large.

- The process of expansion of the urban region of Mexico City, led by the technical elites associated with the projects of the business elite, has not been tied to a concept of spatial justice that takes action to redistribute surplus and thus improve the standard of living of popular sectors, including people who have accessed their home either informally or through a loan from a public financing institution. There is no evidence either of any inclusion of the ideas that have emerged in the international sphere to build a new agenda for common development post 2015, such as the Sustainable Development Goals, in particular, Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.9

- The construction of housing projects in the periphery of Mexico City has been a key driver of the urban expansion reported over the past decade. However, this has not necessarily meant an improvement in terms of urban equity inside the macro region, because many houses were built in remote peripheries and very few were built in the city.

- Although a moderate decrease in income inequality is observed in the large region over the past decade, probably as a result of the mass production of housing for low and medium income wage earners, this necessarily implies the achievement of a better quality of life, comparing life in a popular settlement or in a neighborhood in the central urban zone of the city.

- Finally, all of the above creates a megacity with complex urban governance and major difficulties to achieve efficient and effective

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Figure 1. Number of ZMVM municipalities, by federative entity and inequality level, 1990, 2000, 2010
Source: own analysis, based on CONEVAL data, 2010
territory management (Cabrero and Montiel 2012). Therefore, it is essential to promote inclusive and sustainable urbanisation, and to develop participatory planning and management capabilities in the territories. In this regard, urban research conducted on Mexican cities must still explain why, unlike other Latin American countries, there is a weak presence of social movements that seek redress for spatial justice grievances, and the right to the city. Only in this way will we be able to ascertain more precisely the extent to which the territorial dimension gains relevance in the analysis of social inequality and social transformation processes.

Notes

1. This refers in particular to the Federal District Government’s Neighborhood Improvement Community Program.

2. Kaztman argues that the development of “marginal subcultures” feeds the isolation of the poor. In this respect he draws a distinction between Lewis’s “culture of poverty” referring to a “legacy of values and standards that helps to understand the persistence of poverty” and the establishment of “marginal subcultures” as “a reaction to structural conditionings that come from the functioning of the market, the State and society, i.e., one of the results of the progressive sedimentation of adaptive responses faced with a set of negative factors converging in a precarious and segregated medium” (Kaztman 2011, p.184).

3. This is shown by comparing the cartography of the Municipal Geostatistical Framework (Marco Geostadístico Municipal, MGM, urban locations) of 2005 and 2010, according to INEGI, and quantifying this (POZMVM, 2012).

4. See, among others, a groundbreaking study of uninhabited houses in México by Salazar and Sánchez (2011).

5. It should be noted that all locations reporting extremely high marginality in 2010 have a common trait: they are small locations, with fewer than 2,500 inhabitants.

6. Populations with housing quality and space deficiencies mean people living in dwellings that have at least one of the following traits: (1) Floor material is earth. (2) Roof material is cardboard or discarded materials. (3) Wall material is mud or wattle-and-daub (bajareque); reed grass, bamboo or palm tree; cardboard, metal or asbestos sheets, or discarded materials. (4) The ratio of people per room (overcrowding) is higher than 2.5 (CONEVAL, 2010).

7. Unmet needs for basic housing services refer to situations in which water is obtained from a well, river, lake, stream or tanker, or is carried from another house or from the public tap or hose. Additionally, it means there is no drainage system available, or the drainage system has a connection to a pipe that leads to river, lake, sea, ravine or crevice. Additionally, there is no supply of electricity and fuel used for cooking or heating food is wood or coal, with no chimney (CONEVAL, 2010).

8. Inequality ranges are taken from UN-Habitat (2014: 51) based on Gini coefficient inequality levels: moderate inequality (0.300 – 0.399), relative inequality (0.400 – 0.449), high inequality (0.450 – 0.499), very high inequality (0.500 – 0.599), extreme inequality (+0.600). Information on the evolution of Gini coefficient is taken from CONEVAL, “Evolución de la pobreza por ingresos estatal y municipal”. Available at: http://www.coneval.gob.mx/Medicion/Paginas/Evolucion-de-las-dimensiones-de-la-pobreza-1990-2010-.aspx


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