

# HABITAT III NATIONAL REPORT

## MEXICO



**MÉXICO**  
GOBIERNO DE LA REPÚBLICA





# Preamble

In the last decades, Mexico has become an active player in the consolidation of the international agenda for the development of peoples, the protection of the environment and the fight against climate change. Therefore —and in continuance— the federal administration 2012-2018 established the consolidation of Mexico as a global responsibility actor as one of the axes of its government action.

Since 1996, when the United Nations Conference on Human Settlements (Habitat II) was held, the world has changed radically, it has globalized; new technologies have been developed; and important advances on public health, education and other issues have been accomplished. However, in regards to urban development and housing, the concerns are the same they were twenty years ago.

As well as in 1996, the international community aims to develop safe environments, well located and adequate housing, improve urban infrastructure and accessibility to equipment and the opportunities offered by cities. It is the responsibility of the Member States of the United Nations System to finally satisfy these old requirements; and the design of policies and mechanisms that ensure all the inhabitants of human settlements can have access to the opportunities they present.

In the last 20 years Mexico has made significant progress. Nowadays, an important housing financing system has enabled millions of Mexican families to access the formal housing market to obtain a decent housing. However, there is still a meaningful lag in addressing an important number of Mexicans living in poverty and that meet their housing needs within informality. Likewise, beyond federal institutions, many sub-national governments have designed innovative policies to face the challenges of cities, forming partnerships with public, social and academic institutions and becoming international parameters on this topic.

However, Mexico, as many other developing countries, is a country of contrasts. The Mexican cities show the coexistence of financial districts and industrial centers that create quality jobs, and they are located next to fragmented and unsafe neighborhoods, with high lag indexes regarding infrastructure and basic services. The reality is that, for the last 20 years, Mexico has not only failed to tackle poverty but, as some studies show, income inequality has increased.

Both phenomena —poverty and inequality— are structural conditions that for the last years have molded the design of urban public policies and have determined organic processes of the development of cities.

The changes on urban development that the current administration has prompted acknowledge and accept there is still a long way to go in the consolidation of Mexican cities. The same policy that for the last decades enabled millions of families to own a household had a negative impact in terms of urban dispersion, with social, economic and environmental costs described throughout this document.

Mexico is living a phase of deep structural reforms that seek to boost the economic and social development of the country. During the current federal administration in Mexico, this process has included a deep modification of the legal framework in order to strengthen the State's democratic institutions, to increase the productivity of the domestic market and to create the necessary conditions to improve the quality of life of the Mexican population.

In this sense, the federal administration 2012-2018 acknowledges cities as the center of national life and as an engine for development, so it has decided to foster fundamental changes in its policies and programs to tackle and match urban problems and needs.

One of the first measures adopted was the creation of the Ministry of Agrarian, Territorial and Urban Development (SEDATU Spanish acronym) as the federal body in charge of the land regulation and the comprehensive development of cities and agrarian centers in the country.

During its first years, SEDATU has been recognized as an innovative institution in territory planning; it has pursued the creation of mechanisms to alleviate the inequality that is currently present in different regions of the country. It has boosted cities as pillars of national development, working on forging a symbiotic relation between the country and the city to increase the wealth and productivity of every corner of the country.



The Government of Mexico, through SEDATU and as a result of an extensive consultation process, has established the principles of its National Urban Policy within the National Program of Urban Development 2014-2018 and the National Housing Program 2014-2018. Together, these instruments contain the comprehensive vision of the cities that Mexico is pursuing, as well as the necessary tools to attain them.

With the aforementioned actions the Government of Mexico, hand-by-hand with society, academics, private sector and international institutions, is seeking the creation of a new urban model in which cities can be consolidated as equitable, healthy, safe and sustainable spaces that ensure the full exercise of people's right without any discrimination.

To create these new urban policies, the first step should be to share experiences and good practices worldwide in the field of housing and urban affairs. Mexico is willing to participate actively in the Habitat III Conference, to share with the world the challenges and accomplishments witnessed in the cities of the country, and to engage in a frank and open dialogue with the rest of the countries.

Habitat III will be the right time to break urban paradigms that still prevail, and to dare imagine new cities that allow its inhabitants—regardless of race, beliefs, gender, age, capacities or socioeconomic condition—to fully develop and to achieve a better quality of life.

The opportunity presented to influence in the reality of thousands of millions of people has no comparison. Besides the Habitat III Conference, there are current efforts to define the Sustainable Development Goals (SDGs) that will outline the actions of governments around the world for the next decades. Therefore, Mexico considers that since the cities concentrate most part of the world's population, they will be the main setting in which countries will intend to meet these goals.

The different forums currently promoted by the international community to review the urban development policies worldwide are an opportunity to boost long-term changes that will benefit millions of people around the world. If Goal 11, proposed by the Open Working Group of the United Nations, (creating inclusive, safe, resilient and sustainable cities) is achieved, the Habitat III Conference and the New Urban Agenda, that will arise from it, should provide the necessary tools for its accomplishment, and there is no doubt that Mexico will be a promoter of agreements and compromises in this matter.

This National Report is the result of different contributions and of the joint effort the National Preparatory Committee for Habitat III, formed by outstanding academics, the private sector, civil society organizations and representatives from all government levels. It contains a brief diagnosis of the reality in Mexican cities during the last 20 years, as well as the government actions to foster its development. This document will contribute to initiate discussions on where we are and what should be done as a country, as a region and as a United Nations System to ensure the development of human settlements and their inhabitants.

# Members of the National Preparatory Committee

Ministry of Foreign Affairs	Ministry of Agrarian, Territorial and Urban Development
Presidency of the Republic	Ministry of Finance and Public Credit
Ministry of Environment and Natural Resources	Ministry of Social Development
Ministry of the Interior	Ministry of Economy
National Works and Public Services Bank	National Housing Commission
National Governor's Conference	Instituto Nacional del Emprendedor
Government of the State of Aguascalientes	Government of the Federal District
Conferencia Nacional de Municipios de México	Gobierno del Estado de México
Senator Francisco Búrquez Valenzuela Urban Development and Spatial Planning Commission	Senator Angélica Araujo Lara Foreign Affairs Non-Governmental Organizations Commission
Mexican Association of Municipal Planning Institutes	Senator Ma. Elena Barrera Tapia Housing Commission
Mexican Employers' Confederation	Senator Ana Lilia Herrera Anzaldo Mexican Parliamentarians on Habitat
National Chamber of the Development and Promotion of Housing Industry	Mexican Chamber of the Construction Industry
Forópolis	CTS EMBARQ México
Mario Molina Center for Strategic Studies on Energy and Environment	Habitat International Coalition Latinamerica
Mexican Institute for Competitiveness	National Sustainable Housing Council
National Autonomous University of Mexico	Metropolitan Autonomous University





# List of Acronyms

BANOBRAS	National Works and Public Services Bank
BRT	Bus Rapid Transit
CENEPRED	National Center for Disaster Prevention
CIDOC	Foundation Centre for the House Research and Documentation
CICC	Inter-secretarial Commission on Climate Change
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CONAGO	National Governor's Conference
CONAGUA	National Water Commission
CONAFOVI	Housing Promotion National Commission
CONAPO	National Population Council
CONAVI	Comisión Nacional de Vivienda
CONAVIM	National Commission for the Prevention and Eradication of Violence against Women
CONEVAL	National Council for Evaluation of Social Development Policy
CONOREVI	National Council of State Housing Agencies
CORETT	Land Tenure Regularization Commission
CPEUM	Political Constitution of the Mexican United States
EDN	National Digital Strategy
ENCC	National Strategy on Climate Change
ENIGH	National Survey on Income and Household Expenditure
FONDEN	Natural Disaster Fund
FONHAPO	Popular Housing National Fund
FOVISSTE	Housing Fund of the State's Employees' Social Security and Social Services Institute
GHG	Greenhouse Gases
Habitat II	Second United Nations Conference on Human Settlements
Habitat III	Third United Nations Conference on Housing and Sustainable Urban

	Development
IIE-CFE	Electric Investigations Institute -Federal Energy Commission
IMCO	Mexican Institute for Competitiveness
IMPLAN	Municipal Planning Institute
IMSS	Mexican Institute of Social Security
IMT	Mexican Transport Institute
INAFED	National Institute for Federalism and Municipal Development
INAPAM	National Institute for Elderly Persons
INAPLEN	National Institute for Adults in Plenitude
INDC	Intended Nationally Determined Contribution
INECC	National Institute for Ecology and Climate Change
INEGI	National Institute of Statistics and Geography
INFONAVIT	National Workers' Housing Fund Institute
INSEN	National Senescence Institute
LAFRE	Act on the Utilization of Energy Renewable Sources
LGAH	General Act on Human Settlements
LV	Housing Act
NAMA	Nationally Appropriate Mitigation Actions
NMX	Mexican Norm
NO <sub>2</sub>	Nitrogen Dioxide
O <sub>3</sub>	Ozone
SDG	Sustainable Development Goals
OUL	Local Urban Observatories
PASPRAH	Program to Support Residents in Asset Poverty Conditions to Regularize Irregular Settlements
PCRUI	Program for Urban Reserve Consolidation
PCU	Urban Contention Perimeters
PECC	Special Program on Climate Change
PERGE	Project of Full Scale Renewable Energy
PM <sub>2.5</sub>	Particulate Matter up to 2.5 micrometers
PM <sub>10</sub>	Particulate Matter up to 10 micrometers

PNI	National Infrastructure Program
PNPSVD	Violence and Crime Social Prevention National Program 2014-2018
PREP	Public Spaces Rescue Program
PRONAFIM	Programa Nacional de Financiamiento al Microempresario
PROTRAM	Federal Program to Support Urban Mass Transit
PRRUH	Program for Housing Units Reordering and Rescue
RENARET	National Territorial Reserves Registry
RUV	National Register of Housing
SAHOP	Ministry of Human Settlements and Public Works
SAT	Tax Administration Service
SEDATU	Ministry of Agrarian, Territorial and Urban Development
SEDESOL	Ministry of Social Development
SEDUE	Ministry of Urban Development and Ecology
SEMARNAT	Ministry of Environment and Natural Resources
SHCP	Ministry of Finance and Public Credit
SHF	Federal Mortgage Society
SIAT-CT	Early Warning System for Tropical Cyclones
SNIEG	Geographic Information National System
SNIIV	National Information and Housing Indicators System
SO <sub>2</sub>	Sulfur dioxide
SOFOMES	Multiple Object Financial Societies
SOFOLES	Limited Object Financial Societies
STPS	Ministry of Labor and Social Provision
UNAM	National Autonomous University of Mexico
ZMVM	Mexico City Metropolitan Area





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I

# DEMOGRAPHIC ISSUES





## Demographic Issues

### I.1. Urbanization process in Mexico

During the last century, Mexico experienced a great demographic growth that started between 1940 and 1950, when the population growth rate went from 18.7% to 31.2%. From that point and until 1980, the rate continued to increase, reaching its peak between 1970 and 1980, at 38.6%. Between 1980 and 1990, the rate of population growth –constant and upward since 1950– began to wane until it reached 15.2% in 2010 (Graph 1). The population increased from 81 million inhabitants in 1990 to 112 million in 2010 (Graph 2) and according to the National Population Council (CONAPO Spanish acronym) it is estimated to reach 137 million in 2030<sup>1</sup>.

The urbanization process of the 20th century caused Mexico to transition from a mainly rural country into an urban one<sup>2</sup>. In this process, it is possible to identify three main stages: the first one, from 1900 to 1930, which carried a strong rural predominance and a relatively slow urban growth; the second one, from 1940 to 1970, with an accelerated transit to urban dominance with high concentration levels in certain cities; and the third one, from 1980 to 2010, which shows a more moderated and diversified urban growth (Graph 2). Nowadays, the population is concentrated in metropolis:

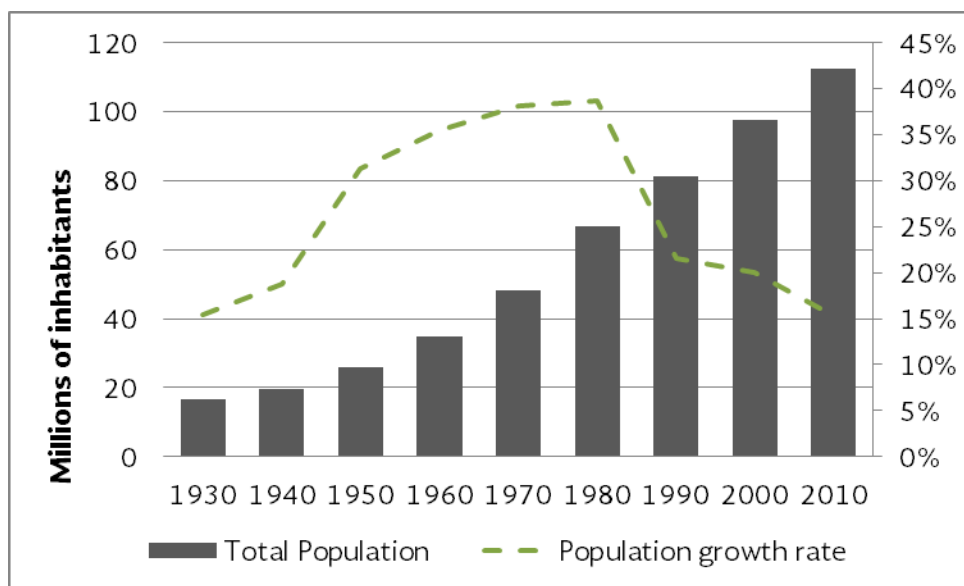
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<sup>1</sup> CONAPO, “Proyecciones de la Población 2010-2050”, Secretaría de Gobernación (SEGOB) <http://www.conapo.gob.mx/es/CONAPO/Proyecciones> (Consulted on 03/19/15)

<sup>2</sup> The National Institute of Statistics and Geography (INEGI) considers the zones with a population of over 2,500 inhabitants as urban. This document considers this threshold, except in specific reference to the National Urban System composed by cities with more than 15,000 inhabitants.

63.8 million people (56.8% of the total population of the country)<sup>3</sup> live in the 59 metropolitan areas<sup>4</sup>.

**Graph 1. Evolution of Mexico's population growth rate**



Population growth from 1930 to 2010 calculated as a percent increment of the previous decade.

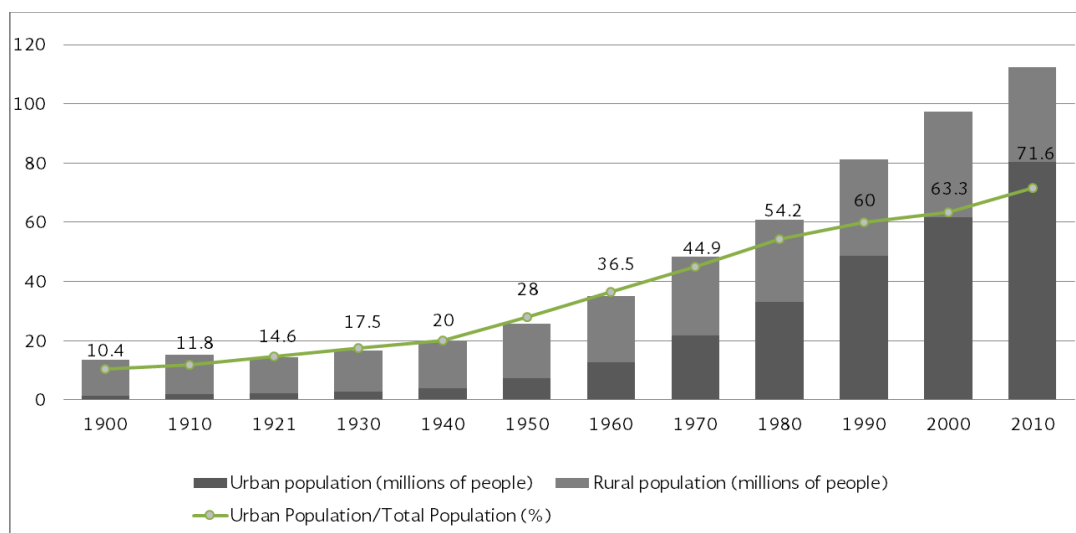
Source: Own elaboration based on historical statistics of Mexico 2009. INEGI (2010)

Available at:  
[http://www.inegi.org.mx/prod\\_serv/contenidos/espanol/bvinegi/productos/integracion/pais/historicas10/Tema1\\_Poblacion.pdf](http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/integracion/pais/historicas10/Tema1_Poblacion.pdf) (Consulted on march 19, 2015).

The trends show that the urbanization process will continue at a slower rate than the observed in the earlier decades. It is estimated that Mexico will go from having 72.3% of its inhabitants living in cities, in 2010, to an urban population of 83.2% in 2030. In this context, it is not foreseen any drastic modification in the national population's quantitative distribution that is shown today.

<sup>3</sup> Numbers from INEGI's 2010 census.

<sup>4</sup> CONAPO, "Delimitación de las Zonas Metropolitanas de México 2010". Results Analysis.

**Graph 2. Evolution of the urban and rural population in Mexico**

Source: National Urban System, CONAPO 2012

The National Urban System is comprised by the cities with 15,000 inhabitants or more. It is formed by 384 cities, 59 of which are metropolitan areas that gather 63.8 million inhabitants; 78 conurbations with 5.1 million inhabitants; and 247 urban centers that concentrate 12.2 million people. The most populated metropolitan area is the Valley of Mexico, where 20.1 million people live (Chart 1).

**Chart 1. National Urban System**

		Units in the National Urban System		Metropolitan Areas		Conurbations		Urban centers	
Population size	#	Population (millions)	#	Population (millions)	#	Population (millions)	#	Population (millions)	#
National System	Urban	384	81.1	59	63.8	78	5.1	247	12.2
5 million or more	1	20.1	1	20.1					
1 million to 4,999,999	10	21.2	10	21.2					
500 thousand to 999,999	22	16.5	19	14.6				3	1.9
100 thousand to 499,999	62	13.9	29	7.9	15	2.9		18	3.1
50 thousand to 99,999	40	2.8			8	0.6		32	2.2
15 thousand to 49,999	249	6.6			55	1.7		194	4.9

Source: CONAPO, SEDESOL, National Urban System 2012.

## I.2. Rural-urban Linkages

There is an undeniable interaction among urban, semi-urban and rural areas in relation to the national urban system. In appropriate conditions, the rural areas can benefit from their location and proximity to cities of different sizes, generating positive economic dynamics, contributing to the alimentary safety and, in some cases, supporting the labor force. However, the advantages from the interaction between cities and rural areas have not always benefited to the nearby rural population.

The Ministry of Social Development launched different regional development programs in pursuit of strengthening the urban-rural

relationship. The Micro-regions Program implemented from 2000 to 2006, intended to consolidate systems of regions through highway and road infrastructure, telecommunications, health centers, schools, urban and social equipment, among others. Between 2006 and 2012, this Program was split into two: the first one dedicated to Regional Development and the second one to the attention of Priority Areas. The first one maintained the infrastructure approach and the second one focused on housing improvement actions, although keeping components such as micro-regional planning vision, territorial operation and social actions. Recently, the Program for Urbanization of Rural Communities was created, to support localities with less than 2,500 inhabitants that have high and very high rates of social underdevelopment, and that are located in agrarian centers. While these programs have had an important impact on the development of rural areas, many remain isolated from the urban system and the benefits and opportunities generated by cities.

Urban growth has been engulfing the rural land around cities and one of the most relevant factors in this process has been the right to land ownership. In Mexico there are three types of ownership: the public property, the community or *ejido*<sup>5</sup> ownership and the individual or small property. Therefore, one of the main relations between urban and rural communities is shown in land tenure structure, as well as in the transformation of the land use through laws, procedures and different governmental initiatives. In 1992 the Agrarian Law was amended to enabled *ejidos* and communities to adopt the small property regime. A regularization program for community and *ejido* property was implemented from that date until 2005, regularizing approximately 98% of such lands. This was one of the major efforts in regularization matters. Nevertheless, its effects on the urban setting have been controversial, facilitating the sale of non-urbanized land to people living in poverty as well as to big housing developers.

Cities' expansion has occurred through different processes and degrees of formality in regards to land tenure. There is a variety of agents and pathways that pressure and mold the processes of land tenure and its inclusion to urban growth: private real estate companies that acquire full domain of *ejidos* and agrarian communities<sup>6</sup>, agrarian individuals that sell

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<sup>5</sup> The Agrarian Law (*Ley Agraria*) provides that common use lands are those properties, which constitute the economic support of the ejido community, and which have not been specifically reserved by the ejido for human settlement or individual parcels.

<sup>6</sup> *Ejidos* and agricultural communities comprehend one of the types of property recognized by the Mexican Constitution. Collective property is where every *ejidatario* or co-proprietor can have his own plot and/or a percentage of the  
(footnote continued)

their land rights, creation or modification of *ejido* urbanization areas, among other mechanisms of land fragmentation.

The Federal Government's agency specialized on the regularization of land property is the Land Tenure Regularization Commission (CORETT Spanish acronym), created in the 1970's with the aim to address the consequences of irregular, informal or illegal occupation of *ejido* or community land. The strategy was a priority at one point to address Mexico's demographic evolution, but it had several limitations.

The exhaustion of the operational model of CORETT is reflected in two realities: on the one hand, in order to avoid the creation of incentives to land invasion, the activities of this Commission have been gradually diminishing; while the number of property deeds handed in 1998 was 119,196, in 2012 it was reduced to only 15,891. This pace of action is insufficient even to start to bring down the current lag. On the other hand, the lack of affordable and adequate land, with services, that allows low-income people to build their house inside the cities remains unaddressed.

### I.3 Demographic transition

Mexico is a young country in its transition to adulthood. While the demographic transition effect over the structure by age of the population tends to age on the long term, the demographic inertia of the past has inherited to the country a historical youth proportion which, from now and for several years into the future, will shape the so called "demographic bonus"<sup>7</sup>.

According to data from the 2012 National Survey on Income and Household Expenditure (ENIGH Spanish acronym), from the 120 million inhabitants of the country, 30 million (26.0%) are between 15 and 29 years old, most of which (64.0%) live in localities with over 15,000 people.

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common use land. In 1992 the constitution was amended, among other things, to enable the change of regime of property into private (individual), called small property.

<sup>7</sup> CONAPO, "La situación actual de los jóvenes en México", SEGOB, [http://www.portal.conapo.gob.mx/index.php?option=com\\_content&view=article&id=446&Itemid=15](http://www.portal.conapo.gob.mx/index.php?option=com_content&view=article&id=446&Itemid=15) (03/19/15).

Nowadays, there are 3.4 young people (between 12 and 29 years old) for every elder, which shows the importance of the young population in the population structure and in the national economic activity. Estimates show that by 2030 there will only be two young people for every elder, until reaching a one to one ratio by 2050<sup>8</sup>. These numbers point out the changes in the structure of the population pyramid: the Mexican society will transition into an older population.

Adults over 60 years old represent 11% of the total population and, as well as the young, they live in cities at a higher extent (62%). Likewise, given the foreseen growth of the population over 65 years old and the drop in the fertility rate since the end of the 1970's, which is expected to reach the level of the generational turnover ratio (2.1 children per woman) in 2030, we can expect a scenario that shows a growing dependence relation<sup>9</sup>.

In Mexico there are pensions systems for formal employees and social assistance programs that provide economic help to the elderly that are not entitled to retirement. Most people in this population group live with relatives, with a scarce use of retirement homes or care institutions. Until now, the urban and housing policy has had few actions focused on this population group, although there are some examples of guidelines and incentives in order to develop new housing projects under an adequate accessibility approach for people with reduced mobility and the elderly.

Given the demographic transformation that will lead to the ageing of the population, the cities' adaptation to specific needs and the promotion of proper housing solutions, public spaces and mobility to avoid the segregation of the elderly and ensure its access to services, represents a major challenge<sup>10</sup>.

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<sup>8</sup> María Hernández, Rafael López and Sergio Velarde. "La situación demográfica en México. Panorama desde las proyecciones de población", [http://www.conapo.gob.mx/work/models/CONAPO/Resource/1720/1/images/1\\_La\\_Situacion\\_Demografica\\_En\\_Mexico.pdf](http://www.conapo.gob.mx/work/models/CONAPO/Resource/1720/1/images/1_La_Situacion_Demografica_En_Mexico.pdf) (03/19/15).

<sup>9</sup> The dependence relation is an indicator of potential economic dependence that measures the population in theoretically inactive age (0-14 years old and over 65 years old) in relation to the population in theoretically active age (15-64 years old).

<sup>10</sup> For further information on the population and household growth projections in Mexico: CONAPO, "Proyecciones de la Población 2010-2050", SEGOB, <http://www.conapo.gob.mx/es/CONAPO/Proyecciones>

Mexico has implemented policies oriented to address the elderly's needs. These can be traced to the creation of the National Senescence Institute (INSEN Spanish acronym) in 1979, which was substituted by the National Institute for Adults in Plenitude (INAPLEN Spanish acronym) in 2002, and in accordance to the Rights of the Elderly Act it was transformed into the National Institute for Elderly Persons (INAPAM Spanish acronym) that same year. In the 1990's, there were other innovative practices such as the promulgation of the Social Protection Law for Senescent Persons for the state of Yucatan in 1999. In that same year, at the federal level, the Law for the Rights of the Elderly Persons came into to effect. This law incorporated the right to live in safe, dignified and decent environments, that fulfill their needs and requirements and where the elderly can freely exercise their rights. Other federative entities that continued with these efforts were the Federal District and Puebla, which promulgated the Law for the Rights of the Elderly Persons and the Law for the Protection of the Elderly, respectively.

In social protection for the elderly, the Federal District implemented, since 2001, an alimentary pension program supporting adults over 68 years old. This program is complemented with discounts on the public transport system, and home health visits. Later, the national government implemented the Program “70 y más”, which aimed to contribute to social protection and increase the income of adults over 70 years old. Moreover, this program offered assistance to mitigate the physical and mental health deterioration of adults who do not have retirement income. Since 2013 this program covers adults over 65 years.

#### I.4. Integrating gender perspective in urban development

Despite that the gender perspective has not been sufficiently present in the Mexican cities' planning; it is possible to identify some urban development issues in which there have been policies designed with a gender orientation that address specific problems. The first of them is the security. Women have a wider range of violence exposition: verbal violence on the streets, sexual harassment in the public transport, and other cases of psychological and physical violence.

During many years, the case of Ciudad Juárez, Chihuahua, was paradigmatic due to its high crime rate and, specifically, due to the homicides against women, as well as for the ruling of the Inter-American Court of Human Rights on González et al. v. México. Ciudad Juárez is a city that borders the United States, located in the Northern part of the state of Chihuahua, one of the states with the highest intentional murder rate for every 100,000 inhabitants countrywide in the last years. In 2007 the rate



was 18.3, however, this number tripled the next year and continued increasing until it reached 110.7 in 2010<sup>11</sup>.

On February 18, 2004, through a presidential decree, the Commission for the Prevention and Eradication of Violence against Women in Ciudad Juárez was created. This agency was intended to cooperate in the prevention and the eradication of violence in this city through mechanisms that guaranteed the respect of human rights with a gender perspective, and the promotion of an active participation of public institutions and civil society organizations.

Later, this Commission was transformed into the National Commission for the Prevention and Eradication of Violence against Women (CONAVIM Spanish acronym), thus, it gained a national mandate. This Commission ensures the fulfillment of the Women's Access to a Life without Violence General Act, enacted in 2007.

In attention to cases of gender violence, there are efforts in some cities that allow the denouncement of verbal and physical aggressions committed in public spaces; however, there is little knowledge about them. CONAVIM has established a model of Justice Centers for Women, to integrally tend to the victims of violence, with an inter-institutional, multidisciplinary and sequential approach, generating the conditions that facilitate the denouncement of crimes. The objectives of CONAVIM are:

- To coordinate, on an inter-institutional basis, the competent authorities in the three levels of government with the civil society organizations to guarantee the access to justice to the women victims of violence.
- To offer, in the same place, integral and multidisciplinary care with a perspective based on gender and human rights.
- To promote a denounce culture and reduce the impunity.
- To support women in the creation of a new project of life without violence that favors integral development for her and her family.
- To offer a safe and trustable environment to the victims of violence and their descendants through specialized services, with full respect to the rights of children.

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<sup>11</sup> Executive Secretariat of the National Public Security System (2015). Rate per 100,000 inhabitants 1997-2015.

Currently, there are 22 Justice Centers for Women in the Mexican states of Campeche, Chiapas, Chihuahua, Coahuila, Colima, Durango, Estado de México, Guerrero, Jalisco, Hidalgo, Michoacán, Nayarit, Oaxaca, Puebla, Querétaro, San Luis Potosí and Yucatán. This model has proven to be successful, however, in most of the cities, women's lack of information to react in violent situations suggests that it is precise to design strategies that assure an assertive communication to give women relevant information, such as their rights and the programs available for their protection.

On regards of transport, Mexico City has implemented transportation policies to prevent verbal and physical aggression situations. As part of these measures it is possible to find Metro carts reserved for women only, as well as exclusive buses. Although these actions help to create safe environments for women, a deeper cultural change is needed to stop the harassment suffered in these spaces. Urban mobility is the second approach to highlight, although it has not been integrally addressed, as women show different travel patterns than men. This is because there are differences in economic activities, household chores, means of transportation, travel frequency, travel purposes, among others. However, there is not enough information to allow improvements in neither connectivity nor accessibility for women of different ages.

The third relevant topic is the access to housing solutions. In regards to mortgage credits and housing subsidies, it is possible to find equilibrium in the number of actions in favor of both men and women. However, analyzed in further detail, it is possible to notice that the beneficiaries of mortgage credits granted by INFONAVIT (bound to formal workers of the private sector) are mainly men. This is not a reflection of an unequal housing policy, but of the salary dynamics that have fostered a gender wage gap in Mexico. Only in 2010, the wage gap between men and women reached 26% at a national level and 7.8% in urban areas<sup>12 13</sup>. As a result of this, men have access to better credit conditions, using their mortgage credits more than women. The housing financing policy is equitable in design, nonetheless, in practice the access to mortgage credits is determined by salary level, which results in a higher rate of property for the male population. This should be considered to gauge possible positive discrimination policies in favor of women to modify this trend.

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<sup>12</sup> The methodology considers urban populations those with 2,500 inhabitants or more. Eva O. Arceo Gómez and Raymundo Campos Vázquez, "Evolución de la brecha salarial de género en México".

<sup>13</sup> Eva O. Arceo Gómez and Raymundo Campos Vázquez, "Evolución de la brecha salarial de género en México".

In contrast, regarding mortgage credits granted by the FOVISSSTE (bound to formal state workers) there is a high female participation, especially of teachers and nurses. The number of subsidies linked to credits for housing acquisition is destined mainly to men, while credits for household improvements and extensions are granted mainly to women. Even when this situation reflects proper characteristics of the labor market in Mexico, and not an inequitable housing policy, positive discrimination strategies have been launched recently to close the gap of housing property for women. The housing program for women heads of households is addressed to women that earn less than five minimum wages, that are not beneficiaries of INFONAVIT or FOVISSSTE, and that will pay up to 500 pesos per week for a maximum period of seven years to acquire a household. This program is very important considering that by 2010, 24.5%<sup>14</sup> of homes had a female head of household.

### I.5. Challenges experienced and lessons learnt in these areas

For the last 20 years, Mexico has experienced a series of changes in its demographic structure. First, the population distribution by age was transformed: Mexico went from being a country with a high rate of births to a country where the population at large is transitioning towards adulthood. Second, the internal migration to cities challenges local and federal governments to offer sources of employment and to guarantee access to social services such as health, housing and security, just to mention a few. In this context, the demographic matters have had an impact in the capabilities of the State to implement the urban agenda derived from Habitat II.

At the same time, it has been observed that migration to cities has not maintained links that generate positive impacts on the rural environment. The connection between rural and urban areas is undeniable; however, in practice the advantages of cities economic growth do not reach most of the rural areas. Thus, policies that promote positive dynamics between both areas are required.

It is important to include the youth in urban planning and development, improve their access to services and education, and support them in order to foster economic development in cities, as well as provide places to satisfy

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<sup>14</sup> National Women Institute, "Familia, Hogares y Vivienda. Indicadores Básicos", [http://estadistica.inmujeres.gob.mx/formas/panorama\\_general.php?menu1=5&IDTema=5&pag=1](http://estadistica.inmujeres.gob.mx/formas/panorama_general.php?menu1=5&IDTema=5&pag=1) (03/19/15).

their social, cultural and sporting needs. Likewise, it is essential to include people with disabilities in urban planning. Urban development policies need to be nurtured and strengthened with the needs and experiences of the different population groups, so to ensure their right to the city.

As it was analyzed previously on this chapter, the elderly need policies that ensure an adequate quality of life. The lack of social security and of retirement income are elements that can segregate this group which, due to age requirements, needs improved access to the services and equipment offered by cities, such as health facilities, sporting activities and facilities, as well as cultural and social opportunities. During the 1990's, diverse factors (such as the rise in life expectancy, the increase of time to enjoy retirement and the birth rate drop) alongside to the reduction of active workers compared to retired ones, had an impact on the viability of the pension system as it was originally planned. Because of that, actions that provide economic support and social protection for the elderly have been implemented.

The demographic analysis allows to rethink policies in order to ensure that public spaces, access to education, job opportunities, and activities fit to the inhabitants' age, as well as to adapt the housing access policies for the youth, women, people with disabilities, and the elderly.

In this context, Mexico needs a better allocation of economic resources for cities in order to provide sufficient infrastructure for urban areas and improve connectivity. It is necessary to think about new and flexible housing solutions, as well as mixed land use and policies to consolidate compact and sustainable cities, with full respect to the environment and to the new urban and regional development model.

Another important lesson has to do with urban development. Firstly, the conditions and dynamics of the nation's economy are not suitable for all the population to be creditworthy in the formal finance market. This has led an important portion of the population —mainly young— unable to access a mortgage credit. Secondly, the evolution in the age distribution of the population pyramid, along with migration to cities, has caused a disordered sprawl. In this context, Mexico needs urban land to build the infrastructures and equipment required for urban development, which implies withdrawal strategies and ordered land regularization in fully compliance with the new model of urban and regional development as well as the environment.

To face these circumstances, the Government of Mexico, through the National Program for Urban Development 2014-2018, seeks to design and implement regulatory, fiscal and administrative instruments for land management. The strategies to achieve the above mentioned are:

- Implementation of instruments that seek a proper land offer to match the needs of urban development and housing.
- Definition of standards to regulate, control and penalize irregular settlements processes.
- Implementation of financing instruments that foster value capture in advantage of the city, in coordination with local governments.
- Provide certainty to land property and land use to avoid speculation and underutilization.

In Mexico, the challenges produced by demographic matters have brought important lessons. However, there are still many issues that require further study, such as social segregation and inequality in the cities. The social contrasts observed in several areas of the country show great inequality, divided sometimes, by only one street, one wall or a ravine. About 70%<sup>15</sup> of the population in poverty conditions lives in cities, which represents a big challenge that has not been accurately addressed; internal migration to cities represents the main challenge in regards to demographic matters. The capabilities of the different government levels have been insufficient to satisfy the social and economic demands of the population.

## I.6. Future challenges

Cities arise from the association of people around activities, projects and ideas, and from the pursuit of stability and safety. This is why urban centers require actions that ensure economic, social and cultural inclusion of its inhabitants, considering also the different needs of its population groups. These characteristics arise in an equitable manner when urban planning destines served and connected land to satisfy the needs of all city dwellers. However, Mexican cities still witness the lack of public policies for the inclusion of different demographic, ethnic and cultural groups, as well as inequality in terms of income and opportunities. In light of these circumstances, concrete actions must be taken to foster the full development of Mexican cities and their inhabitants.

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<sup>15</sup> CONEVAL, “Pobreza urbana y de las zonas metropolitanas en México”, [http://www.coneval.gob.mx/Informes/Pobreza/Pobreza%20Urbana/Pobreza\\_urbana\\_y\\_de\\_las\\_zonas\\_metropolitanas\\_en\\_Mexico.pdf](http://www.coneval.gob.mx/Informes/Pobreza/Pobreza%20Urbana/Pobreza_urbana_y_de_las_zonas_metropolitanas_en_Mexico.pdf) (03/19/15).

Mexico requires long term urban planning that allows an integral approach to face its demographic reality. Even when the population growth has been contained since the 1980's, policy instruments are required to satisfy the needs of the 137 million inhabitants Mexico will have by 2030 according to CONAPO. Although the pace of urbanization has slowed down, Mexico will pass from 72.3% of urban population in 2010, to 83.2% in 2030. Therefore, it is essential to plan and build inclusive and accessible cities that guarantee the provision of basic services, health facilities, educational opportunities and recreational activities and spaces.

In regards to the rural-urban relationship, there are social and economic challenges to face. In social terms, it is fundamental to ensure that life in rural areas is not synonym to inequality. To accomplish this, policies and social programs guided towards guaranteeing the economic and social development of the rural population must be installed. Despite the fact that most part of economic activities happen in urban centers, it is impossible to forget that the rural areas and their population play a vital role in the national economy, being key elements for food security and for the preservation of ecosystems. In economic terms, it is necessary to create productive dynamics that foster a virtuous circle between rural and urban economies; the rural population must benefit from the economic income of cities.

In the next years, Mexico will transition towards a more aged society, which implies countless challenges. Concrete actions are needed to ensure the quality of life of the elderly. There must be flexible programs regarding mortgages, such as the reversible mortgage, and the real estate secondary market; these options will enable the population in plenitude to enjoy housing options more suitable to their needs. Additionally urban development requires planning oriented towards the future demographic transition. The creation of well-connected households must be fostered, as well as approachable means of transportation for the elderly population.

The spaces used for transportation or for other activities must guarantee the accessibility of people, meaning, the design of cities must enable children, the elderly and people with disabilities to move comfortably and safely. Today, Mexico is a young country, but in the future it will witness the ageing of its population and cities must be designed to guarantee the transit of its inhabitants in proper conditions and independently. It is precise to gather information about travel time, transportation, gender's mobility, closeness between dwellings, employment and services, the separation between public and private spheres, conciliation, and the right of the women, youth and the elderly to participate in urban planning, local governance, and decision-making processes related to their environment.

Gender issues present important future challenges. Firstly, there are required positive actions to bridge the gender gap regarding access to services, education, job opportunities, violence-free spaces, and housing acquisition. It is essential to understand the population needs and improve the conditions for the use and enjoyment of the cities. There must be an integral strategy for urban development to deter gender violence. The rescue and consolidation of public spaces, security in transportation and streets, and a culture of respect are elements that will allow the decrease of gender violence. Likewise, it is necessary to consider instruments that facilitate the access of women to mortgages and other financial products that will allow their participation in the housing market.

It is not about implementing assistance policies but policies that foster the wealth of the majority and the allocation of resources according to the needs of the population. The most attractive cities are those that offer valuable opportunities to every demographic, ethnic, cultural and social group. Mexico is committed to the consolidation of inclusive, safe and equitable cities.









II

# LAND AND URBAN PLANNING



## II. Land and Urban Planning

### II.1. Urban planning in Mexico

The expansion model followed by Mexican cities has been characterized by a fragmented and disproportioned growth, as a reflection of a scarce urban planning and the massive development of new housing solutions. Between 1980 and 2010, whilst urban population doubled, the size of urban centers grew by an average of seven<sup>16</sup>.

In Mexico the urban policy is mainly reactive. The rapid urbanization experienced in the country, in addition to the lack of suitable and affordable land in the cities for the most disadvantaged sectors of the population have practically turned housing policy into the guiding principle of urban development in Mexico. Moreover, the disadvantages of an inadequate institutional design in urban development that scatters responsibilities and attributions among the three government levels<sup>17</sup> have left behind the urban planning instruments and policies.

The urban development plan implemented under these conditions, favored the attention to the housing needs through the massive granting of financing for new homes without considering its territorial, urban,

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<sup>16</sup> SEDESOL (2012), *La Expansión de las Ciudades 1980-2010*

<sup>17</sup> From a Constitutional perspective and from the General Act of Human Settlements, the concurrence of the three government levels in urban development is foreseen. This institutional arrangement has worked in a limited fashion due to the lack of instruments that foster the coordination, given an electoral system that limited the ruling period in municipalities to three years, generating short-term equilibrium. Chapter 115 of the Political Constitution of the Mexican United States empowers municipalities with a great amount of abilities and obligations in regards to urban development within a limited resources context. For further analysis on urban legislation, refer to chapter IV of this report.

environmental or social impact. The lack of affordable land for housing purposes (with access to basic services) where low income population can build their own house inside the city, has not been correctly addressed. Mechanisms to generate such an adequate land offer have not been developed. These mechanisms would allow low-income population to access a housing solution through self-help construction, additions or renovations of their homes.

The uncontrolled expansion of cities has had high economic, environmental and social costs; there is a loss of productivity of workers due to the long commuting times, an elevated generation of greenhouse gas emissions derived from urban transportation, and a fragmented family and social system. Case studies estimate that in a scenario of urban development with population densities in a surface 45% more compact than the one foreseen for the following years, the cost of construction and road infrastructure and the provision of services like drainage, water and electricity could be reduced in up to 67%<sup>18</sup>; the costs of public transportation could decrease up to 47% and the CO2 emissions could face a reduction of up to 41%<sup>19</sup>.

The Mexican cities have shown a horizontal and disperse expansion. They usually present a lack of equipment and urban services such as parks, schools, supply centers, health centers, transportation, waste collection, and public security. The extension of some cities lays well beyond municipal limits, and in some cases, even state limits, originating metropolitan areas. The governance of these metropolitan areas is a great challenge that has to be addressed by the different levels of government, who have to coordinate their actions in order to provide public services in an efficient and equitable manner.

The creation of the Environmental Megalopolis Commission, an organism responsible for the design, execution and evaluation of policies to improve environmental conditions for the central states in Mexico and which includes representatives from the governments of Mexico City, and the states of Mexico, Morelos, Puebla, Hidalgo and Tlaxcala, is an example of how the country has faced metropolitan challenges. Other state governments have also made efforts to regulate the coordination needed

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<sup>18</sup> "Estudio de Implicaciones de los Modelos de Crecimiento en el Costo de Infraestructura. Caso de estudio Los Cabos". Ministry of Social Development. 2012.

<sup>19</sup> "Cities: Merida. Growth scenarios. Sustainable Development Models". Centro Mario Molina. 2014. Available on: <http://centromariomolina.org/wp-content/uploads/2014/07/1.-Ciudades-M%C3%A9rida-2014-reporte.pdf>

between surrounding municipalities. An example is the Metropolitan Coordination Act of the State of Jalisco, which constitutes one of the first attempts to regulate the procedure of the constitution of metropolitan areas and regions, as well as to build the foundation for the organization and performance of the metropolitan coordination authorities.

The Metropolitan Coordination Act establishes specific technical criteria and administrative procedures to determine the metropolitan areas and regions in Jalisco. It also establishes a critical path to reaching coordination agreements of binding nature, as well as the institutional structure and the attributions of each coordination instance<sup>20</sup>.

On regards to financing mechanisms, is worth noticing the creation of the Metropolitan Fund in 2006, which was destined to the development of urban development projects in the Metropolitan Area of the Valley of Mexico, and that since 2008 has supported metropolitan projects all through Mexico. However it is necessary to accompany this effort with the development of metropolitan plans.

Until a couple of years ago, the local urban development processes did not have national guidelines for the standardization of actions and programs for the promotion of urban development, in addition to short administrative terms, financial weakness from municipalities, and the lack of mechanisms to align different necessary instruments for city planning, caused a complete disruption of national urban development.<sup>21</sup>

The planning instruments for cities are inadequate. Nowadays most urban development plans established by law are drafted with obsolete methodologies and with a short-term vision; they also lack mechanisms to ensure its full implementation.

Urban development is usually carried out under normative instruments that are not updated nor provide legal certainty. From de 710 municipalities that form the National Urban System, only 431 (60.7%) have an urban development plan or program, and only 242 of these (56%) are registered on the Public Property Registry, providing them with legal validity. Revising their term, only 21.6% of them were created from 2006 to date, while the

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<sup>20</sup> Full Act text on:

<http://congreso.jalisco.gob.mx/Servicios/sistemas/SIP/decretos/decretos/Decretos%20LIX/Decreto%2023486.pdf>

<sup>21</sup> For further information see section II.V

rest of them were created before<sup>22</sup>. This reality implies that a high percentage of authority actions based on these instruments lack the needed legal robustness and institutional strength.

In an attempt to address the consequences of low quality or lack of planning of territorial development, in the last 15 years there has been an important set of financial and legal instruments that operate to different scale, such as trusts, funds and agreements. These instruments tackle indirectly, on the one hand, the need to have a planning system specific to the goals and actions to reach the development of the different territorial spheres of the country; on the other hand, the need to coordinate and align the efforts of local authorities. Diverse instruments have been created to promote regional development and the regulation of the metropolis.

Among the most important financial instruments developed between 1996 and 2015, we can name FIDENOROESTE, FIDENORESTE, FIDCENTRO, FIDERCO and FIDESUR. These trusts were created in 2001 as supra-state instances, and their task is to elaborate development policies of each region and manage federal and state resources destined to foster social and economic development in their region. After more than a decade in place, the trusts operate with different degrees of efficiency and results. Given its progress degree, the Center-West Region Trust (FIDERCO) stands out, with a regional development program created by participants of the region and a certain level of implementation.

Another planning instrument that stands out is FONREGION, destined to fund projects in the entities with lower Human Development Index (HDI)<sup>23</sup> from a regional approach. This fund has been implemented by the Ministry of Finance and Public Credit (SHCP Spanish acronym) in coordination with the ten federation entities with the lowest Human Development Index in Mexico<sup>24</sup>. FONREGION's results have been far from encouraging, and they have not always been applied with a comprehensive territorial vision<sup>25</sup>.

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<sup>22</sup> Information obtained from the Operational Committee "Instruments Development for Territorial Planning" of the National Housing Council, December 2014.

<sup>23</sup> Chiapas, Guerrero, Oaxaca, Michoacán, Veracruz, Puebla, Guanajuato, Zacatecas, Hidalgo and San Luis Potosí currently form this group.

<sup>24</sup> The resources of FONREGION are currently allocated as follows: 1) there are two pockets of resources, one for the entities with lower HDI and another one for the following seven; 2) The standard deviation of HDI of every entity based on the standard deviation of its HDI, and the amounts are applied to each group for its allocation. After the amounts are established, each entity forms and presents a portfolio of programs and projects, which, once authorized, cannot be used with different purpose. In principle, projects of municipalities with higher exclusion within each entity are prioritized, according the Priority Zones Development Program (this change was added in the Rules of Fund Operation in 2014).  
(footnote continued)

In recent years the federal government has sought to steer efforts on territorial planning, urban development and housing with the creation of the Ministry of Agrarian, Territorial and Urban Development (SEDATU). SEDATU's leadership outlines strategies and actions for the development of a new model of cities: compact, sustainable, safe, outlining several planning instruments. These instruments establish the basis for the development of the country, considering the proper territorial planning, the participation of cities and metropolitan areas as a key axis, without leaving aside the intrinsic relation of cities with the rural areas and the existence of important economic, political, social and environmental dynamics of Mexico.<sup>26</sup>

The lines of action outlined in the above mentioned instruments, intend to channel and articulate the efforts of the different players with a participation in urban development departing from six major topics: 1) To control the expansion of urban sprawl and to consolidate cities to provide better life quality; 2) To consolidate an urban development model that generates wealth to the population, ensuring social, economic and environmental sustainability; 3) To design and implement policy, fiscal, administrative and control instruments for land management; 4) To foster a sustainable mobility policy to ensure the quality, availability, connectivity and accessibility of urban travel; 5) To avoid human settlements in risk areas and to reduce the vulnerability of urban population in natural disasters; and 6) To consolidate the Regional Development National Policy departing from the local economic vocation and potential.

For the elaboration and execution of these planning instruments, a comprehensive consultation process was conducted. Moreover after the reinstatement of the National Housing Council, the communication channel between civil society, scholars, private and public sector, is newly open.

Additionally, SEDATU in coordination with the National Institute of Statistics and Geography (INEGI)<sup>27</sup>, and in accordance with the Information,

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For a complete analysis on the topic, refer to: Human Development Index for federal entities, Mexico 2015, UNDP, Mexico, February 2015, p. 16.

<sup>25</sup> According to the UNDP analysis, the resources of FONREGION were not addressed to the regions or groups that needed them the most; quite the opposite, many projects were carried out in state capitals or municipalities with high HDI. Additionally, there was no clear connection between an important part of the projects and the improvement of HDI. Human Development Index for federal entities, Mexico 2015, UNDP, Mexico, February 2015, p. 16.

<sup>26</sup> For further information see section IV.1 of this document

<sup>27</sup> The National Institute of Statistics and Geography, according to the established on Chapter 26 of the Political Constitution of the Mexican United States, is the public entity in charge of coordinating the activities of other federal government agencies or of the federal entities that provide statistical and geographical information, included the  
(footnote continued)

Statistics and Geography System General Act, special Committees have been set to generate necessary information and statistics for regional and urban development. These committees promote cooperation among different government levels to obtain useful information for a proper urban development planning<sup>28</sup>.

## II.2. Incentives for the sustainable urban design and contention of urban sprawl

In light of the previously outlined scenario, and following the creation of a SEDATU, the Federal Government has promoted different instruments to consolidate the inner city and to promote intraurban housing.

Cities face problems such as great costs, speculation and access to urbanized land. Therefore, cities experience a quantitative housing deficit and slums located in the city limits where the urbanization process is often incomplete.

After the formal presentation of the new National Urban Development and Housing Policy by the Federal Executive on February 11 2013<sup>29</sup>, the National Territorial Reserves Registry (RENARET) was created to identify those plots of land in possession of housing developers. This exercise showed that, even though some land was outside of the cities, there is a significant land reserve inside Mexican cities where future housing needs can be accommodated.

In consequence to the policy implementation, one of the most innovative instruments to promote the contention of cities thru the focalization of federal housing subsidies: the Urban Contention Perimeters (PCU Spanish acronym), was strengthened. This instrument allows the federal government to evaluate the allocation of federal subsidies based on the location of sources of employment and the consolidation of urban areas,

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information of the Institute itself, in order to join efforts to create a data infrastructure of Mexico in the National System of Statistical and Geographical Information. See: <http://www.inegi.org.mx/>

<sup>28</sup> For further information see section IV of this document.

<sup>29</sup> The Executive announced the general guidelines of the new National Urban Development and Housing Policy. The full speech may be reviewed here: : <http://www.presidencia.gob.mx/articulos-prensa/politica-nacional-de-vivienda/>



this is, depending on the availability of urban services and infrastructure, and favoring the occupation of intraurban plots of land.

The PCUs delimit three urban areas: U1, U2 and U3. The first (U1) delimits the areas where sources of employment are located. The second contour (U2) delimits the consolidated urban areas, with 75% coverage of infrastructure and urban services (water, drainage and electricity). Lastly, the third contour (U3) delimits future growth areas in the cities (buffer between 500 and 900 meters, according to the size of the city)<sup>30</sup>.

The location of the housing development projects within the PCUs, is one of the most important parameters within the Rules of Operation for the Program of Federal Subsidy and Financing Layout for Housing, the most important instrument to make social housing accessible in Mexico.

In this regard, housing located within the first perimeter (U1) receives a better score than those located within the third one (U3). In fact, nowadays and with little exceptions, the federal subsidy is not granted to housing beyond the perimeters, regardless the use of land assigned by the municipality in the Urban Development Program. Since social housing depends highly on the subsidy to be placed in the market, the territorial restriction has a great impact in the construction and selling of distant housing developments preventing further sprawl and a “haphazard urban frontier”.

In order to clarify the parameters used for federal housing subsidies, a scorecard was generated for the application of PCUs. It evaluates other urban features and it identifies the best housing options to be financed in the intraurban area. The housing projects receive a score according to all the relevant features considered in the scorecard (location, density, sustainability and competitiveness). The use of PCUs and the score data sheet also enable the creation of clear incentives to generate a well-located intraurban housing offer, close to sources of employment, study and supply.

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<sup>30</sup> For further information on the Urban Contention Perimeters refer to:  
<http://www.conavi.gob.mx/images/documentos/subsidios-conavi/2015/MODELO%20PCU%20ACTUALIZACI%C3%93N%202015.pdf>

It is important to mention the Urban Contention Perimeters are a territorial focalization tool for public resources, and in no way do they replace the planning instruments appointed by the Human Settlements General Arc, nor the authority of the corresponding municipality.

In 2014 the Federal Executive announced that the Operation Rules for the Federal Housing Subsidy Program would not present changes, at least until the end of the current administration (2018), which will encourage all participants to plan for the long term, and customize their actions for the consolidation of the new urban development model of compact city.

A second element that radically changed the development model of cities is the promotion of a broader housing solutions offer. As a result of the development model that favored the acquisition of new housing, around 90% of the national housing stock is currently horizontal –reflecting a model of territory occupation focused on single-unit housing developments.

Intending to promote the new compact city model, new housing programs have been created to seize the existent housing stock (30 million homes) suffering from gradual deterioration and loss of value. It is estimated that 6 million households require some sort of improvement, or are overcrowded; henceforth, programs that promote access to credit for home improvements and extensions have been established.

At last, a strategy promoted by the Federal Government to consolidate the inner city, and which has had encouraging results, is to channel the efforts of different players of the urban development through the alignment of federal programs that offer subsidies for urban interventions under six principles: 1) Identify and prioritize actions; 2) Identify geographically the area of operation; 3) Locate resources; 4) Foster the appropriation of public spaces by the citizens; 5) Establish co-responsibility mechanisms among the different government levels as well as among the population; and 6) Identify that these actions are not carried out in risk zones.

Under these principles, programs such as Habitat, Public Space Rescue (PREP, Spanish acronym), Urban Reserve Consolidation (PCRUI, Spanish acronym), Housing Units Reordering and Rescue (PRRUH, Spanish acronym), Program to Support Residents in Asset Poverty Conditions to Regularize Irregular Settlements (PASPRAH, Spanish acronym) have carried out joint actions to consolidate the inner city, attracting the population towards these parts of the city and propitiating a better utilization of the existent infrastructure.

### II.3. Urban mobility and transport policies

The expansion that cities experienced during the last decades caused an increase in the distances that the population needs to travel towards sources of employment, education, health, recreation and supply. Mobility is a fundamental aspect linked to the urban structure. Territorial and urban schemes that have favored the development of mono-functional activities, have limited the consolidation of urban centers that with both, sufficient housing and employment options. This practice increases also the distances that urban dwellers have to travel every day.

The interest and concern to analyze and understand the urban mobility phenomenon has grown in Mexico, since Mexican cities have faced incremental traffic congestion, atmospheric pollution, road incident fatalities and low quality in public transportation. The paradigm of the private automobile as the main response to the populations' needs of transportation is now under review. The concept of mobility goes beyond transportation means and the road network. It encompasses everything related to the need to mobilize people, including a variety of means and technologies adequate for different kinds of users.

The poor relation between city planning and urban mobility that ruled for decades showed its most disturbing reflection in the current dependency on motorized transportation, as well as in the insufficiency of efficient, safe and sustainable public transit, and in the virtual inexistence of incentives for non-motorized mobility.

The vehicle fleet in Mexico has grown constantly due to the credit availability, the elimination of vehicular property taxes and other factors that have facilitated the purchase of cars. In the year 2000 there were just over 15.6 million vehicles in the country; in 2010, the number went over 32.3 million. In just one decade the number doubled. It is feared that, if this trend continues, the number of vehicles for 2030 could reach 70 million<sup>31</sup>. Although high property rates are not significant by themselves, governments are required to implement policies to decrease road congestion. This data indicates a growing motorization of Mexico, shown in the vehicle indicator per 1000 inhabitants: it went from 159 in year 2000 to 282 in 2010, second place in Latin America<sup>32</sup>.

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<sup>31</sup> Guía de Comunidades Urbanas, CTS EMBARQ Mexico, 2013.

<sup>32</sup> World Bank, 2010

**Chart 2. Vehicle Fleet registered in Mexico per vehicle type**

Vehicle type	Year	
	2000	2010
	Units	Units
Automobile	10,176,179	21,639,633
Autobus	202,396	359,323
Freight Trucks	4,939,417	9,182,991
Motorcycles	293,924	1,156,873
<b>TOTAL</b>	<b>15,611,916</b>	<b>32,338,820</b>

Source: Mexican Transport Institute (2011). Urbanización y motorización en México.  
Publicación Técnica No. 362. p.25.

The faulty planning of mobility also has an impact on the security and health of the population in the cities. Road accidents are the primary cause of death among children between 5 and 14 years old, and the second cause among young people between 15 and 29 years old<sup>33</sup>. In average, 47 Mexicans fail to make it back home for this reason<sup>34</sup>.

Non-motorized transport faces similar problems; Mexico applies innovative practices in public bicycle sharing systems: EcoBici in Mexico City, MiBici in Guadalajara and the Non-motorized and Intermodal Mobility Municipal Plan in Leon. But there is still a deficiency in the biking and pedestrian infrastructure, and there is not a proper integration with other means of transportation to favor intermodal journeys in most Mexican cities.

Pedestrian mobility is not regularly considered as a part of mobility policies, even when this is the first and last journey type in an intermodal journey. An example of this is that walking trips are not considered in the urban origin-destination surveys. Additionally, the non-compliance of the traffic law obstructs the use of public space for pedestrians, cyclists and persons with a disability. Furthermore, it must be pointed out that well-designed public transit promotes safety, reducing traffic incidents, as shown

<sup>33</sup> INEGI (2014). Estadísticas a Propósito del Día de Muertos, National Data.

<sup>34</sup> STCONAPRA, (2014). Informe sobre la situación de la seguridad vial, Mexico 2014.

after the implementation of Metrobus, Optibus and Macrobus; these systems ordered road space, trained the drivers and recovered public and pedestrian spaces surrounding their routes. The experience gathered from the creation of BRT (Bus Rapid Transit) lines has improved the comprehensive design of systems, influencing the design of the streets and surroundings of the BRT stations.

The proper planning of urban mobility necessarily requires higher efficiency on public spending: although 3 out of 4 urban journeys occur in public transportation, walking or biking<sup>35</sup>, 74%<sup>36</sup> of the federal fund spending for mobility and transportation is assigned to expand and provide maintenance to road infrastructure. This is inefficient since there are over 50 cities that require mass transit systems, and only seven cities have it.

Since the announcement of the National Policy on Urban Development and Housing 2013-2018, the Federal Government has promoted the concept of compact city, which necessarily requires a comprehensive multimodal urban mobility plan to benefit the non-motorized mobility, public transit, and encourages the rationalization of use of private vehicles.

In addition, one of the goals of the current policy is to decrease the need for urban travels –and kilometers traveled– at the same time enhancing accessibility. SEDATU, through its National and Sectorial Programs of Urban Development, currently establishes among its goals “the promotion of sustainable urban mobility that boosts the quality, availability and accessibility of urban journeys”.

In coordination with states and municipalities, and in collaboration with BANOBRAS and the World Bank, works have been made to build comprehensive low carbon mobility systems through mass transit and non-motorized transport projects to discourage the use of automobiles. Since 2008 el Federal Program to Support Urban Mass Transit (PROTRAM) has supported at least 20 projects of this kind throughout the country, that have resulted in the development of BRT lines, bike lanes, pedestrian streets and road enhancement

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<sup>35</sup> CTS Embarq-World Bank (2009). Documento Base Sector Transporte para Estudio para la Disminución de Emisiones de Carbono.

<sup>36</sup> ITDP (2014). Invertir para movernos.

#### II.4. Information and technical capacity for urban planning

The rotation of high level public servants and their lack of professionalization have decisive negative effects in the conduction of public policies related to urban development and housing.

These phenomena obstruct the implementation of plans and programs with a long-term vision that include orderly growth strategies for cities, as well as an efficient land administration that favors the consolidation of the urban area, and the provision of services and equipment for the citizens.

In these sense, the work of the National Institute for Federalism and Municipal Development (INAFED Spanish acronym) is noticeable, by orienting and coordinating the actions of the three levels of government to design and implement public policies, programs and services to strengthen intergovernmental subsidiary relations and the balanced development of states and municipalities in favor of city dwellers. INAFED also conducts courses on federal programs and planning, decentralization and human rights, among others, as well as encouraging a Municipal Development Agenda that includes a series of actions that every municipality has to conduct, including some actions in urban development.

In terms of educating professionals in city related fields, Mexico has university programs related to urban planning and urbanism, at bachelor and postgraduate levels. The Metropolitan Autonomous University, the National Autonomous University of Mexico, the Autonomous University of Aguascalientes and the Colegio de Mexico outstand with recognized high-level programs that have played an important role in university formation for almost four decades. Beyond these education efforts and with a long-reach vision focused on the formation of urban planners and researchers of territorial phenomena, during the last three decades the public sector has barely seized the knowledge that these topics offer. This is visible in the lack of updated territorial plans in municipalities, and in the reduced presence of experts in urban and/or regional planning in public departments and agencies responsible of territorial management and planning. Likewise, there are few projects of important reach with an inter-sector approach that involve the interaction of different public institutions.

According to data from the Government, Public Security and Municipal Justice National Survey<sup>37</sup>, 52% (1273) municipalities in the country have an

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<sup>37</sup> INEGI (2009). Encuesta Nacional de Gobierno, Seguridad Pública y Justicia Municipal 2009.

administrative unit for ecology and urban development; 71% (1739) have a public services division. From 22,509 agents that provided the requested information (2,377 municipal presidents, 2,408 trustees and 16,039 councilors), 37.1% has a college degree or higher education; 27.9% finished only elementary school; 23.4% finished junior high school or technical/commercial school; and 11.6% finished high school.

Information is an essential instrument for the planning of urban development: the quality, pertinence and legitimacy of data related to urban development and territorial management are basic to accomplish proper and consensual proposals. There are different information systems in the federal government entities, fundamental for the decision-making in these matters. Due to the scarce coordination among public federal institutions to share information and processing systems, the Federal Government has promoted, at least, two channels to generate standardization, both for information as for the available consultation systems. On the one hand, the National Digital Strategy (EDN, Spanish acronym) is promoted; it is coordinated from the Federal Executive, and it responds to the need to seize the potential of IT and Communications as a catalyst of the development of the country<sup>38</sup>.

Among the National Digital Strategy (EDN Spanish acronym) objectives' the Governmental Transformation is aimed, a goal that promotes the creation of a new relationship between government and society, focused on the citizen experience as a public service user. In this sense, one of the secondary goals of this government transformation is to coordinate the Digital Policy of National Territory Management. Although there has been modest progress in the accomplishment of these goals, the EDN has made the right calls to connect the different players for the creation and management of the information required for urban development planning. This has created the basis to standardize criteria and create cooperation mechanisms between the parties.

Moreover, in coordination with the INEGI, new mechanisms have been established to generate information with the highest quality standards. There are currently three Technical Information Committees in which, besides the active participation of the Ministry of Agrarian, Territorial and Urban Development, different governmental, scholar and other institutions participate on the topic of each committee. This is how nowadays information requirements for planning and evaluation of urban development policies are analyzed and solved, throughout the work of the Technical

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<sup>38</sup> National Digital Strategy <http://www.presidencia.gob.mx/edn/>



Committees Specialized in Housing, Urban and Regional Development Information and in Cadastral and Registration Information<sup>39</sup>.

However, this effort has not covered the local level. In most federal entities and municipalities, there are currently in-house information systems that are not articulated and, in most cases, are not compatible with the rest.

In spite of this panorama, at the local level there are two figures that have gained a relevant role due to the need to acquire information of a highly specific level: the Local Urban Observatories and the Municipal Planning Institutes (IMPLAN, Spanish acronym). In 2003, the Federal Government implemented the Local Urban Observatories National Network in the main cities of Mexico, with the purpose of strengthening the sustainable urban development process. Through this network permanent discussion forums were implemented among the relevant stakeholders to that evaluate and monitor urban public policies. The stakeholders may propose improvements to the implemented public policies.. There are currently over 30 Urban Observatories that evaluate cities according to their actions of improvement of the environment, urban planning, economic growth and social development.

In recent years Mexico has witnessed the rise of the Municipal Planning Institutes (IMPLAN Spanish acronym), public decentralized bodies that, through a comprehensive vision, counsel and guide municipalities in planning their urban development on the short, medium and long term. This planning framework enables the continuance of the city projects, beyond municipal administrations. Its work team is formed by a multidisciplinary group of professionals and technicians devoted to research and analysis. These agencies also foster citizen participation in the planning process.

The first IMPLAN was created in 1994 in the city council of León, Guanajuato; there are currently 52 IMPLANs<sup>40</sup> located in the main municipalities of the country. Their creation aims to decentralize municipal urban planning, and they help offer continuity to long-term investments, since there is a mismatch between the IMPLAN's administration and the municipal governments' terms. Likewise, these institutes develop strategic projects related with housing, transportation, urban planning and sustainable

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<sup>39</sup> For further information of the goals of each committee, refer to the National System of Statistic and Geographic Information (SNIEG) <http://www.snieg.mx/#top>

<sup>40</sup> For a description of each, refer to the official website of the Mexican Association of Municipal Planning Institutes <http://www.amimp.org.mx/institutos>



urban development. Existing IMPLANs share different characteristics; some are relatively autonomous from the municipal authorities, while others are closer.

## II.5. Challenges experienced and lessons learnt

The lessons of the urban development model based solely on the funding of new housing, as well as the disarticulation and dispersion of the attributions and responsibilities of the different government levels in a context of an expected constant growth pace of the urban population, show the imperative need to create new foundations for the urban development of the country.

The instruments employed so far have shown diverse results, and they depend fundamentally of the political will of its players in order to accomplish its continuity. The binding character of the policies, strategies and actions set into plans and programs is too weak, since the consequences of their incomppliance are minimal. The political will of embracing the agreements on plans and development programs as the guidelines of public and social actions requires a counterpart of structures, mechanisms and procedures that guarantee their compliance.

Despite this, evidence shows that the players that influence the urban development are becoming more sensitive to the value of generating long term planning instruments. The political reforms to be implemented in Mexico in the following years could set a fertile ground for new means of coordination and cooperation that benefit the development of cities.

Incentives must be defined and mechanisms and to strengthen the mechanisms to accomplish the goals of the current national development policy must be strengthened. The strategic assignment of land and resources is necessary to ensure the sustainability of Mexican cities and has to consider the needs of all city dwellers, minimizing distances and travel times.

City planning is conducted by local governments, but it has to accompanied by state and federal instruments to maximize the benefits of governmental action. The opportunities generated inside the cities can be better seized by considering territorial processes and facilitating interactions.

Cities require long term vision plans and instruments that will allow them to adapt to environmental, social and economic dynamics. Such planning would save resources, decrease externalities and favor orderly urban growth. This task is a priority shared by the three levels of government, who have specific responsibilities to ensure the successful consolidation of urban settlements.

## II.6. Future challenges

The current trends show that cities will continue to attract inhabitants and with that the demand of housing, services, transportation, equipment, public spaces, and others will continue to grow. Cities have the potential of being built in a lever of change for the country; however, only those planned with a long-term vision, in an orderly and sustainable fashion will enable the conversion of investment of different government levels into a higher economic growth and into the overcoming of the social gap in Mexico.

Sprawl in cities is no longer considered as solely the result of irregular settlements is a vision left behind. Formal housing and the construction of infrastructures can also displace the urban frontier in unwanted magnitude and direction. On the one hand, the regulation of urban growth requires Mexico to continue transiting from a housing policy through a land and territorial planning, and to promote the generation of proper, well-located and affordable land, decisive for the urban consolidation and the equitable access to the opportunities of the cities.

One of the greatest challenges that urban planning in Mexico is facing is the integration of the territorial view in the investment programs and in the performance of big infrastructure projects, without this approach, these interventions could worsen some environmental, social and economic problems already suffered by cities.

Another essential action to improve urban development planning is the alignment of criteria to implement public funding. The resources of federal funds and programs with regional connotations must be subject to the joint ruling of the SHCP and SEDATU to guarantee they are destined to regional impact projects. Likewise, the urban and regional development policy should be reflected in the Federation's Expenditures Budget, covering and completing the sectorial perspective that forms its integration.

One of the great challenges of the Mexican Government to face future challenges is to have an updated national legal framework and with it, adequate incentives, responsibilities and faculties in urban development for each level of government. To accomplish this, it is necessary to review current regulations, which are dispersed in several regulatory frameworks in the different governmental levels.

Urban development should satisfy the current and future needs of the population without endangering land sustainability, resources and its surroundings. Therefore, there must be a change of paradigms and of the

urban development model. Urban planning should consider the necessary elements for the social and economic activities of the city, at the same time that it promotes the efficient use of natural resources and maintaining biodiversity.

Sustainable development is a necessary bet, since the urbanization process will not stop in the following years. It is a comprehensive development that encloses social, economic, ecological and physical sustainability of the cities. The public policy for urban development will be based on a view of the city as an urban ecosystem, where environmental, social, economic and urban issues are coherently articulated, hence accomplishing the completeness and mainstreaming of public policies that pursue sustainability and resilience of the cities.





III

ENVIRONMENT  
AND  
URBANIZATION



### III. Environment and Urbanization

#### III.1. Addressing climate change

The growing concern on climate change has driven the international community to meet and discuss actions and measures that have to be implemented to face the changes resulting from the increase of greenhouse gases (GHG) emissions. Mexico is part of the United Nations Framework Convention on Climate Change since March 1994, and of its Kyoto Protocol since February 2005.

With this understanding, Mexico has taken decisive steps, such as the creation of the Inter-secretarial Commission on Climate Change (CICC Spanish acronym) which was created with the purpose of coordinating the actions of the agencies and entities of the Federal Public Administration, to promote the development of programs and strategies on climate action related to the compliance of the commitments established by Mexico.

In 2012, the Climate Change General Law came into effect and created the Special Program on Climate Change (PECC Spanish acronym). The latter sets the goals, strategies and actions to face climate change through the definition of priorities in adaptation, alleviation and research matters, as well as through the provision of responsibilities, execution time, action coordination and cost estimates and results, according to the National Strategy on Climate Change (ENCC Spanish acronym).

Additionally, there are inventories on emissions available that are used as inputs for the development of a detailed and comprehensive methodology to estimate greenhouse gases sources and sinks. Also, it is necessary to assess the feasibility and cost-effectiveness of implementing possible mitigation

strategies and of adopting technologies to reduce emissions. Some of the inventories available that stand out are<sup>41</sup>:

- National Inventory of Greenhouse Gases Emissions, with numbers from 1990.
- National Inventory of Greenhouse Gases Emissions 1994-1998.
- National Inventory of Greenhouse Gases Emissions Reports 1990, 2002.
- Ozone Fugitive Methane in Oil and Natural Gas and Coal Industries in Mexico 2000-2001.
- Energy. Transportation Sector 2000-2001.

There are many actions undertaken by Mexico for climate change alleviation, among these, there are many initiatives derived from the National Reforestation Program, and the National Campaign for Ecological Restoration and against changes in land use in areas affected by forest fires, which have fostered the conservation and recovery of forests to increase the captured carbon. About emissions reduction, the use of natural gas has been prioritized over oil for electric power generation, and subsidies on fuel prices have been reduced. Likewise, Mexico has established different Mexican Official Standards that aim to reduce emissions associated to fuel and transportation, as well as to ensure the energy efficiency of different equipment and machinery utilized in industrial, commercial and domestic processes.

In terms of urban development and housing, programs for thermal insulation and domestic lighting have been implemented, as well as plans and programs for the territorial restructuring of cities, and actions to improve solid waste management in municipalities, especially supporting the creation of landfills, among others.

In 2007, INFONAVIT, in coordination with the Electric Power Saving Fund (FIDE Spanish acronym), analyzed the feasibility of promoting sustainability criteria in housing through the inclusion of green technologies, solid waste management and green areas preservation. Based on this, INFONAVIT developed a financial instrument called “Green Mortgage”, which

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<sup>41</sup> National Institute of Ecology and Climate Change, “Para comprender el cambio climático” Available on: <http://cambioclimatico.inecc.gob.mx/comprendercc/qsehaceparamitigarelcc/ambitonacional.html>



was implemented as a pilot program that proved to be financially viable and ready to be consolidated and expanded.

In the pilot program, the “Green Mortgage” enabled a 48% saving in gas and power consumption. The savings in the consumption of power and water, resulting from the implementation of green equipment, were higher than the additional redemption of its installation. This saving is understood as a higher income available for the beneficiaries, which allows to INFONAVIT to offer an additional credit amount to finance the acquisition and the installation of environmental technologies in dwellings. Although the Green Mortgage started in the economic and traditional housing segment, it has now expanded to the subsequent housing segments.

The energy sector has also boosted alleviation measures for the effects of climate change. The Secretary of Energy, in cooperation with its companies and decentralized units, implements programs and actions to save and efficiently use energy.

Among the main actions undertaken, we can recognize the publication of the Act on the Utilization of Energy Renewable Sources (LAFRE Spanish acronym), along with other instruments that boost the use of renewable sources for electric power. There are efforts that point out to the development of renewable energies connected to the net, such as the project of Full Scale Renewable Energy (PERGE Spanish acronym), PERGE’s Green Fund, and the Rural Electrification Program of the Electric Investigations Institute-Federal Energy Commission (IIE-CFE Spanish acronym), among others.

It is necessary to point out the efforts on fuel switching and utilization of energy sources with lower emissions; as well as the actions on the transport sector to reduce emissions, such as the verification of polluting emissions from self-transportation vehicles; the Mexican Official Norm, which regulates the limits on the emissions of gases from diesel engines; the support to infrastructure for better urban transportation practices, and the strategies to support local authorities to improve the performance of public transportation, among others.

Regarding adaptation, Mexico has fostered the central strategy set by the Framework Agreement on Climate Services. This strategy consists on the creation of specific products for every social and economic sector to have the necessary technical elements to adapt to climate change, reducing its negative impact and obtaining the highest possible benefit.

In a long-term vision, Mexico suggests the aspirational goal of reducing its GHG emissions in 50% by 2050, compared to 2000. This could

create a stabilization scenario of the GHG concentrations in the atmosphere, to a level below 450 ppm of CO<sub>2</sub> eq, compatible with a limit in the increase of average superficial temperature of 2°C and 3°C, and a flexible convergence towards a global average of per-capita emissions of 2.8 tons of CO<sub>2</sub> eq in 2050<sup>42</sup>.

Under the coordination of the Ministry of Environment and Natural Resources (SEMARNAT Spanish acronym), there is a promotion of the design of Nationally Appropriate Mitigation Actions (NAMA) departing from existing programs and providing the necessary funding through national funds and international donors. In Mexico the Sustainable Housing NAMA has been fostered; which is the first NAMA in the implementation phase worldwide. The NAMA seeks to mitigate the emissions in the housing sector by offering supplementary funding to improve the efficiency of households on their electricity, gas and water consumption. These improvements are accomplished through the implementation of green technologies, the improvement of architectural design and the use of efficient construction materials. In 2012, Mexico made great advances on sustainable development through the creation of technical capabilities, the development of pilot projects —such as Mexicali in northern Mexico— and the coordination of key players.

Based on these sustainable housing programs, there are efforts to create an Urban NAMA oriented directly towards the decrease of GHG emissions generated in the city. This initiative covers additional interest areas that have an impact on the cluster of homes and their urban surroundings, such as water supply, sewage, street lighting and solid waste management, among others, with the purpose of accessing commercial and additional development funding for the implementation of sustainable investments at a national level.

### III.2. Disaster risk reduction

In the last decades there has been an increase in the vulnerability of cities —including the intensification of disasters of all kinds—as a result of changes in the behavior of the environment resulting from the actions of men. One of the main reasons of disaster are the foreseeable effects of global warming,

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42 INECC (2009) “Cuarta Comunicación Nacional ante la Convención Marco de las Naciones Unidas sobre el Cambio Climático”

translated into an increase in the frequency and intensity of phenomena such as hurricanes, droughts, desertification, loss of vegetation cover, and in consequence, soil erosion processes caused by rain and wind. The loss of human lives and productive patrimony of the country caused by catastrophic events have been meaningful. Numbers provided by the Disaster Prevention National Center (CENAPRED Spanish acronym) show that during the term 1990-2010, there were 75 events of different nature, killing 3,500 people, leaving thousands of people affected and an economic loss of over 250 billion pesos. According to the same source, nowadays 87.7 million people in the country live in risk areas due to different types of phenomena. Of this figure, around 70% live in urban areas, 9.5% live in semi-urban areas and the remaining 20.5% live in rural areas. On the 2000-2010 term, more than 15.5 million inhabitants were affected by three types of phenomena, 95.86% of which correspond to hydro-meteorological events (Chart 3).

**Chart 3. Impact of natural disasters on Mexican cities, 2000-2010**

Phenomenon	Deaths	People affected	Total damage (millions of pesos)
Hydrometeorological (Hurricanes and floods)	1,481	15,093,693	227,320.26
Geological (earthquakes)	272	591,565	12,007.78
Chemicals (explosions and urban fires)	614	59,697	2,591.45
<b>Grand total</b>	<b>2,367</b>	<b>15,744,955</b>	<b>241,919.49</b>

Source: CENAPRED Characteristics and socioeconomic impact of the main disasters in the Mexican Republic, 2000-2010

Regarding seismic risks, Mexico is located in one of the regions with the highest seismic activity worldwide. The seismicity is due to the interaction among the North American, Cocos, Pacific, Rivera and Caribbean plates. Specifically, due to the friction between the North American and the Caribbean plates, and because of the collision among the first one and the Rivera and Cocos plates.

For its part, the volcanic belt covers a very important area of the central highland and of the Pacific Ocean that houses around 50% of the population of the country, covering some of the great metropolis and

Mexican cities: metropolitan areas of the Valley of Mexico, Guadalajara, Toluca, Puebla-Tlaxcala and Morelia, and the cities of Colima and Jalapa. The latent danger and the seismic phenomena experienced in Mexico have provoked changes in building codes, mainly, in the center part of the country, which is the most affected zone by earthquakes. The changes in building codes have considered increasing the quality standards of materials, as well as improvements in designs and architectonic projects, aiming to reduce the population's risk to these kinds of emergencies.

Despite these characteristics, the urbanization process has shown that the growth and functioning patterns of cities do not consider physical risks or the prevention approach of disasters. Many cities still lack urban development plans and instruments such as risk maps, georeferenced information, and actualized building codes. Additionally, there are limitations to regularize occupation of federal ways and land on close proximity to water bodies, and downstream areas, among others.

The main instrument to carry out mitigation and risk control measures is the construction license that is a result of the provisions stated in the urban development program and the construction regulations. Likewise, the urban development and the territorial planning programs should incorporate those areas suitable for construction of housing and urban facilities, having reviewed a risk map, with the proper scale, to be able to adequate plan settlements, in accordance with the specific needs of each area.

Households and other constructions located in risk zones are not usually identified within the areas destined for residential or urban uses, but they are in areas along rivers, low lands, and federal zone limits that are not regulated by the plans or programs of urban development. This suggests that the households in this situation were not built in compliance with the current legislation; that is to say they were built without land use and construction permits. According to the information presented by the National Council of State Housing Agencies (CONOREVI Spanish acronym) in 2011 there were 484,172 households in need of relocation. From this information, the urban development and housing policy focused on the following preventive strategies regarding risk:

During the last years, the Secretary of Social Development elaborated some guidelines for the design of risk maps, territorial planning programs, and urban development programs, which were promoted in different municipalities, aiming to progress on the identification of suitable areas for urban growth. On the other hand, CONAVI created the Housing Edification Code, promoting the adoption of its content in the local construction codes.

The National Register of Housing, through the work verification process, tracks the dispositions of the construction permit and of the structural fundamental requirements. Through a cooperation agreement with SEDESOL and CENAPRED, efforts were made to include risk maps in the Geographic Information System, which will enable the identification of houses in risk situation, providing that the scale of the maps allows doing so.

The housing subsidies program envisions an outline for the relocation of families whose houses are located in risk zones. Between 2007 and 2012, this program supported 29,877 reconstruction actions due to natural disaster damages, and 12,030 actions of preventive relocation.

Additionally, the Mexican Regulation NMX-AA-164-SCFI-2013 issued in 2013; establishes the minimal criteria that every construction that qualifies as sustainable should follow, and comprehends matters of urbanization, energy efficiency, water use, and integral waste management, among others.

In the last years Mexico has begun a slow transition from a reactive civil protection system into a preventive one, through the introduction of innovative measures, such as the allocation of a catastrophe fund in the international market in 2006 –covered by the Natural Disaster Fund (FONDEN Spanish acronym) against earthquakes; or the Early Warning System for Tropical Cyclones (SIAT-CT, Spanish acronym); or the Safe Municipality Program. Even though there is still a need to consolidate the transition towards a preventive system, there is nowadays more information and broadcasting on potentially risky situations for the population and for the urban and productive infrastructure. With this, the number of disaster casualties has been reduced.

### III.3. Reducing traffic congestion

Roadway congestion in the cities is an everyday topic, but in Mexican cities very few actions have been implemented to change this reality. Institutions in charge of managing roadways in Mexico have adapted their efforts to generate higher comfort for personal automobile journeys, which increases the attractiveness of using this mean, hence inducing traffic congestions.

Additionally, the improvements on the purchasing power of the population, subsidies that do not allow the social costs associated to car use are reflected, the elimination of the vehicular possession tax, the access to credit and the increased supply of used cars coming from the USA, have increased the number of cars on the streets. Traffic congestions affect both drivers and public transportation users; it causes a loss of economic

efficiency and other negative effects for the society. Traveling in car is also attractive because public transportation is sensed as a deficient system, with uncomfortable conditions –particularly during rush hours, with episodes of insecurity and violence.

Likewise, the extended and fragmented territorial pattern hinders the introduction of efficient transportation systems, discouraging walking and the use of bicycles and promoting the massive use of personal automobiles.

The negative impacts of the excessive use of automobile in Mexican cities are numerous. An evident effect is the deterioration of mobility. To exemplify, the average speed of vehicles in the Federal District has decreased from 38.5 km/h in 1990 to 13 km/h in 2010<sup>43</sup>, increasing the time of an average journey to 28 minutes, which affects the quality of life of the population in basically every urban activity, consequently affecting the city's productivity. The vehicle-kilometers traveled (VKT) in the country practically triplicated, from 106 to 339 million, extending the permanence of vehicles in the roads<sup>44</sup>.

Some cities have started efforts to attract automobile users (past and potential) to sustainable transportation means. The bets on mass transport have ensured a more efficient use of lanes. Meanwhile, non-motorized transportation means are gaining relevance in zones with proper infrastructure, mainly for short trips. However, better options in quality terms (fare, travel time and use frequency) are needed, but especially subjective attributes such as air conditioned, comfort, and flexibility, among others. Additionally, cities like Victoria, Tamaulipas; Guadalajara, Jalisco and Mexico City have undertaken actions to discourage the use of car and traffic congestion, among these, is the implementation of mechanisms to control parking at the streets (parking-meter programs), and the reinforcement of programs that restrict the use of cars (*Hoy no circula* program).

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<sup>43</sup> Mexico City's Transportation and Roads Secretariat (SETRAVI-GDF), "Encuesta Origen Destino 2007", on: <http://www.setravi.df.gob.mx/work/sites/stv/docs/EOD2007.pdf>

<sup>44</sup> Medina Ramírez, Salvador, "La importancia de reducción del uso del automóvil en México. Tendencias de motorización, del uso del automóvil y de sus impactos". ITDP, México, 2012.



### III.4. Air pollution

Atmospheric pollution shows a rising trend emanating from the growing emission of toxic and greenhouse gases, causing health problems, among others.

One of the most important sources of pollutant emissions is the excessive use of vehicles used for transportation of people and goods, the low quality of fuels and road congestion, causing the increase of negative effects on the population and the environment. According to the National Institute for Ecology and Climate Change (INECC Spanish acronym), one fifth of the total CO<sub>2</sub> national emissions comes from transportation<sup>45</sup> and 34 million inhabitants are exposed to the poor air quality<sup>46</sup>. The World Health Organization estimated that there were 14,734 deaths related to poor air quality in 2008<sup>47</sup>.

Moreover, the policy of subsidy on fuel reinforces the trend to boost the use of automobiles. In 2012, the federal subsidy on fuel and diesel had a cost of 222.7 billion pesos<sup>48</sup>, and by the end of 2013 it reached 100 billion<sup>49</sup>, intensifying the release of GHG emissions, like CO<sub>2</sub>.

During the last years there has been progress on the Air Pollution Monitoring Systems in several Mexican cities. In 2009, 59 metropolitan areas had air quality monitoring networks and stations, although there are still states and urban localities that lack this tool. The oldest one is located in the Metropolitan Area of Mexico's Valley, with 36 automatic monitoring stations and 13 manual stations that record the concentration of "criteria pollutants": ozone (O<sub>3</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), particles under 10 and 2.5 micrometers (PM10 and PM2.5 respectively, and total solid particles (TSP), among others.

In regards to air quality in the last 20 years there have been diverse efforts to reduce pollutant emissions. Besides the instrumentation of air quality programs in different cities, it is possible to highlight the creation of

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<sup>45</sup> INECC (2012). "Quinta Comunicación Nacional ante la Convención Marco de las Naciones Unidas sobre el Cambio Climático".

<sup>46</sup> ITDP (2012). "Transformando la movilidad urbana en México".

<sup>47</sup> Medina Ramírez, Salvador, "La importancia de reducción del uso del automóvil en México. Tendencias de motorización, del uso del automóvil y de sus impactos". ITDP, México, 2012.

<sup>48</sup> SHCP (2013). "Cuenta de la Hacienda Pública Federal 2012", Income Policy.

<sup>49</sup> SHCP (2013). Press release 050/2013, August 2, 2013. The relative decrease of the total amount for this subsidy between 2012 and 2013 is due to the slip policy of public on the prices on gas and diesel, based on the monthly rise of 11 cents per liter, for domestic prices so that they will eventually level with international prices.

norms that define the permissible limit values of pollutant emissions and their update; the most recent (2014) reduced the permissible limits of particulate material (PM<sub>2.5</sub> and PM<sub>10</sub>)<sup>50</sup> and ozone in favor of the population's health<sup>51</sup>.

Resulting from the previous measures, the air quality of the Metropolitan Area of Mexico's Valley has improved in the last 20 years. The measurements of CO, CO<sub>2</sub> and SO<sub>2</sub> are under the limits stipulated in the respective national norms that regulate air quality. There is even a trend in the reduction of the annual concentration of ozone, and a relative stabilization of the material concentration of particulate material; however in all three cases there is no compliance with the local regulation.

At the institutional level, the Commission for the Prevention and Control of Environmental Pollution in the Metropolitan Area of Mexico's Valley was created in 1992, recently, in 2013, the Environmental Commission for the Megalopolis, an intergovernmental administrative coordination agency that integrates the federal government with the local governments of the Federal District, Hidalgo, State of Mexico, Puebla, Morelos and Tlaxcala, with the purpose of implementing common environmental measures, was established.

Other metropolis and cities have an important number of monitoring stations (although not all of them register the complete amount of pollutants) and with information registers since the mid 1990's. The efforts around this are localized in the Central Region, the *Bajío* and the Northern part of the country; in the South and Southeast parts of the Mexico there are fewer Environmental Monitoring Systems.

Regarding transportation, many cities have made efforts in the renovation of their transportation fleet, the creation of comprehensive systems of public transportation, BRT corridors, the use of alternative and improved fuels, as well as the restructuration of urban transportation. These measures seek to improve air quality by streamlining transportation systems in the cities. Likewise, the program that restricts the use of private cars once a week that is applied in the Federal District and in some municipalities of the State of Mexico has contributed to these efforts; however it has some

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<sup>50</sup> "Salud ambiental. Valores límite permisibles para la concentración de partículas suspendidas PM<sub>10</sub> y PM<sub>2.5</sub> en el aire ambiente y criterios para su evaluación". NORMA Oficial Mexicana NOM-025-SSA1-2014, Federal Official Journal, August 20 2014.

<sup>51</sup> "Salud ambiental. Valor límite permisible para la concentración de ozono (O<sub>3</sub>) en el aire ambiente y criterios para su evaluación". NORMA Oficial Mexicana NOM-020-SSA1-2014, Federal Official Journal, August 19 2014.



limitations since it excludes freight cargo and has increased motorization, accelerating the renovation of the vehicle fleet.

The inappropriate vehicle control in cities and the continuous saturation of roadways due to the amount of vehicles, reduce the possibilities to solve the atmospheric pollution problem. Additionally, the externalities associated to automobiles have not been cashed, reducing the visibility of the problem. The poor distribution of space also plays an important role. For example: new housing developments dedicate from 24% to 31% of its land to roads, while green areas receive only 13%. Trends show that if current practices remain, the growth in demand of vehicles, roadways and parking will continue. The demand of roadways would not need to grow if there was a promotion of more dense cities and a more equitable distribution of road space among the different means of transportation. An outline of a NAMA on Sustainable Urban Mobility Systems has been created to address this situation; its objective is to ensure the implementation of projects that guarantee urban travels under safe and equitable conditions, through the improvement of public transportation, the provision of infrastructure and facilities for non-motorized transportation, and the rationalization of car use in Mexican cities.

### III.5. Challenges experienced and lessons learnt

Weather changes have increased risks for coral, rainforest, mangrove and forest ecosystems, and also for the socio-ecosystems, such as cities. Men's activities, alongside with cities' sprawl, have increased the carbon footprint and GHG emissions. This has provoked an increase in frequency and intensity of hurricanes, droughts and desertification.

Urban planning processes have been incomplete and limited by the capabilities of local governments to generate enough revenue to properly fund mitigation and adaptation actions within their territories. Institutional fragility has also impaired the coordination among the different areas of local governments and at a metropolitan level to integrate successful policies that contribute to the creation of effective mitigation and adaptation actions to face climate change.

Likewise, debility lingers on the compliance with the regulatory and institutional framework for climate change, which limits the reach and fulfillment of the pledges stated in the General Climate Change Act, published in 2012. Local capabilities must be strengthened, and municipal governments need to be better informed to ensure the adequate decision-making for issues such as GHG reduction, and to face the growing intensity

and incidence of hydrometeorological phenomena associated with climate change.

Regarding risk management, territorial regulation has not been effective, increasing the vulnerability of the population due to the lack of information and integral planning. The national scale projection would show that around 34% of households in the country would be categorized as irregular. From the 300,000 new homes in situation of poverty that are integrated every year into the urban areas, approximately 41.7% are forced to occupy land by unlawful means<sup>52</sup>.

As a consequence of the insufficient supply of affordable land, there has been a contribution for irregular settlements to establish mainly in risk areas. At a national level, 11% of households in urban locations are on or near riverbeds; 2.3% on landfills, caves or mines; and 9% on ravines<sup>53</sup>.

Land procurement requires policies that guarantee an adequate management of territorial reserves, that provides affordable and well-located urban land to vulnerable groups, and that helps to mitigate their risk exposure. Better instruments are needed to assess risk; current risk maps require a better scale to identify vulnerability at a population core level, as well as a suitable standardization of updated information and methodologies.

City planning also needs to boost mixed land use to de-concentrate activities, and therefore reduce distances and travel time. It is necessary to recognize that investments on public, mass transit and non-motorized transport have been insufficient. Also, it is necessary to reconsider the efficiency of current means of transport to move people and goods in an accessible and sustainable manner.

About air quality, its control has been insufficient since there are no systematic and updated measurements of personal exposure to pollutants within constructions, on roadways, and correlated to technologies of different means of transportation. Public policy on air quality should not only depend on the technology to control emissions, but also on actions to rationalize and optimize energy use. In this regard, the Energy Sectorial Program 2013-2018 aims to expand the national electric infrastructure according to demand, through the incorporation of clean and renewable

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<sup>52</sup> PUEC 2012. "Perfil Actual de la Vivienda en México". UNAM.

<sup>53</sup> SHF 2014. "Estado Actual de la Vivienda en México". Federal Mortgage Society.

energy, and energy diversification. Currently, Mexico has six wind farms located in Baja California, Jalisco, Nuevo León, Tamaulipas, Oaxaca and Chiapas, which have an installed capacity to generate, in conjunction, almost 2,000MW.

Among these actions, it is important to highlight that the NAMAs have shown that the housing policy is a successful instrument to reduce greenhouse gases emissions through different actions. One of these is the in-house use of green technologies to reduce gas and electric power consumption. Another one is the incentives for good location and containment of urban areas through the housing location polygons.

### III.6. Future challenges

Mexico shares with the world the concerns on global climate change, and recognizes the need to joint efforts to properly manage natural resources, biodiversity and the environment. We see cities' management from a socio-ecosystemic perspective, with a more inclusive, more dynamic and more comprehensive view, reflecting the composition of the elements that converge in the cities. The impact of human activities on the environment cannot be denied; the high greenhouse gases emissions registered in cities, along with the deficient management of natural resources and soil depredation, have turned our cities and its population vulnerable.

Environmental management is already a survival topic, since it is mandatory to face the consequences of climate change. Mexico has already applied adaptation and mitigation measures. However, a major drive for the use of clean and sustainable energies that allows to face the pollution problems in Mexico is required.

Attention to disaster cannot continue to be reactive; the cities we need should be able to manage, prevent and treat risk, and they should be able to recover rapidly. This is why our actions should consolidate resilient cities with low carbon levels.

Adaptation to climate change requires the construction of socio-environmental resilience, understood as the ability to create a social, socioeconomic and socio-ecosystemic fabric that enables systems to withstand diverse social, economic and environmental impacts, and to have the necessary strength to adapt to climate change and to move forward in this regard.

We must decrease the vulnerability of the population in risk areas, and prevent the settlement of households in areas sensitive to natural phenomena, where people or patrimony could be affected. There should be planning, prevention and mitigation measures to create more resilient cities.

It is necessary to held and fulfill Mexico's commitments towards climate change, especially, those regarding the goals appointed on the Intended Nationally Determined Contributions, about an unconditional 25% GHG emission reduction and short-lived climate pollutants for 2030, and 50% of the same for 2050, strengthen the local, state and federal institutions in charge of urban issues, as well as generate a General Strategy on Climate Change as the steering long-term vision, not as a collection of administrative measures but as a deep transformation manager of the city vision and of the productive activities, embodied in comprehensive and non-sectorial actions. It is necessary to rescue the relevance of green areas management<sup>54</sup> within urban areas, declaring them "strategic areas of environmental value", as a way to face the effects of climate change<sup>55</sup>, applying strict regulations and surveillance mechanisms. Mexico needs to increase urban green areas to at least ten square meters per inhabitant (through urban normativity, green corridors and green areas connected or integrated to the city with diverse purposes).

We should commit to the creation of risk maps at population core level for all the cities with over 100,000 inhabitants, through standardized methodologies and tools that enable accurate decision-making to mitigate risk. We also need instruments to efficiently manage resources to reduce vulnerability to climate change. This makes us think of strategies to face water scarcity, raises in temperature, thermic stress, pollution, extreme climate events, food security and ocean acidification, all effects of greenhouse gases emissions.

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54 According to Hinojosa (2014) green areas' function is fundamental; their abilities to provide environmental services to society and wildlife should be considered and hence, conserved, restored and maximized.

55 The benefits citizens obtain from green areas are various. It is established in one of the environmental regulations of the Federal District (NADF-006\_RNAT-2004) by acknowledging them as "...vital to diminish heat islands, to capture pollutants and suspender particles, to produce oxygen, to stop soil erosion, to increase humidity, to diminish noise levels, to collect rain water, to build refuge and food centers for diverse forms of life. Green areas are related to public health, recreation and improvement of urban image, and generate positive effects on mental health and education" (Federal District Government 2004:13 on Hinojosa (2014).



# IV

## URBAN GOVERNANCE AND LEGISLATION



## IV. Urban Governance and Legislation

### IV.1. General legal and urban framework

#### *Legal framework*<sup>56</sup>

In terms of urban and housing development, the legal framework is composed by different regulations. In 1976 –concurrently with Habitat I Conference–, the Federation Official Journal published in February 6 the constitutional reforms to chapters 27, 73 and 115. These reforms were about the limits of private property with the purpose of organizing human settlements<sup>57</sup>, the competence of the Congress to legislate and to establish the concurrence of authorities to jointly plan and regulate urban centers. This “set the legal bases for urban planning in Mexico”<sup>58</sup>; Later on, the

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<sup>56</sup> Based on López Velarde, Oscar. (1979) “Estructura Jurídica y Organización Administrativa para la Planeación y Regulación de los Asentamientos Humanos en México Jurídica”, Mexico, num. 11, July 1979, p. 372. Consulted on March 23 2015 on <http://www.juridicas.unam.mx/publica/librev/rev/jurid/cont/11/pr/pr17.pdf>

<sup>57</sup> “The Nation will have at all times the right to impose private property to the modalities set by public interest, as well as to regulate, in social benefit, the utilization of the natural element susceptible to appropriation, with the purpose of creating an equitable distribution of public wealth, to care after its conservation, to accomplish the balanced development of the country and to improve the living conditions of the rural and urban population. Hence, the necessary measures to order human settlements and establish proper provisions, uses, reserves and destination of land, water, forest will be issued, in order to carry out public works and to plan and regulate the funding, preservation, improvement and growth of the population centers; to preserve and restore the ecological balance; to divide land; to provide, in compliance with the law, the collective organization and exploitation of ejidos and communities; for the development of the rural small property; to foster agriculture, livestock, forestry and other economic activities of the rural sphere; and to avoid the destruction of natural elements and the damage the property may suffer to the detriment of the society” (Political Constitution of the Mexican United States, Chapter 27, paragraph III).

<sup>58</sup> García Coll, Julio. “Evolución Legislativa de la Planeación del Desarrollo y la Planeación Urbana en México”, Boletín Mexicano de Derecho Comparado, Institute of Legal Research, UNAM, Mexico, No. 86, May-August 1996. Consulted on March 23 2015 on <http://www.juridicas.unam.mx/publica/rev/boletin/cont/86/art/art14.htm>

Human Settlements General Act was created and enacted from this reform (May 26), and the concerning state laws in the two following years.

Since then, the constitutional reforms to Chapter 115 (1983) and 27 (1992), the issuance and update of the Federal Housing Act (1983 and 2006), and the new General Act on Human Settlements (1993) have shaped the current legal framework. Nowadays, the fundamental axes in the matter are the Political Constitution of the Mexican United States (CPEUM For its acronym in spanish), the General Act on Human Settlements (LGAH For its acronym in spanish), and the Housing Act (LV For its acronym in spanish), as well as the regulations, guides and agreements resulting from these laws, the state legislation and the municipal regulations.

The CPEUM, through Chapter 115, grants municipalities with autonomy to manage urban development. This regulation turns municipalities into the main authority on decision-making for urban planning matters; the CPEUM only enables states to issue laws in limited substantive faculties for urban development, relegating the participation of the Federal Government to influence concurrently and supplementary when municipalities explicitly ask for their intervention.

The institutional design established by CPEUM, as well as the proliferation of norms and regulations disperse in the regulatory frameworks sanctioned by the different government levels, shows loopholes, obsolescence and duplicity that cause uncertainty and an incentive scheme for the different players, but it is not always aligned to the sustainable urban development objectives.

One key component of urbanization is the land; therefore, it is very important to understand the regulatory framework around this instrument and its implications. As it was mentioned in chapter 2, there are three kinds of property in Mexico, each with different rights and obligations for its holder. Social property is federal government's competency, while local authorities manage private property. Social property comprises *ejidos* and communities, which after a legal reform in 1992, can now switch into the small property regime. With this reform, *ejidatarios* (members of an *ejido*) can sell their land and incorporate them to the urban land. The problem is that they have divided and sold their land in disregard of urban regulation.

Another fundamental component is housing. An institutional framework was consolidated between 2000 and 2010, which strengthens housing funding. In 2001, the Federal Mortgage Society (SHF For its acronym



in spanish) was created: it is a development bank specialized in housing, one of the main investors to housing production through Sofoles and Sofomes<sup>59</sup>. Also in 2001, the Housing Promotion National Commission (CONAFOVI for its acronym in spanish) was created, and in 2006 it became the National Housing Commission (CONAVI for its acronym in spanish). This entity facilitates the implementation of the national housing policies, and along with the Popular Housing National Fund (FONHAPO for its acronym in spanish), which has been a key player to address the lowest income segments through subsidies for home acquisition, self-production and improvements. The institutions that grant mortgage credits (INFONAVIT and FOVISSSTE), created in the 1970's, had a thorough transformation since year 2000, positioning themselves as social mortgages, granting 7 out of 10 mortgages in the country. This strong institutional framework to support housing funding also propitiated a higher participation of the financial intermediaries in the sector, first of Sofoles and Sofomes, and recently of the banking sector.

Until 2012, public policy related to social or collective property (ejidos and communities) depended on the Agrarian Reform at a federal government level. Moreover, the Ministry of Social Development was in charge of the coordination of territorial regulation and urban planning. The National Housing Commission, was responsible for the coordination of housing policy. INFONAVIT and FOVISSSTE are in charge of the mortgage credit for workers. This attribution spread within the federal government created contradictory incentives in the national urban development policy. Therefore, in 2013 the Ministry of Agrarian, Territorial and Urban Development (SEDATU For its acronym in spanish) was created with the purpose of joining efforts of the federal government related to land (rural and urban), to the territorial and urban regulation, as well as to housing matters. This institution gathers the attributions of the previous Ministry of the Agrarian Reform , the Underministry of Urban Development of the Ministry of Social Development, as well as some housing attributions. This is an important step for urban policy coherence, the actions of the different dependencies and the coordination with local governments.

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<sup>59</sup> Limited companies authorized by the Ministry of Finance and Public Credit that perform as financial intermediary in topics as: mortgage, mid industry and consumption goods.

*Institutional framework*

After the United Nations Conference on Human Settlements (Habitat I) in 1976, Mexico responded to its agreements with the creation of the Ministry of Human Settlements and Public Works (SAHOP For its acronym in spanish), in charge of carrying out the Human Settlement General Act mandates, also recently enacted. Its attributions were taken by the Ministry of Urban Development and Ecology (SEDUE For its acronym in spanish), which took over from 1982 until 1992, when the Ministry of Social Development replaced it.

This new dependency had the primary assignment of creating a new policy to fight poverty, leaving aside the need to manage territorial and city procurement. Hence, after the Second United Nations Conference on Human Settlements (Habitat II) in 1996, Mexico lacked the same institutional abilities to face the commitments acquired in that meeting. Additionally, since the 1980's, different sectors witnessed decentralization reforms that loaded municipalities with the biggest burden of responsibilities, including those for urban development.

After almost two decades of substantial absence on behalf of the Federal Government regarding urban development, in 2013 the government of Mexico intended to recover leadership in urban housing and development matters by reforming the Federal Public Administration Organic Law and by creating the SEDATU<sup>60</sup>.

This way, SEDATU took over the urban development and territorial regulation functions from the SEDESOL, as well as the task of agrarian development from the extinct Ministry of the Agrarian Reform. Other chapters of this report will mention the characteristics and effects of housing policy decoupled from urban planning, a reflection of the unbalanced institutional framework at a federal level. Institutions related with housing – INFONAVIT, FOVISSSTE, CONAVI; FONHAPO and SHF- had a clear leadership in the design and implementation of public policies oriented towards extending the access to housing solutions for the population, without a regulatory agency weighty enough to ensure those solutions for urban consolidation. After the creation of SEDATU, these institutions also pursue

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<sup>60</sup> Federation Official Journal, January 2, 2013.

the improvement of life quality of Mexicans by guaranteeing that their household is inserted into the proper setting.

Regarding urban development, the Government of Mexico had an important background –like SAHOP and SEDUE– to address housing, a key in the urban development of the country. However, the multiplicity of players involved (INFONAVIT, FOVISSSTE, CONAVI, FONHAPO and SHF) propitiated a scattered leadership and generated contradictory incentives for national urban development policies. The inadequate institutional design observed until 2013, uncoordinated and without leadership, fostered the fragmentation of a set of policies that are central for proper urban development, such as housing, territorial regulation, transportation, mobility, regional development and risks, to mention a few.

Through the creation of SEDATU, the Government of Mexico acknowledges the need to implement a new policy to ensure the coordination between urban planning and housing institutions, seeking to evolve towards a sustainable and solid urban development model, to reduce the housing deficit and to provide quality, competitive and sustainable housing solutions.

This way, the announcement of the new policy is remarkable, but a constitutional and legal reform is essential to achieve its objective. From a pragmatic point of view, the following instruments have been published according to the established within the National Development Plan 2013–2018, and to the faculties established for the Federal Government and the LGAH, the Planning Act and the Housing Act, with the purpose of strengthening and improving the reach of the existing legal framework in urban development and housing matters:

- Agrarian, Territorial and Urban Development Program 2013–2018
- National Urban Development Program 2014–2018
- Center Development Regional Program
- Northern Development Regional Program
- South–Southeast Development Regional Program

The publication of these programs has contributed to the establishment of a critical route towards the consolidation of national urban development, and has brought to light the flaws of the existing legal framework, for example, by establishing the need to sign a series of agreements and treaties to

facilitate urban management; these instruments, due to their lack of binding effect, reveal the need of an in-depth regulatory arrangement.

Additionally, it is necessary to underline that the 2013-2018 National Development Plan recognizes the importance of providing an adequate environment for the development of a dignified life in its goal “II. Inclusive Mexico”, meaning, that this document urges to focus the government’s action in ensuring access to basic services, drinking water, sewage, electricity, social security, education, alimentation and adequate housing, as the base that will allow the integral development of all individuals. These factors are essential for the development of safe urban environments with the infrastructure and services demanded by city dwellers.

#### IV.2. Decentralization and strengthening of local authorities

As mentioned before, the CPEUM empowers municipalities to manage urban development. This arrangement recognizes municipal governments as the government level that is closest to the society, the territory and, supposedly, is most aware of the needs and physical resources related to urban development. However, Mexico has around 2,500 municipalities with different degree of administrative and technical capacities; therefore, their experience in urban planning is diverse.

There are important gaps regarding the capabilities and resources between the more than 2,500 municipalities in Mexico; while some have educational levels that compare to those in Europe, others have the levels of the poorest countries in the world –which can even be seen in neighboring municipalities within the same metropolitan area.

This adds to the administrative design municipalities are tied to, which propitiates a high rotation of local authorities: the municipal government term is of three years (four in some states, like Veracruz, Coahuila, Hidalgo and Nayarit). Until December 2013, municipal presidents did not have the possibility of reelection. This institutional design created a “short-term” vision on municipal urban development, with few incentives for the needed leadership development and to promote coordination with other government levels (state and federal) or with other municipalities. Likewise, these limited terms make authorities prioritize actions and works that may have a tangible effect during their term, hence a personal political benefit. This has hindered local authorities to carry out projects that, given their complexity and/or natural implementation time, could transcend the municipal term, such as the update of municipal urban development programs (that could only show results to the medium or long term), the establishment of more efficient methods to update and/or collect the property tax (which demands a modernization of municipal land registry), and the investment on public

transportation systems (with a higher performance horizon than the construction of road infrastructure destined to automobiles, for example).

On the other hand, the metropolitan growth phenomenon has evidenced the need to have efficient coordination mechanisms between municipalities and even at a state level. There is currently no legal prevision for a government structure of this reach in Mexico, consequently, the cooperation mechanism that has been developed mostly obeys political will agreements and is limited to the implementation of a set of actions or programs with limited scope. This metropolitan fragmentation is reflected in the fact, that some cities are not administrated as an economic, social and cultural unit, but in an individual and heterogenic manner. Metropolitan areas should be recognized at the constitutional level as territorial spaces that require specific planning instruments and governance mechanisms for their performance and viability at a medium and long term of aspects like adequate land management, transit, safety and the environment.

Concerning metropolitan and regional funding, these have had a limited use. They should be bolstered to continue with coordination incentives. Likewise, these funds should be articulated with planning instruments and have revision mechanisms that guarantee that resources are allocated to projects oriented towards the improvement of urban development and housing, not only to the construction of infrastructure for automobiles.

Regarding specifically urban development, recognizing the powers and tasks established by the CPEUM, the Federal Government has developed a strategy to align the actions of states and municipalities in urban planning to the objectives of the national policy on urban, regional and housing development, captured in the different planning instruments mentioned in the previous section. To formalize this strategy, the Agreements of Action Coordination Framework in Urban Development and Housing have been signed with 170 municipalities (including the 90 more important cities in the country), and with 31 entities in the country.

These Agreements are important instruments; however, it is necessary to ensure permanent communication and coordination between the different levels of government to reinforce capabilities and ensure a long-term vision. To do so, there are mechanisms and formal institutions such as the National Governor's Conference (CONAGO for its acronym in spanish), the National Institute for Federalism and Municipal Development (INAFED for its acronym in spanish) and the National Conference of Mexican Municipalities (CONAMM for its acronym in spanish).

CONAGO is a dialogue forum between the governors of the 32 federation entities, which operates through different commissions, including the Urban Development Commission.

INAFED is a coordination space between the different government levels, coordinated by the Interior Ministry (SEGOB).

CONAMM is a national dialogue forum between mayors and local authorities, where challenges and opportunities for municipalities are discussed.

These institutions have raised expectations among local authorities, although their results have not necessarily had practical effects towards the channeling of resources and urban planning, but their proper leverage could lead to the strengthening of local authorities in urban development and housing matters, as well as inducing a better coordination with the Federal Government.

#### IV.3. Improving participation and human rights in urban development

In Mexico, human rights are recognized and guaranteed in Chapter 1 of the CPEUM (“Human Rights and Their Guarantees”). Among the social rights that have been recently included we can find access to housing, safe water and sanitation, to basic services, to live in a safe and healthy environment, to safety (including legal safety, which provides for land tenure).

From these rights established in the CPEUM, the Mexican government has worked in different aspects to promote and provide access to these social comforts; however, regarding national urban development, these catalogue of human rights could result insufficient, given the international progress in legislation to grant citizens from different countries access to the benefits that result from proper urban development.

In other countries, the universal access to the “urbanization benefits” has conceptualized itself as the “Right to the City”, view that recognizes that cities, by concentrating economic, educational, social and cultural opportunities, should be instrumental for its inhabitants to improve their wealth conditions, and to be agents of their own development.

Based on the documents that build up this concept, the relevance of incorporating the Right to the City at a constitutional level has been discussed in Mexico. It is a human right of collective, social and wide nature which enables the right enjoyment of cities by its citizens, as well as the



corresponding obligation of governments to provide the necessary conditions for the compliance with this right.

The Right to the City is defined as the equitable usufruct of cities under the principles of sustainability, democracy, equality and social justice. It is a collective right of cities' inhabitants, especially of vulnerable and disadvantaged groups, which grants them action and organization legitimacy, based on habits and customs, with the purpose of accomplishing the full realization of the right to free self-determination and a proper level of life. The Right to the City is interdependent of all recognized international human rights –which have been conceived comprehensively–, therefore, it includes all civil, political, economic, social, cultural and environmental rights that are already regulated within international human rights' treaties<sup>61</sup>.

By incorporating this right into the catalogue of constitutional guarantees, Mexico would be recognizing the need to promote inclusive and supportive cities that are also socially productive and corresponsive, politically participative, environmentally sustainable and which enable its democratic and equitable enjoyment<sup>62</sup>.

The Right to the City, once recognized by the CPEUM, would be constituted as the criterion that will guide decisions on urban planning and housing to ensure the harmonious exercise of the rest of the human rights embedded in the CPEUM. This way, access to the city must be a way for Mexicans to accomplish the full enjoyment of all their rights: proper housing, suitable environment, universal access to the city's services, quality public spaces, life and patrimony security, among others.

The recognition of the Right to the City would boost the development of cohesive, democratic and plural cities, as well as the development of mechanisms that guarantee the full enjoyment of citizenship, the co-responsible participation of society in public decisions and in the construction of the city, the information dissemination and knowledge of political rights and the accountability by its governors.

Citizen participation in urban planning and territorial regulation tasks is a field that shows clear inequality among different regions in the country. The new institutional structures created since the second half of the 1990's

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<sup>61</sup> "World City Rights Letter" Chapter 1, numeral 2.

<sup>62</sup> Fundamental Rights, World City Rights Letter.

—such as the Municipal Planning Institutes (IMPLANES for its acronym in spanish), and more recently the Local Urban Observatories (OUL for its acronym in spanish)— continue showing great weakness to guarantee the presence and opinion of the population.

From the Federal Government and from the local scope, different initiatives have been fostered to strengthen IMPLANES and OUL as technical bodies that guide urban development in each city, municipality and state; to involve urban and rural spheres; and that guarantee the co-responsible participation of society in the definition of city project and of the tools to turn said projects into a reality.

These initiatives seek that both instances play a key role in the citizen participation in urban development. On the one hand, IMPLANES should become the body that guarantees the project completion for urban development on the medium and long term, while OULs should be the institutions in charge of monitoring the proper implementation of the projects.

Beyond the strategies to strengthen IMPLANES and OUL, the Mexican law and the planning system for urban development have failed to encourage or provide enough citizen participation in decision making for urban development and territorial regulation. The venues to do so (commissions, committees, boards, among others) do not usually recognize the co-responsible participation possibilities of the society with the government to make decisions that affect community living, especially in cities and metropolis. The democratic planning system is limited to the promotion of public consultation when creating and modifying plans and programs without the existence of due guarantees to take into consideration citizen observation and proposals, and they also lack the possibility of actual representation in the bodies that decide on plans, projects and actions for the development of cities<sup>63</sup>.

Urban development plans and programs present limitations regarding the implementation, tracking and assessment processes and mechanisms, creating loopholes for the society and the government itself to know the accomplished breakthroughs with certainty. In general, these are rigid documents; hence they are exceeded by the social reality, losing effect.

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<sup>63</sup> Iracheta, Alfonso (2012). “México. Hacia la reforma urbana. CIGAPP: III Congreso Internacional de gobierno, administración y políticas públicas, Más allá de la crisis: Nuevos desafíos, nuevas capacidades”. Madrid, Spain, September 27-28, 2012, p. 12-13.



Their validity has been replaced gradually by a process of decisions conditioned by political and financial conjuncture factors. One of the most serious impacts of this is the lack of social trust on the validity and relevance of plans and programs to carry out economic, social, territorial and environmental processes, because there is, in general, limited knowledge on behalf of those in charge of creating and implementing them, as well as a general social unawareness on the content of these tools and its significance to social life. Finally, discretionary application of these instruments has decreased their effectiveness.

#### IV.4. Urban safety

Cities host almost 70% of the national population living in poverty<sup>64</sup>. Despite of being potential spaces of social mobility, cities still present great inequality. The prevailing urban model generates spatial segregation based on the socio-economic situation of the population, excluding the low-income population from the productive dynamics and the development opportunities in the cities.

The insecurity and violence conditions that affect an important number of cities in the country have escalated due to the prevailing urban model, which creates high-risk condition like family fragmentation and the weakening of social fabric. In Mexico, there prevails a deficit in public spaces in cities; to promote community inclusion. The proliferation of blind walls, and the remoteness of some housing developments are conducive for delinquency outbreaks, this by increasing the number of lonely streets and hindering access to security agencies. The low-density urban model hampers the land preservation destined to this purpose, and favors its use for private housing purposes. This is why nowadays settlements with more density, medium height and comprehensive neighborhood development are preferred.

Most public spaces have been damaged, which impedes communities to fully enjoy and seize them. In 2014, more than 60% of the population

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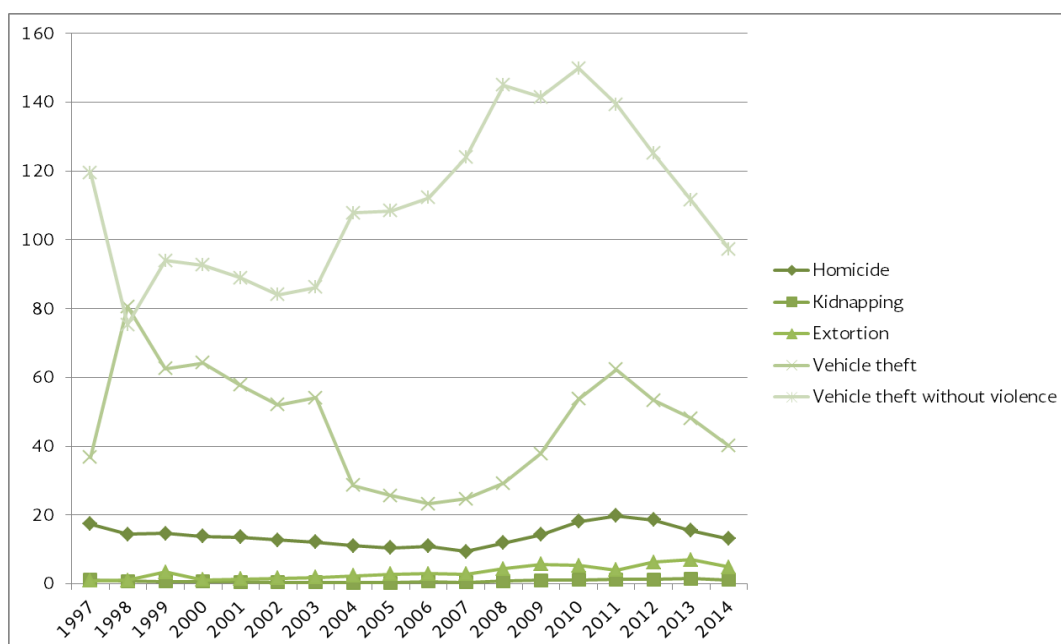
<sup>64</sup> CONEVAL, 2014. "Pobreza urbana y de las zonas metropolitanas en México". Available on [http://www.coneval.gob.mx/Informes/Pobreza/Pobreza%20urbana/Pobreza\\_urbana\\_y\\_de\\_las\\_zonas\\_metropolitanas\\_en\\_Mexico.pdf](http://www.coneval.gob.mx/Informes/Pobreza/Pobreza%20urbana/Pobreza_urbana_y_de_las_zonas_metropolitanas_en_Mexico.pdf)

declared to have witnessed criminal or antisocial behaviors such as vandalism, alcohol intake on streets and robbery nearby their homes<sup>65</sup>.

In Mexico, cities have grown exponentially, in both population and geographic extension. This territorial spread has created different challenges related to the inhabitants' safety, such as emergency management, crime prevention strategies and natural disaster mitigation. Urban security plays a key role in the quality of life of inhabitants, the competitiveness of cities and the talent attraction.

In the last years, Mexico has gone through violence problems that have affected various cities in the country, in some cases as a result of criminal organizations' activities related to drug traffic. Every government level has expressed its determination to address the problem. Due to this fact, the Mexican Government has promoted the joint operation of the three levels of government (municipal, state and federal) to ensure safe cities. In this, the work of the municipal authorities, as the level of government closest to the population, has been fundamental.

**Graph 3. Felonies for every 100,000 inhabitants, 1997-2014**



Source: Own elaboration based on the data of the Executive Secretariat of the National Public Security accessed on March 20<sup>th</sup> 2015. <http://secretariadoejecutivo.gob.mx/docs/pdfs/tasas%20por%20cada%20100%20mil%20habitantes/Tasas022015.pdf>

<sup>65</sup> INEGI. Encuesta Nacional de Seguridad Pública Urbana, press release no. 4/15; January 8, 2015; Aguascalientes, Ags. Numbers from 2014.

According to the data provided by the Executive Secretariat of the National Public Security System, in Mexico vehicular theft is one of the more denounced crimes and has a negative impact on citizen perception of public safety on roads. (Graph 3)

The urban development policy has also contributed to the resolution of violence through inter-institutional actions, like the Public Space Rescue Program. An emblematic case study is the urban recovery strategy for Ciudad Juarez, Chihuahua, a city that had been characterized by its high crime rates since the end of the 1990's decade. The federal government's strategy was called "We Are All Juarez, Let us Rebuild the city" which included the three levels of government and most of the federal ministries with an integral and transversal approach that had positive results.

The lessons learnt from these programs, and recognizing that the recovery of public space and socio-urban interventions are efficient measures to prevent violence and crime, contributed to the design of the Violence and Crime Social Prevention National Program 2014-2018 (PNPSVD For its acronym in Spanish) published in the Federation Official Journal on April 30, 2014. The PNPSVD privileges a situational prevention approach of social risk; it is committed with the reconstruction and strengthening of social fabric, and focuses part of the investment on urban improvements to create harmonic spaces and to promote values such as respect, tolerance and empathy among inhabitants of a same community.

The PNPSDV in its third objective –To generate environments that favor coexistence and citizen safety– defines the implementation of actions to design, intervene, recover, enable and build public spaces from situational prevention. This implies modifying the urban setting through the environmental design and involving the residents' participation, taking into consideration their needs and interests, mainly of the priority attention group, in order to foster the common use of public space<sup>66</sup>. Similar practices have paid off in other cities of the region, worthy to mention the case of Bogota and Medellin in Colombia.

#### IV.5. Improving social inclusion and equity

The urbanization process that has characterized Mexico in the last decades has shaped an expansive housing and land market, disjointed from the

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<sup>66</sup> Specific Goal 3 of the PNPSVD.

existing urban structure and which results dysfunctional for the low-income population. The increase in land prices has pushed the lowest-income population towards the periphery, which causes the proliferation of precarious and irregular settlements, and housing developments far from urban centers, with only housing and no equipment or city related services. This problem has sharpened given the scale of poverty in the cities. In 2012, 40.6% of the urban population lived in poverty conditions, while this percentage reached 61.6% in rural areas; in other words, in 2012 cities sheltered almost 70% of the national population in poverty<sup>67</sup>.

**Chart 4. Percentage of people in poverty by settlement size**

	Rural		Urban	
	0 - 2,499 in inhabitants	2,500 - 14,999 inhabitants	15,000 - 99,999 inhabitants	100,000 o más inhabitants
Population in poverty	61.6	62.9	49.4	30.9
Vulnerable population due to social deprivations	31.9	21.0	24.3	30.9
Vulnerable population due to income	1.3	6.0	7.7	8.1
Poor population not vulnerable	5.3	10.7	18.2	30.4

Source:: CONEVAL, Pobreza urbana y de las zonas metropolitanas en México.2012 with data from MCS-ENIGH 2012.

The National Council for Evaluation of Social Development Policy (CONEVAL For its acronym in spanish) includes social deficiencies in the poverty measurement; these deficiencies are related to the size of locations. As seen in the following graph, locations with over 100,000 inhabitants have

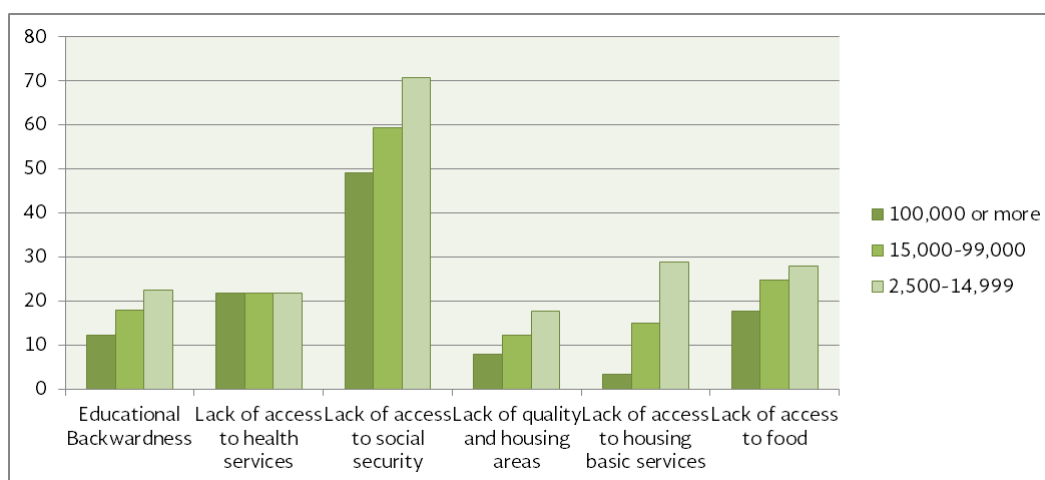
<sup>67</sup> CONEVAL, 2014. "Pobreza urbana y de las zonas metropolitanas en México", available on [http://www.coneval.gob.mx/Informes/Pobreza/Pobreza%20Urbana/Pobreza\\_urbana\\_y\\_de\\_las\\_zonas\\_metropolitanas\\_en\\_Mexico.pdf](http://www.coneval.gob.mx/Informes/Pobreza/Pobreza%20Urbana/Pobreza_urbana_y_de_las_zonas_metropolitanas_en_Mexico.pdf)

substantially lower educational lagging, social security, housing quality, basic services and access to food deficiencies.

In order to enhance the conditions of houses on the periphery of cities, and decrease urban poverty, insecurity and inequality; It is essential to have better coordinated urban development and social development policies, with the goal to promote an integral approach to poverty in large cities.

The only case where the percentage of social deficiencies is similar by type of location is in access to health services, where great efforts have been made at a national level to incorporate people to a Public Health Insurance named *Seguro Popular*, which provides access to healthcare services to those without coverage.

**Graph 4. Percentage of the population per deprivation type in 2012**



Source: CONEVAL. Pobreza urbana y de las zonas metropolitanas en México, 2014 with data of the MCS-ENIGH 2012.

Likewise, the biggest deficiency for every city is the access to social security, which includes a pension system of IMSS and ISSSTE, but also access to mortgage credit from INFONAVIT and FOVISSSTE. The graph shows as well, that the cities with less inhabitants exhibit a greater percentage of with adequate housing deficiencies and with deficiencies on access to basic services. Even if deficiencies in the quality of housing and basic services are minor, they are highly correlated to employment and access to funding for housing solutions. This access to basic services is directly related to the Objectives of the Millennium 7, “Guarantee the environmental sustainability”; which must be accomplished by Mexico as holder of the Objectives of the Millennium.

The population in poverty and social vulnerability conditions, along with the population with physical, mental, intellectual, sensorial, and multiple disabilities, are the most isolated social groups from urban benefits. On the

one hand, the lack of economic resources causes a rationalization in the use of transportation in favor of productive activities inside the households, hampering mobility and incorporation of some household members into the benefits that the city offers. On the other hand, cheaper households are located in the outskirts of the cities, where there is not enough urban equipment such as parks, recreational and cultural spaces, supply centers, schools, training facilities, health centers, among others. This is why it is important to reinforce urban equipment in these areas, offering accessible streets for all and insuring urban mobility for these inhabitants. The previous, in order to grant access for all to the tools to satisfy their needs and improve their life conditions in the city.

This data shows the relevance of recovering cities for everyone, reducing the implicit inequality that these deficiencies cause, creating the conditions for people to practice their rights freely and without the physical restrictions imposed by the lack of services and/or conditions to move within the city or to live in proper locations.

In Mexico, urban and housing policy has focused its efforts in providing services and building urban equipment in the poorest areas of the cities. The Habitat Program that started in 2003, and is still current, has transformed the urban poverty concentration polygons. However, little has been done from the preventive point of view and to incorporate these areas into the rest of the city. Likewise, the inclusion of vulnerable groups (people with disabilities, the elder, women, etc.) in the benefits of the cities remains without a holistic approach.

#### IV.6. Challenges experienced and lessons learnt

The experience in Mexico during the last years shows that national governments must play an important role in regards to urban development, even in federal government systems. This is especially true when municipal governments face structural weaknesses and an incentives system that does not align to the objectives of sustainable development.

The lack of a national vision on the city model and the way the population has to access constitutional rights has brought negative consequences to the quality of life and urban viability. Another lesson is that the dispersion of laws and regulations relative to the city does not allow these to develop in harmony. For example, if the legislation in housing is not consistent and complementary with the legislation in charge of land, transportation or natural resources management, public institutions could be fostering

housing without access to water, sewage or electricity: the exercise of the right to housing could damage other fundamental rights.

The creation of SEDATU implies a novelty system for the institutional treatment of urban development in Mexico. However, there are different countries, including some in Latin America, that not only have institutions in charge of urban development, but also have a modern, cutting-edge legal system that supports this institutional construct.

Nowadays, the coordination programs and strategies established to promote an urban development suitable to the reality that Mexico is facing, are still conditioned to the political will of decision-makers in term and to their temporality. However, access to federal funding for the construction of urban infrastructure and equipment is not subject to the compliance with the normativity that matches the goals of the national policy outlined in the current Urban Development National Program.

SEDATU can transform the way sectorial policies are planned and implemented in Mexico; however, the regulating aspect of this authority must be strengthened through the empowerment to issue opinions on investment projects to ensure that cities and regions can assimilate the impact, as well as capabilities to provide technical assistance to federal entities and municipalities that require so.

#### IV.7. Future challenges

It is necessary to move forward comprehensively within the regulation framework that rules the urban development in Mexico, and to take advantage from the impulse and leadership that the Federal Government has granted the topic through the creation of a Ministry in charge of the issue.

Regarding legislation, there have been different initiatives in the Congress of the Union. The need to reform the constitutional and legal framework and the design in governance for urban development has been a transcendental topic that has been discussed since previous legislature terms. In recent years, at least ten initiatives in this topic have been presented by senators and representatives from different parties, substantively concurring in their vision on urban development and territorial regulation. These efforts have been translated into the development of inter-parliamentary tables to discuss and agree on substantial topics on this reform, and they have generated agreements in regards to the need of a new law with modern and optimal guidelines that match the current reality in urban development. Even if these discussions have not generated the approval of a reform, the



existence of voices in favor of an urban reform has built the path towards its consensus and enactment.

Even recognizing the value and relevance of the presented initiatives, it is considered that from the creation of SEDATU in 2013, these initiatives need to be analyzed, suitable and framed within a more ambitious institutional innovation process. The existence of a federal instance with the characteristics of SEDATU is an opportunity to implement a more ambitious reform. The attributions framework of the SEDATU, although perfectible, presents a more comprehensive vision of what it is pretended to accomplish in regulatory innovations.

For instance, given the topics addressed by SEDATU it is possible to design a sole instrument that to order and regulate the different subjects of urban development, such as housing, urban mobility, land utilization, infrastructure, public services and settlement planning, among others. This regulation instrument will enable the creation of efficient and coordinated planning tools that recognize different phenomena not currently regulated, such as equitable distribution of competences, the recognition of the metropolitan phenomenon and the necessary concurrence of the three government levels in the development and implementation of policies, always respecting the sovereignty of federal entities and the autonomy of municipalities.

The posed reform pursues to incorporate the concept of Right to the City to the Mexican legislation, with the purpose of raising a collective right for the population, especially for vulnerable groups, to offer minimal life conditions inside the cities as well as accessibility.

The inclusion of the Right to the City in the Mexican legal framework could translate into a radical step towards co-responsibility between citizens and government for urban development. The recognition of this right could facilitate the construction of the social fabric by promoting citizen participation and providing a sense of social cohesion and collective construction. In this sense, it is fundamental to consider the inclusion of groups in vulnerable situations in urban policies; these groups are the people in poverty situation, with social deficiencies, with some disability and vulnerable groups in general. It is important to avoid that this people live in space segregation conditions in the cities, and to ensure that they can benefit from the offerings of the city. The city belongs to everyone; hence, governments must guarantee the universal access of the population to the opportunities of social and economic development it creates.

Objectively, the Urban Reform pursues the following objectives:



- Establish the Right to the City as core criteria for urban development.
- Guarantee the effect of urban development programs, as well as the sanction mechanisms for those who do not comply with them or who promote their breach.
- Standardize the methodologies for drafting and publication of urban development plans under the principles of maximum publicity in order to simplify its interpretation and favor its enforcement.
- Regional planning of development must promote a harmonic integration between the urban and rural spheres, promoting the preservation of land with agricultural, forestry and conservation vocation, among others, creating productive options for the population.
- The investment decisions and great infrastructure projects must be carried out with a territorial approach, contributing effectively to the consolidation of competitive and sustainable cities systems.
- It is necessary to recognize, at a constitutional level, the metropolitan areas as a territorial space that require planning tools and governance mechanisms particularly suited for its performance and viability to the medium and long term.
- The regulations for the new housing edification should be congruent with a comprehensive policy to build equitable, fair, sustainable and productive cities, so that housing becomes an instrument of prosperity and human development.
- Create land management tools that promote the development of strategic venues for the city, the surplus values capture and the availability of affordable housing land, disabling the property speculation.
- To promote the sustainable urban mobility policies, as well as financing outlines that make them feasible.
- To generate the mechanisms that guarantee the full exercise of citizenship, the co-responsible participation of the society in public decisions and in the construction of the city, the knowledge and dissemination of public rights and the accountability from its rulers.
- To establish a surveillance-sanctions plan for those who breach or promote the breach of urban regulations, especially for those who

facilitate the development of new settlements in non-developable areas or those in risk.

Finally, the success of any reform will depend on the participation of state and municipal governments in their design and, of course, in their implementation. The institutional strengthening in the context of the new political dynamics that will benefit from the municipal reelection is essential to establish a governance model to face the challenges of the city.



V

# URBAN ECONOMY



## V. Urban Economy

### V.1. Improving local finance

Tax collection from states and municipalities is highly unequal, consequently so is their contribution to fund public spending. According to the Collection Efficiency Index –which compares the total collection amount of each state with State GDP and shows the proportion of each state in relation to the total GDP, the states with the highest collection efficiency are: the Federal District, with a value of 159.2; Tamaulipas with 87.9; Colima with 82.3; and Nuevo Leon with 46. It is important to mention that the states with the lowest collection capabilities are the ones with the highest poverty indexes: Oaxaca with 8, Guerrero with 7.8, Durango with 6.6, and Chiapas with 6.2<sup>68</sup>. Likewise, Hilario Barcelata analyzes the relation between the preponderant sectors of the local economy and the collection capacity of the government. He points out that those entities with the highest presence of financial (or other) services have a more efficient collection. In this sense, local policies and incentives should be strengthened to diversify their activities and economic sectors.

In regards to municipalities, the property tax represents over two thirds of their own revenue<sup>69</sup>. However, the low collection of this tax, along with others related to the real estate market, added to a centralized fiscal arrangement, is the main cause of scarcity of local resources to finance their own urban development projects.

A model that consolidates better international practices and experience gained from the pilot plan of the Property Public Registry was incorporated

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<sup>68</sup> Barcelata, H. (2010) “Las finanzas públicas estatales y municipales de México”.

<sup>69</sup>IMCO (2012). “Índice de Información Presupuestal Municipal 2012”. [http://imco.org.mx/wp-content/uploads/2012/12/iipm\\_2012\\_final.pdf](http://imco.org.mx/wp-content/uploads/2012/12/iipm_2012_final.pdf)

in 2005. Nine parts set up this comprehensive model: legal framework, registry processes, information technology, quality management, registry professionalization, institutional policies, electronic documentation management and repertory, liaison with other sectors, and performance indicators.

It is important to point out the relevance of the connection between the databases of the Public Property Registries and the Land Registries. There have been efforts to create a legal, operational, technological, standardized and homologated platform for the Property Registries in the country, which links and enables exchange or access to information with the public property records and the National Agrarian Registry, as well as with other federal, state and municipal institutions. This instrument is considered essential to improve municipal collection. Even after significant breakthroughs, it is still important to implement it nationwide.

Therefore, one of the challenges of national urban and housing development policies is to create, hand-to-hand with local governments, a regulatory and tax plan suitable for the real estate sector. Legal regulation of land, as well as tax instruments, should become complementary elements in the control of land use and housing location (especially those destined to the lowest-income population), resulting in the ordered growth of cities.

On the other hand, the National Institute for Federalism (INAFED Spanish acronym), through the Municipal Development Agenda, fosters the improvement of municipal public services in areas such as municipal territory planning and city administration through the self-diagnosis of performance and administration indicators. These indicators include the evaluation of human resources trained for urban planning and ecological regulation, which must comply with a professionalization level in the matters comprised by urban development.

## V.2. Access to housing finance

Funding for housing is divided according to the people's ability to pay, which is directly related to their income level, job formality and affiliation to social security institutions. In Mexico, the financing sources have been divided according to the level of income and affiliation, as seen in Chart 5.

**Chart 5. Financial sources depending on the housing solution, kind of employment and income**

FINANCIAL SOURCE	HOUSING SOLUTION	KIND OF EMPLOYMENT	INCOME
Bank credit	Mainly complete houses	Formal	High and middle
INFONAVIT or FOVISSSTE credit	Mainly complete houses	Formal with affiliation	High, middle and low
SHF credit (Sofoles, Sofomes and credit unions )	Mainly complete houses	Formal without affiliation	Middle and low
CONAVI subsidy	Complete houses, improvement and extensions	Formal with and without affiliation	Low
FONHAPO	Mainly complete houses and extensions	Informal	Low and very low
SEDESOL	Improvements	Informal	Low and very low

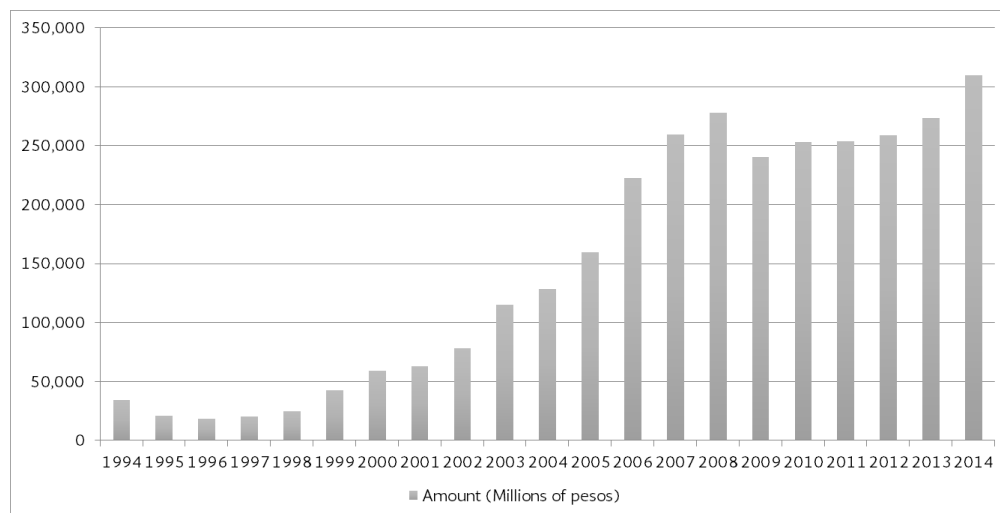
The access to mortgage credits is basically determined by job formality, which allows proving income, and by affiliation to social security institutions. Even if CONAVI's subsidy is exclusive for low-income population, it is linked to a credit, therefore, it is conditioned by the access to the financial system, through INFONAVIT or FOVISSSTE or through other credit and micro-credit institutions. Meanwhile, FONHAPO and SEDESOL only grant subsidies to the population in poverty, reaching directly the lowest-income population, without access to credit, financing the cheapest housing solutions.

Funding for housing production can be of different kinds; the most used one is the bridging loan (short-term instruments with high yield), granted by banks, Sofoles and Sofomes. Additionally, another funding form of money offertory is through the participation in the stock market, a mechanism currently used by only three companies.

Over the years, the housing funding policy has adapted to the demographic pressures, as well as to the economic swinging. For this, it has been necessary to foster measures that address different historic moments, until achieving the financial consolidation of INFONAVIT last decade.

The evolution of housing funding has increased in the last decade; since 2002 there was a sustained increase, reaching its peak in 2008.

**Graph 5. Financing for housing 1994-2014**



Source: Made with information of the National System of Indicators and Information in Housing.

1/ Includes total credits, financing and subsidies granted by public and private institutions.

The institution that grants the highest amount of mortgage credit in the country is INFONAVIT. In the last years its participation has increased from 58% to 71%<sup>70</sup>, which highlights the importance of affiliation to social security institutions to obtain a mortgage credit. This attracts attention in an environment where the labor market is increasingly volatile, meaning, there are more people working in the informal market and the length of formal jobs is also lower.

In the last years, the housing policy has focused on facilitating the acquisition of new housing through mortgage credits. On the one hand, there has been an attempt to reduce the housing deficit of houses in need of replacement; on the other hand, efforts have been made to address the demand for new households, caused by the population growth. From the Housing and Population Census 2000 and 2010 we can see a strong

<sup>70</sup> Own creation with data from the National Occupation and Employment Survey, second quarter 2014



decrease in the need of housing replacements. However, there are still important deficiencies regarding livable spaces in houses (overcrowding) as well as material quality, which could be object to extensions and improvements.

Since 2008 there has been a change in the funding dynamics for housing, since more credits for extensions and improvements are granted, compared to those granted for complete houses. The percentage of funding destined to extension and improvement went from 26% to 52%, while the percentage for full household went from 68% to 46%<sup>71</sup>. This concurs with the beginning of a program focused on the construction of sound floors and sanitary facilities.

Although this change has been meaningful for the reorientation of housing funding, much remains to be done. For example, it is necessary that financial institutions increase credits for housing extensions and improvements, a necessity that will gain relevance in years to come. Likewise, the low funding granted to housing self-production is perceptible; this in contrast with the fact that according to data from the National Survey on Household Income-Expense 2010, 65% of households in urban locations have been built this way.

In February 2015, INEGI published the Satellite Housing Account<sup>72</sup>, which estimates the impact of the sector in the national economy. According to this report, in 2012 the sector represented 5.9% of the GDP, contribution comprised not only by formal housing construction (which contributed with 1.3% of the GDP) but also by self-production and self-construction (2.5%), housing for rent (1.6%) and by other services (financial, real estate, supervision, etc.). The same document estimates that there are around 3 million jobs related to housing (7.3% of the national total), 94.9% of which correspond to the construction sector.

These results confirm what was empirically known: housing is a strategic activity for economic development and job creation in the country. By being related to 78 different economic activities, there are financial and

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<sup>71</sup> Housing Indicators and Information National System, “*Estadísticas Históricas de Vivienda*”, <http://www.conavi.gob.mx/introduccion> (Consulted on March 20, 2015)

<sup>72</sup> INEGI, “*Aporte de la Vivienda al PIB y al Empleo en México. Cuenta Satélite de Vivienda*”, Press Release 041/15. Aguascalientes, Ags., <http://www.inegi.org.mx/inegi/contenidos/espanol/prensa/Boletines/Boletin/Comunicados/Especiales/2015/febrero/comunica3.pdf> (Consulted on March 23, 2015)

macro-economic incentives to ensure the vitality of this sector through diverse public policies.

However, these policies must identify the optimal levels of supply and demand in the market to avoid creating a bubble or distortion prices through poorly targeted subsidies, as has happened in other economies.

### V.3 Supporting local economic development

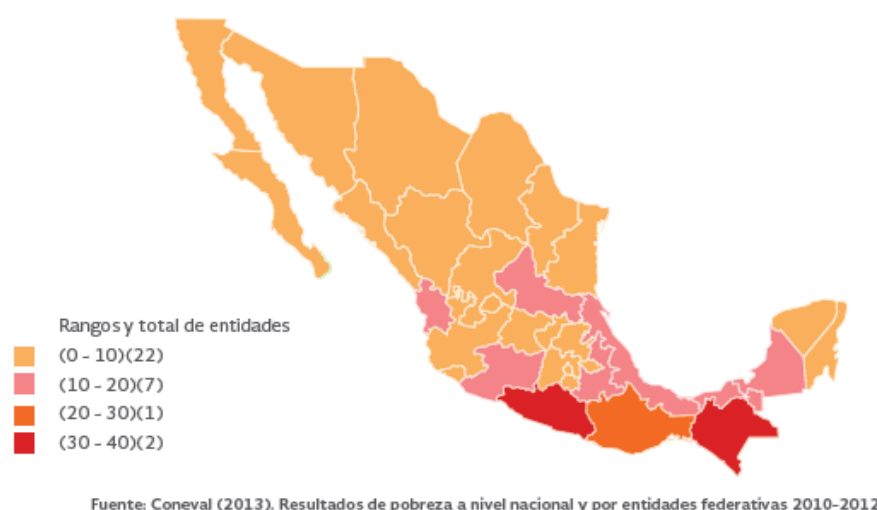
Despite the great potential for development associated to the physical-territorial and cultural diversity of our country, it is undeniable that nowadays there are still serious restrictions against its utilization. By going through the main indicators of economic development and productivity, we can immediately notice significant gaps of inequality in the economic development of different regions of the country, which can also be seen when analyzing the cities.

According to the official poverty measurement, in charge of the National Council for the Evaluation of the Social Development Policy (CONEVAL Spanish acronym), the phenomenon of extreme poverty affects mostly the states located in the southern part of the country, particularly Chiapas (32.2%), Guerrero (31.7%) and Oaxaca (23.3%). The lowest incidence appears in the federal entities of Nuevo Leon (2.4%), the Federal District (2.5%) and Baja California (2.7%).<sup>73</sup>

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<sup>73</sup> According to the methodology of CONEVAL, a person lives in extreme poverty when lacking 3 or more elements of these six: health, social security, education, housing, access to basic services and income.

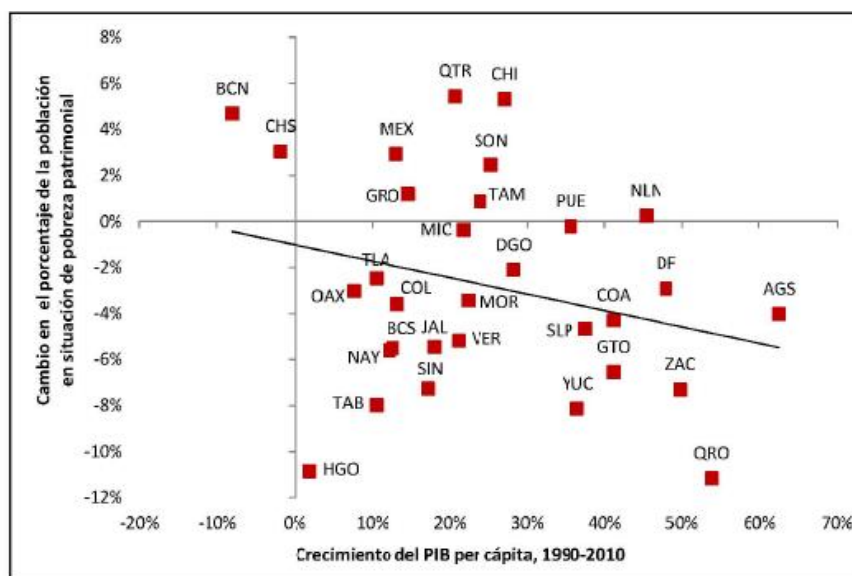
**Image 1. Percentage of the population in extreme poverty by federal entity, 2012**



The lack of dynamism observed in the economy as a whole affects all the country; however, by focusing the analysis in regional terms, some regions have had a clearly inferior development and have fell behind. This way, between 1990 and 2010, the GDP per capita of the Southern states (Campeche, Chiapas, Guerrero, Oaxaca, Puebla, Quintana Roo, Tabasco, Veracruz and Yucatan) grew only 6.8%, way below the national average of 20.9%.<sup>74</sup>

<sup>74</sup> "Programa para Democratizar la Productividad 2013-2018", Federation Official Journal, August 30, 2013 p. 95.

**Image 2. Relation between GDP growth and changes in poverty levels. 1990-2010**



Source: SHCP with data from INEGI and CONEVAL. Taken from the National Program to Democratize Productivity [http://www.dof.gob.mx/nota\\_detalle.php?codigo=5312422&fecha=30/08/2013](http://www.dof.gob.mx/nota_detalle.php?codigo=5312422&fecha=30/08/2013)

The inequality and competitiveness gaps can also be seen among the different cities that constitute the National Urban System; even when cities have the capabilities to be the engines of national development –the 130 localities with over 100,000 inhabitants generate 87% of the National Gross Value Added<sup>75</sup>– there are important inequalities after an in-depth analysis. In both cases, the lack of a territorial approach that boosts the present characteristics of each region or city is identified as one of the determining factors of the results of economic development policies applied so far.

In the case of regions, it is important to point out that their drive of economic development was based, for decades, on a sectorial approach that emphasized the role of the political-administrative limits, leaving aside the relevance of different dynamics (economic, social, environmental) that characterize regions and that constitute one of the most important elements in the assessment of economic vocation of each one of them.

<sup>75</sup> INEGI, Economic Census, 2014.

This ensued promotion strategies and economic fostering that did not recognize the particularity of the issues and characteristics of each region, generating unequal results among the different regions of the country.

In regard to the economic development of cities, until the creation of SEDATU there was no government entity that prompted common guidelines at a national level for urban planning, even despite the fact that at an international level the idea of cities generating agglomeration economies that boost productivity is recognized<sup>76</sup>.

The National Infrastructure Program (PNI 2014-2018) considers there is a strong interrelation between infrastructure and territorial development, which may contribute to the solution of problems that restrict the development of cities and regions<sup>77</sup>.

The proper provision of infrastructure plays a key role in the access to strategic input, fosters competitiveness and connects human capital with the opportunities that the economy generates; therefore, the PNI anticipates the support to the infrastructure development with a long-term vision, based on three guiding principles: i) balanced regional development, ii) urban development and iii) logistic connectivity. The PNI recognizes the lag between the different regions in terms of infrastructure, and establishes specific strategies to address them, taking as a starting point the relevance of infrastructure (particularly in transportation) and its relation to the productive vocation of each region.

This way, the Regional Development programs supplement this vision by promoting a new functional reading of territory in an attempt to articulate the dynamics of the cities and their immediate rural surroundings, in order to guarantee the proper planning of policies for their economic, environmental and social development.

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<sup>76</sup> The information on this topic highlights the generation of profits on productivity as derives from the concentration of activities, goods and services in the cities; for example, companies have access to a higher amount of clients and suppliers, financial services, better qualified personnel, and they can obtain a higher specialization degree. Workers have higher options to benefit from the specific skills they have; creators and innovators are also exposed to a wider cluster of ideas.

<sup>77</sup> According to the PNI, the increase in the endowment of a certain kind of infrastructure could solve bottlenecks in other aspects of the territory. For example, an extension to the transportation system (roads) could solve energy supply problems (electric lines or pipelines), key elements for the development of a region. There is also an interregional and interurban approach: more Mexicans live in urban spaces, many of which form metropolitan areas that cover more than one federation entity, where local reach is insufficient to offer a proper solution for the scale economies that these spaces generate, and to the need to have a competitive urban system.

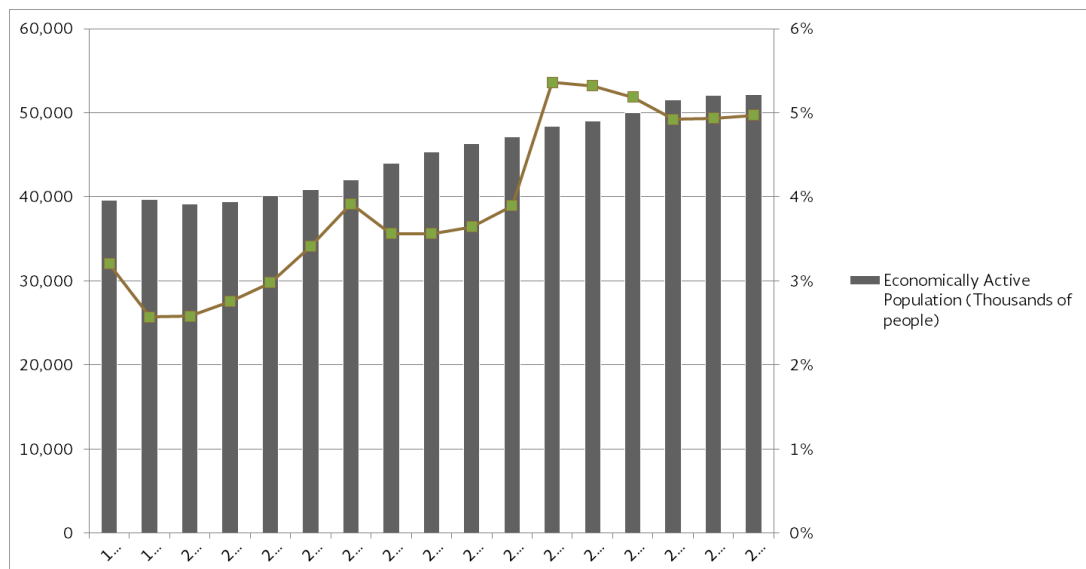
Lastly, the President of the Republic has recently acknowledged the need to establish specific policies for the benefit of social development in some areas in the country, and has ordered the creation of Special Economic Zones in Lazaro Cardenas, the Inter-Oceanic Corridor between Coatzacoalcos and Tehuantepec, and Puerto Chiapas, areas with important lag, exclusion and poverty, as well as serious insecurity problems for their population.

#### V.4. Creating decent jobs and livelihoods

Mexico has been affected by major economic crisis since the Habitat II Conference, which has had a direct impact on job security and employment; but in general the population occupied in economic activities has increased during that time lapse.

Currently, according to INEGI, in 2014 in Mexico, 59.5% of the population over 15 years old was economically active (is occupied or tries to be) while 40.5% is devoted to the household activities, studies, is retired, indemnified, has personal impediments or performs other activities.

Regarding employment opportunities the country has had a moderate to low unemployment rate since Habitat II, with the lowest levels between 1999 and 2000. It is important to mention that the 2008 crisis surely affected the economy of Mexico, with negative repercussions on the unemployment rate, reaching its peak in 2009 and with a slow recovery since (Graph 6).

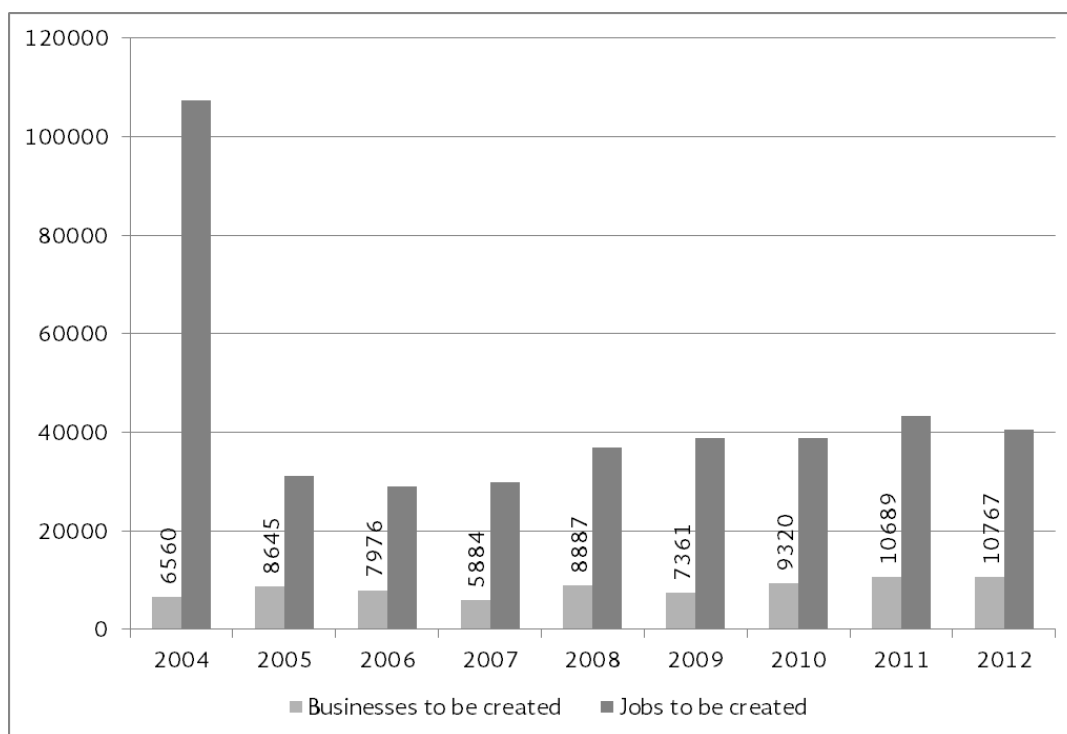
**Graph 6. Economically Active Population and unemployment rate**

However, it is important to mention that in Mexico there is a high incidence of informal employment that lacks benefits, labor security and social protection for family members as well as usually involving a low remuneration. Approximately 60% of workers in Mexico are informally employed; however, there has been an attempt to implement policies concerning pension systems, unemployment benefits and health coverage with the purpose of improving the situation of people, independently of their labor condition. The Ministry of Labor and Social Provision (STPS Spanish acronym) has conducted the Employment Formalization Program, along with the Tax Administration Service (SAT Spanish acronym) and the Mexican Social Security Institute (IMSS Spanish acronym). This program was subscribed in 2013 by the government of the Federal District and the 31 states, with the purpose of easing the transition of informal jobs into the formality scheme. It also attempts to promote the enrollment to the mandatory social security regime, in charge of the IMSS, for workers that are still not affiliated, and to promote the voluntary underwriting to the mandatory IMSS regime for household workers, non-salaried, ejidatarios, comuneros (co-proprietors) and small proprietors.

Besides offering benefits to workers, job formality is a variable highly related to competitiveness; high formality levels are associated to more competitive cities. Therefore, with the purpose of promoting the creation of formal jobs, the policies have pursued the creation and development of small and medium-sized businesses (PYMES Spanish acronym). The strengthening

of PYMES took hold since the year 2000. One of the instruments that supported this boost was the PYME Fund, which promotes national economic development by granting temporary assistance to programs and projects that encourage the creation, development, feasibility, productivity, competitiveness and sustainability of micro, small and medium-sized businesses. This way, the Fund has sustained efforts to create, foster and generate and preserve jobs and projects. Graph 7 shows the businesses to be created through the PYME Fund from 2004 to 2012, and the jobs to be generated during the same period.

**Graph 7. Businesses and jobs to be created with the PYME Fund**



Source: Generated with data of the PYME Fund  
[http://www.fondopyme.gob.mx/kardex/2012/reportes/historico\\_consulta\\_publica.asp](http://www.fondopyme.gob.mx/kardex/2012/reportes/historico_consulta_publica.asp)

Lastly, it is important to mention the National Entrepreneurial Institute, an agency that implements, performs and coordinates national policy of inclusive support to entrepreneurs and micro, small and medium-sized companies, prompting their innovation, competitiveness and projection in national and international markets, its purpose is it to contribute to economic development and social wealth. This institute is fitted with different programs that support the consolidation processes of companies, and it also provides information on financing opportunities for PYMES, a topic that is complemented with the efforts of the National Funding Program



for Micro-entrepreneurs (PRONAFIM Spanish acronym). This Fund was born in 2001 and directs its efforts towards the establishment of a public policy that promotes microfinance in Mexico, providing support, information and access to funding to those who wish to kick start their productive projects.

### V.5. Integration of urban economy into the national development policy

During the last two decades, and particularly since the signature of the North American Free Trade Agreement in 1994, the Mexican economy has consolidated a more open model oriented to foreign investment attraction and to the decrease of the government's role in the economy. In these years Mexico went through two crises that diminished the economic situation of the country. As shown in Graph 8, since 1990 the country had shown sustained economic growth until 1995, due to the exit of foreign capital and the convergence of other economic elements. The Gross Domestic Product (GDP) decreased to 34.8%<sup>78</sup>, destabilizing the national economy and the Mexican financial system. At the same time, as shown in Graph 9, there was an inflationary increase of 400%<sup>79</sup>. After the 1990's crisis, the economy started a process of macroeconomic consolidation, improving the financial regulation and emphasizing the importance of international reserves. Growth continued until the world economic crisis of 2008, which caused a GDP contraction of 18.5%<sup>80</sup> in 2009; unlike 1995, this time inflation remained in control.

Cities are the national development engines. Mexico is a fundamentally urban country, concentrating almost 80% of its population within cities<sup>81</sup>. 66% of the GDP is generated within the main 48 Mexican cities, which employ more than half of the population (53.2%) and that host almost 40% of the

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<sup>78</sup> World Bank, "PIB (USD a precios actuales)", <http://datos.bancomundial.org/indicador/NY.GDP.MKTP.CD/countries/MX?display=default> (Consulted on March 21, 2015)

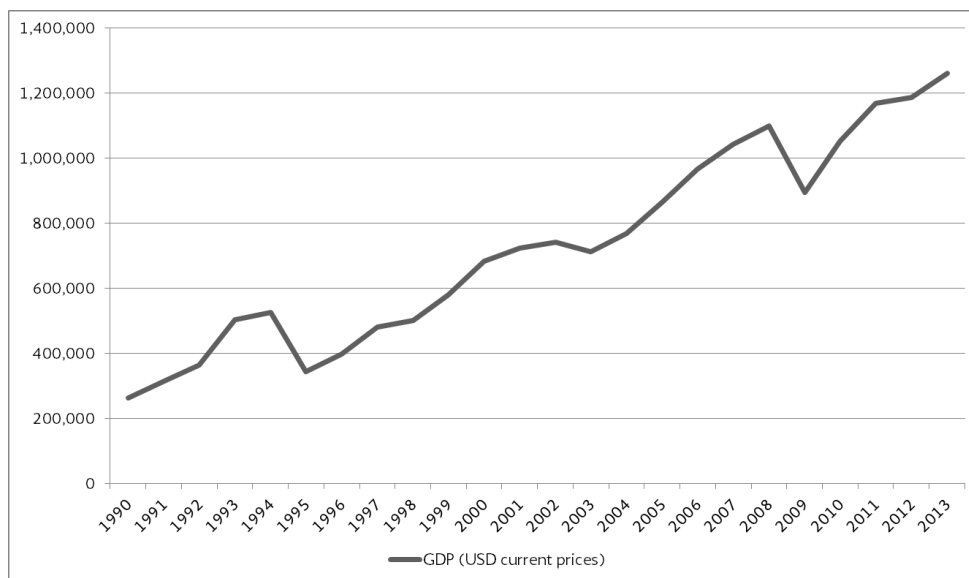
<sup>79</sup> World Bank, "Inflación, precios al consumidor (% anual)", <http://datos.bancomundial.org/indicador/FP.CPI.TOTL.ZG?display=default> (Consulted on March 21, 2015)

<sup>80</sup> World Bank, "PIB (USD a precios actuales)", <http://datos.bancomundial.org/indicador/NY.GDP.MKTP.CD/countries/MX?display=default> (Consulted on March 21, 2015)

<sup>81</sup> National Population Council, "Catálogo Sistema Urbano Nacional 2012". Available on: [http://www.conapo.gob.mx/es/CONAPO/Catalogo\\_Sistema\\_Urbano\\_Nacional\\_2012](http://www.conapo.gob.mx/es/CONAPO/Catalogo_Sistema_Urbano_Nacional_2012)

national total of establishments<sup>82</sup>. From this perspective, the economic activities of urban centers are essential for the national economy.

**Graph 8. Gross Domestic Product<sup>83</sup>**

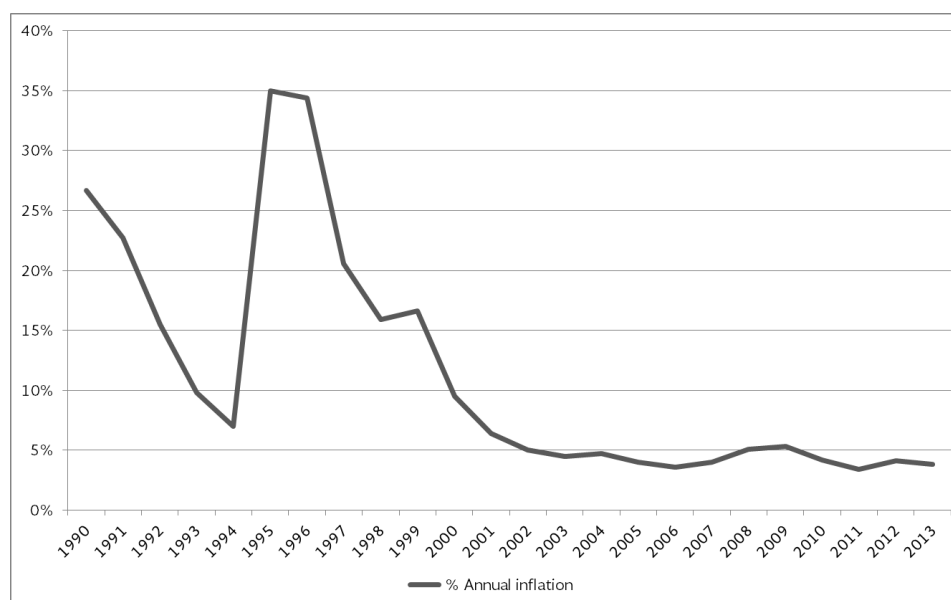


Source: Elaborated with World Bank indicators.

<sup>82</sup> Romo, A. y Mayer F. (2013), "Caracterización Económica de las Zonas Urbanas Relevantes en México", in *Observatory of Latin American Economy*, n. 179, (FROM: September 18, 2014).

Available on: <http://www.eumed.net/cursecon/ecolat/mx/2013/economia-zonas-urbanas-mexico.html> )

<sup>83</sup> World Bank, "PIB (USD a precios actuales)", <http://datos.bancomundial.org/indicador/NY.GDP.MKTP.CD/countries/MX?display=default> (Consulted on March 21, 2015)

**Graph 9. Annual inflation rate<sup>84</sup>**

Source: Elaborated with World Bank indicators.

Considering cities as engines for national development, the need to boost economic growth has been acknowledge not as an objective but as the means to improve the life conditions of the population and to eliminate socio-economic gaps. Even when cities concentrate an important part of GDP and sources of employment, there are regional differences around competitiveness, economic growth and poverty reduction within the national territory. The regional and sectorial gaps can be caused by different factors, for example, by the difficulties in the access to markets (lack of infrastructure), structural weaknesses (under-education) or institutional weaknesses.

A sample of regional differences is the Urban Competitiveness Index<sup>85</sup>. Through a comprehensive evaluation of ten axes that incorporate topics such as the rule of law, environmental sustainability, citizen participation, the political system and the economic stability, among others, the Mexican

<sup>84</sup> World Bank, "Inflación, precios al consumidor(% anual )", <http://datos.bancomundial.org/indicador/FP.CPI.TOTL.ZG?display=default> (Consulted on March 21, 2015)

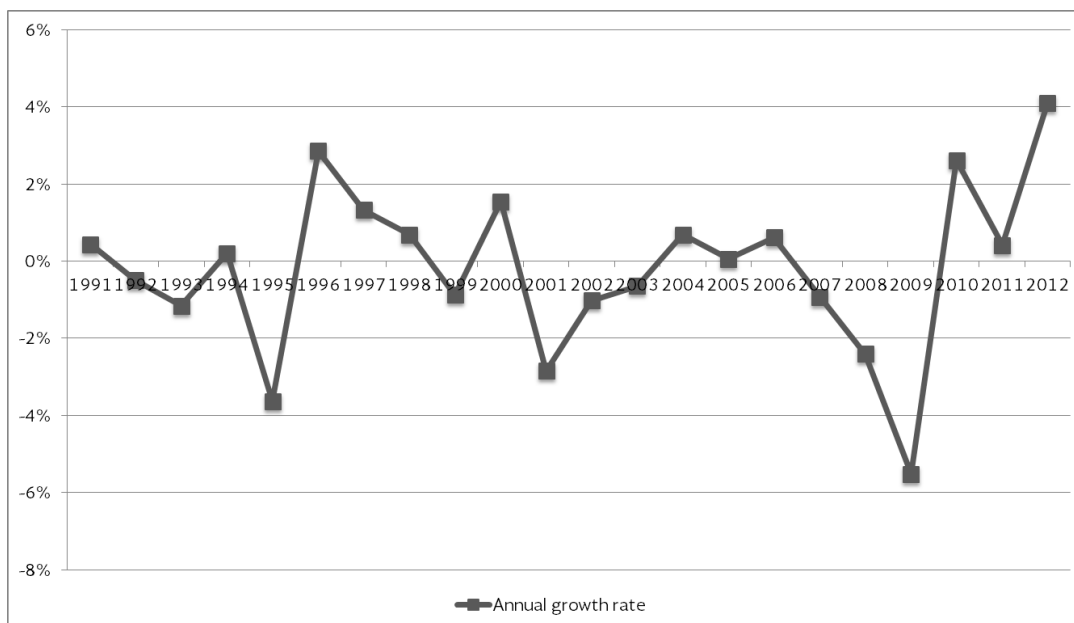
<sup>85</sup> Mexican Institute for Competitiveness, "Índice de Competitividad Urbana 2014: ¿Quién manda aquí? La gobernanza de las ciudades y el territorio en México", [http://imco.org.mx/wp-content/uploads/2014/09/ICU2014\\_IMCO.pdf](http://imco.org.mx/wp-content/uploads/2014/09/ICU2014_IMCO.pdf) (Consulted on March 23, 2015)

Institute for Competitiveness (IMCO Spanish acronym) evaluates the competitiveness of Mexican cities and classifies them in six levels: high, adequate, medium-high, medium-low, low and very low. From the ten most competitive cities, six (Los Cabos, La Paz, Monterrey, Saltillo, Chihuahua and Hermosillo) are located in the Northern part of the country; three (Valley of Mexico, Queretaro and Guadalajara) belong to the center-bajío area, and only one (Cancun) is located in the Southern-Southeast part of the country. This shows the regional imbalance around the development of Mexican cities, especially in the Southern zone.

In regards to productivity, Mexico has presented important variations. Unlike the information presented in Graphs 8 and 9, where trends are clear, Graph 10 shows that productivity presents important fluctuations, reaching its lowest level (-5.52) in 2009 and its highest level (4.10) in 2012<sup>86</sup>. With the purpose of tumbling the aforementioned gaps and to boost economic growth, the Mexican government has fostered tools focused on the improvement of national productivity and the drive of regional development.

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<sup>86</sup> INEGI, “Sistema de Cuentas Nacionales de México. Productividad total de los factores 1990-2011” [http://www.inegi.org.mx/prod\\_serv/contenidos/espanol/bvinegi/productos/derivada/cuentas/bienes%20y%20servicios/produccion\\_total/producto\\_total\\_90\\_11/PTF\\_SCNM.pdf](http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/derivada/cuentas/bienes%20y%20servicios/produccion_total/producto_total_90_11/PTF_SCNM.pdf) (Consulted on March 25, 2015).

**Graph 10. Productivity annual growth rate**

Elaborated with information from INEGI<sup>87</sup>.

The Mexican Government developed the 2013-2018 Program to Democratize Productivity, which contemplates as one of its goals to improve productivity through the efficient use of the national territory, both in cities and in rural areas, and underlining the importance of urban planning, specially accessibility to transport infrastructure that allows to take advantage of scale economies and stimulate productivity. Altogether, the Program establishes that to achieve the full potential of the production factors, it's necessary to have orderly and competitive cities.

## V.6. Challenges experienced and lessons learnt

From 1995 to date, Mexico has experienced diverse situations related to urban economy. At a macroeconomic level, the decade of the 1990's guided the reconsideration and reorganization of the national economic policy and the financial institutions. The reduction of the State's role in the economy, and the independence from the central bank, were two key elements that guaranteed the macroeconomic stabilization of the country, and which have

<sup>87</sup> INEGI, "Sistema de Cuentas Nacionales de México. Productividad total de los factores 1990-2011", [http://www.inegi.org.mx/prod\\_serv/contenidos/espanol/bvinegi/productos/derivada/cuentas/bienes%20y%20servicios/produccion\\_total/product\\_total\\_90\\_11/PTF\\_SCNM.pdf](http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/derivada/cuentas/bienes%20y%20servicios/produccion_total/product_total_90_11/PTF_SCNM.pdf) (Consulted on March 25, 2015).

facilitated facing economic crises such as the one in 2008 and the recently experienced with oil prices.

During these years, there has been dissociation between urban planning and the economic development strategies of the cities. In Mexico, cities keep disassociated the housing policies from the industrial and service ones, affecting the quality of life of people and their productivity. Many cities have witnessed the creation of industrial parks away from the urban areas, and also great housing development complexes with no nearby job offer. To integrate these spaces, the road infrastructure has been expanded, as well as the number of urban roads, which have created a higher induced demand of automobile trips, traffic congestions and higher commute time. On the contrary, if the economic and territorial development of cities were planned comprehensively, we could transit towards more productive and sustainable polycentric cities.

Another lesson learnt is the low collection and the lack of proper funding schemes at a municipal level. The lack of modernization in the land registration systems has not enabled the maximization of resources that could be collected as property tax concept. The lack of economic solvency and the high financial dependence have provoked that municipalities fall into excessive debt.

Regarding housing funding, in the last 20 years it has been consolidated as an important national policy that has taught several lessons. Since the decade of 2000, there was an increase in the amount of mortgage credits. Although this represents a breakthrough in access to housing for all Mexicans, these actions were not complemented with long-term urban planning. As a result, a big amount of the new households built were developed in the outskirts of the cities, in areas distant to work, education, health and supply centers, which resulted in an increase of time and resources for transportation, hence, in the abandonment of households. Another important lesson is the increase of credits for extensions and improvements. Another element that was recently recognized is the usefulness and need to address the qualitative gap in housing through credits for extensions and improvements.

Lastly, another lesson learnt is the need to evaluate the impact of the housing industry in the national economy and its role in urban construction and consolidation. While it is a strategic industry for the creation of jobs and the demand of input, the policy to invigorate and stimulate it cannot be defined without considering its urban impact.

The relevance of the territorial field in the planning of policies of economic development is recent in Mexico; although it has been a suitable

step towards addressing the different realities of the country, there still needs to be funding mechanisms and institutions in the three government levels to offer certainty to this new planning model for regions and cities. The National Infrastructure Program, the initiative of Special Economic Zones and the big public and private projects derived from structural reforms (such as the energy reform) have been sound and necessary actions for the development of the country. However, most cities and regions are not prepared yet to derive maximum benefits of these actions and avoid the negative effects or the bottlenecks that could arise.

The economic development in Mexico has originated important sources of employment during the last years. However, an important part of the economy of the country carries out informal activities. One of the main lessons in the last years is the potential that the informal economy has acquired. This phenomenon has diminished the collection capabilities of the government and it has created distortions in the national economy; it has also had an impact in the benefits and security of the workers. The productivity of the cities is linked to their ability to generate employment and economic dynamics that redound in urban development and population wealth. One challenge is that Mexican cities become more productive and generate value, improving the conditions for their population, especially in the current context of globalization.

Regarding urban economy, Mexico recognized the relevance of productivity and of regional differences. On the one hand, programs to foster productivity and stabilize volatile trends have been designed. Regarding regional differences, programs have been implemented in a pursuit to reduce economic development gaps, particularly focusing on the least developed regions (South-Southeast).

### V.7. Future challenges

Mexican cities have witnessed the arrival of different industries with logistics needs, incidence in other sectors and attraction of talent that they had not seen before. Although some have managed to make flexible their productive base, it's necessary that cities are ever more dynamic to endure the changes that appear and take advantage on the arrival of new industries. We must ensure that new investments find the proper conditions in competitive cities, able to attract talent, qualified manpower, innovation and resources.

Talent attracts more talent, and this generates the necessary research and innovation for the development of cities. Private capital, industries and companies create jobs, research and product offerings. Economic promotion institutions must work closely with the private sector to jointly generate investments that benefit the population, boost local economy and strengthen funding for governability. This must work hand-to-hand with education and research centers, incubators and other talents, as well as with the connectivity to accomplish the necessary synergies. When thinking about growth and planning of our cities, distances to distribution centers, ports, and commerce, as well as merchandise flows, resources, information and services must be considered in the design of cities that facilitate their transit and development.

The urban model that separates the city by land uses (housing, working centers, industries y logistic centers) is no longer sustainable. This segregation tends to create mono-centric cities surrounded by dormitory towns, affecting productivity due to the distances and the increase in services' costs.

Mexico must steer towards the consolidation of polycentric cities with mixed land uses, where small companies can cohabit in harmony with financial centers, commerce, schools, apartments, health centers, among others. A successful city is not the one with the largest buildings, but the one that manages resources efficiently to address the needs of its population.

Polycentric cities should contribute to reduce distances, improve accessibility and connectivity, and increase efficiency in logistic and productive chains, and overall improving urban dynamics, mitigating saturation of transportation networks and distributing travels more efficiently.





# VI

## HOUSING AND BASIC SERVICES



## VI. Housing and Basic Services

### VI.1. Slum upgrading and prevention

In year 2000, within the Millennium Development Goals framework, the United Nations established as one of its objectives to guarantee environmental sustainability<sup>88</sup>. One of the tasks of this global goal is to improve life for at least 100 million people that live in precarious dwellings for year 2020. To evaluate the fulfillment of this commitment, Mexico created an indicator to measure the share of urban population living in precarious dwellings. This indicator was defined as the percentage of inhabitants of a private house located in urban localities (more than 15,000 inhabitants), who: (i) have no access to improved water sources; (ii) have no proper drainage and sanitation; (iii) have deficiencies regarding construction material; (iv) have insufficient living space. Based on this definition, in year 2000 23.6% of urban population lived in precarious dwellings.

With the purpose of achieving the aforementioned objective, Mexico implemented actions oriented towards guaranteeing access to long-lasting households, with basic services and the necessary space to foster the full development of its inhabitants. First of all, programs to improve households were promoted<sup>89</sup> (Graph 11). Secondly, we can notice the changes in the

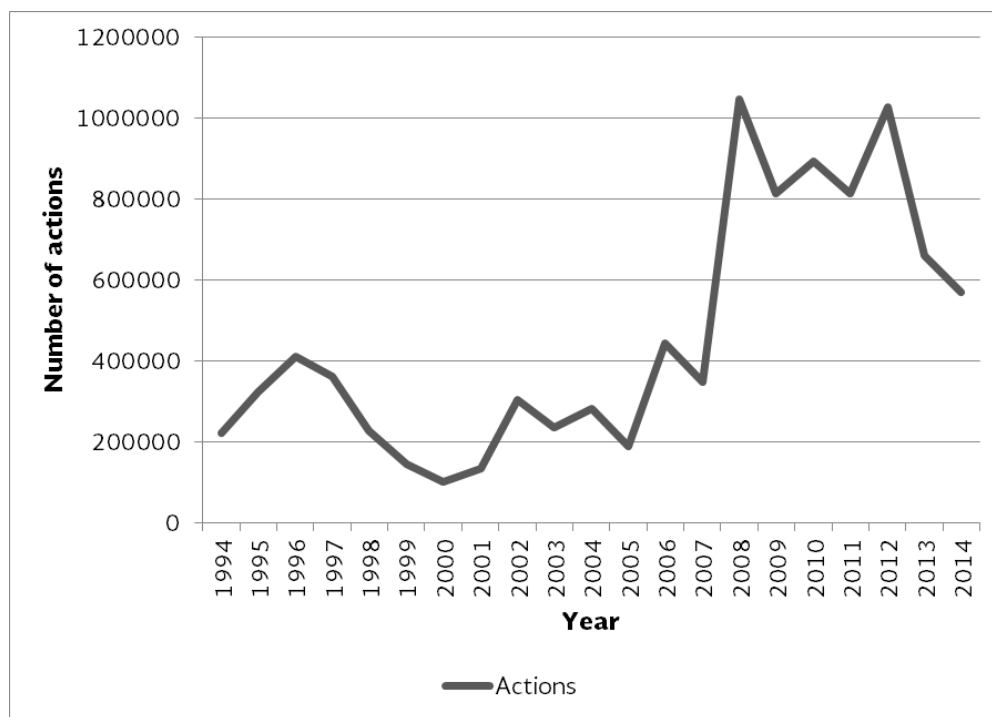
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<sup>88</sup> Millennium Development Goal 7.

<sup>89</sup> Mejoravit, from the State Workers Security and Social Service Institute, Sound Floor Program, from the Ministry of Social Development

institutional design at a federal level. In 2001, the Housing Promotion National Commission<sup>90</sup> was created; its purpose was to define and carry out housing policies through subsidies and programs oriented towards guaranteeing access and improvement to housing. The current Housing Act considers inter-institutional coordination spaces (Housing Inter-secretarial Commission) and citizen participation to harmonize interaction between the several players to promote not only housing, but also sustainable urban development.

**Graph 11. Actions to improve housing conditions**



Own elaboration based on the National Sistem of Housing Information and Indicators<sup>91</sup>.

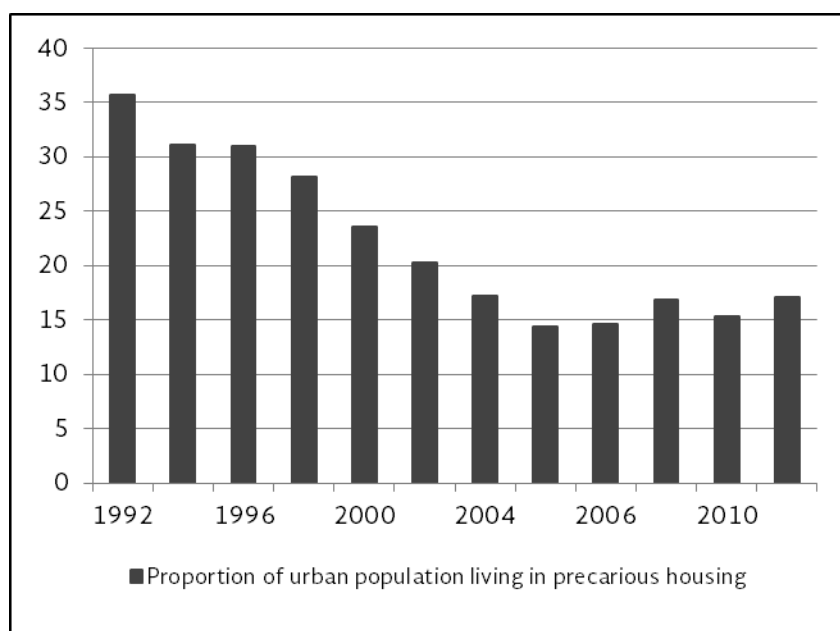
<sup>90</sup> As of June 2006, the National Commission for Housing Promotion transformed in to the National Housing Commission.

<sup>91</sup> Actions include: extension, rehabilitation, service debt, mortgage refinancing, down payments, liquid assets, land acquisition, urbanization for housing purposes. "Estadísticas Históricas de Vivienda"

<http://www.conavi.gob.mx/introduccion> (Consulted on March 20, 2015)

Public policies in the institutional framework have enabled improvements in the conditions of the population living in precarious dwellings. On the one hand, housing improvement has been fostered through enhancing credits and social programs oriented towards addressing the needs of its inhabitants. On the other hand, the institutional framework has enabled the harmonization of housing policy with urban development, therefore promoting quality, accessible and connected housing. In all, during the last 20 years these actions have cut down the proportion of urban population living in precarious dwellings (Graph 12), despite the stagnation on the evolution of this indicator since year 2005.

**Graph 12. Urban Population living in precarious housing**



Own elaboration based on the Information System of the Millennium Goals <sup>92</sup>.

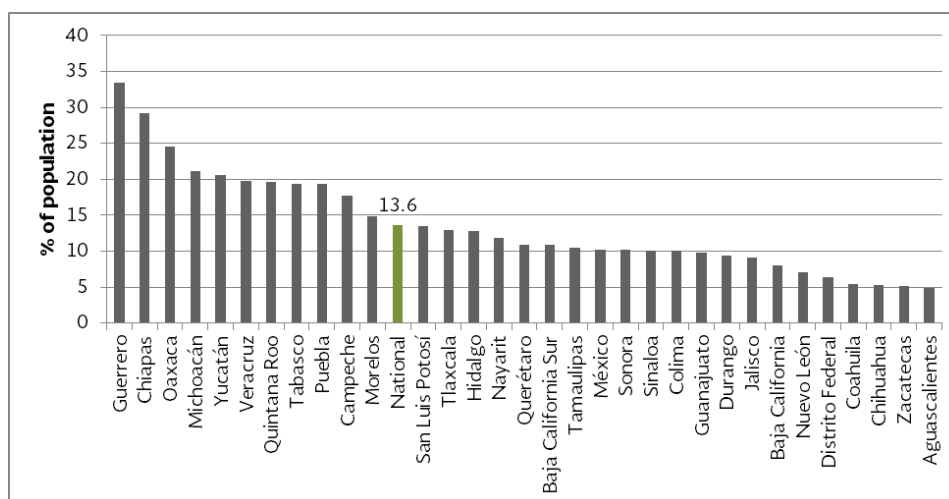
These figures show the results of the commitments of Mexico with the fulfillment of the Millennium Development Goals, and they only evaluate the reality of urban housing. When observing data at a global level (in rural and urban localities), the lag increases and concentrates significantly in the

<sup>92</sup> Millennium Goals Information System, "Proporción de la población urbana que habita en viviendas precarias"

<http://www.objetivosdesarrollodelmilenio.org.mx/> (Consulted on March 20, 2015).

states with the highest ratio of rural inhabitants, which also reveals another important challenge: the regional gap. In Guerrero, Chiapas and Oaxaca, more than 25% of the population lives in an overcrowded dwelling and/or with precarious construction material, while at a national level, this proportion is 13.6%, and in the states of Coahuila, Chihuahua, Zacatecas and Aguascalientes is around 5%.

**Graph 13. Social deprivations in terms of housing quality and space**  
(Percentage of the population, 2012)



Source: CONEVAL estimations based on the MCS-ENIGH 2010 and 2012.

Social deprivations defined based on the Multidimensional Poverty Methodology by CONEVAL

## VI.2. Improving access to adequate housing

Adequate housing is understood as the opposite of precarious housing, this is, housing with water services and sewage, built with quality materials, enough space –no overcrowding–, and with no problems regarding its legal tenure.

In Mexico there are two kinds of built housing: on the one hand, there are households built by the private sector, and on the other hand, the self-built households. Usually, the population sector that is part of the formal economy uses financial tools such as mortgage and bank credits, and from institution like INFONAVIT and FOVISSSTE<sup>93</sup>, being part of the first group of

<sup>93</sup> Funding and subsidizing programs described in the previous chapter.

households. On the contrary, the population without access to the formal financial market requires other options like self-construction.

Houses built by private companies incorporate minimum quality standards based on the current construction outlines of the different municipalities; this is not the case of self-built housing, which has had a limited supervision and regulation. Historically, the government has favored credits for housing acquisition over credits for self-construction<sup>94</sup>; it recently incorporated assistance instruments for financial entities that offer services to the low-income population and without possibilities to access the traditional mortgage market.

To control the expansion of cities and ensure a dignified environment to the buyers of new houses, the Housing Sustainability and Location Scorecard was strengthened. This instrument evaluates the quality of the housing and enables the differentiation of the subsidy amount that a beneficiary can obtain by acquiring it.

The Scorecard establishes criteria in four dimensions: location of the housing<sup>95</sup>; equipment availability and services (education, health, supply, recreational, mobility and access to public transportation); the density of the development; and the set of building techniques and green technologies that improve the sustainability of the household and the development (efficient household appliances, insulators and enclosures, green areas, pedestrian infrastructure, etc.)<sup>96</sup>.

This instrument, in addition to the remarkable Urban Contention Perimeters, has enabled an increase in the quality of households, conceived comprehensively starting on its location, characteristics, space and its relation with its surroundings. Other programs of the sector have adopted similar criteria to reinforce the message of the national policy to the private sector.

Regarding the development of this sector, it is important to highlight the progress had on information systems that provide more accurate information about the current situation and enable the creation of better housing strategies. Actually, this is one of the goals of the National Housing

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<sup>94</sup> For further information on housing funding, refer to Chapter V: Urban Economy.

<sup>95</sup> Based on the Urban Contention Perimeters described in Chapter II: Land and Urban Planning

<sup>96</sup> Scorecard on Housing Location and Sustainability, Federal Official Journal, Vol. DCCXVIII, No. 2. Mexico July 1<sup>st</sup> 2013

Program 2014-2018: “To generate quality and timely information to contribute to better decision-making in the housing sector”. Some of the most relevant platforms are:

- The Technical Committee Specialized in Housing (part of the Statistic and Geographic Information National System (SNIEG Spanish acronym))
- The National Information and Housing Indicators System (SNIIV Spanish acronym)
- The National Register of Housing (RUV Spanish acronym)
- The National Territorial Reserves Registry (RENARET Spanish acronym)

Regarding self-built housing, until a few years ago this was addressed mainly by the settlements regularization policy; it looked after the settlements that had sprawled disorderly. However, in 2006 the Housing Act was modified to recognize the process of Social Housing Production<sup>97</sup>, applying specific subsidies and instruments of social participation, like Assisted Social Housing Production. CONAVI’s Federal Subsidy Program considers in one of its modalities the support of households developed through this building process, as long as it is assisted by a Housing Production Agency of a Social Housing Developer certified respectively by the SHF or the CONAVI.

Likewise, FONHAPO, created in 1980, has been in charge of funding and subsidizing housing for the population without access to the formal financial market, through subsidies and partnerships with this kind of social producers.

The relevance of the self-built and self-produced sector is undeniable. As established in Chapter V: Urban Economy, it contributes with 2.5% of the national GDP, and around 60% of the housing stock comes from informal processes. As long as there are no large-scale mechanisms to address the low-income population that is not affiliated to housing funds, the social production of assisted living should be recognized as a proper alternative. This acknowledgment and the channeling of public resources can guarantee that the units built comply with quality standards, ensure physical and

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<sup>97</sup> Social Housing Production: the production carried out under the control of self-producers and self-constructors that operate with non-profit purposes, oriented towards addressing primarily the housing needs of low-income population. It includes the construction carried out through self-managerial and solidary procedures that prioritize the value of housing use over the commercial definition, mixing resources, building procedures and technologies according to their own needs, their managerial and decision-making capabilities (Housing Act, Chapter 4, section VIII).



property integrity of its inhabitants, use proper materials and are located in suitable zones for housing.

### VI.3. Ensuring sustainable access to safe drinking water

The National Water Commission has different programs aimed to respond to the social demands around water supply and sanitation. In 1990 the Safe Water, Sewage and Sanitation Program for Urban Areas was born with the purpose of facing the growing demand of services of water, sewage and sanitation. This program has national coverage in all the localities with over 2,500 inhabitants. With the same purpose, but focused on rural areas, in 1999 the Program for the Sustainability of Safe Water and Sanitation for Urban Zones was created; this program considers a shared investment: 50% of federal resources and the rest is completed by local contributions, either municipal governments or the participating communities. Another important program is PROMAGUA, addressed to the modernization of water operating entities, with the purpose of supporting service providers in serving the population regarding coverage and quality of safe water, sewage and sanitation services. In addition to these programs, there have been several investments.

Thanks to the programs implemented and the investments made for covering basic services such as safe water and sewage, in the last 20 years there has been a reduction in the total population without access to the aforementioned services. According to the INEGI, in 1995 the percentage of households with water availability was 84.2%; in 2010, this coverage reached 88.7%. Regarding sewage, the INEGI informed that in 2000 only 75.4% of households enjoyed this service; in 2010 the coverage reached 89.1%<sup>98</sup>.

In the last 20 years Mexico has made strides in the treatment of municipal wastewater. According to the National Water Commission (CONAGUA for its acronym in spanish) in 1996 nationwide an amount of 33.7 cubic meters per second of municipal wastewater were treated, this number increased to 105.9 cubic meters per second in 2013, which

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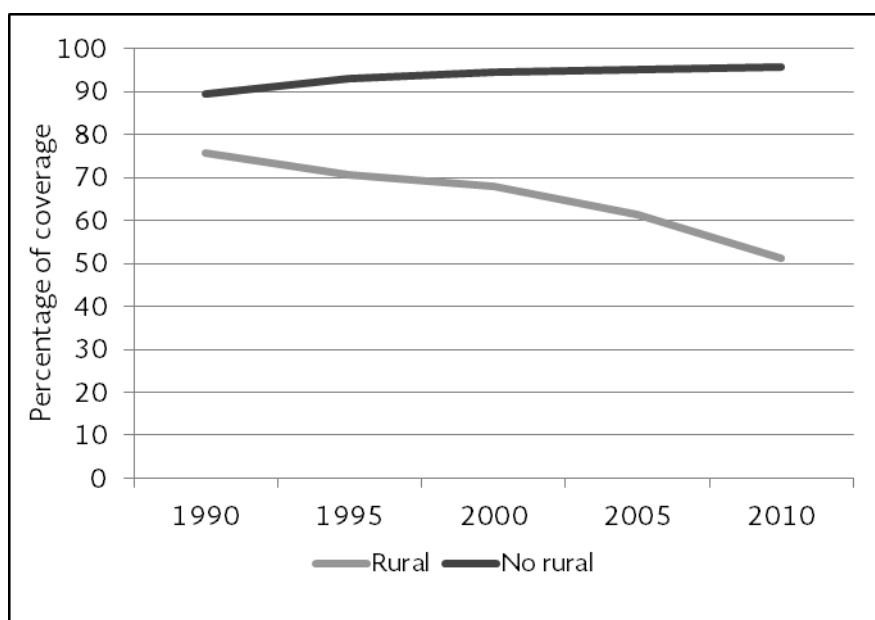
<sup>98</sup> INEGI, "Servicios y bienes en las viviendas",

<http://www3.inegi.org.mx/sistemas/temas/default.aspx?s=est&c=17484> (Consulted on March 20, 2015)

represents 50.2% of all municipal wastewater<sup>99</sup>. In accordance to these efforts, the 2012-2018 federal administration has set a goal to increase Mexico's capabilities to treat wastewater to 63% by 2018<sup>100</sup>.

Despite the investment efforts on behalf of the three government levels, there is still an important gap between the rural population and the non-rural one (Graph 14).

**Graph 14. Percentage of the population with access to water**



Elaborated based on the Information System of the Millennium Goals<sup>101</sup>.

The investments and the programs implemented by the three government levels have achieved an increase of coverage of safe water and sewage

<sup>99</sup>CONAGUA, "Estadísticas del Agua en México, Edición 2014", [http://www.agua.org.mx/index.php/component/docman/doc\\_download/2486-estadisticas-del-agua-en-mexico-2014?Itemid=](http://www.agua.org.mx/index.php/component/docman/doc_download/2486-estadisticas-del-agua-en-mexico-2014?Itemid=) (Consulted on april 1st 2015)

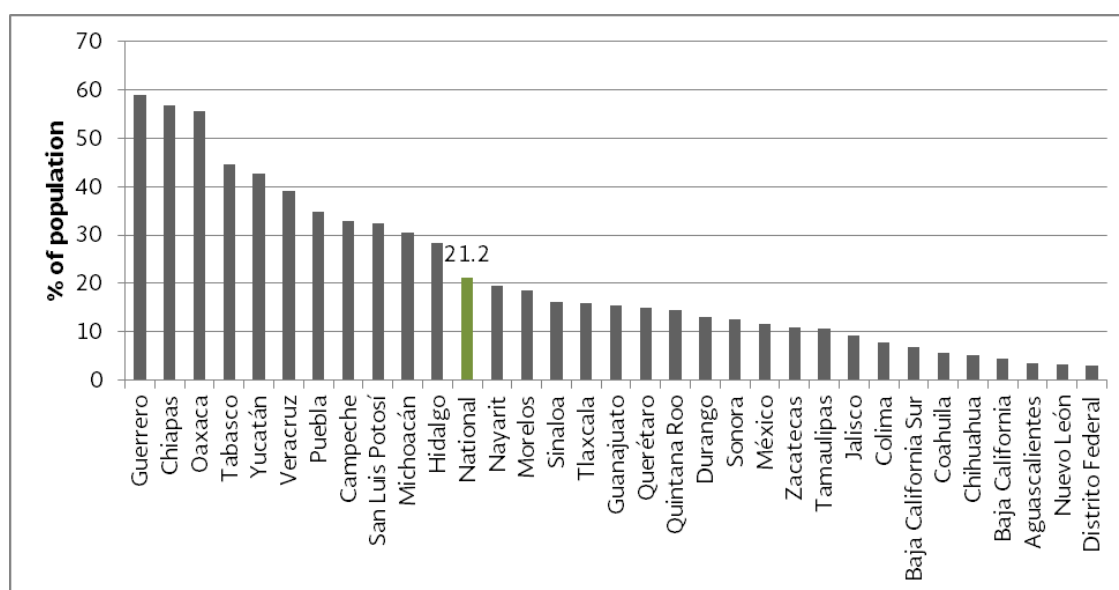
<sup>100</sup> SEMARNAT, "Programa Sectorial de Medio Ambiente y Recursos Naturales 2013-2018, Resumen Ejecutivo" [http://www.semarnat.gob.mx/sites/default/files/documentos/transparencia/promarnat\\_resumen\\_ejecutivo\\_final.pdf](http://www.semarnat.gob.mx/sites/default/files/documentos/transparencia/promarnat_resumen_ejecutivo_final.pdf) (Consulted on april 1st, 2015)

<sup>101</sup> Millennium Goals Information System, "Proporción de la población con acceso sostenible a fuentes mejoradas de abastecimiento de agua", <http://www.objetivosdesarrollodelmilenio.org.mx/> (Consulted on March 20, 2015).

during the last 20 years. However, the gap between rural and non-rural population is still important. There is a need not only of programs and investment, but also of a solid planning for urban development.

Besides this gap, the regional disparity phenomenon is also present. In Guerrero, Chiapas and Oaxaca, more than 55% of the total population (urban and rural) lacks at least one of the basic housing services defined by CONEVAL as essential, while in Aguascalientes, Nuevo Leon and the Federal District, less than 3.5% of the population shares this condition.

**Graph 15. Hindered access to housing basic services  
(Percentage of the population, 2012)**



Source: CONEVAL estimations based on the MCS-ENIGH 2010 and 2012.

Social deprivations defined based on the Multidimensional Poverty Methodology by CONEVAL

#### VI.4. Access to transportation

In recent years, Mexican cities have implemented different projects to grant accessibility to people. Urban mobility is understood as an element that ensures access to goods, services, equipment and activities that enable the satisfaction of labor, education, social, cultural and recreational needs. The construction of big roads is increasingly questioned, and there have been resources allocated to non-motorized and mass transit projects.

Mobility management focuses on the transportation of people in safe, comfortable and affordable conditions. The goal is no longer to move cars at

great speeds. Additionally, the current housing policy considers location to reduce commuting times, and to bring people to social equipment, to prioritize infrastructure, processes and technologies that allow sustainable mobility with a low consumption of fossil fuels.

Historically, the Government of Mexico has focused on the construction of roads and not in the organization of the urban mobility system. Private carriers are the ones who offer transportation services with the purpose of obtaining income without having a vision of public service. The lack of coordination and the absence of comprehensive mobility policies in the cities of the country have shown highly expensive externalities for the population.

This is why SEDATU has established as one of its priorities the control and reduction of these externalities so that cities can move forward to a sustainable mobility, which will enable the productivity of their economy, will improve accessibility, enhance road safety and the quality of life, and will reduce inequality and road congestion. The efforts have been focused in avoiding, shifting and improving, this allows significant reductions of GHG emissions, a reduction in the energy consumption, lower congestion, and enables friendlier cities. This approach promotes sustainable mobility alternatives. There is an attempt to avoid long-distance traveling; to accomplish so, it is important to have comprehensive policies for land use and travel demand management. This approach also invites to undertake journeys in sustainable means such as public transportation and biking or walking trips, and discourages the indiscriminate use of car through demand management elements, such as: parking-meters, congestion charges, design of reduced traffic in roads, among others. Lastly, it improves the existing technologies with the purpose of reducing emissions.

Aligned with the efforts to improve mobility and accessibility, since the last decade of the XX<sup>th</sup> century, Mexico started a process to revise the urban transportation systems, and implemented some experiences like BRT (*Bus Rapid Transit*). In this sense, the Optibus system is remarkable. This system was implemented in the city of Leon in Guanajuato and it is designed and managed by the local government. However, it has also spread to other cities in the country<sup>102</sup>. Another relevant experience took place in the Federal District, by far the most advanced city in sustainable transportation means, such as the Metro, the electric bus, light rail, suburban rail and BRT, named Metrobus. It has also fostered mobility by bicycle, with the public bicycles

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<sup>102</sup> Iracheta A. (2006): "La necesidad de una Política Pública para el Desarrollo de Sistemas Integrados de Transporte en Grandes Ciudades Mexicanas", p. 56-57.

system: ECOBICI, as well as the support to pedestrian mobility with the creation of walking corridors.

Furthermore, Federal funds that support public transportation projects have been increased. For instance, the Federal Program to Support Mass Urban Transit (PROTRAM), managed by BANOBRAS is a valuable example. Its objective is to boost the development of cities by solving the deterioration of urban mobility; to promote urban development planning; to support the development of sustainable, efficient and safe public transportation systems; to favor the affordability and social inclusion; to streamline energy consumption; and to move private capital with the support of public resources. 31% of all resources executed by this program were used to promote urban mobility, which exemplifies the importance of mobility and transportation. Additionally, the 32 federal entities have received technical assistance to conduct mobility projects, however most of the resources invested in this subject (74%) were destined to enhance and maintain road infrastructure, in detriment of only 11% of investment in public spaces, 10% in public transportation, 4% in pedestrian infrastructure and less than 1% in cycling infrastructure<sup>103</sup>.

Even with the existence of these funds, the challenge is to manage them within an urban development approach, not only with isolated transportation projects. Likewise, it must incorporate the range of actions that a mass transit system like the BRT requires, and which corresponds to other complementary forms of mobility, especially non-motorized ones, as well as more public space related to mobility and specific actions to discourage the use of personal car. This is needed because there is still support on behalf of federal programs to automobiles, and because there is a lack of coordination between these programs from a comprehensive urban perspective.

The recent stake has been towards public transportation, the routes, the transferences between the system, and the inter-modality that enables the completion of walking or biking trips in a fast, comfortable and safe manner. There are also actions linked to improve public space as the means in which all journeys take place. A growing number of cities have acknowledged that the externalities generated by automobiles affect everyone. Some cities have implemented parking meters to charge for the use of public space, and the recovery is destined to improve the area. There has also been a pursuit to restrict access of vehicles into some areas to improve the conditions for

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<sup>103</sup> ITDP-Mexico, "Invertir para movernos: Diagnóstico de inversiones en movilidad en las zonas metropolitanas de México 2011-2013" British Embassy, October 2014

pedestrians and cyclists; parking spaces for bicycles have been set up at mass transit stations and/or stops in order to boost multimodal journeys. In all, decisive steps have been taken towards the integration of a sustainable mobility model that guarantees accessibility.

Nowadays, most of the trips in Mexican cities are done by public transit; this is why there is a need of big investments to renew units, redesign routes, improve the service, quality, safety and reliability.

## VI.5. Challenges experienced and lessons learnt

The improvement of the conditions of inhabitants living in precarious housing has been addressed through funding programs, and through social programs that tackle directly some deficiencies in housing. Data shows that since 1996 there has been an increase in the actions taken towards improving housing, while the proportion of the urban population living in precarious dwellings has decreased almost 14% between 1996 and 2014<sup>104</sup>.

In terms of access to proper housing, for the last 20 years programs that facilitate the acquisition of homes for the population have been implemented. Likewise, policies to improve self-built housing have been placed. Although the population with access to the formal financial market has been favored, in recent years some programs have addressed the low-resources population without access to formal institutions, which not only benefits this population sector, but also fosters a better quality of life for all the population in Mexico.

The informality and the weakness of the secondary housing market hamper the acquisition of used housing and rental housing, as viable options to address the housing needs of the population. This weakness is explained by a legal maze (fiscal and civil) that raises the transaction costs and increases the vulnerability of the participants of this market. Around 15% of inhabited homes are rental. However, most of these transactions are conducted informally. Recently, institutions like the INFONAVIT and CONAVI have developed pilot programs to promote the demand of rental homes. However, these strategies will present limited success as the market

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<sup>104</sup> Estimates from CONEVAL, with information from INEGI. Information published in the Millennium Objectives Information System, "Proporción de la población urbana que habita en viviendas precarias", <http://www.objetivosdesarrollodemilenio.org.mx/> (Consulted on March 23, de 2015).

conditions fail to generate the necessary certainty for the growth of supply and of proper financing options.

Regarding the access to basic services, the Government of Mexico has implemented important investment programs to provide water and sanitation services for all. However, as shown on the graph 14, there is still an important gap between urban and rural population coverage. Additionally, water sufficiency is one of the main problems for the full growth and development of cities, as well as to ensure their sustainability.

In terms of access to sustainable transportation, for the last 20 years actions have been set in place to favor mass transit and non-motorized transportation options. Until a few years ago there was still a strong promotion to build road infrastructure for automobiles, causing an induced demand of journeys and leaving unsolved the traffic congestion issues. There are concrete success stories, such as the implementation of BRTs in seven cities of Mexico. Likewise, several cities have implemented non-motorized mobility systems that not only alleviate traffic congestions, but also promote a better quality of life for users and are friendlier to the environment.

## VI.6. Future challenges

Mexico recognizes that important gaps between the regions that constitute the country remain, and thus one of the most important challenges Mexico faces is to set policies that will allow the overcoming of shortcomings by taking advantage of each region's strengths and characteristics. In this sense, one of the first steps that have been taken is the publication of development programs focused on the vocations and potentials that distinguishes each region, as well as the conceptualization of a new functional reading of the territory. In the years to come efforts will be set in place to ensure that this functional reading will be adopted as part of the necessary planning for the adequate development of regions and cities.

Due to the several structural reforms undertaken by the federal government, Mexico faces a great opportunity to start a new stage of social and economic development. However, it is necessary to recognize that in its majority, cities and regions are still not prepared to take full advantage of the benefits associated with these actions. Moreover, human settlements should be able to avoid the negative effects that might occur. It is undeniable that adequate infrastructure provision plays an fundamental role in accessing strategic goods, fosters competitiveness and connects human capital with the opportunities generated by the economy. Because of this, it



is imperative to incorporate a territorial vision in investment programs and in the execution of large infrastructure programs, as well as aligning the criteria for public spending to ensure that resources destined for regional projects are spent in actions with regional impact.

It is important to recognize that cities are key places to overcome inequality gaps between the regions. Cities have the potential to leverage development. However, only those planned with a long term vision, orderly and sustainable will foster economic growth and will allow the overcoming of social lag in Mexico through the implementation of the reforms set in motion on the last years, specially the National Productivity Program and the National Infrastructure Program.

A necessary step on the road to economic development of the regions and cities of Mexico is the profound revision of the financial instruments that local governments have, to improve their effectiveness, especially those instruments related to tax collection. Economic growth of cities depends on effective financing instruments of the local government to undertake an active role on the promotion of economic development and the promotion of local and regional economies.

Taxing instruments must encompass the control of land use, especially in regards of housing location, especially housing for lower income population, and influence the orderly city expansion.

In this sense, the modernization of Public Property Records and Land Registries is a challenge that cannot be postponed, as well as information systems related to the administration of main urban services. In the international sphere, it has been demonstrated that the management of open data, allows local governments to work together with the citizens in order to solve diverse public problems. The intelligent cities approach promotes citizen engagement and innovation by taking advantage of data and information systems produced by the public sector, demonstrating that modernization of these systems is a matter of great importance in the strengthening of instruments for the promotion of regional and local economies, as well as the development of competitive and inclusive cities.

Access to adequate housing solutions is a fundamental element in the promotion of urban economies and the decrease of inequality gaps in the country. An important challenge is the recognition by the housing financing policies of the existence of an increasing number of informal workers for which historically there have not been any financial products to access the market in search of and adequate housing solution. Even though the National Development Plan has set several different strategies to encourage millions of Mexicans to participate in the formal work market, policies have



to be promoted to ensure an adequate transition towards formality and access to financing. The previous, to reduce the vulnerability of the people in the informal market and to allow adequate, well located housing solutions where they can access the development and job opportunities associated with the city.

Holistic linkages between urban development and housing must be encouraged. Therefore, social housing should be considered in the mixed use of land planning. As a result, it would foster inclusive cities and avoid abandoned houses. Furthermore, the location of social housing should be placed in urban connected land to promote compact cities.

Adequate urban planning needs to incorporate the rural-urban linkages approach. Finally, the housing location shall encourage the incorporation of elements that grant greater sustainability and a smaller carbon footprint.

The Mexican government has taken the first steps to strengthen the programs that allow a diversification of the housing solutions available to the Mexican population. This by promoting pilot programs to support rental solutions, as well as financial programs for groups with specific needs, however its necessary that in the next years instruments and strategies that allow millions of families to access to an adequate housing solution are consolidated. These solutions should include rent, housing extensions, improvements and self-production, this new set of options on housing has the potential to generate improvements in the quality of life of city dwellers by allowing them a more flexible access to jobs sources, goods, education, and adequate recreation.

The adequate management of the existing housing stock and the promotion of strategic projects that launch investments in new housing is a clear opportunity to promote the competitiveness of cities. In order to profit from these opportunities, it will be necessary that local governments modernize the normativity associated with real estate investments, improve the processes through which they verify the adequate development of the projects and generate positive synergies with the society in order to add them to these projects.

Mexico has taken significant strides in understanding the importance of the housing industry as a part of the economy. The publication of the satellite account for housing, and the quantitative analysis derived from this data source reveal that housing is a strategic activity for economic development and job creation in Mexico. In order to seize the industry's economic thrust it is necessary to generate, along with local governments, a normative and fiscal incentive scheme for the housing sector. It should make

the construction process an integral part of the effort to build fair, equitable, sustainable and productive cities.

It is undeniable that one of the crucial aspects that has to be addressed as a substantive part of economic development policies is the promotion of competitiveness and innovation. It is of the utmost importance that with the new functional reading of the territory, public policies to seize human capital in each city and region are developed. These policies would promote investments and the creation of well-paid formal jobs, and the adequate transition of millions of Mexicans towards formal employment. To ensure that these policies will be effective, it is necessary to recognize the importance of social and economic dynamics to generate positive synergies among existing assets at the community level of the city.



# VII INDICATORS



## VII. INDICATORS

Indicator		1996			2006			2012			Millennium Development Goals Indicators		
		National	Men	Women	National	Men	Women	National	Men	Women	1996	2006	2012
i.	Percentage of people living in slums <sup>105</sup>	47.05%	47.92%	46.24%	29.14%	29.81%	28.51%	27.14%	26.99%	27.29%	31.02%	14.56%	17.06%
ii.	Percentage of urban population with access to adequate housing <sup>106</sup>	75.97%	75.22%	76.67%	53.93%	53.67%	54.16%	50.01%	49.15%	50.82%	-	-	-
iii.	Percentage of people residing in urban areas with access to safe drinking water <sup>107</sup>	92.52%	92.26%	92.76%	95.88%	95.61%	96.13%	98.76%	98.77%	98.75%	93.00%	95.00%	95.60%
iv.	Percentage of people residing in urban areas with access to adequate sanitation <sup>108</sup>	18.10%	18.94%	17.32%	8.96%	9.25%	8.69%	9.22%	9.15%	9.29%	14.70%	7.00%	5.00%

<sup>105</sup> *Slums*: houses that DO NOT have: a) access to potable water with-in the house or plot of land, through piping, b) improved sanitation, c) endurable housing or d) sufficient space to live (3.5 residents per room inside the house)

<sup>106</sup> *Adequate housing*: considers: a) Habitability (enough space to live), b) Access to services (publicly supplied), c) Affordability of the house, d) Security of tenure

<sup>107</sup> *Access to safe drinking water*: improved sources of water: a) Pipes leading into the house, b) Pipes leading into the plot, garden or patio, c) Public taps, d) Piped or drilled wells, e) Drilled protected wells, f) Protected springs or g) Rain water

Indicator		1996			2006			2012			Millennium Development Goals Indicators		
		National	Men	Women	National	Men	Women	National	Men	Women	1996	2006	2012
v.	Percentage of people residing in urban areas with access to regular waste collection <sup>109</sup>	91.48%	91.55%	91.41%	90.17%	90.13%	90.21%	93.02%	92.83%	93.20%	-	-	-

<sup>108</sup> *Adequate sanitation.* Considers either: a) discharge to sewage, septic tank or pit latrine, b) Pit latrine with ventilation, c) Pit latrine with slab or d) Compost latrine/toilet and e) An exclusive toilet for each house

<sup>109</sup> *Regular waste collection:* a) Collected by a truck or cart, b) Periodicity

*Urban areas:* 15 000 or more inhabitants

*\*According to the UN's definition a house in a slum is that which lacks one of the following: 1. Access to improved water sources, 2. Access to improved sanitation services, 3. Durability, 4. sufficient living quarters, 5. Security on land tenure. (In this case, the data shows the portion of the population living in a precarious house, due to the lack of sources to adequately measure the security of land tenure).*

The indicator was built by identifying housing with at least one deficiency, which were measured in the following way:

- 1) Improved water sources: sources protected from exterior contamination, particularly feces contamination (i.e. public water systems going into the house or plot of land).
- 2) Improved sanitation services: services that hygienically separate human feces from contact with humans, animals and insects. This services have to meet two criteria:
  - a. They have to be connected to a sewage system or a septic tank
  - b. Houses must have an exclusive toilet for the use of its inhabitants
- 3) A house is consider durable if it is built in a safe place and has an structure strong enough to protect its inhabitants from extreme climate conditions such as rain, heat, cold and humidity. Given that there is no information available on the location of houses only these characteristics where identified:
  - a. Dirt flooring
  - b. Fragile walls (built with unsuitable materials such as cardboard, metallic sheets, asbestos, bamboo, palm, etc.)
  - c. Fragile roof (built with unsuitable materials such as cardboard, palm, etc.)
- 4) It is considered that a house has sufficient living space if no more than three people share a room (4sq m minimum)

\*A measurement was conducted for the year 2005

The 2005 National Housing Income and Expenditure Survey, was a special edition and further actualizations of this survey have been conducted on a biennial manner.

Indicator				
YEAR	VIII.B	VIII. C	VIII.D	XII
	Percentage of income assigned to local governments from the National Budget <sup>110</sup>	Percentage of expenditure of the local governments from the National Budget <sup>111</sup>	Percentage of the expenditure of local governments financed through local income <sup>112</sup>	Proporción del producto interno bruto (PIB) nacional que se produce en zonas urbanas <sup>113</sup>
1996	81.45%	81.45%	18.61%	-
1997	84.95%	84.95%	15.05%	-
1998	87.64%	87.64%	12.36%	-
1999	87.73%	87.73%	12.27%	-
2000	89.76%	89.76%	10.59%	-
2001	89.93%	89.93%	10.07%	-
2002	89.20%	89.20%	10.80%	-
2003	88.74%	88.74%	11.26%	-
2004	88.58%	88.58%	11.42%	-
2005	88.87%	88.87%	11.13%	-
2006	87.76%	87.76%	12.24%	-
2007	83.91%	83.91%	16.09%	-
2008	87.03%	87.03%	12.97%	77.972%

<sup>110</sup> Es el valor porcentual de los ingresos asignados por la federación a los estados en relación a los Ingresos totales de los estados.

<sup>111</sup> Es el valor porcentual de las aportaciones federales a los estados en relación a los Egresos totales de los estados. Debido a que contablemente los Ingresos = Egresos el valor del indicador es el mismo en ambos casos.

<sup>112</sup> Es el valor porcentual de los ingresos recaudados por los estados en relación a los Ingresos totales de los estados.

<sup>113</sup> Es el valor porcentual del PIB de las 78 ciudades que conforman Zonas Metropolitanas (de acuerdo a la definición de CONAPO-INEGI 2010) respecto del PIB nacional.

Indicator				
YEAR	VIII.B	VIII. C	VIII.D	XII
	Percentage of income assigned to local governments from the National Budget <sup>110</sup>	Percentage of expenditure of the local governments from the National Budget <sup>111</sup>	Percentage of the expenditure of local governments financed through local income <sup>112</sup>	Proporción del producto interno bruto (PIB) nacional que se produce en zonas urbanas <sup>113</sup>
2009	84.69%	84.69%	15.31%	83.295%
2010	83.07%	83.07%	16.93%	81.239%
2011	81.62%	81.62%	18.38%	80.510%
2012	84.63%	84.63%	15.37%	80.002%
2013	85.42%	85.42%	14.58%	



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