

The concentration of people and investments in the capital of a country of Latin America

Case of Lima, Peru

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Investments
in the capital
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Abstract

Purpose – The purpose of this paper is to analyze the population growth, migration, poverty, economic, political, environmental aspects and the management of the budget at national and municipal levels, including information of other cities in Peru, to define the effect on the quality of life of the population and formulate a management recommendation to help improve the quality of life in Lima and on intermediate cities.

Design/methodology/approach – The methodology of the study consisted on collect, review and select important factors that influence the quality of life in a big city, in this case in Lima, the concentration of people of Peru in Lima, migration and poverty, the coverage and quality of services, the concentration of the economy, public and private investments and services in Lima, some political aspects and a view of the available budget and the needed investment.

Findings – The deficiencies in the habitability conditions of the residents of Lima were verified considering the limited infrastructure and public services, the low level of investments and the limited effectiveness of the technical and administrative work of the municipal authorities and the central government. Although studies on other important cities in Peru are more limited, it could be said that similar limitations are being presented for example in transportation.

Research limitations/implications – The main obstacle to the study is the limited availability of information of such broad aspects that characterize a city that could not be covered in one paper.

Practical implications – The result of the study supports the need to implement appropriate management decisions about urban planning and investment policies for Metropolitan Lima, as well as to raise municipal and central government technical and legal conditions that are attractive for residents and investors for other cities in the country seeking their development, as well as to help counteract the concentration of people in Lima to control the demands of their habitability.

Social implications – The study could impact not only in the habitability conditions of about 10m inhabitants of Lima, but to all the 30m inhabitants of Perú.

Originality/value – Presents a unified vision of the social, economic and political deficiencies to the provision of services to a city concentrating the population of a country.

Keywords Urban planning, Public management, City management

Paper type Case study

1. Introduction

Latin America is conformed for 20 countries that, with the exception of Brazil, Guyana and Haiti, are spanish-speaking: Argentina, Colombia, Peru, Venezuela, Chile, Cuba, Ecuador, Guatemala, Bolivia, Dominican Republic, El Salvador, Uruguay, Honduras, Paraguay, Nicaragua, Costa Rica and Panama, whose capitals were founded with a central plaza, that in time expanded without following an urban development plan occupied in part by immigrants with limited economical resources that receive low-quality services.

The UN-Habitat (2012) provided important information about the population and the situation of the available infrastructure and services in Latin America and Caribbean as the economic development, housing, public spaces, security, basic services such as water, sanitation and solid waste management, mobility, the environment, management, urban governance and decentralization.



In relation to the living conditions, it can be said that the initiatives taken to fight poverty in the last two decades lowered the proportion of the population living in poverty, although reaching about 115m people, UN (2014) referring that there has not been significant improvement in social equality with income gaps, low-quality housing and that the economically disadvantaged sector continues to pay more for a low-quality water supply provided during specific hours or with tanker trucks. The UN (2014) remarked that “in some cases, the situation reaches critical levels and it is necessary to collect water in remote areas, which implies higher economic and environmental costs. This situation is particularly critical in large cities such as Mexico or Lima.”

Many cities have high levels of traffic which causes significant economic losses due to transportation delays. The streets capacities are exceeded with the increasing number of vehicles and because regulations are not enforced. Furthermore, citizens feel insecure due to the organized crime. It is stated that “the cities of Latin America and the Caribbean are considered the most dangerous places in the world” (UN, 2014).

It is necessary to highlight the population concentration or dispersion on a territory since it impacts on the provision of services and the construction of road infrastructure and housing. While the expansion of cities contributes to the dispersion of the population, it challenges the management for these cities due to the need to improve and maintenance of the infrastructure. Largest cities require more paved roads, elevated bypasses, mass transportation, longer drinking water and sewerage pipelines, longer lines of electric transmission which demand higher budgets.

The MGI (2011a, b) evaluated the performance of eight of ten important cities in Latin America: Sao Paulo, Mexico City, Buenos Aires, Rio de Janeiro, Lima, Bogota, Santiago and Monterrey, remarking that even if those cities have the highest GDP, have problems to provide their citizens with high-quality social basic services, as education, health, safety, adequate infrastructure and security.

In addition, MGI (2011a, b) identified 188 medium-sized cities that accounted for almost a third of the regional GDP. Stating that an environment attractive for companies and skilled workers are incentives that shall be implemented to increase the growth of those cities and the contribution to the competitiveness of the country.

Capital cities concentrate most of the public and private investment in the country, although medium-sized cities could attract investment and contribute to reduce migration to Lima.

2. Purpose

The purpose of the study is to analyze the population growth, migration, poverty, economic, political and environmental aspects and the management of the budget at national and municipal levels, including information of other cities in Peru, to define the effect on the quality of life of the population and formulate a plausible recommendation to help improve the quality of life in Lima and on intermediate cities.

3. Methodology

The methodology of the study consisted on collect, review and select important factors that influence the quality of life in a big city, in this case in Lima, the concentration of people of Peru in Lima, migration and poverty, the coverage and quality of services, the concentration of the economy, public and private investments and services in Lima, some political aspects and a view of the available budget and the needed investment.

4. Concentration of population in Lima

4.1 Lima and its population growth

Metropolitan Lima, capital of Peru, of Spanish foundation in 1535 on the banks of the Rímac River, at the central part of the coast, was expanding with its population growth that

reached 9,395,300 inhabitants in 2012, INEI (2013), when began to exceed the 30 percent of the total population of the country, occupying about 2,600 km², mostly with agricultural aptitude of the valleys of the rivers Rimac, Chillón and Lurín characterized by presenting a temperate climate of two seasons, summer with maximum temperatures of 30°C and winter with a minimum of 11°C.

Throughout the nineteenth century the population of Lima went from 60,000 to 120,000 people. Between the years 1919 and 1930 the city expanded with a modernization of the urban services with the construction of the water treatment plant of the Atarjea and the important avenues Arequipa, Venezuela and Brazil.

The census of 1931 found that the population reached 273,000 inhabitants, that is that in 30 years it had doubled its inhabitants; in 1940, after only 9 years, the national census found that the population had doubled again exceeding 533,000 inhabitants. In 1940, the urban population, defined as towns with more than 2,000 inhabitants, was 36 percent of the total at national level.

After 1940, year when a strong earthquake shook the central coast of Peru that provoked people migration mostly to Lima, settling on the Cerro San Cosme, on what was then considered a temporary housing solution, followed by the invasion of San Pedro, the Agustino and the subsequent occupation of the named City of God and Huaycán in the outskirts. The expansion of the city did not follow an urban plan.

According to the 1961 population census, Lima reached 1,845,000 inhabitants, a population that during the 1960s continued to grow at a rate of 5.5 percent per year. Lima went from having 5 percent of the total population of Peru at the beginning of the century to 24 percent in 1972 and 31.1 percent in 2012 (INEI, 1984). The evolution of the population of metropolitan Lima and that of the country is shown in Table I; by 2012 the urban population reached 76.2 percent and the rural population 23.8 percent of the total population of Peru. The urban population has doubled from 35.4 percent of the total population of 1940 to 78.2 percent, while the population of Metropolitan Lima practically tripled as a percentage of the total population (Table II).

Population	1940	1961	1972	Thousands 1981	1993	2007	2012
National	6,208.0	9,906.7	13,538.2	17,005.2	22,048.3	27,412.1	30,136
Urban	35.4	47.4	59.5	65.2	70.1	75.9	76.2
Rural	64.6	52.6	40.5	34.8	29.9	24.1	23.8
Lima Metrop.	645.2	1,845.9	3,302.5	4,608.0	6,345.9	8,482.6	9,395.3
Lima/Pais	10.4	18.6	24.4	28.6	28.8	30.9	31.1

Table I.
Perú and Metropolitan
Lima, total population,
rural and urban
(percentages)

Sources: INE Census, Statistical Compendium 1983, Special Bulletin No. 6, 1984, Lima, INEI Día Mundial de la Población, July 2013, Table II shows the decline of the population growth in percentage and the same tendency of the immigration to Lima

Rate of growing	1940–1961	1961–1972	1972–1981	1981–1993	1993–2007	2007–2012
National	1.9	2.8	2.6	2.0	1.5	1.1
Lima	5.1	5.4	3.7	2.7	2.1	
Native	3.7	5.4	4.5			
Immigrant	7.6	5.4	2.8			

Table II.
Population growth
(percentages)

Source: INEI Census, Statistical Compendium 1983 and Special Bulletin No. 6

The last official census, INEI (2017a, b), finds a population of 31,237,385 inhabitants, showing a lightly decrease of the annual population growth, but with Metropolitan Lima maintaining a share of more than 31 percent of the total population of the country.

4.2 Other cities

Peru presents other important cities as Arequipa and Trujillo, with a population about 1m inhabitants while other six cities have about half a million inhabitants, Table III, that results attractive for migrant people although they present deficits of services and infrastructure. Table IV shows a decrease in the population growth, maintaining relatively high rates of 2.5 and 2.6 percent in Puerto Maldonado and Moyobamba in the Selva, and 2.3 and 2.7 percent in Huaraz and Cajamarca in the Sierra.

5. Poverty and migration

Among the causes that contributed to migration to Lima are natural events such as droughts, floods, earthquakes, added to terrorism and the allocation of government resources that concentrate public and private investments in Lima, that results in better services and more opportunities to get a job in the capital. For example the earthquake of 1963, that produced an alluvium in the Callejón de Huaylas that buried the town of Yungay contributed to migration to Lima.

Other important causes for migration were the crisis in the rural sector as a result of the Agrarian Reform initiated in 1968, the floods caused by extreme rains and the increase in river discharges due to the El Niño that hit the northern coast of Peru in 1965, the drought in the north of the country between 1979 and 1980, the economic crisis of the 1976 and 1980 period that contributed to the emigration mainly to Lima (Municipalidad Metropolitana de Lima, 1992).

The Metropolitan Planning Institute of Lima (2014) discussed the factors that influenced urbanization and migration to the urban area of Metropolitan Lima, naming the influence in the 1980s of the formalization of land by COFOPRI and the creation of the satellite city Ventanilla at the north of Lima.

During the first five years of the 1980s, subversive actions were active mainly in Ayacucho. Between 1989 and 1993 were reported an annual of 2,725 attacks, causing that between 1983–1985 about 23 percent of the total number of emigrants at the country were original from that department, a percentage that increased between 1986 and 1989 to 45 percent, and decrease during the following years (Table V) (Commission of Truth, 2003).

The evolution of the number of the immigrant population to Metropolitan Lima from 1961 to 2007 is shown in Table VI, observing that in 1961 were registered 822,598 immigrants elevating in 2007 to over 3m inhabitants even with a decrease in percentage to 37.9 percent of the total population registered in that last year.

Population	Year, thousands						
	1940	1961	1972	1981	1993	2007	2012
Arequipa	80,947	158,685	309,094	446,942	619,156	805,150	844,407
Trujillo	36,957	103,02	240,322	354,301	509,312	709,566	765,495
Chiclayo	31,539	95,667	177,321	279,527	411,536	526,010	583,159
Piura	27,919	72,096	126,010	207,934	277,964	421,618	417,892
Iquitos	31,828	57,772	110,242	178,738	274,759	360,314	422,058
Cusco	40,657	79,857	120,881	184,550	255,568	348,935	405,642
Chimbote	4,243	59,990	160,430	216,579	268,979	320,240	361,291
Huancayo	26,729	64,153	126,754	164,954	258,209	336,349	353,535
Tacna	11,025	27,499	56,540	98,532	174,336	242,451	279,750

Table III.
Most populated cities
of Perú

Sources: INEI, Censuses 1940, 1961, 1972, 1981, 1993, and estimated 2012, Special Bulletin No. 6

Location	City	Years					
		1940–1961	1961–1972	1972–1981	1981–1993	1993–2007	2011–2015
Lima – Callao		5.1	5.5	3.9	2.7	2.0	1.2
Cost	Ica		5.1	3.0	2.9	1.9	0.9
	Trujillo		8.3	4.4	3.1	2.1	1.2
	Chiclayo		6.4	4.5	3.3	1.5	0.8
	Moquegua		7.0	3.5	4.8	2.1	1.2
	Piura		5.2	4.4	2.4	2.2	1.2
	Tacna		6.8	5.6	4.9	2.3	1.3
Mountain	Tumbes		4.3	4.2	3.7	1.7	1.0
	Huaraz		4.0	4.1	3.4	2.9	2.3
	Abancay		3.2	4.9	7.4	0.6	0.5
	Arequipa		6.1	4.4	2.8	1.4	0.8
	Ayacucho		5.2	5.2	3.6	2.5	1.5
	Cajamarca		5.2	4.7	3.4	4.0	2.7
	Cusco		3.9	4.5	2.8	2.2	1.4
	Huancavelica		3.2	3.2	3.3	2.0	1.3
	Huánuco		4.9	2.6	5.6	1.6	1.0
	Huancayo		6.4	2.9	3.8	1.6	0.8
	Cerro de Pasco		7.4	4.9	–0.5	0.4	–0.3
	Puno		4.7	5.6	2.6	1.9	
Jungle	Chachapoyas		3.7	1.7	2.4	2.7	1.8
	Iquitos		6.1	5.1	3.6	2.1	1.0
	Pto Maldonado		3.8	10.0	7.8	4.8	2.5
	Moyobamba		1.7	3.9	4.6	3.9	2.6
	Pucallpa					1.2	1.0

Source: INE (1981), INEI Peru Statistical Compendium 2003, INEI Día Mundial de la Población, July 2013, Lima

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Table IV.
Growth rates of
population for
department's capitals
cities 1961–2007
(percentages)

Years	Percentage
1983–1985	23
1986–1989	45
1990–1992	27
1992–1993	Reduction

Source: Truth Commission (2003, p. 639)

Table V.
Evolution of
emigration due to
subversive actions
1983–1993

Year	Census population		Immigrants	
	Absolute	%	Absolute	%
1961	1,845,910	100	822,598	44.6
1972	3,302,523	100	1,512,093	45.8
1981	4,608,010	100	1,818,103	39.4
1993	6,345,856	100	2,492,367	39.3
2007	8,482,619	100	3,189,465	37.6

Source: INEI Censuses Population 1961, 1972, 1981, 1993, 2007

Table VI.
Census population
and immigration to
Lima 1961–2007

Of the three natural regions of Peru, INEI (2008), the sierra and the jungle have the higher percentages of people in extreme poverty, resulting the province of Maynas, where the city of Iquitos is located with 14.9 percent, which has the highest numbers of people in total and in extreme poverty followed for Huancayo and Cusco (Table VII).

According to the INEI, in that year 39.3 percent of the population was in a situation of poverty at national level, of which 13.7 percent were considered extremely poor and 25.6 percent poor. That year, the census by regions and areas of residence show great inequalities. Poverty reached 25.7 percent in urban areas while in rural areas 64.6 percent. On the other hand, on the coast, poverty affected 22.6 percent of its population, while in the sierra it was 60.1 percent and in the jungle 48.4 percent. That year Metropolitan Lima in turn showed 18.5 percent of its population living in poverty conditions, this was about one and a half million people.

The INEI (2017a, b) indicates that in 2016 the poor of Peru were engaged in agriculture, fisheries and mining activities, being the last one the major contributor to the country's economy.

The enormous damage product of the torrential rains between 2016 and 2017 mostly on the northern coast of Peru with 162 deaths, 141,000 victims, damages of more than 66,000 houses, bridges and kilometers of roads, however has so far no produce the increase of migration to Lima (INDECI, 2018).

6. Effect of poverty on urban development and the quality of services

The need for housing for new residents is contributing to the densification of the use of the space which results in construction of buildings of apartments and offices, which causes serious problems of transportation and difficulties in the provision of services, in addition to the occupation of open spaces that results in an unequal occupation and in the quality of infrastructure and services offered, so that, on one hand, for example people of Miraflores, San Isidro, La Molina, San Borja, Jesús María, Surco, Surquillo, Pueblo Libre, reside in modern constructions of reinforced concrete and bricks, with potable water and sewerage facilities, while another sector of the population lives partially in precarious housing with limited services of drinking water and sewerage and lack of paving of roads in Comas, Carabaylo, San Juan de Lurigancho, Villa El Salvador, Villa Maria del Triunfo and San Juan de Miraflores.

This situation graphics of how the rural poverty has become urban reaching four fifths of the total population of the country in that situation. Between 1997 and 1999, from the half a million of people additional poor 43 percent corresponded to the capital and 30 percent to other coastal cities (Dávalos, 2011). Between those years, extreme poverty remained practically the same, reaching 18.2 and 18.4 percent, respectively. The settling of the displaced in marginal areas of Lima aggravated their poverty situation by joining in its vast majority to the informal sector of the economy.

In the middle 1980s, 80 percent of the extension of Lima was made up of low middle class and poor neighborhoods, while the remaining 20 percent was residential neighborhoods. The population of the poor neighborhoods that in 1950 reached 10 percent of the total population in the capital, in 1980 was already 50 percent. Thus, the population of the poor that reached 110,000 in 1956 bordered the 2m inhabitants in 1987.

Table VII.
Poverty in provinces
with the most
populated cities

Province	Total	Poverty (percentage)	
			Extreme
Callao	18.8		0.3
Arequipa	21.7		2.8
Cusco	28.2		7.3
Huancayo	37.6		8.0
Trujillo	20.1		2.1
Chiclayo	29.2		2.1
Maynas	42.9		14.9
Piura	37.5		8.0

Source: INEI – Population and Housing Census 2007

The high number of people in need of better education, drinking water, electricity, paved streets, and security in their neighborhoods of districts as El Cercado, La Victoria, San Martín de Porres, Rimac, Breña that in 1983 represented half of the Lima electors to which it should be added the citizens of districts of Ate, Carabaylo, Comas and San Martín de Porres, and lately of San Juan de Miraflores and San Juan de Lurigancho gives to that population a high potential to influence the investment decisions of the authorities of the Executive and Congress. It should be noted that these districts have a larger population than practically all the capitals of the other departments of Peru together.

The Institute of Peruvian Studies, Gonzales (1991) points out that an important fact in the years has been the marginalization of the peasants and the poor in the urban areas.

For Pearce and Warford (1993), the growth of poor urban population is a key challenge for a big city with large areas where the basic urban services are in deficit.

7. Concentration of the economy and public services in Lima

Lima is the most important economic, financial and social center of Peru. In Lima are located the offices of international entities, banks, insurance companies, Pension Fund Companies, commercial import and export companies, and the organs of government (executive), legislative (Congress), judicial and electoral. It reaches more than 80 percent of the collection and deposits of money of Peru.

Since the Spanish foundation Lima is the center of Peru, and in 1970 economic centralization was manifested in various aspects since it produced four fifths of industrial goods and employed two thirds of the country's industrial workers. In 2006, Yamada (2010) pointed out that Lima's manufacturing GDP was 59.80 percent of the national industrial GDP, followed by Arequipa with 10.10 percent, while 13 regions added less than 1 percent and regions such as Huancavelica, Ayacucho, Apurímac, Pasco and Madre de Dios produced less than 0.04 percent of Industrial GDP. The GDP per capita of metropolitan Lima reached 2.5 times the GDP per capita of the rest of the country.

INEI (2018) presents the participation to the gross added value of the manufacture for Departments from 2007 to 2016 as a percentage. Lima exceeded 61 percent of the total of the country (Table VIII).

It should be noted that Lima concentrates the investments in public works just mentioning that the financing to lines three and four of the electric train would exceed ten billion dollars at the expense of investment. in other cities and in fact exceeding the needs to completely develop the 1m hectares of agricultural land of the coast of Peru.

The average monthly income of the inhabitant of Lima, in peruvian currency soles S/. of S/. 1,508.8, was higher than the national monthly income average of S/. 1,141.1 and that the monthly income of S/. 950.5 of the workers of the interior of the country was about 63.3 percent of the worker's monthly income in Lima (INEI, 2012).

Lima has the main universities at the undergraduate and graduate level, research institutes and schools with international baccalaureate, has health services, public hospitals, health centers and private clinics as well as the pharmaceutical industry, recreation centers, information and culture such as zonal parks, theaters, museums, cinemas, television and radio stations, newspapers, soccer and volleyball stadiums, first class hotels and large service centers.

Lima constructs bypasses and hosts the main port, Callao, and the international airport, Jorge Chávez. The automotive fleet includes light vehicles, buses and trucks, operating metropolitan bus lines, electric trains, taxis and private bus lines, although the so-called motorcycle taxis proliferate which, together with the disorderly growth of the city, cause traffic chaos and pollution environmental of the sound and gas emission of the automotive vehicles, situation that is repeating in other cities such as Piura and Huancayo, Bayona and Márquez (2015). It should be noted that the poorest people spend for transport between 15 and 20 percent of their monthly income.

Table VIII.
Manufacture, gross
added value for
departments, constant
prices of 2007
(percentage)

Department	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Amazonas	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1	0.2	0.2
Ancash	2.7	2.7	2.5	2.1	2.4	2.3	2.5	0	2.2	2.4
Apurímac	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1	0.1
Arequipa	6.3	5.9	6.2	5.7	5.6	5.4	5.1	4	5.1	5.2
Ayacucho	0.7	0.7	0.7	0.7	0.7	0.7	0.6	5	0.6	0.6
Cajamarca	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1	1.1	1.1
Cusco	2.4	2.2	2.2	2.2	2.1	1.9	1.9	7.0	1.6	1.6
Huancavelica	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1
Huánuco	0.6	0.6	0.6	0.6	0.6	0.6	0.6	5.0	0.5	0.5
Ica	4.5	4.7	5.3	5.1	5.1	4.7	4.7	5.0	4.6	4.5
Junín	3.7	3.3	1.8	1.4	1.4	1.4	1.0	5.0	1.4	1.4
La Libertad	4.7	4.6	4.8	4.8	4.6	4.9	5.0	9.0	4.8	4.8
Lambayeque	1.6	1.6	1.7	1.7	1.6	1.7	1.7	7.0	1.7	1.7
Lima	56.5	56.6	57.0	59.3	60.0	60.6	60.4	0.9	61.0	61.2
Loreto	1.0	1.1	1.0	1.0	0.9	1.0	0.9	1.0	1.0	0.9
Madre de Dios	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0	0.2	0.2
Moquegua	5.3	6.5	6.4	5.8	5.2	4.9		5.0	5.8	5.6
Pasco	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.0	0.1	0.1
Piura	4.2	4.0	4.1	3.9	4.2	4.3	4.2	4.3	4.3	4.1
Puno	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.0	1.1	1.1
San Martín	0.7	0.7	0.8	0.8	0.7	0.8	0.7	8.0	0.8	0.8
Tacna	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.0	0.4	0.4
Tumbes	0.3	0.3	0.3	0.3	0.3	0.3	0.3	4.0	0.4	0.4
Ucayali	1.1	1.1	1.1	1.1	1.0	1.0	1.0	3.0	1.0	0.9

Source: National Institute of Statistics and Informatics, INEI (2018)

It should be noted that the financial and commercial center of Lima antique, San Isidro, Miraflores, La Victoria, and the industrial zones of Lima and Callao are the pivot for the movement of people and goods of the country.

With the cities growing without a good urban planning, the streets are not fit for the increase of the transit that results in a vehicular movement with an average velocity between 10 and 15 km/h.

The food consumption of the inhabitants of Lima reaches 365 kg/year including meats, milk and eggs, the energy consumption at about 1,248 kWh, the fresh water for the total population reaches about 27 m³/s of water that are be covered with superficial discharges from the Chillón and Rímac rivers, as well as ground water of those valleys and the Lurín valley and the water transfer from the Mantaro river basin (Coronado, 2004). As an average, people of Lima receive an offer of 103 L/day per habitant (Reinhard, 2009). Table IX shows the evolution of the water production for Metropolitan Lima.

As of 2012, drinking water coverage by public network reached 76.8 percent nationwide, differentiated between 89.2 percent in urban areas and 40.8 percent in rural areas, while the sewerage service reached a national average of 65.3 percent, with coverage of 83.8 percent in the cities and 11.2 percent in the rural area.

Marginal urban areas urge investments linked to the need for expansion of potable water pipelines and the need for collecting and treating of wastewater. Rural areas require the expansion of the coverage, the implementation of water disinfection measures and health education campaigns.

The entity in charge of offering water in Lima, SEDAPAL (2010), plan to increase the offer of water catching from the Mala and Cañete rivers more, than 130 km away to the south of Lima, and from the Chancay-Huaral river, 100 km away to the north of Lima, that shows the critical situation or critical stress of this resource. The Master Plan, SEDAPAL (2012),

Table IX.
Fresh water, liters/
habitant day,
metropolitan Lima

Year	Liter/habitant/day not billed	Water production m ³ /s	Population coberture million	Liters/habitant/day production
1999	nd	21.64	6.25	299
2000	127	21.43	6.40	289
2001	115	20.94	6.59	274
2002	105	20.58	6.76	263
2003	106	21.00	6.95	261
2004	91	19.71	7.08	240
2005	103	21.24	7.31	251
2006	100	21.08	7.00	260
2007	92	20.64	7.20	248
2008	87	20.83	7.70	234
	103			261

Source: Reinhard (2009)

considers to offer 250 L/day per habitant with an investment exceeding \$5,000m, without considering the replacement of the old distribution and wastewater pipes within the city that will probably require a similar amount.

Trying other investments for Metropolitan Lima, it is pertinent to point out that to improve the urban transport, for example, the so-called Metropolitan Line 2, demands more than \$6,000m and other investment for complementary projects.

The Peruvian Chamber of Commerce of Lima, CAPECO Cámara Peruana de la Construcción, Área de Estadística (2003), presents a resume of private investments from declared amounts for construction license in 20 districts (Table X).

There are other important services to provide to the citizens of Lima and all Peru. First the problem of the control of pollution mainly derivate from the inefficient garbage disposal that reaches alarming levels with accumulation in streets of certain districts affecting the

Activity	Declare investments (thousands new soles)					2002
	1997	1998	1999	2000	2001	
Comercial	193,275	188,618	171,471	160,527	130,805	152,629
Sport centers	29,413	4,940	4,491	451	424	494
Schools	5,247	22,320	20,291	11,253	10,578	12,334
Medical centers	3,855	3,200	2,909	3,670	3,450	4,023
Hotels	26,504	13,044	11,858	56,152	52,783	61,547
Religions constructions	2,829	5,213	4,739	5,400	5,0760	5,919
Industrial	9,708	6,311	5,737	8,220	7,726	9,009
Markets	624	—	—	287	270	315
Cultural	2,062	6,031	5,482	1,121	1,054	1,229
Commercial buildings	69,674	110,497	100,451	—	—	—
Universities	2,483	2,128	1,935	7,771	7,305	8,518
Houses, individuals	65,270	92,348	83,952	62,203	58,471	68,179
Houses. multifamilies	265,303	269,716	245,197	198,732	186,808	217,825
Repair and mantainance	32,380	13,371	12,156	13,306	12,507	14,584
Fences	876	810	737	1,298	1,220	1,422
Various	20,041	27,297	24,816	29,494	27,724	32,327
Demolitions	26,958	17,275	16,726	16,726	15,722	18,333
Total	756,482	783,119	711,926	576,608	522,012	608,686

Table X.
Investment of
private constructions,
1997–2002

Source: CAPECO (2003), registered information of 20 city halls of Lima, The Peruvian public budget approved for 2018, Public Law (30693), for Metropolitan Lima is S/. 4,738,699,302 this is 3 percent of the total budget for the country, and 30 percent of the total budget allocated for all the other cities

health of people, second, to control the serious problem of insecurity, robbery and murder and, third, to confront the problematic of transport due to inefficient traffic regulations, high level of use of private cars that provoke that could take between 40 min to an hour to cover 10 km, that result in a loose of about one working hour per day. CEPAL (2012) presents the problematic of transportation in Peru, and CEPLAN (2013) a strategic vision of the transportation system to 2050, that needs to consider the funding to other cities of Peru, to balanced development of Peru.

It is worthy to mention the ineffectiveness of the municipal and of the central government officials' actions of the management of the solutions to provide the necessary services and infrastructure.

MGI (2011a, b) declares "Latin America's political and business leaders need to act decisively on two fronts to improve the performance of the region's cities and turn its demographic profile to advantage. They need to reform and upgrade the region's largest cities and to enable a broader group of high-performance medium cities to emerge."

8. Political aspects

Other important aspect to deal to complete the vision about Metropolitan Lima is to present what the electoral registered citizens of Lima represent since there are about 30 percent of the total electors of Peru, of which 18.5 percent of its population were living in poverty conditions, this was about one and a half million people.

Table XI presents the evolution in percentage of number of electors of the districts with the poorest population to the total population of Lima population (JNE, 2006).

The results of the Peruvian presidential elections since 1980 showed, first that the vote of the poor of the sierra and the vote of the poor of Lima were clearly opposed in the preference of the candidates for the presidency of the republic, as it was for the election of the second term of Alberto Fujimori and at the time of the election of Alejandro Toledo, the preference of the poor of the sierra and the poor of the capital remained opposed.

Second, the poor that was located to the left on the political spectrum rejected with its vote in 1990 the organized political parties such as APRA, the Popular Christian Party and FREDEMO, to vote for the candidate who seemed to be in a closer situation or were perceived similar to them, such as Alberto Fujimori's, or in the next election voting for Alejandro Toledo whose apparently ethnic condition attracted the poor of the sierra.

In June 2006, Alan García was elected president of the Peruvian Republic by obtaining the majority of the votes in all districts of the capital, including the poorest (Lavrard-Meyer, 2007). In the following electoral process in which the candidate of the Nationalist party Ollanta Humala with a similar personal profile won with more than 70 percent of the votes.

9. The available budget and the needs

The current budget assigned to Metropolitan Lima that is about the same in percentage as its participation of its population for the total population of all the other cities of Peru, plus the amounts assigned in particular for the massive transportation are not enough to solve the actual needs of services, and worst considering the additional needs of the approximately 200,000

Table XI.
Electors of the poorest districts in percentage of the total of electors of Lima (1963–2006)

AÑO	1963	1978	1980	1983	1985	2006
%	8.50	22.00	27.82	29.52	43.44	40.00

Source: JNE, Jurado Nacional de Elecciones, Statistic Office, General Election 2006

inhabitants that are added yearly to the population of Lima, and so it will be necessary to increase the budgets to provide the services for Lima or as a balance assign budget to other cities.

The Lima public budget for 2018, Public Law (30693) of S/. 4,738,699,302 for about 10m inhabitants result about S/. 473. Soles a year or at the current change \$143, that does not need comment.

CEPAL, ONU-Habitat (2016) suggests that growing cities confront environmental and economic challenges with a high cost of the access to infrastructure and services of quality and the need of proper institutional and political backing.

10. Conclusions

Lima is a mega city with a population of 9,395,300 inhabitants at 2012, one-third of them immigrants, with one and a half million people living in poverty, is the economic, political and social center of Peru, which forces to concentrate investment of services and constructions in it.

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The study confirms that the conditions of habitability in Metropolitan Lima are deficient for its current population, due to investment and limited technical solutions, lack of authorities and politicians with sufficient management expertise, and that the habitability can only worsen with the population grown.

The inefficiency of the officers of Metropolitan Lima and of the central government results in a vertical growth of its constructions and in a chaotic expansion toward the outskirts, without an urban plan to take care of the habitable conditions, which makes it difficult and more expensive to offer adequate services for Lima's population.

Other large cities such as Trujillo, Arequipa and Chiclayo continue to grow retaining their inhabitants but also attracting immigrants, as it is also the case of other intermediate cities such as Piura, Iquitos and Huancayo, although presenting deficiencies in the provision of drinking water, of sewerage systems, security and transportation for their habitants.

It is necessary to implement appropriate management decisions about an adequate urban planning and investment policies for the actual areas of Metropolitan Lima, and to work on the urban plans for other cities of the country, aimed at reducing immigration to Lima, alleviating the demands of services and of infrastructure of its habitants and for a balanced development of the country.

11. Recommendations

Secure financial resources for the provision of infrastructure and services for the actual population of Lima and adopt policies for allocating resources to other cities in the country, seeking to attract residents and investors that would otherwise continue to migrate to the already overpopulated Metropolitan Lima.

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