

# *National Infrastructure Program 2014-2018*

## Analysis and opportunities

*May 2014*



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# 1.- *Executive summary*

The National Infrastructure Program 2014-2018 (2014-2014 NIP) was presented on April 28; it contains the priority infrastructure projects to be put into effect by the Federal Government during the present administration. This program is expected to bring back confidence and optimism among investors and society, who have been awaiting it practically since the President was sworn in, and announced some of the major works planned for his administration.

## **General objectives of the 2014-2018 NIP**

Unlike other programs in the past, the 2014-2018 NIP is divided into six strategic sectors, with concrete objectives, specific strategies and lines of action. These sectors are:

- Communications and transport
- Energy
- Water
- Health
- Urban development and housing
- Tourism

Compared to past infrastructure programs, the 2014-2018 NIP is focused on three specific regions: North, Central and South-Southeast, paying special attention to the South-Southeast region due to its underdevelopment as compared to the rest of the country.

## **Analysis by sector**

Specific projects and investments have been identified for each of these sectors; a total of ~596 billion dollars for 743 projects. Total programmed investment amounts to 8.3% of GNP<sup>1</sup>.

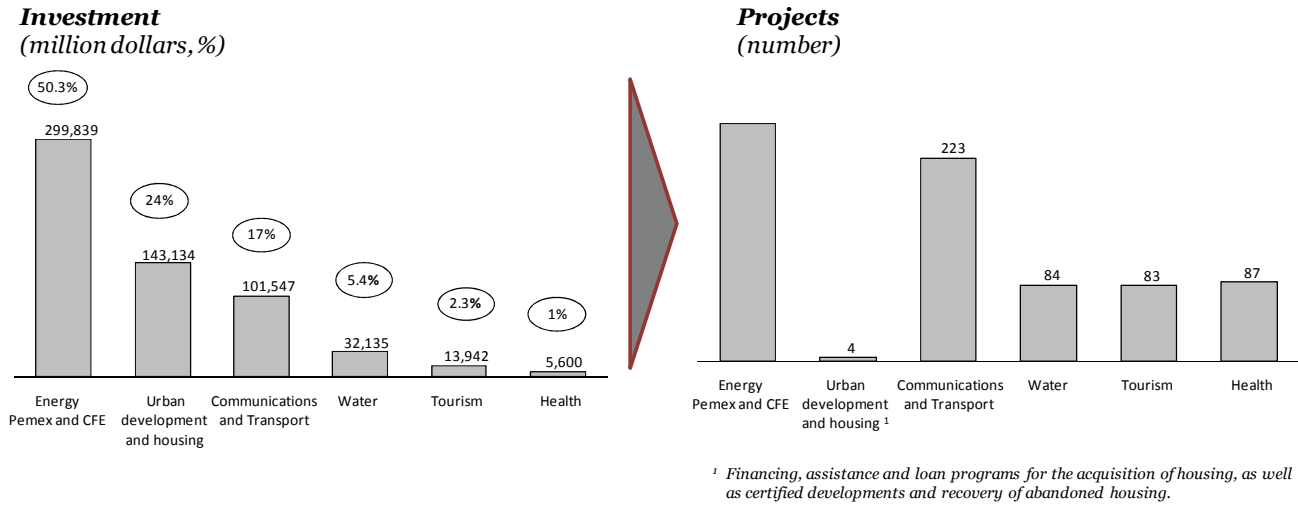
It is interesting to note that ~50.2% of the budget is concentrated on the energy sector (of which, ~7.72% corresponds to the CFE and ~42.57% to Pemex), followed by urban development and housing with ~24%, and communications and transport with ~17%. That is to say, those three sectors account for more than ~90% of the budget.

As for the number of projects, the sector in which there will be the largest number of infrastructure works will be the energy sector, with 262 projects.

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<sup>1</sup> The percentage was obtained by taking the ratio of total programmed investment to accrued GNP generated from 2014 to 2018. The calculation was based on the nominal Q4 2013 GNP and the average inertial growth rate figures contemplated in the 2014-2018 NIP.

Figure 1. Investments and projects included in the 2014-2018 NIP

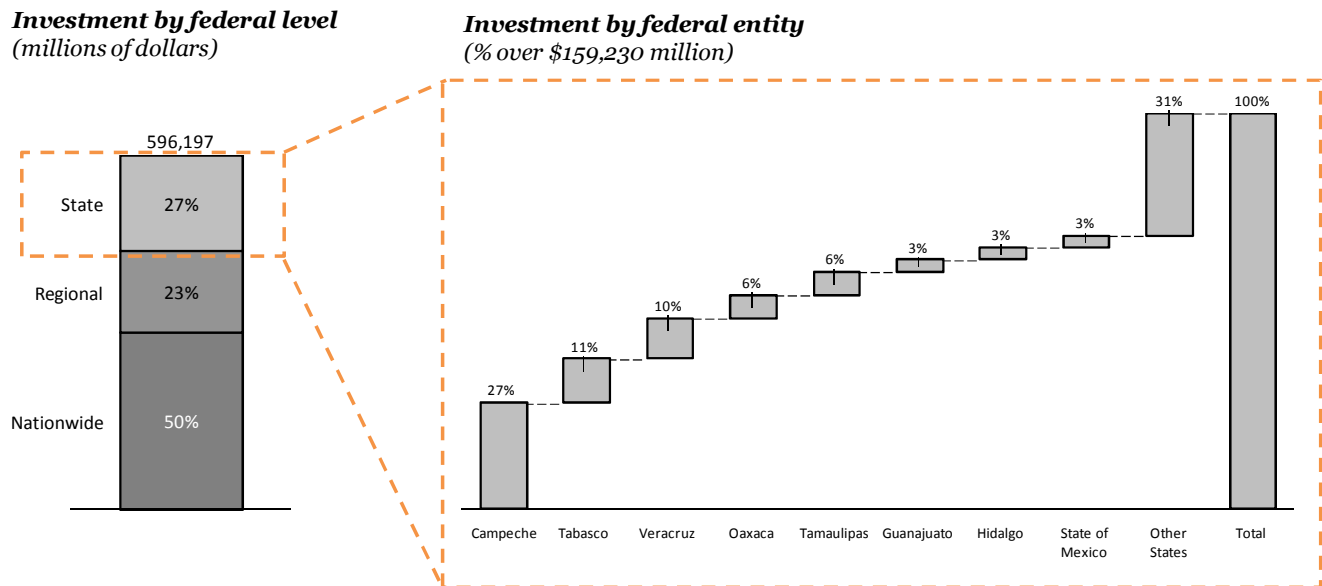


### Regional analysis

The 2014-2018 NIP is intended to be comprehensive, and to include projects with interregional or national coverage. The program calls for ~300 billion dollars (~50% of programmed investment) to be aimed at 48 projects that will have a nationwide impact.

Regarding investments considered to be made exclusively at the state level<sup>2</sup>, Campeche will receive the highest percentage (27%), followed by Tabasco and Veracruz. It should be pointed out that ~60% of the investment channeled to states is concentrated in only five states, four of which are located in the South-Southeast region.

Figure 2. Investments included in the 2014-2018 NIP



<sup>2</sup> It is important to mention that regional and nationwide investments extend over different states and have been calculated independently, in order to avoid duplication.

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## Principal projects of the 2014-2018 NIP

The most relevant projects contemplated for the 2014-2018 NIP are:

- Installation of the shared mobile services network and extension of the optic fiber trunkline network.
- Interurban trains and the trans-peninsular train.
- Extension of the Veracruz harbor.
- The drilling of development wells such as Ku-Maloob-Zaap, Cantarell and Tsimin-Xux.
- Extension of the gas pipeline network.
- Electricity generation, distribution and transmission projects, such as the Southeast II, III, IV and V Wind Power Stations and the North Combined Cycle Power Station.
- Distribution, drainage/sewerage and protection works for flood prevention, such as the East Drainage Tunnel (TEO for its acronym in Spanish).

It is expected that 63% of overall programmed investment is to be financed with public resources. However, the current administration also intends for the private sector to become actively involved, and contribute 37% with of overall programmed investment.

## 2.- General goals of the NIP

### Overall aim

In order to raise the level of welfare of society, it is imperative to create the necessary conditions that foster comprehensive development of each region and sector within the country. Investment in infrastructure is a strategic and priority matter for Mexico, since it is the means for generating economic development and growth while at the same time increasing the competitive capacity of the country.

The 2013-2018 National Development Plan includes goals such as “A Prosperous Mexico” and “An Inclusive Mexico”, which consider that an adequate infrastructure and access to strategic inputs encourage competitiveness and link human capital to the opportunities generated by the economy. Likewise, the plan calls for supporting the development of infrastructure via a long-term vision based on three fundamental focal points: i) balanced regional development; ii) urban development, and iii) logistical connectivity.

One of the conditions required for Mexico to be in a position to achieve its maximum potential is national and foreign investment in sectors that can provide the most thrust to sustainable growth. Because infrastructure demands high volumes of resources, and because the effects on the level of growth and development materialize over the medium and long terms, the 2014-2018 NIP must be provided with a comprehensive vision in order to be implemented.

### Specific goals and strategies

In adherence to the National Democratic Planning System and through the 2014-2018 NIP, the Federal Government seeks to orient the comprehensive functionality of the country’s new and existing infrastructure via the following goals, strategies and lines of action:

Table 1. Objectives, strategies and number of lines of action of the 2014-2018 NIP

Sector	Goal	Strategy	No. of lines of action
Communications and transport	To have an infrastructure and a logistics platform of modern communications and transport that will encourage greater competitiveness, productivity and social and economic development.	<ol style="list-style-type: none"> <li>1. Developing Mexico as a logistics platform with multimodal transport infrastructure that will generate competitive costs and value added, improve security, and foster economic and social development.</li> <li>2. Generating infrastructure that will ensure that passenger mobility is modern, comprehensive, agile, safe, sustainable and inclusive.</li> <li>3. Developing communications infrastructure that will extend coverage and provide access to better communications services.</li> </ol>	11




Sector	Goal	Strategy	No. of lines of action
Energy	To ensure the optimum development of infrastructure so that sufficient high-quality energy at competitive prices is provided.	<ol style="list-style-type: none"> <li>1. Extending and developing existing infrastructure for the exploration and extraction of hydrocarbons.</li> <li>2. Increasing and adapting the processing capacity for the transformation of hydrocarbons to ensure supply and maximize economic value.</li> <li>3. Promoting the development of domestic petrochemicals with own and complementary investment.</li> <li>4. Encourage the development of fuel transportation and storage projects.</li> <li>5. Developing infrastructure for generating electricity using efficient, low cost and low environmental impact fuels.</li> <li>6. Developing electricity transmission that will ensure the best use of resources and the best demand accommodation.</li> <li>7. Developing quality electricity distribution, cutting down on losses during supply, and increasing service coverage.</li> </ol>	19
Water	To increase water infrastructure so as to ensure the supply of water for human use and irrigation as well as for drainage/sewerage and flood protection.	<ol style="list-style-type: none"> <li>1. Building infrastructure to increase the supply of drinking water and drainage capacity.</li> <li>2. Modernizing and building infrastructure to increase the supply of water for irrigation.</li> <li>3. Building flood-protection infrastructure.</li> </ol>	8
Health	To contribute to strengthening and streamlining inter-institutional health infrastructure to guarantee effective access to quality health services.	<ol style="list-style-type: none"> <li>1. Establishing inter-institutional health resource planning and management (infrastructure and outfitting).</li> <li>2. Promoting comprehensive development of health infrastructure.</li> <li>3. Consolidating health infrastructure, prioritizing areas with vulnerable populations.</li> </ol>	15
Urban development and housing	Promoting urban development and the construction of quality housing provided with infrastructure and basic services, with controlled land access.	<ol style="list-style-type: none"> <li>1. Improving housing conditions and services within an environment of sustainable and intelligent urban development.</li> <li>2. Responsibly reducing the housing shortfall by improving and increasing available housing and by promoting the acquisition of new housing.</li> <li>3. Orienting financing towards dignified and sustainable housing based on territorial criteria that promote densification.</li> <li>4. Promoting housing developments.</li> <li>5. Planning, agreeing and implementing an integrated land distribution policy.</li> </ol>	19
Tourism	To develop competitive infrastructure that will drive tourism as a key determinant for regional productivity and as a creator of social well-being.	<ol style="list-style-type: none"> <li>1. Improving existing infrastructure and equipment at destinations with the highest influx of tourists.</li> <li>2. Promoting the creation of new tourism infrastructure with a view to diversifying supply.</li> <li>3. Promoting the development of infrastructure based on policies designed to increase competitiveness in matters of tourism.</li> </ol>	11

These goals are designed to streamline infrastructure works in the strategic sectors of the country in order to boost Mexican competitiveness and thus ensure that opportunities and development reach all regions, sectors and population groups.

## *A comprehensive vision of regional development*

The 2014-2018 NIP has a comprehensive focus due to the significant interrelationship between infrastructure and territorial development. Over the short, medium and long-term, this program is intended to promote balanced regional development through the creation of infrastructure that responds to the needs of each region in accordance with the competitive advantages offered by its productive vocation and geographic conditions, but particularly, in accordance with the skills and capabilities of the valuable human capital living in those areas.

On the other hand, the program contemplates the South-Southeast Transverse Strategy, which considers the promotion of development in that region via infrastructure works in the established strategic sectors that will make it possible to strengthen productivity and competitiveness at the domestic and international levels.

Region	State	Goal
North 	Baja California, Baja California Sur, Coahuila, Chihuahua, Durango, Nuevo León, Sinaloa, Sonora and Tamaulipas.	<ul style="list-style-type: none"> <li>• To create the necessary conditions to allow comprehensive development of all regions of the country so that any Mexican, regardless of his socio-economic condition, place of residence, gender, religion, ethnicity, language etc., can achieve his potential in accordance with their objectives.</li> <li>• To reduce the differences in existing infrastructure in the different zones throughout the country that limit opportunities for a more promising future for its inhabitants.</li> <li>• To reduce the inequality of opportunities among the different regions of Mexico.</li> </ul>
Central 	Aguascalientes, Colima, Distrito Federal, Guanajuato, Hidalgo, Jalisco, Estado de México, Michoacán, Morelos, Nayarit, Querétaro, San Luis Potosí, Tlaxcala and Zacatecas.	
South-Southeast 	Campeche, Chiapas, Guerrero, Oaxaca, Puebla, Quintana Roo, Tabasco, Veracruz and Yucatán.	



## 3.- Analysis by sector

The 2014-2018 NIP seeks to orient the comprehensive functionality of existing and new infrastructure in the country by promoting infrastructure programs and projects in the strategic sectors of communications and transport, energy, water, health, urban development and housing, and tourism.

The 2014-2018 NIP contemplates an overall investment of 596 billion dollars throughout the present administration, for a total of 743 infrastructure programs and projects, of which 572 are strategic and 171 are government commitments.

Table 2. Programmed investment and number of projects

Strategic Sector	Million dollars (2014)	%	Number of projects	%
Communications and transport	101,547	17.03	223	30.01
Energy (CFE)	46,030	7.72	138	18.57
Energy (Pemex)	253,809	42.57	124	16.69
Water	32,135	5.39	84	11.31
Health <sup>1</sup>	5,600	0.94	87	11.71
Urban development and housing <sup>2</sup>	143,134	24.01	4	0.54
Tourism	13,942	2.34	83	11.17
<b>Total</b>	<b>596,197</b>		<b>743</b>	

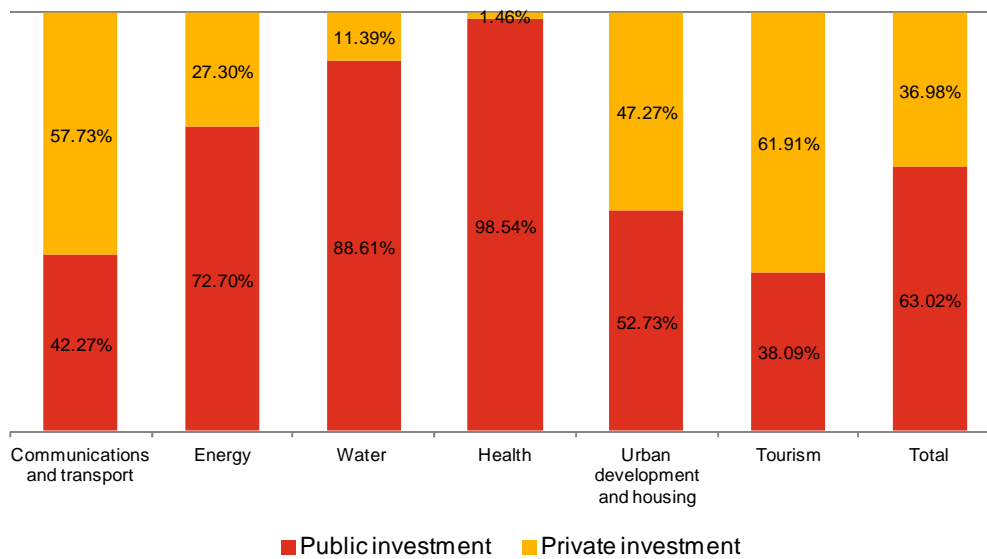
<sup>1</sup> Includes construction, modernization and conclusion of hospitals and medical units.

<sup>2</sup> All four projects involve financing, assistance and mortgage loan programs for the acquisition of housing, as well as certified developments, and the recovery of abandoned housing.

The energy sector is the sector in which the largest investment will be made during this government administration. Investment will be 299 billion dollars, 50.3% of total programmed investment, with a portfolio of 262 projects. This sector is followed by urban development and housing, with a total of 143 billion dollars, accounting for 24.0% of overall programmed investment. A total of 223 projects have been included for the communications and transport sector, which will require an investment of 101 billion dollars, equivalent to 17.0% of the overall programmed investment.

On the other hand, a similar number of projects are considered for the water, tourism and health sectors. However, amounts required differ, in accordance with their relative complexity and magnitude. 32 billion dollars have been slated for the water sector, 13 billion dollars for the tourism sector and 5 billion dollars for the health sector. In that same order, the sectors' share of total programmed investment represents 5.3, 2.3 and 0.9%, respectively.

Figure 3. Expected public investment versus private investment



Although the bulk of the financing for this program is sourced from public funds, the present administration foresees that the private sector will take an active role and contribute significantly with its own resources. Specifically, the private sector is expected to contribute with 36.9% of the total programmed investment.

Private investment is dominant in the tourism and communications and transport sectors, where it is expected to exceed 50% of total programmed investment for these sectors. Significant private investment of 27.3, 11.4 and 47.3% is also expected in the energy, water and urban development and housing sectors, respectively. The only sector in which private investment is expected to be below 10% is the health sector.

### ***Communications and transport***

The strategy of the 2014-2018 NIP is to promote the development of modern, comprehensive, multimodal transportation infrastructure that will allow for the safe and efficient movement of passengers and goods. It also seeks to extend coverage and access to communications and transport services that will increase the country’s competitiveness.

The program for the communications and transport sector includes airport, road, port, telecommunications, mass urban transit, railway and logistics infrastructure projects, among other complementary works designed to strengthen connectivity. It is estimated that this sector will require an overall investment of 101 billion dollars, spread out over 223 projects, out of which 103 are government commitments and 120 are strategic projects.

## Communications and transport subsectors

Table 3. Investment and number of projects in communications and transport subsectors

Subsector	Million dollars (2014)	Number of projects		
		Strategic projects	Government commitments	Total
Telecommunications	51,826	5	-	5
Road infrastructure	30,383	78	73	151
Railways	10,989	4	8	12
Ports	5,240	15	6	21
Mass urban transit	2,219	1	6	7
Logistics infrastructure	347	2	-	2
Airports <sup>1</sup>	279	14	6	20
Others <sup>2</sup>	263	1	4	5
<b>Total</b>	<b>101,547</b>	<b>120</b>	<b>103</b>	<b>223</b>

<sup>1</sup> Does not include the project for the new airport in Mexico City.

<sup>2</sup> Corresponds to an unclear description of the projects, referring in general to infrastructure works designed to strengthen connectivity.

In terms of programmed investment, the telecommunications subsector is the largest within the communications and transport sector, with 51,826 million dollars. That figure is to be distributed among five projects.

Of the 233 projects scheduled for the communications and transport sector, over half are road infrastructure projects. The figure budgeted for this subsector is 30,383 million dollars. Out of the 151 projects, 73 are government commitments, and 78 are strategic projects.

On the other hand, an investment of 10,989 million dollars is expected in the railway infrastructure subsector, distributed among 12 projects, most of which are government commitments.

In terms of programmed investment size, the next in line are the port and mass urban transit infrastructure subsectors. The investment required for the port infrastructure subsector is estimated to be 5,240 million dollars and 2,219 million dollars for the mass urban transit subsector. The number of projects scheduled for these two subsectors is 12 and 7, respectively.

The current administration will attempt to carry out two large logistics infrastructure projects, with an expected investment of 347 million dollars. Neither of those projects is a government commitment.

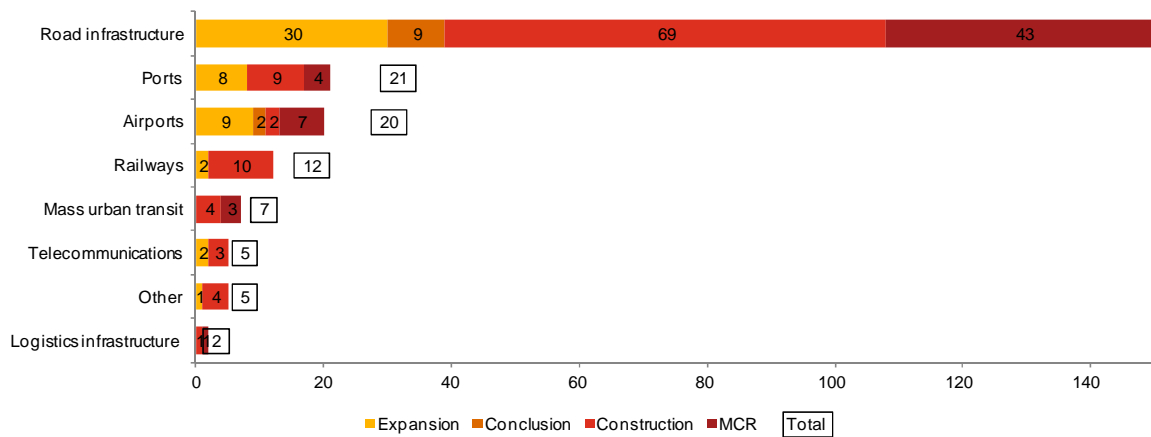
The 2014-2018 NIP has assigned the airport infrastructure subsector a total investment of 279 million dollars for a total of 20 projects, of which six are government commitments and 14 are strategic projects. The program does not include the new airport in Mexico City, which is still under evaluation. If considered feasible, the estimated investment will be in the region of 9,230 million dollars.

Lastly, the program has assigned 263 million dollars to five projects for complementary works intended to strengthen connectivity.

### Projects by type of work

Within the communications and transport sector, 45.7% of the projects involve the construction of new works, while half of the projects involve the expansion or modernization of existing infrastructure. Very few projects contemplate refurbishment or conservation work. The 2014-2018 NIP also includes works that could not be concluded during the previous administration, which represent almost 5% of works within this sector.

Figure 4. Number of projects in communications and transport subsectors, by type of work



Note: MCR refers to modernization, conservation or refurbishment work.

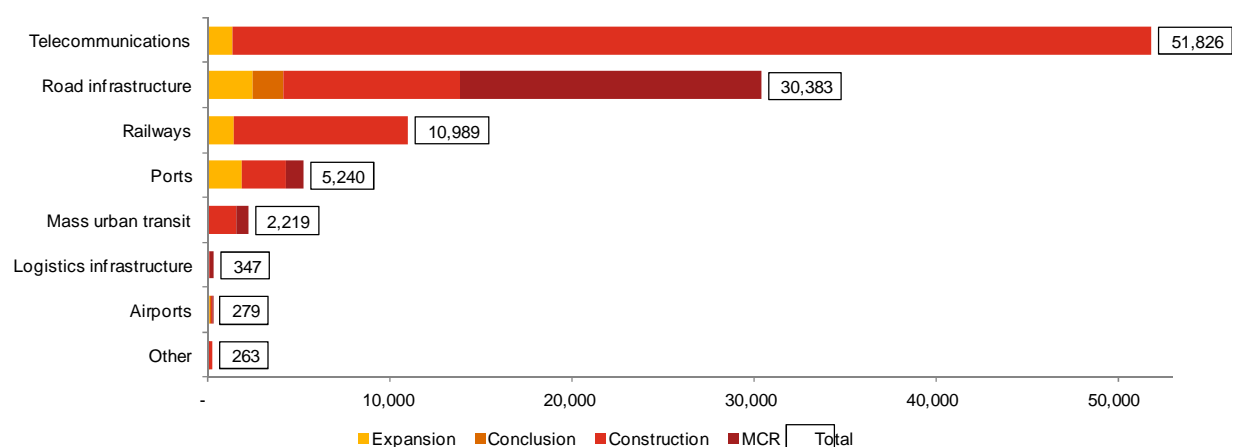
With regard to programmed investment for the communications and transport subsectors by type of work, the type of work that will be requiring the most resources is the construction of new works, particularly, in the telecommunications, road, railway, mass urban transit and airport infrastructure subsectors.

After construction, the following types of work, in the terms of programmed investment, are modernization, conservation and refurbishment, particularly, in the road infrastructure subsector. The 2014-2018 NIP contemplates a program for conservation of 43,800 km of the federal toll-road network.

On the other hand, expansion work will require comparatively lower investment. The subsectors in which infrastructure expansion work will be done are the road, port, airport, railway and telecommunications subsectors.

Lastly, the amount required to conclude pending infrastructure projects within this sector does not exceed 1,692 million dollars, to be applied principally to the road infrastructure subsector.

Figure 5. Amount invested in communications and transport subsectors, by type of work



Note: MCR refers to modernization, conservation or refurbishment work.

Figures in millions of 2014 dollars.

## Energy

The 2014-2018 NIP divides this sector, its strategies and lines of action into two subsectors: oil/gas and energy. Regardless of this division, the goal is shared: optimal development of infrastructure to ensure sufficient quality energy at competitive prices. The infrastructure projects for these two subsectors will be in the hands of the two state-owned productive companies, Pemex and the CFE.

### Pemex

Pemex will seek to extend and develop existing infrastructure for the exploration and extraction of hydrocarbons and for fuel transportation and storage, increase the capacity for processing hydrocarbons, and promote and develop national petrochemicals through exploration and drilling projects, modernization and expansion of facilities, and the expansion of gas pipeline networks, among others.

Programmed investment allocated to this subsector is larger than for any other sector. Overall programmed investment totals 253,809 million dollars and covers 124 projects, all being strategic.

Table 4. Investment and number of projects in the energy sub-classification (Pemex)

Sub-classification	Million dollars (2014)	Number of projects
Exploration and production	182,435	41
Others <sup>1</sup>	42,645	2
Processing capacity	25,150	58
Petrochemical complexes	2,029	10
Natural gas transportation	1,550	13
<b>Total</b>	<b>253,809</b>	<b>124</b>

<sup>1</sup> Projects with federal entities and projects valued below 500 million pesos.

The government has assigned the bulk of the investment to exploration and production (182,435 million dollars for 41 projects). In second place are projects with federal entities and a group of projects valued below 500 million pesos (about 38 million dollars), which will receive approximately 1/6 of the total investment programmed for this sector.

In third place, investment of 25,150 million dollars for 58 projects is designated to increase the hydrocarbon-processing capacity. Next in line are petrochemical complexes, which are scheduled to receive 2,029 million dollars allocated among 10 projects. Lastly, 13 natural gas transportation projects will receive approximately 1,550 million dollars.

## CFE

Under the 2014-2018 NIP, the CFE is expected to promote the creation of generation, transmission and distribution facilities that will make use of potential renewable energy and increase the supply and coverage of electricity services. This will be achieved by building combined cycle generation plants, hydroelectric plants, wind turbines, transmission lines and electric substations, among others.

The estimated investment in the development of electricity infrastructure included in the program totals 46,030 million dollars, to be assigned to 138 strategic projects.

Table 5. Investment and number of projects in the energy sub-classification (CFE)

PROCESS /Sub-classification	Million dollars (2014)	Number of projects
GENERATION		
Combined cycle power plant	13,160	26
Natural gas transportation	5,426	6
Hydroelectric power plant	4,449	7
Wind turbine	3,703	12
Others <sup>1</sup>	3,030	6
Photovoltaic solar panels	1,076	18
Internal combustion power plant	354	6
Geothermal electric power plant	335	9
TRANSMISSION		
Transmission lines	11,596	16
DISTRIBUTION		
Substations and transmission lines	2,899	32
<b>Total</b>	<b>46,030</b>	<b>138</b>

<sup>1</sup> New clean generation, cogeneration and gas turbine projects.

The investment in generation totals 31,533 million dollars and will go, principally, to combined cycle power plants. In terms of investment; hydroelectric power plants are in the second place, followed by wind turbines, photovoltaic panels, internal combustion power plants and geothermal electric power plants.

On the other hand, 11,596 million dollars will be invested in projects focused purely on the transmission of electricity, while the investment in distribution will be 2,899 million dollars. The latter contemplates projects intended to jointly develop substations and transmission lines.

The process with the largest number of projects is generation, with a total of 90 projects. This is followed by distribution, with 32 projects. Transmission ranks last, with 16 projects.

## Water

The present administration will be promoting water infrastructure that will make possible to increase the supply of drinking water, drainage capacity and protection from floods by building tunnels, aqueducts, treatment plants and desalination plants, among others.

For the 84 projects programmed for the water sector, the 2014-2018 NIP contemplates an investment of 32,135 million dollars. Out of these projects, 34 are government commitments, and 50 are strategic projects.

Table 6. Investment and number of projects in water subsectors

Subsector	Million dollars (2014)	Number of projects		
		Strategic projects	Government commitments	Total
Others <sup>1</sup>	19,556	2	2	4
Hydro infrastructure	4,365	10	15	25
Drinking water	4,203	12	11	23
Protection of human settlements	3,059	3	3	6
Treatment plants	915	14	2	16
Drainage/sewerage	37	9	1	10
<b>Total</b>	<b>32,135</b>	<b>50</b>	<b>34</b>	<b>84</b>

<sup>1</sup> Projects with federal entities, referring in general to work and infrastructure designed to strengthen the water sector.

In terms of total programmed investment, projects with federal entities are expected to receive 19,556 million dollars. That figure will be divided among four projects, half of which are government commitments.

Out of the 84 projects programmed for the water sector, a quarter is hydrology infrastructure and drinking water projects. The budget assigned to this subsector is 8,568 million dollars, to be shared by 26 government commitments and 22 strategic projects.

On the other hand, an investment of 3,059 million dollars is foreseen for the protection of human settlements, distributed among three government commitments and three strategic projects.

In terms of total programmed investment, the next subsectors are treatment plants and drainage/sewerage projects. The investment required for treatment plants is estimated to be 915 million dollars, and 37 million dollars for drainage/sewerage. The number of projects scheduled for those two subsectors is 16 and 10, respectively.

## Health

The purpose of the health sector program is to contribute to strengthening and streamlining inter-institutional health infrastructure in order to guarantee effective access to quality health services, which will be achieved by building general zone hospitals, children's hospitals, highly specialized regional hospitals and first, second and third level medical units.

A total of 87 health projects are contemplated, which will require an investment of 5,600 million dollars. There are 27 government commitments in this sector, and 60 strategic projects.

Table 7. Investment and number of projects in health subsectors

Subsector	Million dollars (2014)	Number of projects		
		Strategic projects	Government commitments	Total
General hospital	1,799	16	8	24
Others <sup>1</sup>	1,755	10	4	14
MU	1,324	24	-	24
Hospital	424	10	6	16
Specialty hospital	298	-	9	9
<b>Total</b>	<b>5,600</b>	<b>60</b>	<b>27</b>	<b>87</b>

<sup>1</sup> Projects referring in general to work and infrastructure designed to strengthen the health sector.

Note: MU refers to medical units.

A total of 47% of overall investment in the health sector is devoted to hospitals. The budget assigned to this subsector is 2,521 million dollars, which will be allocated to 23 government commitments and 26 strategic projects.

On the other hand, an investment of 1,324 million dollars is foreseen for the construction of medical units, distributed among 24 projects, all being strategic.

Lastly, the program has assigned 1,755 million dollars to 14 projects for complementary works intended to strengthen the health sector.



## Urban development and housing

Under the program, the urban development and housing sector is expected to promote urban development and the construction of quality housing through financing, assistance and mortgage loan arrangements for the acquisition of housing, as well as through certified developments and the recovery of abandoned housing.

For the 4 projects programmed for the urban development and housing sector, the 2014-2018 NIP contemplates an investment of 143,134 million dollars, none of them being a government commitment.

## Tourism

Efforts will be made to improve existing infrastructure, and outfit and develop new infrastructure to diversify supply and promote tourism as a strategic determinant in regional productivity.

The program contemplates 83 projects for this sector, with a total programmed investment of 13,942 million dollars. Out of the 83 projects, 7 are government commitments and 76 are strategic projects.

Table 8. Investment and number of projects in tourism subsectors

Subsector	Million dollars (2014)	Number of projects		
		Strategic projects	Government commitments	Total
Tourism infrastructure	10,331	37	1	38
Programs	1,294	26	-	26
Historic centers	1,262	7	3	10
Others <sup>1</sup>	723	2	-	2
Convention centers	332	4	3	7
<b>Total</b>	<b>13,942</b>	<b>76</b>	<b>7</b>	<b>83</b>

<sup>1</sup> Projects referring in general to work and infrastructure designed to strengthen the tourism sector.

In terms of total programmed investment, projects involving tourism infrastructure are planned to receive the largest portion, equivalent to 10,331 million dollars. This investment will be distributed among 38 projects, out of which 37 are strategic, and one is a government commitment.

This subsector is followed by specific programs, as well as by the recovery program for historic downtown areas. The investment required for the programs is estimated to be 1,294 million dollars, and 1,262 million dollars for the recovery program for historic downtown areas. The number of projects scheduled for these two subsectors is 26 and 10, respectively.

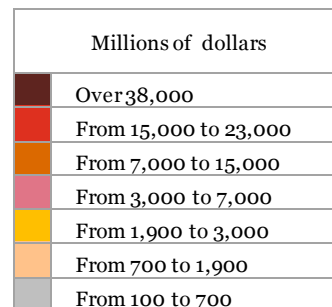
On the other hand, an investment of 332 million dollars is foreseen for the construction of seven convention centers, as well as 723 million dollars for two complementary projects designed to promote tourism in Mexico.

# 4.- Regional analysis

The 2014-2018 NIP considers infrastructure projects involving interregional or nationwide coverage. The program calls for ~300 billion dollars (50% of total programmed investment) for 48 projects with a nationwide impact. On the other hand, it is foreseen that 72 projects, requiring an investment of 135 billion dollars (equivalent to 22.8% of total programmed investment) will have a regional impact. The remaining 161 billion dollars will be distributed among the different Mexican federal entities, with Campeche, Tabasco and Veracruz receiving the largest portions.

Figure 6. Programmed investment at the nationwide, regional and state levels

Federal entity	Number of projects	Estimated investment
Nationwide	48	300,974
Regional	72	135,702
Campeche	16	43,838
Tabasco	21	17,256
Veracruz	50	15,417
Oaxaca	32	9,589
Tamaulipas	36	9,328
Guanajuato	22	5,227
Hidalgo	17	5,133
State of Mexico	39	4,883
Nuevo León	13	4,858
Sinaloa	17	4,746
Sonora	28	4,189
Chiapas	34	4,048
Jalisco	19	3,911
Durango	13	2,925
San Luis Potosí	11	2,799
Chihuahua	19	2,629
Guerrero	24	2,156
Baja California Sur	28	2,097
Michoacán	33	2,046
Nayarit	11	1,992
Baja California	22	1,803
Quintana Roo	22	1,574
Morelos	8	1,350
Puebla	13	1,220
Mexico City	12	1,016
Yucatán	15	820
Colima	14	745
Aguascalientes	8	745
Zacatecas	6	486
Querétaro	6	253
Coahuila	9	233



Federal entity	Number of projects	Estimated investment
Tlaxcala	5	211
<b>Total</b>	<b>743</b>	<b>596,197</b>

Figures in millions of 2014 dollars.

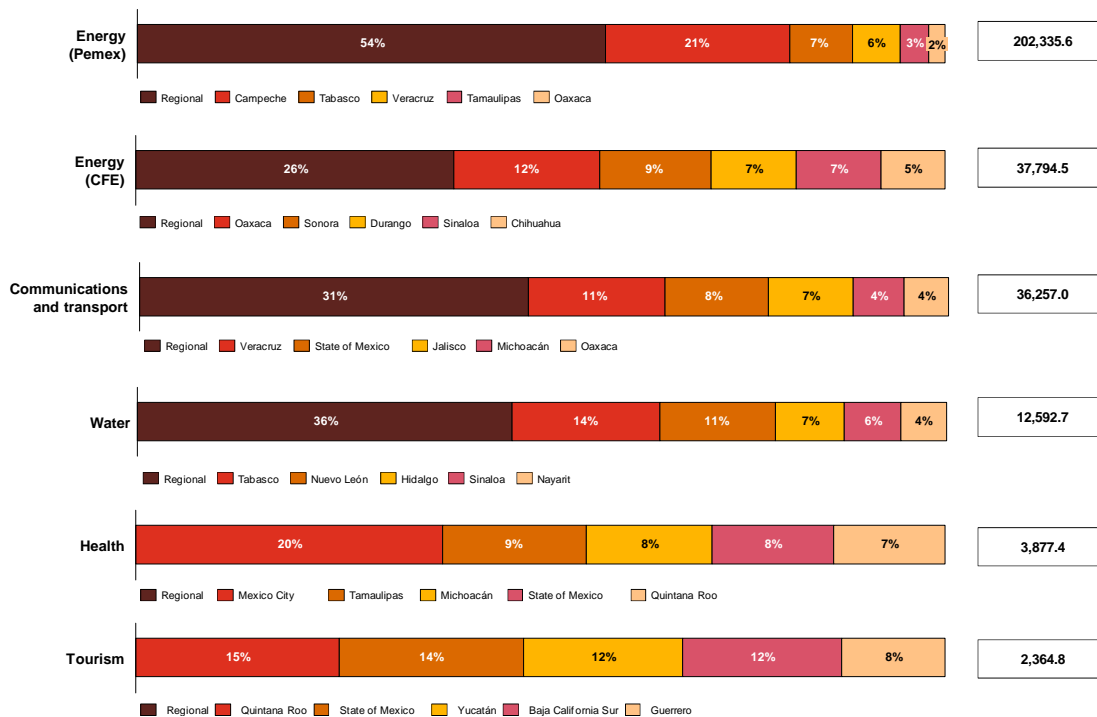
The 2014-2018 NIP contemplates a comprehensive regional development. Under that vision, the program includes a section describing the North, Central and South-southwest Regions at the sector level (excluding projects with a nationwide impact). Most of the programmed investment will be designated to regional projects. In this context, chief amongst the sectors receiving investment for regional and state projects is the energy sector, headed by Pemex with 54% of the investment, followed by the water, communications and transport and energy (CFE) sectors, with 36, 31 and 26%, respectively.

At the state level, the energy sector (Pemex) will invest mainly in the states of Campeche, Tabasco and Veracruz. On the other hand, the energy sector (CFE) will invest in the states of Oaxaca, Sonora and Durango.

Within the communications and transport sector, the states of Veracruz, Mexico and Jalisco stand out with 11%, 8% and 7% of the investment directed to regional and state projects, respectively. Regarding the water sector, the states of Tabasco, Nuevo Leon and Hidalgo will receive 14, 11 and 7% of the investment earmarked for regional and state projects, respectively.

On the other hand, the investment in regional and state health projects has been divided as follows: 20% for projects in the Mexico, 9% for Tamaulipas and 8% for Michoacan. Lastly, the largest regional and state investment in tourism projects will go to the states of Quintana Roo, State of Mexico and Yucatan: 15, 14 and 12%, respectively.

Figure 7. Programmed investment by sector at the regional and state level



Figures in millions of 2014 dollars.

For the South-Southeast Region, the program emphasizes the South-Southeast Transverse Strategy, which is designed to promote the development of this region through infrastructure work in the aforementioned strategic sectors. In particular, investment has been considered in 129 strategic projects and 56 government commitments totaling 94,613 million dollars. This region will be receiving most of the resources contemplated in the 2014-2018 NIP for regional development<sup>3</sup>. Investment in the urban development and housing sector (35,783 million dollars) and the energy sector (Pemex) (33,725 million dollars) stands out within this region.

Table 9. Investment in infrastructure by sector - South-Southeast Region

Sector	Investment	Projects	SP	GC
Urban development and housing	35,783	N.A.	N.A.	N.A.
Energy (Pemex)	33,725	1	1	0
Communications and transport	12,201	67	27	40
Energy (CFE)	8,462	23	23	0
Water	2,445	42	37	5
Tourism	1,179	32	29	3
Health	818	20	12	8
<b>Total</b>	<b>94,613</b>	<b>185</b>	<b>129</b>	<b>56</b>

Note: SP refers to strategic projects and GC to government commitments.  
Figures in millions of 2014 dollars.

A total of 230 projects are contemplated for the Central Region, with a total investment of 52,241 million dollars. The investment in the communications and transport sector (19,217 million dollars) stands out among the projects assigned to this region, followed by the energy sector, headed by Pemex (16,267 million dollars).

Table 10. Investment in infrastructure by sector - Central Region

Sector	Investment	Projects	SP	GC
Communications and transport	19,217	96	49	47
Energy (Pemex)	16,267	18	18	0
Water	7,239	22	7	15
Energy (CFE)	6,768	28	28	0
Health	2,153	43	30	13
Tourism	596	23	20	3
<b>Total</b>	<b>52,241</b>	<b>230</b>	<b>152</b>	<b>78</b>

Note: SP refers to strategic projects and GC to government commitments.  
Figures in millions of 2014 dollars.

204 projects are considered for the North Region, with a total investment of 67,457 million dollars. The investment in energy (58,215 million dollars for 101 projects) and in communications and transport (4,838 million dollars for 49 projects) stands out in this region.

<sup>3</sup> It is important to mention that investment considered in the program covers a larger group of investment projects. However, this section shows only strategic projects and government commitments at the regional and state levels.

Table 11. Investment in infrastructure by sector - North Region

<b>Sector</b>	<b>Investment</b>	<b>Projects</b>	<b>SP</b>	<b>GC</b>
Energy (Pemex)	36,028	23	23	0
Energy (CFE)	22,187	78	78	0
Communications and transportation	4,838	49	34	15
Water	2,908	19	5	14
Health	906	17	11	6
Tourism	590	18	17	1
<b>Total</b>	<b>67,457</b>	<b>204</b>	<b>168</b>	<b>36</b>

*Note: SP refers to strategic projects and GC to government commitments.  
Figures in millions of 2014 dollars.*

## 5.- Principal projects of the 2014-2018 NIP

The principal projects by sector in terms of investment volume and market perception are:

### *Communications and transport*

Project	Investment	Execution time
Installation of the shared mobile service network	10,000	2014-2018
The Mexico City airport <sup>1</sup>	9,231	N.A.
The Queretaro-Mexico City fast train	3,352	2014-2017
The Mexico City-Toluca intercity train	2,970	2014-2017
Expansion of the Port of Veracruz in the North Zone	1,841	2014-2018
The trans-peninsular train (stage I)	1,381	2014-2017
<b>Total</b>	<b>28,775</b>	

<sup>1</sup> The 2014-2018 NIP does not include the new airport in Mexico City.  
 Figures in millions of 2014 dollars.

The telecommunications, railway, port and mass urban transit projects stand out in the communications and transport sector due to the amounts invested and the complexity of the projects.

### *Energy (Pemex)*

Project	Investment	Execution time
Ku - Maloob - Zaap	19,073	2014-2018
Cantarell	17,937	2014-2018
Tsimin-Xux	7,902	2014-2018
Chuc	7,768	2014-2018
Aceite Terciario del Golfo	6,005	2014-2018
<b>Total</b>	<b>58,685</b>	

Figures in millions of 2014 dollars.

Projects for the operation and maintenance of existing wells, the drilling of development wells, and the construction of complementary infrastructure aimed at improving well operation stand out in the energy sector (Pemex) due to the amount to be invested and the complexity of the projects.

## Energy (CFE)

Project	Investment	Execution time
Wind power plants – Southeast II, III, IV and V	1,997	2014-2018
CC North III	992	2014-2016
Small photovoltaic solar panel producer	952	2014-2018
CC Guaymas II	823	2014-2017
Valle de México II	745	2014-2017
<b>Total</b>	<b>5,509</b>	

*Figures in millions of 2014 dollars.*

Generation projects, as well as wind and combined cycle power plants, and photovoltaic solar plants stand out among the energy sector (CFE) due to the amount to be invested and the complexity of the projects.

## Water

Project	Investment	Execution time
East Drainage Tunnel – Central Region (TEO for its acronym in Spanish)	2,882	2014-2018
Aqueduct – North Region (Proyecto Monterrey VI Región Norte)	1,406	2014-2017
El Zapotillo Project – Central Region	1,243	2014-2017
Atotonilco waste-water treatment plant – Central Region	736	2014-2015
Hydrological Project for the Protection of Human Settlements from Flood and Better use of Water (PROHTAB for its acronym in Spanish)	584	2014-2018
<b>Total</b>	<b>6,851</b>	

*Figures in millions of 2014 dollars.*

The East Drainage Tunnel, treatment plants, dams and projects for protection against floods stand out in the water sector due to the amounts to be invested and the complexity of the projects.

## Health

Project	Investment	Execution time
The New Hospital Tower for the National Cardiology Institute	183	2014
Strengthening the infrastructure for different areas of Mexico City's General Hospital	166	2014-2015
The New Epidemiological Reference Diagnostic Institute (InDRES for its acronym in Spanish) in Mexico City	101	2014
The new Regional General Hospital in Leon	94	2014-2015
The new General Zone Hospital in Villa de Alvarez	88	2014-2015
<b>Total</b>	<b>631</b>	

*Figures in millions of 2014 dollars.*

Projects such as the New Hospital Tower for the National Cardiology Institute, the Institute for Epidemiological Reference Diagnostic and several general hospitals stand out in the health sector due to the amounts to be invested.

## Urban development and housing

Project	Investment	Execution time
Providing mortgage loans to workers in the formal sector	131,406	2014-2018
Developing financing arrangements for the acquisition of new homes	8,692	2014-2018
Certified developments and the recovery of abandoned housing	1,954	2014-2018
Assistance in acquiring new homes for low-income families	1,081	2014-2018
<b>Total</b>	<b>143,134</b>	

*Figures in millions of 2014 dollars.*

Within the urban development and housing sector, the Federal Government will continue to provide support in the form of currently existing financing and subsidy programs for the acquisition of housing. It will also seek to carry out the certification of developments, and the recovery of abandoned housing in coordination with the private sector.

## Tourism

Project	Investment	Execution time
Consolidation of Mesoamerican cultural heritage	621	2014-2018
Reclamation of beaches	462	2014-2018
Nuevo Acapulco	154	2014-2018
Construction of convention centers	78	2014-2018
Refurbishing the historic downtown areas of colonial cities	59	2014-2018
<b>Total</b>	<b>1,374</b>	

*Figures in millions of 2014 dollars.*

Projects such as the consolidation of Mesoamerican cultural heritage, the reclamation of beaches, the construction of convention centers and the refurbishment of historical downtown areas of colonial cities stand out in the tourism sector in view of the amounts to be invested.



## 6.- Conclusions

The general objective of the 2014-2018 NIP is to modernize and extend existing infrastructure through the execution of 743 investment projects and programs. Unlike efforts in the past, the program contemplates three additional strategic sectors. In addition to the communications and transport, energy and water sectors, the 2014-2018 NIP includes the health, urban development and housing, and tourism sectors.

The program estimates a total investment (jointly with the private sector) of 596 billion dollars, mainly in the energy sector, followed by urban development and housing, and communications and transport.

Private participation is expected to be significant in the communications and transport, tourism, urban development and housing, and energy sectors. This opens a considerable opportunity for construction and O&M companies.

In the specific case of the road infrastructure subsector of the communications and transport sector, the private sector is expected to reap the most benefits by engaging in public-private partnerships. More than half of the projects contemplated for this subsector include the construction of new infrastructure, while more than 70% contemplate the modernization, extension, conservation or refurbishment of existing infrastructure.

The 2014-2018 NIP considers infrastructure projects involving interregional or nationwide coverage. However, the program establishes as a priority the development of the South-Southeast Region through the South-Southeast Transverse Strategy. This region will be benefited by 189 projects, representing approximately 1/7 of total programmed investment.

In terms of investment volume and market perception, the major projects included in the 2014-2018 NIP form part of the energy sector portfolio. The main focus will be on projects involving the extraction, storage and distribution of oil and gas. However, other large iconic works are contemplated throughout the present administration in strategic sectors such as energy (CFE), communications and transport, and water.

## 7.- Contacts



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