



MEXICO CITY'S CLIMATE ACTION PROGRAM

2014-2020

Progress Report 2016



CDMX
CIUDAD DE MÉXICO





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MESSAGE



Dr. Miguel A. Mancera Espinosa Head of Government of Mexico City

Climate Change is one of the biggest and most urgent challenges that humanity faces, with repercussions on all aspects of life.

Cities are an important part of the problem and, therefore, play a key role in the solution of this human induced phenomenon, as long as they respond in an urgent manner through efficient policies.

Mexico City has assumed a forefront and leadership position on a national and global level in the design of tools and instruments focused on tackling the climate change challenge and reducing the social, environmental and economic risks.

Strengthening actions focused on a low emission development with an inclusive vision and shared environmental responsibility between the government and society is a priority and commitment on our national policy agenda.

The climate change policy of our city includes planning, regulation, communication, education and research instruments that contribute to the development and execution of mitigation and adaptation actions in order to counterbalance the adverse effects and increase the resilience of the inhabitants and the city.

Mexico City's Climate Action Program (PACCM, in Spanish language) for 2014-2020 is a policy planning tool that integrates, coordinates and promotes actions to reduce the environmental, social and economic risks posed by climate change while simultaneously promoting the welfare of the city's population, collective participation and gender equality.

In this context, and as part of acquired commitments from Mexico City's government, the 2016 Progress Report of the PACCM is presented after two years from its launch, in which it recognizes the need to promote a trans-versal policy to create synergies that help diminish the impacts of climate change.



First Edition
November 2016



Mexico City's Climate
Action Program

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ACRONYMS

AGCI	Mexico-Chile Joint Cooperation Funds
AMEXCID	Mexican Agency for International Cooperation for Development
ANP	Protected Natural Area
BEA	Berlin Energy Agency
C40	C40 Cities Climate Leadership Group
CAEM	Business Environmental Corporation
CAF	Andean Development Corporation
CCVM	Valley of Mexico Basin Council
CDP	Carbon Disclosure Project
CDMX	Mexico City
CEI	Greenhouse Effect Compounds
CONAGUA	National Water Commission
COP	Conference of the Parties
COP1	1st Conference of the Parties
COP20	20th Conference of the Parties
COP21	21st Conference of the Parties
COUSSA	Conservation and Sustainable use of Soil and Water
CTS. Embarq México	Sustainable Transport Center
CyGEI	Compounds and Greenhouse Gases
FACC	Environmental Fund for Climate Change
FAP	Environmental Public Fund of the Federal District
GCDMX	Mexico City Government
GECyCA	Communication and Water Culture Specialized Group
GHG	Greenhouse Gases
GIZ	German Corporation for International Cooperation
GOCDMX	Mexico City Official Gazette
HPV	Pediatric Hospital "La Villa"
ICLEI	ICLEI-Local Governments for Sustainability
INVI	Housing Institute
IPCC	Intergovernmental Panel on Climate Change
ISCDF	IMexico City's Buildings Security Institute
MLED	Mexico Low Low-Emissions Development Program
MRV	Measurement, Report, and Verification
NAZCA	Non-State Actor Zone for Climate Action
PACCM	Mexico City Climate Action Program

PACDeI	Climate Action Borough Program
PAOT	Environmental and Territorial Order Attorney's Office
PNUD	United Nations Development Program
PIMAAT	Introduction of Environmentally Friendly Measures in Transport Program
PROSOC	Mexico City's Social Attorney's Office
RENE	National GHG Emissions Registry
SAA	Environmental Management System
SACMEX	Mexico City Water System
SAGARPA	Secretariat of Agriculture, Livestock and Rural Development, Fisheries and Food of Mexico
SEDEMA	Ministry of Environment
SEDEREC	Rural Development and Equity for Communities Secretariat
SEDESA	Health Secretariat
SEDUVI	Urban Development and Housing Secretariat
SEMOVI	Secretariat of Mobility
SISCLIMA	Climate Change National System of Colombia
SM1	Mobility System 1
SOBSE	Works and Services Secretariat
SPC	Civil Protection Secretariat
SSPACCM	Mexico City Climate Action Program Follow-up System
STC	Public Transportation System
STE	Mexico City's Electric Transportation System
TAP	Transformative Actions Program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WRI	World Resources Institute

Units list

cc	Steam horse power	ton	Ton
km	Kilometer	ton CO₂ eq	Ton of carbon dioxide equivalent
ha	Hectare	kW	Kilowatt
m	Meter	kWh	Kilowatt Hour
m²	Square Meter	kWp	Peak Power
m³	Cubic Meter	lps	Liters Per Second
MWh	Megawatt Hour	W	Watt

GLOBAL CLIMATE CHANGE

COP21 AND C40



In the world are living

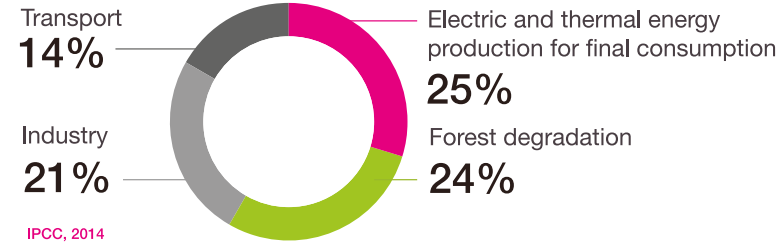
7.3 billion
people

World Bank, 2015



54%
lives in cities

The main sources of global emissions are:



IPCC, 2014

During the 21th Conference of the Parties of the United Nations Framework Convention on Climate Change (COP21), held in Paris in 2015, the countries accomplished a historic agreement with a clear target as respond to global climate challenges.

Therefore, in 2014 several cities networks:

C40 UCLG ICLEI → Signed the **COMPACT OF MAYORS**

Paris Agreement stated target



That the global temperature will not rise further than **1.5°C**

to mitigate the climate change effects

The Compact has the goal to reduce:

3.7 gigatons
of greenhouse gases
by 2030

C40

C40 cities are committed to:

- Monitor and report their emissions into the CDP international platform
- Signed the Declaration on Clean Buses to incorporate low emission bus fleets



NAZCA Platform

By 2050 will be

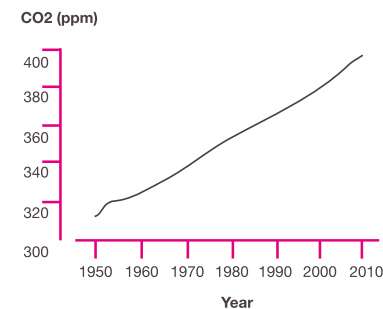
2.3 billion
people
more in cities

UN, 2014



The pollutant emissions between **2000** and **2010** were the highest in the mankind history.

Atmospheric CO₂



IPCC, 2014

The pollutant emissions trigger a temperature imbalance known as global warming that produces the climate change and the major consequences are:



Rain intensity changes that cause floods.



Health problems due to extreme heat and unusual colds.



Loss of glaciers that raise sea level and will cause some beaches to disappear.



70%
of the global
emissions

come from cities

Mexico City (CDMX)

Annual emmissions in the Metropolitan Area



20.6 million
tons of CO₂

CDMX Emissions Inventory, 2014

= **56.1 million**
emissions in the Mexican
Valley Metropolitan Area

CDMX Climate Action Program 2014-2020 (PACCM)



With the goal to mitigate by 2020

→ **10 million tons**
of carbon dioxide
equivalent

The main risks that our city faces by climate change are:



Floods and landslides.



Heatwaves due to high temperatures.



Vector-borne diseases such as dengue and chikungunya.



Droughts in conservation soil.

The goal to build adaptive capacities to climate change through the CDMX Resilience Strategy



5.6 million
people

% progress regarding the 2018 goal

46% (registered to october 2016)

Mitigation of 3.1 million tons of carbon dioxide equivalent

The PACCM has:

7 strategic priorities
to tackle climate change

	Urban and Rural Energy Transition
	Containment of the Urban Sprawl
	Environmental Improvement
	Sustainable Management of Natural Resources and Biodiversity
	Building Resilience
	Education and Communication
	Research and Development

TOTAL **102 actions**

INTRODUCTION

Climate change is, undoubtedly, one of the greatest challenges humanity faces today. The temperature increase of the planet, due to high concentrations of greenhouse gases and compounds emitted by human activities, has caused accelerated global climate change in recent decades, provoking, among other effects, sea level rise and changes in rainfall causing floods and droughts that affect biodiversity and the quality of life of human beings.

To face this phenomenon important efforts at the international level have been made, as is the case of the United Nations Framework Convention on Climate Change, created in 1992, and the recent COP21, held in Paris in 2015, where 187 countries shared their National Climate Action Plans and various global commitments were established to face climate change challenges.

In our country, climate change has been a reason for concern for more than fifteen years, hence the consolidation of a robust policy on the subject and the recent Intended Nationally Determined Contributions¹ (INDC) where Mexico committed to reduce 25% of greenhouse gases and black carbon emissions by 2030.

In relation to adaptation issues, Mexico will seek to increase the adaptive capacity of the population and decrease high vulnerability of 160 municipalities, as well as strengthen ecosystems protection and restoration measures to achieve zero deforestation rate in the 2020-2030 period, and the creation of prevention and early warning systems across the country in the case of extreme hydro-meteorological events.

For the purpose of addressing these ambitious commitments, local governments play a key role, as they have the responsibility to design and implement programs and actions. In this regard, since 2000 Mexico

City has established strategies with a transversal and inclusive vision.

Faced with these challenges, CDMX has maintained national and international leadership by issuing the 2014-2020 Mexico City Climate Action Program (PACCM), an instrument that integrates, coordinates and promotes actions to mitigate climate change impacts and increase adaptation ability through measures that make up its seven strategic priorities.

The PACCM increases adaptation capacity of the most vulnerable population before the effects of this phenomenon caused by human beings and, thus, contributes to building city resilience.

The PACCM also considers mitigating 10 million tons of carbon dioxide equivalent, accumulated to the year 2020. Until October 2016, progress in mitigation target is 3.1 million tons of carbon dioxide equivalent, this represents a progress of 46% compared to the 2018 target.

In order to communicate transparently the actions taken by Mexico City Government on climate change, two years after starting, this 2016 Progress Report of the 2014-2020 Mexico City Climate Action Program is presented, which integrates the range and achievements of 14 city government agencies and institutions that comprise it.

This report shows the main features and lessons learned that have allowed to consolidate and strengthen climate change policy, in order to share experiences with other local governments seeking to consolidate their public policies to achieve institutionalization processes; homologation and strengthening of legal instruments; design and execution of follow-up and evaluation tools; financing schemes; linking activities

and coordination with various sectors; regional vision and effective coordination between the national, state and municipal levels of government.

International, national and local coordination has been of vital importance to Mexico City for the development of a policy that promotes environmental protection and sustainable development.

Through participation in conventions, conferences, and signing of agreements, Mexico City reaffirms its

global commitment to reduce greenhouse gases and compounds emissions causing climate change.

Government efforts are not, nor will be enough; however, this report is also an invitation to strengthen the proactive involvement of various sectors, since only united and coordinated can we be prepared to face climate change effects and improve the quality of life of the population through sustainable development with low carbon intensity.



CDMX participation in COP21.

¹ Intended Nationally Determined Contributions are commitments that each country adopts to face climate change. Mexico's Contribution includes two components, mitigation and adaptation. The document contemplates two types of measures: conditioned and not conditioned. Not conditioned measures are those the country will solve with own resources, and conditioned, those that could be performed if a new international climate change regime is established and if the country obtains additional resources and available technology transfers through international cooperation.

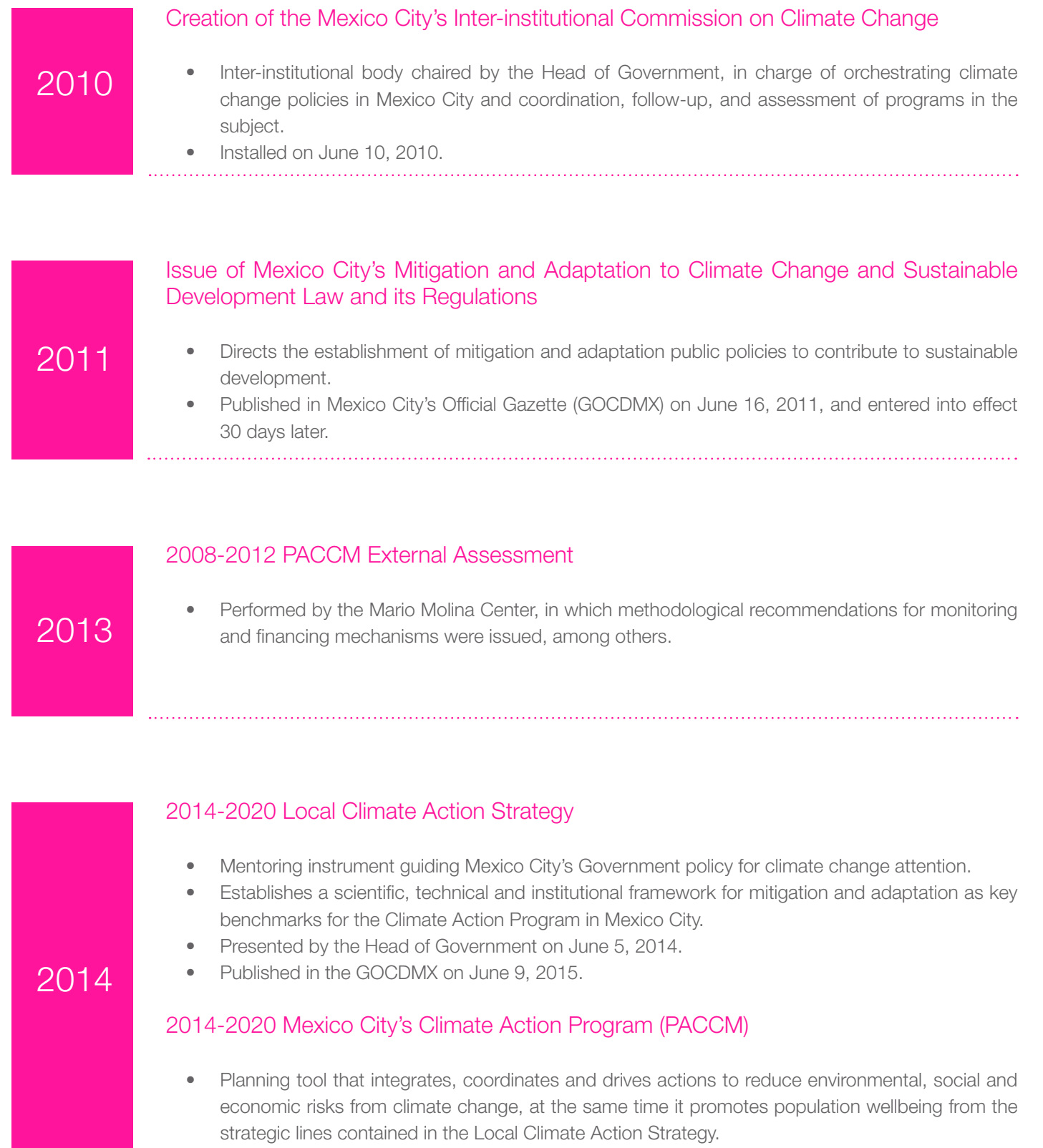
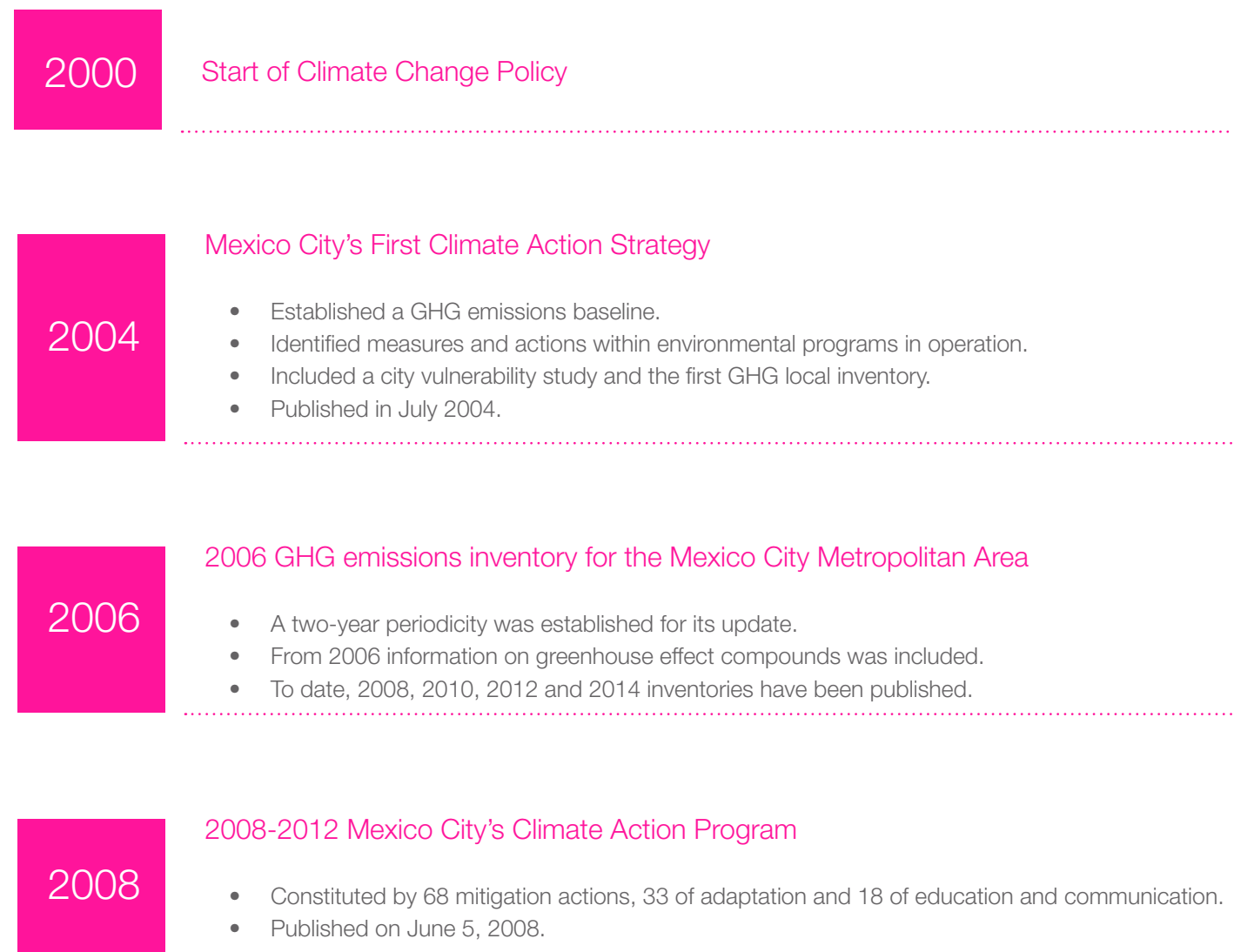


INSTITUTIONALIZATION OF CLIMATE
CHANGE POLICY IN MEXICO CITY

INSTITUTIONALIZATION OF CLIMATE CHANGE POLICY IN MEXICO CITY

The institutionalization process incorporates elements of operation and control, which makes it possible to ensure that climate change policies can continue to operate perfectly by themselves, even before possible events and circumstances. Hence, CDMX has, after 16 years, consolidated climate change instruments and legal and planning tools.

SCHEME 1. Mexico City's Climate Policy.



2014

- Establishes mitigation and adaptation goals.
- Presented by the Head of Government on June 5, 2014.
- Published in the GOCDMX on June 9, 2015.

PACCM Monitoring System

- It tool developed by Mexico City Government and the Mario Molina Center for monitoring the progress of the PACCM and follow-up.
- Start of the coordination and training of the 16 Boroughs in which Mexico City is divided, for the development of their own Borough Climate Action Programs.

2015

Mexico City's Vision on Climate Change to 2025

- Presented by the Head of Government during COP21 in December 2015.

Environmental Fund for Climate Change

- Based on the Mexico City Mitigation and Adaptation to Climate Change and Sustainable Development Law. The Environmental Fund for Climate Change was created in October 2015.

2016

Linking of the PACCM Monitoring System with the Mexico City Metropolitan Area Air Quality Improvement Program (PROAIRE)

In addition to the institutionalization process there have been other features that have allowed the strengthening of climate change policy, some examples are:

Synergistic Approach

When talking about public policy to combat climate change, a reference is made to a separation between adaptation and mitigation; however, in practice, for some actions both are correlated. PACCM seeks to create synergies between them, as adaptation actions may have mitigation effects and vice versa. Synergies offer co-benefits that may make them more attractive for funding.

Gender Perspective

Climate change impacts affect women and men differently, being underprivileged girls and women the most vulnerable to the effects of this phenomenon due to the roles and stereotypes historically established, hence the importance of including a gender perspective in an effective way in the design of public policies on climate change.





**MONITORING AND FINANCING
INSTRUMENTS FOR CLIMATE
CHANGE IN MEXICO CITY**



MONITORING AND FINANCING INSTRUMENTS FOR CLIMATE CHANGE IN MEXICO CITY

In order to continue strengthening the PACCM's institutionalization and implementation processes, it is indispensable to have monitoring and funding tools.

A key part in the process of implementing the PACCM, is the appropriate follow-up to actions that are in process, the reasons why Measurable, Reportable and Verifiable (MRV) systems increase the capacity of governments to make their programs more efficient and effective so that public confidence in them is greater. All MRV processes must be based on principles of transparency, accuracy, completeness, consistency and comparability.

In practice it is not easy for a specific MRV system in climate change to be useful and efficient, it is necessary to introduce it into the public administration framework. This is where the activities of consent and harmonization with other existing systems or platforms, as well as awareness, training, review, attention to user recommendations and continued improvements in system management are essential to ensure its proper operation.

PACCM Monitoring System

In this regard, in 2014, the Mexico City Government began the operation of a Monitoring System of Mexico City's Climate Action Program (SSPACCM), through which the governmental agencies involved report the progress of their actions.



PACCM Monitoring System.

The SSPACCM allows the generation of reports for every climate action, by city agency or priority axis. This facilitates the program progress analysis for decision-making in the climate change policy. Currently, after hard work in scheduling, reporting and validation optimization, 36 trained users report SSPACCM progress corresponding to 14 city agencies every two months.

The **Environmental Climate Change Fund** (FACC) was created in 2015 as a mechanism to finance projects aimed at mitigation, adaptation, resilience building, and communication and education programs on climate change.

The FACC is part of the Environmental Public Fund (FAP), constituted as a trust. Since its entry into force in October 2015, the FACC has captured and funded resources for the startup of projects, as is the case of Solar Water Heating Program in 12 hospitals in Mexico City.



Installation of Solar Water Heating in hospitals in Mexico City.



III
INTERNATIONAL
COORDINATION

INTERNATIONAL COORDINATION

Mexico City's participation on an international level has strengthened its environmental policy through the exchange of experiences in international forums, thematic and specialized networks integration on mitigation, adaptation, and resilience-building actions.

This is how Mexico City has consolidated its commitment to the global community in addressing climate change that demands urgent actions and has positioned itself as a pioneer regarding this phenomenon.



The signing of local governments' statement within COP21 framework, held in Paris in December 2015.

Thanks to international cooperation, climate change policies in CDMX have been consolidated and strengthened.

Alliance with the Danish Energy Agency

The Danish Energy Agency (DEA) aims to collaborate on projects related to sustainable development and climate change, through the exchange of experiences and lessons learned from countries that have implemented successful actions.

This alliance has been strategic for amendments to the Mexico City's Building Regulations, which were published in July 2016 and incorporate sustainability criteria and include a new complementary technical standard for sustainable buildings.

Additionally, in collaboration with the Danish Energy Agency, training on the new provisions of the mentioned regulation will be given to civil servants with technical profiles who work in the City's government agencies and boroughs and are involved in issuing permits or construction supervision.

During 2016 and 2017 several training sessions will take place.

Alliance with the Berlin Energy Agency

Within the strategic axis "Urban and Rural Energy Transition" of the PACCM 2014-2020, a collaboration with the Berlin Energy Agency (BEA) has led to the instrumentalization of the project "Energy management and efficiency in CDMX" which contributes to the institutional strengthening and energy management, promoting the modification of systems and energy consumption habits in institutional buildings.

The Ministry of Environment, in coordination with the BEA, held in August 2016, the workshop "Partners for Energy Efficiency: Mexico City and Berlin."

Institutional strengthening and anchoring of energy management" and the seminar "Energy management and efficiency in CDMX".

This project will contribute to the compliance of actions on the subject of energy efficiency that the Mexico City Government started, and will complement the efforts made in the "Energy Efficiency Accelerator in Buildings" through the initiative of the United Nations "Sustainable Energy for All".

Alliance with the US Agency for International Development

Collaboration with the US Agency for International Development (USAID) in previous years was directed towards the development of evaluation and energy and hydric diagnostics for all public buildings of GCDMX agencies, which were used as inputs to identify savings actions, both on energy and hydric.

Currently, USAID directs its collaboration to the Mexico Low-Emissions Development Program (MLED), which aims to drive a strategy of low-emissions development at the national level, strengthen measurement, reporting, and verification of greenhouse gas emission systems and execution of demonstration projects for the use of clean energy.

This joint work has not been restricted to a specific area or project, but on the contrary, has diversified into the following topics:

- Strengthening of Environmental Management System (SAA).
- Funding for the implementation of Solar Water Heating and Energy Efficiency Project at the Pediatric Hospital La Villa (HPV).
- Consultancy for making Amendments to Building Regulations to incorporate sustainability criteria and Complementary Technical Standard.
- Consultancy for the Construction of Indirect Mitigation indicators.

Alliance with Carbon Disclosure Project

Carbon Disclosure Project (CDP) is an international organization whose goal is to position an IT platform where companies and cities share information about their actions in their fight against climate change, in order to identify financing sources to enhance its scope and objectives.

CDMX has reported emissions mitigation actions, progress and goals in the CDP since 2013. This fact has allowed placing the actions in the 2014-2020 Mexico City Climate Action Program in an international window that allows its international promotion and dissemination.

Participation in the United Nations Framework Convention on Climate Change - Conference of Parties

The Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC), is the most important international multilateral forum, where findings on climate change identified by the Intergovernmental Panel on Climate Change (IPCC), are exposed and published and where actions, mechanisms, and processes by which the member countries of the Convention can actively participate in the fight against climate change are outlined.

COP20

In December 2014, in the COP20 framework held in Lima, Peru, CDMX presented the transportation mitigation actions contained in the [2014-2020 Mexico City Climate Action Program](#), in the “Local Government Climate Roadmap” organized by ICLEI-Local Governments for Sustainability.

During the Forum, the [“Water and Cities Alliance”](#) was signed together with the cities of Bogota and Rio de Janeiro, which aims to exchange good practices and technical knowledge for the conservation of ecosystems that provide environmental services for water infiltration.

COP21

Held in Paris in December 2015 CDMX participated in the World Summit on Local Climate Action, presenting the [“Mexico City Vision on Climate Change to 2025”](#), thus affiliating itself to the efforts and commitments of 400 international cities in the “Paris Declaration of Local Governments”, which seeks to achieve the joint annual reduction of 3.7 gigatons of greenhouse gases by 2030. The CDMX Head of Government signed and presented the Declaration of Local Governments.

Alliance with German Corporation for International Cooperation

Collaboration with GIZ goes back nearly 20 years, which began with the first democratically elected Government for Mexico City in 1997.

Currently, GIZ is aimed at strengthening sub-national capacities and non-governmental Mexican actors for the development, implementation and monitoring of activities and climate measures and strengthen coo-

peration through innovative approaches to climate change policy among Mexican, German and international actors.

Joint activities for [capacity building of civil servants responsible for leading the climate change policy in Mexico City](#), among others, are:

- Exchange trip to Germany to facilitate dissemination of experiences and ideas between Mexico and Germany in the development and startup of adaptation strategies and measures to climate change, as well as to encourage dialogue within Mexican institutions.
- Technical assistance for Mexico City reporting to the National GHG Emissions Registry (RENE), which integrated information of 2015 on actions from 84 government agencies, and allowed to create the necessary capacities for city government future reports.
- Support the CDMX Government civil servants to attend the workshop in Bogota, Colombia “Innovative Financial Solutions for Resilience in Cities”, organized by the Financial Management Committee of the National Climate Change System (SISCLIMA), with the support of the GIZ, the United Nations Development Program (UNDP), Preparation Program to the Climate Green Fund and the Environmental Business Corporation (CAEM) of the Chamber of Commerce in, Bogota, Colombia.
- Invitation to two public officials to the course in “Renewable Energy and Energy Efficiency for Decision Makers”, which aimed to improve the theoretical, technical and economic knowledge on renewable energy, energy efficiency and regulatory and policy framework to promote sustainable energy.
- Technical assistance and accompaniment in the development of the project “System of Indicators for Adaptation to Climate Change and Mitigation of Greenhouse Gases in Mexico City, Including Gender Perspective Transversely”.
- Invitation to “MRV and Accounting Best Practices Workshop” as well as completion of part of the project “Analysis of MRV and Accounting Systems in Countries. Annex I: Lessons Learned and Best Practices for Countries non-Annex I”.

Collaboration with Andean Development Corporation

CAF is a development bank established in 1970 which comprises 19 countries: 17 in Latin America and the Caribbean, Spain and Portugal, as well as 14 private banks in the region. CAF promotes a model of sustainable development through credit operations, grants and support in the technical and financial structuring of projects in the public and private sectors in Latin America.

Currently, Mexico City looks to financially articulate projects related to sustainable development and climate change. At the same time, a strategy on climate financing mechanisms in transport is in construction.

Alliance with the US Department of Energy

The main function is to actively support international exchange of experiences between cities in the US and around the world. In recognition of Mexico City's leadership in Climate Action, in October 2015, the US Government, through the Department of Energy, hosted a working tour in the cities of San Francisco, Boston, and Washington, under the “Our cities, our climate” program in conjunction with the Bloomberg Philanthropies Association.

Mexico City was represented by the Director of Climate Change, sharing and exposing best practices, promoting discussion circles and exposing the case of the city around Climate Change, with a view towards the COP21 in Paris.

Collaboration with the British Embassy in Mexico

A key partner in the process of environmental management of CDMX is the UK through its representation in Mexico, the British Embassy. The Prosperity Fund resources are destined for projects focused on low-carbon development, economy, and climate policy.

During 2015, with the support of the Prosperity Fund, the Kuradzo consultancy conducted the study “Capacity Building and Public Policy to Build Resilience in Urban and Real Estate Infrastructure of Mexico City” which provided inputs to the Preliminary Assessment of the Resiliency Strategy of Mexico City.

Alliance with Mexico-Chile Joint Cooperation Funds

AgCI is an example of partnership between two countries to mutually contribute to their sustainable development, seeking to financially articulate projects related to sustainable development and climate change, with a vision of integration of bilateral cooperation, unprecedented in Latin America and the Caribbean.

With the mandate to strengthen the bilateral relationship between Mexico and Chile, the Mexican Agency for International Cooperation for Development (AMEXCID) convened public sector institutions to present programs and projects to the Joint Mexico-Chile Fund of Cooperation.

In 2015 the project “**Strategy for the Efficient Use of Water in the Metropolitan Region of Santiago and Mexico City**”, was approved, which aims to generate changes in water consumption habits by the inhabitants of the Metropolitan Region of Santiago de Chile and Mexico City. The project has a duration of 15 months.

Collaboration with the Rockefeller Foundation-100 Resilient Cities

In 2014, Mexico City was selected to be part of the Resilient Cities Network sponsored by the Rockefeller Foundation, being subject to support on Resilience strategy for the City Plan involving technical and financial support to a startup of actions contributing to building urban resilience.

Mexico City has a Resilience Director, who drives work for the Resiliency Strategy Development and its subsequent instrumentation.

During the “World Summit of Resilience Directors”, developed in November 2015, CDMX became a “laboratory” to create a space for the analysis of climate risks in the region and understanding the strategies strengthened to build adaptation capacities in society. Similarly, attendees signed the “Statement of Commitment of 100 Resilient Cities” in which the cities agreed to allocate 10% of its annual budget to mitigate the impacts of climate change on the urban population.

Collaboration with the C40 Climate Leadership Cities Group

C40 is a network of Leader Cities in the fight against climate change that supports exchanging information and experiences to drive significant, measurable and sustainable actions on climate change.

The Mexico City Government is actively involved in 13 of the 17 specialized networks of cities on issues of risk management, heat island, transit-oriented development, food systems and climate financing, through working groups: Climate

Change Risk Assessment Network, Heat Island Network, Transit-Oriented Development, Financing and Cities Finance Facility.

Given its active participation, CDMX is currently a candidate for obtaining resources through the “Climate Facility Fund” (Climate Fund) for the instrumentation of an executive project on pure electric buses corridor and the “Co-Benefits of Climate Actions” project, which is anticipated to economically value the cycling infrastructure of the city.

In February 2015, in the Latin American Forum of Mayors, the Head of Government signed the **Statement of Latin American Cities in front of the Mayors Global Pact**, which is currently the biggest agreement of the world among cities in the fight against climate change.

In March 2016, Mexico City’s Head of Government was elected as a member of the C40 Steering Committee and regional representative for Latin America in this organization, assuming the commitment that Latin American C40 Cities continues to advance against climate change in the region.

In recognition of its trajectory, climate performance and leadership that revolves around environmental policy, **Mexico City was chosen to host the 6th C40 Mayors World Summit**, which was held between No-

vember 30 and December 2, 2016 bringing together Mayors from around the world to discuss and raise urban solutions to climate change and highlight the role of cities to face this global challenge.

It should be noted that on September 1, 2016, on the occasion of the G20 Summit, C40 leaders, including the Mexico City Head of Government, a letter to G20 leaders was sent to encourage them to work together in the building of a world low in CO2 and fulfill their commitments under the Paris Agreement.

Participation in ICLEI-Carbonn

Carbonn is the IT platform where ICLEI member cities report actions on climate change; this registers the progress which is collected annually and makes constant updates in order to identify the scope of measurements and achievements with regards to their respective targets.

The Head of Government is part of the Global Executive Committee of ICLEI for the period 2015-2018. Mexico City has reported on the Carbonn platform since 2010 and in 2015 was incorporated to the Transformative Actions Platform (TAP) presented under the COP21 with 3 actions on energy efficiency, use of renewable energies and adaptation to climate change.

Collaboration with the World Resources Institute

Collaboration with the World Resources Institute (WRI) was the result of the Introduction of Environmentally Friendly Transportation Measures Program (PIMAAT) and laid the groundwork for the creation of the BRT Metro-bus System in Mexico City.

Fundamentally, the WRI's role is to act as a facilitator and generator of institutional partnerships to accelerate the planning, design and implementation processes of thematic projects related to Climate Change, Mitigation, Adaptation, Water, Energy, Food and Sustainable Development.

Through the UN "Sustainable Energy for All" initiative, the WRI supports the "Building Energy Efficiency Accelerator for Mexico City" project that is currently in progress. In the frame of this collaboration, WRI financed the integration of the document "Mexico City Vision on Climate Change by 2025", presented by the Head of Government in the COP21.

Participation in the NAZCA Platform (Non-State Actor Zone for Climate Action)

During the COP20 held in Lima, Peru, in 2014, was unveiled, the IT platform Non-State Actor Zone for Climate Action (NAZCA), in which companies, cities, regions, sub-national governments, and investors register their commitments on climate change.

This information has been provided by: CDP, the Carbonn Climate Registry, The Climate Group, Investors Group on Climate Change and the UN Global Compact. Mexico City as a member of NAZCA, commits to the following 4 Collaborative Actions and 7 Specific Actions:

Collaborative Actions

- Reduce emissions from the transport sector and improve air quality through the introduction of bus fleets of low and zero emissions.
- Reduce greenhouse gas emissions and publish an annual report with results.
- Drive the Energy Efficiency Accelerator Platform at twice the global rate of improvement for the year 2030.
- Reduce annual emissions by 80-95%, or limit to 2 metric tons of CO₂ per capita, by the year 2050.

2012-2020 Specific Actions

- Reduce CO₂ equivalent emissions from municipal buildings by 1%.
- Reduce CO₂ equivalent emissions from municipal facilities by 5%.
- Reduce CO₂ equivalent emissions from municipal vehicles and public transport by 14%.
- Reduce CO₂ equivalent emissions from municipal waste management by 9%.
- Reduce CO₂ equivalent emissions from residential electric power and fuel consumption by 6.4%.
- Reduce CO₂ equivalent emissions from commercial electric power and fuel consumption by 0.01%.
- Reduce CO₂ equivalent emissions from the whole transport community by 3.9%.



Presentation of Mexico City as a host for the 6th C40 Mayors World Summit, 2014.



Workshop "Climate Change: Challenges and Opportunities for Sustainability in Mexican Cities", 2015.



IV
**COORDINATION WITH OTHER
LEVELS OF GOVERNMENT**


CONFERENCIA NACIONAL
de Gobernadores

INSTALACIÓN DE LA COMISIÓN DE
MEDIO AMBIENTE DE LA CONAGO CDMX
CIUDAD DE MÉXICO, 12 DE AGOSTO DE 2016

CDMX
SUSTENTABLE

Several men in suits are seated at a long table on the stage, facing the audience. They appear to be participating in a formal meeting or conference. There are microphones and water bottles on the table.

Contexto urbano
● 11 ZM
de más de
de habi-
41,369,040
habitantes

Contexto urba
● 11 ZM
Mario Molina

COORDINATION WITH OTHER LEVELS OF GOVERNMENT

Mexico City is a pioneer on a national and international level in addressing climate change. The implementation of mitigation and adaptation actions, the design of legal, planning and monitoring instruments, as well as the strengthening of its environmental policies have placed it at the forefront on this issue.

CDMX leadership has been manifested through active participation in agreements, signing commitments and interagency coordination, adding efforts to reduce the effects of climate change.

Nationally, CDMX participates in the **National Emissions Registry**, delivering its report before the Federal Government. In 2016, Mexico City was the first local government to comply in a timely manner to this obligation.



Training 91 agencies of the Mexico City Government as a preparation process to issue National GHG Emissions Registry.



For this purpose, a compilation of information from buildings, facilities, vehicles and auxiliary equipment used for the performance of activities of the 91 agencies that make up the CDMX Government was performed.

In order to verify the information reported during 2016 to the National Emissions Registry, an external body duly authorized by the Mexican Accreditation Entity will hold an opinion that will be delivered to the Ministry of Environment and Natural Resources of the Federal Government.

CDMX also provides information to the national Ministry of Environment and Natural Resources on the

Intended Nationally Determined Contributions (INDC) and the 6th National Communication to the United Nations Framework Convention on Climate Change.

In order to instrument a hydraulic policy, at basin level, as well as to facilitate and encourage active participation of water users and government agencies, the National Water Commission (CONAGUA) supports auxiliary organizations and specialized groups. One of them is the **Communication and Water Culture Specialized Group (GECyCA)** which aims to coordinate joint actions on efficient water use.

Regionally, CDMX has taken the leadership in the GECyCA, integrated by the states of Hidalgo, Mexico, Tlaxcala and CDMX and is currently developing a priority work and participatory plan that will consolidate the promotion of water culture in the Valley of Mexico Basin.

Through actions like this, CDMX becomes aware of the importance of a regional vision to strengthen policies on water management, taking into account the effects that climate change will have on this resource.



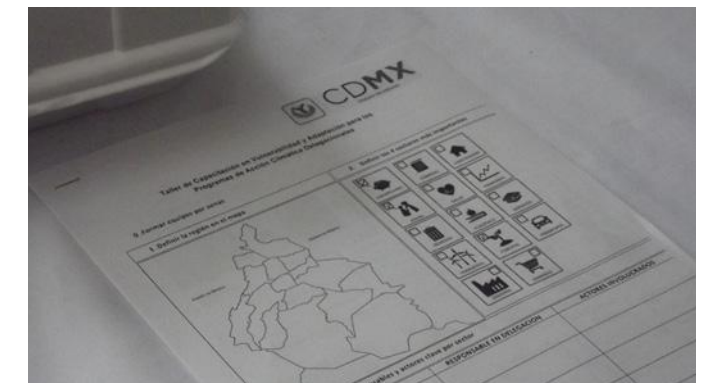
Third GECyCA reunion.

Each of the 16 boroughs that comprise CDMX has the responsibility to develop their own **Borough Climate Action Program (PACDel)**, where actions are included to reduce emissions of GHG as well as measures that contribute to the adaptation to the effects of climate change.

The Mexico City's Ministry of Environment provides technical assistance through various meetings, seminars, and workshops to the officials responsible in each borough for the development of such programs.

These actions attempt to strengthen the capacities of the 16 boroughs' civil servants to advance the design of such priority programs on climate change.

Once the PACDels are approved by the Ministry of Environment and published in Mexico City's Official Gazette, their compliance is mandatory.



Training workshops for boroughs officials to prepare Borough Climate Action Programs.



V

PROGRESS OF PACCM 2014-2020 ACTIONS

The 2014-2020 Mexico City Climate Action Program (PACCM) is a planning tool that integrates, coordinates and drives actions to reduce environmental, social and economic risks derived from climate change; while promoting population welfare from the strategic lines contained in the Local Climate Action Strategy (ELAC).

The primary objective of PACCM is to improve quality of life and sustainable development with low carbon intensity in Mexico City. It consists of seven strategic priorities:

- 1) Urban and Rural Energy Transition
- 2) Containment of the Urban Sprawl
- 3) Environmental Improvement
- 4) Sustainable Management of Natural Resources and Biodiversity
- 5) Building Resilience of the City
- 6) Education and Communication
- 7) Research and Development

Below, PACCM progress of each of the priorities is detailed.



1

URBAN AND RURAL
ENERGY TRANSITION

1 - Urban and Rural Energy Transition

Promotes technological development in the housing, trade, services, industry, mobility and government sectors; includes energy saving, energy efficiency and use of clean energy. This strategic axis is composed by two lines of action:

- Energy Efficiency
- Renewable Energies

ENERGY EFFICIENCY (EE)

Renovation and modernization of public lighting of the primary and secondary road network in the 16 Boroughs of Mexico City

SOBSE - EE7

This action promotes the reduction of energy consumption in public lighting of primary and secondary road networks of the 16 boroughs of Mexico City, as well as a reduction in emissions associated with such consumption.

Results

From September 2014 to September 2015, 270,808 luminaires were replaced with high efficiency technologies in the road network, reducing 30% electric power consumption. This allowed saving 114,446 Megawatt hour (MWh), representing a mitigation of 58,008 tons of carbon dioxide equivalent (CO₂ eq).

Global progress of the action to 2020

100%

Building Energy Efficiency Accelerator

SEDEMA - EE11A

As an initiative of the Head of Government, Mexico City is part of a global strategy aimed at reducing the negative impacts to the environment resulting from human activities. To achieve this it is necessary to implement energy efficiency actions, which will position Mexico City as one of the institutions most committed to the environment.

The above was subscribed in the Collaboration Master Agreement signed by the Head of Government, Dr. Miguel Angel Mancera Espinosa, and the Sustainable Energy for All initiative before the UN Secretary General, Ban Ki-Moon, last 2014.

Results

During the January 2015 to October 2016 period, a few activities were executed by three working groups integrated by local and federal government and civil society entities to address the following issues:

- 1. Local Energy Standards:** Recommendations were issued on local energy standards and energy retrofit of buildings with funding and administrative actions that were included in the building code for local governments.
- 2. Energy Retrofit of Buildings:** Resources for \$600,000 Mexican pesos were negotiated through the Mexico City Public Environmental Fund to execute the pilot project "Energy Efficiency Assessment in Mexico City Buildings" that the Ministry of Environment developed with support from the World Resources Institute (WRI). The project developed during 2016 conducting 4 investment grade energy audits in public property of the Mexico City Government. Such initiative will set the precedent of feasibility in energy reconversion as a strategy for reducing greenhouse gases emissions.
- 3. Financing actions:** In 2015 a workshop on financing with the participation of over 100 attendees and representatives of federal and local government, international cooperation agencies and civil society took place. The overall objective was to determine funding mechanisms to accelerate the implementation of energy efficiency in local buildings.

Global progress of the action to 2020

70%

Modernization and energy efficiency actions in the Public Transport System (STC) Metro

STC - EE1

Public Transport System (STC) Metro is the mass transit system of greater capacity in Mexico City. Through modernization and maintenance of lighting, electromechanical stairs and trains, electric power consumption of the Metro, this action seeks to reduce GHG pollutants emissions.

Results

41,910 luminaires, 185 light steles and traction-braking systems of 25 trains of Line 8 were modernized; furthermore, standard running parameters on trains of lines 2, 3 and 9 were modified. With these actions savings of 17,392,496 kWh were achieved, and 80,778.4 tons of CO₂ eq mitigated.

Global progress of the action to 2020

Continuous
Action

Voluntary Environmental Audit Program and the issuance of environmental compliance certificate

SEDEMA - EE4

In order to assess the degree of compliance of environmental standards, promote a good performance and ensure the implementation of sustainable actions, the industrial, commercial and entertainment venues are subject to Environmental Audit Volunteer Program to define necessary preventive and corrective measures to protect natural resources and the environment. Through this program, companies get an environmental compliance certificate.

Results

During 2016, 37 environmental compliance certificates were delivered, generating savings of 109 million kWh; and 1,061,000 cubic meters of water; 4,900 tons of solid waste per year and the emission of 106,700 tons CO₂ eq were avoided.

Global progress of the action to 2020

32%

Energy consumption systems and habits modification in institutional buildings

SEDEMA - EE3

Energy is the engine of the daily activities of Mexico City inhabitants. Fuels (gas, gasoline, and diesel) and electric power are considered large generators of polluting compounds.

Through the execution of energy audits in public administration buildings, information regarding efficient energy use will be provided to the public servants responsible for each building.

Results

By installing alternative systems and property reconversion, the Environmental Management System helps to reduce pollutant generation. To October 2016, 35 entities of the Mexico City Government have been diagnosed, obtaining as environmental benefit the mitigation of 721 tons of CO₂ eq.

Global progress of the action to 2020

16%

Modifications to the Building Codes to incorporate sustainability criteria

SEDEMA - ER1

These modifications are intended to improve the performance of buildings in terms of land occupation and energy consumption, reduce environmental impact and consolidate the same sustainability criteria for the city, aligned with international certificates and standards.

Results

Amendments to the Building Regulations, published on June 17, 2016, integrate the work conducted by the Ministry of Public Works and Services (Sobse) in collaboration with the Sedema and the Institute for Buildings Security, which establishes the basis that contribute to improve the environmental, energy performance and operating costs for the buildings that are built or modified in Mexico City.

The criteria that will guide the implementation of these amendments to Building Codes are set in the Complementary Technical Standard, which includes explanations of engineering, design, formulas, tables, etc. The Mexico-Denmark Partnership Program on Energy and Climate Change (DEA), the National Commission for the Efficient Use of Energy (CONUEE) and the US Agency for International Development (USAID).

Among the results achieved, several training courses on amendments to the codes stand out, with an attendance of 40 environmental evaluators from the General Direction of Environmental Regulation of Sedema. Aiming to provide the tools and criteria needed to ensure monitoring and good implementation of the modifications made to the Regulation.

Global progress of the action to 2020

80%

RENEWABLE ENERGIES (ER)

Photovoltaic street lighting system in the Chapultepec Park

SEDEMA - ER3.1

This action seeks to improve safety conditions and reduce electric power consumption by installing a low environmental impact lighting system (photovoltaic luminaires) in the First and Second Section of the Chapultepec Park.

Results

The project for the supply and installation of 205 photovoltaic luminaires in areas of the Second Section of the Chapultepec Park was implemented during 2015, with the funding from the Valley of Mexico Metropolitan Fund. At the moment, the project has generated 48.6 MWh, mitigating 22 tons of CO₂ eq.

Global progress of the action to 2020 **100%**

Photovoltaic street lighting system in the San Juan de Aragón Park

SEDEMA - ER3.2

This action is intended to reduce GHG emissions associated with electric power consumption and improve the safety conditions in the San Juan de Aragón Park, through the installation of photovoltaic lamps for street lighting.

Results

Since 2013 a total of 696 new photovoltaic luminaires have been placed in the premises of the San Juan de Aragón Park, which have produced 223 MWh and allowed the mitigation of 155 tons of CO₂ eq.

Global progress of the action to 2020 **100%**

Photovoltaic street lighting systems in Environmental Education Centers

SEDEMA - ER3.3

Its purpose is to have a low environmental impact functional lighting system through the installation of photovoltaic lamps in the Environmental Education Centers: Acuexcomatl, Eco-guards and Yautlica, in order to reduce electric power consumption and have a demonstrated eco-technique in land conservation centers for Mexico City.

Results

During 2015, 120 sustainable luminaires were installed in the Environmental Education Center (CEA) Eco-guards, which allowed the production of 17 MWh and mitigation of 7 tons of CO₂ eq.

Global progress of the action to 2020 **33%**

Program for commercial fuels, energy efficiency and renewable energy access to improve users' health

SEDEMA - ER5A

This action responds to the need to replace fossil fuels usage for clean efficient technologies, respecting the habits and practices of communities, improving their health and preserving parks, from which various environmental services are obtained.

Through this action the incidence of respiratory diseases will be reduced; as well as eye irritations, cataracts and exposure of women to pollutants from burning wood and waste used for cooking and heating water.

For the design of the Program, and given the cultural barriers involving the introduction of technologies for cooking, the inclusion of alcohol stoves and the installation of biodigesters in rural communities with backyard livestock. During the first phase, the introduction will be on a pilot scale for each technology, accompanied by an evaluation survey, respectively.

Results

In the second half of 2015, with the support of the Ministry of Social Development, 2,208 surveys were conducted in Tlalpan, Milpa Alta, Xochimilco and Cuajimalpa boroughs, which served as an initial diagnosis for the implementation of the pilot project's two phases, conducted in the first half of 2016, that included the donation of alcohol stoves to 150 vulnerable households in the Tlalpan and Xochimilco boroughs.

As part of the pilot project's first phase, a survey was conducted after the delivery of alcohol stoves in order to know the degree of usefulness for the 150 beneficiaries. The analysis of the survey revealed that 92% of those interviewed were women; 76% use firewood to heat water for personal hygiene; 47% use coal to heat their home; 83% improved their cooking; 62% did not have to buy another type of fuel and 36% stopped using firewood; 58% consider it very useful and 89% rated the saving stoves between good and excellent.

In parallel, as part of the pilot project's second phase, throughout 2016 work on the biodigesters component of the project was initialized. For such component, a producers' registry susceptible to receive biodigesters is being integrated, checking its on-site biogas production potential. All of the above has served as input for shaping the program and implementation thereof during the 2017-2018 period.

Global progress of the action to 2020 **25%**

Energy use from renewable sources in the Mexico City Government premises

SEDEMA - ER4A

This action aims to use energy from renewable energy sources in order to advance the energy transition in CDMX government premises and reduce emissions of greenhouse compounds.

Results

Sedema, in coordination with the Ministry of Health (Sedesa), and with technical assistance from the US Agency for International Development (USAID), in order to reduce GHG emissions from the use of fossil fuels for water heating, will install solar water heating systems from October 2016 to October 2017 in the following 12 hospitals:

1. CDMX Specialties Hospital Dr. Belisario Domínguez
2. Xoco General Hospital
3. Balbuena General Hospital
4. Enrique Cabrera General Hospital

5. Ajusco Medio General Hospital
6. Tacubaya Pediatric Hospital
7. Tláhuac General Hospital
8. Inguarán Maternity and Children's Hospital
9. La Villa General Hospital
10. Tláhuac Maternity and Children's Hospital
11. Milpa Alta General Hospital
12. Iztapalapa Pediatric Hospital

This project will lead to an estimated annual reduction of 481 tons of CO₂ eq.

Global progress of the action to 2020 **35%**

Energy use from renewable sources in La Villa Pediatric Hospital

SEDEMA - ER4.1A

To reduce GHG emissions, this action seeks to use energy from renewable sources such as solar energy, in order to advance the energy transition in CDMX Government premises, to contribute to the mitigation of pollutant emissions.

Results

From September 2014 to October 2016, the reduction of 52 tons of CO₂ eq and 12,000 liters of diesel was achieved after installing a Water Heating System consisting of 32 solar collectors. This installation was achieved thanks to the grant from the US Agency for International Development, in order to establish itself as an example of a successful and replicable action for other facilities in the city. Currently, the system is in operation, providing environmental and economic benefits.

Global progress of the action to 2020 **100%**

Photovoltaic farm for the generation of electricity from a renewable source

SEDEMA - ER7A

The installation of a photovoltaic farm inside the Xochipilli Fountain, located in the Second Section of the Chapultepec Park, seeks to reduce power consumption, contributing to the conservation of the environment and saving financial resources.

Results

The project was completed in June 2016 and involved the installation of a solar energy generation system through a renewable source, in order to provide lighting to the Paseo de los Compositores - Xochipilli Fountain. A 26.95 kW photovoltaic system was installed, integrated by 102 solar panels within the premises of Xochipilli Fountain. This system has generated 9.7 MWh of electricity and allowed the mitigation of 4.4 tons of CO₂ eq.

Global progress of the action to 2020

100%

Electric power generation in Multifamiliar Housing Complexes through photovoltaic panels

INVI - ER6A

This action consists of the installation of photovoltaic panels in multifamiliar housing complexes constructed by Mexico City's Housing Institute (INVI).

Resultas

Since the launch of PACCM, the Mexico City Housing Institute has incorporated solar thermal energy systems in the housing units it produces, allowing significant savings for users and generating environmental benefits.

In September 2016, photovoltaic panels were installed in a multifamiliar housing complexes, which so far generated 42.4 MWh of electric power, and has avoided energy consumption from the national grid, mitigating 19 tons of CO₂ eq emissions.

Global progress of the action to 2020

Continuous Action

Creation of electric taxi fleet

STE - EE8

The transport sector contributes the largest amount of GHG emissions in Mexico City, which makes it urgent to meet the challenge of mobility with new schemes and technologies. To reduce their impact, one of these actions is the operation of a fleet of electric taxis, which produce much lower emissions than a conventional taxi.

Results

During the month of July 2015, the operation of a fleet of 20 electric taxis was launched, which has given service to more than 70,000 users through more than 36,000 services performed, avoiding the emission of 22.48 tons of CO₂ eq during its operation.

Global progress of the action to 2020

100%

Energy efficiency in electric transport services

STE - EE6

This action reduces the generation of emissions through the renovation of conventional luminaries for higher efficiency luminaries, generating a continuous benefit.

Results

During the months of October and November 2015, 1,240 conventional luminaries were replaced with more efficient luminaries, of which 640 were from 17 to 9 watts, 480 from 32 to 18 watts and 120 from 250 to 150 watts, allowing the saving of 62,222 kWh, and avoiding the emission of 28.25 tons of CO₂ eq.

Global progress of the action to 2020

100%

2

CONTAINMENT OF THE
URBAN SPRAWL



2 - Containment of the Urban Sprawl

This strategic priority encourages the management of real estate and public equipment, recovery of public spaces for the construction of eco-efficient urban infrastructure, expansion of green areas and urban and road reorganization. The strategic axis is composed of two lines of action:

- Urban planning instruments
- Intra-urban green spaces

URBAN PLANNING INSTRUMENTS (IPU)

Creating a territorial planning program for Mexico City, integrating environmental and urban policies

SEDUVI
IPU1

Mexico City's Territorial Planning Program has the purpose of formulating environmental and urban policies, including a gender equality approach, consistent with urban land and soil conservation development and planning instruments, in order to create a standardized program, where the supervision of natural protected areas and environmental value areas play a key role in containing the urban sprawl.

Results

The General Urban Development Program was designed by the Sustainable Urban Development Council (CONDUSE), for which four citizen participation workshops took place with a total of 101 discussion tables and the attendance of 2,226 counselors from 878 organizations and institutions from the social, public, private, academic and legislative sectors.

In addition, 17 CONDUSE sessions oriented for travelers "CONDUSE Viajero" took place, targeted to complement the ideas and conclusions of Citizen Participation workshops, in which 13 institutions participated as co-organizers, which complemented the vision of the unions of professionals, business groups, legislators, academics and non-governmental organizations.

The information generated from CONDUSE, served to define the proposals for Target Image, Strategies and Action Lines of the General Urban Development Program Project, which is currently undergoing public consult.

Global progress of the action to 2020

50%

INTRA-URBAN GREEN SPACES (EVI)

Creation and Rehabilitation of Urban Green Spaces

SEDEMA
EVI 1.1

This action promotes the rehabilitation and maintenance of green areas in Mexico City in order to improve the environment and increase the green area per person standard set by the World Health Organization.

Results

With the "Urban Image Improvement" Program, 113,908 actions of pruning, demolition, planting, and transplantation of trees were executed, contributing with 152.3 hectares of green areas recovery. The production and maintenance activities in the tree nurseries for 752,036 plants, has looked after 533 hectares of green areas.

Through the 2016 Mexico City's Reforestation Program 2,730 trees were planted covering an area of 15.47 hectares, a green areas enhancement was done to the 50 and 26 hectares of the Urban Parks Nativitas and San Luis Tlaxialtemalco, respectively and also 1.4 hectares of green roofs were renewed adding up to 778.17 hectares in total.

Global progress of the action to 2020

100%

Creation and Rehabilitation of Urban Green Spaces (Chapultepec Park)

SEDEMA
EVI 1.2

The project involves the execution of works and rehabilitation of intra-urban green areas in the Chapultepec Park, to preserve in optimal conditions its facilities and provide better environmental, social and cultural benefits.

Results

During 2016, in the 2nd Section of Chapultepec Park, the following areas were rehabilitated: Constituyentes Park (4.1 hectares), Paseo de los Compositores (2.3 hectares), Rosario Castellanos Park (5.9 hectares) and the Natural Reserve Park (4.6 hectares).

Also, in the 1st section, maintenance was given to La Hormiga Park (3.9 hectares) and the Ecological parking lot (4.2 hectares), resulting in a total of 25 hectares of green spaces.

Moreover, there is a continuous maintenance and rehabilitation of green areas within the Chapultepec Park.

Global progress of the action to 2020 **100%**

Green Roofs

SEDEMA
EVI 1.3

This action has the purpose to increase Mexico City's green areas through the implementation of green roofs, fostering the use of this sustainable technology to endorse environmental benefits.

Results:

From 2014 to October 2016, 19,153 square meters of roofs on buildings of the Mexico City Government were implemented and 40,947 square meters from environmental impact resolutions, giving a total so far in this administration of 60,099.81 square meters of green surface.

Global progress of the action to 2020 **100%**



Rehabilitation of intra-urban green spaces.



Green Roofs.



3

ENVIRONMENTAL
IMPROVEMENT

245

2613

7033

1939

2237

7759

7447

242

2613

7033

1939

2237

7759

7447

3 - Environmental Improvement

This strategic axis promotes low carbon development, focusing on improving the environment by taking advantage of areas of opportunity to mitigate emissions and improve air quality, promote the rational use of water in all sectors through proper actions, as well as the decrease in the generation of waste and the adequate treatment.

The lines of actions proposed to meet the objectives of this strategic axis are the following:

- Pollutant emissions reduction
- Comprehensive management of water resources
- Comprehensive waste management

POLLUTANT EMISSIONS REDUCTION (REC)

Implementation of intermodal mobility schemes in strategic areas of the city: Expansion of the individual transport system ECOBICI

SEDEMA - REC6.1

Through the modernization of the City's infrastructure, cyclist equipment and expansion of the Individual Transport System ECOBICI, this action seeks to promote and disseminate intermodal mobility, transport optimization, as well as the reduction of GHG emissions.

Results

In 2015, throughout the Phase IV of the Individual Transport System ECOBICI, 171 bike stations in the Benito Juárez borough were inaugurated. This benefited 23 nearby neighborhoods and represented an expansion of 60% of the system, which turned it into the largest Public Bicycle System in Latin America.

In 2016, 8 bike stations were set up in strategic positions of the Tabacalera, Roma Norte, Doctores, and Condesa neighborhoods in the Cuauhtémoc borough; while in the Miguel Hidalgo borough the benefited neighborhoods were Polanco and Anzures. Currently, ECOBICI has 452 bike stations.

To August 2016, the Public Bicycle System provided service to 222,604 users (38.5% women and 61.5% men) in 43 neighborhoods of three boroughs with a coverage area of 35 square kilometers.

Since ECOBICI began, 35,809,107 trips have been made and 55,246,792 km traveled, with an average of 30,384 trips per day, this led to the mitigation of 2,652 tons of CO₂ eq. Meanwhile, from 2014 to October 2016, 23,171,820 trips were made in ECOBICI and 39,430,002 km was traveled, achieving a reduction of 2,419 tons of CO₂ eq.

Global progress of the action to 2020

68%

Implementation of intermodal mobility schemes in strategic areas of the city: Growth of the cycling infrastructure network

SEDEMA - REC6.2

This purpose of this is to modernize cyclist infrastructure and equipment to promote and disseminate intermodal mobility, in order to optimize transport in the city, as well to reduce emissions of greenhouse compounds. Furthermore, this action seeks to expand the cycling road infrastructure network, guaranteeing the necessary technical solutions to make the bicycle a comfortable, fast and safe transportation alternative.

Results

From the last quarter of 2014 to 2016 "Cycle Mobility Studies" were carried out for the planning and assessment of the cycling infrastructure; through this instrument, the relationship between built bicycle lanes and the increase of cyclists was verified.

In December 2015 the Revolución-Patriotismo Bike Lane was completed and inaugurated, with a link created for cyclists from the South to the Center of the city. A confined 2 meters width lane with planters along 10 km was designed, which has the applied criteria for safe intersections, in addition to cycling confinement elements (Confibici), vertical and horizontal signaling, two cyclists counters, 26 platforms for public transport and 4 for school areas.

Also during the year 2015, the Cycling Infrastructure Buenavista Avenue was launched on the Paseo de la Reforma - Eje 1 Norte section, with a length of 3.2 km. It was designed according to the specific technical criteria and considering the necessary technical solutions to make the bicycle a comfortable and safe transport alternative.

In addition, 11 safe crossings were implemented in División del Norte Avenue, Circuito Interior Rio Churubusco - Viaducto President Miguel Aleman stretch, to give priority to pedestrians and provide safety for cyclists at intersections with greater traffic conflict.

Global progress of the action to 2020

100%

Implementation of intermodal mobility schemes in strategic areas of the city: construction of massive Bike Parking lots in Modal Transfer Centers

SEDEMA - REC6.3

This action seeks to modernize bike cycling infrastructure and equipment to promote and disseminate intermodal mobility in the city through the construction of massive and semi-massive bike parking lots, to encourage and facilitate intermodality with public transport networks, making cycling a comfortable and safe transportation option.

Results

To promote intermodality between mass transport and bicycles, massive bike parking lots Pantitlan and La Raza were built. Since its inauguration in October 2014, Pantitlan Massive Bike Parking lot has been used more than 87,700 times and 1,620 people have enrolled, where two out of every ten are women.

La Raza Massive Bike Parking lot, built in 2015 and inaugurated in 2016, has the capacity to shelter up to 400 bicycles and 8 deploy sites for people with disabilities. As part of this project, more than 2,500 square meters were intervened; of which 1,130 belong to the property and 1,930 to the small square of the surroundings. In addition, the amount of green space was increased, a playground was built and an outdoor fitness gym was added.

In December 2015 Mexico City's Bike Stations were set up with 29 distributed points within the ECOBICI polygon (Miguel Hidalgo, Cuauhtémoc and Benito Juárez boroughs), where 10 of them have public bike-tool poles, in which basic mechanical repairs can be carried out as well as tire pumping up; in this way the number of places for the bicycle parking lot was increased to 312.

During the year 2015, as part of Metrobus BRT Line 6 construction, 340 bicycle parking furniture facilities distributed in 37 stations of the corridor, including its terminals, were installed.

Global progress of the action to 2020

40%

Implementation of new Metrobus corridors

METROBÚS - REC7

In order to mitigate the effects of climate change by reducing GHG emissions and criteria pollutants generated by public transport, this action includes the implementation of new Bus Rapid Transit (BRT) corridors in Mexico City, by substituting minibuses and collective buses for high capacity low emissions buses, which will increase the quality and coverage of the service.

Results

Prior to 2013, the Metrobus Transit System had 4 lines with a service network of 95 km. With the implementation of Line 5, in November 2013, the network increased 10 km of additional length, becoming the first BRT corridor in Mexico to incorporate the "Complete Street" concept, through which the curbside space was intervened in order to ensure the safety of pedestrians on sidewalks and in a median divider, the cyclist rides in a confined lane, while the car driver and the Metrobus BRT are on the road.

In January 2016, Metrobus Line 6 began operations with 20 km, increasing the total network coverage to a 125 km, providing service to 1.2 million users daily; with these activities 433,984 tons of CO₂ eq have been mitigated from January 2013 to October 2016.

Global progress of the action to 2020

38%

Vehicular emissions reduction

SEDEMA - REC10A

This action seeks to prevent, minimize and control the local and global pollutants from mobile sources, by limiting its generation.

Results

The No Driving Day Program operates in coordination with the Vehicle Emissions Testing (Inspection and Maintenance) Program, which regulates the days a vehicle can be driven considering the emissions certificate obtained in the latter. Thanks to the regulations imposed, 931,422 tons of CO₂ eq have been reduced, becoming one of the actions with the greatest emissions mitigation potential of those considered under to Climate Action Program.

Global progress of the action to 2020

30%

Creation of a standard for boilers with less than 10 cc

SEDEMA - REC11A

Since Mexico City's commercial services and small and medium industries prevail, a standard that applies to boilers under 10 cc (10 steam horse power) was developed.

Results

Air pollution by suspended particles in Mexico City is a priority problem to be solved. Currently, small boilers that do not exceed 10 cc are not regulated by the Federal Government. Due to the need for publishing the standard, a working group was created which will have developed the corresponding standard (NADP-016-AMB-2016) by the end of 2016 and come into effect in 2017.

Global progress of the action to 2020

37%

Creation of a standard for incinerators

SEDEMA - REC12A

Due to the differences in their operating parameters within Mexico City, this action seeks to develop a local standard regulating emissions from incinerators.

Results

Since space in Mexico City is increasingly reduced, cremation becomes a standard practice. Because of this, a local legal framework that standardizes incinerators, allowing thus to regulate their operation, including their emissions. The preliminary draft of this standard is under development; its conclusion and publication will take place during 2017.

Global progress of the action to 2020

12%

Green Procurement

SEDEMA - REC9

One of the commitments of Mexico City's government is the gradual acquisition of environmentally friendly products. The Environmental Management System provides public servants with adequate information and tools to do that in their Annual Operational Programs incorporating sustainability criteria in the acquisition of goods or services for the development of their activities.

Results

As result of the public procurement of goods with less environmental impact, in October 2016 it is recorded that 25% of the products acquired by the Mexico City government are sustainable, equivalent to a mitigation of 3,180 tons of CO₂ eq. These actions avoided the use of 14,666 trees, 27,552 cubic meters of water, and 4,991,912 kWh of electric power.

Global progress of the action to 2020

15%

Vehicle Fleet of the Passenger Transport Network Renewal (with EURO V diesel motor buses)

SM1 - REC15.1

This action seeks to reduce GHG emissions by replacing buses that have reached the end of their useful life with new environmental technologies units such as EURO V, EURO V/EEV, and EPA 07 or higher, using Ultra Low Sulfur Diesel (ULSD) as fuel.

Results

Due to the fact that 50 diesel buses reached the end of their useful life, they were replaced by EURO V low emission units and 191 simple diesel units for EURO V/EEV advanced technology systems in GHG emission reduction, plus the use of Ultra Low Sulfur Diesel (ULSD), which contributes to the mitigation of 728 tons of polluting compounds in Mexico City.

Global progress of the action to 2020

Continuous Action

Replacement of 30 leased buses with CNG engine and EURO V environmental technology

SM1 - REC15.2

This action considers reducing greenhouse gases emissions generated by public transport of passengers, through the operation of buses using Compressed Natural Gas (CNG).

Results

Line 2 of the EcoBus System facilitates the mobility of about 20,000 users daily. EcoBus initially operated 30 leased buses. At the end of the lease contract of the first 30 CNG buses were replaced by the same number of units acquired with more environmentally friendly technologies in CNG EURO V which has allowed the mitigation of 20,590 tons of CO₂ eq; the units started operating in February 2016.

Global progress of the action to 2020

100%

Atmospheric improvement in Mexico City through inspection and monitoring of generating sources

SEDEMA - REC13A

This action relates to the control of pollutant emissions from stationary sources that are located in Mexico City, through inspections and monitoring actions for compliance with applicable environmental standards.

Results

To enforce compliance with environmental standards there are two programs:

- Inspection of industrial and service facilities.
- Attention to citizen complaints on environmental issues.

Based on these constant operatives and attention to citizens complaints, there have been 4,178 inspection visits to commercial, industrial and/or construction establishments.

Global progress of the action to 2020

74%

Strategic set-up of taxi bases in Mexico City

SEMOVI - REC14A

Taxi units operating at a base booth reduce circulation time by 25%, which reflects in GHG and criteria pollutants emissions reduction.

Results

The integration of a taxi into a permanent base allows its operation to be more efficient because it reduces its trip without passengers; this has allowed preventing the emission of 68,296 tons of CO₂ eq.

Global progress of the action to 2020

Continuous Action

Contaminating Vehicles Program (CVP)

SEDEMA - REC16A

This action consists of stopping and sanctioning motor vehicles users circulating in Mexico City due to the ostensible emission of polluting smoke, as well as those moving without a valid Inspection and Maintenance certification hologram or driving on a No Driving Day during restricted hours.

Results

During 2015, more than 30 new environmental patrols were incorporated to strengthen the operation of this program. Since 2013, 183,364 vehicles have been sanctioned for ostensibly emitting polluting smoke, for lack of an Inspection and Maintenance certification hologram or for driving on a No Driving Day during restricted hours. With these actions, 146,925 tons of CO₂ eq have been mitigated.

Global progress of the action to 2020

59%

COMPREHENSIVE WASTE MANAGEMENT (GIR)

Valorization of waste in Mexico City Government buildings

SEDEMA - GIR7A

Mexico City's Public Administration is considered a major solid waste generator (15% of the daily generation). This leads to the implementation of measures that allow the proper management of solid waste for increased reuse and recycling, which in turn will allow, in the middle term, to consolidate a Sustainable Management System. This System provides advice so that civil servants are able to value the waste that is generated in the buildings where they work.

Results

As of October 2016, 44 diagnoses were made for the instrumentation of management plans and other actions, such as composting and urban orchards. 41% of the potential recoverable waste in each of the institutions was used; this represents a reduction of 593.20 tons of CO₂ eq.

Global progress of the action to 2020 **24%**

Treatment of construction waste

SOBSE - GIR3.3

The Ministry of Works and Services, through the Direction General of Urban Services, supports the bodies of the Mexico City Government with mobile crushing equipment to process demolition material so it can be reused as raw material.

Results

The Mexico City Government has a fixed construction waste crushing unit and two mobile units; the latter are moved to different storage camps of the city boroughs. Their operation has avoided, from January 2014 to October 2016, more than 4,450 individual shipments to the central site. Due to this action, 99,824 tons of construction wastes were crushed on site, allowing emissions reduction of 95 tons of CO₂ eq.

Global progress of the action to 2020 **57%**

Composting of organic waste and pruning material

SOBSE - GIR3.1

This action relates to the treatment of the organic solid waste and pruning waste through composting in order to reduce methane emissions from final disposal in landfills.

Results

Mexico City generates about 13 thousand tons of waste per day (mainly from domestic and commercial sources), more than 13% is valorized through compost plants. From January 2014 to October 2016, these plants have treated 1,223,158 tons of organic and pruning waste, avoiding their disposal in landfills and allowing mitigation of 1,168,789 tons of CO₂ eq, which represents one of the most relevant emission mitigation actions within the city.

Global progress of the action to 2020 **56%**

Utilization of waste with high calorific content as alternative fuel

SOBSE - GIR3.2

This action consists in separating, compacting and packing inorganic solid waste with high calorific content for its exploitation in a cement plant as alternative fuel, which prevents sending it to landfills.

Results

An answer to the waste management challenge in Mexico City is the use of new systems allowing valorization of high calorific content waste in cement kilns as an alternative fuel. From February 2014 to October 2016, 456,000 tons of solid waste was valorized, which has contributed to the mitigation of 161,178 tons of CO₂ eq.

Global progress of the action to 2020 **57%**

Improved energy efficiency and wastewater treatment capacity increase

SACMEX - GIR2

This action considers enabling new wastewater treatment plants and rehabilitating those that are operating below their installed capacity, in order to reduce the environmental impact of untreated sewage and mitigation of methane emissions.

Results

By 2014, 7 wastewater treatment plants were rehabilitated and 4 more in 2015.

In 2016, the Magdalena River wastewater treatment plant became operational and the Valle Verde plant began a testing phase.

Global progress of the action to 2020

Continuous Action

Incorporation of sludge stabilization systems to wastewater treatment plants

SACMEX - GIR1

This action aims to identify and upgrade treatment plants that do not have sludge stabilization systems to reduce methane emissions and prevent soil and groundwater contamination.

Results

The project consists of replacing Unit No. 2 of the existing wastewater treatment plant in Chapultepec, for a new module to process 160 liters per second (lps) of wastewater, for the benefit of the Chapultepec Park and its lakes. This project includes the construction of a sludge treatment system, which would prevent water contamination through the waste discharge.

Global progress of the action to 2020

15%

Regulate commercial facilities related to the collection, transportation, handling, reuse, recycling and final disposal of municipal solid waste

SEDEMA - GIR4A

To ensure adequate solid waste treatment and disposal, the Mexico City government will establish a register of commercial establishments related to its management, in order to regularize them and ensure proper local competence waste disposal.

Results

As of October 2016, 119 commercial establishments and 604 collection units have been registered, providing greater certainty about solid waste treatment handled in Mexico City.

Global progress of the action to 2020

51%

Containerization program in Mexico City

SEDEMA - GIR5A

The objective of this action is to strengthen Mexico City sanitary infrastructure for the adequate disposal of the generated solid waste.

Results

The complete installation of 6,096 containers in the 16 boroughs was done in 2015 in order to achieve and strengthen the inhabitants' greater education and environmental culture, to promote social participation in prevention, minimization, separation and recovery of solid waste.

Global progress of the action to 2020

100%

COMPREHENSIVE WATER RESOURCES MANAGEMENT (GIRH)

Water saving program in offices and public buildings, and rainwater harvesting

SEDEMA - GIRH1

In recent years, water availability per capita in Mexico City has decreased by approximately 46%, coupled with the fact that 40% of the supply is lost in distribution due to infrastructure failures or leaks. Taking measures to induce intelligent water consumption is essential for the development of everyday activities. Civil servants should be the main promoters of these sustainable measures.

The Environmental Management System promotes the adoption of sustainable measures in water consumption inside and outside of public buildings, in partnership with various actors such as Helvex Foundation, in coordination with the Mexico City Ministry of Environment, drives the participation of the hotel sector in the Distinctive Hydro-sustainable Hotel Award.

Results

As of October 2016, 37 diagnoses in 30 institutions of the Mexico City Government were conducted. The replacement of sanitary furniture for water saving equipment, installation of efficient devices, campaigns for water saving and timely leak detection, have allowed the reduction of 19 tons of CO₂ eq.

Regarding the Distinctive Hydro-sustainable Hotel, since 2011 there have been five editions of this award and as a result of the latest edition this year, there is the mitigation of 150 tons of CO₂ eq and water savings of 253,487 cubic meters.

Global progress of the action to 2020

20%

Construction, rehabilitation and replacement of drinking water lines

SACMEX - GIRH2.1

This action aims to reduce water losses of the Mexico City Water Distribution System, leakage suppression and rehabilitation of pipelines through the use of concession companies.

Results

A total of 121 km of the pipeline was rehabilitated in 2015, benefiting 254,980 inhabitants.

Global progress of the action to 2020

58%

Leakage Shutdown Program

SACMEX - GIRH2.2

In order to avoid leaks, this action considers performing leakage repair work.

Results

During 2015, 23,317 leaks were repaired, while from January 1 to October 31, 2016, a total of 23,341 leaks were fixed.

Global progress of the action to 2020

50%

Rainwater harvesting in houses

SEDEMA - GIRH3A

This action considers setting up rainwater harvesting devices in multifamiliar housing units developed by the Mexico City Housing Institute, to reinforce the supply of water resources.

Results

In addition to sustainability actions developed by the Housing Institute in the housing units it builds, has set-up rainwater harvesting systems in 38 units; this has led to capture and use of 720 cubic meters of water, benefiting 814 houses; this allowed the reduction of 431 kg of CO₂ eq, derived from energy saving used for pumping water.

Global progress of the action to 2020

Continuous Action

An aerial photograph showing a town with red-roofed buildings and green fields in the foreground, surrounded by dense green forests and rolling hills. The sky is bright blue with scattered white clouds. A white callout box with a black border is positioned in the upper right quadrant, containing the number '4' and the title text.

4

**NATURAL RESOURCES AND BIODIVERSITY
CONSERVATION SUSTAINABLE
MANAGEMENT**

4 - Natural resources and biodiversity conservation sustainable management

This strategic priority promotes the conservation, recovery and expansion of green areas of environmental value, sustainable use of natural capital, the appropriate management of productive activities that depend on natural resources and geo-climatic conditions in the immediate environment. The lines of action of this strategic priority are:

- Native species and wildlife
- Conservation land

NATIVE SPECIES AND WILDLIFE (ENVS)

Development of management programs for Natural Protected Areas (ANP) of Mexico City's Government competency

SEDEMA
ENVS 3

The ANP is one of the greatest assets of the environmental services provided directly or indirectly to society. Conservation, improvement and recovery of these sites is fundamental and on a priority basis for environmental management, and to ensure quality of life of current and future generations, therefore, guidelines, criteria and policies for administration and management should be established.

Results

Four ANPs Management Programs for Mexico City Ecological Park, Sierra de Guadalupe, Sierra de Santa Catarina and La Armella, were updated; these programs are currently under revision in the Ministry of Environment's Legal Department and will soon be published in the Mexico City Official Gazette (GOCDMX).

Additionally, four ANPs Management Programs from Eco-guards, San Nicolas Totolapan, San Miguel Topilejo and San Bernabe Ocoatepec, were developed, and will be published in the GOCDMX. The Mexico City Ecological Park Management Plan has already been published in the Gazette.

Global progress of the action to 2020

71%

Compensation Program for the Conservation of Environmental Services in Ecological Community Reserves and Ecological Conservation Community Areas

SEDEMA
ENVS 5

Through economic compensation to agrarian groups, integrated to this program in four support modalities (brigades operation, technical coordination, investment project for environmental conservation and annual incentive), this action contributes to ecosystems preservation and restoration found in conservation land.

Results

To October 2016, an area of 13,502.7 hectares remained integrated to the remuneration scheme for the Environmental Services Conservation. This has benefited 186 brigade members who perform Mexico City's natural ecosystems conservation actions, generating environmental services.

Global progress of the action to 2020

50%

Installation of 18 Advisory Councils to support the implementation of the Natural Protected Areas and Ecological Conservation Community Areas Program

SEDEMA
ENVS 6

In order to promote social participation and integrate civil society, academic and business sectors opinions into the conservation of ANPs, the Advisory Councils will serve as an inter-agency coordination and social participation instrument to support and strengthen the responsibilities of each ANP in its management and implementation of actions.

Results

To October 2016, 9 Advisory Councils are in operation and by year's end three more will be reactivated, for a total of 12 Councils running. The Advisory Councils in operation are:

1. Sierra de Guadalupe
2. Los Encinos
3. La Armella
4. Sierra de Santa Catarina
5. Cerro de la Estrella
6. La Loma
7. Desierto de los Leones
8. Mexico City's Ecological Park
9. Ecoguardas

Global progress of the action to 2020

50%

Creation of the Protection, Conservation and Sustainable Use of Biodiversity Law

SEDEMA
ENVS 1

The objective of this action is to create Mexico City's Law on Protection, Conservation and Sustainable Use of Biodiversity in order to consolidate a system of environmental justice enforcement ensuring biodiversity protection and conservation, since there is none that subscribes interinstitutional collaboration agreements.

Results

Is currently creating Mexico City's Law on Protection, Conservation and Sustainable Use of Biodiversity.

In 2016, three meetings with PAOT and SEDEMA institutions took place, increasing to a 15% partial progress in the creation of this law.

It is noteworthy that this legal instrument envisages a gender perspective. Among the activities undertaken to achieve the creation of this law are: information analysis and gathering, two work meetings and one interdepartmental workshop.

Global progress of the action to 2020

15%

Monitoring for the detection and prevention of transgenic corn in Mexico City's conservation land through the analysis of samples in the Molecular Diagnostics Laboratory

SEDEMA
ENVS 4

This action includes monitoring Mexico City's corn crops through an analysis to detect the presence of transgenes and relevant mitigation actions in case of detecting, considering the sociocultural and economic variables that might affect corn production.

Results

To October 2016, the collection and analysis of corn samples has been made for detecting the presence of transgenes, just as economic incentives have been given to producers for the conservation of high plateau corn varieties.

Global progress of the action to 2020

45%

Conservation land (SC)

Containment of urban sprawl on conservation land

SEDEMA
SC12A

By integrating administrative procedures and activities of inspection and surveillance in conservation land, this action seeks to improve institutional activity contribution in order to recover conservation land and avoid the deterioration of natural resources and natural protected areas.

Results

To October 2016, 2,109 inspection and environmental surveillance actions have been performed in the recovery of 709 hectares of conservation land.

Global progress of the action to 2020

100%

Protection and recovery of native crops and herbology

SEDEREC
SC7

This action contributes to the protection of native biodiversity by studying and promoting the planting of native crops and herbology.

Results

To October 2016, 2,000 hectares of conservation land had been preserved for the delivery of 1,523 packages of native seeds and local herbology to the producers inside the conservation land, for use in the same parcels, where there is an implementation of cornfield agriculture systems. With these actions conservation of native biodiversity has been achieved.

Global progress of the action to 2020

100%

Incorporation of new areas for sustainable use

SEDEREC
SC8

This action looks for areas where works and practices of soil and water conservation for sustainable use are incorporated (such as the creation of water harvesting pots, terraces, closed ponds, filtering dams, reforestation, strip crops, etc.), which encourage agricultural activities and contribute to carbon sequestration in conservation land.

Crop protection and maintenance of biodiversity enhance resilience of agro-ecosystems facing the possible effects of climate change.

Results

During 2014 and 2015, through the Conservation and Sustainable Use of Land and Water (COUSSA) component and with the support of SAGARPA, 8 projects that incorporated 275 hectares to sustainable use were financed, with the aim of encouraging agricultural activities that helped carbon sequestration in conservation land. The total amount of support for works and soil conservation activities was \$6,875,497.95.

Global progress of the action to 2020

42%

Prevent, combat and control forest fires in Mexico City's Conservation Land

SEDEMA
SC10A

"Mexico City's Comprehensive Conservation Land Program for the Prevention and Forest Firefighting" consists in monitoring and fighting all forest fires occurring in Mexico City and surrounding areas within the State of Mexico and Morelos, as well as carrying out field work to inhibit the presence and spread of fires.

Through this program Mexico City's conservation land natural resources are protected and preserved through actions of detection, prevention and suppression, to reduce the incidence and degree of damage caused by forest fires.

Results

To October 2016 more than 220 hectares of forest and natural resources of Mexico City's Conservation Lands were protected and conserved through detection and prevention actions such as 140 hectares of land clearance, 200 km of firewalls cleaning, 30 km of conditioned roads, 80 hectares of burn controlled and pruning of 100,000

trees, thereby reducing the incidence and degree of damage caused by forest fires. It is noteworthy that these activities during this period are additional to the main activity of forest firefighting; moreover, these same are scheduled for the last quarter (October-December).

Global progress of the action to 2020

57%

Mexico City's conservation land reforestation and maintenance

SEDEMA
SC11A

The preservation and restoration of ecosystems in conservation land contribute to this action; also, the permanence and conservation of ecosystem services provided to these areas to promote ecological balance.

Results

As of October 2016, 471,969 specimens have been planted in 822.05 hectares, regarding production reversion 126,140 individuals have been planted in 82.89 hectares and 1,018,101 plants have been preserved in 1,786.22 hectares.

Global progress of the action to 2020

52%

Rainwater harvest for irrigation

SEDEREC
SC9

This action is intended for carrying out rainwater harvest projects to reduce the demand generated by Mexico City's agricultural systems on Mexico City's Water System (SACMEX) and maintaining the resource availability for auxiliary irrigation in areas with seasonal crops.

Results

During 2014 and 2015, through the Conservation and Sustainable Use of Land and Water (COUSSA) component and with the support of SAGARPA, 8 projects for the construction of 5 rainwater harvest systems were funded; 1,517 cubic meters of liquid were collected in order to maximize its use and reduce the demand generated by

agricultural systems on SACMEX, in addition to increasing water for irrigation availability in areas with seasonal crops. The total amount of support for water collection projects and actions was \$1,017,173.65.

Global progress of the action to 2020

15%

Capacity building on food safety standards for Mexico City farmers

**SEDEREC
SC1**

Through the capacity building oriented to Mexico City farmers, the organic production and good agricultural practices reduce the environmental impact of crops and the production and consumption of local foods is encouraged.

Results

75 producers were certified and by the end of 2016, 115 more are currently in training for certification on food security best practices, enabling improved quality and reduced environmental impact of production.

Global progress of the action to 2020

100%



Body of Water conservation, Xochimilco Borough.



Firefighting control in Conservation land.



5

**BUILDING THE RESILIENCE
OF THE CITY**

CDMX

ESTRATEGIA DE RESILIENCIA CDMX

TRANSFORMACIÓN ADAPTATIVA, INCLUYENTE Y EQUITATIVA

CDMX

5 - Building the Resilience of the city

The objective is to build resilience to promote risk prevention and reduction, and focuses on creating an environmental and economical active population, despite threatening events such as extreme weather events, environmental degradation, and economic and social crisis. The action line corresponding to this strategic priority is:

- Risk prevention and mitigation on both urban and rural areas

RISK PREVENTION AND MITIGATION ON BOTH URBAN AND RURAL AREAS (PMR)

Mexico City's Resilience Strategy

SEDEMA - PMR10A

Mexico City's Resilience Strategy aims at maintaining the city's essential functions and increase the people's capacity to recover quickly and effectively when dealing with catastrophic events.

Results

On September 6, 2016, Mexico City's Government presented the Resilience Strategy, through which it seeks to start integral solutions to face the challenges posed by globalization, urbanization and climate change and its impacts at the social and economic level with a medium and long term view.

The Strategy development had the support of 100 Resilient Cities (100RC) initiative sponsored by the Rockefeller Foundation. As part of this alliance, the Head of Government, Miguel Angel Mancera, pledged in November 2015, 10% of the City's annual budget to execute actions to increase the resilience of the city.

Mexico City's Resilience Strategy is integrated by five priorities:

1. Regional coordination. The plan aims to create an institutional strategy for 2030 and promote a transversal agenda between institutions.
2. Water Resiliency. The main objective is to create Mexico City's "Water Fund" as well as to develop a responsible consumption culture and rescue aquifer areas.
3. Urban and Territorial Resilience. Seeks to promote the recovery and creation of urban green areas, build green infrastructure that drives hydrologic restoration in emblematic public spaces and environmental education.
4. Integrated, safe and sustainable mobility. The aim is to create an integrated public transport system through quality and quantity, as well as driving innovative transport models.
5. Innovation and adaptive ability. The city will seek to boost innovation for comprehensive risk management.

Mexico City's Resiliency Strategy development and implementation were performed with funding from the Rockefeller Foundation and channeled by Mexico City's Public Environmental Fund. The investment cost was \$3,991,256.00 Mexican pesos.

This action is currently in the Implementation Phase of the actions set out in the 5 priorities. In 2016 - 2018 follow-up actions will take place to mainstream the issue at a local level.

Global progress of the action to 2020

90%

Design of a Climate Change Environmental Fund for Mexico City

SEDEMA - PMR9

The Environmental Climate Change Fund (FACC) is used to fund, execute and implement programs and studies on climate change mitigation, adaptation, communication and education, and also drives research technological development related to reducing emissions, and improving both quality of life and environmental features for Mexico City's population.

Results

In October 2015, FACC was created as a sub-account of the Mexico City's Public Environmental Fund. The total amount of FACC resources for 2016 is \$36,656,013.00 Mexican pesos. Currently, there are ongoing projects that will benefit 12 hospitals with solar water heaters and a Mexico City green bond evaluation. In addition, a portfolio of projects that will have a great impact on various sectors of society for 2017 and 2018 is underway.

Global progress of the action to 2020

100%

Preventive measures system in case of hydro-meteorological extreme events

SPC - PMR5

These actions seeks to create a proper early-warning system in order to alert inhabitants in the case of hydro-meteorological hazards.

Results

The scheduled work program and analysis of the existing early warning systems was completed and a new program, according to Mexico City's needs for compliance with the annual action, was defined.

Regarding risk conditions diagnosis progress in front of the occurrence of extreme hydro-meteorological phenomena, there was a 29% progress in the June 2014 – October 2016 reporting period.

In addition, there is a 40% progress in the identification, location and condition of shelters census in the 16 boroughs.

Global progress of the action to 2020 **35%**

Hydro-meteorological monitoring and forecast for Mexico City

SPC - PMR4

Seeks to strengthen the Metropolitan Monitoring and Hydro-meteorological Forecasting System for the Valley of Mexico, with the aim to improve the measurements quality, so that institutions and society have advance knowledge of extreme hydro-meteorological events occurrence.

This action is related and should be implemented in coordination with the execution of PMR5 (Preventive Actions in case of Extreme Hydro-meteorological Events System).

Results

The 2014-2020 work program has been completed 100%, the Monitoring and Hydro-meteorological Forecasting System strengthened, including the system coverage expansion, the number of measured parameters increased, measuring equipment used to have reliable data in real time upgraded, staff responsible for the monitoring, reporting and verification ongoing training, as well as the implementation and operation of an early warning system to timely inform the inhabitants and the various instances involved in this action of the likely occurrence of an extreme hydro-meteorological phenomena.

Also, there is a 5% progress in the training of 10 users of the Early Warning System from the most affected boroughs by this phenomenon.

Global progress of the action to 2020 **35%**

Capacity building and information broadcast aimed at strategic sectors on prevention and detection of diseases related to climate change

SEDESA - PMR6

This action promotes capacity building of health professionals to recommend preventive, detection and diagnosis measures, to treat diseases related to climate change, as well as the broadcast of information for society about the symptoms of those diseases while incorporating the gender equality approach.

Results

Through October 2016 more than 1,000 individuals of the health units were trained on the Zika virus infection topic.

The Vector-Borne Diseases Program, among which are included Dengue, Chikungunya Fever, Zika virus infection, Malaria and Chagas disease, was strengthened, due to the number of foreign or imported cases (that acquired the infection in another state or country) that arose in the city.

An increase in the number of probable and confirmed cases, imported or foreign, of these diseases that may be associated with climate change was identified.

Also, a diagnosis and participatory action plan with a gender perspective were performed. The most relevant results of these workshops are: strengthening early recognition of signs and symptoms, especially in women of childbearing age and pregnant, as well as Zika virus infection transmission mechanisms and risk factors.

Global progress of the action to 2020 **100%**

Monitoring and prevention of vector-borne diseases by integrating information

SEDESA - PMR7

This action aims to strengthen vectors monitoring system in Mexico City by sampling throughout the year and incorporating climate data to epidemiological surveillance systems, in order to contribute to improving the health of the population by developing surveillance, prevention and timely control and agreed upon consensus strategies on vector-borne diseases.

Results

By October 2016 more than 1,000 individuals of the health units were trained on the following diseases: Dengue, Chikungunya fever, Malaria, Zika virus infection and Chagas disease.

Vector-Borne Diseases Epidemiological Surveillance System in all health sector units was strengthened.

Health promotion activities with emphasis on care and protection of city dwellers were performed (posters, talks, flyers, banners, website, etc.).

In addition, since 2009 entomological surveillance activities are held in Mexico City, including scientific testing, among climate variability associations and the presence of some arthropods as disease transmitters, which allows creating predictive analysis to determine the presence of these vectors in a timely manner.

Currently, 362 sites at risk are being monitored, 2,745 ovitraps have been placed, hydro-entomological studies are carried out in 55 water bodies and 95 cemeteries, 187 travel agencies, 57 religious congregations and 7 military groups were visited.

So far, 3 species found on the north of Mexico are West Nile Virus carriers.

Global progress of the action to 2020

95%

Program for disease prevention caused by disasters

SEDESA - PMR8

In case of a disaster, this action is geared to the timely dissemination of necessary preventive measures, as well as health professionals training to manage effectively under such circumstances, in order to prevent and provide effective attention to the affected population by natural extreme events and mitigate or reduce health damages to the population.

Results

The “Disease by Disasters Prevention Program” was designed and implemented; 500 individuals that integrate the Health Emergencies Attention Brigades were trained; and effective atmospheric monitoring for 245 days in 2016 was performed.

From 2014 to 2016 dissemination of preventive measures through the following brochures was carried out:

“What to do in case of volcanic ash falling?”

“Cleaning of Water tanks and Cisterns”

“What to do in case of flooding?”

Global progress of the action to 2020

100%

Study, assessment and relocation of human settlements in risk areas

SEDEMA
PMR3

The purpose of this action is to identify irregular human settlements at risk in critical occupation areas, establish preventive measures with the borough government bodies to implement strategies for the attention and prevention of events that threaten the physical integrity of individuals, avoid losses on their property located in these areas and determine the intervention model in case of irregular human settlements relocation actions in accordance with the Urban Development Borough Programs and the General Ecological Ordering Program.

Results

The project consists of five stages. During October 2016 the third stage was concluded, in which work to characterize the economic activities carried on Conservation Land was performed; its productive diversification, urban and agro-environmental uses lease differentials, economic activities in irregular human settlements and urban structure in the indigenous people settlements of this area, considering their historical context and urban structure.

Global progress of the action to 2020

60%



Zika prevention campaign.



Irregular human settlements field assessment studies.



Hydro-meteorological monitoring and forecast for Mexico City.



6
EDUCATION AND COMMUNICATION

6 - Education and Communication

This transversal strategic priority informs the society about the causes, consequences and possible solutions to climate change, as well as government-society co-responsibility for success in improving the quality of life. It promotes collective participation for environmental improvement through changes in consumption habits, adoption of new forms of mobility, proper use of natural resources and waste disposal. The action lines of this priority are:

- Citizens' Empowerment
- Process and Content Suitability

CITIZENS' EMPOWERMENT (EC)

Climate Action Borough Programs (PACDel)

SEDEMA - EC7A

The Mexico City Climate Change Mitigation and Adaptation, and Sustainable Development Law, states that boroughs should have Local Climate Action Programs, with the technical assistance and final approval of Sedema.

Results

During 2014, Sedema strengthened public servants capacities of the 16 boroughs through an introductory awareness workshop on climate change and borough programs, plus a seminar on emissions inventory, vulnerability analysis, actions design and recommendations to identify financing sources, among others.

Thanks to the actions taken, on October 5, 2015, the PACDel of Milpa Alta was published and on April 4, 2016, the one of Benito Juarez.

In 2016, after the administrative changes and lessons learned, the "Training Workshop for Climate Action Borough Programs Strengthening", in which vulnerability and adaptation topics were approached, was held; 16 boroughs actively participated in this process. In October 2016, Sedema concluded with the process of reviewing the preliminary programs of 11 boroughs.

Global progress of the action to 2020

12%

Mexico City Barter Market Environmental Education Program

SEDEMA - EC9A

The Ministry of Environment promoted among the population a recycling and local consumption culture through solid waste valorization exchange for agricultural products of the city during Barter Market, where each participant can exchange up to 10 kg of solid waste.

Among the environmental benefits offered by this program are the decrease in the extraction of raw materials for the manufacture of various products, reduction in the amount of waste going to landfills, local sustainable consumption and promoting a solid waste recycling culture.

Results

The Barter Market Program collects valorized waste recovered by their generators, who receive in exchange agricultural products produced in Mexico City. From March 2012 to October t 2016, 608 tons of waste were collected and 127,381 people attended with which led to the mitigation of 1,148 tons of CO₂ eq.

Global progress of the action to 2020

64%

Bicycle Culture and Use: Bike school

SEDEMA - EC5.1

This action seeks to inform and train more people in the use of bicycles as a mode of safe transport, promote its use for recreational purposes and to promote among users safe urban bicycling and responsible practice, in accordance with the provisions of Metropolitan Area Transit Regulation.

Results

Since 2013 to October 2016, 99,947 people were informed and trained on the proper use of the bicycle through 4 bicycle schools located in strategic spaces in Mexico City: Zapata, Pantitlán, La Villa and La Raza; in addition to the Summer Bicycle Schools in the Chapultepec and Aragón Parks. Through these activities, the participants are taught to be able to safely use this mode of transport.

Since to improve road culture requires that all actors know the new Transit Regulations, in 2015 the first Mexico City Bicycle School for public transport operators was installed: Mobility System 1 (formerly Passenger Transport Network), ECOBICI, Taxi and Electric Transportation Service. More than 400 drivers have been sensitized to ensure respect for cyclists.

Global progress of the action to 2020 **80%**

Culture and use of the bicycle: Ride a Bike

SEDEMA - EC5.2

The practice of safe and responsible urban cycling is encouraged among cyclists, in accordance with the provisions of the Transit Regulation, in order to contribute to public space recovery, society integration, and inclusion; recreational, sporting, cultural, and health activities promoting community living; in addition to promoting the use of the bicycle for recreational purposes and as a mode of transportation in Mexico City.

Results

From January 2014 to October 2016, 153 Sunday rides were performed, with an average attendance of 50,000 per event, promoting recreational bicycle use and as a means of transport, helping to mitigate CO₂ emissions to the atmosphere by reducing consumption of polluting fuels.

To October 2016, 27 Sunday rides with an attendance of 1,295,639 individuals were held. Likewise, the paradigm shift of mobility through activities of education and coexistence was promoted. During the ninth anniversary of Ride a Bike, an attendance record was broken with more than 75 thousand participants.

From 2006 to 2012, 24 km were intended for the ride, while this administration increased its length to 55 km, maintaining it as the third largest recreational bicycle path in the world since 2015.

The ride operation and logistics consolidated its professionalism and effectiveness with the addition of more than 150 individuals, responsible for ensuring the safety of the more than 50 thousand participants, every Sunday.

Global progress of the action to 2020 **64%**

Environmental education and communication campaigns for environmental care

SEDEMA - EC2

These campaigns seek to provide information to inhabitants on major environmental problems of the city and actions being undertaken by Sedema to mitigate these problems; as well as actions that may be taken by Mexico City's population to improve environmental conditions, quality of life, and social wellbeing.

Results

In 2014, 4 campaigns took place: "Taking care of water is everybody's thing"; "Pollution, your health, and transportation"; "No bow and no bag, please"; and "Put more effort in what you do with your City", which were distributed in subway spaces, urban furniture as bus stops and information columns, under bridges, boroughs, universities, companies, websites and social networks, through posters, videos, and brochures.

In 2015, six campaigns were carried out: "Together we care for our environment"; "Pollution, your health, and transportation"; "Taking care of water is everybody's thing"; "Mexico City's Biodiversity; No bow and no bag, please"; and "Separate to recycle". These campaigns were disseminated in subway spaces, street furniture, under bridges, boroughs, universities, and companies, as well as web pages, for which posters, videos, and brochures were produced.

In 2016, 4 campaigns were implemented: "Small actions, better cities"; "Taking care of water is everybody's thing"; "Air pollution affects us all"; and "Put more effort in what you do with your city", which were disseminated in the subway, urban furniture and under bridges, also the diffusion of the Separate to Recycle campaign was carried out.

Global progress of the action to 2020 **70%**

Climate Change Observatory of the Museum of Natural History

SEDEMA - EC1

Via the Observatory, visitors analyze and reflect on the causes and consequences of climate change caused by human activities.

Results

From January 2014 to August 2016, 1,366 projections took place and 59,264 individuals attended, to whom information on climate change was given in order to raise awareness of its causes and consequences.

Global progress of the action to 2020 **59%**

Training officials on good environmental practices and understanding the climate change phenomenon

SEDEMA - EC3

This action provides training on climate change to Mexico City Government personnel, in order to promote understanding of the phenomenon, the impact thereof and individual actions that can be performed both privately and while carrying out their duties.

Results

From January 2014 to October 2016, 216 lectures on various environmental topics with a focus on climate change were given, targeting 5,224 promoters from various sectors (social, business, academic and government).

Global progress of the action to 2020 **60%**

Information on water and electricity bills about environmental and economic education related to climate change

SEDEMA - EC4

The efficient behavior among the population on water and electricity use is promoted through information dissemination on utilities bills so that the city dwellers generate environmental benefits and economic savings.

Results

In 2014, campaigns were spread on property taxes bills: "Air quality and mobility"; and "No bow and no bag, please", with the support of the Mexico City Government Treasury; and on water bills "Taking care of water is everybody's thing" campaign with the support of the Mexico City Water System.

Global progress of the action to 2020 **100%**

Efficient Use of Water Strategy in the Metropolitan Region of Santiago and Mexico City

SEDEMA - EC11A

Through the Mexico-Chile Joint Cooperation Fund, coordinated by the Mexican Agency for International Development Cooperation (AMEXCID), the project "Efficient Use of Water Strategy in the Metropolitan Region of Santiago and Mexico City" was managed, consisting in developing an education and communication strategy with the aim to generate changes in water use habits of the Metropolitan Region of Santiago (RMS) and Mexico City inhabitants.

Results

During 2016, the collaboration agreement between the Ministry of Foreign Affairs and the Ministry of Environment to start the project, which includes a resource of USD \$200,000 was signed.

In September 2016, an experiences exchange trip took place, where two public servants of the Mexico City Water System and one from the Ministry of Environment participated; and during the exchange, they were made aware of the system and scheme under which the city of Santiago de Chile manages its water resources.

In addition, both cities shared good practices on climate change, water, and environmental education, and the link between Mexico City and Santiago institutions was strengthened, which will be useful for the project success.

To implement the project, there are currently administrative processes performed to hire a consulting service, in order to design, implement and assess the strategy.

Global progress of the action to 2020 **35%**

Low emission schools

SEDEMA - EC6

With the aim of strengthening social cohesion and establish environmental government-citizens co-responsibility, Low-emission Schools project was created, which considers the youth population of Mexico City as a cornerstone in achieving a sustainable city. Through this project, sustainable actions are promoted and carried out in high schools, mainly in solid waste, water, energy and urban orchards, with the students being the main promoters of its implementation. For the above, the sum of efforts of government actors such as the Guaranteed Education Trust through the “Prepa Si” program and non-institutional such as the PIDES Social Innovation Association, facilitates the empowerment of the new generations.

Results

In 2015, the Low-emission Schools project started. To October 2016, 738 students and teachers have been sensitized and trained, intervening directly in 13 schools setting up urban orchards and composters.

Before concluding 2016, rainwater harvest systems will be set up in 10 schools, a project financed by the Mexico City Public Environmental Fund with a sum of 2.14 million mexican pesos.

Global progress of the action to 2020

38%

Battery recovery program

SEDEMA - EC10A

The program has 400 containers for the recovery of batteries located on the street furniture of 13 boroughs, to strengthen the collection, treatment, and recycling of batteries as they are considered to be a special management waste.

Results

Through the program “Put more effort in what you do with your city” 346 tons of batteries have been recovered and sent for recycling up to October 2016, which represents a mitigation of 6.57 tons of CO₂ eq.

Global progress of the action to 2020

100%

Training for understanding climate change and air quality

SEDEMA - EC8A

Through this action courses and/or lectures on understanding climate change and air quality are offered, so that the public is informed about these topics to encourage active participation of different sectors of society.

Results

From January 2014 to October 2016, 14 courses for understanding climate change and air quality were created, through participation in events aimed at the general public.

Some of the events were: the Environment Festival, and the 3rd Environment Forum Azcapotzalco, conducted in the Venustiano Carranza and Azcapotzalco boroughs, respectively.

Also, in August 2014, Sedema participated in the “IV Environmental Forum” in the Polytechnic Institute; in September 2014, in the Diploma “Environmental education for sustainability in climate change conditions in the state of Morelos: “Urgent need for action to mitigate greenhouse gas emissions”, organized by the Universidad Autónoma del Estado de Morelos; and in April 2015, in the “2nd week of engineering and science”, organized by the Universidad Tecnológica de México.

Additionally, since 2014 Sedema has participated in the diffusion of conferences regarding the phenomenon of climatic change and Mexico City’s efforts to confront it, in universities like: Universidad Latina, Universidad Tecnológica de México, Colegio Albert Einstein y Logia Masónica del Valle de México.

At the same time, in October 2016, a training to Mexico City public servants was provided, including the Mexico City Water System and the Ministry of Health, this last one in the framework of the Third Regular Session of the State Committee and the 8th meeting of the Technical Advisory Group for the Construction of Mexico City to the Country Certification as a Malaria-Free Area.

Global progress of the action to 2020

Continuous Action

SUITABILITY OF PROCESS AND CONTENT (APC)

Climate Change Website design for the understanding of the topic

SEDEMA - APC1

Relevant information will be available to the public on mitigation and adaptation to climate change actions, as well as scientific data, publications and recommendations on the subject with the design of a microsite, so that inhabitants contribute in reducing pollutants emissions that cause this phenomenon and in risk prevention.

Results

In June 2016, content development for the web microsite on climate change started, which will provide accessible, attractive and dynamic information to the general public.

To October this year, the contents of the five sections that integrate information on the basics of climate change was concluded; History of the institutionalization process at international, national and local level; Effects and evidence; Mexico City actions and recommendations to the inhabitants to face this phenomenon. In addition to the integration of documents that will be part of a digital library housed inside the microsite. Currently working on the web design of the page, which will be available to the public in November 2016.

Global progress of the action to 2020

70%



Bicycle culture and use - Bikeschool.



Mexico City Climate Change website.



7

RESEARCH AND DEVELOPMENT

7 - Research and development

This strategic priority has a transversal orientation. Its ultimate goal is to promote the information generation and to carry out specialized studies so that decision-makers are aware of the findings or discoveries on climate change by the scientific community, within the needs of the changing urban metabolism. The action lines forming this strategic priority are:

- Implementation phase strengthening
- Monitoring and assessing strengthening

IMPLEMENTATION PHASE STRENGTHENING (FI)

Perception on environmental education and climate change

SEDEMA
FI1

This action considers developing a study on environmental education and climate change perception.

Results

In July 2015, the Environmental Perception Survey in Mexico City was performed with the aim of assessing citizens' knowledge, perceptions and attitudes on climate change and Mexico City's environmental problems. The company Berumen y Asociados applied 809 interviews in selected households in Mexico City, and in August 2015, the results were presented to Sedema, which are useful for designing public policies on Environmental Education.

Global progress of the action to 2020 **100%**

Amendments to Mexico City's Mitigation and Adaptation to Climate Change and Sustainable Development Law and its Regulation (LMACCDSDF)

SEDEMA
FI6A

Seeks to amend Mexico City's Mitigation and Adaptation to Climate Change and Sustainable Development Law and its rules, to have updated legal instruments and compliant to existing national regulations.

Results

With funds of the 2015 Federal Expenditure Budget, the development of a comprehensive proposal for amendments to this Law and its regulations was financed, in order to harmonize the instruments developed on climate change at the federal and international levels; as well as the considerations stated in meetings, workshops and surveys to government agencies and civil society representatives, highlighting the inclusion of gender perspective, biodiversity, resilience, education and communication topics.

As of October 2016 there was an initiative of updated amendments, harmonized with national and international legislation. Once approved by the Local Legislative Assembly, the amendment initiative will be published in Mexico City's Official Gazette.

As a result, more people in Mexico City can benefit by the reduction of carbon dioxide emissions resulting from the implementation of actions on climate change, regulation of instruments and organization of activities in life and society.

Global progress of the action to 2020 **80%**

Methodology design for measuring the quality of life by implementing an urban orchard

SEDEMA
FI7A

To have a methodology for measuring the increase of Mexico City inhabitants' quality of life through the development of a measuring instrument applied to an urban orchard in Mexico City.

Results

In order to quantify the effect of an urban orchard in the quality of life, a semantic network was developed, which allows to know how people mentally conceive certain concepts or ideas, in this case, "orchard" and "garden", respectively, in order to gain a broader understanding of how people relate to peri-urban green spaces (the area on the outskirts of the city) and how we can bring the population closer to peri-urban agriculture.

On the other hand, an intervention program for generating community urban orchards was developed, where the developed methodology will be applied. This program brings together the latest advances in international research on community environmental education, risk communication on climate change and local experiences in urban orchards work.

Several visits have been made to housing units to identify where the program will be implemented.

Likewise, a community urban orchard pilot project is in the process of implementation in a poor area in Mexico City.

Global progress of the action to 2020 **30%**

Sustainability actions in houses

INVI
FI8A

The implementation of eco-technologies in houses constructed by the Mexico City Housing Institute, seeks to assist environmental improvement, in order to promote sustainable development.

Results

The Mexico City Housing Institute has delivered 9,474 social housing units, which have solar water heaters installations, energy-saving lamps, water saving fixtures and furniture, which represents an economic benefit for users and has achieved a cumulative emissions mitigation of 10,141 tons of CO₂ eq, those benefits will extend throughout the useful life years in the housing units and their fixtures. It is also important to note the Power Generation actions in Housing Units by means of photovoltaic panels (ER6A) and the use of rainwater harvesting systems in houses (GIRH3).

Global progress of the action to 2020 **Continuous Action**

Regulate cargo transport traffic as the main source of black carbon

SEDEMA
FI3

It seeks to design operating rules for limiting freight vehicles traffic with obsolete technology in Mexico City, in order to control black carbon emissions from this type of transport through movement restriction of conspicuously contaminating vehicles.

Results

According to the Mexico City Greenhouse Gases inventory, freight transport is the main source of emissions in the city, therefore, by the end of the program period, it seeks to develop and publish a rule regulating freight trans-

port. Currently, there is the Environmental Self-Regulating Program, which was reinforced through the integration of oxidation catalysts and diesel particulate filters suppliers within the city. As a result, Mexico City's inhabitants will be benefit thru the reduction of carbon dioxide emissions derived from the implementation of climate change actions, regulation of instruments and organizing social activities.

Global progress of the action to 2020 **15%**

Mobility planning

SEMOVI
FI4

Pretends linking policy approaches and mobility planning in coordination with other public policies, through proper management of theoretical and methodological tools necessary to ensure planning, assessment, and follow-up of policies and mobility plans.

Results

The application of Mexico City's 2013-2018 Comprehensive Mobility Program, published in Mexico City Official Gazette on October 15, 2014, and linked to other public policies, allows the reduction of polluting emissions, rearrangement of roads, the rescue of public spaces, increased security, improved signage and lighting and potentization of roads.

Global progress of the action to 2020 **100%**

STRENGTHENING OF MONITORING AND ASSESSMENT (FME)

Indicators system for adaptation to climate change and mitigation of greenhouse gasses in Mexico City, including a gender perspective

SEDEMA
FME1

This action allows having a Mexico City Climate Action Program indicators system with a gender perspective to properly improve, prioritize, monitor and evaluate adaptation and mitigation climate change actions.

Results

Since 2015 Sedema has worked together with the German Corporation for International Cooperation (GIZ) to incorporate a gender perspective in PACCM.

The first workshop aimed to establish coordination mechanisms between the Climate Change and Gender links of the 14 agencies of Mexico City's Government involved in PACCM. This workshop identified more than 70 action lines in PACCM that are linked to the Mexico City Equality of Opportunities and Non-Discrimination towards Women Special Program, implemented by Mexico City's Women's Institute.

The second workshop had the purpose of obtaining elements to develop and follow-up a gender-sensitive indicators system for PACCM program.

One of the main needs is to have a diagnosis and baseline to understand the impacts of climate change on Mexico City's women and men. Through these efforts, the Gender Equality and Climate Change policy have been positioned in Mexico City's Agenda, strengthening public policies on these topics.

An example thereof was the participation, in August 2016, of M.Sc. Tanya Müller García, Minister of Environment, in the panel "Women's Leadership in the Fight against Climate Change", organized by the Embassy of Canada in Mexico and the International Office of Trade and Investment of Ontario, which had as objective to show the actions that Mexico City is taking to face climate change with a gender perspective.

The "Workshop on Climate Change and Gender Equality" in the state of Jalisco, which was organized by the Jalisco Institute for Women, in conjunction with the Environment and Territorial Development Secretariat. In this event, Mexico City's experiences were shared, generated in the two gender equality workshops in PACCM, and thereto, the State of Jalisco officials had the basis to incorporate a gender perspective in the Climate Action Program of Jalisco, which is under development.

Global progress of the action to 2020

50%

Indirect mitigation indicators construction

**SEDEMA
FME2**

Derived from one of PACCM goals includes the reduction of indirect emissions, it was necessary to have indicators allowing proper quantification of greenhouse compounds indirect emissions.

Results

Together with the US Agency for International Development (USAID), 21 indirect mitigation indicators took place, of which 14 are from electric power and 7 have an indirect impact. These indicators were developed based on internationally accepted and endorsed methodologies. It was identified that the main actions with greater potential of indirect mitigation were: energy efficiency, integral management of water resources and transport.

Global progress of the action to 2020

100%



Solar Water Heaters in Mexico City Housing Units.

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- Mexico City's Vision on Climate Change for 2025
- Law for the Mitigation and Adaptation to Climate Change and Sustainable Development of Mexico City
- Climate Action Program of Mexico City 2014-2020 (PACCM)
- Regulation for the General Law on Climate Change

WEBSITES

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www.ens.dk/en

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Berlin Energy Agency

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C40. Cities Climate Leadership Group

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ICLEI-Carboon

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WRI (World Resources Institute)

www.wri.org/

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