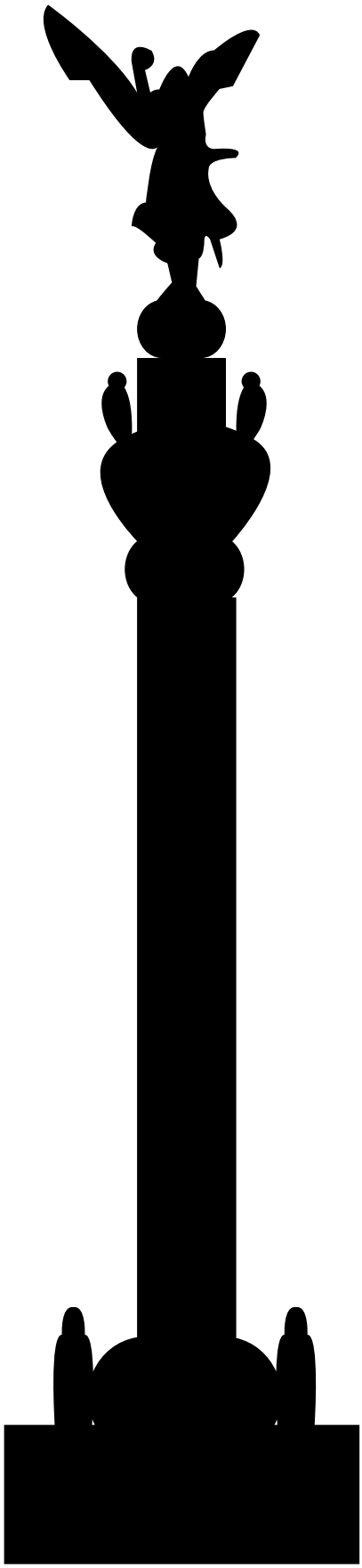
Data provided for the
CDP Cities 2015 Report

www.cdp.net

Mexico City



Written by

CDP
DRIVING SUSTAINABLE ECONOMIES

Report analysis & information design for CDP by

AECOM

In partnership with

C40 CITIES

Bloomberg Philanthropies


LATINOAMERICANA

CDP, C40 and AECOM are proud to present results from our fifth consecutive year of climate change reporting for cities. It was an impressive year, with 308 cities reporting on their climate change data (six times more than the number that was reported in the survey's first year of 2011), making this the largest and most comprehensive survey of cities and climate change published to date by CDP. City governments from Helsinki to Canberra to La Paz participated, including over 90% of the membership of the C40 – a group of the world's largest cities dedicated to climate change leadership.

Approximately half of reporting cities measure city-wide emissions. Together, these cities account for 1.67 billion tonnes CO_2e, putting them on par with Japan and UK emissions combined. 60% of all reporting cities now have completed a climate change risk assessment. And cities reported over 3,000 individual actions designed to reduce emissions and adapt to a changing climate. CDP, C40 and AECOM salute the hard work and dedication of the world's city governments in measuring and reporting these important pieces of data. With this report, we provide city governments the information and insights that we hope will assist their work in tackling climate change.

This document contains the questionnaire data provided to CDP from Mexico City as part of its 2015 CDP submission.

To see all of the results for all participating cities, visit https://www.cdp.net/cities.

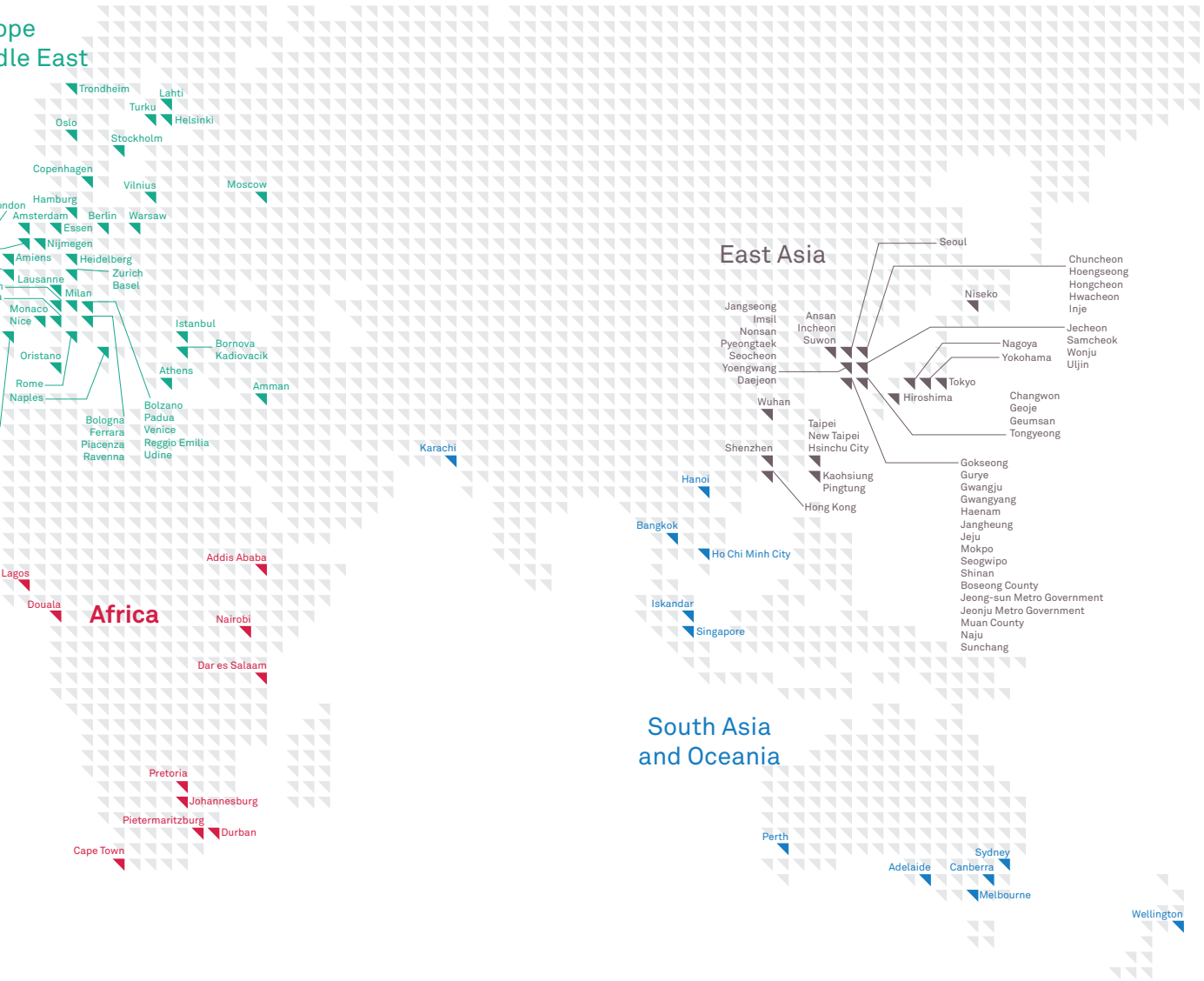
The graphics in this document are from the 2015 CDP Cities infographic.

Mexico City in context

Number of cities responding per year

2011	2012	2013	2014	2015
48	73	110	207	308
■	■	✓	✓	✓

Mexico City participation

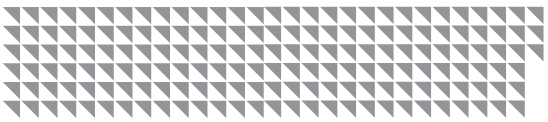


Total population of cities responding in 2015

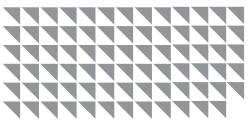
446,186,833

Mexico City (city proper)
8,911,665
people

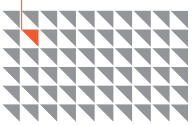
Where Mexico City fits



171 small
<600k population



77 medium
600k-1.6m population



60 large
1.6m+ population

Year reported

2015

Area

1,485

km²

Population

8,911,665

Mexico City in focus

Inventory method

Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC)

144 cities reporting emissions in 2015

80,000,000
Metric tonnes CO_2e

12 cities reporting emissions of greater than 30,000,000 metric tonnes CO_2e

50,000,000
Metric tonnes CO_2e

Mexico City

24,084,942
Metric tonnes CO_2e

8 cities reporting emissions of 20,000,000 to 30,000,000 metric tonnes CO_2e

30,000,000
Metric tonnes CO_2e

22 cities reporting emissions of 10,000,000 to 20,000,000 metric tonnes CO_2e

20,000,000
Metric tonnes CO_2e

10,000,000
Metric tonnes CO_2e

102 cities reporting emissions of less than 10,000,000 metric tonnes CO_2e

5,000,000
Metric tonnes CO_2e

0 **Introduction**

Mexico City is the Federal District, capital of Mexico, and seat of the federal powers of the union. The Aztecs founded the city in 1325 AD, which later became capital of New Spain after the Conquest of the America's. The Federal District was created in 1824 after Mexico achieved independence from Spain.

Mexico City occupies an area of 1,485 km2. It is located in the Valley of Mexico at an average altitude of 2,240 meters above sea level. Due to its tropical location and high elevation, Mexico City has a subtropical highland climate. The average annual temperature varies around 18 °C. The area receives an average of 785 millimeters of annual rainfall, which is concentrated from May through November with

Introduction

little or no precipitation in the remainder of the year.

Mexico City consists of 16 boroughs with a registered population of 8.85 million in the 2010 census. The Metropolitan Area of Mexico City includes 59 additional municipalities and an estimated population of 20.1 million inhabitants in 2010. Mexico City is the largest urban zone and the main political, academic, economic, financial and cultural center in Mexico. Mexico City is governed by a Head of Government democratically elected every 6 years.

1.1 **Governance**

Mexico City's process for managing progress and responsibility for climate action:

Emissions Reductions and Adaptation

In June 2000, Mexico City's Government created the "Climate Change Inter-Institutional Commission." Chaired by the Mayor, the 32 principal governmental offices began working to advance the City's climate agenda. The Secretary of the Environment is the Technical Secretary of this Commission that oversees the progress and manages overall responsibility for GHG emission reduction targets established in the 2014-2020 Climate Change Program in effect.

Governance

Mexico City has committed to adapting to climate change.

The Global Cities Covenant on Climate, "The Mexico City Pact," contains considerations as to why cities must be strategic in combating climate change. It also establishes a set of voluntary commitments to promote strategies and actions aimed at mitigating GHG emissions and adapting cities to the impacts of climate change.

Mexico City has a plan that addresses climate change adaptation:

Estrategia Local de Acción Climática de la Ciudad de México, 2014-2020

Mexico City anticipates that national and/or regional climate change activities will have impacts on Mexico City's own climate change activities.

Since 2004, Mexico City's Government has led the efforts in mitigating climate change in the country. The current local Climate Action Program is now aligned with the National General Law on Climate Change, which was published in 2012.

The long term national mitigation and adaptation goals require the structural transformation of the development model of the

country; as it moves towards becoming a more competitive, sustainable, resilient and equitable low carbon society.

Mexico City incorporates sustainability goals and targets into the master planning for the city.

Mexico City's General Program for Development (2013-2018) establishes the objectives, goals, and actions for the definition and implementation of public policies in this administration. The Environmental and Sustainability Program addresses the environmental and sustainability topics of the General Program, and sets a strategic short, middle, and long term vision, as well as promoting the rational and efficient management of resources. In this respect, the Environmental and Sustainability Program sets the public policies for the implementation of the actions contained in Climate Action Local Strategy and the Climate Action Program, including the mitigation of 10 million tons of CO_2e by 2020, and the reduction of the social, economical and environmental risks due to climate change.

Mexico City has a climate change action plan for reducing GHG emissions:

Programa de Acción Climática de la Ciudad de México 2014-2020


Patrimonio de todos
Cuidémoslo

2.1 **Physical risks**

Current and/or anticipated effects of climate change present significant physical risks to Mexico City:

Seriousness

Less Serious ! ! ! Serious ! ! ! Extremely Serious ! ! !

Timescale

Risks & Adaptation

More frequent floods

Risk: !!! Timescale: 

The annual accumulated rain in Mexico City shows an increasing trend since the late 19th Century. This creates a risk for more frequent floods in the City.

More intense floods

Risk: !!! Timescale: 

The frequency of extreme rain events in Mexico City shows an increasing trend since the late 19th Century. This creates a risk for more intense floods in the City.

Landslides

Risk: !!! Timescale: 

More annual accumulated rain and intense storms create risks for landslides on the slopes of the mountains surrounding the city. Informal human settlements and at-risk populations in these areas are the most vulnerable to these types of natural disasters.

Compounding factors may worsen the physical effects of climate change in Mexico City.

Mexico City was founded on a lake in the middle of an endorheic high altitude valley. This geographical location creates high vulnerability to floods in many areas in the city. The city is also exposed to high incoming solar radiation and atmospheric stagnation conditions as the high mountains surrounding the city trap air pollutants near the surface.

Population pressure has caused urban growth of irregular shape towards conservation areas. This has resulted in informal and dense settlements in hazardous areas.

Children and the elderly are more vulnerable to the adverse effects of air pollution. Due to the city's poor ventilation, the city is vulnerable to heat waves that may become more intense and frequent. The large number of construction projects in the city also increase the city's heat island effect.

Droughts are a catalyst for forest fires in the city's outskirts, and increase the risk of water supply shortages, since most of the fresh water in the city comes from outside the valley. Informal settlements in ravines and river beds are prone to the adverse effects of extreme hydro-meteorological events.

It is estimated that approximately 5.6 million people in Mexico City (63%) live in areas which are vulnerable to the adverse effects of climate change.

Mexico City considers that the physical impacts of climate change could threaten the ability of businesses to operate successfully.

Climate change poses risks to human health, property, and the region's ecosystem. These risks create strong adverse economic effects. Developing countries are more vulnerable to the effects of climate change as they lack the resources to face and adapt to impacts.

Adverse impacts of climate change such as droughts, floods, landslides or fires can impede business from operating successfully. These impacts directly negatively affect the chain supply of goods and services, the physical conditions of the job centers, infrastructure, and the mobility of individuals. In some cases, these impacts might cause the permanent loss of jobs and property.

Population and private enterprises in developing countries require more time to recover after an extreme event.

A climate change risk or vulnerability assessment has been undertaken for the Mexico City area.

Physical risks associated with climate change in Mexico City are determined with a combination of methodologies developed by the UK Department for Environment Food & Rural Affairs, and the methodology developed by the Mario Molina Center for Energy and the Environment which is based on the UNDP Disaster Risk Reduction and Climate Risk Management. Vulnerability is estimated through the use of indicators of exposure, sensitivity (including poverty, education and access to health services) and adaptation capacities, that range from 0 to 100.

2.2 **Climate Hazards**

Mexico City currently experiences the following climate hazards:

Forest fire

Heat wave

Vector-borne disease

Mexico City expects the following hazards to affect the city in the future:

Severe wind

Extreme winter conditions

Extreme cold weather

Extreme hot weather

Drought

Forest fire

Land fire

Landslide

Subsidence

Water-borne disease

Vector-borne disease

Air-borne disease

2.3 **Adaptation**

Actions Mexico City is taking to reduce risks to infrastructure, citizens, and businesses from climate changes include the following:

Maintenance/repair – leaking infrastructure

Hazard: More intense rainfall

Rehabilitation of the drainage network of the City. Increase resilience through a local strategy of prevention of meteorological hazards. Monitoring and Metropolitan Hydrometeorological Forecast System: Early Warning System. Preventive actions system in case of extreme weather events. Program to prevent diseases caused by disasters.

Flood defences – development, operation, and storage

Hazard: More frequent rainfall

Operation, in coordination with the Civil Protection Secretary, of the "Storm Unit" during the rainy season and extreme precipitation for desilting drainages and floods. Prevention of meteorological hazards. Monitoring and Metropolitan Hydrometeorological Forecast System: Early Warning System. Preventive actions system in case of extreme weather events. Program to prevent diseases caused by disasters.

Landslide risk mapping

Hazard: Landslides

Upgrading the atlas of hazards and risks in Mexico City. Create a territorial and planning program for Mexico City integrating environmental and urban policies. Urban canyons management with environmental value. Evaluation and relocation of human settlements in at risk areas. Monitoring and Metropolitan Hydrometeorological Forecast System: Early Warning System. Preventive actions system in case of extreme weather events.

Management including warning and evacuation systems

Hazard: Forest fires

Upgrading the atlas of hazards and risks in Mexico City. Assessing the impacts of logging ban in forest quality.

Heat mapping and thermal imaging

Hazard: More frequent heat waves

Water saving program in offices and public buildings, and rainwater collecting. Leakage Suppression Program and Rehabilitation of Pipelines Soil conservation works in conservation areas.

Disease prevention measures

Hazard: More intense heat waves

Training and dissemination aimed at strategic sectors on prevention and detection of climate-related diseases. Monitoring and prevention of vector-borne diseases by integrating information program to prevent diseases caused by disasters.

2.4 Social risks

Mexico City faces social risks as a result of climate change.

Increased incidence and prevalence of disease

Timescale: Short-term

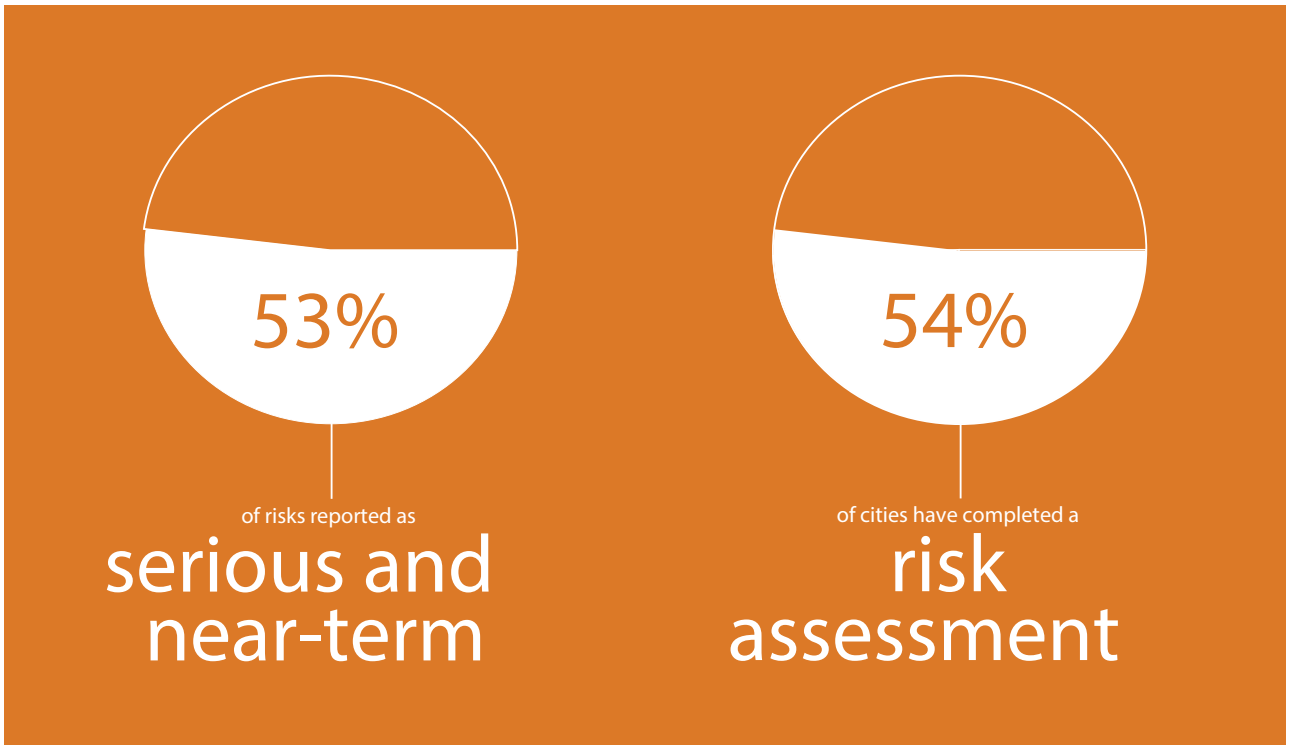
Increase in the spread of diseases related to extreme weather (cold and intense heat). Increase of respiratory disease prevalence mainly affecting the elderly and children.

Increased demand for public services (including health)

Timescale: Short-term

Low income populations settle in places with limited or intermittent urban services. Attention to this population is urgent.

Cities are at risk from climate change



Increased risk to already vulnerable populations

Timescale:

The proportion of the population with limited income are forced to settle in areas of high risk; so both their health and their homes are highly vulnerable to extreme weather events.

Increased conflict and/or crime

Timescale:

High concentration levels in risk areas and underserved urban services on a regular basis as well as low levels of income and lower levels of occupation, in the hands of limited scope of social programs translate into areas of social conflict and high levels of crime.

Migration from rural areas to cities

Timescale:

Currently, global population trends are geared to intensify and expand urban areas, as a result, demand for services increases, including urban, educational and health services.

Population displacement

Timescale:

At the moment, due to population growth and socioeconomical differences in central zones, a population displacement phenomenon has been registered. As a result, low-income populations are obligated to settle in surrounding areas.

3.1 **Opportunities**

Climate change action presents economic opportunities for Mexico City.

Opportunities

Mexico City is positioning itself to take advantage of opportunities from taking climate change action.

Development of new business industries (e.g. clean tech)

Through the installation of efficient public lighting systems that incorporate new technologies (lighting, control, regulation), as well as modern pumping and extraction water systems. Clean technologies such as solar heating and electric power generation with photovoltaic cells can be expanded at large scale in the city.

Improved efficiency of operations

Energy efficiency in public and private buildings can reduce energy consumption and energy security. At the same time in domestic sector, encouraging energy efficiency through replacement of of old refrigerators with new and energy efficient models.

Development of new business industries (e.g. clean tech)

Amendments to the rules by establishing standards for assessment, regulation and implementation of sustainable measures for new buildings and reconstructions of the Federal District, therefore the associated emissions, inducing water heating by solar energy, and efficient lightning.

Increased infrastructure investment

Modernizing public spaces by installing equipment and furniture in public space and improved public transport performance regulation. Modernization of transport units and infrastructure.

Increased attention to other environmental concerns

Encourage the consumption of local products in the Federal District. Consolidation of rural development projects, respecting nature in the conservation zone.

96 CITIES

or 1/3 of cities that reported are taking action to de-carbonize their energy supply.

86% **of these cities see an ECONOMIC OPPORTUNITY in climate change.**

Mexico City is hoping to attract private sector involvement for the following climate-related projects:

Public lighting retrofits

Public and private building retrofits

Retrofit of water Pumping and extraction systems

Amendments to Mexico city constructions rules

Development of projects in the rural zone

Adaptation measures to climate change in nature conservation area

Energy power and renewable projects

Sustainable transportation

Take advantage of urban waste

4.1 **Date and boundary**

Mexico City is reporting a GHG measurement inventory for a period of one year.

Sun 01 Jan 2012 - Mon 31 Dec 2012

Boundary typology used for Mexico City's GHG emissions inventory:

Departments, entities or companies over which financial control is exercised

Emissions – Local Government

4.2 **GHG emissions data**

Mexico City has included the following major sources of emissions in the municipal GHG emissions inventory:

Airport(s), Buildings, Buses, Electricity generation, Electricity transmission and distribution, Employee commuting, Landfills, Local trains, Municipal vehicle fleet, Roads / highways, Street lighting and traffic signals, Subway / underground, Waste collection, Wastewater treatment, Water supply.

Mexico City has used multiple protocols to measure inventory emissions.

The emissions inventory consists of planned system procedures, which include information review, correct calculations, report of the inventory and uncertainly management. The international emissions analysis protocol provides the basis for process development in terms of completeness of the inventory, categories breakdown, the establishment of the zone of study and jurisdictional limits by the local government. Methodologies, emissions factors, as well as the handling of data provided by governmental dependencies and/or statistics issued by other information sources, were based on the established procedures by the IPCC. In addition, emissions models such as Mobile v6.2 and Biogas Mexican Model V2.0 (both created by U.S. EPA) were used. The quality assurance/quality control

(QA/QC) activities include calculation review, information management, inventory verification procedures and uncertainty quantification. This had the purpose of removing the inventory's inherent bias.

Gases included in emissions inventory:

CO_2
CH_4
N_2O

Total (Scope 1 + 2) emissions for Mexico City:

1,902,346

Metric tonnes CO_2e

Breakdown of Mexico City's GHG emissions by scope:

Scopes are a common categorisation method. Scope 1: All direct GHG emissions (with the exception of direct CO_2 emissions from biogenic sources). Scope 2: Indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.

Total Scope 1 activity

492,691

Metric tonnes CO_2e

Total Scope 2 activity

1,409,655

Metric tonnes CO_2e

Total amount of fuel (direct/Scope 1 emissions) consumed in Mexico City during the reporting year:

Diesel/Gas oil

2,502 TJ

Motor gasoline (petrol)

1,160 TJ

Liquefied Natural Gas (LNG)

38 TJ

Aviation gasoline

18 TJ

Natural gas

0.03 TJ

Electricity, heat, steam, and cooling (indirect/ Scope 2 emissions) consumed by Mexico City during the reporting year:

Electricity transmission and distribution

2,162,047 MWh

Electricity generation

8,917 MWh

Heat, steam, and cooling not reported.

Mexico City measures Scope 3 emissions.

Landfills (scope 3)

4,268,185

Metric tonnes CO_2e

Aircraft operations (scope 3)

101

Metric tonnes CO_2e

Breakdown of Mexico City's GHG emissions by department (total):

Solid waste disposal (in the outskirts of the city)

4,141,047

Metric tonnes CO_2e

Subway

671,527

Metric tonnes CO_2e

Water pumping

358,892

Metric tonnes CO_2e

Transit vehicles

292,642

Metric tonnes CO_2e

Street Lighting and traffic signals

189,398

Metric tonnes CO_2e

Non-residential buildings (electricity consumption)

168,441

Metric tonnes CO_2e

Solid waste disposal (in the city)

127,138

Metric tonnes CO_2e

Water treatment and discharge

111,550

Metric tonnes CO_2e

Construction machinery

92,858

Metric tonnes CO_2e

Other facilities

14,640

Metric tonnes CO_2e

Non-residential buildings (fuel consumption)

2,398

Metric tonnes CO_2e

Aircraft operations

101

Metric tonnes CO_2e

Mexico City's emissions decreased.

Emissions fell approximately 37% between 2010 and 2012 due to reduction in construction machinery activity. The year 2010 included the emissions of equipment and machinery used in the construction of a new subway line ("Línea 12") which was finished in June, 2012.

4.3 External verification

Mexico City's emissions have been externally verified.

5.1 **Date and boundary**

Mexico City is reporting a GHG measurement inventory for a period of one year.

Sun 01 Jan 2012 - Mon 31 Dec 2012

Boundary typology used for Mexico City's GHG emissions inventory:

The inhabitants, commercial establishments, services and industries located in the territory of the Federal District.

Emissions – Community

5.2 **GHG emissions data**

Mexico City has used the Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI).

Quality Assurance/Quality Control activities include calculations revision, data management, verification procedures and uncertainties calculation. Models adapted for the country of Mexico give CO_2e emissions aggregated for the 6 GHG of the Kyoto protocol.

Gases included in emissions inventory:

CO_2
CH_4
N_2O

Total (Scope 1 + 2) emissions for Mexico City.

24,084,942

Metric tonnes CO_2e

Breakdown of Mexico City's GHG emissions by scope:

Scopes are a common categorisation method. Scope 1: All direct GHG emissions (with the exception of direct CO_2 emissions from biogenic sources). Scope 2: Indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.

Total Scope 1 activity

16,266,732

Metric tonnes CO_2e

Total Scope 2 activity

7,818,210

Metric tonnes CO_2e

TOTAL BASIC emissions

24,527,933

Metric tonnes CO_2e

TOTAL BASIC and BASIC+ emissions

24,567,692

Metric tonnes CO_2e

Breakdown of these emissions by end user, economic sector, IPCC sector, GHG or any other classification system used:

End user: buildings, water, waste, transport. Economic sector: residential, commercial, industrial, institutional. IPCC sector: stationary combustion, mobile combustion, industrial processes, waste. Greenhouse gas: CO_2, CH_4, N_2O etc.

Transportation – Scope 1 (II.X.1)

12,620,635

Metric tonnes CO_2e

Stationary Energy: energy use – Scope 2 (I.X.2)

7,818,210

Metric tonnes CO_2e

Stationary Energy: energy use – Scope 1 (I.X.1)

3,606,338

Metric tonnes CO_2e

Waste: waste generated within the city boundary – Scope 1 (III.X.1)

482,750

Metric tonnes CO_2e

Agriculture, Forestry and Land Use – Scope 1 (V)

27,811

Metric tonnes CO_2e

Industrial Processes and Product Use – Scope 1 (IV)

11,948

Metric tonnes CO_2e

Mexico City's emissions have decreased.

Emissions from private transport sector decreased by 8% due to a reduction in the number of fleet vehicles. The database for industrial sector was updated as well.

5.3 **External verification**

Mexico City's emissions have been externally verified.

CAN CITIES QUIT FOSSIL FUELS?

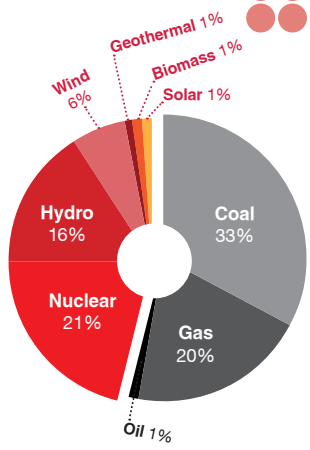
162 CITIES REPORTED THEIR ENERGY MIX,

revealing a diversity of responses, for cities large and small across all regions.

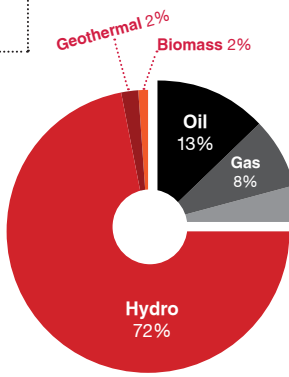
THE RESULTS ARE DIVERSE.

REVEALING MIXES FROM 100% NON-FOSSIL TO 100% CONTINUED RELIANCE ON FOSSIL AND MANY COMBINATIONS THEREOF.

55 NORTH AMERICAN CITIES



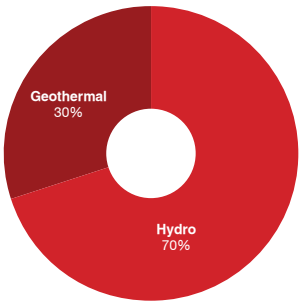
46 LATIN AMERICAN CITIES



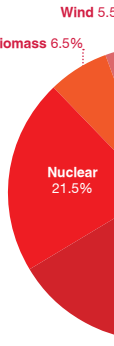
Energy mix by non-fossil %

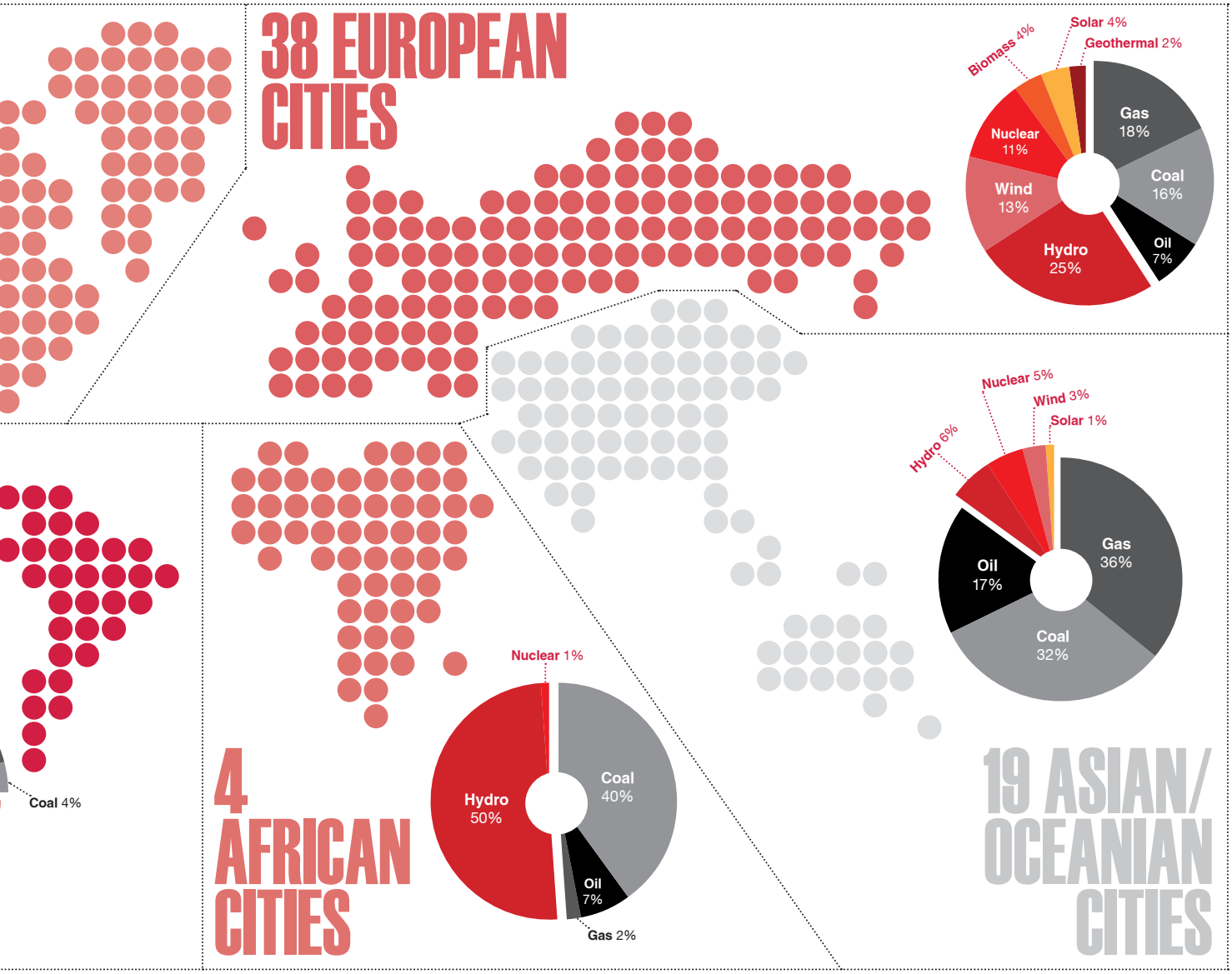
76% 0%

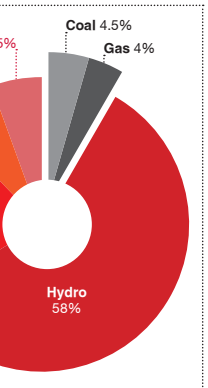
REYKJAVÍK, IS

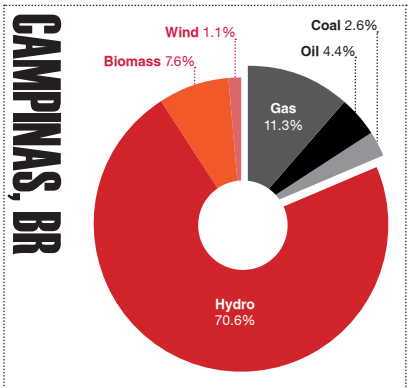


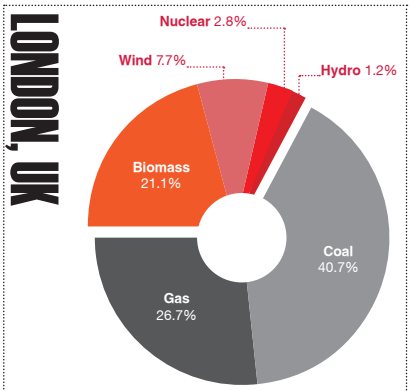
STOCKHOLM, SE

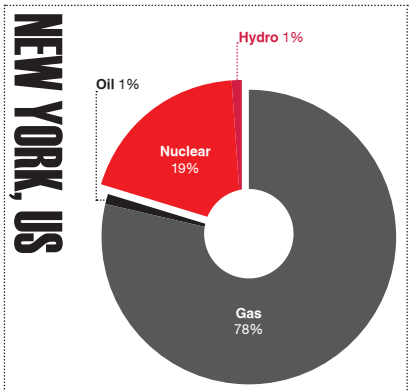



38 EUROPEAN CITIES
Biomass 4%
Solar 4%
Geothermal 2%
Gas 18%
Coal 16%
Oil 7%
Hydro 25%
Wind 13%
Nuclear 11%
Nuclear 5%
Wind 3%
Solar 1%
Hydro 6%
Gas 36%
Coal 32%
Oil 17%
Coal 4%
4 AFRICAN CITIES
Nuclear 1%
Coal 40%
Hydro 50%
Oil 7%
Gas 2%
19 ASIAN/ OCEANIAN CITIES


Coal 4.5%
Gas 4%
Hydro 58%


CAMPINAS, BR
Wind 1.1%
Coal 2.6%
Biomass 7.6%
Oil 4.4%
Gas 11.3%
Hydro 70.6%


LONDON, UK
Nuclear 2.8%
Wind 7.7%
Hydro 1.2%
Biomass 21.1%
Coal 40.7%
Gas 26.7%


NEW YORK, US
Hydro 1%
Oil 1%
Nuclear 19%
Gas 78%

Strategy

6.1 **Local government operations – GHG emissions reduction**

Mexico City has a GHG emissions reduction target in place for local government operations.

Mexico City's local government operations GHG emissions reduction target in detail:

Baseline year

2012

Baseline emissions

6,170,632

Metric tonnes CO_2e

Percentage reduction target per source

Transport

14%

Wastes

9%

Facilities

5%

Buildings

1%

Target date

2020

Activities undertaken to reduce Mexico City's emissions in its government operations:

Energy Demand in Buildings

Energy efficiency/retrofit measures

Currently in effect at a significant scale across most of the city

Changing energy consumption systems and habits in institutional buildings. Energy savings program for operation of wells and pumping plants. Energy harnessing from renewable sources in installations and buildings of the Federal District.

Finance and Economic Development

Developing the green economy

Still under consideration or awaiting final authorization

Design of an Environmental Fund on Climate Change in Mexico City.

Food and Agriculture

Encourage sustainable food production and consumption

Currently in effect and being piloted

Integration of the producers of Mexico City as providers in the green procurement system. Training the producers to meet food safety standards.

Outdoor Lighting

LED / CFL / other luminaire technologies

Currently in effect at a significant scale across most of the city

Modernization of public lighting in Mexico City's primary road network. Installation of photovoltaic systems at stations. Metrobus Solar street lighting system in urban forests and environmental education centers.

Mass Transit

Improve fuel economy and reduce CO_2 from trucks

Currently in effect (city-wide)

Modernization and energy efficiency in the Public Transport System (CTS). Modernization and energy efficiency in the Electric Transport Service (ETS). Extending lines A, 4, 9 and 12 of the metro to reach more than 40 kilometers. Implementation of schemes for intermodal mobility in strategic areas of the city.

Mass Transit

Introduction of additional service lines

Currently in effect (city-wide)

Instrumentation of new confined lane corridors in the Metrobus BRT system. Expansion of Lines A, 4, 9 and 12 of the subway (metro) system. Implementation of schemes for intermodal mobility in strategic areas of the city.

Waste

Recycling or composting collections and/or facilities

Currently in effect at a significant scale across most of the city

Using technologies to harness waste within the DF. Regulate business establishments related to the collection, transport, handling, reuse, recycling and disposal of urban waste.

Water

Water recycling and reclamation

Currently in effect at a significant scale across most of the city

Water saving program in offices and public buildings and rainwater collection. Leak suppression program and pipe repair. Increased efficiency and capacity of waste water treatment.

Private Transport

Infrastructure for non-motorized transport

Currently in effect (city-wide)

Implementation of schemes for intermodal mobility in strategic areas of the city.

Urban and green areas

Increase green space

Currently in effect at a significant scale across most of the city

Maintenance of green space and increasing space per inhabitant in order to reach the standard of the World Health Organization.

Mass Transit

Improve fuel economy and reduce CO_2 from trucks

Replace old pollutant diesel waste collection trucks with new low emission diesel waste collection trucks.

JUST A LITTLE CHANGE WILL GO FAR.

43 cities reported that they want private sector support to deliver community renewable projects. CDP data indicates that less than half of these projects are located in the global south.

$57 TRILLION

will be invested in infrastructure through 2030. That means that less than 0.01% of this sum, or just

$1 OF EVERY $8K

spent is required to support delivery of renewable goals for all the CDP cities that report a target. At just over $7 billion in total, this is still a large price tag and represents a considerable challenge for cities, but with global focus it can be achieved.

6.2 Community – GHG emissions reduction

Mexico City has a GHG emissions reduction target in place for its community.

-Mexico City's community GHG emissions reduction target in detail:

2012

Baseline emissions

24,516,369

Metric tonnes CO_2e

Percentage reduction target per source

Residential

6.4%

Transport

3.9%

No reduction targets reported for Commercial, Industrial, or Waste sectors.

Target date

2020

Activities currently being undertaken to reduce emissions city-wide:

Buildings

Energy efficiency/ retrofit measures

Anticipated total reduction: 1,242,424 metric tonnes CO_2e

Energy efficient appliance purchases (refrigerators).

Buildings

Building codes and standards

Anticipated total reduction: 150,207 metric tonnes CO_2e

Amendments to building regulations to incorporate sustainability criteria.

Buildings

On-site renewable energy generation

Anticipated total reduction: 150,207 metric tonnes CO_2e

Energy harnessing from renewable sources in installations and buildings in the Federal District.

Private Transport

Improve fuel economy and reduce CO_2 from motorized vehicles

Anticipated total reduction: 440,000 metric tonnes CO_2e

Estimation of emissions avoided by updating the “No Driving Day” Program.

Private Transport

Infrastructure for non-motorized transport

Implemenation of schemes for intermodal mobility in strategic areas of the city.

6.3 Planning

The city-wide energy mix for Mexico City's electricity:

Gas

85%

Coal

15%

Mexico City has not reported a renewable energy target.

6.4 Water

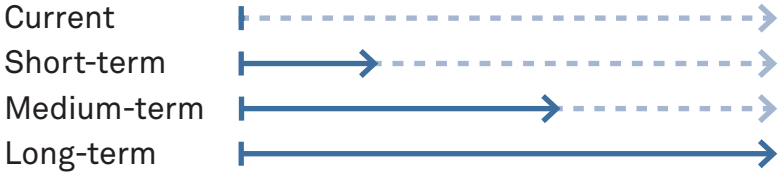
Mexico City foresees substantive risks to its water supply in the short or long term.

Risks to Mexico City's water supply as well as timescale:

Seriousness

Less Serious ! ! ! Serious ! ! ! Extremely Serious ! ! !

Timescale



Increased water stress or scarcity

Risk: !!! **Timescale:** I - →

The risks related to water supply in Mexico City involve several factors, including urban subsidence affecting the drainage network, already in operation for many years. Added to this, more hot days, population growth, increased population density, extension of the urban area (encroachment of natural preservation areas), low levels of capturing rainwater, intensive groundwater extraction, low water re-use and recyclingand the remoteness of watersheds that support water supply; all the above conditions ultimately result in water stress.

Inadequate or aging infrastructure

Risk: !!! **Timescale:** I - →

Pipeline network for water and sewage pumping has been adapted according to needs. Most of the network is older than 50 years. As such, network breaks and leaks are a constant problem that requires immediate resources.

Flooding

Risk: !!! **Timescale:** I - →

This problem has been exacerbated in recent decades due to changes in the intensity of rainfall, which severely increases water levels that are conveyed by the drainage system and rain water is added to the regular wastewater. At the same time, urban subsidence and littering in drains causes blockages in the drainage system. The interrelationship and complexity of these factors can result in health problems for inhabitants.

Actions (on the supply and demand side) that Mexico City is taking to reduce risks to its water supply:

Increased water stress or scarcity

Awareness and education / conservation and incentives / efficiency retrofits

Water saving program in offices and public buildings, and collecting rainwater - awareness and education - Soil conservation works and soil water conservation - promoting water harvesting and aquifer recharge - Using ecotecnias water harvesting for irrigation of crops - promoting uptake and use of rainwater production- oriented programs.

Inadequate or aging infrastructure

Municipal water efficiency retrofits / investment in existing water supply infrastructure

Wells and pumping stations energy savings program - Energy efficiency - Leakage Suppression Program and Rehabilitation of Pipelines - Investment in existing infrastructure - Rehabilitation of the sewage system - Investment in existing infrastructure -

Flooding

Municipal water efficiency retrofits / investment in existing water supply infrastructure

Increased efficiency and capacity of wastewater treatment - Energy efficiency - Preventative actions in case of extreme weather events - Hydrometeorological Monitoring and Forecast System: Early Warning System - Rehabilitation of sewage system.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