Mexican Climate Change Law and Policy
AFTER COP 16 …
Climate Change Law

- Entrance into force October 2012
- Long Term Vision
- Systematic
- Decentralized
- Mitigation/Adaptation comprehensive approach

by consensus of all political parties
**Climate Change Law Milestones**

- **2012**
  - October 10: LGCC
  - December 5: Climate Change Fund

- **2013**
  - January 29: Climate Change Inter-ministerial Commission (14 Secretariats)
  - May 14: Climate Change Council
  - June 3: National Strategy for Climate Change Vision 10-20-40

- **2014**
  - December: Constitutional Energy Reform
  - November 14: Carbon Tax for fossil fuels
  - April 28: Special Climate Change Program 2013-2018
  - June: Energy Reform Secondary Legislation
...transition from a federal policy to a national comprehensive and inclusive policy
**Low-carbon development**
To achieve a competitive, sustainable, and low-carbon emissions economy

**Resilient Mexico**
To reduce vulnerability of people, ecosystems, and infrastructure from adverse effects of climate change

**Inclusive Policy**
To ensure coordination among all levels of government with transparency and participation of all sectors of society
GHG emissions (MtCO$_2$e)

Million metric tons of carbon dioxide equivalent

- **High scenario:**
  - GDP increase = 4.2% annual
  - Energy scenario of SENER

- **Low scenario:**
  - GDP increase = 2.3% annual
  - Elimination of power generation from coal

- **2,257** [1,967–2,410] MtCO$_2$e
- **960** MtCO$_2$e
- **672** MtCO$_2$e
- **320** MtCO$_2$e

50% relating to the 2000 baseline in 2050
30% decrease regarding the baseline in 2020 (288 MtCo2e)
The Strategy is the guiding instrument of the National Climate Change Policy both, in the medium and long terms, to face the impact of climate change and to promote a competitive, sustainable and low carbon emissions economy.
NATIONAL STRATEGY ON CLIMATE CHANGE

ADAPTATION

MITIGATION

PILLARS FOR THE CONSTRUCTION OF CLIMATE CHANGE POLICY

P1

P2

P3

P4

P5

P6

COMPREHENSIVE CLIMATE CHANGE POLICIES

TECHNOLOGY RESEARCH AND INNOVATION

MONITORING REPORTING VERIFICATION

ECONOMIC, FISCAL AND FINANCIAL INSTRUMENTS

CAPACITY BUILDING

INTERNATIONAL COOPERATION
NATIONAL STRATEGY ON CLIMATE CHANGE

Acapulco flood, September 2013

**A1**
Reduce the vulnerability and increase the resilience of the social sector to the effects of climate change

**A2**
Reduce the vulnerability and increase the resilience of strategic infrastructure and production systems to the effects of climate change

**A3**
Conserve and use ecosystems sustainably and maintain the ecosystem services they provide
NATIONAL STRATEGY ON CLIMATE CHANGE

Solar Plant in La Paz, Baja California

M1: Accelerate the energy transition towards clean energy sources

M2: Reduce energy intensity through efficiency and responsible consumption schemes

M3: Shift towards models of sustainable cities with mobility systems, integrated waste management, and low-carbon footprint buildings

M4: Promote best practices in agriculture and forestry to increase and preserve natural carbon sinks

M5: Reduce emissions of Short-Lived Climate Pollutants (SLCPs), and promote co-benefits in health and well-being
**AREA**

<table>
<thead>
<tr>
<th>10 YEARS</th>
<th>20 YEARS</th>
<th>40 YEARS</th>
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<tbody>
<tr>
<td><strong>SOCIETY/POPULATION</strong></td>
<td>The most vulnerable ecosystems are protected and receive both attention and capital flow.</td>
<td>Society is culturally and socially integrated to tackling climate change.</td>
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<td>Actions for conservation and sustainable use are implemented across the country.</td>
<td>Ecosystems and their inhabitant species are conserved and used sustainably.</td>
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<td>Integrated territorial management schemes are implemented.</td>
<td>Natural resources are economically valued in a correct and adequate way.</td>
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<td>Appropriate financing schemes to promote sustainable landscapes.</td>
<td>Efficient infrastructure exists for a sustainable and efficient management of water.</td>
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<td>Technical and technological tools for local adaptation exist and are used</td>
<td>Efficient use of hydric resources helps restoring ecological and physical functions of water bodies.</td>
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<td>Strategies are implemented for the transition to a zero percent rate of carbon loss in original ecosystems.</td>
<td>Economic and social development of the country is enhanced by improving its GDP/capita.</td>
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<tr>
<td><strong>ECOSYSTEMS (WATER, FORESTS, BIODIVERSITY)</strong></td>
<td>Clean technologies are integrated to the national productive development.</td>
<td>Energy generation decoupled from the dependency on fossil fuels and their environmental impacts.</td>
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<td>Socioeconomic schemes encourage the use of clean energy.</td>
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<td>Incenive system promotes the larger advantages in the use of non-fossil fuels, energy efficiency, power saving, and sustainable public transportation versus the use of fossil fuels.</td>
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<td>Near to reach 35% of electricity generation from clean sources.</td>
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<td>30% emissions reduction compared to baseline</td>
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<td>Mexico substantially reduces emissions of Short-Lived Climate Pollutants</td>
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<td>Parastatal industries implement energy efficiency schemes in all its operations and increase the use of renewable energy.</td>
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<td>Urban centers whose population are larger than fifty thousand inhabitants have waste management infrastructure to prevent methane(CH4) emissions to the atmosphere.</td>
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<td><strong>EMISSIONS</strong></td>
<td>Environmental impacts in the production sector are understood, acknowledged, monitored and tackled.</td>
<td>Sustainable forest management stops deforestation.</td>
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<td>Production technologies and practices contribute to the diminishment of climate change risks.</td>
<td>Sustainable forest management practices in extractive, agricultural and livestock and forestry sectors increase productivity, reduce vulnerability and conserves land.</td>
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<td>NAMAs (Nationally Appropriate Mitigation Actions) are implemented in various economic sectors.</td>
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<tr>
<td><strong>PRODUCTIVE SYSTEMS</strong></td>
<td>Enterprises incorporate climate change criteria in their production projects.</td>
<td>Enterprises manage their waste.</td>
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<td>Main sources of GHG report their emissions component in the National Emissions Registry.</td>
<td>Production and sustainable consumption schemes are implemented.</td>
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<td>Enterprises reduce their gas and compound emissions, and take advantage of opportunities in energy efficiency, power saving, and use of clean and renewable energy.</td>
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<td><strong>PRIVATE SECTOR/INDUSTRY</strong></td>
<td>Both public and private sectors adopt sustainable mobility systems.</td>
<td>Enterprises have sustainable production cycles.</td>
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<td>Socioeconomic schemes encourage the use of sustainable transportation.</td>
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<td>Common use of electric vehicles in public transportation.</td>
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<td><strong>MOBILITY</strong></td>
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Mitigation Strategy

Immediate actions

- Higher potential and economic benefits
  - Win-win actions
  - For example: Energy efficiency and cogeneration actions, biogas exploitation from landfills, efficient vehicles, and control of imported vehicles, amongst others.
  - Despite their cost-efficiency, they might need to be promoted by financial schemes or economic instruments.

- Lesser potential and economic benefits
  - Cost-efficient actions
  - For example: Wood burning reduction, lighting, and refrigeration efficiency amongst others.
  - The long-term mitigation potential is moderate since the trending scenario considers a gradual action implementation due to their cost-efficiency.

Long-term actions

- Higher cost
  - For example: Fuel substitution, carbon capture, and sequestration.
  - Even if their cost is high, they might be attractive because of their co-benefits.

- Need development or alternatives
  - Their high implementation cost makes them economically unfeasible under current circumstances. They might become an alternative in the future, when further developed.
Mitigation Effort

SLCP

GHG

10y

SLCP

GHG

20y

SLCP

GHG

40y
NATIONAL STRATEGY ON CLIMATE CHANGE

Adaptation focus on social and ecological needs...

- 2,456 municipalities
- 112 million inhabitants
- 332 billion pesos in value of production from main crops
- 242 billion pesos in livestock value
- 73 airports
- 78 central markets
- 117 ports and platforms
- 131,000 school infrastructure
- 578,390 registered lodging rooms
- 328,000 kilometers of federal roads

Disaster risk
1,385 municipalities
27 million inhabitants

Exposure

Vulnerability

Floods
- 824 municipalities
- 61 million inhabitants

Landslides
- 283 municipalities
- 4 million inhabitants

Agricultural droughts
- 1,202 municipalities
- 54 million inhabitants

Diminished yields due to rainfall
- 548 municipalities
- 29 million inhabitants

Diminished yields due to temperature
- 545 municipalities
- 27 million inhabitants

Heatwaves
- 1,020 municipalities
- 43 million inhabitants

Disease transmission
- 475 municipalities
- 15 million inhabitants

Social vulnerability index (SVI)
- 754 municipalities
- 14 million inhabitants

Health vulnerability index (HVI)
- 1,270 municipalities
- 32 million inhabitants

Agricultural rainfall vulnerability index (ARVI)
- 999 municipalities
- 14 million inhabitants

Agricultural Temperature Vulnerability Index
- 1,402 municipalities
- 20 million inhabitants

Livestock vulnerability index (LVI)
- 1,738 municipalities
- 30 million inhabitants

Number of municipalities
Millions of inhabitants
ADAPTATION focus on social and ecological needs
The Mexican Government published in April 28th the six year Special Climate Change Program (PECC) for this Administration.

- The PECC contains: a Diagnosis, five Objetives, 26 Strategies and 199 Lines of Action, 77 for adaptation, 81 for mitigation and 41 for policy development.
- Defines 10 indicators to assess results.
- 14 Ministries of the Federal Government participated.
- Contributes to achieve the 2020 30% emissions reduction goal.
- Allocates responsible entities for the fulfillment of each goal.
- Contains budgetary commitments for each Line of Action.
- Has a MRV system.
- Will be reviewed every two years by INECC.
- Was elaborated with gender perspective to ensure equity.
PECC OBJECTIVES

1. **Reduce vulnerability** in population and productive sectors and increase resilience of strategic infrastructure.

2. Conserve, restore and manage **ecosystems** to guarantee environmental services to mitigate and adapt to climate change.

3. **Reduce GHG** emissions to move towards a competitive economy and a low emissions development.

4. **Reduce** emissions of **short lived climate pollutants**, promoting health and well being co-benefits.

5. **Strengthen climate change national policies** through effective instruments and coordination with local governments, the Mexican Congress and civil society.
1. Percentage of development progress of instruments to reduce vulnerability of population and productive sectors. Baseline 2014: NA / goal 2018: 100%

2. Percentage of area that has an Ecological Land Use Planning Program (POET) or an Urban Development Program (PDU) that integrate strategies or criteria for climate change mitigation or adaptation. Baseline 2013: 33% / Goal 2018 100%

3. Vulnerability Reduction Index through infrastructure and actions for conservation, restoration and sustainable management of natural resources. Baselines 2013: 0.2 / Goal 2018: 0.6

4. Millions of Tons of CO₂ equivalent mitigated per year. Baseline 2013: 0 MtCO₂e / Goal 2018: 83.2 MtCO₂e (GWP100); 95.97 MtCO₂e (GWP20);

5. Emissions of CO2 per Mega Watt hour generated (tCO2e/MWh). Baseline 2013: 0.456 tCO2e/MWh / Goal 2018: 0.350 tCO2e/MWh


8. Percentage of development progress of the National Climate Change System. Baseline 2013: 0% / Goal 2018: 100%

9. Percentage of development progress of the National Emissions Registry. Baseline 2013: 0% / Goal 2018: 100%

10. Number of signed agreements to support the achievement of national climate change goals. Baseline 2013: 0 / Goal 2018: 32
✓ Approved by Congress
✓ Emitters may compensate tax through Offsets (i.e. CDM)
✓ Effective since January 1st 2014

**Oil and Gas initiative**
- Shared-profit contracts
- PEMEX and private sector shared investments
- PEMEX new Fiscal Regime
- PEMEX new Management Scheme

**Electricity Sector initiative**
- Private sector investment
- New *Feed-in* rules and regulations
- Enhancement of the State Utility (CFE) to increase its operational flexibility
- Reinforcement of the Energy Ministry and the Electricity Regulator (CRE)

Creation of the **Safety and Environment Agency** for the Oil industry
Reporting will start in 2015 for 2014 emissions and will include:

**Sources**: Stationary and Mobile

**Type**: Direct and Indirect emissions

**Greenhouse Compounds**: CO$_2$, CH$_4$, N$_2$O, F$_6$S, HFC’s, HCFC’s, and Black Carbon

**Thresholds**: > 25,000 ton CO$_2$e/year, per source or corporation in some sectors (more than 95% of emitters covered)

**MRV**: Verification every 3 years

**Sectors**: Industrial, Transport, Waste, Agriculture, and Services
The Climate Change Law allows for market instruments (Art. 92) including voluntary emissions trading systems (Art. 94) and its linking with other countries schemes or international systems (Art. 95).

In preparation for an ETS Mexico is developing different tools and policies:

**Tools**
- An Emissions Reporting Tool (RENE) that includes an Emissions Reductions Reporting Tool.
- An bottom up built Emissions Baseline (single source information).
- A set of crediting NAMAs that could be used in offsetting mechanisms.
- A domestic crediting norm for forestry projects.
- An exchange platform for carbon credits inset in the Mexican Stock Exchange.
- A Tracking Tool to avoid double counting of Mexican based offsets in different trading systems.

**Policies**
- Major energy reform
- MOU with Japan
- MOU with California to explore possible linking in ETS
23 NAMAs registered and 18 in registration process:

- 2 PEMEX (Cogeneration and Natural Gas leakages control) NAMAs in the UNFCCC NAMA Registry
- 2 Housing and 1 Urban NAMAs with multilateral finance (16 Million euros)
- Private sector NAMAs for Cement industry, transport, electric appliances, etc.

...Web access soon