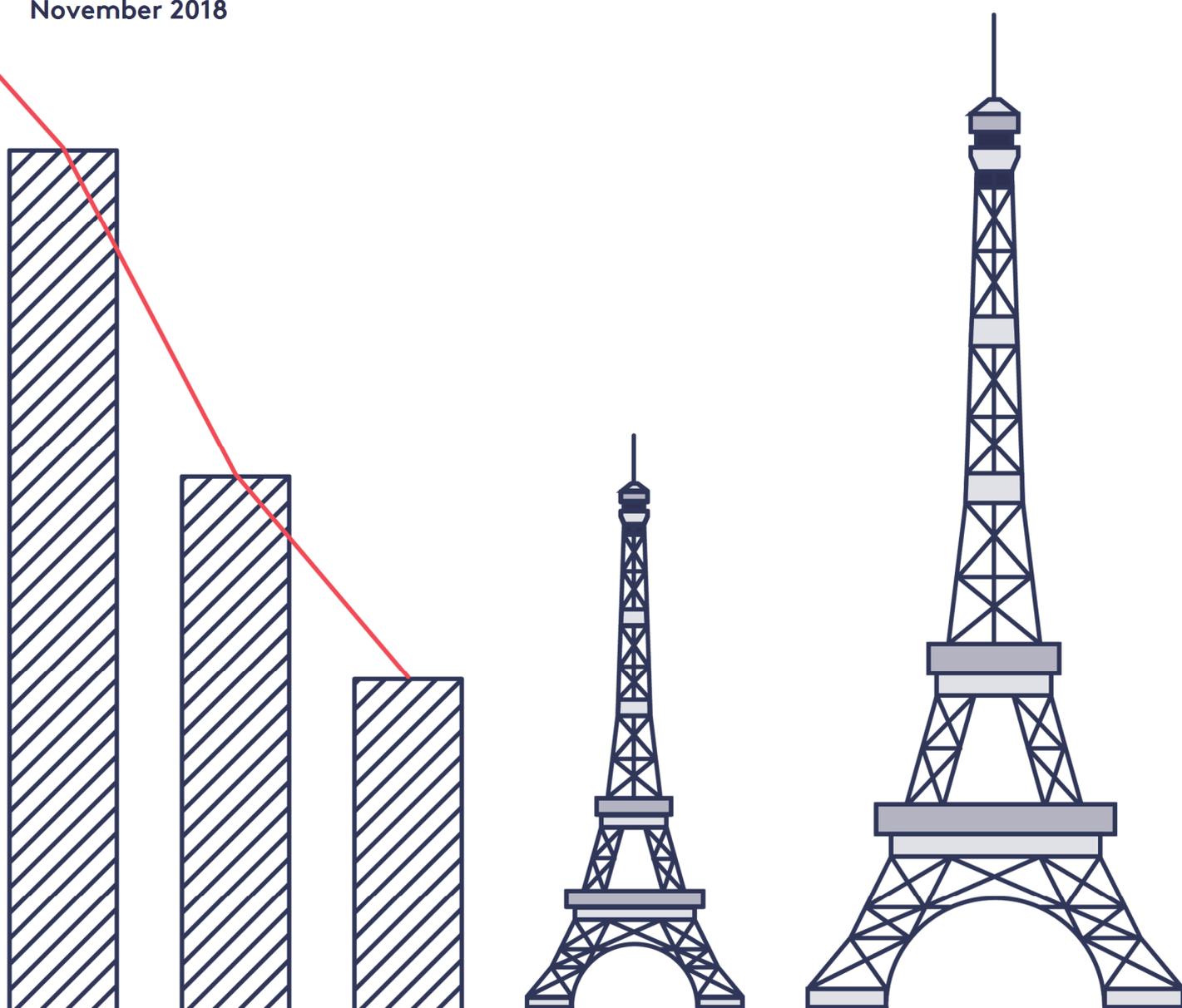


Mexico's General Law on Climate Change: Key achievements and challenges ahead

Alina Averchenkova and Sandra L Guzman Luna

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Abbreviations

C3	Consultative Council on Climate Change
CICC	Inter-Ministerial Commission on Climate Change
COMEGEI	Mexican Committee for Projects to Reduce Emissions and Capture Greenhouse Gases
COP16	16th Conference of the Parties to the United Nations Framework Convention on Climate Change
ENCC	National Strategy on Climate Change
GDP	Gross domestic product
GT-ADAPT	Working Group on Adaptation Policies
GT-FIN	Working Group on Financing
GT-INT	Working Group on International Negotiations on Climate Change
GT-PECC	Working Group for the Special Climate Change Programme
GT-REDD	Working Group on Reducing Emissions from Deforestation and Degradation
GT-VINC	Liaison Working Group with Civil Society
INECC	National Institute of Ecology and Climate Change
LGCC	General Law on Climate Change
MtCO ₂ e	Million ton of carbon dioxide equivalent
NDC	Nationally Determined Contribution
NGO	Non-governmental organisation
PECC	Special Programme on Climate Change
SEMARNAT	Ministry of Environment
SENER	Ministry of Energy
SHCP	Ministry of Finance
SINACC	National System on Climate Change
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

Lessons learnt

Mexico's General Law on Climate Change provides lessons for other countries:

- Climate change legislation is effective for setting a long-term direction of travel for climate policy, and a foundation for development and delivery even in the face of future political change, including in emerging economies that have a strong fossil fuel lobby.
- To be effective, a climate law needs to establish clear institutional mandates, long-term goals and intermediate steps to achieve them, and to define planning and implementation mechanisms and timelines.
- A climate law also requires a clear financing strategy and the backing of sufficient financial resources.
- Strong mechanisms for coordination are needed to ensure adequate implementation, within and beyond the environmental sector. Ambiguities in institutional mandates in the law can significantly impede effectiveness of coordination and climate policy development and implementation.
- Deliberation on and adoption of climate change legislation increases political awareness of climate change and improves the quality of the political debate. It also helps maintain political consensus over time.
- A strong accountability mechanism is essential, including an independent and effective policy evaluation and advisory body.
- A climate change law alone does not substitute for political leadership. Sustained commitment is required for successful implementation.

Lessons for Mexico:

- The adoption of the General Law on Climate Change has been an important step in advancing Mexico's efforts to address climate change and in strengthening its reputation globally as a leader in this area.
- The Law has contributed to the low-carbon transition in the energy sector by providing guidance on long-term climate change and clean energy objectives for energy reform.
- The key challenge now is to close the gap between what is set out in the Law and the reality of climate policy arrangements, processes and practices.
- Political leadership and commitment to climate action need to be revived through the development and adoption of concrete plans and policies and improving coordination among and within sectors and different levels of governance.
- Capacity needs to be strengthened, and participation of the state and municipal government and sectoral agencies incentivised, including by targeting guidance on how to develop climate change plans and by improving how resources are allocated.
- A consolidated strategy to mobilise financial resources is needed, including improvements to budgeting processes. The Inter-Ministerial Commission on Climate Change should be supported to become more effective in this process.
- The lack of an independent and adequately resourced monitoring and evaluation mechanism is a significant barrier to the effective implementation of the Law and Mexico's Nationally Determined Contribution (NDC), and needs to be addressed.
- The Consultative Council on Climate Change and other mechanisms for stakeholder engagement need to be strengthened, including through adequate allocation of resources.

Mexico has shown climate leadership on the international stage

Mexico has been an active player in international efforts to tackle climate change for the past two-and-a-half decades, helping to advance international climate change negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) and through other relevant forums such as the G20. It became the first developing country to submit an intended Nationally Determined Contribution leading up to the adoption of the Paris Agreement.

Mexico committed to domestic action with its General Law on Climate Change

In April 2012 Mexico's Parliament passed the General Law on Climate Change (referred to in this report as 'the Law'), thereby becoming the first large oil-producing emerging economy to adopt climate legislation. In April 2018 Mexico passed a decree amending some of the provisions of the Law to bring it into greater consistency with the Paris Agreement – a step that only very few countries have taken at the time of writing.

The Law has been an important achievement for the country politically. Against strong opposition from fossil fuel-intensive industry and amid the turmoil of the presidential elections in 2012, the passage of the Law has formalised political commitment and set the direction of travel for domestic climate policy in Mexico. However, implementing the Law has presented significant challenges.

Key components of the 2012 General Law on Climate Change

- **Communication, collaboration and coordination:** The Law sets out the key elements of the institutional system to address climate change through the establishment of the 'National System on Climate Change' (SINACC). The SINACC is comprised of the Inter-Ministerial Commission on Climate Change, the Consultative Council on Climate Change, and the National Institute of Ecology and Climate Change and includes representation of the state governments and of the associations of municipal governments, as well as representatives of the Mexican Congress. The Ministry of Environment acts as the secretariat. The Law also defines and integrates policy tools and mechanisms, and sets long-term emissions targets.
- **Planning and policy instruments:** A National Strategy on Climate Change represents the mid-term vision. The Special Programme on Climate Change (PECC) articulates mitigation and adaptation measures in key sectors in accordance with that strategy, the national development plan and sectoral programmes. Other key components include the Greenhouse Gas Emissions Registry, and the Climate Change Fund, created to channel public, private, national and international financial resources to finance climate change actions.
- **Quantitative targets in the original reading of the Law in 2012 included:** an aspirational goal of a 30% reduction of greenhouse gas emissions by 2020 over business as usual, and a 50% reduction below the year 2000 baseline level of greenhouse gas emissions by 2050. There is also a commitment to generate 35% of energy from clean sources by 2024. These objectives were conditional on international support.

Amendments to the Law: the 2018 decree

In April 2018 Mexico's Parliament passed a decree amending the Law to make it compatible with the Paris Agreement on climate change, recognising the need to keep global temperature rise to within 2°C above pre-industrial levels and ideally to keep the increase below 1.5°C. It amends the emission reduction objectives according to those specified in the Nationally Determined Contribution (NDC) submitted in 2015. This includes an unconditional commitment to reduce greenhouse gas emissions by 22% and black carbon emissions by 51% below business as usual by 2030, implying that emissions would peak by 2026 and that the

intensity of greenhouse gas emissions per unit of gross domestic product (GDP) will be reduced by about 40% between 2013 and 2030. There is a conditional target to further reduce greenhouse gas emissions by 36% and black carbon by 70% below business as usual by 2030, subject to international support. The decree also introduced sectoral emission reduction targets and included provisions for new and strengthened existing policy mechanisms, including provisions for the National Adaptation Plan, emissions trading, and a transparency framework for the NDC.

Mexico's experience offers lessons for other countries

Other countries, including emerging and developing economies, can learn much from Mexico's experience. Our findings come from interviews with officials and experts who have been actively engaged in Mexico's climate change debate and policymaking.

Main achievements

- **The institutional foundations have been laid:** The Law provided the basis for developing, mainstreaming and implementing the climate change agenda, defined the division of responsibilities, and promoted more active participation of states and municipalities.
- **Long-term objectives have been defined and political continuity strengthened:** Long-term policies have been made mandatory, regardless of the political party in government. With emission reduction targets enshrined in law, the core climate change objective is stronger. The update to the Law in 2018 to maintain its consistency with Mexico's international commitments highlights its continued role as the main vehicle for domestic climate policy.
- **The quality of the political debate has improved:** The Law has helped to raise political awareness and recognition of the importance of climate change, and give it political relevance. It has also improved recognition and understanding of the benefits of the low-carbon transition and the linkages between climate change and other policy priorities.
- **The low-carbon energy transition has advanced:** The aspirational clean energy and emission reduction objectives have helped facilitate the energy reforms, and made the negotiations over the 2015 Energy Transition Law easier, which mandated the previously aspirational target for 35% electricity generation from clean energy by 2024. The Energy Transition Strategy subsequently set longer-term goals for clean electricity generation, of 37.7% by 2030 and 50% by 2050. According to the Government, Mexico could reach the goal of generating half of its power from clean energy by 2034, 16 years sooner than the target set.

Main challenges

Challenges relate to the Law's design and also to familiar obstacles in emerging economies around institutional and financial capacity and political will.

- **Unclear mandates challenge coordination and implementation:** Although the law defines general responsibilities, it does not set sufficiently clear mandates or implementation guidelines for the responsible institutions. This translates into a lack of specific goals and weak coordination among the ministries across levels of governance. Further, key policy instruments such as the national strategy and the PECC are developed only by the federal government and therefore do not represent a comprehensive vision of all the relevant entities.
- **Weak accountability mechanisms:** No independent body is clearly entrusted with accountability and enforcement, and responsibility for monitoring implementation is

ambiguous. The Consultative Council on Climate Change, which should provide independent policy advice and engage relevant stakeholders, has been ineffective, because of a lack of strategy and allocated budget. The fact that the Law does not establish sanctions for non-compliance has created the perception that it will not be fully implemented.

- **Lack of budget:** The general mandate of the Law regarding the allocation of public sources to implement climate policy has not been effectively implemented and an effective financing strategy has not been established. The Climate Change Fund has received little funding, while the revenue raised by the national carbon tax introduced in 2014 was not earmarked for climate change but absorbed into the general public budget.
- **Gaps in political commitment and leadership:** While the adoption of the Law has helped to generate and maintain a political consensus about the importance of action, there are still significant disagreements about the form this should take. Strong opposition from fossil fuel-intensive companies slows implementation. The Law alone is not able to substitute for political will to implement the concrete policies necessary for achieving its goals.

Recommendations

1. **Revive political leadership and commitment to implementation** so that the administration incoming on 1 December 2018 can successfully translate technical, regulatory and scientific knowledge into concrete actions to implement the Law, drawing on the April 2018 amendments.
2. **Improve clarity over institutional mandates and coordination between agencies and government levels.** Address the gap between legal provisions and actual practices by improving inter-sectoral and vertical coordination, and through the review of the operation of the National System on Climate Change and the Inter-Ministerial Commission on Climate Change to ensure better functioning of the technical working groups and the engagement of individual sectors.
3. **Empower state and local governments and sectoral agencies** through targeted guidance on the development of local climate change plans, capacity-building and through improving allocation of resources from the federal budget to adaptation and mitigation actions, prioritising the states with the most significant climate governance gaps.
4. **Develop and implement a comprehensive climate finance strategy** with a clear climate finance mobilisation pathway, improvements to budgeting processes for climate-related activities and the processes for developing a project pipeline, including making the Inter-Ministerial Commission on Climate Change more effective in this context.
5. **Strengthen policy evaluation and accountability mechanisms** through periodic evaluation and review of the national policies and their implementation, and use this as an informed basis for policy improvement, with parliamentary oversight and accountability.
6. **Enable effective stakeholder input and participation** to improve the quality of policy proposals, ensure transparency and strengthen stakeholder buy-in and active participation in implementation, through, for example, strengthening the Consultative Council on Climate Change and allocation of resources for its operation.

1. Introduction

Mexico's record in international and domestic climate change action

Mexico has been an active player in international efforts to tackle climate change for the past two-and-a-half decades (Edwards and Roberts, 2015). It signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and ratified it the following year. It also became the first large oil-producing country to ratify the Kyoto Protocol, in 2000 (Chandler et al., 2002). In 2010 Mexico hosted the 16th Conference of the Parties (COP16) to the UNFCCC, regarded as a great success as it resulted in the adoption of the Cancun agreements following the failure of the Copenhagen summit to reach agreement the previous year. Furthermore, Mexico was the first developing economy to submit an intended Nationally Determined Contribution (NDC) leading up to the negotiations of the Paris Agreement, in March 2015 (EDF and IETA, 2018).

However, Mexico's greenhouse gas emissions continue to grow. In 2015 the country emitted 683 million tons of carbon dioxide-equivalent (MtCO₂e) an increase of 54% on the 1990 level of 445 MtCO₂e, or 1.7% annually, although from 2010–2015 the rate of increase reduced to 0.8% per year (INECC, 2018c). Mexico is currently the world's 10th largest greenhouse gas emitter (PWC, 2017). Around half of its emissions come from transport and electricity generation, with industry responsible for a further 18% (INECC, 2018c). Energy generation is heavily based on fossil fuels (80%) (ibid.), making decarbonisation of energy one of the priorities for the country's climate policy. Mexico has a long legacy of oil dependence. Petrochemicals and oil-derivative products accounted for about 13% of GDP until the mid-2000s, falling to about 8% in 2016 (OECD, 2017). Oil-related revenues and exports are also a major source of government revenues (e.g. around 32% of revenues in 2013 [Porrás, 2017]). This makes the sector influential in national politics.

Domestic efforts to address greenhouse gas emissions intensified in Mexico around 2005, when the Government started to develop structural climate change policies. In 2010, in conjunction with hosting COP16, the Government proposed to develop a comprehensive legal instrument to deal with climate change. After two years of work and negotiations these efforts resulted in the adoption of the General Law on Climate Change (*Ley General de Cambio Climático* or LGCC in Spanish) in 2012 (referred to as 'the Law' in this report). The Law outlined the longer-term objectives for climate policy and set up the key elements of the institutional infrastructure required to deal with climate change. Later, Mexico passed the 2015 Energy Transition Law, which builds on the General Law on Climate Change and charts the pathway for decarbonisation of the energy sector.

In 2018 a new modification of the Law was approved to ensure its harmonisation with Mexico's commitments under the Paris Agreement on climate change and with the Nationally Determined Contribution the country submitted in 2015.

Aims and importance of this study

This study assesses the impact of the General Law on Climate Change to date and draws lessons learnt for Mexico and other countries that are currently developing climate change legislation. We establish the main achievements of the legislation, outline where expectations have not been met, and set out the main opportunities and challenges. Our focus is on the provisions in the Law and their interpretation. The wider socio-political context in which the Law was implemented is touched upon only where necessary for understanding its successes and failures.

As countries around the world are moving forward with the implementation of the Paris Agreement, many are reviewing their domestic policy frameworks and developing climate legislation to bring domestic efforts into consistency with the Agreement and to enable an

accelerated transition to low-carbon and climate-resilient development (Averchenkova et al., 2017). Overarching climate laws like Mexico's General Law on Climate Change aim to serve as a vehicle for defining the long-term objectives and institutional and procedural means of delivering this transition.

In this context the role of framework legislation and the experiences of countries to date with implementation of such laws become increasingly important. Very few assessments of these laws have been published. A related publication (Fankhauser et al., 2018) assessed the experience of the UK's Climate Change Act. This study provides a complementary review of the experience of an emerging economy and identifies the lessons that can be drawn for building the climate governance frameworks required to implement the Paris Agreement.

Information sources

Our assessment is based on a series of interviews with parliamentarians and government officials, and experts from non-governmental organisations, academia and the private sector, who have been actively engaged in Mexico's climate change debate and policymaking since the creation and adoption of the General Law on Climate Change in the period 2010–2012. Their views are complemented by previous studies on Mexico's climate policy. The assessment is based on the reading of the Law as adopted in 2012, as most of the interviews were conducted prior to amendments made in April 2018. The Appendix provides a more detailed description of the research method.

Structure of the report

- **Chapter 2 outlines the provisions of the General Law on Climate Change.** We review the process leading to the adoption of the Law and highlight its main building blocks and the key elements of the institutional infrastructure it has established.
- **Chapter 3 reviews the main achievements of the Law.** Drawing on the expert assessments we highlight the main areas of success.
- **Chapter 4 highlights challenges presented by the Law.** Based on the responses of our interviewees we assess the areas where expectations have not been entirely met.
- **Chapter 5 outlines recommendations** for the future.

2. Adoption and architecture of the General Law on Climate Change

The path to adoption of the Law

During his time in office in 2006–2012 President Calderón made climate change a public policy priority for Mexico. In the National Development Plan 2007–2012 the Government stated that climate change must become an important consideration for all sectors. It also took a decision to develop a Special Programme on Climate Change (PECC) to achieve this goal. Published in 2009, the programme outlined the long-term climate change agenda and medium-term goals for adaptation and mitigation (Vinluan and Meirovich, 2014).

However, there was no legal instrument that embedded climate change objectives and that could protect them from future political change. Under the initiative of the Congress of Mexico, particularly the Senate, the Government set out on a journey to develop a climate law. According to our study respondents 2 and 12 (a senior legislator and a senior NGO expert),¹ the main purpose was to protect against political change by making long-term climate objectives mandatory for public policies for the next 30 years, regardless of who held presidential office and which political party was in government.

Initiating development of the Law

Experts started looking at the experiences of other countries. Respondent 2, who was closely involved in drafting the Law, says they “realised that the most comprehensive law was the UK’s Climate Change Act of 2008” although there were also some relevant examples of climate change initiatives from other countries, and relevant legal mandates at the national level. These experiences formed the basis for development of the draft law and for the launch of consultations with relevant stakeholders (Respondent 2).

Mexico’s hosting of the COP16 UN climate conference in 2010 was a major incentive for the engagement of many stakeholders who were involved in the design of the Law. During that time Mexico also held the presidency of the G20, which enabled Mexico’s global leadership on the climate agenda to be strengthened. Therefore, it was important for the country to demonstrate at home that it was practising what it preached (Respondents 10, a legislator, and 12). Designing the Law was a complex process taking two years of hard work and negotiations, including many meetings in the President’s office (Respondents 10, 12, and 14, a senior government official).

Consultations on the Law were extensive (Respondents 2 and 8, an academic). They included proposals from different parties, a process that was complicated by the fact that the country was going through presidential elections. “The discussion very quickly turned from being a technical conversation among stakeholders into a political negotiation among the different political parties”, recalls Respondent 1, who is senior within a prominent NGO. At one point there were four different legislative initiatives from different parties. There was also a close exchange with the UK embassy to learn from the experience of the UK’s Climate Change Act (Respondent 2). At the end of 2011, after a visit by a delegation of British officials to Mexico, the different proponents of the Law were gathered together, and a decision was taken that only one version would form the basis for further negotiations (Respondent 3, a senior NGO expert).

¹ Throughout the report we quote directly from the interviews carried out to inform this study. For more details on the interviews and interviewees, including the background and experience of each numbered respondent, see the Appendix, p29.

Knowledge-building

While it was helpful that stakeholders overall regarded climate change as an important issue at that time, there was still significant knowledge-building to be done in the Senate and in the Lower House (Respondent 14). “One of the most important challenges in this process was explaining the issue to the legislators who were not familiar with it”, reflects Respondent 2. “In Mexico the legislators change every three years, so there are high learning costs”, agrees Respondent 10, who continues, “Some know the subject. Others arrive and must learn in the first year. Next year they begin to handle initiatives and in the third year their term ends.” This capacity issue is particularly acute in Mexico because it not permissible to re-elect a legislator, making education an important priority.

The private sector and NGOs

Another important challenge was to reach an agreement with the private sector. After the presentation of the first draft law in 2010, negative comments in particular on the components dealing with emission reduction objectives started to come from the private sector, especially from the petroleum industry, and the steel and energy sector (Respondents 2, 4, 11, 12). Significant lobbying was carried out by supporters of the Law and by its critics, with over 200 meetings held at the federal level and in several states (Respondent 2). Discussions revolved around quite a few topics with the main objective for the private sector lobbyists being “to avoid any emission reduction commitments” (Respondent 2). Negotiations with the private sector were highly complex and several flexibilities were introduced in the end. For example, provisions for the carbon market have changed, making participation for the private sector voluntary.

There was a strong push from environmental NGOs to set concrete goals, in terms of both mitigation of emissions and adaptation to climate change, and to outline a roadmap for implementation for the key sectors such as energy, transport, forest and agriculture for 2020–50, with short, medium and long-term objectives. Some NGOs also proposed including a long-term financing strategy and a budget, indicating a minimum percentage of GDP spending on climate change, but following pressure from the Treasury and the private sector these elements did not make it into the final draft (Respondents 1, 8). The decision taken by legislators was that the Law should not carry mandatory quantitative objectives, but rather a number of aspirational goals. (The amendments of 2018 formulate targets in a more definitive rather than an aspirational manner, strengthening the Law.)

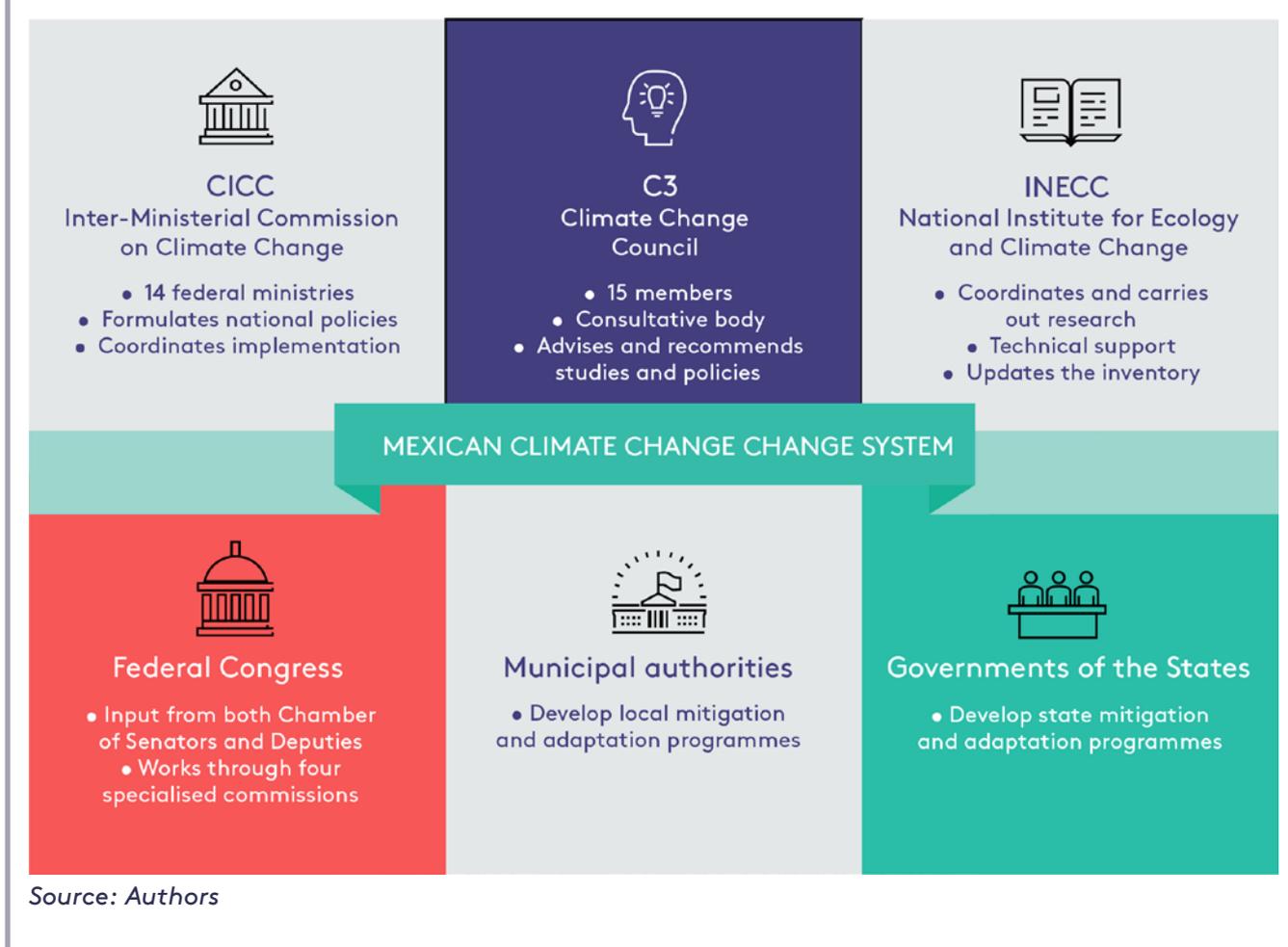
Reaching agreement

“There were voices against and voices in favour of the Law. I think that was the most complicated thing: to reach an agreement and still try to have a vision for the country”, recalls Respondent 2. In fact, with all the legal instruments that were discussed and debated in Congress, many drafts have passed through the hands of the legislators (Respondent 10). There were contributions by political actors from parties with very different viewpoints but even so, all parties approved the Law in the Deputies Chamber, with 280 votes in favour, 11 against and one abstention, and unanimously in the Senate, which was the chamber that proposed the Law in the first place (Guzman, 2012). “It was not easy for the Law to come out,” recalls Respondent 7, who leads a prominent NGO. “I can say that it is a great achievement.”

Key elements of the policy and legal framework

The General Law on Climate Change is an example of comprehensive framework legislation on climate change. It established a number of institutions to deal with climate change at the federal level, defined responsibilities for the states and municipalities, and set the basis for long-term climate policy in Mexico. This subsection describes the principal elements of the Law, including: creation of the ‘National System on Climate Change’, planning and policy instruments, and quantitative targets.

Figure 1.1. The National System on Climate Change (SINACC): structure and functions



The General Law on Climate Change embedded into law the mandates of the relevant institutions that existed prior to its adoption and gave them new mandates. The Law also put in place an overarching institutional mechanism for dealing with climate change in Mexico – the ‘National System on Climate Change’ (abbreviated to SINACC in Spanish). SINACC’s primary objective is to operate as the permanent mechanism of communication, collaboration and coordination for national climate policy (Article 38 of the Law). It is comprised of the bodies and representatives shown in Figure 1.1 and described below:

- **The Inter-Ministerial Commission on Climate Change (CICC):** The CICC is the permanent coordination mechanism on climate change among the federal ministries (Secretaries of State in Mexico). It includes 14 ministries² and operates seven working groups: 1) Working Group for the Special Climate Change Programme (GT-PECC); 2) Working Group on Adaptation Policies (GT-ADAPT); 3) Working Group on Reducing Emissions from Deforestation and Degradation (GT-REDD); 4) Working Group on International Negotiations on Climate Change (GT-INT); 5) Mexican Committee for Projects to Reduce Emissions and Capture Greenhouse Gases (COMEGEI); 6) Liaison

² Ministry of the Interior (SEGOB), Secretariat of Foreign Affairs (SRE), Secretariat of the Navy (SEMAR), Ministry of Finance and Public Credit (SHCP), Ministry of Social Development (SEDESOL), Secretariat of Environment and Natural Resources (SEMARNAT), Secretariat of Energy (SENER), Ministry of Economy (SE), Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), Secretariat of Communications and Transportation (SCT), Secretariat of Public Education (SEP), Ministry of Health (SSA), Ministry of Tourism (SECTUR) and the Secretariat of Agrarian Development, Territorial and Urban (SEDATU) (INECC, 2018d).

Working Group with Civil Society (GT-VINC); and 7) Working Group on Financing (GT-FIN).

- **National Institute of Ecology and Climate Change (INECC):** INECC is a Mexican state research institute that coordinates and carries out studies and projects of scientific and technological research with academic research institutions, public or private, national or foreign, on the matter of climate change. After the adoption of the Law it expanded its remit and name, previously being called the National Institute of Ecology. Assessment of national climate change policy falls to the Evaluation Coordination group, composed of the head of INECC and six advisors (INECC, 2018d). The type of assessment and frequency varies, and the Coordination Group defines it, e.g. in 2018 the Group conducted an assessment of the Special Programme on Climate Change and the Climate Change Annex included in the Public Expenditure.
- **Consultative Council on Climate Change (C3):** This is the permanent consultative body of the CICC. Its members come from the social, private and academic sectors and have recognised merit and experience in climate change. Among its functions are: 1) to advise the CICC and recommend certain studies, policies and actions, and propose adaptation and mitigation goals to face the adverse effects of climate change; and 2) to promote informed and responsible stakeholder participation, primarily through public consultations (ibid.).
- **Federal Congress:** The SINACC is also informed by the two chambers of the Congress, the Chamber of Senators and the Chamber of Deputies, where two specific commissions have been created to deal with climate change. In the Chamber of Senators, this work is carried out by the Special Commission on Climate Change and the Committee on the Environment and Natural Resources, and in the Chamber of Deputies there is a Commission on Climate Change and an Environment Commission.
- **State governments and municipal authorities:** Under the Law, Mexico's 32 states and 2,475 municipalities are also part of the SINACC and are mandated to deal with climate change by creating local mitigation and adaptation programmes.

According to the Law (Article 39), which represents the authority of the Federal Government, the President of Mexico is in charge of and chairs the SINACC and can delegate this function to the Minister of Environment. Within the Ministry of Environment (SEMARNAT), the Department of Planning and Environmental Policy is in charge of technical support to the SINACC and acts as the secretariat that follows up on the meetings and decisions taken (Reglamento SINACC, 2015). In terms of frequency, the Law states that the coordinator of the system has to call at least two meetings per year, or more if necessary (Article 43).

As will be explained in further sections, the operation of the SINACC is highly complex because of the difficulty in coordinating and creating collaboration among all the entities mentioned above.

Mechanisms to address climate change

The Law has proposed the creation of tools to deal with climate change, including policy planning tools, economic and financial mechanisms, and information and monitoring mechanisms. Policy planning tools outlined by the Law include the National Strategy on Climate Change (ENCC); the Special Programme on Climate Change (PECC) and the programmes of the states. Economic and financial instruments include provisions for a carbon market and the creation of the Climate Change Fund. The Law makes provisions for a Climate Change Information System, a greenhouse gas inventory, and a registry of emissions. Below we describe four of these important mechanisms.

- **The National Strategy on Climate Change (ENCC):** The strategy constitutes a document governing national climate policy in the medium and long term with the objective of transition to a competitive, sustainable low-carbon economy. The strategy

is developed by SEMARNAT with participation of INECC and the advice of the C3 and is approved by the CICC and published in the Official Gazette of the Federation. It is expected that the strategy is updated at least once every 10 years for mitigation and once every six years for adaptation. It also needs to provide explanations for deviations between projected estimates and evaluated results. The strategy should reflect mitigation and adaptation objectives and include: an assessment and evaluation of the actions and measures implemented domestically and in the international context; climate scenarios; an evaluation and assessment of the vulnerability and capacity for adaptation to climate change of regions, ecosystems, population centres, various sectors, and community groups; trends and proposals in the transformation of the territory and use of resources at the national, regional, and state levels, including land and water use changes; and an assessment of emissions and of actions that prioritise those sectors with the greatest potential for reduction while simultaneously providing environmental, social and economic benefits. The baseline scenarios, emissions projections, and goals of the strategy are designed to be set at 10, 20 and 40 years.

- **Special Programme on Climate Change (PECC):** This programme includes the specific climate goals set in the National Development Plan, the National Strategy on Climate Change (ENCC) and the sectoral programmes of 14 state secretariats. It includes measures that aim to reduce emissions of greenhouse gases and improve the ability to respond to the negative impacts of climate change. The PECC is to be developed by the CICC and coordinated by the SEMARNAT. It is expected that each sectoral ministry that is part of the CICC will contribute to establishing sectoral mitigation and adaptation goals. According to the Law, the PECC should be detailed during each governmental period – this means every six years, while the National Strategy on Climate Change is the mid-term strategy that goes beyond governmental periods.
- **Greenhouse Gas Emissions Registry:** The Law mandates SEMARNAT to develop, integrate and publish the registry of emissions that come from mobile and stationary sources. The aim is to collect data from emitters and present information at sector, subsector and activity levels. The registry aims to present information not only from greenhouse gas emissions but also from short-lived climate forcers/pollutants that are also part of the Mexican commitments.
- **Climate Change Fund:** This mechanism was created with the aim of capturing and channelling public, private, national and international financial resources, to support the implementation of actions to deal with climate change (Article 80 of the Law). The Fund aims to deal with adaptation, mitigation and those actions that encompass both, as well as education, assessments and other research projects, among other activities. The Fund would operate through a public trust created by the Ministry of Finance (SHCP) and be supported by a Technical Committee chaired by the Ministry of Environment with representatives from the key relevant ministries, as well as non-governmental stakeholders.

Quantitative targets

In its original reading in 2012, the Law in the transitory articles³ defined the following emission reduction goals: a 30% reduction by 2020 over business as usual and a 50% reduction below the baseline level of emissions in the year 2000 by 2050. It also included a target for 35% of

³ In Mexico, the term 'transitory article' refers to a provision that is added after the matter to be legislated has been dealt with in its own articles. Transitory articles have a temporary validity and are viewed as secondary or auxiliary to the main articles. They may be used to specify the entry into force of the new legal text or determine other conditions under which the new legislation will begin to take legal effect. Transitory articles are viewed as complementary legislation to existing legislation and they cannot stand on their own. They can be amended or replaced with time or as soon as the condition they specify is present. When it comes to the enactment of a new law, articles of a permanent nature and transitory articles are separated. The latter are organised under the title of 'transitory' and are assigned their own and independent numbering to the consecutive order of the main articles (Avalos and Donnadieu, 2014; Mexico: Enciclopedia Jurídica Online).

energy to be generated from clean sources by 2024 (LGCC, second and third transitory articles). These objectives were conditional on international support.

Amendments to the Law through a decree in 2018

In April 2018 Mexico's Parliament passed a decree amending the General Law on Climate Change, becoming one of the first countries to modify its domestic legislation to make it more consistent with the Paris Agreement (DOF, 2018). The Law recognises the necessity to undertake efforts to keep global temperature rise to within 2°C above pre-industrial levels and to undertake efforts to keep this increase below 1.5°C, and amends the emission reduction objectives according to those specified in the Nationally Determined Contribution submitted by Mexico to the UNFCCC in 2015. This includes an unconditional commitment to reduce greenhouse gas emissions by 22% and emissions of black carbon by 51% below business as usual by 2030. The commitment implies that national emissions would peak by 2026 and that the intensity of greenhouse gas emissions per unit of GDP will be reduced by about 40% between 2013 and 2030. There is also a conditional target to further reduce greenhouse gas emissions by 36% and black carbon by 70% below business as usual by 2030, subject to international support.

An additional aspect included in the Law was the allocation of specific targets by sector to reach the 22% reduction in greenhouse gas emissions below business as usual by 2030, including:

- Transportation: -18%
- Power generation: -31%
- Residential and commercial: -18%
- Oil and gas: -14%
- Industry: -5%
- Agriculture and livestock: -8%
- Waste: -28%

While the Law in its original reading of 2012 was heavily focused on mitigation, the revision of 2018 mandates development of a national adaptation plan at the national level and a requirement for the states and municipalities to address adaptation. The decree also makes provisions for new mechanisms, including the reformed emissions trading scheme (see below), and further mandates regarding the transparency framework through which to observe the development and implementation of NDCs. The provisions on the transparency framework included in the Law in 2012 were strengthened; the Government was mandated to provide an annual report on climate change online that includes: an account of actions carried out with resources from the Climate Change Fund, the resources that are annually allocated in the Expenditure Budget of the Federation to comply with the obligations of the Law and the way they were implemented, and the results of evaluations of the national policy on climate change. Individuals can also review the inventory and registry online.

The decree reformed the emissions trading system, with the aim of promoting emission reductions that can be made with the lowest possible cost, in a measurable, reportable and verifiable way, without harming the international competitiveness of the participating sectors (Article 94). The emissions trading system will be developed gradually with a 36-month trial period, starting in May 2018.

The timing of the amendments to the Law, which occurred in April 2018, before the presidential elections, is also significant: it signalled the desire of the outgoing government and legislature to keep its commitment to the Paris Agreement and ensure the next government would follow the path set in motion.

3. Principal achievements of the General Law on Climate Change

Institutional foundations for policy development and delivery

One of the principal achievements of the Law, highlighted by most of the interviewees for this study, is that it put in place the core elements of an institutional system for addressing climate change in Mexico (e.g. Respondents 2, 3, 10, 14). Through the creation of the National System on Climate Change, the Inter-Ministerial Commission on Climate Change, the Council on Climate Change, and the strengthening of the National Institute of Ecology and Climate Change, the Law provided an institutional basis for developing and implementing the climate change agenda in the country. The requirement under the Law to develop a national strategy with a mid-term vision and a Special Programme on Climate Change every six years provides a vehicle for continuous planning and implementation (Respondent 12, a senior NGO expert).

“It was a very important experience. Enhancing the Inter-Ministerial Commission on Climate Change was the first challenge and an achievement in itself”, recalls Respondent 14, a senior government official. “Before then the different institutions had been working individually: there was no mainstreaming of climate change as such. It was a very difficult job to begin to change the paradigm that Energy was not dedicated solely to energy, and Environment to the trees.”

The Law also defined the division of key responsibilities between the national, subnational and local levels. Articulation of mandates across the different levels of government promoted more active participation of states and municipalities in climate action. The Law “motivated the states to develop their own laws, adapting the federal one to their needs and particular conditions”, notes Respondent 10, a senior legislator.

Since the adoption of the Law there has been much progress in planning climate policy at the state level. By 2015 about half of Mexican states had finalised their State Climate Action Programmes (Elizondo et al., 2017). In 2013 states’ spending associated with climate change ranged from 0.12% to 4.57% of their budget, with a total investment of about US\$344 million (IMCO, 2013, cited by Elizondo et al., 2017).

The Law also recognises the necessity to allocate national resources for the implementation of climate change policy and created the basis for requesting resources for adaptation and mitigation actions (Respondents 5, a senior government official and 7, an NGO expert). The creation of the Climate Change Fund and provisions for a carbon tax provide the basis for the development of a climate finance mechanism to ensure the transition to a low-carbon and climate-resilient economy (Respondent 9, a government official). Formalisation of the National Registry for Greenhouse Gas Emissions and of the Climate Change Information System through the Law creates the basis for improving the availability and quality of data and gives continuity to the process of monitoring and reporting (Respondent 3, NGO expert).

Defining long-term objectives and ensuring continuity

Several respondents noted that one of the key achievements of the Law has been to make long-term policies on climate change mandatory, regardless of the political party in government. Therefore, having enshrined emission reduction targets in law, the core climate change objective is protected, regardless of the priorities of the government of the day (Respondents 1, 6, 9, 12), although changes in the priorities of the current government can affect the implementation of the mandate. The 2030 and 2050 goals are characterised as indicative or aspirational in the Law, but in the opinion of the NGO representatives we interviewed, they would not make Mexico’s contribution consistent with a scenario of a 2°C maximum temperature increase (e.g. Respondent 1).

The Law also enabled work on climate change already undertaken in the country to be formalised (e.g. through the creation of the Special Programme on Climate Change) and it protects established initiatives and policies from potential future political changes that might arise from the six-yearly presidential elections. In the words of a senior government official: “The more sectors of society that participate in this debate, show interest in the issues of the Law or in the updates of the Law, the greater the continuity of the issues in the future.” (Respondent 9).

For Felipe Calderón’s government of 2006–2012, climate change was a priority issue. The administration that took over office in 2012 under Enrique Peña Nieto did not give it the same importance and there was therefore a serious risk that the change of government could compromise Mexico’s long-term climate policy. However, the existence of the Law ensured continuation of policymaking in 2012–2018 towards the objectives enshrined in the legislation (Respondent 3). “When the new administration arrived, they were concerned about complying with the Law”, recalls Respondent 12. “There was a colleague at the SEMARNAT [Ministry of the Environment] whose task was explicitly to comply with all the specific mandates of the Law, one by one.” It is expected that the Law will keep implementation on track following the most recent change of government following the presidential election of July 2018. However, strong political will is required if this is to be truly effective (see below).

The fact that the Law is being updated, as evidenced by the 2018 decree, to maintain its relevance in evolving circumstances and consistency with Mexico’s international commitments, highlights its continued role as the main vehicle for domestic climate policy.

Improving the quality of the political debate

The General Law on Climate Change has helped to raise political awareness on the issue and has contributed to improving the prominence and quality of the political debate on climate change in Mexico. Most of our respondents note that there is now a general political consensus on the importance of climate change, on the need to reduce emissions and to adapt to climate impacts (Respondents 1, 3, 5, 6, 10, 12, 14, 15) and that the Law has played an important part in achieving this (Respondents 5, 9). Their assessment is consistent with the UK experience, where stakeholders similarly felt that the passage of a framework law had improved the quality of the political debate (Fankhauser et al., 2018). It should, however, be noted that the overall improvement in the quality of the political debate does not mean that the opposition to climate change policies has ceased, which was evident during the energy sector reforms, where the fossil fuel industry gained strength.

Adoption of the Law has helped to build recognition of the importance of climate change at the national level and served as a key instrument to give political relevance to the topic (Respondents 8, 14). In the words of Respondent 1, “Thanks to the Law, the topic of climate change is much better understood, civil society is much more prepared, the private sector is more sensitive, and international awareness is much stronger.” The Law and the processes it has strengthened, such as the National Climate Change Strategy and the Special Climate Change Programme, as well as the creation of the National System on Climate Change, have also brought the issue onto the agendas of the state legislatures and the administrations of state governors (Respondent 2, a legislator).

The fact that the Law was approved with the support of all the political parties in Congress is important for the consolidation of political narratives around climate change. It is also crucial for keeping the issue on the political agenda going forward and for future deliberations on the implementation of the Law (Respondents 6 and 9, senior government officials). “It is politically incorrect to say that you are against working to address climate change”, notes a senior government official (Respondent 9). “[The Law] is a very useful general framework for the discussion of politics and the policy of climate change in Mexico.”

In addition to raising the importance of the issue in political debate, adoption of the Law has impacted the narratives around climate change and the quality of the discussion. Thanks to

the Law there is a greater recognition of opportunities and the economic and social benefits of the low-carbon transition (Respondent 8, an academic expert) and a better understanding of the linkages between climate change and other policy priorities and measures beyond the environmental sector, in particular related to energy (Respondent 9). Adoption of the Law has helped to change the conversation in Mexico “from whether or not a policy is required, to focus on what kind of policy instruments should be put in place and what the cost may be” (Respondent 5).

Promoting the low-carbon energy transition

The General Law on Climate Change has provided a justification for moving forward with mitigation actions in some economic sectors. One of the main areas where the Law has had observable impact, according to the experts interviewed, is in facilitating the low-carbon transition in the energy sector. In particular, it has contributed to the prominence given to renewable energy in the context of energy reform.

The different stakeholders that support the low-carbon transition and who were active during the approval of the Law also helped in the adoption of the Energy Transition Law in 2015 (Respondent 1, senior NGO expert). The General Law on Climate Change established an aspirational target for clean energy generation, of 35% by 2024. Having this clean energy target and the emission reduction objectives set in law in 2012 made negotiations over the Energy Transition Law easier, as the objectives were taken as a starting point that did not need to be negotiated (Respondents 1, 2, 4, 7, 12, 14). “The development of the General Law on Climate Change has been fundamental”, argues a senior government official (Respondent 14). “It established that Mexico must promote generation through cleaner energies and promote the reduction of greenhouse gas emissions. These objectives were taken as the basis for the energy reforms to promote clean energy.”

The Energy Transition Law of 2015 establishes a legal framework for the efficient use of energy and clean energy production. This legislation supersedes the Law for the Sustainable Use of Energy and the Law for the Development of Renewable Energy and Energy Transition Financing. It mandates the previously aspirational target set in the General Law on Climate Change for 35% of energy to be generated from clean sources by 2024 and defines several intermediate goals to meet the target, creating a roadmap for a comprehensive strategy for increasing the penetration levels of renewable energies. Subsequently Mexico has set a goal to generate 35% of electricity by 2024, 37.7% by 2030 and 50% by 2050 from clean sources, through the Energy Transition Strategy to Promote the use of Clean Technology and Cleaner Fuels (SENER, 2016).

“In the discussions on energy reform the climate law has always been mentioned as one of the justifications, alongside emphasising the need to meet international commitments to reduce emissions”, recalls Respondent 7, an NGO expert. “The Energy Transition Law and wider energy reforms have opened the door for a low-carbon transition in the energy sector”, argues a private sector expert (Respondent 13). Another significant factor in support for the transition has been the fall in the cost of renewables (Respondents 7, 13).

According to analysis by the Energy Ministry in *Renewable Energy Prospects 2017–2030*, during the period 2006–2016 the installed capacity for renewable energy generation grew by 4.3% on average per year. In this period solar and wind energy experienced the most growth, at 33.6% and 110.3% respectively (SENER, 2017), which is consistent with the perceptions of our study participants referred to above. In a recent statement by Leonardo Beltrán, Mexico’s Vice Minister for Planning and Energy Transition at the Ministry of Energy (SENER), based on the current growth rate Mexico could reach its goal of generating half of its power from clean energy by 2034, 16 years sooner than the target set in the Energy Transition Strategy (Platts News, 2018). Experts also noted that the General Law on Climate Change plays an important role in promoting energy efficiency, reducing energy consumption, and enabling the development of policy instruments in the energy sector (Respondents 8, 9).

4. Challenges in implementing the General Law on Climate Change

Despite the important achievements discussed above, the Law has faced a number of challenges in its implementation. Many respondents shared the general sentiment that is well expressed by a representative of an international organisation (Respondent 15): “The General Law on Climate Change has a very good narrative but lacks concrete and timely implementation mechanisms. We are too slow in the implementation... the system has not been functioning as it was designed to.”

According to a strategic assessment of the progress made in implementing the Special Programme on Climate Change (PECC), during the period 2014 to 2018 only 43% of the goals it set were achieved (INECC, 2017a). While some of the implementation challenges can be traced to the design of the Law, most of them relate to the ways in which it is being executed and the obstacles, typical of many emerging economies, around institutional and financial capacity and political will.

Unclear mandates and coordination challenges

Although the General Law on Climate Change defines general responsibilities for addressing climate change, several experts noted that it does not set sufficiently clear mandates for the institutions responsible. This results in institutions lacking specific goals and acting in an uncoordinated way (Respondents 8, 9). The recurrent concern among interviewees was that the Law does not provide sufficient guidance or specific procedures for how to fulfil the mandates and does not set sufficient incentives from the federal level to the state and municipalities to encourage their participation (e.g. Respondent 8). A key aspect mentioned is the lack of additional financial resources from the public budget to enable the strengthening of capacity and the implementation of action at the local level.

A closely related area of concern is the level of coordination among the sectoral ministries and across the different levels of governance. Cross-cutting decision-making has a cost attached to it and requires effective institutional channels to function. “The problem is that we had, and still have, great limitations in not being able to modify the processes of horizontal planning in the different sectors which, as we all know, continue to act in silos”, notes Respondent 7, who leads a prominent NGO. The coordination of the SINACC is a highly challenging task, because it requires communication between the federal level and all the state and municipal governments. An academic expert who has also worked in NGOs (Respondent 8) described effective coordination among all of these levels and all the relevant institutions as being almost “impossible”.

An additional challenge is the lack of clear guidelines on coordination between the local and state governments and the national government (Respondents 1, 6, 8). “States have to make their plans and they have to make them for a particular date, but there is no clear guideline of what the minimum elements of these plans are”, highlights Respondent 8. Although INECC has been supporting the development of local plans, the implementation has been challenging (INECC, 2007). This challenge might be one of the reasons for the slower pace of transition in the waste and transport sectors.

While the Law mandates cross-sectoral coordination through the Inter-Ministerial Commission on Climate Change (CICC), in practice “that commission has no mandate that outlines what it is allowed and supposed to do”, says Respondent 1, a senior NGO expert, adding, “Only its existence is mandated. It is not clear, though, how this body is meant to design policy instruments or reorient the existing instruments. The Law does not clarify this.” Another issue is to find a moment in time when all the institutions are available and willing to participate in

a meeting. "It has always been a challenge to involve other secretaries of state in the Inter-Ministerial Commission... It depends a lot on the official in charge to see the importance of being involved in the climate change agenda, as in practice it is not their priority", reflects another senior NGO expert (Respondent 3). This affects the effectiveness of the implementation of the Law.

So far, the CICC has not held enough meetings and has not been effective in engaging all the ministries in the climate agenda, according to Respondent 3. Furthermore, the CICC only includes representatives from the federal ministries, so coordination with national and local governments has to happen elsewhere under the SINACC, but to date has been limited, as discussed. "There have been meetings with governors and with the presidency, and climate change is never a main issue or an important issue", reports a senior legislator (Respondent 2).

Weak accountability mechanisms

A significant weakness of the General Law on Climate Change is the lack of clear accountability and enforcement mechanisms, as noted by several respondents. "There is a perception that there is no mechanism in place to ensure follow-up on climate policy on an annual basis", argues Respondent 8, who adds, "A mechanism is required that can identify the extent to which there is progress with meeting the commitments."

One of the key objectives of the Law was to create a mechanism to evaluate climate policy (Article 98). However, the Law is ambiguous over who is responsible for monitoring implementation, referring only to 'the country'. Implicitly, public servants are responsible for following up and enforcing the Law (Respondents 1, 9). In practice, policy evaluation falls under the remit of INECC, which was mandated to provide all the technical support for the design and implementation of climate policy. However, the Law does not mandate the inclusion of this evaluation office under INECC, but says that INECC's director will be part of the evaluation mechanism. In effect, there is currently no independent body with the capacity to assess and monitor the progress and challenges related to climate policies, because INECC is at the same time the judge of and an active party in the development of the policy (Respondents 8, 15).

Similarly, the Consultative Council on Climate Change, whose functions are to provide independent policy advice and to engage relevant stakeholders, has been highly ineffective (Castillo, 2018). Few assessments of the Council have been conducted to date, but one element that has been highlighted is that the Council does not have any budget allocated. This means that the advisors operate on a voluntary basis, which makes their participation less effective.

There is a concern that monitoring is not taking place across sectors and the different levels of government (Respondent 3). The fact that the Law does not define specific responsibilities for sectoral ministries creates additional challenges for monitoring implementation. INECC faces a practical difficulty in understanding which actors are involved in mitigation-related actions in a particular sector. With changes in the federal administration, lack of continuity can impede the process of gathering all the information for an evaluation (Respondent 6, a senior government official).

Another limitation is that the Law does not specify who is responsible for developing plans for how to reach the objectives that it sets out (Respondent 4, an international organisation expert). In its 2012 reading, the Law gave little guidance on how to translate overall targets into specific objectives and strategies for each sector (Respondent 1) and fell short of creating obligations for different sectors (Respondent 7). It is hoped that the 2018 decree, with its sectoral targets, will provide a greater impetus for relevant sectors.

The fact that the Law does not establish sanctions for non-compliance has created the perception that it will not be fully implemented (Respondent 2). Respondent 15 pushes the

criticism further, arguing that, “The Law sets out an ultimately failed institutional design, intending to change the development trajectory of a country mainly through the work of a directorate in a Ministry of the Environment and a research institute, INECC.” The Law established mechanisms that aim to connect this technical work with broader decision-making, through, for example, the Inter-Ministerial Commission on Climate Change or the National System on Climate Change. However, some experts feel there is still a significant disconnect between decision-making and the operation of government programmes and policies, and the technical deliberations of the Inter-Ministerial Commission on Climate Change.

Insufficient budget

Most of the experts interviewed noted that one of the main weaknesses is that the general mandate of the General Law on Climate Change regarding the allocation of public sources to implement climate policy has not been effectively implemented and that it fails to ensure the establishment of an effective financing strategy. Although the Law specifies that its implementation should take into consideration the available budget (Article 70), insufficient resources have been allocated by the Government (e.g. Respondents 3, 10, 15). “Despite the fact that climate change is one of Mexico’s priorities in terms of international relations and environmental policy, the Secretariat of the Environment is still in the group of the six secretariats that take 10% of the resources of the public budget”, notes an academic expert (Respondent 8). The perception is that while the Law does provide institutional and policy arrangements, it does not obligate government to put sufficient money into operationalising the Law (Respondents 4, 15).

In this regard the experts noted that an important failure of the Law was that it did not establish as a goal the creation of a climate financing strategy. Furthermore, while the Law mandated the creation of economic and financial mechanisms, such as a carbon tax and the Climate Change Fund, it does not specify how they can interact in an effective way (Respondent 10, a legislator). A challenge in this regard is that the current allocation of budget does not correspond to the goals set in the Special Programme on Climate Change (PECC), according to a recent study conducted by INECC regarding the federal public expenditure (PEF) (Respondents 7, 9, 10). The study points out that the amount of money allocated through Annex 16 of the PEF from 2013 to 2017 was between 34.5 and 36.8 million MXP (Mexican pesos; approximately US\$1.8–1.9m) (INECC, 2017b). The study affirms that the problem is that not all of the financed measures are related to climate change or to the PECC.

In their budget proposals the ministries included measures for which they already had money, notes Respondent 7, who says, “Of course, if nobody asks for additional money to do more, logically the result is that there is not enough funding and the effort remains poor.”

The Law has established a Climate Change Fund, but so far it has received little funding from the federal budget and thus has not had much influence on the implementation of climate policies (Respondents 10, 15). Some international donors are currently planning to contribute directly to the Climate Change Fund, but the Fund is not the main channel to receive bilateral and multilateral support. At the same time the revenue raised by the national carbon tax introduced in 2014 was not earmarked for climate change and is not directed to the Fund but rather has been absorbed into the general public budget. As a result over the last four years the Fund has received just US\$10m (Orozco, 2018), in 2017 the fund disbursed MXN 99.93m (for seven projects) – around US\$5m – and during 2018 it has not so far allocated any funds (Fondo de Cambio Climático, 2017).

A significant barrier to creating an effective climate finance strategy and budget allocation, short of having a clear mandate in the Law, has been the limited engagement by the Ministry of Finance (e.g. Respondent 1 and several others). Some experts even consider that the Ministry has explicitly refused to focus on the topic due to its perception of climate action as a cost rather than an opportunity (Respondent 1; Orozco, 2018). During the negotiations of the

reforms to the Law that took place in 2018, it was proposed to adopt a national strategy on climate finance. However, this proposal was refused by the Ministry of Finance (Respondents 1, 4).

International commitments, such as the NDC submitted by Mexico, also lack a financial strategy behind them (Guzman and Castillo, 2015). This presents a challenge for the implementation of the commitments, in particular now that the 2018 reforms to the Law make such compliance an obligation for the Government. The cost of implementing mitigation actions included in the NDC from 2014 to 2030 is about US\$126 billion (INECC, 2018b), but so far no clear pathway to finance such measures has been set by the Government.

“Perhaps in the rush of pushing through the Law, we thought that having the main structure set out would be enough. Of course, it is very difficult for this structure to work without resources”, remarks an academic expert (Respondent 8), who adds, “I think that some of these shortcomings were due to a failure to achieve what we wanted in the negotiations. Others were due to a lack of consideration at the time.” Addressing the budgetary challenge should be an important priority. It would not necessarily require amending the Law: the Government could make provision through an executive decision.

Gaps in political commitment and leadership

While the adoption of the Law has helped to generate and maintain a political consensus about the importance of action on climate change, there are still significant disagreements over the nature of such actions (Respondents 3, 4, 6). Several experts were concerned that there has been little change in the political will of the parties to advance the implementation of climate change actions. Here there are again parallels with the UK’s experience of a climate change framework law (see Fankhauser et al., 2018).

At the time the Law was being negotiated, climate change was undoubtedly considered an issue of high relevance. With the change in administration when Peña Nieto became President in 2012, interest in climate change dropped significantly, from the Government and from many other actors (Respondents 1, 12, 13). Nieto’s government could have played an important role in creating political benefits by implementing the Law, but, argues Respondent 15: “The new administration saw the Law more as an obligation than as a political asset.” The fact that spending on climate change was kept to a minimum is evidence of this, according to Respondent 1.

At the start of the presidential election campaigns in 2018 climate change did not feature highly for any of the main candidates, suggesting it was not likely to be a priority for any new government (Respondents 1, 11, 13). However, in the latter months of campaigning and in the run-up to the election, climate change was mentioned more in the written proposals of the candidates although not so much in the debates, according to an analysis conducted for 10 NGOs in Mexico (Guzman, 2018).

The political debate on climate change remains at a high level and the federal government has not been able to push forward discussions on specific policy agendas. “The debate has been so general it has been very easy not to face the problem clearly”, argues Respondent 15. More specific debate needs to include discussions on the relationship between investments that Mexico is making to revive its petroleum industry versus its climate change goals; and the inconsistency between halving the national forestry commission’s budget and the NDC, which depends largely on mitigation achievements through the forestry sector (Respondent 15).

Strong opposition from the private sector to climate action has faded slightly over time, but has not gone away (Respondents 5, a government official and 13, a private sector expert). “There is now stronger consensus on what to do with climate change, but there are still sectors that are worried, especially about the obligations to reduce emissions”, explains Respondent 5. Pressure from the carbon-intensive sectors on the Government and the main

political parties is slowing down progress on climate policy (Respondents 3, 10, 13). An important debate is about the costs of mitigation and adaptation and who should pay for them (Respondents 4, 5, 10). “The main disagreement is still due to the confusion that reducing emissions can lead to less economic development”, explains an international organisation expert (Respondent 4), who continues, “There is also the argument that if other governments like the United States do nothing, why should Mexico?”

While the General Law on Climate Change shields long-term objectives for climate policy against future political change, alone it is not able to substitute for political will to implement the concrete policies necessary for achieving the goals. This message is fully consistent with the findings of our earlier study on the UK’s Climate Change Act (Fankhauser et al., 2018). What is required is a clear pathway for the economy overall and for each sector.

5. Recommendations

The adoption of the General Law on Climate Change has been an important step in advancing Mexico's efforts to address climate change. Significant progress has been made in operationalising and implementing the Law over the past five years. However, the experts interviewed for this study point to several essential improvements to the infrastructure it has set up and to its execution. Looking ahead, the major challenge for Mexico is how to address the gaps between the stipulations of the Law, its April 2018 amendments, and the actual ways in which climate change policy is developed and implemented.

Based on our review, we make the following recommendations.

1. Revive political leadership and commitment to implementation

Political leadership on climate change urgently needs to be revived and strengthened so that the administration incoming on 1 December 2018 can continue with good practices and translate technical, regulatory and scientific knowledge into concrete actions, in order to implement the Law effectively. One recommended option is to incorporate climate policy initiatives into the upcoming revised national development plan. The April 2018 amendments to the Law, which make it consistent with Mexico's NDC and set sectoral emission reduction objectives, provide a good basis for these efforts.

2. Improve clarity over institutional mandates and coordination between agencies and government levels

To effectively design and implement policies necessary to meet the objectives set in the General Law on Climate Change and in the NDC, Mexico needs to address the gap between the provisions in the legal frameworks and actual practices. Priority should be given to improving inter-sectoral coordination among (and within) the key agencies and vertical coordination between the federal, state and municipal levels. This requires clarification of the mandates and empowerment of the key institutions. In particular, the operation of the National System on Climate Change, and of the Inter-Ministerial Commission on Climate Change, need to be reviewed to ensure better functioning of the technical working groups and to improve the engagement of individual sectors. These improvements require political commitment and leadership at the highest level of government, including in the Ministry of Finance.

3. Empower state and local governments, and sectoral agencies

There is a need to strengthen capacity and to incentivise participation of the state and municipal governments, and sectoral agencies. This can be done through targeted guidance on the development of local climate change plans and through improving allocation of resources from the federal budget to adaptation and mitigation actions. Continued awareness-raising and training support on climate change policy is also important. Capacity-building efforts should prioritise the states with the most significant climate governance gaps, for example those that do not have a dedicated environment department.

4. Develop and implement a comprehensive climate finance strategy

Effective implementation of the General Law on Climate Change and of the NDC will be possible only if supported by adequate financial resources. Addressing the current gap in climate finance should be a priority for the Government. There is a need to define a clear climate finance mobilisation pathway, including improving budgeting processes for climate-related activities, for example by making the role of the Inter-Ministerial Commission on Climate Change more effective in this process. There also needs to be a more effective process for developing a project pipeline for financing that goes beyond previously planned sectoral activities.

5. Strengthen policy evaluation and accountability mechanisms

The lack of an independent and adequately resourced monitoring and evaluation mechanism is a significant barrier to the effective implementation of the General Law on Climate Change and the NDC. Periodic evaluation and review of the national policies and of their implementation could provide an informed basis for policy improvement, with parliamentary oversight and accountability.

6. Enable effective stakeholder input and participation

Effective, specialised input from stakeholders on climate policy is crucial for improving the quality of policy proposals. It is also important for ensuring transparency and for strengthening stakeholder buy-in and support for the policies and their active participation in their implementation. This requires strengthening the Consultative Council on Climate Change, including through allocation of resources for its operation.

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Appendix: Interview respondents

This study is based on 15 semi-structured interviews with active or former civil servants, Members of Parliament, policy experts and private sector representatives in Mexico, conducted over the period December 2017 to March 2018 (see Table A1 below). Respondents were selected to cover a range of relevant perspectives in an even manner, based on direct engagement in the climate change debate or policymaking.

The interviews were conducted in Spanish, transcribed and analysed qualitatively through thematic content analysis with the aid of NVivo software to identify the key themes, and to extract relevant direct quotes. Direct quotes have then been translated into English. These expert views were complemented with insights from the relevant literature.

Over the past six years some respondents have held more than one position, moving in and out of government, academia and NGOs, enabling them to comment on the General Law on Climate Change from several areas of experience and perspectives. In total the 15 respondents offer around 20 different perspectives (see Table A1). Six of the 15 respondents were women (40%).

All respondents could be characterised as being broadly supportive of climate change action. While we requested interviews from several private sector experts representing carbon-intensive companies, unfortunately none was granted.

Table A1: Areas of experience represented by the 15 respondents

Area of experience	Number of respondents based on position at the time of interview	Number of areas represented since 2012
Legislators (Respondents 2, 10)	2	5
Government officials , including from climate change and sectoral ministries, and INECC (Respondents 5, 6, 9, 14)	4	5
Private sector (Respondents 11, 13)	2	2
Other stakeholders , including:	7	9
NGOs/think tanks (Respondents 1, 3, 7, 12)	4	5
Academics (Respondent 8)	1	2
International organisations (Respondents 4, 15)	2	2