What are the next steps? Legal Perspectives on Mexico's General Law on Climate Change

The Mexico – US Climate Law Network

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Acknowledgements

This publication is part of a project to strengthen legal capacities in Mexico, to analyze and propose alternatives that facilitate climate change mitigation and the transition to a low carbon economy. It started as an initiative of the Ministry of the Environment and Natural Resources (Semarnat). In particular, we recognize the interest of Fernando Tudela (Undersecretary for Environmental Planning and Policy) and Roberto Cabral (Assistant Director General on Strategic Finance and Policy Analysis) from Semarnat, in prioritizing the building of national capacities in the legal field and in participating in the development and implementation of national climate policies. We also thank Alejandro Posadas (Minister Environmental Attaché representing Semarnat in Washington, DC) for his work in the development of this initiative.

This capacity building project has been made possible by USAID, through its Mexico Competitiveness Program. In particular, we appreciate the continued support from Tim Kessler and Santiago Enriquez at Abt Associates, Inc.

As part of this project, the Environmental Law Institute (ELI) organized a seminar on legal issues related to climate change in Washington, DC, targeted at lawyers from various federal agencies of the Mexican Government, who were then participating in the parliamentary discussion of the first initiatives on climate legislation in Mexico (2010). ELI is also working on a legal analysis of the requirements for Mexico to be able to participate in international carbon markets and pursue market readiness, focusing on regulatory alternatives to develop the National Registry of Greenhouse Gases Emissions (to be released in 2013). This analysis was preceded by proposals for further developing a legal agenda on climate change in Mexico (2012).

The most important component of the project, in our view, is the creation of the Mexico — US Climate Law Network. This Network benefits from the collaboration with the Cyrus Vance Jr. Center for International Justice, through Ruben Kraiem, who generously contributes his time and valuable knowledge to this project. We want to thank specially the recognized legal experts in both countries and the first members of the Network for their interest in joining this project. We also acknowledge the participation and support of Senator Ninfa Salinas Sada, Chair of the Committee on Environment and Natural Resources at the Mexican Senate, and key to the development of a legislative climate policy in Mexico.

At ELI, this project is coordinated by Alejandra Rabasa. ELI staff, involved in the development of this project includes Cory Connolly, John Pendergrass, and Meredith Wilensky.

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Presentation of the Project

Cory Connolly and Alejandra Rabasa

This publication**, "*What Are The Next Steps? Legal Perspectives on Mexico's General Climate Change Law*,"** is part of a broader project to strengthen legal capacities in Mexico regarding climate mitigation and the transition to a low carbon economy.

This project focuses on the creation of legal capacities for climate mitigation because, while Mexico has accomplished remarkable achievements in the development of climate policies, this progress has not been matched in the development of legal capacities regarding climate change. In regard to progress on climate policy, Mexico has developed the long-term National Climate Change Strategy (2007) and Special Climate Change Program (2009-2012), completed economic projections of climate change costs — such as the inaction costs estimated in the study Economy of Climate Change in Mexico[1], and generated and disseminated climate information — for example, Mexico has already submitted four National Communications on Climate Change and is preparing a Fifth to submit to the UNFCCC.[2] However, until the recent promulgation of the General Law on Climate Change on June, 2012, developments in the legal field to complement the efforts to address and cope with climate change in Mexico were far behind developments in other areas at the national level.

While continuing to develop and achieve progress economically, Mexico has taken a key leadership role on climate change internationally. Mexico's efforts haven't only been exemplary for developing countries, but for all countries. In 2009, Mexico made ambitious commitments toward addressing climate change during international negotiations in Copenhagen and in 2010 Mexico was host to COP 16 of the UNFCCC in Cancun. Continuing its international leadership, Mexico's General Law on Climate Change (GLCC) is an important and noteworthy development, but its details -- and therefore its effectiveness -- have yet to be determined by, among other components, the development of efficient regulations to create and implement key instruments like the Green Fund and the Registry for Greenhouse Gas Emissions.

1 All the publications are available at http://www.cambioclimatico.gob.mx/index.php/en/publicaciones.html

2 All available — including the document "Towards the Fifth national Communication" at http://www.ine.gob.mx/cpcc-lineas/596-cpcc-comnal

Even if it is considered by some to be largely aspirational, the GLCC has contributed to promoting an important debate about the best alternatives available for transitioning to a sustainable low-carbon economy, while shielding the competitiveness of Mexican industries, and protecting the environment and the natural resources. The GLCC has made clear the extent of topics related to adaptation and mitigation, providing a broad perspective of their cross-cutting nature. The Law establishes a mandate for the authorities responsible for the definition and implementation of the national climate policy to assess the results of the mitigation goals - the projected emissions reductions to be achieved through the actions proposed in the Strategy and the SPECC — and to provide an explanation of the divergences found between the proposed and achieved reductions path. In addition to this, the Law establishes that Mexico cannot reduce its mitigation pledges.

There are, however, several dissenting interpretations and opinions about the scope and purposes of the Law. According to some opinions, the Law does not contain any specific obligation for the sectors involved in the implementation of mitigation policies in fields such as the use and generation of energy, waste management or land use and land use changes and it only reflects the non-binding nature of Mexico's climate pledges, as an extension of its Non-Annex I status under the UNFCCC. In the opinion of others, the Law establishes a path for mitigation starting - like many systems, including the EU - with a process aimed at building capacities in the relevant sectors and by carrying out key actions such as developing the necessary legal framework and infrastructure for emissions reporting. The Law contemplates the possibility of using market-based instruments, voluntary and, if applicable, in a binding fashion in a second mitigation phase, to enhance the cost-opportunity of mitigation actions.

In the case of Mexico, it is also important to consider the course and tone of the international negotiations regarding the multilateral *Post- 2013* climate regime, and the definition of the scope and contents of the new instrument with legal force under construction in the UNFCCC context. As more convincing scientific evidence of the threats posed by global warming emerges, the stringent dividing line among developed and developing countries, in regard to mitigation obligations, is beginning to dissolve[3], and international financial institutions

3 See for example Professor Daniel Bodansky's explanation on the Durban Platform, significant for what it does not say: no reference to the 2007 Bali Action Plan or the two-track negotiations based on the division among developed and developing countries, and no reference to the principle of equity or the principle of common but differentiated responsibilities and respective capabilities.

Available at http://belfercenter.ksg.harvard.edu/publication/22196/durban_platform_negotiations.html

such as the World Bank are also warning about the imperative need to hold global warming below 2oC. As the world's 13th largest emitter of greenhouse gases, Mexico's challenges toward mitigating climate change are significant. As the realities and impacts of global climate change intensify, timely and effective tools and policy solutions are increasingly needed at all levels of government.

The creation of the Mexico — US Climate Law Network seeks to address these needs and facilitate collaboration and knowledge sharing around climate law and policy developments for Mexico and North America. The Network brings together interdisciplinary legal experts in each country to share knowledge on developments around law and policy tools on climate mitigation.

Toward this end, the Network seeks to develop legal outcomes that will benefit both countries.

Augmented by a collection of expert commentaries from members of the Mexico — US Climate Law Network, this publication presents, for the first time, a full English translation of Mexico's General Climate Change Law and the sets the stage for deeper discussion on what the law requires and what it means moving forward. Mexico's future greenhouse gas emissions and capacities to adapt to and cope with the impacts of climate change are dependent on the further development of a legal framework around climate change. With this in mind, this publication seeks to answer the following questions: What does Mexico's climate law require? What does the law mean for Mexico's mitigation efforts in the future and what options does Mexico have in addressing climate change?

There is considerable work that still needs to be done to make the GLCC an effective piece of legislation. This publication provides a series of short legal commentaries that identify both the challenges and opportunities presented through the GLCC. Moving forward, some of the keys to effective implementation include enhanced cohesion between levels of government and across agencies, an increased focus on the local level, and robust regulations. While there are numerous challenges, if these challenges are met, this law can offer great opportunity, both environmentally and economically. As some of the commentaries point out, this law and the potential market mechanisms that it allows to be developed, can create new economic opportunities in Mexico. This publication identifies a wide range of questions, concerns, and risks associated with the still uncertain framework laid out in the LGCC, but it also highlights opportunities and optimism, and signifies an opportunity for bi-lateral collaboration around these topics.

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Introduction

Senator Ninfa Salinas-Sada[1].

On October 10, 2012, Mexico's General Law on Climate change (LGCC) entered into force.[2] Approved by a large majority in the Chamber of Deputies and unanimously in the Senate, the LGCC takes another step to reaffirm the leadership role Mexico has assumed in the global fight against climate change. The following discusses some of the most relevant issues addressed by the Law.

Climate Change Adaptation

The LGCC establishes key elements to encourage adaptation of Mexico's natural and human systems to climate change. Federal, state and municipal authorities will all be responsible for meeting concrete goals, such as the development of risk maps, urban development programs that consider climate change, and a subprogram for the protection and sustainable management of biodiversity in the face of climate change.

We know that Mexico is one of the most vulnerable countries to the impacts of climate change, since 15% of our national territory, 68% of the population and 71% of the GDP are at high risk of suffering from direct impacts of climate change. 3 In Mexico, as in the rest of the world, the most marginalized communities currently are and will be the most impacted by the effects of climate change.

Regarding our biodiversity,—which includes between 60-70% of the species on the planet responsible for providing ecosystem services fundamental to the quality of people's lives—the Intergovernmental Panel on Climate change estimates that Mexico is one of the few countries that could conserve the majority of its natural capital. This will occur only if we stop the rapid deterioration of the country's ecosystems and allow adaptation to changing climatic conditions.

Mitigation of National Greenhouse Gas Emissions

In 2000, Mexico ranked 13 among the 25 countries with the most greenhouse gas emissions. Even if only fossil fuels emissions are considered, Mexico would

1 Chair of the Committee on Environment and Natural Resources of the Mexican Senate.
2 Published in the *Official Gazette of the Federation* on June 6, 2012.
3 Intergovernmental Panel on Climate Change 2009-2012.

still be in 15th place. Additionally, Mexico is in 16th place globally for its annual deforestation rate between 1950 and 2000.

The LGCC reaffirms Mexico's pledge in the Copenhagen Accord to reduce emissions by 30% from its baseline by 2020 and by 50% from 2000 levels by 2050.4 To achieve this goal, the LGCC encourages the gradual development of a mitigation policy in two phases, starting with a process to build national capacities for mitigation, by preparing those sectors that will play an important role in emissions reductions in the future. Going through this phase is indispensable in a country like México where, the sustainable management of natural resources and environmental protection, should be balanced with economic growth, and improvement of social conditions.

Another key element of the national mitigation policy is contained with the Third Transitory Article of the LGCC, which establishes the goal of transitioning to a zero percent rate of carbon loss in original ecosystems. This goal implies that every decision resulting in a change in the use Mexico's forest land will require calculation of the resulting loss of carbon, so that it can be offset by its carbon equivalent elsewhere.

What Next?

We know that the journey is just beginning and that the implementation of the LGCC will present many new challenges for Mexico. My experience as the Chair of the Environmental Committee in the Chamber of Deputies in the past legislative session of the Federal Congress — during which I had the honor of learning the different visions and working on developing consensus among a majority of the parliamentary groups and social sectors — reaffirmed my conviction that it is possible to build a long-term national climate action strategy for Mexico with the support of all sectors and political actors.

The challenge remains for the local congresses to develop the laws that permit implementation of the LGCC at the state and municipal levels. These laws are essential for the consolidation of national adaptation and mitigation policies. Additionally, the Federal Congress will continue to play a major role in this process, because, as the LGCC clearly demonstrates, climate change is a cross-cutting issue, covering all sectors of development. As such, we must examine how to strengthen specific legislation in areas such as energy, transportation, urban development, waste management, and protection of biodiversity.

4 The Third Transitory Article of the LGCC. Since Mexico is not an UNFCCC Annex I country, it is understood that these goals can be achieved with the development an international regime provides financial and technological mechanisms for developed countries to support developing countries.

As for the Federal Executive, it is left with the task of creating regulations to implement several actions contemplated in the LGCC, such as developing a national greenhouse gas registry; strengthening the institutional framework established by the Law; creating the Green Fund; and designing new and efficient market-based instruments that allows Mexico to participate in the international developments in this field in the future.

Above all, it must be stressed, as required by the LGCC, that in any case the Mexican climate action strategy must reverse or reduce the goals that we have set so far. The LGCC has established that Mexico's vision will move forward.

The Mexico — US Climate Law Network: Advancing Climate Mitigation through Bi-Lateral Collaboration

Members

Mexico

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Mr. Alanis obtained an L.L.M degree from American University Washington College of Law. He is the founder and Executive Director of *Centro Mexicano de Derecho Ambiental* (CEMDA), a non-governmental and independent organization seeking to promote sustainable development in Mexico, through the development and enforcement of environmental legislation. CEMDA has offices in Mexico City, Valle de Bravo, Estado de México, La Paz, Baja California South and in Cancún, Quintana Roo. Mr. Alanis is a member of the Board of Directors of the Water Advisory Council, the Citizen Participation Group of *Petróleos Mexicanos* (Pemex), the Advisory Council for Sustainable Development, the Citizens Committee of the Office of the Prosecutor for the Environment and Territorial Planning of the Federal District (PAOT); the Board of Directors of Appleseed, and the Editorial Board of the environmental journal *Equilibrio* (Reforma Group). He is an academic at the *Universidad Iberoamericana* in Mexico City and a columnist for the newspaper *El Financiero*.

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Gabriela González Merla

Ms. González-Merla is founding partner of the Law Firm LAGUNA, in alliance with the Firm Woodhouse, Lorente, Ludlow. She has dual training and practice in the fields of corporate and environmental law, with 12 years of experience and specialization on climate change. Ms. González-Merla was Director of the European branch (located in Paris, France) of the Firm Goodrich, Riquelme and Associates (advising European companies interested in investing in Mexico). She has been recognized as a leading environmental lawyer by publications such as "Who´s Who Legal Mexico" and "Chambers & Partners Global". Since 2000, Mr. González-Merla has specialized in providing legal advice for greenhouse gas reduction projects in Mexico and Latin America (Chile, Colombia, Dominican Republic, Bolivia, Argentina), obtaining certification for emission reductions under international or regional programs (such as the Kyoto Protocol, voluntary regimes or United States regional regimes including the Climate Action Reserve). She has advised European companies and governments on the purchase of Certified Emission Reductions (CERs) and on the development of legal audits for said purchases. Mr. González-Merla has also experience in the development of Programmatic Clean Development Mechanisms projects (CDMs), having provided legal advice for the first Programmatic CDM registered worldwide by the United Nations ("Cuidemos México"), as well as other 6 Programmatic CDMs developed by the Bank of Mexico, Rural Finance (FIRA) and the Mexican Energy Regulatory Commission. Together with MGM Innova and Ernst & Young, Ms. González-Merla participated in the coordination and elaboration of the Legal Guide for Coordinating Entities of Programmatic CDMs, funded by the GIZ Agency (Germany) as part of a joint initiative with the Development Bank KfW. She was also a member of the team of advisors responsible for the review and final drafting of the Opinion on the General Climate Change Law initiative at the Chamber of Deputies in the Mexican Congress. She is a lawyer graduated from the *Escuela Libre de Derecho* and holds an L.L.M degree in Environmental Law by the London School of Economics. She is also a member of the Bar Association of Paris (2010).

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Ms. Grunstein is currently a full-time research professor in the Legal Studies Division of the Center for Economic Research and Teaching (CIDE). Her research focuses on the areas of energy and utility regulation, public property and infrastructure projects. In addition to teaching various courses at CIDE, she teaches Energy Law in the Master of Administrative Law and Regulation at the *Instituto Tecnológico Autónomo de México* (ITAM). Before joining the CIDE she worked as an attorney practicing Energy Law at the Firm Thompson & Knight Lawyers; and was a legal advisor to Newfoundland Energy (Subsidiary of Tidelands Oil and Gas, Corp.). Ms. Grunstein also acted as an advisor to the Head of the Energy Regulatory Commission in Mexico. She is a law graduated ITAM and has holds Masters and PhD degrees in Hispanic and Luso-Brazilian Literature by the University of New York. Dr. Grunstein is a candidate to the National System of Researchers. She is the author of several publications and has been awarded with various distinctions including the Prize "Fernando Cuevas' 2010-2011 with the essay" Monopolies and Public Policy Change in Mexico. Bastions ¿Strategic Change or Barriers?"; and the Robert D. Cooter Award (2000), awarded by the Academy of Law and Economics with the essay entitled "Heavenly Creations Business vs. Mundane. The controversy of Copyright in Mexico after NAFTA".

Victoria Haro

Ms. Haro holds a law degree from the *Instituto Tecnológico Autónomo de México* (ITAM) and a PhD in Economics from Columbia University, majoring in Law and Economics. She was a full-time professor of Economic Analysis of the Law at ITAM (1996 to 2004). From 2004 to 2006 she served as advisor to the municipal government of Valle de Bravo, where she coordinated the development of the Municipal Urban Development Plan and promoted the establishment in 2006 of a federal natural protected area that includes most of the municipality of Valle de Bravo and seven additional municipalities. In 2004, Victoria co-founded *Corteza*, responsible for the creation of Trust Valle de Bravo, a fund to preserve the natural resources of Valle de Bravo, with federal, state and private capital. In 2006 she joined the Government of the State of Mexico where he served until 2008 as Special Projects Coordinator of the Basin Commission-Amanalco Valle de Bravo. Currently, Dr. Haro is Academic Dean of the *Universidad del Medio Ambiente.*

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He specializes in Environmental Law and has a vast experience in real estate transactions and mergers and acquisitions. Mr. de Icaza has been an active representative of top industrial groups, companies investment funds, real estate developers, and other investors related to the tourism, industry, commerce and residential sectors, providing legal advice for their operations in Mexico, regarding environmental, real estate and transactional issues. Mr. de Icaza obtained his law degree (JD) from the *Instituto Tecnológico Autónomo de México* (ITAM) (1997), and his Masters of Laws (LL.M) degree from McGill University in Montreal, Canada (2000). Mr. de Icaza studied a Post-Graduate Course on International Commercial Arbitration at the *Escuela Libre de Derecho* in Mexico City (1997), and a Post-Graduate Course on Environmental Law at ITAM (1998). He worked as an Associate in the Los Angeles Office of the Firm Paul Hastings, Janofsky & Walker; and was a legal advisor to several international investors in Mexico including GE Real Estate, Prudential Real Estate Investors Latin America, y Morgan Stanley Real Estate Fund, among others. Mr. de Icaza is ranked as one of the most highly recommended environmental attorneys in Mexico by "Chambers & Partners", "Practical Law Company", and "Who's Who Legal". He is also a member of the *Carbon Markets and Investors Association* desde el año 2010.

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Alejandro Posadas

Mr. Posadas currently works at the Embassy of Mexico in Washington, D.C., in a Diplomatic capacity, as Minister Environmental Attaché representing the Secretariat of Environment and Natural Resources of Mexico. Prior to this position, he was the Dean and Professor of Law at CIDE Law School in Mexico City. Along his professional experience, he worked as an associate lawyer with the International Trade Law Firm of Thomas and Partners in Vancouver, BC (currently merged into Borden, Ladner, Gervais LLP), and as a legal counsel at the Office of the Legal Advisor of the Mexican Secretariat of Foreign Affairs in Mexico City. Mr. Posadas has an LL.M. (95) and a doctoral degree (SJD, 03)

he received a Doctorado en Medio Ambiente y Desarrollo (DMAD) —a PhD in Environment and Sustainable Development—from the Centro Interdisciplinario de Investigaciones y Estudios sobre Medio Ambiente y Desarrollo of the Instituto Politécnico Nacional (IPN) in Mexico City. He represents Mexico at the Latin-American Science & Technology Development Program (CYTED). He is a Member of the Board of the Mexico-U.S. Commission for Educational and Cultural Exchange (COMEXUS) and Secretary of the Fulbright Alumni Association in Mexico. In Mexico and abroad, he serves as coordinator of or instructor in various graduate studies programs in environmental policy, management, and law.

United States

Michael B. Gerrard

Michael B. Gerrard teaches courses on environmental law, climate change law, and energy law, and is director of the Center for Climate Change Law. He is also Associate Chair of the faculty of Columbia University's Earth Institute. From 1979 through 2008 he practiced environmental law in New York, most recently as partner in charge of the New York office of Arnold & Porter LLP. Upon joining the Columbia law faculty in 2009, he became Senior Counsel to the firm. A prolific writer in environmental law and climate change, Gerrard twice received the Association of American Publishers' Best Law Book award for works on environmental law and brownfields. He has written or edited ten books, including Global Climate Change and U.S. Law, the leading work in its field and the twelve-volume Environmental Law Practice Guide. His ninth book, The Law of Clean Energy: Efficiency and Renewables, was published in 2011. His tenth book, The Law of Adaptation to Climate Change: U.S. and International Aspects, was published in September 2012. Since 1986 he has been an environmental law columnist for the New York Law Journal. Gerrard was the 2004-2005 chair of the American Bar Association's 10, 000-member Section of Environment, Energy and Resources. He also chaired the Executive Committee of the New York City Bar Association, and the Environmental Law Section of the New York State Bar Association. He is a member of the executive committees of the boards of the Environmental Law Institute and the American College of Environmental Lawyers. Several independent rating services ranked Gerrard as the leading environmental lawyer in New York and one of the leading environmental lawyers in the world. Gerrard has taught courses at Yale School of Forestry and Environmental Studies and New York University Law School, and was a visiting distinguished scholar at Vermont Law School. He has also lectured on environmental law in Great Britain,

France, Netherlands, Denmark, China, India, Japan, Chile, Canada and throughout the United States.

Rubén Kraiem

Mr. Kraiem is a corporate partner with Covington and Burling LLP, who advises clients with business interests in Latin America, as well as companies based in Latin America who are engaged in cross-border acquisitions or financings. Mr. Kraiem has been involved in many significant life sciences, banking and insurance-related acquisitions and joint ventures in Latin America, as well as transactions in industries as diverse as telecommunications, media, real estate development, healthcare, and consumer products. Mr. Kraiem is also co-chair of the firm's Clean Energy & Climate Industry Group. He is a Committee Member at the Cyrus R. Vance Center for International Justice, Association of the Bar of the City of New York; Board Member of Resources for the Future (RFF, Washington, DC); and Honorary Trustee, Natural Resources Defense Council (NRDC, New York, NY). *Mr. Kraiem has been ranked in Legal 500 Latin America*, Corporate and M&A (2012) and *New York Super Lawyers*, International, Business/Corporate, and Energy & Natural Resources (2012). He is author and co-author of several publications including "Global Climate Change Negotiations: Evaluating the Cancún Summit" (*Covington E-Alert* 12/27/2010); "Challenges and Opportunities for Brazil in the Carbon Markets — The Unresolved Issue of Forest Conservation" (*International Business Transactions with Brazil,* 2008); "In Green Company" (*Foreign Policy* September/October 2005); "Leaving Money on the Table: Contract Practice in a Low-Trust Environment" (*42 Columbia Journal of Transnational Law 715,* 2004); and "Limits and Beyond: a report on the global environment" (Nathan Cummings Foundation in New York, 1993). Mr. Kraiem is a graduated from Harvard Law School (J.D., 1981 — *cum laude*) and from Yale University (B.A., 1978 — *summa cum laude).*

Franz T. Litz

Franz Litz is the Executive Director of the Pace Energy & Climate Center. Franz has advised more than 30 states and provinces in North America on climate change and energy policy matters. His recent work has focused on the potential for greenhouse gas reductions by the U.S. Environmental Protection Agency (EPA) and the states under the Clean Air Act, as well as other federal authorities. Franz is an accomplished and sought after facilitator who has convened state and provincial officials, environmental advocates and business interests around climate and energy policy. He has advised all three regional climate initiatives in North America, including the Regional Greenhouse Gas Initiative (RGGI), the Western Climate Initiative (WCI) and the Midwestern Greenhouse Gas Reduc-

tion Accord. Franz remains active in bringing states and provinces together from across the U.S. and Canada to cooperate on energy and climate change policy issues. Before joining the Energy & Climate Center in 2011, Franz was a senior fellow at the World Resources Institute in Washington, D.C. He led WRI's state and regional climate change initiatives, as well as WRI's engagement with the U.S. EPA. He also previously led the climate change efforts of New York State from a post within the New York Department of Environmental Conservation, where he was instrumental in forging the 10-state RGGI program to reduce emissions from the power sector. Prior to that, Franz was an energy and clean air lawyer for New York's environmental agency and for the large Boston law firm Brown Rudnick. Franz is a graduate of Boston College Law School, *cum laude*, and Union College, *magna cum laude*.

Roger R. Martella Jr.

Roger Martella is a partner in the Environmental Practice Group at Sidley Austin LLP. His work focuses on three main areas. First, he advises companies on developing strategic approaches to achieve their goals while responding to demands to address climate change, promote sustainability, and utilize clean energy. Second, Mr. Martella works in litigation and mediation of environmental and natural resource cases. Finally, he also advises multinational companies on compliance with international laws, primarily in the United States, China, and the European Union. 186 Sidley Lawyers were ranked in Chambers USA: America's Leading Lawyers for Business in 2012. Martella achieved an individual number on ranking for his work in Climate Change. 84 Sidley Lawyers were also recognized in Chambers Global: The World's Leading Lawyers for Business in 2012.

Mr. Martella previously served as the General Counsel of the United States Environmental Protection Agency. Mr. Martella also spent ten years litigating and handling complicated environmental and natural resource issues at the Department of Justice and the EPA. He is the author of many publications including "Lessons Learned: The EU and its Aviation Directive" (March/April 2012), and "Greenhouse Gas Controls: The Paths Forward in the Void of International and Domestic Action" (2010/2011).

General Law on Climate Change Mexico

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GENERAL LAW ON CLIMATE CHANGE

Title One
General Provisions

Sole Chapter

Article 1. The present Law is of public nature, of general interest and observance throughout the nation's territory and the areas over which the nation exercises its sovereignty and jurisdiction, and establishes provisions to combat the adverse effects of climate change. It is regulatory of the provisions of the Political Constitution of the United Mexican States in the areas of environmental protection, sustainable development, and preservation and restoration of the ecological equilibrium.

Article 2. The purpose of this Law is to:

I. Guarantee the right to a healthy environment and establish the concurrence of powers of the Federal Government, the States, and municipalities in the elaboration and implementation of public policies on climate change adaptation and mitigation of greenhouse gas emissions and compounds;

II. Regulate greenhouse gas and compounds emissions to achieve stabilization of their concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, considering, as appropriate, the provisions of Article 2 of the United Nations Framework Convention on Climate Change and other provisions deriving therefrom;

III. Regulate on actions for climate change mitigation and adaptation;

IV. Reduce the vulnerability of the country's population and ecosystems to the adverse effects of climate change, as well as create and strengthen national capacities to respond to such phenomenon;

V. Promote education, research, the development and transfer of technology, as well as innovation and dissemination, in the areas of climate change adaptation and mitigation;

VI. Establish the foundations for public participation; and

VII. Promote the transition to a competitive and sustainable low carbon emissions economy.

Article 3. For the purposes of this Law the following definitions are applicable:

I. Adaptation: Measures by and adjustments of, human and natural systems, as a response to projected or real climatic stimuli, or to their effects, which can limit the damages, or take advantage of its positive aspects.

II. Risk Atlas: A dynamic document whose evaluations of risk in vulnerable geographic regions or zones considers current and future climatic scenarios.

III. Climate Change: Variation in the climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and is additional to the natural climate variability observed during comparable time periods.

IV. Commission: Inter-Ministerial Commission on Climate Change.

V. Greenhouse Gas Compounds: Greenhouse gases, their precursors, and particles that absorb and emit infrared radiation into the atmosphere.

VI. National Communication: National report drafted periodically in compliance with the commitments established in the United Nations Framework Convention on Climate Change.

VII. Council: Council on Climate Change.

VIII. Convention: United Nations Framework Convention on Climate Change.

IX. Biological Corridors: Geographic routes that allow the interaction between species of wildlife and their migration within one or more ecosystems, maintaining the connectivity of the biological processes to prevent the isolation of populations.

X. Degradation: Reduction in the content of carbon in the natural vegetation, ecosystems, or soil due to human intervention, compared to a non-intervention scenario.

XI. Emissions: Release into the atmosphere of greenhouse gases and/or their precursors and aerosols, including as applicable, greenhouse gas compounds, in an area and for a period of time.

XII. Baseline Emissions: Estimate of the emissions, absorption, or capture of greenhouse gases or compounds associated with a baseline scenario.

XIII. Baseline Scenario: Hypothetical description of what can occur with the variables causing emissions, absorption, and capture of greenhouse gases and compounds.

XV. National Strategy: National Strategy on Climate Change.

XV. Capacity Building: Process for the development of technical and institutional capacities, in order to participate in all aspects of climate change adaptation, mitigation, and research.

XVI. Fund: Climate Change Fund.

XVII. Emission Sources: Any process, activity, service, or mechanism that releases greenhouse gases or compounds into the atmosphere.

XVIII. Greenhouse Gases: The atmosphere gas components, both natural and anthropogenic, which absorb and emit infrared radiation.

XIX. INECC: National Institute of Ecology and Climate Change.

XX. Inventory: A document containing the estimate of anthropogenic emissions by source and the absorption by sinks.

XXI. Law: General Law on Climate Change.

XXII. Clean Development Mechanism: A mechanism established by Article 12 of the Kyoto Protocol.

XXIII. Mitigation: The application of policies and actions aimed at reducing emissions at the source or improving the sinks for greenhouse gases and compounds.

XXIV. Program: Special Climate Change Program.

XXV. Kyoto Protocol: Kyoto Protocol of the United Nations Framework Convention on Climate Change.

XXVI. Certified Emissions Reductions: Emissions reductions expressed in tons of equivalent carbon dioxide and achieved through activities or projects certified by an entity authorized for such a purpose.

XXVII. Registry: National Emissions Registry.

XXVIII. Resilience: The capacity of natural and social systems to recover from, or withstand the effects of climate change.

XXIX. Resistance: The capacity of natural and social systems to persist in the face of the effects of climate change.

XXX. Risk: The probability of damage to people in one or more ecosystems arising from a natural or anthropogenic phenomenon.

XXXI. Secretariat: Secretariat of Environment and Natural Resources.

XXXII. Sink: Any process, activity, or mechanism, which removes a greenhouse gas and/or its precursors and aerosols from the atmosphere, including, as applicable, greenhouse compounds.

XXXIII. Tons of Carbon Dioxide Equivalent: A unit of measurement of greenhouse gases expressed in tons of carbon dioxide that produce the equivalent greenhouse effect.

XXXIV. Vulnerability: The degree to which a system is susceptible or unable to withstand the adverse effects of climate change, including climate variability and extreme phenomena. Vulnerability depends on the nature, magnitude, and speed of the climatic variation to which a system is exposed and its sensitivity and capacity for adaptation.

Article 4. In all matters not provided by this Law, the provisions of other laws in the subject matters regulated by this legislation shall apply.

Title Two
Distribution Of Powers

Sole Chapter
On the Federal Government, the States, and Municipalities

Article 5. The Federal Government, the States, the Federal District, and municipalities shall exercise their powers on climate change mitigation and adaptation in accordance with the distribution of powers set forth in this Law and in all other applicable Law.

Article 6. The functions established by this Law for the Federal Government will be exercised by the Executive Branch through the agencies and entities comprising the centralized and parastatal federal administration, in accordance with the powers established in this Law, la *Ley Organica de la Administracion Publica Federal* [the Organic Law for the Federal Public Administration], the *Ley Federal de Entidades Paraestatales* [Federal Law on Parastatal Entities], and all other applicable legal provisions.

Article 7. The Federal Government shall have the following powers:

I. Formulate and conduct the national climate change policy;

II. Design, coordinate, and implement the policy instruments provided for by this Law;

III. Propose, develop and publish, with the public's participation, the National Strategy and Program, as well as to implement, monitor and evaluate them;

IV. Develop, update, and publish the national risk atlas, and issue criteria to be considered in the developing of state-level risk atlases;

V. In order to develop the National Strategy and Program, establish procedures for holding public consultations with the public and private sectors, and society in general;

VI. Establish, regulate, and implement actions on climate change mitigation and adaptation, in accordance with this Law, ratified international treaties, and all other applicable legal provisions, within the following subject matters:

a) The preservation, restoration, conservation, management, and sustainable use of natural resources, terrestrial and aquatic ecosystems, and water resources;

b) Agriculture, cattle ranching, rural development, fishing, and aquaculture;

c) Education;

d) Energy;

e) Planning of national development;

f) Food sovereignty and security;

g) Prevention of and attention to diseases resulting from the effects of climate change;

h) Civil protection;

i) Federal transportation and communications;

j) Regional and urban development;

k) Demography;

l) Others so established under different laws;

VII. Incorporate criteria for climate change mitigation and adaptation into environmental policy instruments;

VIII. The creation and regulation of the Fund;

IX. Create, authorize, and regulate emissions trading;

X. Encourage scientific and technological research, the development, transfer, and deployment of technologies, equipment, and processes for climate change mitigation and adaptation;

XI. Promote education and the dissemination of culture in the field of climate change at all educational levels, as well as carry out educational and informational campaigns in order to sensitize the population as to the effects of the changes in the climate;

XII. Promote the co-responsible participation of society in the areas provided for by this Law;

XIII. Integrate and update the Climate Change Information System and provide public access to it, pursuant to the this Law and all other applicable legal provisions;

XIV. Formulate and adopt methodologies and criteria, issue legal provisions required for the creation, updating, and publication of the Inventory and, where appropriate, the state inventories, and require the responsible parties, the necessary information from the following categories of emissions sources:

a) Energy generation and use;

b) Transportation;

c) Agriculture, cattle ranching, forests, and other land uses;

d) Waste;

e) Industrial processes; and

f) Others determined by international institutions or competent authorities.

XV. Regulate, integrate, administer, publish, and update the Registry;

XVI. Develop and share methodologies for the economic valuation of emissions;

XVII. Establish the foundations and instruments required to strengthen institutional and sectorial mitigation capacities;

XVIII. Establish the foundations and instruments required to promote and sustain the competitiveness of the productive sectors, by moving towards a sustainable and low-carbon emissions economy, improved energy efficiency, and participation in emissions trading and national and international financing mechanisms;

XIX. Establish effectiveness and performance indicators to facilitate the evaluation of the results of the implementation of this Law, and their incorporation into the Climate Change Information System;

XX. Design and promote before the competent agencies, the creation and implementation of economic, fiscal, financial, and market-based instruments linked to climate change actions;

XXI. Collaborate with the States in the implementation of their climate change programs, providing the technical assistance they request and establish regional actions among two or more States;

XXII. Convene state and municipal governments, in order to develop concurrent actions on climate change mitigation and adaptation pursuant to their own respective authority;

XXIII. Develop comprehensive strategies, programs, and projects on climate change mitigation and adaptation in the fields of hydrocarbons and electric power, to ensure the efficient and sustainable use of the country's fossil and renewable energy resources, as provided by the Law on the Sustainable Use of Energy, and the Law on the Use of Renewable Energy and Financing of the Energy Transition, as applicable;

XXIV. Draft and propose budget provisions for adaptation and mitigation, in order to reduce the country's vulnerability to the adverse effects of climate change;

XXV. Issue recommendations to the States and municipalities, in order to promote actions in the field of climate change;

XXVI. Oversee and promote, to the extent of its authority, compliance with this Law and any other provision deriving from it, as well as to punish its violations;

XXVII. Issue the regulations and Mexican official standards [*normas oficiales mexicanas*] in the subject matters provided for under the Law, as well as to oversee their compliance; and

XXVIII. Any other provided to the Federal government by this Law or any other Law. .

Article 8. The States shall have the following powers:

I. Develop, conduct, and evaluate the state-level climate change policy, in concordance with the national policy;

II. Develop, regulate, conduct, and implement climate change mitigation and adaptation actions in accordance with the National Strategy and Program in the following areas:

a) Preservation, restoration, management, and sustainable use of ecosystems and water resources within their own jurisdictions;

b) Food security;

c) Agriculture, cattle ranching, rural development, fishing, and aquaculture;

d) Education;

e) Efficient and sustainable infrastructure and transportation;

f) Land-use planning of human settlements and urban development of population centers, in coordination with their municipalities or municipal districts [*delegaciones*];

g) Natural resources and environmental protection within their own jurisdiction;

h) Wastes requiring special handling;

i) Civil protection; and

j) Prevention of and attention to diseases resulting from the effects of climate change;

III. Incorporate climate change mitigation and adaptation criteria into their environmental policy instruments;

IV. Develop and implement their own climate change programs, by promoting public participation, listening, and responding to the public and private sectors, and society in general;

V. Establish criteria and procedures for evaluating and overseeing compliance with the state program in this field, as well as goals and effectiveness and performance indicators for the mitigation and adaptation actions implemented;

VI. Establish and administer local funds to support and implement actions in this field;

VII. Subscribe coordination agreements with the Federal Government, States and municipalities to implement mitigation and adaptation actions;

VIII. Foster scientific and technological research and the development, transfer, and deployment of technologies, equipment, and processes for climate change mitigation and adaptation;

IX. Develop comprehensive strategies, programs, and projects on the mitigation of greenhouse gas emissions in order to promote efficient and sustainable public and private transportation;

X. Carry out educational and informational campaigns to sensitize the population regarding the adverse effects of climate change;

XI. Promote the co-responsible participation of society in adaptation and mitigation actions, in accordance with the provisions of the applicable local laws;

XII. Elaborate and integrate information, in collaboration with INECC, regarding the categories of emission sources originating within their jurisdiction, for its incorporation into the National Emissions Inventory and, where appropriate, develop the state emissions inventories in accordance with the criteria and indicators developed by the Federal Government in this field;

XIII. Elaborate, publish, and update the state risk atlas, in coordination with their municipalities or districts [*delegaciones*], in accordance with the criteria issued by the Federal Government;

XIV. Establish the foundations and instruments for promoting the strengthening of institutional and sectorial capacity for confronting climate change;

XV. Design, and promote the development and adoption of incentives that lead to the implementation of actions, to fulfill the purpose of this law;

XVI. To enter into agreements with the social and private sectors, for the development of activities and joint investments, in order to comply with the program;

XVII. Negotiate and administer state funds to support and implement actions in this field;

XVIII. Oversee and promote, to the extent of their authority, compliance with this Law and any other provision deriving from it, as well as to punish their violations; and

XIX. Any other established by this Law or any other applicable legal provision.

Article 9. The municipalities shall have the following powers:

I. Develop, conduct, and evaluate climate change municipal policy, in accordance with national and state policy;

II. Develop and implement policies and actions to combat climate change, consistent with the National Development Plan, the National Strategy, the Program, and the State Program on climate change, and with applicable laws, regarding the following subject matters:

a) Provision of potable water and sanitation services;

b) Local ecological planning and urban development;

c) Natural resource and environmental protection within their own jurisdiction;

d) Civil protection;

e) Management of municipal solid waste;

f) Efficient and sustainable public transport for passengers within their own jurisdictions;

III. Foster scientific and technological investigation and the development, transfer, and deployment of technologies, equipment, and processes for climate change mitigation and adaptation;

IV. Develop comprehensive strategies, programs, and projects on climate change mitigation in order to promote efficient and sustainable public and private transportation;

V. Carry out educational and informational campaigns in coordination with the state and federal governments to sensitize the population regarding the adverse effects of climate change;

VI. Promote the strengthening of institutional and sectorial capacity regarding mitigation and adaptation;

VII. Participate in the design and implementation of incentives to promote actions to fulfill the purpose of this Law;

VIII. Assist federal and state authorities in the implementation of the National Strategy, Program, and State Program in this field;

IX. Negotiate and administer resources for implementing actions on climate change adaptation and mitigation;

X. Elaborate and integrate information, in collaboration with INECC, on the categories of emissions sources originating within their jurisdictions, for its incorporation into the National Emissions Inventory and, where appropriate, for its

inclusion in the emission inventories of the states, in accordance with the criteria and indicators developed by the Federal Government in this field;

XI. Oversee and promote, within their own authority, compliance with this Law, its regulatory provisions, and all other laws deriving thereof; and

XII. Any other established by this Law or any other applicable legal provision.

Article 10. The Federal Government and the States, with the participation where appropriate of their municipalities, may subscribe coordination or public participation agreements with civil society, on climate change matters,, which would include, among other elements, the actions, location, goals, and financial contributions by each party.

Article 11. The States and the municipalities will issue the necessary legal provisions to regulate the subject matters under their authority pursuant to this Law.

Article 12. Where applicable, the Government of the Federal District will exercise the powers and fulfill the obligations established by this Law to States and municipalities.

Title Three
National Institute of Ecology and Climate Change

Chapter I
General Provisions

Article 13. The National Institute of Ecology and Climate Change is hereby created as a decentralized entity of the federal public administration, pertaining to the federal environmental sector coordinated by the Secretariat of Environment and Natural Resources, it has independent legal personality, its own assets, and autonomous operational authority, in accordance with the provisions of the *Ley Federal de Entidades Paraestatales* [Federal Law on Parastatal Entities].

Article 14. The INECC headquarters will be in Mexico City, and, as permitted by budget availability, regional or state offices could be established if they are necessary for realizing its objective.

Article 15. The objective of INECC is to:

I. Coordinate and carry out scientific and technological research and projects on climate change, environmental protection, and preservation and restoration of ecological balance, with public and private academic and research institutions, both national and international;

II. Provide technical and scientific assistance to the Secretariat in the development, implementation, and evaluation of national policy on ecological balance and environmental protection;

III. Promote and share criteria, methodologies, and technologies for the sustainable use and conservation of natural resources;

IV. Assist in the preparation of qualified human resources in order to address the national problems regarding the environment and climate change;

V. Carry out prospective sectorial analyses and collaborate in the elaboration of strategies, plans, programs, instruments, and actions related to sustainable development, the environment, and climate change, including estimates of future costs associated with climate change and the benefits derived from actions taken to confront it;

VI. Evaluate compliance with adaptation and mitigation objectives established under this Law, as well as with goals and actions contained in the National Strategy, the Program, and the programs of the States, as referred to under this Law; and

VII. Issue recommendations on climate change mitigation and adaptation policies and actions, as well as on evaluation assessments in the area, carried out by the agencies of the centralized and parastatal federal public administration, the States, and the municipalities.

Article 16. INECC's assets shall be comprised of:

I. Real estate and all other assets, as well as fiscal contributions transmitted to it by the Federal, State or Municipal Governments, or by any other public entity

II. The donations, inheritances, bequests, and contributions made by individuals or any public or private institution, whether national or international;

III. The acquisitions, credits, loans, and in-cash or in-kind technical cooperation that it obtains from any public agency or entity, private institution, or national or international organizations in accordance with applicable legal provisions;

IV. The personal and real property, shares, fiscal contributions, or products it acquires by means of any title;

V. The resources allocated, as appropriate, in the Federal government's Expenditure Budget of the corresponding fiscal year;

VI. The income it obtains from:

a) The resources provided by the States and municipalities;

b) The funds obtained to finance specific programs;

c) The revenues generated for the services rendered and activities implemented;

d) The resources obtained from the marketing of its literary works, royalties, and all others that correspond to it;

VII. All other assets and fiscal contributions set by the laws and regulations, or received from other funds or contributions.

Article 17. The Governing Board shall be the maximum authority of INECC and shall be presided over by the head of the Secretariat of Environment and Natural Resources and comprised of the heads of the Secretariats of Agriculture, Livestock, Rural Development, Fishing, and Alimentation; Government; Social Development; Finance and Public Credit; Energy; and Health, as well as the head of the National Council on Science and Technology.

Each member of the Governing Board shall appoint an alternate holding the hierarchical level of undersecretary.

The members of the Governing Board shall have the right to participate and vote in the sessions of the Board. Its decisions shall be made by majority vote.

The Governing Board shall have the powers established by the Federal Law on Parastatal Entities and those set forth in its Organic By-laws.

Article 18. INECC shall be led by a Director-General appointed by the head of the Federal Executive Branch, and shall be bound by the decisions made by the Governing Board.

Article 19. In order to be appointed Director-General of INECC it is necessary to demonstrate experience, academic, technical, and administrative knowledge, in connection with environment and climate change national and international research, policies, and programs, as well as to satisfy the the requirements of the Federal Law on Parastatal Entities.

Article 20. The Director-General shall have the following powers:

I. Act as legal representative of INECC in the performance of its duties;

II. Administer INECC's divisions;

III. Administer its assets;

IV. Issue its manuals;

V. Sign agreements with the competent agencies on the implementation of programs and projects;

VI. Publish the results of their evaluation assessments, as well as suggestions and recommendations regarding the policies and actions on mitigation and adaption;

VII. Delegate powers within its authority; and

VIII. All other powers conferred to the Executive Director by legal provisions or regulations as well as by the INECC's Organic By-laws.

Article 21. The INECC's Organic By-laws will determine the divisions, organizational foundations, and powers and functions corresponding to its divisions, which must include an Executive Coordination for the Evaluation of Policies on Climate Change Mitigation and Adaptation, in accordance with the provisions established by Chapter Two of the present Title.

The Organic By-laws shall be elaborated by INECC's Governing Board.

Article 22. INECC shall have the following powers:

I. Coordinate, promote, and develop — with the participation of other agencies and entities as appropriate — scientific and technological research related to national policies on bio-security, sustainable development, environmental protection, preservation and restoration of the ecological balance, ecosystem conservation, and climate change, including the following issues:

a) Environmental and climate change policy and economics;

b) Mitigation of emissions;

c) Vulnerability and adaptation to climate change in Mexico;

d) Environmental clean-up;

e) Conservation and sustainable use of ecosystems and natural resources;

f) Conservation and sustainable use of wildlife, priority species and ecosystems, and migratory species;

g) Ecological land-use planning of the territory;

h) Prevention and control of pollution, hazardous materials and waste management, contaminated sites, and evaluation of eco-toxicological risks;

i) Monitoring and sharing of information regarding the possible risks to the environment and biological diversity from activities involving genetically modified organisms;

j) Research on efficient and sustainable public and private transportation.

II. Provide technical and scientific support to the Secretariat in the development, implementation, and evaluation of national policy on ecological balance and environmental protection;

III. Participate in the design of economic, fiscal, financial, and market-based instruments in connection to national policy on environment and climate change;

IV. Contribute to the design of environmental, climate change, and conservation policy instruments, as well as instruments regarding to the use of natural resources;

V. Propose the definition of priorities, as well as the allocation and optimization of Federal Government resources for research on the environment and climate change;

VI. Integrate the information to elaborate national communications to be submitted by the United Mexican States to the Convention;

VII. Assist the Commission in the drafting of the National Strategy and Program;

VIII. Integrate, monitor, and update the Inventory;

IX. Participate in the development of the methodologies required to calculate and compile information on emissions and absorption by sinks, from the categories of sources determined by this Law;

X. Foster the development of capacities in States and municipalities to create their emissions programs and inventories;

XI. Issue opinions in response to consultations received from other agencies and entities, as well as those provided in other laws;

XII. Propose the educational content of books, textbooks, and didactic materials in the field of climate change to the National Education System, in accordance with the *Ley General de Educacion* [General Law on Education];

XIII. Foster scientific, technological, and innovation-related capacity building on sustainable development, environment, and climate change, in coordination with the Secretariat of Public Education and the country's research and higher learning institutions;

XIV. Promote and conduct, as appropriate, coordinated studies with other academic and research institutions in the subject matters under its authority ;

XV. Assist the administrative units of the Secretariat in quantifying the costs of pollution and of the depletion of natural resources as a consequence of economic activities, in order to calculate the ecological — net domestic product;

XVI. Contribute to assessing the state of the environment in connection with international commitments, and to the development of policies to comply with these commitments;

XVII. Participate in the design of funding mechanisms which permit the implementation of research projects for conservation, sustainable use of natural resources and pollution control;

XVIII. Participate in the composition and decision-making of the National Technical Consultative Council on Conservation and Sustainable Use of Wildlife, as well as carry out scientific studies to identify endangered species, determine priority species and populations for conservation, and promote the creation of critical habitats and refuge areas;

XIX. Provide technical assistance to studies that propose and justify the establishment and re-categorization of natural protected areas and restoration zones of federal jurisdiction, as well as their respective management programs;

XX. Propose, promote, and provide technical assistance for the elaboration of regulations in the fields of ecological land-use planning; ecosystem and wildlife conservation; pollution and environmental quality; specimen collection for scientific and research purposes, exploitation for use in biotechnology, access to genetic resources, confined use, management, and mobilization; and the experimental release of genetically modified organisms in pilot and commercial programs;

XXI. Provide technical assistance to programs implemented in wildlife research centers;

XXII. Participate in scientific and research-, education-, and training-focused initiatives, committees, and consortia, both at the national and international levels;

XXIII. Promote the exchange of scientists before national and international research and teaching higher education institutions ;

XXIV. Promote entering into agreements and collaboration projects with national and international academic and research agencies and institutions, as well as to share their results;

XXV. Organize, take part in, and present, at national and international conferences and workshops, research on the science or regulatory developments, in connection with the activities of the INECC;

XXVI. Publish books, periodical publications, catalogs, manuals, articles, and technical reports on work carried out in the areas under its authority;

XXVII. Participate in the dissemination of scientific environmental information among the productive, governmental, and social sectors;

XXVIII. Perform as a reference laboratory in the fields of analysis and calibration of equipment for measuring atmospheric contaminants, hazardous waste, and in the detection and identification of genetically modified organisms; and

XXIX. Exercise the powers expressly conferred upon it by other laws as a decentralized public body and those set forth in its Organic By-laws.

Chapter Ii
Of the Coordination for Evaluation

Article 23. The Coordination for Evaluation shall be comprised of the head of INECC and six civil society advisors — representatives of the scientific, academic, technical, and industrial sectors, with broad experience in the environmental field, particularly in issues related to climate change.

The civil society advisors shall remain in their positions four years and may only be reelected once. They will be appointed by the Commission, upon an open public process conducted by the head of INECC.

The work program, evaluation assessments, decisions, and recommendations of the Coordination for Evaluation shall be approved by a simple majority of its members.

Article 24. The Coordination for Evaluation will have a technical secretary in charge of implementing its decisions, who will be the head of the Climate Change Coordination at INECC — and who will not have a lower administrative level to that of Director General..

Article 25. The evaluation of climate change national policy can be carried out by the Coordination for Evaluation or by one or more independent organizations.

Participating independent evaluation organizations must be higher education, scientific research institutions, or non-profit organizations. When the evaluations are carried out by an organization other than the INECC´s Coordination for Evaluation, the latter shall issue a public call for proposals, adjudicate the contract, and resolve any other pertinent matter to the extent of the applicable legal provisions.

The agencies and entities of the centralized and parastatal federal public administration, States, and municipalities that implement climate change mitigation or adaptation programs shall provide any information required by the Coordination for Evaluation, for the discharge of their duties, pursuant to transparency and access to information applicable provisions.

Title Four
National Policy on Climate Change

Chapter I
Principles

Article 26. The following principles shall be observed in the formulation of the national climate change policy:

I. Sustainability in the exploitation or use of ecosystems and of their natural elements;

II. Co-responsibility between the State and society in general in carrying out actions to mitigate and adapt to the adverse effects of climate change;

III. Precautionary Principle, when there is a grave or irreversible threat; the lack of absolute scientific certainty shall not be used as a reason for postponing mitigation and adaptation measures to confront the adverse effects of climate change;

IV. Preventive Principle, as the most effective way to avoid environmental damage and preserve the ecological equilibrium from the effects of climate change;

V. Adoption of production and consumption patterns by the public, social, and private sectors to transition to a low carbon emissions economy;

VI. Comprehensiveness and Cross-Sectoralism to ensure the implementation of the national climate change policy, focusing on coordination and cooperation among the different levels of government and the social and private sectors;

VII. Public participation in the development, implementation, monitoring, and evaluation of the National Strategy, plans, and programs on climate change mitigation and adaptation to the effects of climate change;

VIII. Environmental Liability, anyone carrying out actions or activities that affect or could affect the environment, must prevent, minimize, mitigate, repair, restore, and ultimately, compensate the damages;

IX. The use of economic instruments for climate change mitigation, adaptation, and the reduction of vulnerability, constitute incentives for the protection, preservation, and restoration of the environment; as well as the sustainable use of natural resources; in addition to generating economic benefits to those implementing them;

X. Transparency and access to information and to justice, taking into consideration that authorities from the different levels of government shall facilitate and promote public awareness, by making available climate change information, and providing effective access to adequate judicial and administrative remedies, in accordance with applicable legal provisions;

XI. Conservation of ecosystems and their biodiversity, giving priority to wetlands, mangrove swamps, reefs, dunes, and coastal zones and lagoons that provide environmental services which are fundamental for reducing vulnerability; and

XII. Commitment to the economy and national economic development, to achieve sustainability without undermining its competitiveness in international markets.

Chapter Ii
Adaptation

Article 27. National policy on adaptation to climate change shall be based on analysis, planning, measuring, monitoring, reporting, verification, and evaluation instruments, and shall pursue the following objectives:

I. Reduce the vulnerability of society and ecosystems to the effects of climate change;

II. Strengthen the resilience and endurance of natural and human systems;

III. Minimize risks and damages, considering current and future climate change scenarios;

IV. Identify the vulnerability and capacity for adaptation and transformation of ecological, physical, and social systems, and take advantage of opportunities generated by new climatic conditions;

V. Establish mechanisms for immediate response to areas impacted by the effects of climate change- as a component civil protection plans and actions; and

VI. Facilitate and promote food security; productivity in the areas of agriculture, cattle ranching, fishing, and aquaculture; and the preservation of ecosystems and natural resources.

Article 28. Federal, State and municipal authorities, to the extent of their own powers, shall include adaptation actions in the design of public policies, the National Strategy, the Program and the State programs, in the following areas:

I. Comprehensive risk management;

II. Water resources;

III. Agriculture, cattle farming, forestry, fishing, and aquaculture;

IV. Ecosystems and biodiversity, especially in coastal, marine, high-mountain, semi-arid, and desert zones; forest resources; and soils;

V. Energy, industry, and services;

VI. Transportation and communication infrastructure;

VII. Ecological land-use planning of the territory, human settlements, and urban development;

VIII. General Health and public health infrastructure; and

IX. All others deemed to be priorities by the authorities.

Article 29. The following are considered to be adaptation actions:

I. Ascertaining the natural use of the soil;

II. The creation of urban population centers or human settlements, as well as actions taken for their development, improvement and conservation;

III. The management, protection, conservation, and restoration of ecosystems, forest resources, and soil;

IV. The conservation, sustainable use, and rehabilitation of beaches, coasts, federal terrestrial maritime zones, lands reclaimed from the sea, and any other reservoir formed by coastal waters; for touristic, industrial, agricultural, fishing, aquaculture, or conservation uses;

V. Water programs for watersheds;

VI. The construction and maintenance of infrastructure;

VII. The protection of flood zones and arid zones;

VIII. The use, rehabilitation, and establishment of irrigation districts;

IX. Sustainable use in rural development districts;

X. The establishment and conservation of natural protected areas and biological corridors;

XI. The development of risk atlases;

XII. The creation and implementation of the rules of operation for subsidy programs and investment projects;

XIII. Conservation and sustainable use of biodiversity programs;

XIV. The National Civil Protection System's programs;

XV. Programs regarding human settlements and urban development;

XVI. Programs in the field of touristic development;

XVII. Prevention programs targeting diseases resulting from the effects of climate change; and

XVIII. Strategic infrastructure related to water supply, healthcare, and the production and supply of energy sources;

Article 30. The agencies and entities of the centralized and parastatal federal public administration, States, and municipalities shall implement adaptation actions within their own authority, in accordance with the following provisions:

I. Elaborate and publish risk atlases, considering current and future vulnerability scenarios in the face of climate change, giving preferential attention to the most vulnerable populations and the zones with a higher risk level, such as islands, coastal zones, and river deltas;

II. Utilize the information contained in the risk atlases to draft urban development plans, construction regulations, and land-use planning, in the States and municipalities;

III. Propose and foster mechanisms to raise and obtain funds for use in the protection and relocation of human settlements that are most vulnerable to the effects of climate change;

IV. Establish environmental protection and contingency plans to respond to extreme meteorological events in high-vulnerability areas, natural protected areas, and biological corridors;

V. Establish protection and contingency plans for touristic destinations, as well as for sustainable tourism development zones;

VI. Develop and implement programs to strengthen capacities, including measures to promote training, education, access to information, and communication among the population;

VII. Train human resources specialized in extreme meteorological phenomena;

VIII. Strengthen programs on epidemiological prevention and risk;

IX. Improve early-warning systems and the capacity to predict current and future climatic scenarios;

X. Elaborate assessments to measure damage to water ecosystems, including the available volumes of water and their territorial distribution;

XI. Promote the sustainable use of superficial and underground water sources;

XII. Promote the recharge of aquifers; the mechanization of the country's irrigation surface; production under sustainable agriculture practices, as well as sustainable cattle ranching, forestry, fishing, and aquaculture practices; the development of resistant varieties, short-cycle replacement crops, and early-warning systems to predict precipitation and/or abnormal temperatures;

XIII. Promote the collection of fiscal contributions, and the establishment of tariffs for water usage, which shall include payment for the environmental hydrological services provided by the ecosystems and shall be invested in their conservation;

XIV. Elaborate and issue programs for sustainable land management;

XV. Operate the National System and the National Center of Genetic Resources, and identify management measures to ensure the adaptation of priority species and particularly the adaptation of those species vulnerable to climate change;

XVI. Identify management measures to ensure the adaptation of endangered and priority for conservation species that are particularly vulnerable to climate change;

XVII. Develop and implement a special program for the protection and sustainable management of biodiversity in the face of climate change within the framework of the National Biodiversity Strategy. The special program shall pursue the following goals:

a) Foster research, knowledge, and recording of climate change impacts in ecosystems and their biodiversity, both in the national territory, as well as in areas over which the nation exercises its sovereignty and jurisdiction;

b) Establish adaptation measures based on the preservation of ecosystems, their biodiversity, and the environmental services they provide to society;

XVIII. Strengthen the resistance and resilience of terrestrial ecosystems, beaches, coasts, federal terrestrial maritime zones, wetlands, mangrove swamps, reefs, and marine and freshwater ecosystems through actions to restore ecological integrity and connectivity;

XIX. Promote the adoption of sustainable management practices for agriculture, forestry, fishing and aquaculture resources;

XX. Address and control the effects of invasive species;

XXI. Generate and systematize information regarding climatic, biological, and physical parameters related to biodiversity to enable the evaluation of the impacts of and vulnerability to climate change;

XXII. Establish new natural protected areas, biological corridors, and other tools for conservation, as well as priority zones for ecological conservation, to facilitate genetic exchange and promote the natural adaptation of biodiversity

to climate change through the maintenance of, and increase in, native vegetative cover, wetlands, as well as other management measures; and

XXIII. Carry out vulnerability assessments in the energy sector and develop comprehensive adaptation programs and strategies.

Chapter Iii
Mitigation

Article 31. The national policy on climate change mitigation shall include, through the planning, policy, and economic instruments set forth in this Law, a diagnosis, planning, measuring, monitoring, reporting, verification, and evaluation of national emissions.

This policy should establish plans, programs, actions, and economic, policy, and regulatory instruments for gradually achieving reduction goals for specific emissions by sector and activity, taking as a reference point the baseline scenarios and baselines by sector that are established in the instruments under this Law, and considering the international treaties on climate change to which Mexico is a Party.

Article 32. The national mitigation policy shall be implemented, in accordance with Mexico's international commitments, on a gradual basis, starting with strengthening national capacities on mitigating emissions and adapting to the adverse effects of climate change, prioritizing the sectors with greatest potential for reduction, and ending with those sectors bearing the highest costs.

Policies and activities imposing or transferring costs to the private sector or to society in general can be implemented in two phases, provided there are no international funds or funding sources to cover for the implementation costs of such activities and policies, and provided the identification of areas of opportunity for the regulated sectors:

I. Strengthening of national capacities of the regulated sectors, in which the policies and activities to be developed shall be implemented on a voluntary basis, considering:

a) Analyses of the different tools and mechanisms available for reducing emissions in the sector-activity under study, including the cost of implementation of each one of them;

b) Analysis of the measurement, reporting and verifying tools and mechanisms to be used;

c) Analysis of the establishment of sector level baselines;

d) Study of the economic and social consequences of alternative tools and mechanisms, including the transfer of costs to other sectors of society or to the final consumer;

e) Analysis of the competitiveness of Mexican products in the international market, after having applied the emissions reduction tool or mechanism under study in the sector being analyzed, if applicable;

f) Determination of the emissions-reduction goals to be achieved in the sector under analysis, considering the costs of the emission reductions or capture, and its contribution to the country's total emissions reduction goals;

g) Analysis of the electricity generation sector, including the costs of social and environmental externalities, as well as the costs of emissions in the electric power generation target sources;

h) Analysis of the performance of the industrial sector subject to mitigation measures, as compared to production indicators in other countries and regions.

II. Establishment of specific emission reduction goals, considering the contribution of the respective sectors to the country's greenhouse gases or compounds emission , taking into consideration:

a) The availability of financial and technological resources for the sectors comprised under the specific reduction goals to be achieved through the instruments provided for in this Law;

b) The cost-efficiency analysis of the policies and actions adopted for reducing emissions by sector, prioritizing those actions that foster a larger reduction of emissions at a lower cost.

Article 33. The objectives of mitigation public policies are:

I. Promote environmental protection, sustainable development, and the right to a healthy environment through the mitigation of emissions;

II. Reduce national emissions by means of policies and programs that promote the transition to a sustainable, competitive, low carbon-emissions economy, including market-based instruments, incentives, and other alternatives that improve the cost-efficiency relationship of the specific mitigation measure, by reducing their economic costs and promoting competitiveness, technology transfer, and technological development;

III. Promote the gradual substitution of fossil fuels use and consumption with renewable energy sources, as well as the generation of electricity through the use of renewable energy;

IV. Promote energy efficiency practices, the development and use of renewable energy sources, and low carbon technology transfer and development, particularly in public buildings and equipment of the Federal centralized and parastatal public administration, the States, and the municipalities;

V. Prromote — in a priority manner- mitigation technologies whose greenhouse gas emissions and compounds have low-carbon content throughout their lifecycle;

VI. Promote the alignment and coherence of the programs, budgets, policies, and actions of the three levels of government, so as to curb and revert the deforestation and degradation of forest ecosystems;

VII. Measure, report, and verify emissions;

VIII. Reduce the burning and venting of gas so as to reduce losses in the extraction processes and distribution systems and guarantee the extraction of maximum advantage from the gas in industrial, oil, gas, and refining facilities;

IX. Promote the use of gas associated to the exploitation of coal ore deposits;

X. Promote efficient cogeneration so as to prevent atmospheric emissions;

XI. Promote the exploitation of the energy potential contained in waste;

XII. Promote the development of mass public transportation with high efficiency standards, by favoring the substitution of fossil fuels and the development of sustainable urban and suburban transport systems, both public and private;

XIII. Develop economic and fiscal incentives to promote the development and consolidation of industries and companies that are socially responsible with the environment;

XIV. Promote the channeling of international funds and resources for financing greenhouse gases and compounds mitigation projects and programs to the public, social, and private sectors;

XV. Promote the participation of the social, public, and private sectors in the design, development, and implementation of national mitigation policies and actions; and

XVI. Promote competitiveness and growth, so that the national industry can satisfy the national demand for goods, preventing the entry of foreign products that generate emissions in their production, due to less-restrictive regulations than those imposed on the national industry.

Article 34. In order to reduce emissions, the agencies and entities of the federal public administration, the States, and the municipalities shall promote, within their own authority, the design and development of mitigation policies and actions in connection with the appropriate sectors, taking into consideration the following provisions:

I. Emissions reduction in the generation and use of energy:

a) Promote practices of energy efficiency and the use of renewable energy sources, as well as the transfer of low-carbon emissions technology, in accordance with the *Ley para el Aprovechamiento Sustentable de la Energia* and the *Ley General para el Aprovechamiento de Energias Renovables y el Financiamiento para la Transicion Energetica* [Law on Sustainable Use of Energy and the Law on the Use of Renewable Energy and Financing of the Energy Transition].

b) Develop and apply incentives for public and private investment in the generation of electrical energy from renewable resources and efficient cogeneration technologies. These incentives shall be included in the National Strategy, National Energy Strategy, Prospectus of the Electricity Sector, and Sector Energy Program.

c) Establish economic and technically feasible mechanisms to promote the use of better practices in the activities of extraction, transport, processing, and utilization of hydrocarbons, so as to prevent fugitive emissions of gas.

d) Include the cost of social and environmental externalities, as well as the cost of emissions, in the selection of the sources for electric power generation.

e) Promote the use of renewable energy for electricity generation in accordance with the applicable legislation in this area.

f) Promote the transfer of technology and funding to reduce the burning and venting of gas, so as to diminish the resulting losses in the extraction processes and distribution systems, and promote its sustainable exploitation.

g) Develop policies and programs aimed at implementing efficient cogeneration for reducing emissions.

h) Promote energy-efficient and low-carbon emissions technology-transfer practices.

i) Adopt legal provisions and develop policies for the construction of green buildings, including the use of ecological materials and of efficient and sustainable energy.

II. Emissions reduction in the transportation sector:

a) Promote investment in the construction of bike lanes or infrastructure for non-motorized transport, as well as implement transit regulations which promote the use of bicycles.

b) Design and implement comprehensive public transportation systems and sustainable mobility programs in urban or suburban areas, so as to reduce travel times, the use of personal vehicles, transportation costs, energy consumption, and the incidence of respiratory illnesses, as well as to increase regional economic competitiveness.

c) Elaborate and implement urban development plans and programs that include criteria related to energy efficiency and the mitigation of direct and indirect emissions generated by transport and the services required by the population, thereby preventing the dispersion of human settlements and attempting to take advantage of vacant urban spaces in the cities.

d) Create mechanisms to allow the mitigation of direct and indirect emissions related to the provision of public services, housing planning, and construction and operation of public and private buildings, commerce, and industries.

e) In order to reduce employees travel and services, establish programs that promote work from home, taking into consideration confidentiality issues.

f) Coordinate, promote, and implement transfer or housing rental programs to bring the population closer to its sources of employment and educational campuses.

g) Develop economic tools that enable companies to provide collective services for the transportation of employees to work centers, in order to reduce the use of automobiles.

III. Emissions reduction and carbon capture in the agricultural, forest, other land uses and preservation of ecosystems sectors:

a) Maintain and increase carbon sinks.

b) Curb and revert deforestation and degradation of forest ecosystems and expand the areas of vegetation and the organic carbon contained in the soil by applying sustainable management practices in agricultural areas.

c) Reconvert degraded agricultural lands into productive lands by means of sustainable agricultural practices, or devote them to ecological conservation uses and aquifers recharge.

d) Strengthen the programs for sustainable management and restoration of forests, tropical rain forests, wetlands, and coastal-marine ecosystems, considering in particular mangrove swamps and coral reefs.

e) Include, gradually, more ecosystems into conservation plans, such as: payment for environmental services, natural protected areas, units of sustainable forest management, and reduction of emissions from avoided deforestation and degradation.

f) Strengthen the fight against forest fires and promote and provide incentives for gradual reduction of the burning of sugar cane and slash-and-burn practices.

g) Promote synergies among programs and subsidies for environmental and agricultural activities. in order to strengthen the fight against forest fires.

h) Design and provide economic incentives for carbon absorption and conservation in natural protected areas and ecological conservation zones.

i) Design policies and implement actions for the protection, conservation, and restoration of riparian vegetation in the use, and exploitation of riverbanks in federal zones, in accordance with the applicable provisions of the *Ley de Aguas Nacionales* [National Water Law].

IV. Emission reductions in the waste sector:

a) Promote the development and installation of infrastructure and conduct actions to minimize and value waste and reduce and prevent methane emissions from urban solid waste.

V. Emissions reduction in the industrial processes sector:

a) Develop programs to provide incentives for energy efficiency in the activities related to industrial processes.

b) Develop mechanisms and programs that provide incentives for the implementation of clean technologies in industrial processes, reducing energy consumption and greenhouse gases and compounds emissions.

c) Provide incentives, foster, and develop the use of alternatives to fossil fuels so as to reduce the use of fossil fuels.

VI. Education and behavior, consumption, and production patterns changes:

a) Implement programs that raise awareness regarding the impact of patterns of production and consumption in the generation of greenhouse gas emissions and compounds.

b) Develop programs that promote patterns of sustainable production and consumption in the public, social, and private sectors, through economic incentives, especially in areas such as energy generation and consumption, transportation, and comprehensive waste management.

c) Provide incentives to and acknowledge companies and institutions that seek that their employees live close to work , shops, education and entertainment centers, as well as those that establish uninterrupted working shifts.

d) Develop policies and instruments to promote the mitigation of direct and indirect emissions originating in the provision of public services, housing planning and construction, and the construction and operation of public and private buildings, businesses, and industries.

Article 35. In order to promote the transition from fossil fuels to lower emissions electric power technologies, the Secretariat of Energy shall establish policies and incentives to promote the use of low-carbon emissions technologies, taking into consideration the fuel to be used.

Article 36. In coordination with the Secretariat of Finance and Public Credit and the Secretariat of Energy, to the extent of their own powers and authority, the Secretariat will promote the establishment of programs to provide fiscal and financial incentives to parties interested in participating in a voluntary manner in the implementation of emissions-reduction projects.

Article 37. Mitigation programs and instruments developed under the Kyoto Protocol, and any other program duly certified by an internationally-recognized organization, shall be recognized under this Law.

The regulations to this Law shall establish the requirements to be met for the recognition and registration of the programs and instruments referred to in this article.

Title Five
National Climate Change System

Chapter I
General Provisions

Article 38. The Federal Government, States and municipalities shall establish the bases for coordination, for the establishment and operation of the National Climate Change System, whose purpose is:

I. To serve as a permanent communication, collaboration, coordination, and concurrence mechanism, regarding the national climate change policy;

II. To promote the cross-cutting implementation of the national climate change policy in the short-, medium-, and long-term, through the participation of the authorities from the three levels of government within their respective powers and authority;

III. Coordinate the efforts of the Federal Government, the States, and municipalities to carry out adaptation, mitigation, and reduction of vulnerability actions, so as to confront the adverse effects of climate change through the policy instruments set forth in this Law and in all others deriving thereof; and

IV. Promote the concurrence, relation, and coherence, of the programs, actions, and investments made by the federal government, the states, and the municipalities, with the National Strategy and the Program,.

Article 39. The meetings of the National Climate Change System and their follow-up shall be coordinated by the holder of the Federal Executive Branch, who may delegate this responsibility to the Secretariat of Environment and Natural Resources.

Article 40. The National Climate Change System shall be comprised of the Commission, the Council, the INECC, the governments of the States, one representative for each of the legally-recognized national associations of municipal authorities, and representatives of the federal Congress.

Article 41. The National Climate Change System shall analyze and promote the application of the policy instruments established in this Law.

Article 42. The National Climate Change System may make recommendations to the Commission regarding the strengthening of mitigation and adaptation policies and actions.

Article 43. The National Climate Change System Coordinator shall convene its members to at least two meetings annually, and in an extraordinary manner, when the nature of a particular issue within its purview so requires.

Article 44. The mechanisms regarding the functioning and operation of the National Climate Change System shall be established in regulations issued for such purpose.

Chapter II
Inter-Ministerial Commission on Climate Change

Article 45. The Commission shall have a permanent nature and will be chaired by the holder of the Federal Executive Branch, who may delegate this function to the Secretariat of Government or the Secretariat of Environment and Natural Resources.

It shall be composed of the heads of the Secretariats of Environment and Natural Resources; Agriculture, Livestock, Rural Development, Fishing, and Alimentation; Health; Communication and Transportation; Economy; Tourism; Social Development; Government; Navy; Energy; Public Education; Finance and Public Credit; and Foreign Affairs.

Each participating secretariat shall designate one of its administrative units, represented by an official holding at least the level of director general, to coordinate and permanently monitor the work of the Commission.

Article 46. The Commission shall convene other governmental agencies and entities, including among others, the National Council on Science and Technology, and will invite to participate in their work representatives of the Council, Legislative and Judicial Branches, autonomous bodies, States and as appropriate, municipalities, as well as representatives from the public, social, and private sectors, when addressing issues within their responsibilities.

Article 47. The Commission shall exercise the following powers:

I. Promote the coordination of the actions between the agencies and entities of the federal public administration, in the area of climate change.

II. Develop and implement national policies on climate change mitigation and adaptation, and incorporate them into the corresponding sectoral programs and actions;

III. Develop the criteria for public policies on climate change to be cross-cutting and comprehensive, so that they may be applied by the agencies and entities of the centralized and parastatal federal public administration;

IV. Approve the National Strategy;

V. Participate in the elaboration and implementation of the Program;

VI. Participate with INEGI in determining the information that shall be incorporated into the Climate Change Information System;

VII. Propose and support studies and projects on technology innovation, research, development, and technology transfer, with respect to climate change national issues, and publish their results;

VIII. Propose alternatives for regulating market-based instruments provided in the law, taking into consideration the participation of the sectors involved;

IX. Promote the necessary actions to meet the objectives and commitments under the Convention and other agreements deriving thereof;

X. Make proposals for determining the national position at international forums and organizations regarding climate change;

XI. Promote, disseminate, and, where appropriate, rule on, emissions reduction or carbon capture projects under the Clean Development Mechanism, as well as regarding other instruments aiming at the same objective, provided they are recognized by Mexico;

XII. Promote the strengthening of national capacities for emissions mitigation and absorption monitoring, reporting, and verification;

XIII. Disseminate its work and results, as well as publish an annual report of activities;

XIV. Invite the social and private sectors organizations, as well as the society at large, to express their opinions and make proposals on climate change;

XV. In accordance with the appropriate legislation, promote recognizing the most distinguished efforts of society and the private sector to combat climate change;

XVI. Request advice to the Council on climate change policies, strategies, actions, and goals for dealing with the effects of climate change, and to base in Law and reason appropriately the decisions it eventually adopts;

XVII. Issue its internal regulations; and

XVIII. All others conferred by this Law, its regulations, and other legal provisions deriving thereof.

Article 48. The President of the Commission shall have the following powers:

I. Coordinate, direct, and supervise the work of the Commission and represent it in events related to its activities;

II. Propose the development and adoption of policies, strategies, and actions necessary to meet the objectives of the Commission;

III. Chair and convene ordinary and extraordinary sessions of the Commission;

IV. Propose the annual work program and present the annual activity report of the Commission;

V. As the representative of the National Designated Authority regarding the Clean Development Mechanism, sign the approval letters stating that the respective projects contribute to the country's sustainable development;

VI. In accordance with its internal regulations, appoint the members of the Consultative Council on Climate Change from among the candidates proposed by the members of the Commission.

VII. Sign memoranda of understanding and all other documents that may contribute to the better functioning of the Commission;

VIII. Promote the development in the country of Clean Development Mechanism projects and funding sources, before its counterparts in other countries;

IX. All others determined by the Commission's Internal Regulations or conferred to the President by consensus.

Article 49. The Commission shall have at least the following working groups:

I. Working Group on the Special Climate Change Program;

II. Working group on adaptation policies;

III. Working group on the reduction of emissions from deforestation and degradation;

IV. Working group on mitigation;

V. Working group on international climate change negotiations;

VI. Mexican Committee for greenhouse gas emission reduction and capture projects; and

VII. Others determined by the Commission.

The Commission may determine which working groups to create or merge in accordance with the procedures established by its Regulations.

Members of the public, social, and private sectors may be invited to participate in a working group, without the right to vote, where there are issues related to their authority or expertise..

Article 50. The Commission shall have a technical secretariat with the following powers:

I. Issue invitations to sessions of the Commission, subject to previous agreement with the President;

II. Carry out the registration and control of the minutes, agreements, and all other documentation related to the operations of the Commission;

III. Follow-up and encourage observance of the agreements of the Commission, the Council, and the Fund, and periodically inform of the progress made to the President; and

IV. All others established in the applicable Regulations.

Chapter III
Climate Change Council

Article 51. The Council is the permanent consultative body of the Commission, and shall be composed of a minimum of fifteen members from the social, private, and academic sectors, with recognized merits and experience in the field of climate change and whom shall be appointed by the President of the Commission, at the proposal of its members, in accordance with its applicable Internal Regulations, and ensuring parity among the respective sectors and interests.

Article 52. The Council shall have a President and a Secretary who shall be elected by a majority of its members. They shall remain in their posts for three years and may be reelected for one additional term; the renewal of its members shall be carried out in a staggered fashion.

Article 53. The members of the Council shall exercise their assignment in an honorary fashion and in a personal capacity, independently of the institution, company, or organization they belong to or to which they render services.

Article 54. In accordance with the procedures established in the applicable Internal Regulations and by proposal of the members of the Commission, its President shall designate the members of the Council, ensuring balance in the representation of the respective sectors and interests.

Article 55. The Council shall meet twice a year in ordinary sessions or at any time the Commission solicits its opinion.

The legal quorum for Council meetings shall be comprised of one-half plus one of its members. The Council agreements shall be adopted by the majority vote of the present members.

The advice or recommendations of the Council shall be voted by the majority of the members in attendance.

Article 56. The Internal Regulations of the Commission shall determine the organization, structure, and operation of the Climate Change Council.

Article 57. The Council shall have the following functions:

I. Provide advice to the Commission in matters within its sphere of responsibility;

II. Recommend the realization of studies and adoption of policies, actions, and goals aimed at confronting the adverse effects of climate change, to the Commission;

III. Promote the informed and responsible participation of the society through public consultations determined in coordination with the Commission;

IV. Follow-up on the policies, actions, and goals provided for by this Law, as well as on the evaluations of the National Strategy, Program, and state programs, and make proposals to the Commission, the Coordination for Evaluation at the INECC, and the members of the National Climate Change System;

V. Create specialized working groups to assist the Commission in its objectives and the Council in its functions;

VI. Elaborate, publicize, and present to the Commission, through its President, an annual activity report no later than the month of February of every year; and

VII. All others established by the Internal Regulations or those granted by the Commission.

Chapter IV
Planning Instruments

Article 58. The following are planning instruments of the national climate change policy:

I. The National Strategy;

II. The Program; and

III. The programs of the States.

Article 59. The national climate change policy planning process will include two scenarios:

I. The projections based on the constitutional terms of the federal and state administrations; and

II. The medium- and long-term projections, with forecasts of ten, twenty and forty years, in accordance with the National Strategy.

Section I
National Strategy

Article 60. The National Strategy constitutes the document governing national policy in the medium- and long-term to combat the effects of climate change and to transition to a competitive, sustainable low carbon emissions economy.

The Secretariat will prepare the National Strategy, with the participation of INECC and the advice of the Council:; it shall be approved by the Commission and published in the Official Gazette of the Federation.

In the preparation of the National Strategy, the participation of and consultation with civil society and the private sector must be promoted, so that the public can share its opinions regarding the Strategy's drafting, updating, and implementa-

tion, as provided by the *Ley de Planeacion* [Planning Law] and all other applicable provisions.

Article 61. The Secretariat, with the participation of the Commission, shall review the National Strategy at least once every ten years in the area of mitigation, and once every six years in the area of adaptation; explanations shall be provided for deviations which, as the case may be, exist between the projected estimates and evaluated results. Likewise, the corresponding scenarios, projections, objectives, and goals shall be updated.

On the basis of this review, and the evaluations carried out by the Coordination of Evaluation, with the participation of the Council, the National Strategy can be updated. The Program and programs of the entities shall be adjusted to reflect such update.

Under no circumstance shall the reviews and updates undermine the goals, projections, and objectives previously proposed.

Article 62. The baseline scenarios, emissions projections, and goals of the National Strategy shall be set at ten, twenty and forty years.

Article 63. The Commission shall propose and approve adjustments or modifications to the scenarios, trajectories, actions, or goals contained in the National Strategy when:

I. New international commitments in this field are adopted;

II. New, relevant scientific knowledge or technologies are developed;

III. It is required by environmental, natural resources, economy, energy, sustainable transport, health, and food security policies; and

IV. They derive from the results of the evaluations carried out by the General Coordination for Evaluation .

Article 64. The National Strategy shall reflect the objectives of the climate change mitigation and adaptation policies established by this Law, and shall include, among other elements, the following:

I. An assessment and evaluation of the actions and measures implemented in the country, as well as their assessment in the international context;

II. Climatic scenarios;

III. An evaluation and assessment of the vulnerability and capacity for adaptation to climate change of regions, ecosystems, population centers, urban equipment and infrastructure, productive sectors, and community groups;

IV. 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;

V. An assessment of the country's emissions and of actions that prioritize those sectors with the greatest potential for reduction while simultaneously providing environmental, social, and economic benefits;

VI. Opportunities for mitigating emissions from the generation and use of energy, burning and venting of natural gas, land use and land use changes, transport, industrial processes, waste management, and other sectors or activities;

VII. Baseline scenario;

VIII. Baseline emissions;

IX. Target trajectory of emissions;

X. Adaptation and mitigation goals;

XI. National requirements for research, technology transfer, studies, capacity-building, and dissemination;

XII. All other elements determined by the Commission.

Section II
Programs

Article 65. The mitigation and adaptation actions included in the sectoral programs, the Program, and programs of the States will be consistent with the National Strategy as established by this Law.

Article 66. The Program shall be elaborated by the Secretariat, with the participation and approval of the Commission. The Program will establish objectives, strategies, actions, and goals to combat climate change, through the definition of priorities on adaptation, mitigation, and research, as well as through the allocation of responsibilities, defining implementation timeframes, charging coordination of actions and of results, and identifying cost estimates, in accordance with the National Development Plan and the National Strategy.

Article 67. The Program shall include, among others, the following elements:

I. Sexennial planning, considering also a long-term perspective, consistent with the objectives of the National Strategy, international commitments, and the country's economic, environmental, and social situation;

II. Sexennial mitigation goals, prioritizing those related to the generation and use of energy, burning and venting of gas, transport, agriculture, forests, other land uses, industrial processes, and waste management;

III. Sexennial adaptation goals in connection with comprehensive risk-management; the use and conservation of water resources; agriculture; cattle-ranching; forestry; fishing and aquaculture; ecosystems and biodiversity; energy; industry and services; transportation and communication infrastructure; rural development; ecological land-use planning of the territory and urban development; human settlements; public health infrastructure and services; and all others that are relevant;

IV. The actions the public administration, both centralized and parastatal, must carried out to advance mitigation and adaptation, including setting objectives;

V. The budget estimates that are necessary for implementing its objectives and goals;

VI. Projects or research studies, technology transfer, capacity-building, dissemination, and their funding;

VII. The [authorities] responsible for its implementation, monitoring, and dissemination of the progress made;

VIII. Proposals for inter-institutional and cross-cutting coordination among areas with shared goals or those influencing other sectors;

IX. The measuring, reporting, and verifying of proposed adaptation and mitigation measures and actions; and

X. All other elements determined by the Commission.

Article 68. The Commission, in coordination with the Council, shall promote the participation of the public in the elaboration process of the Program in accordance with the applicable provisions of the Planning Law.

Article 69. Should the Program require modifications so as to adjust it to the National Strategy's reviews, such modifications shall be published in the Official Gazette of the Federation.

Article 70. The projects and all other actions to be implemented by the agencies and entities of the centralized and parastatal federal public administration according to the Program, shall be implemented depending on the resources approved in the *Ley de Ingresos de la Federacion* [Revenue Law of the Federation], the available budget approved for these purposes in the Expenditure Budget of the Federation for the corresponding fiscal year, and the provisions of the *Ley Federal de Presupuesto y Responsabilidad Hacendaria* [Federal Law on Budget and Fiscal Responsibility].

Article 71. The climate change programs of the States will establish the strategies, policies, directives, objectives, actions, goals, and indicators to be implemented and accomplished during the corresponding term of the administration, in accordance with the National Strategy, the Program, the provisions of this Law, and all other provisions deriving thereof.

The State programs will be developed at the start of each administration, and will always endeavor to maintain gender equity and representation from the most vulnerable populations to climate change, indigenous peoples, people with disabilities, academics, and researchers.

Article 72. The State programs will include, among others, the following elements:

I. Long-term planning of its objectives and actions, in a manner consistent with the National Strategy and Program;

II. Climate change scenarios and diagnosis of vulnerability and adaption capacity;

III. The goals and actions for mitigation and adaption within their own jurisdiction, pursuant to this Law and all other provisions deriving thereof;

IV. The measurement, reporting on, and verification of the adaptation and mitigation measures; and

V. All others established by their own legal provisions in this area.

Article 73. The National Strategy, Program, and programs of the states shall include directions for compliance with the objectives, principles, and provisions for mitigation and adaptation provided for in this Law.

Chapter V
Inventory

Article 74. The Inventory shall be developed by INECC in accordance with the guidelines and methodologies established by the Convention, the Conference of the Parties, and the Intergovernmental Panel on Climate Change.

INECC will develop the Inventory's within the following timeframes:

I. The estimate of emissions from the burning of fossil fuels will be made annually;

II. The estimates of emissions different than those produced by the burning of fossil fuels, with the exception of those related to the changes in soil use, will be made every two years; and

III. The total estimate of emissions from the sources and the absorption by all categories of carbon sinks included in the Inventory will be made every four years.

Article 75. The competent authorities of the States and municipalities will provide to INECC, data, documents, and registries in connection with the information on categories of emissions sources established in Section XIII of Article 7 of this Law that originate in their respective jurisdictions, in accordance with the formats, methodologies, and procedures determined by the applicable legal provisions.

Chapter VI
Climate Change Information System

Article 76. A Climate Change Information System shall be developed by the National Institute of Statistics and Geography, pursuant to the provisions of the *Ley del Sistema Nacional de Informacion, Estadistica y Geografia (*Law on the National System of Information, Statistics, and Geography).

Article 77. The Climate Change Information System shall generate, with the support of governmental agencies, a set of key indicators addressing at least the following:

I. The emissions in the national Inventory, state inventories, and Registry;

II. The emissions-reduction projects in the Registry or those participating in the agreements to which the United Mexican States is party;

III. The atmospheric conditions within the national territory, short-term climate predictions, long-term projections, and characterization of the climate variability;

IV. The vulnerability of human settlements, infrastructure, islands, coastal zones and river deltas, economic activities, and environmental effects, all attributable to climate change;

V. Average sea level;

VI. The estimate of costs attributable to climate change in a particular year, to be included in the calculation of the Environmentally-adjusted Net Domestic Product;

VII. Soil quality, including its carbon content; and

VIII. Protection, adaptation, and management of biodiversity.

Article 78. The Secretariat shall elaborate, publish, and disseminate reports on climate change adaptation and mitigation and on their repercussions, based on the Climate Change Information System, and taking into consideration their context within the National Strategy and Program.

Article 79. The data will be integrated into a geographic information system that stores, edits, analyzes, shares, and displays the key geographically-referenced indicators by utilizing electronic media.

Chapter VII
Climate Change Fund

Article 80. The Climate Change Fund is hereby established with the purpose of attracting and channeling public, and private, national, and international financial resources in order to support the implementation of actions to combat climate change. Adaptation actions shall have priority in the use of the Fund's resources.

Article 81. The Fund's assets shall be comprised of:

I. The annual resources which, as appropriate, are established in the Expenditure Budget of the Federation and the contributions from other public funds;

II. The contributions and payment of tax fees and fiscal gains established in the applicable laws;

III. Donations from national or international individuals or legal entities;

IV. Contributions made by governments of other countries and international organizations;

V. The value of certified emissions reductions from projects implemented in the United Mexican States and acquired voluntarily from the market by the Fund; and

VI. All other resources it obtains, as established in other legal provisions.

Article 82. The Fund's resources shall be destined to :

I. Adaptation to climate change actions, prioritizing attention to community groups located in the most vulnerable areas in the country;

II. Projects that simultaneously contribute to climate change mitigation and adaptation by increasing the natural capital through actions oriented towards, among others, reverting deforestation and degradation; conserving and restoring the lands in order to increase carbon capture; implementing sustainable agricul-

tural practices; recharging the aquifers; preserving the integrity of beaches, coasts, federal terrestrial maritime zones, territory gained from the sea, and any other reservoir formed by seaside waters, wetlands, or mangrove swamps; promoting the connectivity between ecosystems through biological corridors, conserving riparian vegetation, and to sustainably use biodiversity;

III. Development and implementation of actions to mitigate emissions in accordance with the climate change priorities of the National Strategy, the Program, and programs of the States, particularly in projects related to: energy efficiency; development of renewable energy and second-generation bioenergetics; elimination or exploitation of fugitive methane and gas emissions associated with the exploitation of coal ore deposits; and development of sustainable transportation systems;

IV. Programs to educate, sensitize, raise awareness, and disseminate information, in order to transition to a low carbon emissions economy and to climate change adaptation;

V. Studies and evaluations in the field of climate change required by the National Climate Change System;

VI. Research, innovation, technological development, and technology transfer projects in this field, in accordance with what is established by the National Strategy, the Program, and programs;

VII. Purchase of certified emissions reductions from projects reported to the Registry, or any other that has been approved by international agreements signed by the United Mexican States; and

VIII. Other projects and actions in the field of climate change, regarded as strategic by the Commission.

Article 83. The Fund shall operate through a public trust created by the Secretariat of Finance and Public Credit under the terms of the applicable legal provisions.

Article 84. The Fund shall have a Technical Committee presided over by the Secretariat of Environment and Natural Resources, and composed of representatives from the Secretariats of Finance and Public Credit; Economy; Government; Social Development; Communication and Transportation; Energy; and Agriculture, Livestock, Rural Development, Fishing, and Alimentation.

Article 85. The Technical Committee shall request the opinion of the Commission with regard to the Fund's operations regulations and operative budget, as well as any modification made to those instruments.

Article 86. The Fund shall be subject to the procedures of control, audit, transparency, evaluation, and accountability established by the applicable legal provisions.

Chapter VIII
Registry

Article 87. The Secretariat shall create the Registry of emissions generated by immovable and mobile point sources identified as subject to reporting.

The regulations of this Law shall identify the sources that will report to the Registry by sector, sub sector, and activity, as well as will establish the following elements for the integration of the Registry:

I. Reports on greenhouse gases or compounds to be reported for its inclusion in the Registry;

II. The thresholds beyond which the facilities subject to federal reporting shall report their direct and indirect emissions ;

III. The methodologies for calculating direct and indirect emissions to be reported;

IV. The system for monitoring, reporting, and verification, so as to guarantee the integrity, soundness, transparency, and accuracy of the reports; and

V. The linking, where applicable, to other federal or state emissions registries.

Article 88. The individuals and legal entities responsible for the sources subject to reporting shall provide the necessary information, data, and documents regarding their direct and indirect emissions for incorporation into the Registry.

Article 89. The individuals and legal entities carrying out projects or activities resulting in the mitigation or reduction of emissions may register such information with the Registry, in accordance with the regulatory provisions issued to that effect.

The information regarding such projects shall include, among other elements, the transactions of certified reductions or absorptions expressed in metric tons and in equivalent tons of carbon dioxide, that were carried out in national or international emissions trading systems, the dates on which the corresponding operations were verified, the resources obtained, and the corresponding sources of funding.

The regulatory provisions of this Law shall establish the measures for preventing the double accountability of emissions reductions verified within the national territory and in the zones within the nation's jurisdiction and over which it exercises sovereignty, taking into consideration available international systems and methodologies.

Article 90. The regulatory provisions of this Law shall establish the procedures and rules for monitoring, reporting, and verifying and, as applicable, certifying the emissions reductions obtained from projects registered with the Registry through accredited organizations, in accordance with the *Ley Federal de Metrologia y Normalizacion* [Federal Law on Metrology and Normalization] and authorized by the Secretariat or international bodies of which the United Mexican States is a member.

The regulations of this Law shall establish the requirements for the validation before the Registry, of certifications issued by international registries for the reduction of projects carried out in the United Mexican States.

Chapter IX
Economic Instruments

Article 91. The Federal Government, the States, and the Federal District, within their respective authority, shall design, develop, and apply economic instruments that provide incentives for meeting the objectives of national climate change policy.

Article 92. The Law regards as economic instruments the regulatory and administrative mechanisms of a fiscal, financial, or market-based nature by which a person assumes the benefits and costs related to climate change mitigation and adaptation and has incentives to carry out actions that contribute to the objectives of national policy in this area.

Fiscal instruments are fiscal benefits that provide incentives to contribute to the objectives of national climate change policy. Under no circumstance shall these instruments be established for tax revenue purposes only.

Financial instruments are credits, bonds, civil liability insurance, funds, and trusts that their objectives seek climate change mitigation and adaptation; the funding of programs, projects, studies, scientific and technological research; or the development of low-carbon emissions and technology.

Market-based instruments are concessions, authorizations, licenses, and permits corresponding to pre-established volumes of emissions or providing incentives to implement actions to reduce emissions by providing alternatives that improve their cost-efficiency relationship,.

The rights and interests deriving out of market-based economic instruments shall be transferable, non taxable, and subject to the public interest.

Article 93. The following activities are considered priorities for the purposes of granting the fiscal incentives established under the *Ley de Ingresos de la Federacion* [Federal Revenues Law]:

I. The research on, adoption, or use of mechanisms, equipment, or technologies whose objective is to prevent, reduce, or control emissions, as well as to promote energy-efficient practices.

II. The research on or adoption of energy efficiency systems; and the development of renewable energy and low-carbon emissions technologies;

III. In general, those activities related to climate change adaptation and emissions mitigation.

Article 94. The Secretariat, with the participation of the Commission and Council, may establish a voluntary emissions-trading system with the objective of promoting emissions reductions that can be achieved at the least possible cost and in a measurable, reportable, and verifiable form.

Article 95. Interested parties in participating voluntarily in emissions trading, may carry out operations and transactions that can relate to emissions trading in other countries, or that can be used in international carbon markets ,in accordance with applicable legal provisions.

Chapter X
Mexican Official Standards [Normas Oficiales Mexicanas]

Article 96. The Secretariat– on its own and, where appropriate, with the participation of other agencies of the federal public administration — will issue Mexican official standards [*normas oficiales mexicanas*] aimed at establishing guidelines, criteria, technical specifications, and procedures for guaranteeing climate change adaptation and mitigation measures.

Article 97. The compliance with Mexican official standards [*normas oficiales mexicanas*] shall be evaluated by the certification bodies, verification units, and testing laboratories authorized by the Secretariat.

Title Six
Evaluation of the National Climate Change Policy

Sole Chapter

Article 98. National climate change policy will be subject to periodic and systematic evaluations carried out by the Coordination for Evaluation, in order to propose, as appropriate, full or partial amendments, additions, or redirectioning.

Based on the results of the evaluations, the Coordination for Evaluation may issue suggestions and recommendations to the Federal Executive Government and to the governments of the States and municipalities, and shall make them available to the public.

Article 99. Based on the results of the evaluations, the Coordination for Evaluation will issue recommendations to the members of the National Climate Change System. The results of the evaluations, as well as the recommendations, shall be made public.

Article 100. The Coordination for Evaluation, together with the Council, Commission, and National Institute of Statistics and Geography, shall jointly develop efficiency and impact guidelines, criteria, and indicators to guide or direct the evaluations of the National Climate Change Policy.

Article 101. With regards to adaptation, the evaluation will be based on the following objectives:

I. Reduce the vulnerability of society and ecosystems to the effects of climate change;

II. Strengthen the resilience and resistance of natural and human systems;

III. Minimize risks and damages, considering the current and future climate change scenarios;

IV. The development and effective implementation of the specific instruments for diagnosis, measuring, planning, and monitoring, that are necessary for confronting climate change;

V. Identify the vulnerability and the adaptation and transformation capacity of the ecological, physical, and social systems, and take advantage of opportunities generated by new climatic conditions;

VI. Establish — as a part of the plans and actions for civilian protection-mechanisms for immediate and expedient response in zones suffering impacts by the effects of climate change

VII. Facilitate and foster food security; agricultural, ranching, fishing, and aquaculture productivity; and the preservation of ecosystems and natural resources; and

VIII. All others determined by the Commission.

Article 102. With regards to climate change mitigation, the evaluations will be based on the following objectives:

I. Guarantee the health and security of the population by controlling and reducing atmospheric contamination;

II. Reduce greenhouse gases and compounds emissions and improve greenhouse gas sinks by promoting sustainable production and consumption patterns in the public, social, and private sectors, primarily in areas such as energy generation and consumption, transport, and comprehensive waste management;

III. Gradually substitute the use and consumption of fossil fuels with renewable energy sources;

IV. Measure energy efficiency, the development and use of sources of renewable energy, and the transfer and development of low-carbon technologies, particularly in public buildings of the centralized and parastatal federal public administration, States, and municipalities;

V. Raise the energy-efficiency standards for motor vehicles through the creation of regulations for efficiency in new vehicles and the control of emissions for imported vehicles;

VI. Align federal programs and policies to revert deforestation and degradation;

VII. The conservation, protection, creation and functioning of carbon sinks;

VIII. The conservation, protection and sustainable use of biodiversity;

IX. Establish methodologies for emissions measurement, reporting, and verification;

X. The development and use of massive public transportation meeting high efficiency standards, favoring the substitution of fossil fuels and the development of sustainable public and private urban and suburban transport systems;

XI. Reduce the burning and venting of gas to reduce losses in the extraction processes and in the distribution systems, and guarantee the maximum exploitation of gas in industrial, oil, gas, and refining facilities;

XII. Promote the use of gas associated with the exploitation of coal ore deposits;

XIII. The use of the energetic component of waste for the development of energy-generation projects;

XIV. Develop economic and fiscal incentives to promote the development and consolidation of industries and companies that are socially responsible with the environmental; and

XV. All others determined by the Commission.

Article 103. The results of the evaluations shall be considered in the formulation, review, or updating of the National Strategy and the Program, and the States and and municipalities may incorporate them into their programs.

Article 104. The evaluations shall be carried out every two years and — in the cases determined by the Coordination for Evaluation — longer terms may be established.

Article 105. The results of the evaluations shall be published in the Official Gazette of the Federation and submitted to the Chambers of Deputies and Senators of the Federal Congress.

Title Seven
Transparency and Access to Information

Sole Chapter

Article 106. Every person has the right have the climate change authorities, as well as the Commission, Council, and Climate Change Information System, make available the information they request in accordance with the applicable legislation.

Article 107. The Commission, in coordination with the National Institute of Geography and Statistic and INECC, shall elaborate and develop an Internet website which includes the detailed annual report on the general state of the country vis-à-vis climate change, as well as the results of the evaluations of the National Climate Change Policy. In that website, individuals may review the Inventory and Registry.

Article 108. The federal resources that are transferred to the States and municipalities through coordination agreements or projects approved by the Fund shall be bound by the federal provisions on transparency and evaluation of public resources.

Title Eight
Regarding Participation of the Society

Sole Chapter

Article 109. The three levels of government shall promote the co-responsible participation of the society in the planning, implementation, and oversight of the National Climate Change Policy.

Article 110. To comply with the previous Article, the Commission shall:

I. Convene social and private-sector organizations to express their opinions and make proposals regarding climate change adaptation and mitigation;

II. Sign agreements with environmental social and private organizations to promote climate change adaptation and mitigation actions; the establishment, administration, and management of natural protected areas; to provide counseling in activities for the sustainable use of natural resources and the elaboration of studies and research in these fields; and to undertake joint actions;

III. Promote the recognition of the most distinguished efforts of the society to eradicate the adverse effects of climate change; and

IV. Coordinate actions and investments in the social and private sectors for implementing climate change adaptation and mitigation measures.

Title Nine
Inspection and Surveillance, Security Measures, and Sanctions

Chapter I
Inspection And Surveillance

Article 111. The Secretariat, through the Federal Prosecutor for Environmental Protection, will carry out actions of inspection and surveillance of individuals and legal entities that are subject to emissions reporting [obligations], in order to verify the information provided to the Secretariat, in accordance with the regulations deriving from this Law.

Article 112. The natural or legal persons responsible for sources of emissions required to provide reports, data, or documents by the Secretariat, under the emissions reports, shall do so within a period no greater than fifteen business days, accounted since the following day of that in which they receive the notification.

Chapter II
Security Measures

Article 113. Where, as a result of the inspection visits carried out to those natural or legal persons responsible for emissions sources subject to reporting, it is established that there exists an imminent risk resulting from the violation of the provisions of this Law and of the *Ley General del Equilibrio Ecologico y la Proteccion al Ambiente* [General Law on Ecological Balance and Environmental Protection], and where acts or omissions could lead to the imposition of sanctions, the Secretariat may order the imposition of the security measures provided under the General Law on Ecological Balance and Environmental Protection.

Chapter III
Sanctions

Article 114. In the case that individuals or legal entities responsible for emissions sources subject to reporting do not provide the information, data, or documents required by the Secretariat during the established period of time, the Federal Prosecutor for Environmental Protection may impose a fine of five hun-

dred to three thousand days of the minimum wage in force in the Federal District, without detriment to immediate compliance with such obligation.

Article 115. In the case of finding falsifications in the information provided, or non compliance with the time periods and terms in which the information must be provided, the Federal Prosecutor for Environmental Protection will apply a fine of three thousand to ten thousand days of the general minimum wage in force in the Federal District. The fine shall be independent of any other civil and criminal liability that could result.

The Federal Prosecutor for Environmental Protection shall have the obligation to inform of these acts to the competent authorities.

In case of recidivism, the amount of the fine may increase to as much as three times the amount that had originally been imposed.

Article 116. The public officials in charge of applying and overseeing compliance with this Law shall be liable to the applicable administrative sanctions in case of non compliance with its provisions, in accordance with the *Ley Federal de Responsabilidades Administrativas de los Servidores Publicos* [Federal Law on the Administrative Responsibilities of Public Servants] and other applicable laws, notwithstanding the civil and criminal liability that may arise.

Transitory Articles

Article One. This Law shall enter into force ninety business days after its publication in the Official Gazette of the Federation.

Article Two. The country adopts the indicative objective or aspirational goal of reducing its emissions by 30% by the year 2020 with respect to the baseline scenario, as well as a 50% reduction in emissions by 2050, as compared with the emissions in the year 2000. These goals may be achieved if an international regime is established including financial and technological support mechanisms, provided by developed countries for developing countries, including the United Mexican States. These goals will be reviewed for the publication of the next National Strategy.

Article Three. The agencies and entities of the centralized and parastatal federal public administration, States, and municipalities shall implement the necessary mitigation and adaptation actions, according to their powers and jurisdictions, in order to achieve the following aspirational goals and indicative time periods:

I. Adaptation:

a) With concern to civilian protection, the Federal Government, States, and municipalities shall establish a Program in order to develop and publish before the end of the year 2013, the national risk atlas and state and local risk atlases for those human settlements most vulnerable to climate change;

b) Prior to November 30, 2015, the municipalities most vulnerable to climate change, in coordination with the States and federal governments, shall have urban development programs that take into consideration climate change;

c) Before the end of 2013, the States shall elaborate and publish local programs to combat climate change.

d) Prior to November 30, 2012, the federal government shall have:

1. The General Environmental Land-Use Planning Program of the Territory, and

2. The Biodiversity Protection and Management Sub-program on climate change; and

II. Mitigation:

a) Conafor shall design strategies, policies, measures, and actions to transition to a rate of 0% carbon loss in original ecosystems, for their inclusion into the planning instruments of forests sustainable-development policy, taking into consideration sustainable development and community forest management,,

b) By 2018, the municipalities, in coordination with the States and all other administrative and financial institutions, and with the technical support of the Secretariat of Social Development, will develop and build infrastructure for the management of solid waste that does not emit methane into the atmosphere in urban centers having more than 50,000 inhabitants, and when viable, will implement the technology for the generation of electrical energy utilizing methane gas emissions;

c) By 2020, in accordance with the country's goal for emissions reductions, the Secretariat of Finance and Public Credit, in coordination with the Secretariat of Economy, the Secretariat of Energy, the Secretariat of Agriculture, Livestock, Rural Development, Fishing, and Alimentation, and theSecretariat of Communications and Transportation, shall have gradually developed a system of subsidies which promote the advantages of using non-fossil fuels, energy efficiency measures, and sustainable public transportation, with regard to the use of fossil fuels;

d) By 2020, in accordance to the country's goal for emissions reductions, the Secretariat of Finance and Public Credit, in coordination with the Secretariat of Energy and the Regulatory Energy Commission, shall have established an incentive-based system, which promotes and allows for profitable electricity generation through renewable energy ,such as wind, sun, and small hydro by the Federal Electricity Commission; and

e) The Secretariat of Energy, in coordination with the Federal Electricity Commission and the Regulatory Energy Commission, will promote that electricity generation from clean energy sources reach at least 35% by 2024.

Article Four. The Federal Executive will publish the provisions for operating and administering the Registry, or any other necessary for applying this Law, within the 12 months following its publication in the Official Gazette of the Federation.

Article Five. The resolution dated April 25, 2005, by which the Inter-Ministerial Commission on Climate Change was created, is hereby abrogated.

The working groups of the Inter-Ministerial Commission, along with their functions and procedures, will continue as long as those established by this Decree have not been implemented. The pending requests to obtain Clean Development Mechanism projects letters of approval shall continue to be processed under the rules existing prior to the publication of this Law.

The National Climate Change Strategy shall continue in force until a new one is published during the first half of 2013, pursuant to the minimum content and provisions established in this Law.

The Special Climate Change Program shall continue in force until November 30, 2012.

Article Six. As long as the Organic Statute, regulations, and all other administrative regulations regarding the functioning and operation of the National Institute of Ecology and Climate Change are not issued, those in force shall continue to be applied to the extent they are not in opposition to this Law. The status of the personnel of such agency shall be governed by the provisions related to Section B of Article 123 of the Political Constitution of the United Mexican States.

The Institute shall have a General Coordination for Climate Change with the level of at least director general.

The Organic Statute of the Institute shall be issued no later than five months after the entry into force of this Law, and should include the powers of the General Coordination for Evaluation.

The Internal Comptroller Unit of the Secretariat of Environment and Natural Resources shall continue exercising the powers as internal comptroller unit of the National Institute of Ecology and Climate Change.

Article Seven. The Secretariat of Environment and Natural Resources, within a period of two months after the entry into force of this Decree, shall transfer to the National Institute of Ecology and Climate Change the economic, material, and human resources assigned to it, to be assigned to it, as well as those currently under the National Institute of Ecology, in accordance to the functions it assumes, so that it can comply with the powers established by this Law.

The Secretariat of Environment and Natural Resources will observe the provisions and amounts established for the National Institute of Ecology and Climate Change under the Federal Expenditures Budget and the Federal Law on Budget and Revenue Responsibility.

The amounts not spent from the budget approved for the National Institute of Ecology in the current Federal Expenditure Budget shall be exercised by the National Institute of Ecology and Climate Change from the date of entry into force of this Decree.

Article Eight. The Executive Director of the National Institute of Ecology and Climate Change shall issue a public call for proposals for the selection of the the citizens advisors within six months after the adoption of the Organic Statute,

and once it has been made, the Commission will have three months to select the citizen advisors.

Article Nine. The Climate Change Fund shall be established by the Secretariat of Finance and Public Credit [and] its operating rules approved by its Technical Committee, within six months after the publication of this Law, in the Official Gazette of the Federation.

A National Society of Credit will be in charge of the operation of the Fund established under Article 83 of this Law, and will act as a fiduciary of the public trust fund, without an organic structure for this purpose, in accordance with the applicable provisions, and its responsible unit will be the Secretariat of Environment and Natural Resources.. This fiduciary institution shall carry out all acts that are necessary to operate the Fund and comply with its purpose in accordance with the law.

The Mexican Bank for Foreign Trade , SC shall dissolve the Mexican Carbon Fund (FOMECAR), in order to transfer its functions to the Climate Change Fund. The ongoing transactions shall be realized in accordance with the regulations, agreements, and contracts in force, providing they are not in opposition to this Law.

Article Ten. For the purpose of complying with this Law, the Federal government, States, and municipalities, shall promote the necessary legal and administrative amendments, in order to strengthen their respective public revenues by stimulating tax collection. This in order for such levels of government to have the resources that allow them to finance the actions resulting from the entry into force of this Law.

Mexico City, Federal District, on April 19, 2012. — Member of Congress **Guadalupe Acosta Naranjo**, President — Senator **José González Morfín**, President — Member of Congress **Mariano Quihuis Fragoso**, Secretary — Senator **Ludivina Menchaca Castellanos**, Secretary — Signatures with a flourish."

In compliance with the provisions of Section I of Article 89 of the Political Constitution of the United Mexican States, and for its due publication and observance, I hereby issue this SecretariatDecree in the Residence of the Federal Executive Branch in Mexico City, Federal District, on June 4, 2012. — **Felipe de Jesús Calderón Hinojosa** — Signature with a flourish — Secretary of Government, **Alejandro Alfonso Poiré Romero** — Signature with a flourish.

The First Step of a Comprehensive Climate Policy in Mexico

Gustavo Alanis Ortega

In recent years, Mexico has made itself known for its leadership on climate change. To show this it suffices to refer to the fact that our country already has a National Climate Change Strategy, a Special Program on Climate Change, as well as four national communications on climate change and a fifth which is slated to be presented at COP-18. In addition, Mexico has voluntarily committed to implementing climate change mitigation and adaptation actions.

In 2012, the country once again demonstrated its leadership to the international community by passing the General Law on Climate Change (LGCC), making us the second developing country with a law of this kind. Let us hope that this first step toward a comprehensive climate policy in Mexico is only one of the many more that we must take as a country in order to confront the challenges posed by climate change to different regions of the country, in an adequate and timely fashion. A number of efforts across diverse sectors of society will need to occur in order to stabilize and, in time, reduce CO_2 emissions in the country, thereby allowing us to reach the desired goal of 30% reduction in emissions by 2020 and 50% by 2050,

Should the above occur, it would undoubtedly contribute to improving the environmental conditions in which we live. Additionally, it would improve people's health and quality of life, which in many parts of this country have significantly deteriorated. An effort should be made to ensure that projects, work, and activities in Mexico are carried out in accordance with the new legal framework on climate change. To that end, included here are some issues that will require work in the coming months to ensure timely compliance on behalf of individuals and vigilant oversight on behalf of competent authorities.

The most important challenge for the LGCC is the establishment of regulations. Once they have been promulgated, the government must work to implement them, working meticulously and rigorously to harmonize various sectoral laws. Supplemental laws, as well as those that directly or indirectly influence the General Law, must be analyzed. Once the harmonization has been completed, the necessary reforms and adjustments to the Law can be identified, enabling the Law to become operative and develop within the appropriate regulatory framework. It is important to note that

if the LGCC is successfully harmonized, it would be considered the first of its kind in Mexico.

With the approval of the LGCC Mexico fulfills part of its international commitments in this area. The Law provides for the distribution of responsibilities and powers to both the Federal and state governments, making each of these levels of government accountable for their discharge. In addition, it entails developing and adjusting a new institutional framework in order to implement the new planning, evaluation, and research institutions. These institutions will provide the necessary tools for the three levels of government to operate appropriately.

Mexico, in the framework of the Conference of the Parties on Climate Change that was held in Copenhagen, Denmark in 2009 (COP-15), voluntarily committed to reducing its emissions by 30% by 2020 and 50% by 2050, subject to the availability of international financial assistance. The LGCC ratified this commitment, established in its second provisional article, and, although it is described as an "aspirational goal," made it binding for the Mexican State."

While the LGCC constitutes solid support for legally framing actions related to fighting climate change in Mexico, its effective application and functionality depend in large measure on the role played by the various social actors involved. The LGCC gives society a very relevant role as a participant in the process of monitoring and in ensuring accountability. Today, society is the most important actor in the development of environmental public policies in Mexico and in monitoring the actions taken by public officials. Likewise, it is society, through the mechanisms provided by the Law itself, which is responsible for "verifying" the appropriate implementation of the Law.

Different interest groups will thus become the clearest way to apply pressure to the federal government, local governments and the legislative branch. Establishing regulations will be possible to the extent that civil society can carry out a process of oversight of the Law in such a manner that the Law is able to become operative in the least amount of time possible, without being affected by the country's political context. In this way, society becomes jointly responsible for the application and evaluation of climate policy.

The LGCC openly omits a local focus. While Mexico's entire institutional design is limited to the federal agencies, with the responsibility of determining municipal and state policy, in other countries the development of public policy is done from the bottom up. Within this framework, the participation of indigenous communities and groups is completely ignored and, thus, a pending agenda item is to include a local focus, as expressed in the instruments

to be developed under the law, and to actively promote the right to consultation. The systematization, management, and administration of information are also pending issues to be addressed in the LGCC's implementation and development of regulations phases.

It is critical to establish and align the necessary criteria for information systems, as well as for the registry and inventories. The existing capacity and lessons learned must be capitalized on in order to carry out diagnostic studies, as well as build effective and accessible registries.

The State has the obligation to create the necessary capacity at the state and municipal levels that will enable the Federal government to comply with its GHG emissions reduction goal. It is necessary to develop ongoing, appropriate capacity-building programs that will permit decision-makers and practitioners to have the tools and knowledge necessary to develop and implement climate agendas in coordination with the Federation.

If all of the foregoing does not occur in due time and proper course, we will have one more law which in practice would be a dead letter, with all the implications that that entails with regard to the impacts on the environment and people's health and quality of life. In the area of climate change, we cannot allow ourselves to have a legal framework and not implement it. The costs of inaction would be extremely high.

The General Law on Climate Change: Problems deriving from it substantive topics and contents

Claudia Alatorre Villaseñor

One of the principal challenges facing the General Law on Climate Change stems from the need to precisely determine its substantive scope of application.

The subjects regulated by the law are the critical piece in the distribution of powers. Thus, the correct delimitation of those subjects gives rise to important theoretical and practical consequences, in both the legal and political spheres.[1] As such, it is essential that the text of the law provide clarity regarding the specific subject being regulated and the power that will be exercised in correspondence with it. To a great degree, the ability to fulfill the objectives of the law is conditional on that definition.

Keeping in mind the foregoing, given the multiplicity of factors contributing to global warming and its significant and oftentimes uncertain effects, it is important to note the difficulties immersed in legislating on and defining global warming within the legal sphere.

The regulation of greenhouse gas emissions and compounds,[2] as well as vulnerability preparedness for the population and for ecosystems in regard to the adverse effects of climate change, are the substantive topics regulated by the General Law on Climate Change. The law also promotes the transition to a competitive, sustainable, low-carbon economy.

Meanwhile, the substantive content of the law is composed of the type of powers given to the public authorities to address the substantive matters detailed above, including activities of programming, planning, and organizing, as well as those to control oversight, inspection, and certification.

The law's substantive contents and purposes are very broad and, therefore, difficult to identify. For example, Section VI of Article 7 grants the Federal government powers to establish, regulate, and implement climate change mitigation and adaptation actions. In order to exercise these powers, the text

1 See Viver I Pi-Sunyer, C. *Materias Competenciales y Tribunal Constitucional*, Ed. Ariel, S.A. Barcelona, Spain, 1989, Chapter I.

2 I utilize the term 'material purpose' to refer to that part of legally-classified reality on which the power falls.

incorporates a list of substantive topics such as agriculture, fishing, education, energy, national development planning, food sovereignty and security, prevention of and attention to disease, civilian protection, federal transport, and regional and urban development, among others.

Thus, a primary question arises: is it valid for a law, in order to comply with a specific purpose — in this case the regulation of greenhouse gases and compounds, as well as actions for vulnerability preparedness and transitioning to a low carbon economy — to regulate activities that are materially set out in other legal provisions?

Initially the answer is negative since from a preliminary analysis of related legislation we foresee the risk of overlapping responsibilities and substantive topics. This preliminary opinion is based on the thought that the integration of such diverse substantive topics into the text of the General Law on Climate Change originates the coexistence of laws with identical purposes and regulatory contents, which could consequently produce uncertainty regarding the powers to be exercised by the public authorities over those substantive matters.

Arduous work will be required to identify if there is in fact, an overlap of substantive topics regulated by the General Law on Climate Change and other sectoral laws, or if the former entails unique content with respect to which diverse powers can be exercised by public authorities. From a partial analysis of the regulations in question, one can infer that the application of the General Law on Climate Change can generate both of the indicated issues.

Consequently, the challenge for the implementation of the law will be to differentiate those cases when there is duplicity of substantive topics — a conflict that will have to be elucidated — from cases where several public authorities can exercise powers over a single substantive matter, without this representing a conflict.

In order to resolve the apparent overlap, it will be necessary to formulate criteria that would help to resolve the problem that has been described.

I believe, for the moment, that if a concrete problem develops regarding the implementation of the substantive topics of the law, it could be resolved by applying the principle of specialty of the law — which can be done through a simple exercise of contrasting the supposedly overlapping substantive contents in the Climate Law and others, to elucidate the one that should prevail. In addition, this problem can be solved by using the legal principle of material connection in order to identify — by weighing the overlapping activities — which is most connected to the issue in question.

Justifying this connection will be a challenge for the climate change authorities responsible to make decisions when faced with a concrete prob-

lem — such as deciding whether a severe drought in a specific region of the country should continue to be handled as prescribed in the General Law on Civilian Protection or as prescribed in the General Law on Climate Change. They will have to justify that climate related regulations, specifically as they relate to adaptation, have a greater connection than would the application of civilian protection regulations.

The ideas expressed here are only meant to start a discussion about the practical problems arising from regulations as complex and specific as those being analyzed presently.

Challenges to promote the transition to a competitive, sustainable and low carbon emissions economy

Ana Silvia Arrocha

In recent years Mexico has made clear its commitment to address global climate change. One of the ways to do this is to accelerate its transition to a low-carbon economy through the articulation of actions, policies, and programs that promote economic development, prioritizing the implementation of the most cost-effective mitigation measures. This will result in lower greenhouse gas (GHG) emissions, along with positive environmental and social impacts, with a long-term vision of making sustainable development a reality.

The new federal and state governments, along with Mexican civil society, have before them the opportunity to adopt the necessary steps to reduce vulnerability to climate change risks, mitigate their emissions and strengthen their adaptation capacity. Mexico must leverage the competitive advantages identified in the country, with a long term vision and the design of cross-cutting policies, with the essential participation of the three powers of the union (Executive, Legislative and Judiciary) and the commitment of the three levels of government (federal, state and municipal) together with civil society.

The recent passage and implementation of the General Law on Climate Change (LGCC) has already generated positive results: the transformation of the National Institute of Ecology to the National Institute of Ecology and Climate Change as a decentralized organization under the Ministry of Environment and Natural Resources; the recent publication of the General Environmental Land Use Program as a new instrument of environmental policy for national sustainable development planning[1]; and the preparation of the 5th National Communication to the UNFCCC that includes the updated National GHG Emissions Inventory, which will be released in the coming weeks.

1 *Official Journal of the Federation,* 07/Sep/2012.

What are the most important challenges to move towards a sustainable and low-carbon economy, and ensure effective implementation of LGCC?

- Design and implement new economic, financial and market instruments to promote competitiveness, technological solutions and transfer of low carbon technologies.
- Include the costs of social and environmental externalities for electricity generation based on fossil fuels.
- Identify the most cost-effective measures for GHG mitigation.
- Promote emissions reductions through the establishment of a voluntary emissions trading at the lowest cost, in a measurable, reportable and verifiable (MRV) way.
- Create and operate a Climate Change Fund.
- Promote investments for the gradual replacement of the use and consumption of fossil fuels for power generation and transport of people and goods.
- Promote the implementation of energy audits and apply tools for energy saving and energy efficiency in homes, industries and businesses.
- Promote and implement energy efficiency and renewable energy in industrial processes and power generation.
- Establish and implement feasible actions to avoid fugitive gas emissions from extraction, transport, processing and use of hydrocarbons. Develop and implement programs that link the work of research centers and universities, with public and private industries, commercial and service companies, while identifying and applying best practice solutions and more efficient production techniques.
- Reduce emissions and increase carbon capture in agricultural soils, forest and preserve ecosystems and biodiversity.

In terms of national policy planning for moving towards a low emissions economy, the Mexican government must issue:

- The new National Climate Change Strategy as a guiding instrument of the national policy in the medium and long term (Article 60).
- The new Special Climate Change Program that will contain the sexennial planning with a long-term perspective, including sexennial targets for adaptation and mitigation and budget estimates (Article 66).
- Climate change programs on the state level (Article 71).

It should be noted that although the LGCC speaks of planning in medium and long terms, Article 70 reflects the discrepancy in terms of programming and budgeting actions to implement them. According to the Law of Budget and Fiscal Responsibility, every action and project must be done in accordance with the availability of the fiscal budget every year. Thus if the planning instruments specify goals in the sexennial period or for the following ten, twenty or forty years, it will be complex to schedule, assign and make available the resources necessary to meet these targets.

What are the regulations that federal authorities shall issue to move towards a low carbon emissions economy?

- Issue legal provisions for the construction of sustainable buildings (Article 34).
- Define and establish incentives for promoting the use of low-carbon technologies (Article 35).
- Design and introduce laws on fiscal and financial incentives to spur voluntary participation in implementing emission reduction projects (Article 36).
- Develop and establish the requirements for the recognition and registration of programs and GHG mitigation instruments (Article 37).
- Integrate the Emissions Registry and rules for monitoring, reporting and verification and certification of reductions (Article 87 and 90).

What are the pending tasks for the government in the short term?

1. Include in the 2013 Expenditure Budget the resources for the further development of mitigation and adaptation actions already identified, and in some cases already being implemented. In addition, continue the functions of the working groups of the Interministerial Commission on Climate Change and the state commissions already installed. Finally, create a national Climate Change Fund (Articles Fourth, Fifth, Ninth and Tenth Provisional).
2. In the case of the states, the federal Chamber of Deputies shall allocate specific budgets, support capacity building at the state and local congresses, and must budget and schedule state and local actions for the next fiscal year (Article Tenth transitory).
3. Integrate and publish the national risk atlas, also the state and local atlases of the most vulnerable human settlements (Third Transitory Article).

4. Before November 30, 2012 publish the Subprogramme for the Protection and Sustainable Management of Biodiversity against Climate Change (Article Third Transitory d).
5. In the process of national development planning 2013-2018, and with the simultaneous identification of development priorities of the country and relevant climatic vulnerabilities, the Federal Executive shall prepare the National Climate Change Strategy. In the first half of 2013 the Federal Executive shall prepare sectorial programs — energy, agriculture, economy, environment-, and the Special Climate Change Program, according to the principles of long-term vision and in accordance with the other provisions of the LGCC (Transitory Article Five).

In conclusion, the Mexican government is ready to carry out a comprehensive planning process, taking into account a broad consultation with society, to identify priorities and solutions, and to reach agreements with the productive and social sectors, in order to build a sustainable present and future with a low emissions economy, in a context of social justice and respect for its natural resources.

Some Practical Considerations, Challenges, and Opportunities Regarding the General Law on Climate Change

Daniel Basurto González

Without a doubt, climate change represents one of the biggest challenges confronting humanity by being, indubitably, a challenge to the sustainability of the planet.

In Mexico, discussion of the issue has led to the development of programs and actions with the goal of implementing an environmental policy aimed at reducing the generation of greenhouse-gas (GHG) emissions. At one time, it was thought that the country's environmental policy was the same as the Special Climate Change Program, which was a mistake, as the former should be a part of a whole in which the government's tendency, focus, and interest is directed at promoting and developing instruments aimed at actions of mitigation, adaptation, and above all measuring, reporting, and verifying (MRV). Nonetheless, if one is a realist and pinpoints the country's general considerations — the infrastructure, capacity to supply clean or at least lower-impact fuel, technological development, legal framework for this field, and conditions of biodiversity — it makes us realize that we have much work to do. The government will not be able to resolve this kind of situation; it will necessarily require the always-important support of the private sector so that resources, projects, and technology flow smoothly and continuously.

In the nature of these ideas, on March 24, 2010, Senator Alberto Cárdenas (Jal) from the PAN party, supported by 28 other senators, introduced a bill proposing a General Law on Climate Change. As commonly occurs, it was necessary to "negotiate" the bill with the various groups that could interfere with it. On December 6, 2011, the Senate of the Republic approved and sent to the Chamber of Deputies (reviewing chamber) the report on the bill, which included seven initiatives introduced by the senators. On April 12, 2012, the Chamber of Deputies approved the new General Law on Climate Change and in the context of World Environment Day (June 5, 2012), President Calderón signed the Decree promulgating the General Law on Climate Change.

What does a law of this kind represent?

Without a shadow of a doubt, this entails a series of adjustments and modifications, from institutional to legislative. It will be necessary to develop governmental capacity so that it may implement the programs and actions. Also, the legislative branch will have to work on adapting the laws that have a bearing on climate change. These are, doubtless, transcendental challenges which are well worth confronting.

Without attempting to set forth a legal analysis, it is of greater interest to not lose sight of the force with which the purpose of the Law is presented: that is, the attempt to regulate greenhouse-gas emissions as well as actions related to climate change mitigation and adaptation with the premise of gradually reducing said emissions. To that end, public policies, administrative structures, and social participation will need to be strengthened. It is a whole that will enable us to identify at the end of the road what was being sought with the Law in question.

There is no doubt that the General Law on Climate Change is filled with legal concepts, administrative institutions, and tools which make it necessary to ground many of the concepts, above all due to the limitations they could present.

On one hand, the National Institute of Ecology and Climate Change must be created to carry out studies and research projects, disseminate them, and have the capacity to evaluate compliance with the objectives of adaptation and mitigation. On the other hand, it would appear that the integration and operation of the National Climate Change System — to be composed of practically all governmental institutions, that is, the three levels of government: municipalities, federative entities [states], and the Federation — will pose a significant challenge.

There are two instruments of great importance: firstly, the Official Mexican Standards which in some fashion could provide certainty (of course, if their development procedure were more expedited) and the economic instruments through which a voluntary system of emissions trading could be established as a way to promote their reduction. Along with these instruments we cannot fail to mention the Climate Change Information System which will be handled by INEGI and the National Emissions Registry, of which SEMARNAT will be a part. The introduction of the Climate Change Fund is a novel figure, at least for the Mexican system, and will be created in order to capture and channel public, private, national, and international financial resources to support actions aimed at confronting climate change.

Possibly, the most novel aspect of the General Law is the Provisional Articles chapter, which establishes aspirational objectives and goals on one hand, and on the other, the time frame for creating the National Institute of Ecology and Climate Change as well as the Regulations. Without a doubt, the Law in question is a good example of lobbying, innovation, and creativity that will make it so that legal scholars, judges, and daily practice proceed to give it the form, focus, and shape necessary for the due application of an instrument of this nature.

Mexico's General Climate Change Law

Michael B. Gerrard and Anne Siders

Mexico's *General Climate Change Law* (CCL) creates a coherent and ambitious national framework within which Mexico may fulfill its Copenhagen Pledge and establish itself as an international leader in climate change mitigation, but achieving these ends will require significant and on-going support from the Mexican government.

National legislation is a vital component of the effort to combat climate change. International agreements provide a framework for coordination and cooperation, but national legislation is still the primary means by which most emissions reduction will be achieved. Often national legislation addresses climate change in a piecemeal fashion, addressing energy, land-use, pollution, or other issues that lack the political sensitivity of climate change. Mexico's *Law for the Use of Renewable Energies and for the Finance of the Energy Transition* is an example of a legislative effort to promote low-carbon energy sources without directly addressing emissions reductions.

Alternatively, 'flagship' laws, laws that integrate various strands under one recognized climate change umbrella, can provide coherence to the legislative regime and provide a clear political signal of support for climate change mitigation. Such flagship laws are not uncommon: Australia, Canada, the European Union, France, Germany, Italy, Japan, Norway, Russia, South Korea, and the United Kingdom have all passed such legislation. Flagship laws with greenhouse gas reduction targets are less common amongst developing countries and emerging markets, where lawmakers must struggle to balance the need to reduce greenhouse gas emissions with economic development goals. With the CCL, Mexico joins the ranks of Brazil, China, India, Indonesia, and South Africa in recognizing that climate change mitigation and economic development are not mutually exclusive.

In fact, according to a study by GLOBE International, one of the primary reasons nations often adopt climate change legislation is economic gain. Through climate change legislation, nations can create opportunities for economic growth through investment in 'green' industries, benefit from climate finance opportunities, or participate in, and reap the benefits of, the Clean Development Mechanism or Joint Implementation, either as buyers or sellers of carbon credit.

Reflecting the principle of "common but differentiated responsibility" enshrined in the UNFCCC, the IPCC Fourth Assessment Report noted that avoiding dangerous climate change requires an aggregate emission cut of at least 80% from 1990 levels for developed countries by 2050, with developing countries committing to substantial reductions relative to business as usual. This approach is reflected in national legislation. For example, the United Kingdom has adopted a binding emissions reduction target of at least 34% below 1990 levels by 2020 and at least 80% by 2050, while Mexico aims to reduce emissions by 30% compared to business as usual by 2020 and 50% by 2050.

Flagship climate change legislation is often closely correlated with leadership in the international arena. For example, Japan passed its first climate-related law shortly after hosting the U.N. climate negotiations in Kyoto, and Indonesia released its *National Action Plan — Addressing Climate Change* when it hosted COP-13 in Bali in 2007. Mexico hosted COP-16 in Cancún in late 2010, and that international role, coupled with the subsequent successful passage of the CCL, establishes Mexico as one of the leaders in international climate change mitigation.

Maintaining a leadership role in climate change is a difficult proposition, as climate change can be a particularly divisive issue in domestic politics, and administrations are not always eager to build on the successes of their predecessors. The United States, for example, observes dramatic shifts in climate change and energy policies depending on the President and his administration. Times of transition, such as the current U.S. election period, can make the status of pending legislation and regulations particularly tenuous. Such partisan support and inconsistency is not unique to the United States, though, and it is a practical danger to the effective implementation of climate change legislation, which requires consistent support.

The CCL establishes a framework within which identified agencies and actors may take concrete steps to reduce greenhouse gas emissions and achieve Mexico's Copenhagen Pledge. Among the notable tools created by the CCL are a national greenhouse gas registry of stationary and mobile sources, the National Institute of Ecology and Climate Change (INECC), and the potential for a carbon-trading market and other financial incentives for industries to reduce emissions. The CCL also takes an important step towards a comprehensive climate change policy by providing for climate change adaptation through the Climate Change Fund and by considering emissions resulting from deforestation and degradation. The destruction of forest ecosystems plays an important role in contributing to climate change, while their pres-

ervation can play an equally important role in reducing the vulnerability of local communities.

However, the CCL framework and tools are not self-executing, and substantial support from the executive branch will be necessary to achieve meaningful reductions. For example, the greenhouse gas registry will include only sources that exceed a threshold — a threshold that has yet to be defined. The registry will only be a useful tool if the threshold for inclusion is defined so as to include a wide range of potential sources. Similarly, the INECC will only succeed in its coordinating role if provided with sufficient resources and leadership, and the Climate Change Fund and other financial incentives will only be created and implemented if they enjoy political support from the new President and his administration.

The CCL is therefore a significant demonstration of Mexico's commitment to climate change mitigation and an important example of the type of ambitious reductions that can be achieved by developing countries, but its execution will require on-going political and financial support in order to be truly effective.

Implementation challenges for an Emissions Market in Mexico

Gabriela G. Merla

The emissions markets are seen by the General Law on Climate Change (LGCC) as an economic market-based instrument. The Law regulates them directly (it makes express reference to it) and indirectly (it regulates economic market-based instruments).

What are the emissions markets foreseen in the LGCC (regulated directly and indirectly)?

i. Voluntary markets (Arts. 94 and 95 of the LGCC).
ii. Compulsory markets: trading emissions permits. Two scenarios for the implementation of the trading emissions market are regulated:
    a. Cost transfers to the private sector or to society, not finance from existing international funds (Art. 32 of the LGCC). In this case the market should be implemented gradually, in phases.
    b. Existence of international funding which covers the costs of implementation (Art. 32 of the LGCC).
iii. Certified emissions reductions — offset- markets (Arts. 37 & 90 of the LGCC).

Which of these markets has a more immediate application, thus requiring prompt action to address challenges?

Considering that: i) the multilateralism of the international climate policy (Kyoto Protocol) is passing through a serious crisis, and ii) the implementation of obligatory emissions-reductions programs in Mexico is conditioned to the reception of international funding; it is possible to conclude that the markets with greatest viability for a prompt implementation in Mexico are the voluntary markets and offset markets.

For said purpose, the LGCC establishes the following elements analyzed in this document:

a) A procedure to certify projects and reduced emissions
b) A National Emissions Registry (RNE)
c) A Climate Change Fund (Fund)

What are the challenges presented for the certification process of projects and emissions reductions established by the LGCC?

- The procedure adopts the main elements of the Clean Development Mechanism (CDM) of the Kyoto Protocol. The procedures for monitoring, reporting, verifying, and certifying projects' emissions reductions need to be regulated. Such regulations must be developed in light of the lessons learned from the CDM, and taking also in consideration the systems that may emerge as potential buyers of the certified emissions reductions.
- The Federal Law on Meteorology and Normalization (LFMN) shall establish the profile of the entities that will be carrying out the emissions reduction certifications of the projects registered before the Registry. In accordance with the LGCC, said entities may be authorized by SEMARNAT or by an international organization to which Mexico is a party. In the latter case, it is important that the LFMN does not 'overregulate,' but rather, makes reference to the international regulations.
- The LGCC does not establish the characteristics that the projects should have to be registered before the RNE — the projects themselves, not the certified emissions reductions of said projects. Strictly speaking, the Regulations of the LGCC cannot regulate elements that the Law does not establish; nonetheless, the regulation of the projects could be done indirectly through the requirements to be covered by the emissions reduction certificates, when requesting its registry; (element contemplated by LGCC which can and should be regulated).
- Considering that the LGCC establishes the double registration of projects (before the RNE and before the registry of the carbon market system where the offset will be used) the regulation of the registration process should simplify the process, and shall prevent the double counting of reduced emissions (for the carbon market system that acquires the offsets and for the accounting of reduced emissions in Mexico).
- It is necessary to integrate the market-based instruments already foreseen by other environmental laws, in order to have coherence and unity and prevent overregulation. Thus, the transferable permits for atmospheric emissions (Regulations of the LGEEPA of Natural Protected Areas) and the forest conservation credits (General Law on Sustainable Forest Development) should be considered by the LGCC and its regulations.

What are the challenges presented by the National Emissions Registry (RNE)?

- The LGCC requires that the following are reported in the RNE:
  i. Emissions from fixed and mobile sources that the LGCC Regulations determine will be object of reporting — Art. 87;
  ii. Projects that reduce emissions — Art. 90; and
  iii. Emissions reduced from projects implemented in Mexico — Art. 90.
- In the first case, the RNE regulations should consider that the Registry of Emissions and Transfer of Contaminants and the Atmospheric Emissions Inventory (foreseen by the LGEEPA Regulations) already requires reporting on atmospheric emissions (among them, greenhouse gas emissions).
- It is necessary to avoid double regulation and the creation of multiple registries containing the same data, even if they have different uses. It is possible to have a sole registry concentrating all the information, but with the capacity to produce different kind of reports (depending of the needs) with the data registered.
- The registry of emissions reductions from projects is optional (see the first paragraph of Article 89 of the LGCC), when it should be obligatory if the problem of double counting wants to be eliminated.
- The RNE of the LGCC does not consider the registration of trading emissions allowances/permits; it only considers the registry of offsets. Consequently, if an internal emissions-trading market, with activities subject to limits in a testing phase, wants to be implemented, amendments to the LGCC will be required to cover the registration of the trading emissions permits.

What are the challenges of the Fund?

- To what concerns the financing of mitigation and adaptation projects, the Fund should be carefully regulated to ensure clarity in the selection process of projects to be funded; the entities with which it may participate; and the rules which permit it to act efficiently as am intermediary of the sale of the emissions-reduction rights / emissions permits in the carbon market.
- The Fund should satisfy the needs of governmental entities for the development of greenhouse gas reduction programs under the terms of Article 31 of the Law on Renewable Energy Usage and Energy Transition Financing, to carry out the activities for which said entities are not competent in accordance with the applicable laws.

Lastly, it is important to highlight the importance that the National Climate Change Strategy and Special Climate Change Program will have, to be issued in the next year in accordance with the LGCC; since they will establish the guidelines and content together with the LGCC, for the development of the instruments discussed in this document.

Comments on the General Law on Climate Change

Miriam Grunstein

The General Law on Climate Change (LGCC) utilizes a language more entailed to promote aspirational goals, than to orient the 'hard' implementation of a public policy. In this regard, the Law provides a vast universe of goals without providing concrete mechanisms for their implementation. This might indicate the suspension of decision-making in a specific public policy. Regarding the LGCC this is visible, both, in its programmatic language, which does not articulate concrete actions for the implementation of the policy, as well as in the repeated references to various administrative regulations and instruments to be issued at a later date by federal, state, and municipal authorities. The result is a broad, complex regulatory framework for the implementation of the said public policy. For example, Article 38 of the LGCC establishes that "the Federal Government, States, and municipalities shall establish the requirements which must be met in order for the programs and instruments referenced in the present Article to be recognized and registered."

Consequently, the proliferation of regulatory instruments — whether in the form of plans, programs, regulations, or other administrative regulations– has great potential to be duplicative or contain antinomies and other normative design problems that might impair the efficient implementation of the objectives of the Law, which, given the language´s uncertainty, are also unclear. Moreover, the profuse remission to lower-level regulations entails the following caveats for the effective implementation of the public policy: a) Lack of decision-making at the legislative body to carry out policies for the diversification of energy sources; b) Vulnerability of the public policies to the gaps existing in the laws; c) Lack of involvement of the authorities as a consequence of the transformation of legal mandates into lower-level administrative regulations; and d) Exposure of the public policies to leadership changes in the public administration, which can result in unilateral modifications to the regulations under their authority.

In the specific case of the energy sector, the aforementioned lack of implementation mechanisms in the LGCC is aggravated by the legal loopholes in the laws governing the main entities and agencies in the energy sector. In this regard it is to note the programmatic nature of Article 7 of the Mexican Oil

Company (PEMEX) Law which requires the Administration Council and its General Director to fulfill a series of objectives including "saving and providing for the efficient use of energy" and "reducing environmental impacts." However, none of the committees operating within the Administrative Council have explicit powers to enact — from the higher authority level- public policies for energy efficiency in PEMEX. As a result, the underpinning of policies and projects that promote efficiency in PEMEX's operations is lacking the necessary legal foundations. This raises the issue of how to boost energy efficiency projects — such as those focused on cogeneration, pipeline integrity, and gas reinjection — when neither the Administrative Council or the councils of the subsidiary bodies, have centralized decision-making authority within PEMEX to promote those projects. Therefore, the viability of the LGCC is substantially limited by the legal loopholes in the legal framework of the sectors it proposes to regulate.

Mexico and the Challenge of Legislating against Climate Change

Carlos de Icaza Aneiros

During at least the last two decades, Mexico has adopted a consistent, coherent policy in the international fight against the adverse effects of climate change. On June 13, 1992, the Mexican State signed the United Nations Framework Convention on Climate Change ("the Convention") and on June 9, 1998 it signed the Kyoto Protocol under the Convention (the "Kyoto Protocol"), which was then ratified by the Mexican Senate on April 29, 2000.

Within the framework of the Kyoto Protocol, Mexico has presented before the Convention four national communications in the field of climate change. In 2007, Mexico elaborated a National Climate Change Strategy, and in 2009 issued an ambitious Special Program on Climate Change (PECC). Both were developed within the context of the 2007-2012 National Development Plan, whose environmental focus is unprecedented.

At the end of 2010, Mexico hosted the Sixteenth Conference of the Parties (COP-16) of the Convention in Cancún, Quintana Roo, which served to build the agreements that have permitted the Convention to survive and reestablished the global dialogue regarding an international system that would transcend the Kyoto Protocol commitments.

Moreover, since the implementation in 2005 of rules and procedures to obtain national approval of projects under the Clean Development Mechanisms (CDMs) contained in the Kyoto Protocol, as well as the creation of the appropriate governmental and interministerial bodies to do so, Mexico has become one of the most successful countries at attracting CDM projects. In addition, many laws and regulations in the field of efficient and sustainable energy usage have been adopted in our country in recent years.

It this context — in a consistent fashion with the aspiration set out in the PECC of achieving a 50% emissions reduction by 2050 with regard to 2000 emissions levels (the "50/50 Aspirational Goal") — on June 6, 2012 the General Law on Climate Change ("the Framework Law") was published in the Official Gazette of the Federation, entering into force on October 10, 2012. The Framework Law is, without a doubt, an invaluable and enviable effort on the part of the executive and legislative branches, and should serve

as a model for many developed and developing nations in the global fight against climate change.

Among various subjects, the Framework Law lays the general foundations for regulating greenhouse gases emissions and compounds; regulating climate change mitigation and adaptation actions; reducing the vulnerability of the population and ecosystems to the adverse effects of climate change; conserving forest land uses and preventing its degradation and deforestation; promoting the efficient and sustainable use of energy resources; and in general, transitioning to a green economy (i.e. "sustainable, competitive, and characterized by low carbon emissions," as the Framework Law itself states).

Among several very interesting and innovative provisions — which I don't plan on citing in their entirety here, as I have no intention of providing herein an exhaustive summary of the provisions of the Framework Law, or anything close to it — it should be noted that the Framework Law is expected to serve as the basis for creating, authorizing, and regulating emissions trading; as well as regulating, integrating, administering, publishing, and updating the National Greenhouse Gases and Compounds Emissions Registry ("the Registry") and establishing a Climate Change Fund.

The Framework Law creates different governmental and/or quasi-governmental agencies with authority to fight against climate change, including the National Institute of Ecology and Climate Change (formerly known as the National Institute of Ecology or INE, and which has now been granted new responsibilities and powers and become a decentralized public entity under the federal administration, with independent legal standing, its own assets, and autonomous operational and administrative authority); as well as the Interministerial Commission on Climate Change (infused now with new life since its creation in 2005); and the Council on Climate Change, among others.

The Framework Law also distributes authority in the field of climate change among the Federal Government, States, and municipalities; manifestly laying the foundations for the creation of a Climate Change Information System, a National Emissions Inventory, and a strengthened national civilian protection system which allows for greater and improved adaptation to the adverse effects of climate change and their mitigation.

Nonetheless, it is worth noting the apparent limited nature of the economic sanctions that can be applied by the Federal Prosecutor for Environmental Protection (PROFEPA) regarding certain violations to the Framework Law (i.e. not providing or falsifying of emissions information can only be sanctioned by a maximum of 10,000 days' worth of minimum wage, whereas other applicable environmental laws, such as the General Law on Ecological Equilibrium and

Environmental Protection (LGEEPA) empowers the PROFEPA to impose fines of up to 50,000 days' worth of minimum wage).

Without discrediting the achievements to date or attempting to minimize the highly praiseworthy and laudable Framework Law which our country has promulgated, it is essential to point out that the Framework Law is just that: a law that establishes a general framework for climate change adaptation and mitigation, focused mainly on the governmental bodies at various levels; that still doesn´t regulate the industrial activities carried out by individuals or the public parastatal entities; and which its real, effective and efficient implementation still requires the development and promulgation of a set of regulations, Mexican official regulations, programs, and other related legal provisions, without which the Law is, "toothless".

While it is certain that the Framework Law should serve as the basis for greenhouse gases and compounds emissions reductions that will drive the transition to a green economy, — using economic, tax, financial, and market-based instruments — it still leaves all the necessary details for its implementation to be determined in the future through secondary or supplemental regulations. This means the success of the Framework Law will depend to an enormous degree on the ability of the Federal Executive to prepare and promulgate regulations that will enable the law to be duly applied and executed within the time frames set out in the law.

Notwithstanding that the Framework Law state that emissions reductions will be carried out in a sectoral fashion among the "Energy Usage and Generation," "Transport," "Waste," "Industrial Processes," and "Education and Changes in Patterns of Behavior, Consumption, and Production" sectors, it remains unclear which will be the reduction caps and thresholds; which are the greenhouse gases and compounds specifically regulated; the emissions levels permitted and the mechanisms for certifying emissions reductions.

In addition, we still do not know how will the voluntary carbon-credit or certified emissions-reductions market that are intended to be created under the Law– and that have proven to be essential to foster emission reductions in jurisdictions such as Europe — will work. In light of this, Mexico should possibly consider negotiating (or fighting for) a preferential trade framework under the North American Free Trade Agreement and the North American Agreement on Environmental Cooperation endorsed in 1994, to allow the preferential exchange of carbon credits with its neighbors to the north.

The myriad of omitted details is the great unresolved issue of the Framework Law. The "Transitory Articles" section of the promulgation decree of the Law illustrate the many pending regulatory issues as it considers, among

other matters, various deadlines for the promulgation and establishment of various regulations, programs, and other legislation that will enable the law's application, running from two months after its entrance into force up to 2024. As an example of the above, I partially quote some of the tasks that the Transitory Articles require the Mexican Government to address; (i) "By 2020, in accordance to the country's goal with regard to emissions reductions, the Ministry of Finance and Public Credit, in coordination with the Ministry of Economy, Ministry of Energy, Ministry of Agriculture, Livestock, Rural Development, Fishing, and Alimentation, and the Ministry of Communication and Transportation, shall have gradually generated a system of subsidies which promote the better advantages of using non-fossil fuels, energy efficiency, and sustainable public transport with regard to the use of fossil fuels"; (ii) "By 2020, in accordance to the country's goal with regard to emissions reductions, the Ministry of Finance and Public Credit, in coordination with the Ministry of Energy and the Regulatory Energy Commission, shall have established an incentive system which promotes and allows for profitable electricity generation through renewable energy such as wind, sun, and small hydro by the Federal Electricity Commission"; (iii) "The Ministry of Energy, in coordination with the Federal Electricity Commission and the Regulatory Energy Commission, shall promote the goal of having electricity generation from clean energy sources reach at least 35% by 2024"; and (iv) "The Federal Executive shall publish the provisions for operating and administering the Registry, or any other provision necessary for applying this Law, within the 12 months following its publication in the Official Gazette of the Federation."

The foregoing is of the utmost relevance because unfortunately, examples abound in our legislation of the Federal Executive not complying with diverse obligations imposed upon it by the "Transitory Articles" of various laws. To provide proof of the above, regarding environmental laws we can mention: (a) the case of the April 29, 2004 reform of the National Water Law, whose Transitory Article Three mandated new regulations to be issued within the 12 months following its publication, and today, more than eight years later, no such regulations have been issued and we are still living under the regulations of the earlier version of the National Water Law, which is obsolete and in large part has been repealed; and/or (b) the case of the December 31, 2001 reform to the LGEEPA, whose Transitory Article Four mandated that "regulations for the establishment of insurance and environmental risk premiums" would be issued within the year following the law's entrance into force. Today, more than 10 years later, regulations have yet to be promulgated.

Thus, if the past is any indication of what lies ahead, our country is far from having guaranteed that the Framework Law will have the regulations, programs, and legislation required for its implementation. Certainly -for now- Mexico can continue praising its good reputation in the arena of climate change in international fora by promoting and publicizing the Framework Law, even though neither Petróleos Mexicanos, nor the Federal Electricity Commission, nor the rest of the polluters contributing to greenhouse gases and compound into the atmosphere — which have ranked Mexico in the "Top 20" most emitter countries in this field — are yet bound to comply with its terms.

When all is said and done (and in case it isn´t clear, I am being sarcastic here), if the implementation of this Law is not achieved, Mexico already has an elegant legal way out that will allow it to "save face": Transitory Article Two of the Framework Law´s promulgation Decree bounds and conditions compliance with Aspirational Goal 50/50 to the establishment of "an international system with mechanisms of financial and technological support provided by developed countries for developing countries, including the United Mexican States."

Perhaps one day we will learn in Mexico that it is not enough to promulgate many laws, or boast about them abroad, but rather, it is critical that the laws we promulgate can be applied. In hopes that the next administration of the Mexican Federal Government pass regulations for the Framework Law in due time and proper course, I conclude these lines and express my appreciation to the Environmental Law Institute in Washington, DC for having given me the opportunity to pen them.

A Perspective on Mexico's General Climate Change Law

Rubén Kraiem

In the last several years, Mexico has taken on an important leadership role in dealing with the threat of global climate change. It has built bridges among developed and developing countries, and has assumed a proactive posture in the negotiations conducted under the auspices of the United Nations Framework Convention on Climate Change (the "UNFCCC"). Mexico's success in the presidency of COP-16 in Cancún, which gave a new lease on life to the multilateral negotiation process, was the result of these efforts.

That said, it bears noting that the voluntary commitments that Mexico has assumed in the context of its mitigation targets (that is, with respect to reducing its economy-wide emissions of greenhouse gases (GHGs)) are still somewhat ambiguous or, better said, somewhat indeterminate:

- Is the country truly prepared to incur the costs that these targets may impose, or will the targets themselves be revised if sufficient external supports are not obtained — and, if so, on what basis? Stated differently, what is really the cost/benefit analysis that Mexico will make to determine the extent of its own contribution to mitigation on a global basis?
- What is the role of the private sector, and what obligations will it assume to achieve the goals that have been (or will be) set?
- What are we prepared to do to contribute to the creation of what is, at the end of the day, a public good — in respect of which the costs and benefits are not necessarily shared on an equitable basis?

When presented with questions such as these, the Mexican government has understandably retained a significant amount of maneuvering room which, in turn, leads to a less precise definition of what public policies will actually be adopted.

It is in this context that Mexico's General Climate Change Law (GCCL) constitutes, on the one hand, an important step in the construction of an administrative scheme to develop and articulate the policies that have the necessary scope to actually make a difference. It establishes also a normative framework for the design and implementation of the tools that are indispensable: for instance, a registry of GHG emissions that can provide a reliable

measure of what is happening on the ground, and of what is (or is not) accomplished on an ongoing basis. It can be said, in that sense, that the *transitory articles* of the GCCL are especially relevant — among other things, because they are the only ones that set clear objectives and timeframes for action.

At the same time, the GCCL reflects the same lack of clarity that was described above, leaving many of the most important questions still very much open: What mitigation policies will finally be adopted? What financial incentives and other tools will actually be used? The GCCL offers more of a menu of options, a catalogue of actions or initiatives that could be pursued — but without choosing among them.

Similarly, various provisions of the GCCL articulate a commitment that is conditioned on circumstances or events that are effectively outside of Mexico's control — and therefore leave much to be determined depending on what does (or does not) get accomplished in the global context.

For example, article 32 of the GCCL provides that, *[t]he national mitigation policy will be implemented on the principle of gradual action*, making it clear that the process will be especially gradual with respect to *those policies and activities that imply or would transfer costs to the private sector or to society generally, when sufficient funds or international sources of financing do not exist to cover the costs.* Similarly, the second transitory article conditions the achievement of the voluntarily commitments already assumed by Mexico in the context of the UNFCCC process — which are described as "aspirational" — to the establishment of *an international regime that provides for mechanisms of financial and technological support by developed countries.* This will necessarily defer some critical decisions in terms of policy choices.

These observations lead naturally to a very simple conclusion: not only does GLCC remain to be "regulated;" it remains still to be seen what will be the basic policies that the GLCC will implement. It is for this reason that the decisions to be taken by the incoming administration are so important. All of us who have an interest in following and supporting a sustainable development strategy for Mexico will follow developments closely, with a view to see what policies turn out to have priority and what investments will in fact be made in what is still a very uncertain framework.

Need for Local Congresses to Issue a Law In the Field of Climate Change to Address the Provisions of the General Law on Climate Change

Roberto De la Maza Hernández

The General Law on Climate Change (LGCC), which was published in the *Official Gazette of the Federation* on June 6, 2012, distributes powers among the Federal Government, the States, municipalities, and the Federal District (DF) to confront the adverse effects of that phenomenon. This means that the Federal Government — through the General Congress — exercised its power of direction by issuing framework legislation to define responsibilities pertaining to each of those levels of government, and by any means, establishing the applicable coordination mechanisms.[1]

Thus, in the following months, the three levels of government will start the procedures to draft the laws and regulations that will implement the general provisions contained in the new law. With regard to the Federal Government, the Ministry of Environment and Natural Resources will be responsible for drafting and proposing to the head of the Federal Executive Branch, the regulation or regulations necessary to provide the strict compliance of the LGCC in the administrative field, as provided by Section I of Article 89 of the Federal Constitution.

In the case of the States, the local congresses will be responsible for enacting legislation to regulate the powers within their authority or, as appropriate,

1 Supreme Court of Justice of the Federation, ENVIRONMENTAL PROTECTION AND PRESERVATION AND RESTORATION OF ECOLOGICAL EQUILIBRIUM. THE FEDERAL, STATE, AND MUNICIPAL GOVERNMENTS HAVE CONCURRENT POWERS IN THIS MATTER UNDER THE TERMS OF THE GENERAL LAW PASSED BY THE FEDERAL LEGISLATIVE ORGAN, Book X, July 2012, Volume 1, p. 346. Available at: http://ius.scjn.gob.mx/paginas/DetalleGeneralV2.aspx?ID=160028&IDs=160028,160856,161385,163374,187982,204018,237459,247668,250475,268278&Dominio=Rubro&TA_TJ=2&Orden=1&Expresion=facultades concurrentes&Epoca=1110001111000111111111111111111111001111101111111 &Apendice=0000000000000000000000000000000000000&Clase=DetalleTesisBL&startRowIndex=0&Hit=1&NumTE=10&Epp=20&maximumRows=20&Desde=1959&Hasta=2012&Index=0, consultada el 23 de octubre de 2012, a las 16:30 hrs.

for making adjustments to the existing regulations, in order to incorporate corresponding provisions from the LGCC.[2]

In this context, it is worth noting the following provisions included in Article 8 of the LGCC, which establishes the powers within the authority of the States; (i) to formulate, conduct, and evaluate state policy on climate change; (ii) to design and implement environmental policy instruments within their authority, such as mitigation and adaptation incentives and actions; (iii) to develop climate change programs and evaluate their compliance; (iv) to administer local funds to support actions in the field of climate change; (v) to assist with the collection of data for the National Emissions Inventory and, where appropriate, to develop state emissions inventories; (vi) to draft, publish, and update the State Risk Atlases; and (vii) to oversee compliance within the scope of authority.

Meanwhile, Article 9 of the LGCC defines the powers of the municipalities, including the following: (i) to formulate, conduct, and evaluate municipal climate change policy; (ii) to formulate and implement comprehensive policies, actions, strategies, programs, and projects in the topics under their authority; (iii) to assist federal and state authorities in the implementation of the National Climate Change Strategy, the Special Program, and the corresponding state program; (iv) to manage and administer resources for carrying out actions related to mitigation and adaptation; and (v) to oversee, compliance with the cited legislation within the scope of their authority.

Given the scope of the cited powers, it is likely unnecessary for the state congresses to pass new climate change laws, as these can be developed through reforms and additions to their existing environmental laws. This will allow states to maintain the integrity of their environmental legislation and prevent fragmentation of regulations, which hinders effective implementation through reducing the ability of regulated parties to understand the laws and of the responsible authorities to enforce them.[3]

Above all, it is to be considered that that at the local level there are several legal provisions related to climate change, such as those addressing: (i) ecological equilibrium and environmental protection; (ii) water and sanitation; (iii) agriculture, cattle ranching, rural development, and fishing; (iv) public education; (v) transportation and highway administration; (vi) urban development; (vii) waste; (viii) civilian protection; (ix) health; and (x) fiscal contributions.

2 Article 11 of the General Law on Climate Change.

3 BORGES CORNISH, Juan Carlos and DE LA MAZA HERNÁNDEZ, Roberto, *Instrumentos Voluntarios de Conservación del Ambiente* [Voluntary Environmental Conservation Instruments], Instituto Belisario Domínguez, Senate of the Republic, Mexico D.F., 2011, p. 39.

The fact that the General Congress has promulgated a specific law on climate change does not mean that local legislatures need to proceed in the same fashion. In fact, it is worth noting that the first proposals put forward by federal legislators to address climate change entailed modifying the General Law on Ecological Equilibrium and Environmental Protection. This legislation would also have been adapted so as to distribute powers among the three levels of governments, based on Section XXIX-G of Article 73 of the Constitution, which empowers the General Congress to "*promulgate laws which establish the concurrence of the federal government and state and municipal governments within the spheres of their respective powers in the area of environmental protection and preservation and restoration of ecological equilibrium*".

Lastly, the states of Chiapas,[4] Quintana Roo,[5] and Veracruz,[6] together with the DF,[7] already have local climate change laws in force that were passed prior to the LGCC. Such state legislation should be reviewed in light of the powers established by the LGCC and updated to entail corresponding reforms.

4 The Law on Climate Change Adaptation and Mitigation in the state of Chiapas was published in the *Official Gazette of the State* on December 7, 2010.

5 The Law on Climate Change Action in the state of Quintana Roo was published in the *Official Gazette* on March 29, 2012.

6 The State Law on Climate Change Mitigation and Adaptation of Veracruz was published in the *Official Gazette* on November 3, 2010.

7 The Law on Climate Change Mitigation and Adaptation and Sustainable Development for the Federal District was published in the *Official Gazette of the Federal District* on June 16, 2011.

Was a Law on Climate Change Necessary?

Pedro Morales

The General Law on Climate Change (LGCC), enacted on June 6, 2012, represents the main accomplishment of the Calderon administration to implement a clear commitment of Mexico for establishing mitigation and adaptation measures beyond those obligations that actually correspond to the country as per the international legal framework. With the LGCC, the next administration is forced to fulfill several objectives that had already been determined by the Special Program of Climate Change (or "PECC", which is only valid for the duration of the administration that prepared the same).

The government of President Calderon has manifested itself as a promoter of stringent environmental measures, though often with a lack of understanding of the problem being regulated. This can be verified by analyzing the amendments to the General Law of Wildlife of February 1st, 2007, by which the development of projects in mangrove areas was forbidden, stopping tourism and infrastructure projects, and in occasions representing a deterioration of the mangrove, by preventing investment in zones which were actually affected by non-point sources of pollutants such as those related to agriculture and municipal wastewater discharges.

Derived from the important impact of the mangrove provisions, that had a negative effect on the economy without the desired environmental benefits, the private sector decided to take its precautions when the initiative of LGCC was disclosed, project in charge of Senator Alberto Cardenas, former Minister of Environment and Natural Resources[1].

The first draft of the initiative, which assumed fixed goals and objectives and which seemed to established a regulated emissions market, which apparently established taxes to the consumption of fossil fuels, was "softened" into what finally became what is known as a "programmatic law", as a law with no

1 This lead to several complicated negotiations between the private sector and the team of Senator Cardenas, in light of the specific conditions of the country and national industry, that would not allow Mexico to adopt enforceable goals without affecting the local industry with regard to foreign ones, as long as conditions to address this matter were not solved by international negotiations, in which other countries should accept adopting certain obligations and provide support to developing countries.

teeth. In other words, the LGCC became a law with few enforceable provisions, mainly establishing several aspirational goals or general obligations[2].

Attending to such precedents, the LGCC may be seen as a success or a failure, depending on how we analyze the same. Therefore, an important question is: was it necessary to enact a new law, or would it have been preferable to amend existing laws and regulations?

Certainly, climate change has implications involving different matters which are regulated by a diversity of laws, and therefore we can assume that a specific law would be necessary for the coordination of this subject and prevent local authorities from issuing provisions that could result contradictory, preventing an adequate implementation of a national policy.

In light of the above, the LGCC creates a framework for coordinating efforts not only from the Federal authorities (as had already been done with the PECC), but also from the states and municipalities, as well as the Federal District, with the purpose of preventing local laws and programs that could contradict themselves and therefore complicate the implementation of a national policy.

With this, the law establishes that state climate change programs will be compatible with the national policy established by the Federal authorities. Likewise, municipal policies will have to be congruent as well with national and state policies.

Despite the above, it is important to comment that this could have been accomplished with a mere amendment of the General Law of Ecological Balance and Environmental Protection (" LGEEPA"), something that had already been partially done in January 28, 2011, when climate change was added as a regulated matter within said law.

It is important to comment that the framework of the LGCC does not solve several problems, since some powers described in the same to be of shared competence actually pertain exclusively to the municipal authorities, pursuant to the Mexican Constitution, such as policies for the management of non hazardous waste and of environmental land planning.

2 Such is the case of article 36 of the LGCC, which establishes that the Ministry of Environment and Natural Resources will promote in coordination with the Ministry of Finances and Public Credit and the Ministry of Energy, in their respective competence areas, the establishment of programs to foster, by means of fiscal and financial instruments, any persons interested in voluntarily participating in the development of projects for the reduction of emissions, or article 35 which establishes that with the goal of promoting the transition of generation of electric energy from fossil fuels to technologies that reduce emissions, the Ministry of Energy will establish policies and incentives fro fostering the use of low carbon technologies, considering the fuel to use.

With the LGCC the National Institute of Ecology and Climate Change is created, by means of transforming the National Institute of Ecology, currently a unit of the Ministry of Environment and Natural Resources, into a decentralized organism; and the foundation of a National System for Climate Change is also established, being a complex and very likely unnecessary system, implying an additional bureaucracy with the only benefit of the more involved participation of other Federal authorities as well as of state and municipal authorities, to face climate change in a more coordinated and organized manner.

It is also relevant to observe that the only enforceable provisions of the LGCC attend to reporting obligations for greenhouse gas generators, as may be established by future regulations and standards.

However, such obligations are already established by the LGEEPA, and a simple amendment to the same as well as to the *Regulations of the LGEEPA regarding the registry of Emissions and Transfer of Pollutants*, could have sufficed to implement a registry of greenhouse gas emissions, without requiring the enactment of a new law.

Finally, the much publicized emissions market established by the LGCC is also hailed as a major accomplishment of the law. In this regard, one of the first drafts of the law initiative did not make it clear if the intent of the law was to establish thresholds to fixed sources, creating a regulated market of emissions.

The final text of the LGCC in force attends to a voluntary market of emissions, but it is not clear how the same will function. In case that such market is implemented, the LGCC will have to be amended, since regulations would not suffice to fill the legal loopholes left by the law, that must establish at least the framework for the creation of such market, something which currently is not accomplished[3].

Due to all the above, we must conclude that the LGCC has few reasons to exist as an independent law, since it would have been more recommendable to amend several laws and regulations which already exist. However, it does represent an important step for establishing obligations to be developed by the following administration, and therefore may be considered more as an "inter-administration" program that will certainly force the coming administration of Enrique Peña Nieto to implement a climate change policy that remains compatible with the basic principles of the current government, set in the LGCC.

3 In this regard, the relationship between this market and other global or regional carbon markets is not clearly defined. It is also important to comment that in the first drafts of the LGCC, there were provisions that would have affected the additionality requirement of greenhouse gas reduction projects to be implemented in Mexico.

Energy Subsidies: Black or Green?

John Pendergrass

Government spending and tax provisions frequently are used to advance and promote other policies, including those that might affect climate change. Government spending on research and development, for example, is often used to promote the development of new technologies. In the area of climate change policy such research and development may include support for high capacity batteries, materials for converting solar energy to electricity, technologies for capturing and storing carbon dioxide, technologies for using energy more efficiently in applications from building heating and cooling to motor vehicles to lighting, and improvements in transmission technologies to reduce losses. Taxes can be lowered to promote certain industries or technologies or increased to discourage activities that are considered undesirable.

On the global scale climate change policy has yet to make full use of the potential inherent in spending and tax policies. In 2009, the G-20 leaders pledged to eliminate government subsidies for fossil fuels over the medium term noting that doing so could reduce fossil fuel use by ten percent. Mexico provides substantial support for fossil fuels, particularly through state controlled prices and tax provisions that favor fossil fuels.[1] The United States has historically provided strong government support for fossil fuels, using both spending and tax provisions, and more recently has also supported some renewable sources of energy as well. As Mexico begins to implement its General Law on Climate Change, the experience of the United States with respect to government support, or subsidies, for specific energy sources may provide useful perspective.

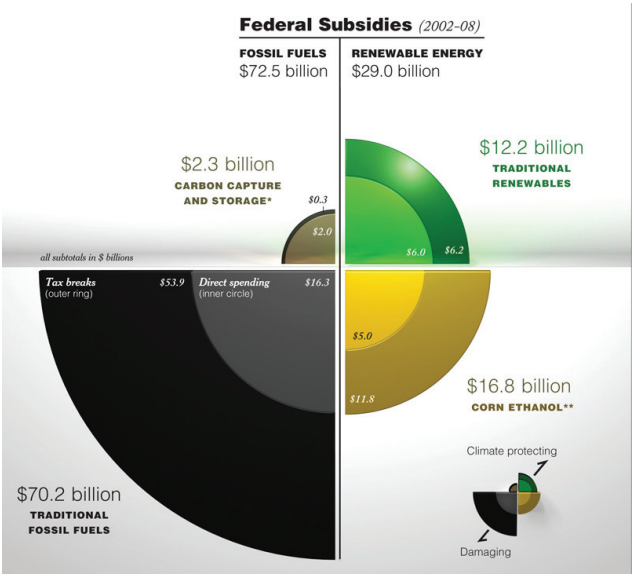
Government support for specific energy sources can be provided in a variety of forms including explicit and hidden government subsidies that affect energy use throughout the economy. In an effort to examine this issue, the Environmental Law Institute (ELI) conducted a review of fossil fuel and renewable energy subsidies by the U.S. federal government for Fiscal Years 2002-2008. The following briefly describes the approach used to identify and quantify the subsidies presented in the accompanying graphic. ELI researchers used a standardized methodology to calculate government expenditures. Where this

1 OECD-IEA Fossil Fuel Subsidies and Other Support, MEXICO: INVENTORY OF ESTIMATED BUDGETARY SUPPORT AND TAX EXPENDITURES FOR FOSSIL FUELS, http://www.oecd.org/site/tadffss/48786461.pdf (last visited November 19, 2012).

methodology was lacking or did not apply, ELI researchers calculated subsidy values on a case-by-case basis.

Applying a conservative approach, explained in further detail below, ELI found that

- The vast majority of federal subsidies supported energy sources that emit high levels of greenhouse gases when used as fuel, including oil, natural gas, coal, and corn-based ethanol.
- The federal government provided substantially larger subsidies to fossil fuels than to renewable energy sources. Subsidies to fossil fuels—a mature, developed industry that has enjoyed government support for many years—totaled more than $72 billion over the study period.
- Subsidies for renewable sources of energy, a relatively young and developing industry, totaled $29 billion over the same period.



*Carbon capture and storage is a developing technology that would allow coal-burning utilities to capture and store their carbon dioxide emissions. Although this technology does not make coal a renewable fuel, if successful it would reduce greenhouse gas emissions compared to coal plants that do not use this technology.

**Recognizing that the production and use of corn-based ethanol may generate significant greenhouse gas emissions, the data depict renewable subsidies both with and without ethanol subsidies.

Sources: Internal Revenue Service, U.S. Department of Energy (Energy Information Administration), Congressional Joint Committee on Taxation, Office of Management and Budget, & U.S. Department of Agriculture, via Environmental Law Institute.

- Subsidies to fossil fuels generally increased over the study period (though they decreased in 2008), while funding for renewable sources increased but saw a precipitous drop in 2006-07 (though they increased in 2008).
- Approximately 75% of the subsidies for oil, natural gas, and coal were provided through tax breaks provided to producers or consumers of those fuels or through reduced royalties and other revenue that otherwise would have been collected by the federal government.
- Most of the largest subsidies to fossil fuels were written into the U.S. Tax Code as permanent provisions. By comparison, many subsidies for renewables are time-limited initiatives implemented through energy bills, with expiration dates that limit their usefulness to the renewables industry.
- The vast majority of subsidy dollars to fossil fuels can be attributed to just a handful of tax breaks, such as the Foreign Tax Credit ($15.3 billion) and the Credit for Production of Nonconventional Fuels ($14.1 billion). The largest of these, the Foreign Tax Credit, applies to the overseas production of oil through a provision of the Tax Code that allows energy companies to claim a tax credit for payments that would normally receive less-beneficial tax treatment.
- Almost half of the subsidies for renewables are attributable to corn-based ethanol, the use of which, while decreasing American reliance on foreign oil, raises considerable questions about effects on climate.

The subsidies examined fall roughly into two categories: (1) foregone revenues, mostly in the form of tax expenditures (provisions in the U.S. Tax Code to reduce the tax liabilities of particular entities), and lost government revenue from offshore leasing (through the under-collection of royalty payments); and (2) direct spending, in the form of expenditures on research and development and other programs.

ELI applied the conventional definitions of fossil fuels and renewable energy: fossil fuels include petroleum and its byproducts, natural gas, and coal products, while renewable fuels include wind, solar, biofuels and biomass, hydropower, and geothermal energy production. Nuclear energy, which falls outside the operating definition of fossil and renewable fuels, was not included. Although the graphic draws a general conclusion about the overall emissions profile of fossil fuels (high) versus renewable energy sources other than corn-derived ethanol (low), the study did not identify the precise greenhouse gas emission profile of these fuels. Nor did it analyze other environmental effects of fossil fuel and renewable energy subsidies. ELI examined only fuel-specific subsidies, not those that are available to all industries.

The analysis does not include

- energy efficiency measures;
- non-fuel-specific transportation spending (on either roads or vehicles);
- non-fuel-specific subsidies to the electricity sector;
- the subsidizing effects of regulatory or procurement standards; and
- other measures that either are not fuel-specific or do not affect the federal budget.

Several limitations should be noted. The study, which calculates subsidies in aggregate fiscal terms, does not seek to determine how these subsidies affect energy production or consumption, or whether they ultimately benefit consumers or industry. Such an assessment requires a considerably more complex level of analysis, one that exceeds the scope of this study.

The study also does not offer normative judgments about these subsidies. That is, the identification of fuel-specific subsidies does not constitute a recommendation that each one of these subsidies be phased out, but is simply intended to show how federal tax dollars support fossil fuel and renewable energy production and use. For example (and as explained further below), the value of fossil fuel subsidies generated by the Low-Income Home Energy Assistance Program (LIHEAP) was calculated, although providing heating assistance for low-income households may be a worthwhile policy goal. Similarly, the study counts funds used to support carbon capture and storage programs[2] as a fossil fuel subsidy, despite their potential to reduce the emissions associated with burning coal. This is because carbon capture and storage expenditures, consistent with the definition above, are directed at the fossil fuel sector. On the renewable side, subsidies to corn ethanol were tallied as a renewable fuel subsidy, although whether the production of corn-based ethanol constitutes a net subtraction of greenhouse gas emissions has been subject to significant debate.[3]

2 Carbon capture and storage is a developing technology that would allow coal-burning utilities to capture and store their carbon dioxide emissions. While decreasing a plant's efficiency, this technology would also reduce greenhouse gas emissions compared to coal plants that do not use the technology, or those using oil or natural gas to generate electricity.

3 Recognizing that the production and use of corn-based ethanol may generate significant greenhouse gas emissions, the data depict renewable subsidies both with and without ethanol subsidies.

General Law on Climate Change: The Challenge of its Implementation in Mexico

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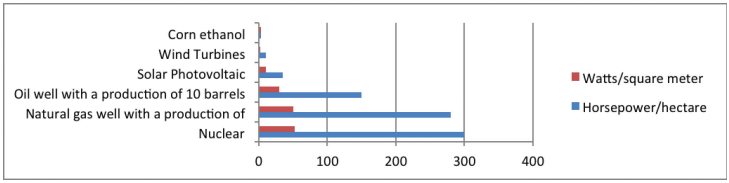
The General Law on Climate Change (*Official Gazette of the Federation*, 6/12/2012) envisions two major goals: (i) The reduction of greenhouse-gas emissions in the short and long term: a 30% reduction in greenhouse-gas emissions by 2020 and 50% by 2050 (as compared to the year 2000), through the generation of renewable energy (it is expected that by 2024, 35% of electricity generation will be produced from clean energy) and the creation of the National Emissions Registry in which companies must report their emissions; and (ii) A series of non-binding provisions aimed at ensuring that the State has institutions in place to develop or promote the development of policies that will enable the achievement of the Law´s objectives.

There are diverse challenges to overcome in order to achieve this objective:

i) Fossil fuels will continue to be Mexico' principal source of energy. This makes sense considering that — according to the National Commission on Hydrocarbons (Estrada, 2012) — notwithstanding the difficulties for its extraction, as in the case of shale gas or oil in deep waters, Mexico should have reserves of oil and gas for at least 200 years, but does not own sufficient technology to carry out that extraction, or to transition to renewable energy sources. The dependence on advanced technology and on public and private financing that that would be required to achieve these goals in a world racing to obtain funds for these precise purposes is a matter that requires further analysis.

ii) Projects for renewable energy generation (i.e. Wind, solar, geothermal, and hydroelectric), even when they — in theory — do not result in greenhouse-gas emissions, also entail negative impacts to the ecosystems, caused by bird and bats death tolls in the case of wind farms, or because of the extent of land required for the development solar projects. Table 1 shows the relationship between the energy density produced per unit of surface area depending on the energy source:

Energy Source	Horsepower/ hectare	Watts/square meter
Nuclear	300	56
Natural gas well with a production of 115,000 cubic feet per day	287.5	53
Oil well with a production of 10 barrels per day	150	27
Solar Photovoltaic	36	6.7
Wind turbines	6.4	1.2
Corn ethanol	0.26	0.05



Source: Bryce Robert, "Power Hungry", *Public Affairs*, United States of America, 2010, p. 90.

From this perspective, would the goal of reducing greenhouse gas emissions hinder other laws for environmental protection? If so, the authorities responsible for undertaking this assessment will have to weigh the benefits and drawbacks entailed by each project and then give preponderance to one objective, sacrificing the other, even when the protection of both interests share the goal of improving the condition of Mexico´s natural elements

iii) Furthermore, the Law focuses on the production of fuel and the emissions generated, but does not address the effect of the demand, which is the factor sustaining large and increasing production. Our consumer culture as a society is at the heart of the problem.

iv) An update of the concepts and values in this field — starting with the legislation — that pervades the public policies is required. We want a 'low-carbon' society with a systemic cluster vision in which the efficiency of infrastructural networks is what matters: professionally-managed and -operated intelligent electrical grids, storage, transmission, and distribution; communication and telecommunication networks designed so as to have a low carbon footprint; serious policies in the fields of eco-agriculture and responsible tourism. It should also focus on the transition from environmentally responsible industrial production to

'green' production and the substitution of installations, processes, and raw materials in the short term.

v) This can only be achieved through highly adaptable and vigorous public policies, which require fundamental changes to the traditional civil law principles (such as acquired rights and legal certainty *lato sensu*), as well as adjustments to the existing decision-making instruments, principles, procedures, and environmental and social scientific assessments. The adoption of valuable tools to assess plans, programs, and policies, such as the Strategic Environmental Impact Assessment should be considered.

vi) The Law limits itself to establishing goals, but does not go further or include any reference to the specific planning that must be undertaken for their achievement, delegating that responsibility to subsequent regulations. It remains unclear if the cross-cutting nature of the problem is in fact understood.

In this context, to create new regulations and reform the existing ones is necessary, though profoundly insufficient. However, it is worth keeping in mind that even if an adequate legislation by itself does not guarantee compliance with the policy it attempts to institute, that same policy will be non-achievable in the absence of that law.