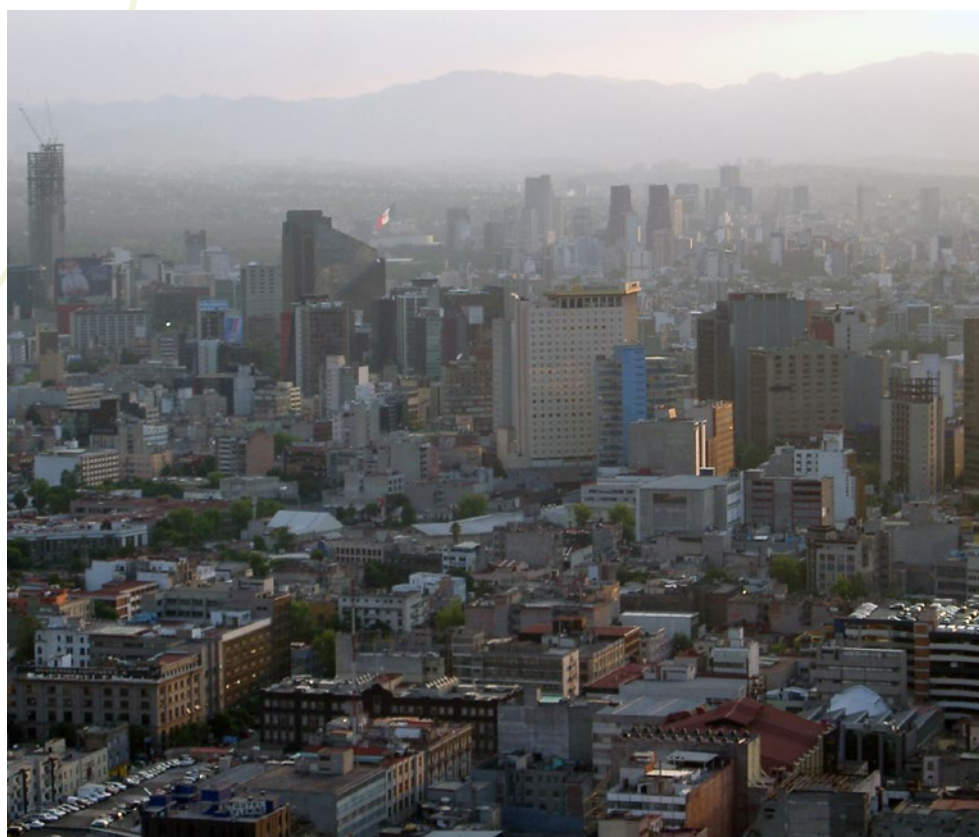# Mexico
Building a comprehensive national MRV framework

Activity	Development and implementation of a comprehensive national MRV institutional framework in Mexico
Country	Mexico
Sector(s) involved	Industry; Energy; Transport; Waste
Time frame	2004 to present
Case summary	Mexico has shown international leadership in developing legislation, policy and programmes to support its transition to a low carbon economy. A general law on climate change was recently approved and a long term climate change strategy is under implementation, together with a multi-stakeholder approach to develop an institutional MRV framework to support NAMAs and LEDS. The institutional MRV framework being implemented aims to go beyond simply tracking emission reductions and includes a set of measures, systems and registries to perform policy evaluation, institutional strengthening and ultimately support decision-making. Currently the MRV framework in Mexico consists of several mechanisms, including laws, reporting rules, estimation methodologies, and coordination among different institutions of the public and private sector. These mechanisms continue to be developed and continuously improved and currently serve as a good example of progress towards a comprehensive national MRV framework.

Mexico City, Mexico

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**LOW EMISSION
CAPACITY BUILDING
PROGRAMME**

Mexico
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Background

In 2000 Mexico launched its first National Climate Action Strategy (updated in 2013 after the completion of an innovative federal Climate Change Special Programme 2009–2012), followed by a national pledge to reduce greenhouse gas emissions by 30 % by 2020, and 50 % by 2050. This pledge was announced in 2010 by President Calderon at UNFCCC-COP16 in Cancun, and triggered action and policy-making not only at the federal level, but also at the state and municipal level.

The first milestone towards building an institutional MRV framework in Mexico was the introduction of the voluntary GHG reporting programme from the private sector in 2004, using the World Resources Institute's GHG Protocol. This programme and the data and information it generated then helped to com-moditise GHG emissions through Mexico's engagement with the Clean Development Mechanism (CDM).

In 2007 the National Development Plan included a set of objectives related to climate change, which were further developed in the national strategy on climate change. A more comprehensive approach was taken with the Climate Change Special Programme 2009–2012 (PECC), which required federal entities to use indicators to assess progress, not only in terms of emission reductions, but also in how policy, pro-grammes and projects were implemented. The main impact of including a set of indicators as a milestone of the MRV institutional framework is that this allowed the Ministry of Environment (SEMARNAT) to assess progress, and more importantly, correct and improve policy to re-align goals with activities under this programme.

Climate policy has resulted in the development of several NAMA proposals, and an updated National Climate Change Strategy with a long-term view to the next ten, twenty and forty years. Together with this strategy, Mexico has built on the experience and capacity created under the Clean Development Mech-anism (CDM) to introduce the concept of NAMAs in different sectors, accompanied by an evolving MRV institutional framework.

Activities

» General Law on Climate Change (GLCC): The 2012 General Law gave a mandate to federal government to develop long-term climate change policy using impact and effectiveness indicators to facilitate eval-uation and focus on results. Indicators had already been developed for the Crosscutting Agenda Infor-mation System (SIAT-PECC) supporting the PECC (2009–12), a web-based tool that tracks progress of activities under this programme. This progress is not only reviewed by SEMARNAT, but it is reported to the President's Office every other month, resulting in several ministries enacting programmes and projects to comply with top-level official mandates, and ultimately PECC's objectives.

» Establishing an institutional framework: As a relatively new area of activity with little international ex-perience to draw on, Mexico and its international partners are undertaking a rapid learning-by-doing process that aims to establish a long-term MRV institutional framework according to domestic needs and capacities (see figure below). The current focus is on tracking policy and emissions (quantification of co-benefits to follow) with focussing on the establishment and implementation of the following:

» Climate Change National Strategy: Mandated by the Climate Change General Law, this is the long-term vision published in 2013. One of its 6 pillars requires the development of tools for Measurement, Reporting and Verification, and Monitoring and Evaluation to ensure environmental integrity, compa-rability, consistency, transparency and accuracy of data to support the achievement of the national adaptation and mitigation policy objectives.

» Climate Change Special Programme 2013–2018: This programme includes objectives, strategies, ac-tions and goals for the federal government in tackling climate change. This is the 2nd edition, and it has been improved in the use of indicators and parameters that support the SIAT-PECC, a tracking progress system of this plan, not only in terms of emissions, but also in terms of institutional activities. It was published in April 2014.

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» **National Emissions Registry (NER):** This registry will consider all industrial and mobile sources, according to reporting thresholds and other parameters currently under discussion. A first take around volume is that installations with emissions higher than 25,000 tons of CO_2e/a will need to report emissions to the NER. It will be hosted at the INECC, and it is expected to be fully functional in 2015, with verification every 3 years.
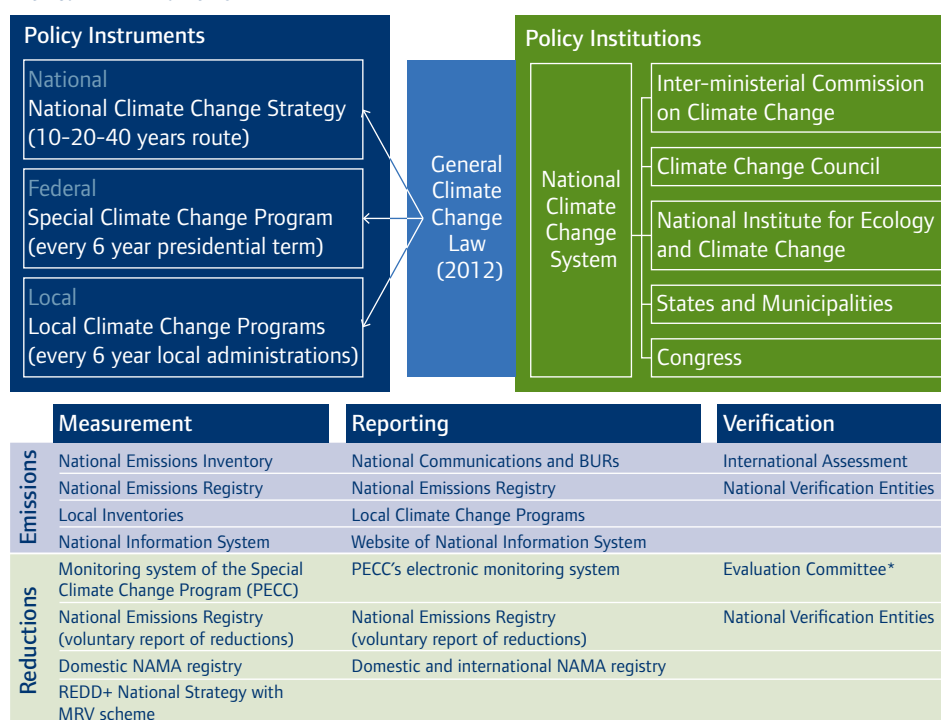
Institutions involved	Inter-Ministerial Commission on Climate Change (CICC); Ministry of Environment and Natural Resources (SEMARNAT); National Institute of Ecology and Climate Change (INECC); Commission on Private Sector Studies for Sustainable Development (CESPEDES).
Cooperation with	Global Environment Facility (GEF), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Inter-American Development Bank (IADB), United Nations Development Programme (UNDP) and USAID.
Finance	The MRV institutional framework has long been financed through the Mexican Federal Government. However, several of the estimation methodologies, instruments, processes and policy design, particularly as they are related to LEDS and NAMAs, are funded with resources from international sources. Donors include the Dutch Ministry of Infrastructure and the Environment, the European Union, the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) through its International Climate Initiative (IKI), IADB, KfW, UNDP, USAID, and World Bank. Several donors are keen to work with the country, as Mexico's development of an MRV framework makes it easier to track impact, making technical cooperation financing relatively more attractive than in other countries.

Mexican MRV Framework

Policy Instruments

National
National Climate Change Strategy (10-20-40 years route)

Federal
Special Climate Change Program (every 6 year presidential term)

Local
Local Climate Change Programs (every 6 year local administrations)

General Climate Change Law (2012)

Policy Institutions

National Climate Change System

- Inter-ministerial Commission on Climate Change
- Climate Change Council
- National Institute for Ecology and Climate Change
- States and Municipalities
- Congress

	Measurement	Reporting	Verification
Emissions	National Emissions Inventory	National Communications and BURs	International Assessment
	National Emissions Registry	National Emissions Registry	National Verification Entities
	Local Inventories	Local Climate Change Programs	
	National Information System	Website of National Information System	
Reductions	Monitoring system of the Special Climate Change Program (PECC)	PECC's electronic monitoring system	Evaluation Committee*
	National Emissions Registry (voluntary report of reductions)	National Emissions Registry (voluntary report of reductions)	National Verification Entities
	Domestic NAMA registry	Domestic and international NAMA registry	
	REDD+ National Strategy with MRV scheme		

* Policy Evaluation: Adaption policy reviewed and updated at least every 6 years. Mitigation policy reviewed and updated at least every 10 years.
Source: Semarnat (2014) Mexican Climate Change Law and Policy. March 2014. Presentation by Mónica Echegoyen López, Director for Global Environmental Policy.

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Impact of activities	» **Enhanced institutional capacity:** The main impact of developing an MRV institutional framework is that decision-making is being backed up by data that confirms policy effectiveness. In turn, this has attracted resources from international donors, as they can better track impact and progress. These additional resources have resulted in the enhancement of institutional capacity, within and outside the government.
	» **Reduced burden to regulated entities:** An MRV system is a key component of climate policy, and as such, Mexico, particularly working together with the private sector, has introduced MRV right from the beginning of policy design, with the aim of reducing negative impacts and burdens to regulated entities.
	» **Low-carbon supply chain:** Nowadays, several participants in the GHG Programme, according to their internal voluntary commitments, use the MRV institutional framework to reduce emissions and extend this voluntary participation to their supply chain, using the GHG Programme guidelines. The GHG Programme is now advocating simplified reporting, to include GHG emissions and other environmental and social responsibility commitments, so to minimise compliance costs and burdens, as well as the need to file multiple reports, including those associated with financing low carbon and clean energy projects.
	» **Long-term framework:** MRV is developing broader utility not only for tracking emissions, but also helping inform policy design and evaluation across the board. It is being used as a tool to evaluate the Climate Change Special Programme (PECC), and to better define measures and methodologies to assess the impact of emission reductions and policy development
Why is it good practice	» The case is good practice as the country recognised the need of a set of coordinating mechanisms to comply with the high-level goal of fighting climate change. At the same time, defining and implementing an MRV institutional framework has changed the policy-making process, as now it requires the use of indicators and tracking systems that allow continuous follow-up, as well as the possibility of verifying achievement of expected results and making corrections when diversions occur. Furthermore, the MRV framework provides additional transparency and quantification of impacts on how money is being used from both domestic and international resources.
	» The institutional framework is also good practice, as it was backed and mandated by the President's office to track progress. This is particularly important, as climate change is still a contentious issue and focusing on results is key in developing effective climate policy.
	» Further, the MRV case of Mexico is good practice as the country has managed to build the pillars of a long-term transformational way to implement policy, mainstreaming the need for performance indicators, evaluation methods, and compliance with the GLCC.
Success factors	» **Climate change general law:** The most important factors for success in developing the MRV framework are two-fold. First, the Climate Change General Law requires that MRV be part of any policy or programme that relates to climate change policy. Second, NAMAs are the climate strategy of choice in Mexico, and conceptually, they require that MRV be fully integrated right from the beginning of the policy consultation.
	» **High-level political support:** As a high political priority for the country, climate change activity is supported by a strong mandate and effective coordinating mechanisms among a number of key ministries.
	» **Greenhouse Gas (GHG) Programme:** This programme is to some extent a legacy of the CDM in Mexico, and it was the first programme to start reporting emissions on a voluntary basis. The programme is quite effective because it is voluntary, free, and recognised by government. This programme has

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evolved from reporting, to the identification of emission reduction opportunities, to its current status of verification of emission reductions within the private sector, while creating synergies and reducing reporting costs. To see this in context, the first expected period for verification in Mexico is in 2015. Thus, no other single installation, under other programmes, neither public nor private, has been verified, except from the CDM context.

Overcoming barriers/ challenges	What were the main barriers/challenges to delivery? How were these barriers/challenges overcome?
Capacity	Resources are too limited to reach the whole country, and are concentrated in the larger cities. Key players are considering using remote systems to perform training relevant to the local context. There is a need for additional capacity on MRV at all levels, including federal organizations, ministries, states and municipalities, as well as the private sector and civil society. A first approach to address this challenge has been through the free GHG Programme, where capacities are being outsourced. However stakeholders agree that this approach is not sustainable in the long-run. Regarding the public sector, there is a challenge in increasing domestic and internal capacity related to climate change. An alternative is to outsource the implementation of different elements of the MRV institutional framework, particularly in the verification process, similarly to the CDM validation and verification process.
Financial	The country lacks the financial resources needed to comply with the high international expectations of an MRV framework. Voluntary programmes are being funded by the private sector and the international community. However, there is a tremendous challenge on using a voluntary programme to address an issue that creates additional burdens and costs to regulated entities. There is a need to inform the private sector how MRV can be used for their own benefit.
Information	Reporting methods have relied on independent, isolated and non-verifiable information systems. Mexico is taking steps to improve reporting through electronic platforms and available GHG estimation methodologies in Spanish, whilst also introducing verification and auditable processes. Information across ministries, public and private sector, and civil society organisations does not flow naturally. SEMARNAT, together with its partners, have helped in communicating the benefits of using MRV, and particularly how MRV can be used for better decision-making by other ministries.
Institutional	Despite the growth of international support, domestic institutions have not been able to cope with the technical and administrative challenges of an MRV framework at the national level. Several efforts have been accomplished by creating temporary outsourced capacities, funded by donors. However, these capacities are temporary and end up diluted due to limited continuity in processes, and outsourcing tends to be expensive. With the approval of the GLCC, it is expected that institutional capacities will be enhanced within the public and private sectors. Timing has not been considered fully in policy development and regulation design when it comes to policy implementation. Many elements of the national strategy take longer than expected due to institutional limitations and financial barriers (most GLCC secondary legislation was due within a year). This has resulted in institutions collapsing due to the enormous amount of work set for a simultaneous deadline. As the GLCC is new, limited resources were used to determine the required technical capacities to assure proper and timely implementation. The coordinating mechanisms of the Climate Change Commission (CICC) have been challenged to working better together, in order to perform tasks faster, and to comply with the timing of the GLCC.

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Despite international technical and financial support the lack of a model or blueprint from developed or developing countries on how to implement an MRV institutional framework, has created the need for a rapid learning-by-doing process.

Mexico has managed to create and adapt MRV to the local context, capacities and financial resources. However, there is a challenge to create systematic and comparable reports that are consistent with the technical discussions at the UNFCCC, while keeping them affordable and relevant domestically.

From the policy perspective, the main challenge associated with developing an MRV institutional framework is in ensuring that it is envisaged as a complete system.

Stakeholders consider that a more incremental approach should be followed. This way, improvements can be made according to the existing and evolving capacities of the country. As there is no blueprint on how to develop an MRV framework, there is a challenge and opportunity to learn from developed countries on how their own MRV frameworks were put in place. Today, SEMARNAT and INECC are setting standards for monitoring and reporting within the MRV institutional framework. However, there is a need to provide further incentives to support verification.

There is a CDM culture associated with climate policy that has created discussions on how the MRV should be, and how it is useful.

SEMARNAT is focusing discussions on how the MRV could be of use, and how it differs from the CDM, so that it is useful in the context of NAMAs and LEDS, rather than only focusing on access to carbon markets. CESPEDES is assembling databases, documents, methodologies, among other inputs to facilitate reporting, and use it as a tool for improving GHG performance of all installations under the GHG Programme.

Lessons learned

Planning and coordination: It is very difficult to implement an MRV framework that has no blueprint, so investing in planning and coordinating mechanisms for how the MRV will work is key in order to avoid duplication of reporting, improve comparability, and assure data quality. No less important, is that with an MRV framework, it is easier for stakeholders (including donors) to track impacts.

» Methodologies and approaches were not agreed at the beginning of policy development and implementation: This resulted in data and models that now use different approaches (top-down vs. bottom-up), that rely on different information, and ultimately create more uncertainty about the results of climate change policy, and the identification of opportunities for emission reductions.

» Blending of national and international resources: This is required in a way that these can be partially absorbed into the national institutional framework, to make MRV a continuous process.

» Evaluate and revise existing MRV approaches and technical capacity: For example, technical capacities developed to support CDM delivery, which many stakeholders saw as the prevailing MRV framework in Mexico.

How to replicate this practice

» Creating and enhancing coordinating mechanisms: Helps to avoid duplication right from the beginning of policy design, and improve it through development and implementation. These coordinating mechanisms will be key for policy evaluation.

» Legislative mandate: The Climate Change General Law eliminated or reduced several barriers for the implementation of a more robust and comprehensive framework. Having a general law creates institutional frameworks that help in reaching consensus, and assure better policy-making.

» **Provide reporting and estimation methodologies in appropriate, local language:** Using a simplified language that facilitates reporting through tools, and available web-based support documents. Assure that regulated entities fully understand how their information will be used, and what quality assurance process it will follow before verification.

» **Internalise MRV capacities into existing institutions:** In order to become part of ministries and create a continuous process of improvement, of both the MRV as a system, and policy-making in general. Start incrementally, in small strides, as the MRV framework is for the long run. Prioritise sectors, and use existing capacities.

» **Show from the start how MRV is useful, and how institutions and regulated entities could benefit from it:** MRV can be used as a tool to calculate carbon footprint and emission reduction opportunities, as well as costs and savings, that can later be monetised in future carbon market mechanisms. MRV can be seen as a tool to improve a more integrated approach to policy evaluation, rather than meeting only climate policy criteria.

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Further key resources	» Presidencia de la República. (2012). Desarrollo Sustentable. Accessed on March 7, 2014. Available at: http://calderon.presidencia.gob.mx/informe/sexto/sustentabilidad_ambiental.html » SEMARNAT. (2009). Programa Especial de Cambio Climático. Accessed on February 14, 2014. Available at: http://gia.imta.mx/geoportal/docs/PECC.pdf » CÁMARA DE DIPUTADOS. (2012). Ley General de Cambio Climático. México. Accessed on February 14, 2014. Available at: www.diputados.gob.mx/LeyesBiblio/pdf/LGCC.pdf » SEMARNAT. (2013). Estrategia Nacional de Cambio Climático. Accessed on February 14, 2014. Available at: www.dof.gob.mx/nota_detalle_popup.php?codigo=5301093 » GIZ. (2013). Evaluación del Programa Especial de Cambio Climático. Accessed on February 14, 2014. Available at: http://imco.org.mx/wp-content/uploads/2013/2/studie_2_pecc_web_ok4.pdf » COMISIÓN INTERSECRETARIAL DE CAMBIO CLIMÁTICO, (2012), Informe de Avances del Programa Especial de Cambio Climático 2009–2012. Accessed on February 14, 2014. Available at: www.conagua.gob.mx/conagua07/contenido/documentos/pecc12.pdf
Website(s)	» CESPEDES GHG Voluntary Programme website: www.geimexico.org/ » Instituto Nacional de Ecología y Cambio Climático. www.inecc.gob.mx/
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