



Template for Organizing Framework for Scoping of PMR activities

Country: **MEXICO**

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Outline

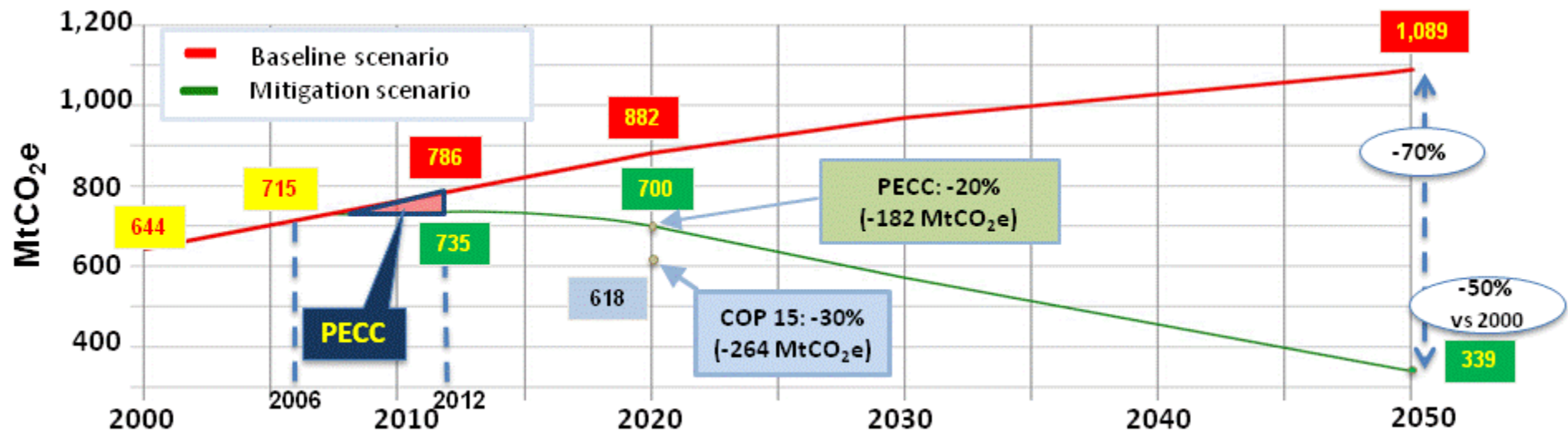
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**For the purpose of the PMR, market instruments refer to domestic instruments (e.g., emissions trading scheme) and, without prejudging the outcomes under the United Nations Framework Convention on Climate Change negotiations, scaled-up market mechanisms.*

1. Policy context: Domestic mitigation objectives and role of market instrument(s) (1/5)

1.1 Policy context, objectives and envisioned role for new market instruments

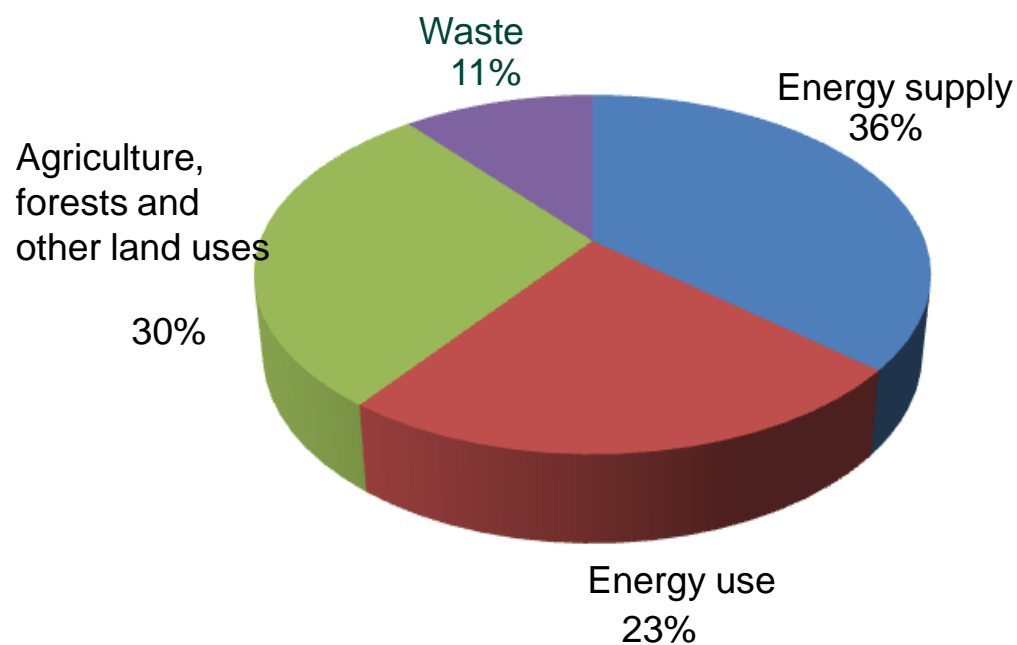
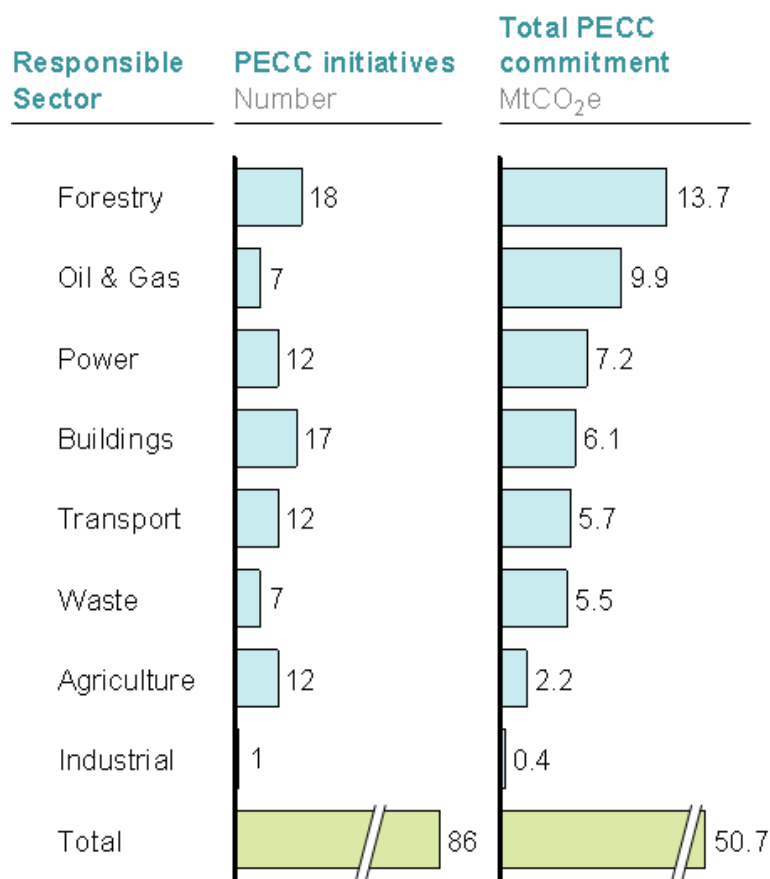
- ◆ Under the Special Program on Climate Change 2009-2012 (PECC), Mexico has committed to reduce 51 million tCO₂e/year in 2012 as compared to BAU projections. Also, Mexico has committed to achieve until to 30% reduction from BAU levels by 2020, provided there is available, and technology transfer from the Annex 1 funding countries. According to the official PECC, to achieve the mitigation targets, it is expected that all sources of financing, will be needed, including market resources through vehicles such as sectoral NAMAs and CDM operations.



1. Policy context: Domestic mitigation objectives and role of market instrument(s) (2/5)

1.1 Policy context, objectives and envisioned role for new market instruments

- ◆ The following graph shows the main sectors allowing reductions of 51 MtCO₂e by 2012



1. Policy context: Domestic mitigation objectives and role of market instrument(s) (3/5)

1.2 Overview of country's GHG emissions (as per PECC)

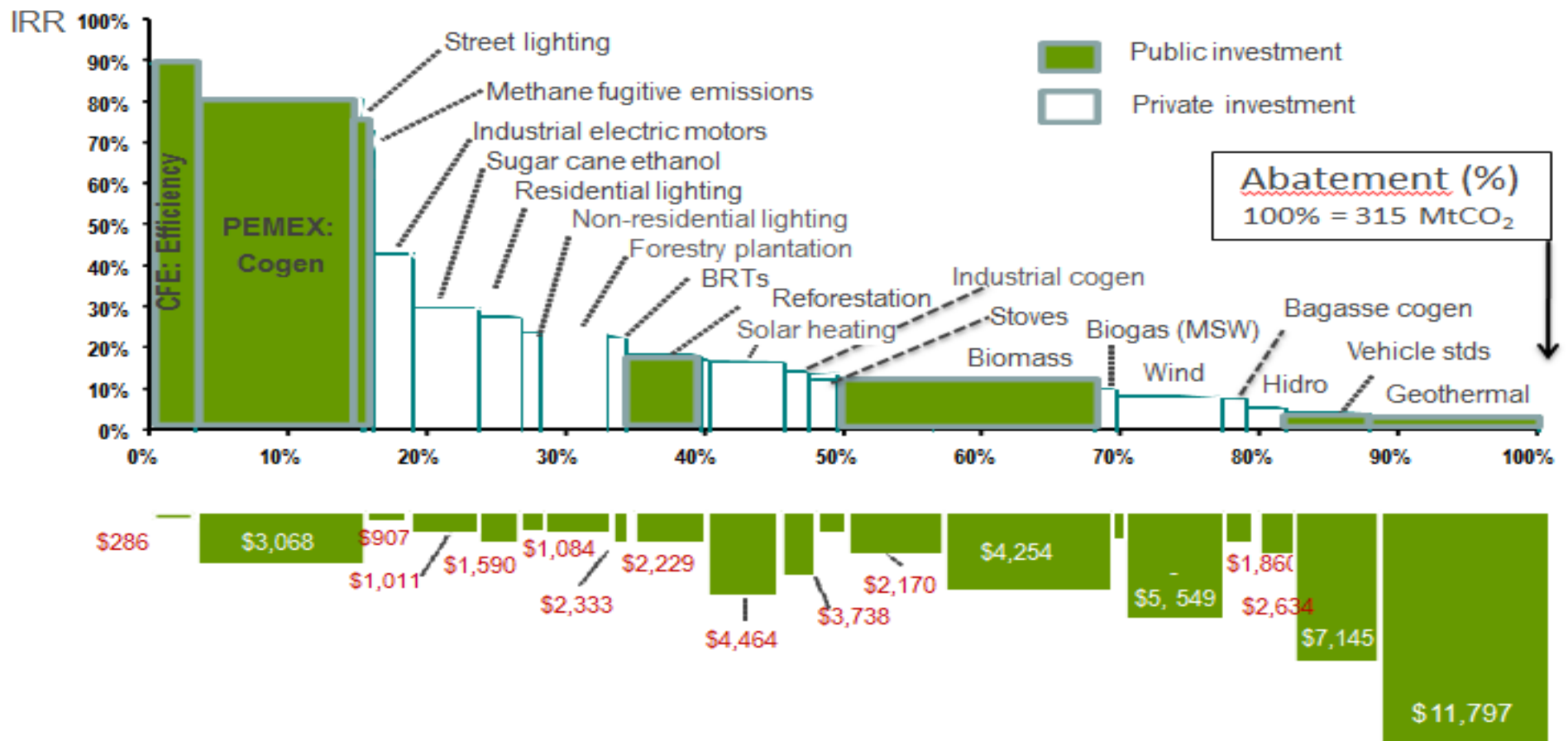
Scenario	2000	2020
	(MtCO ₂ e)	
Baseline trend (BAU)	643.6	881.7
Mitigation scenario (50% by 2050)	643.6	700.0
Reduction compared to 2000 (%)	-	+8.8%
Reduction compared to baseline according PECC (%)	-	-20.6%
Reduction compared to baseline according COP 15 (%)	-	-29.9%

- *Baseline scenario indicates a growth of 37% by 2020, 41% by 2030 and 70% by 205*

1. Policy context: Domestic mitigation objectives and role of market instrument(s) (4/5)

1.3 Interest in market-based instrument(s)

- ◆ In general, **Mexico's** main approach is that activities that are profitable or represent economic and social benefits in the short to mid-term, should be part of the activities required to comply with the federal mitigation targets (ie, domestic emission reductions). Those activities with low implementation costs could be done with either domestic funding (ie, unilateral) or international grant funds, or on concessional terms (ie, supported). Whereas, those with higher development and implementation costs should be referred to the market. **The figure below already depicts some of the activities that can be financed through private investment.**



1. Policy context: Domestic mitigation objectives and role of market instrument(s) (5/5)

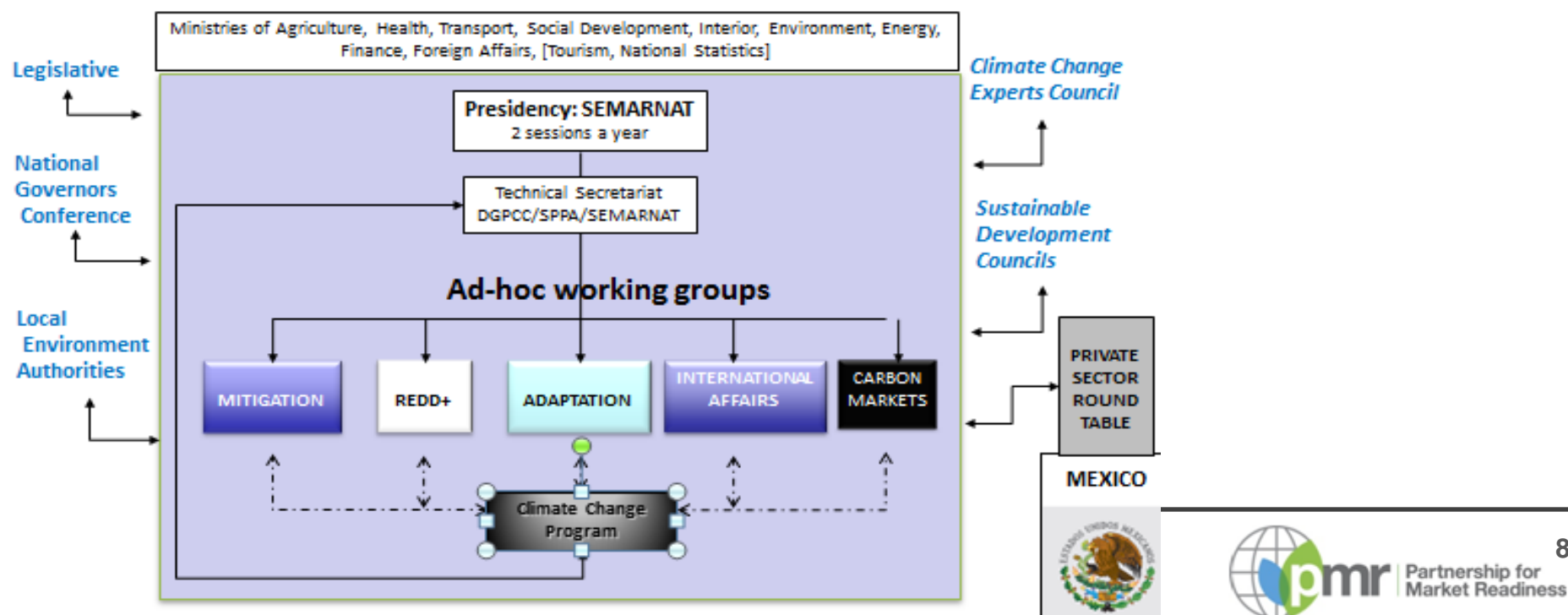
1.3 Interest in market-based instrument(s)

- ◆ PMR financing may help development of solid MRV mechanisms and tools, to help, among others, manage double counting risks, setting the boundaries for NAMA crediting, establish criteria and conditions for monitoring and record keeping, and develop a registry system on carbon funding, that may serve as clearing house on the different markets available.
- ◆ Also PMR resources should be used for improve regulatory framework, capacity building and institutional strengthening, and for promotion and positioning activities to attract investors.
- ◆ Mexico is interested in further developing market-based NAMAs and internationally scaling up the national efforts on:
 - i. Energy efficiency in social housing
 - ii. Energy efficiency and non ODS-using appliances
 - iii. Methane destruction or use at Solid Waste Disposal
 - iv. Improved blended cement production and use
 - v. Reduced fuel consumption at efficient urban transport systems
 - vi. Energy Efficiency through specific end use technologies.

2. Organization and consultations (1/2)

2.1 PMR contact point

- SEMARNAT (Juan Mata, Principal; Jose Antonio Urteaga, Alternate) will be leading the coordination and implementation of the PMR support activities.
- SEMARNAT will rely on the National Ministerial Commission of Climate Change (CICC), which is already developing Mexico's PECC and climate change mitigation and adaptation strategy.
- In coordination with some members of CICC, private sector, and studies performed by CCAP, Point Carbon-Perspectivs and Ecofys, Mexico has advanced in the identification of the NAMAs which have a market potential, are at an advanced degree of preparedness and commitment, and



2. Organization and consultations (2/2)

2.2 Partners in the formulation and implementation of the country's Market Readiness Proposal

Following are the institutional partners involved in each of the PMR support proposal

Activity	Main partner	Other partners
Regulatory improvements	SEMARNAT	Legislative, CICC
Capacity building	SEMARNAT	SEDESOL, CANACEM, CONAVI, SENER, SCT, ANFAD, Local Governments
Raising awareness	SEMARNAT	SEDESOL, CANACEM, CONAVI, SENER, SCT, ANFAD
MRV development (inventories, registry, clearing house, boundaries)	SEMARNAT	SEDESOL, CANACEM, CONAVI, SENER, SCT, ANFAD, SRE, SECOFI
NAMA on Housing	CONAVI	INFONAVIT, SEMARNAT
NAMA on APPLIANCES	ANFAD	SEMARNAT
NAMA on Solid Waste	SEMARNAT	SEDESOL
NAMA on Cement	CANACEM	SEMARNAT
NAMA on Energy Efficiency	SENER	SEMARNAT
NAMA on Public Transport	SEDESOL, Local Governments	SEMARNAT

3. Technical building blocks of market-readiness (1/5)



3.1 Taking stock of relevant sectors (and/or regions) – (1 slide per sector/region)

NAMA on Housing

- ◆ CONAVI is developing a NAMA on Housing, which builds on the on-going Green Mortgage program. This program provides a subsidy, in the form of a reduction in the mortgage rate for houses that meet energy saving targets, through: (i) solar water heater equipment; (ii) less power demand resulting from adopting fluorescent compact lamps); (iii) insulation in walls and ceilings; and eventually other technologies as photovoltaic panels. It is expected that under the program each house will reduce about 1 tCO₂e per year, and that about 600,000 houses will be built per year until 2020.
- ◆ The NAMA would help increase the number of houses with access to the subsidy every year, so that full penetration of the package can be achieved earlier than planned in the BAU scenario. The NAMA could help include additional energy saving technologies such as photovoltaic panels, and efficient air conditioning and refrigerators, up-scaling the program to medium and higher income families.
- ◆ The emission reduction potential ranges from 5.5 MtCO₂e to 10 MtCO₂e by 2020, depending on the selected penetration scenario.
- ◆ NAMA would be implemented with a blend of supported, local (own), and market financial resources. Mexico is already developing a PoA for the CDM market to support scenario. PMR resources can help explore options for scaling up, and financial possibilities. PMR can help identify which NAMA related investments can be taken to the market, and which ones should remain locally funded or partially supported by potential grants. PMR resources may help bring clarity on split of related carbon offset crediting.



3. Technical building blocks of market-readiness (2/5)



3.1 Taking stock of relevant sectors (and/or regions) – (1 slide per sector/region)

NAMA on Appliances (potential size)

- ◆ This NAMA is being developed by the National Association of Appliance Manufactures (ANFAD). Carbon offsets in this case derive from (i) energy efficient refrigerators; (ii) better gas recovery standards at maintenance; and (iii) gradual HFC-134a phaseout. Replaced refrigerators may not only help achieve energy efficiency (which contributes towards the payment for the appliance). They can help retrieve and destroy CFC-12 or HFC-134a. These gases have strong Global Warming Potential. Potential avoided emissions have been estimated 8.2 MtCO₂e from 2010 to 2020.
- ◆ Promoting the use of these environmentally friendly technologies will require changes in norms and regulations at the Federal level. Currently there is a maximum level of hydrocarbons allowed for use in refrigerators, which prevents technological change.
- ◆ The NAMA could help set a market replacement, aided with regulations or minimum standards. There are two avenues to effect the adoption of the new technologies. Through the appliance manufacturers, (supply) similar to the technological conversion under the Montreal Protocol where CFCs were phased-out. The other is through the demand, with incentives for the end users to replace their appliance in search of energy savings. Subsidies or market incentives can be placed on both ends.
- ◆ PMR can assist in identifying the role for the market and the need for standards, norms, or regulations.

3. Technical building blocks of market-readiness (3/5)



3.1 Taking stock of relevant sectors (and/or regions) – (1 slide per sector/region)

NAMA on Solid Waste Disposal

- ◆ This NAMA is being led by SEMARNAT in close coordination with SEDESOL and Local Governments. Carbon offsets will result from the destruction or avoidance of methane currently being released to the atmosphere, through either capturing and efficiently flaring landfill gas; or through composting or processing waste so that methane is not produced in the first place. Since these technologies are not mandatory, it is a good market opportunity for carbon offsetting. However, projects do not take place because of the existence of market and institutional barriers. According to SEDESOL, there are at least 60 sizable landfills which still do not benefit from the carbon markets. The potential emission reductions amount to about 9.4 MtCO₂e/y.
- ◆ The NAMA could help set institutional arrangements geared at the Federal level, with the aim of providing investors with Federal support. Federal resources are helping to convert open dumps into sanitary landfills.
- ◆ PMR resources could be used to identify and set the best institutional mechanisms to facilitate development, and investments in local and regional landfills to perform either LFG flaring or LFG power generation. The discussion on mandatory flaring standards can also take place under the PMR studies, with the aim of balancing out federal and local objectives and the need for international funding under CDM.

3. Technical building blocks of market-readiness (4/5)



3.1 Taking stock of relevant sectors (and/or regions) – (1 slide per sector/region)

NAMA on Cement

- ◆ The sector chamber of cement manufacturers (CANACEM) is developing a NAMA on cement. In this sector, emission reductions are related to the energy efficiency, fuel substitution, or to the blend of additives present in the clinker manufacturing. Higher blend levels will result in less emissions of carbon dioxide.
- ◆ Potential avoided emissions have been estimated about 3.8 MtCO₂e/y of BAU in 2020 and 7.3 MtCO₂e/y of BAU in 2030.
- ◆ Given uncertainties in the future growth of the cement industry and the corresponding GHG emissions baseline, these emissions reduction percentages from BAU are only indicative of those that could be achieved under the assumptions adopted for this analysis. They do not represent emissions reduction commitments by the cement industry. Actual emissions reductions will only be quantifiable ex-post.
- ◆ Higher blends are still perceived by the market as unreliable. However, higher blends actually add resistance and resilience features to the product, which may be better suited for certain applications. Also, depending on the location of the additives for clinker production, cement with higher blending standards can even be less expensive.
- ◆ The NAMA would be basically oriented to educate the market, and to set up voluntary standards which could be later become mandatory regulations. PMR can be used to identify the type of studies required to develop standards, and to inform the industry and users about the benefits of higher blend levels in cement production.

3. Technical building blocks of market-readiness (5/5)



3.1 Taking stock of relevant sectors (and/or regions) – (1 slide per sector/region)

PMR resources can be used to further advance these two additional NAMAs in what respects to their development in what respects to access to markets.

NAMA on Urban Public Transport



- ◆ A NAMA on Urban Public is to be developed by the Ministry on Transport (SCT), to find markets to finance or co-finance efficient transport systems, as the use of bus rapid transit system, or through revamping the transport system to attend transport demand on fewer larger vehicles.
- ◆ The overall potential impact potential from interventions in urban transport amount to almost 60 MtCO₂e, out of which bus transport represent about 50%.

- ◆ The NAMA on Transport would complement the efforts to finance efficient transport systems through BANOBRAS's PROTRAM (Mass Transit) program, which can be helped by a market sector mechanism.

NAMA on Efficient Light



- ◆ SENER is interested in developing a NAMA on public lighting, and non residential lighting, which would complement the efforts under the PoA on CFLs for housing sector.
- ◆ The potential carbon offsets for public lighting in Mexico is about 1 MtCO₂e/y while for residential lighting amounts to near 6 MtCO₂e

3. Technical building blocks of market-readiness (1/3)

3.2 OPTIONAL - Assessment of readiness of sector/region (*to be specified by country*)

- ◆ This information is to be obtained through the PMR support preparatory activities.
- ◆ In Mexico, the different NAMAs under consideration are in different stages of development, but in all cases it is necessary to first determine which type of projects could be financed by the market, and which under own resources, or on assisted activities. Sector coordination with private agents and government officers is still missing to determine where to draw the threshold boundary line, moreover if considering mandatory national commitments.
- ◆ Also, there is need for MRV strengthening to enable clear tracking of carbon offsetting activities.

3. Technical building blocks of market-readiness (2/3)

3.3 OPTIONAL - System for domestic measurement, reporting and verification (MRV)

- ◆ This information is to be obtained through the PMR support preparatory activities
- ◆ Current capacity is being used to develop inventories in order to communicate to the UNFCCC COP, the registration of the GHG emission from some activities through emission registry and pollutant transfer system, and the system used to follow up the advances of each mitigation goal in the PECC, which is centralized and coordinated at SEMARNAT. Other capacity is in the private sector agents, which participate in the Mexican carbon offset supply for the CDM or for the voluntary markets such as CAR, and finally a private/public program for voluntary registration of GHG emission-
- ◆ Mexico is interested in developing a registry for which could incorporate the different carbon offset markets at one centralized system. This will help add quality and transparency to the carbon offsets being sold, independent of the market being utilized.

3. Technical building blocks of market-readiness (3/3)

3.4 OPTIONAL- Institutional/legal components

- ◆ This information is to be obtained through the PMR support preparatory activities.
- ◆ Although SEMARNAT has defined roles as per the internal coordination of activities aimed at reducing GHG emissions, and as to prepare the national positions for international forums on climate change, there is a lack of clarity about regulating bodies, carbon offset accounting, and data collection and management.
- ◆ If a system of credits or allowances is to be developed, there is the need to define boundaries, institutional setting, and market rules.

4. Other key relevant initiatives

- ◆ Mexico has developed the following activities funded or supported by donors, related to climate change mitigation:
 - World Bank support to develop low carbon strategy study (MEDEC)
 - USAID support for LEDS (Low Emission Development Strategy)
 - USAID support for PECC follow-up system
 - USAID support for NAMA identification and development on Cement and Steel
 - GIZ (Germany) support on NAMA implementation, MRV development, private sector mitigation options, and mitigation cost effectiveness
 - Netherlands support to develop NAMA on sustainable transport
 - European Union to develop MRV for national mitigation
 - IADB support to promote carbon market and develop CDM PoAs
 - UNEP/AFD support on MRV and micro economic analysis of low carbon strategy

5. Organization of work and estimated timeline (1/2)

5.1 Overview of organization of work/tasks envisioned for Preparation Phase to conduct the scoping of market readiness activities

SEMARNAT will be the overall coordinator, and administrator of the PMR support grant. Funding should come directly from the World Bank to the contracts or through a local NGO. SEMARNAT will coordinate with other sector authorities and industry associations to develop, implement and monitor market oriented NAMAs in identified sectors. Following is the PMR support structure:

Activity	Responsible
General Support	
• Capacity building	SEMARNAT
• Raising awareness	SEMARNAT
• MRV development	SEMARNAT
○ Inventories	
○ Registry	
○ Clearing house	
○ Boundaries	
Specific NAMA Support	
• NAMA on Housing	CONAVI
• NAMA on Appliances	ANFAD
• NAMA on Solid Waste	SEMARNAT
• NAMA on Cement	CANACEM
Other NAMA Support	
• NAMA on Public Transport	SCT
• NAMA on EE	SENER
Administration (10%)	SEMARNAT
Contingency (10%)	SEMARNAT
TOTAL	

5. Organization of work and estimated timeline (2/2)

5.2 Overview of estimated timeline for formulation of Market Readiness Proposal

It is estimated that the Market Readiness formulation will take 6 months to develop, as follows:

Activity	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
General Support						
• Overall preparation	X					
• Capacity building		X	X	X	X	
• Raising awareness		X	X	X	X	X
• MRV development						
○ Inventories		X	X			
○ Registry			X	X		
○ Clearing house				X	X	
○ Boundaries				X	X	
Specific NAMA Support						
• NAMA on Housing			X	X	X	
• NAMA on Appliances			X	X	X	
• NAMA on Solid Waste			X	X	X	
• NAMA on Cement			X	X	X	
Other NAMA Support						
• NAMA on Public Transport			X	X	X	
• NAMA on EE			X	X	X	
• Report draft					X	X

7. Conclusions – Summary of market readiness priority areas for PMR support

Besides the specific NAMA development support, where the PMR preparation grant will help further identify market components, and associated MRV elements, the following are the main areas to be covered with the PMR preparation grant:

- ◆ **Capacity Building.** PMR support will help strengthen capacity on the general objectives and scope of NAMAs, their relation to CDM PoAs, their impact on domestic targets, and the potential for market development.
- ◆ **Raising Awareness.** These activities will be geared towards leveraging capacity at industrial level, so that all carbon emitters become aware of the opportunities for market development under the new NAMA realm. The objective of these activities is to promote better and more ample participation from relevant stakeholders.
- ◆ **MRV development.** To develop marketable NAMAs require a strong institutional capacity for monitoring, record keeping, and verification of measures implemented to reduce GHG emissions. Specific activities will be developed in the following areas:
 - **Inventories.** PMR support will be used to develop better practice and standard approaches for GHG emission inventories that can help track implementation of NAMAs.
 - **Registry.** A registry is essential to avoid double counting, and to relate to carbon offsets achieved under alternative market mechanisms, such as the CDM, or the voluntary carbon markets. Technical assistance to develop a strong registry will be financed out of PMR support.
 - **Clearing-house.** The registry does not only need to account for emission reductions attained as a result of NAMA implementation. A clearing house mechanism will enable cross reference with other registries, including the CDM and voluntary markets such as California's Climate Action Reserve (CAR).
 - **Boundaries.** Establishing clear criteria for setting boundaries for domestic, supported, and market-assisted NAMAs will be essential to send clear signals to the market developers and investors.

For any question, clarification or comment on this
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