Ministry of the Environment and Natural Resources (SEMARNAT), Mexico
Ministry of Energy (SENER), Mexico
Ministry of Foreign Affairs, (Danida), Denmark
Ministry of Climate, Energy and Building (MCEB), Denmark

Final

Program Document

Climate Change Mitigation and Energy Program

Mexico

December 4, 2013

Executive summary

Context

It is a strategic priority for Mexico and Denmark to strengthen cooperation in the area of energy and climate change mitigation. The governments of Denmark and Mexico initiated technical cooperation within climate change and energy topics, starting with a Memorandum of Understanding in 2005 and a further Memorandum of Understanding in 2007, which focused on cooperation within energy. Mexico and Denmark cooperated closely in the context of the UNFCCC COP15 in Denmark and COP16 in Mexico. Since 2011, the Ministry of Environment and Natural Resources (SEMARNAT) and the Danish Energy Agency (DEA) have been actively cooperating on modelling related to national emissions baselines and potentials for emission reductions.

A new 3½ year cooperation program between Mexico and Denmark will be launched in 2014 as part of the Global Framework under the Danish 2013 Climate Envelope, which is a continuation of Denmark's contribution of 1.2 billion DKK to fast-start financing for the period 2010-12 following the commitment made in the Copenhagen Accord.

Objectives and component structure

The development objective of the Mexican-Danish Cooperation is: *Mexico, substantially assisted by exchange of knowhow and experience with Denmark, has consolidated its pathway to a low- emission future and is on track to realizing its goals of reducing its greenhouse gas emissions by 30% below its business as usual scenario by 2020 and generating 35% of its electricity through use of non-fossil fuel based generation by 2024.*

The immediate objectives are:

1) *SEMARNAT and INECC are enabled to drive ambitious mitigation action in support of Mexico's low-carbon transition benefitting from Danish support for analysis and policy development.*

This objective will be achieved through support to development and refinement of policy and analytical tools, especially tools that enable tracking and modelling of emission targets and strategic evaluation of progress on mitigation planning, including establishing a framework for evaluation and means to assess co-benefits of mitigation actions. The program will assist SEMARNAT and the National Institute for Ecology and Climate Change (INECC) in implementing Mexico's Special Program for Climate Change 2014-2018 (PECC 2, under final preparation) in support of the Climate Change Law (2012) and the Climate Change Strategy (June 2013).

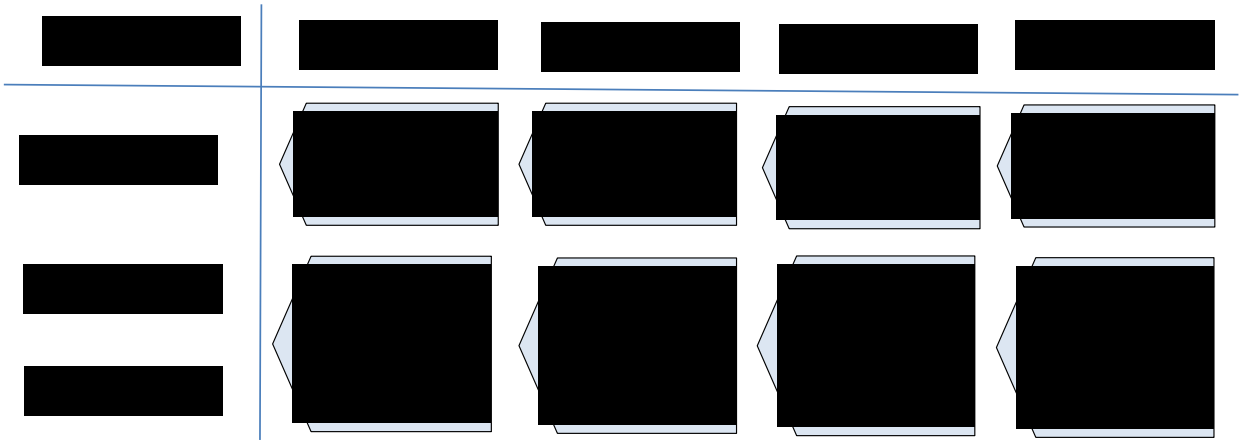
2) Low-carbon transition of the power sector will be facilitated through sharing of experience and policy, planning, regulatory and technical cooperation in order to promote and enable the efficient large-scale integration of renewable energy and cogeneration into the Mexican power system.

This objective will be achieved by mobilizing a combination of Danish, international and national expertise and experience to work with a range of stakeholders to build capacity, provide analytical inputs and policy guidance. The Program will i.a. provide modelling capacity and Danish experience on energy transition planning; increasing the confidence of the Federal Electricity Commission (CFE) and others on the practicability of integration of a high proportion of renewables in the national grid; and build capacity of the wind energy sector and the Mexican Centre of Excellence in Wind Energy (CEMIE-Wind) to innovate and stimulate the development of wind energy in Mexico.

3) *Low carbon transition is facilitated by contributions to better framework conditions for increased energy efficiency and energy savings in buildings and industry through cooperation on policy, regulation and supporting measures.*

This objective will be achieved through support to SENER and the National Commission for Energy Efficiency (CONUEE). The Program will provide information and capacity building as well as concrete application of best practice techniques to plan and implement energy efficiency in non-residential buildings and in selected large industries, based i.a. on Danish experience.

Figure 1 Link between program objectives and the national sector framework



Associated with each component and sub-component are a number of expected outcomes which are summarized in figure 2.

The program will take place from January 2014 to June 2017 with an inception phase of 6 months which will run concurrently with the start of program activities. A pre- inception preparation phase with a number of fast track activities will start in the second half of 2013. The last half year of the program will be a consolidation phase.

Program strategy

Mexico has developed impressive legal and institutional frameworks and strategies and has advanced capabilities in many areas pertaining to climate change and energy. The Danish assistance will thus be catalytic and aim to support in carefully selected areas where Denmark has long standing skills and experience. Accordingly, the outcomes and outputs have been designed to reflect priorities and objectives in Mexico's legislation and strategy and planning documents. The bulk of Danish support will be arranged as a "draw down facility" that is flexible in mobilizing Danish expertise and informed by annual workplans based on Mexican priorities. Implications of this support approach are that:

- The support will focus on technical expertise and peer-to-peer exchanges rather than direct funding
- Focus of support will be on policy and regulation enhancing readiness for implementation.
- The support will be flexible to best match supply to demand
- The cooperation will be closely aligned to Mexican institutions and to Government strategies and programs
- Priority will be given to interventions with significant mitigation effects
- Value will be added by the Danish support by accelerating and/or extending national efforts that are locally owned and likely to be sustained as well as providing limited support to activities that are not yet planned or foreseen.

Figure 2 Overview of program objectives and outcomes

Objectives	Outcomes
SEMARNAT and INECC are enabled to drive ambitious mitigation action in support of Mexico's low-carbon transition benefitting from Danish support for analysis and policy development.	Strengthened framework for evaluation of climate change actions
	Enhanced tracking of PECC 2014-2018 energy related measures
	Effective preparation for 2015 agreement on post-2020 target setting
	Framework for assessing co-benefits of energy related mitigation
	Enhanced regional cooperation and international outreach
	Strengthened enabling environment for low-carbon technology innovation
	Platform for public-private collaboration and dialogue
Low-carbon transition of the power sector is facilitated through sharing of experience and policy, planning, regulatory and technical cooperation enabling the efficient large-scale integration of renewable energy and cogeneration into the Mexican power system.	Power system better able to integrate renewables/co-generation
	Renewable energy planning enhanced by new methodologies
	Innovative wind energy technology adoption promoted
Low carbon transition is facilitated by contributions to better framework conditions for increased energy efficiency and energy savings in buildings and industry.	Building regulations and supportive measures improved
	EMS for buildings and supportive measures improved
	EMS in large industries improved

Budget

The budget is shown below:

Table 1 Budget

Budget (Dkk million)	Total	2014	2015	2016	2017
Climate Change	12.3	3.8	4.2	3.2	1.1
Renewable Energy*)	16.7	4.4	6.2	5.1	1.0
Energy Efficiency	13,0	2.9	5.2	4.0	0.9
Program Support	3.0	0.7	1.0	0.8	0.6
Total	45.0	11.7	16.6	13.1	3.6

*) Incl. Long term international adviser

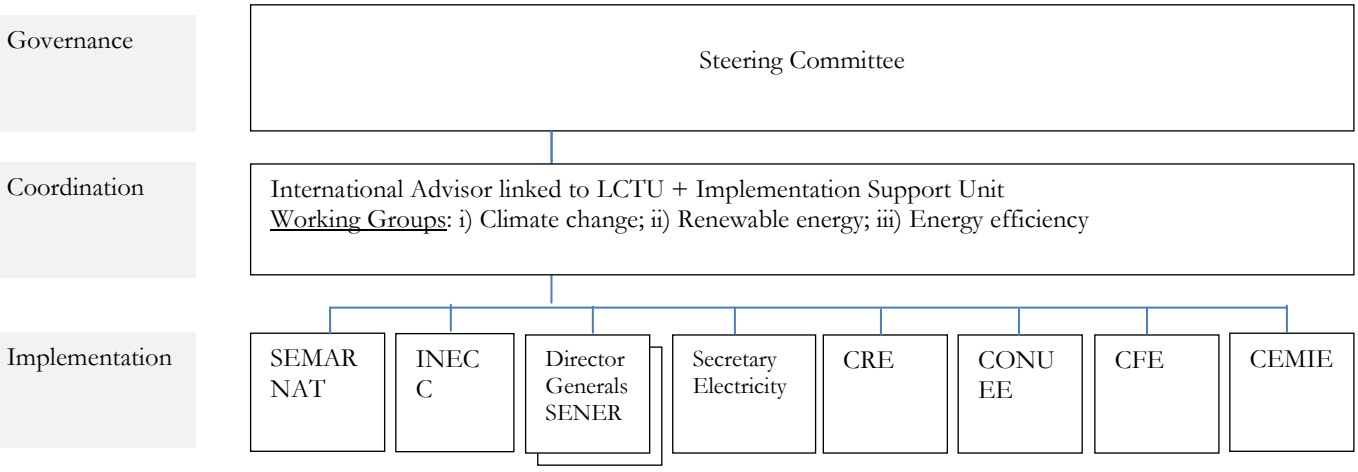
The technical assistance will be delivered through a combination of mechanisms including: deployment of short term national and international experts; deployment of longer term expert(s); targeted studies; study tours, exchange visits and secondments at relevant Danish institutions; in-country training, seminars, workshops and other forms of capacity building and peer-to-peer exchange. Staff from the Low-Carbon Transition Unit of the Danish Ministry of Climate, Energy and Building will undertake regular planning missions as well as some technical missions – with technical inputs also being provided by experts from other government and related institutions. This will ultimately lead to a government-to-

government partnership that will bring some of the longer term benefits of twinning. The program support includes local program coordination staff, office in Mexico City, reviews, etc.

Management and funding arrangements

The Mexican-Danish cooperation program on climate and energy will be governed by a Steering Committee composed of key implementing entities in Mexico and representatives of the MCEB/LCTU in Denmark. An International Advisor reporting to the Steering Committee will coordinate the detailed planning and reporting necessary to ensure an effective and vibrant cooperation. Implementation of the activities will be anchored within different Mexican Ministries, Departments and Agencies in line with mandates and coordination arrangements. Working groups within climate, renewable energy and energy efficiency will be formed to coordinate activities between the different entities involved. An Implementation Support Unit will be established to carry out local program coordination, including carrying through reviews, and supporting the Long Term International Advisor and assist in the delivery of technical assistance and arrangements for other inputs.

Figure 3 Management and organization



Every year a workplan and budget for the cooperation will be drawn up based on the activities foreseen by the implementing entities. The workplan and budget for the next year and a report on the previous year will be submitted by the International advisor in close liaison with the relevant working group to the Steering Committee for approval.

In support of the annual Steering Committee meetings, MCEB/LCTU together with the external cooperation departments of SEMARNAT and SENER will undertake annual planning visits immediately prior to the meetings. These planning visits will allow MCEB and the Mexican implementing agencies to thoroughly review the content and progress of the cooperation so far and advise on the workplans being developed.

Indicators

Overall program indicators based on already established Mexican monitoring systems are given in table 2. A number of indicators at outcome level have been provisionally identified. Both the overall and the lower level indicators will be reviewed during the inception phase and as the key outstanding Government programs are finalized, in order to maximize the correlation between the national policy documents and the indicators.

Table 2 Indicators

Component/ sub-Component	Identified Mexican result areas	Identified Mexican indicators
Climate	• Lowered emissions	Reduction of greenhouse cases compared to business as usual (30% by 2020) – **on track in accordance with identified pathways by mid-2017**
Renewable energy	• Transition to renewable and clean energy	Percentage of non-fossil electricity produced (Target. 35% of electricity by 2024 generated by non-fossil fuels based sources) - **on track in accordance with identified pathways by Mid 2017**
Energy efficiency	• Reduce energy intensity	Quantity of energy required for each unit of Gross Domestic Product (GDP) (no target set yet) - **on track in accordance with identified pathways by mid-2017**

Assumptions and risks

The main assumptions of the program are:

1. The Mexican Government retains its commitment to a low-carbon transition and related targets for mitigation and energy, and this commitment is reflected in key planning documents as well as in resource allocation to responsible ministries and institutions.
2. Sector coordination mechanisms within the public sector and between the public sector, civil society and the private sector are effective.
3. CFE will engage with the Mexican-Danish cooperation and make use of the know-how and information available.
4. CEMIE-Wind is established as expected.
5. Social acceptance issues are addressed in a coordinated way so as to reduce the risks to investments in renewable energy projects.
6. Energy prices will not fall so as to discourage investment in the grid and renewables or adoption of energy efficiency measures.