

**MEXICO**

**PROGRAM IN SUPPORT OF MEXICO'S  
CLIMATE CHANGE AGENDA**

**(ME-L1053)**

**LOAN PROPOSAL**

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<b>Optional appendices</b> <ol style="list-style-type: none"><li>1. IMF Staff Assessment of Mexico (confidential document available in the files of INE/INE)</li><li>2. Policy Reform versus Policy Innovation as a basis for PBLs (document available in the files of INE/INE)</li></ol>

## ABBREVIATIONS

BANCOMEXT	Banco Nacional de Comercio Exterior
CDM	Clean development mechanism
CFE	Comisión Federal de Electricidad [Federal Electricity Commission]
CICC	Comisión Intersecretarial de Cambio Climático [Interdepartmental Commission on Climate Change]
CIF	Climate Investment Fund
CONAE	Comisión Nacional para el Ahorro de Energía [National Commission for Energy Conservation]
ENACC	Estrategia Nacional de Cambio Climático [National Climate Change Strategy]
FIDE	Fideicomiso para el Ahorro de Energía Eléctrica [Electric Power Saving Trust Fund]
FOMECAR	Fondo Mexicano de Carbono [Mexican Carbon Fund]
GDP	Gross domestic product
GHGs	Greenhouse gases
IMF	International Monetary Fund
INE	Instituto Nacional de Ecología de México [National Institute of Ecology of Mexico]
INEGEI	Inventario Nacional de Emisiones de Gases de Efecto Invernadero [National Inventory of Greenhouse Gas Emissions]
MtCO <sub>2</sub> e	Metric tons of carbon dioxide equivalent
NAFIN	Nacional Financiera, S.N.C.
NPAs	Natural protected areas
PBL	Policy-based loan
PEACC	Planes Estatales de Acción frente al Cambio Climático [State climate change action plan]
PECC	Programa Especial de Cambio Climático 2008-2012 [2008-2012 Special Climate Change Program]
SECCI	Sustainable Energy and Climate Change Initiative
SEMARNAT	Department of the Environment and Natural Resources
SHCP	Department of Finance
UNFCCC	United Nations Framework Convention on Climate Change

## PROJECT SUMMARY

### MEXICO PROGRAM IN SUPPORT OF MEXICO'S CLIMATE CHANGE AGENDA (ME-L1053)

Financial Terms and Conditions				
<b>Borrower:</b> United Mexican States <b>Executing agency:</b> Department of the Environment and Natural Resources (SEMARNAT)			Amortization period:	20 years
			Grace period:	5 years
			Disbursement period:	12 months
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	Interest rate:	**
IDB (Ordinary Capital)	200 million	100	Inspection and supervision fee:	*
Local	0	0	Credit fee:	*
Total	200 million	100	Currency:	**
Project at a glance				
<p><b>Project objective/description:</b></p> <p>The objective of the program is to develop the instruments and means necessary to implement the climate change mitigation and adaptation agenda based on an operational framework and to strengthen the institutional framework to support the mainstreaming of climate change considerations into public policy.</p> <p><b>Special contractual conditions:</b></p> <p>Disbursement of resources from the single tranche is subject to fulfillment of policy reform measures or institutional changes agreed upon for the release of those funds, as established in Annex I (Policy Matrix). The borrower, SEMARNAT, and Nacional Financiera, S.N.C. (NAFIN) will sign a contract, as a special condition precedent to disbursement of the single tranche of the financing (see paragraph 3.1).</p> <p><b>Exceptions to Bank policies:</b> None.</p> <p><b>Project consistent with country strategy:</b> Yes [ X ]      No [ ]</p> <p><b>Project qualifies as:</b>                      SEQ [ ]      PTI [ ]      Sector [ ]      Geographic [ ]      Headcount [ ]</p> <p><b>Procurement:</b> N/A</p> <p><b>Verified by ESR on:</b> 5 May 2008</p>				

- (\*) For the first half of 2008, the approved credit fee is 0.10% and the inspection and supervision fee is 0%. This notwithstanding, the credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.
- (\*\*) The interest rate will be determined by the Government of Mexico when the contract is negotiated. For recent operations, Mexico has elected to use U.S. dollars under the Single Currency Facility and the LIBOR-based interest rate, which is adjusted quarterly by the Bank. The most recent rate approved by the Board of Directors was 2.62% for the second quarter of 2008.

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background and rationale

- 1.1 **Macroeconomic and sector background:** Mexico's macroeconomic indicators are strong: low inflation; economic growth despite the slowdown of the U.S. economy; a declining public debt-to-GDP ratio; and low levels of foreign debt. In 2007, the real GDP growth rate was 3.3%. Inflation stood at 3.8%, which is lower than the average rate of 4.1% of the last five years, but higher than the target rate of 3% because of a series of supply shocks stemming from higher international food prices. External accounts remained sound, with a current account deficit of 0.8% of GDP despite the decline in oil production and slower growth of remittances. The budget was balanced (zero traditional deficit) under the Fiscal Responsibility Law, while the augmented fiscal deficit was 1.3% of GDP and total debt of the Federal Government stood at 21.4% of GDP.<sup>1</sup>
- 1.2 The most important sectors of the Mexican economy and their corresponding contributions to GDP are as follows: manufacturing (19%), trade (16%), real estate services (11%), transportation (7%), construction (7%), mining (5%), education services (5%), and agriculture, fisheries, and forestry (4%), which together account for 75% of GDP. As indicated in Mexico's climate change agenda described in this document, there is a correlation between these sectors and the composition of greenhouse gas (GHG) emissions. Their viability and future competitiveness will be determined by the country's ability to manage adjustment processes focused on environmental and climate sustainability.
- 1.3 The geography of Mexico, together with its climatic, orographical, and hydrological conditions, exposes it to hydrometeorological events that can become disaster situations, the effects of which will be exacerbated by climate change. In general terms, the following types of impacts are anticipated: (i) increase in the average and maximum temperatures and increase in the number of days the maximum temperature is reached; (ii) changes in the hydrological cycle, which will be more intense, increasing the severity of storms, floods, and droughts, thus affecting water availability; (iii) greater number of forest fires; (iv) change in the distribution of pasturelands, xerophilous scrub, and evergreen oak forests, in turn affecting Mexico's biodiversity; and (v) greater vulnerability of human settlements due to greater food and water requirements, higher energy consumption to control the temperature of homes and industries, increase in the incidence of vector-borne diseases on human health, and sea level rise.
- 1.4 **Mexico's climate change agenda:** The Government of Mexico has emerged as an internationally recognized leader in the face of the challenges and opportunities presented by climate change. Mexico is the only developing country that has published three national papers on climate change and that has most systematically submitted reports on national inventories of anthropogenic emissions of greenhouse gases under the United Nations Framework Convention on Climate Change

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<sup>1</sup> Executive Board of the International Monetary Fund (IMF) (Article IV consultation of December 2007).

(UNFCCC). Mexico is also ranked fourth worldwide in terms of the number of projects registered with the Clean Development Mechanism (CDM) Executive Board, and fifth in volume of certified emissions reductions.

- 1.5 With respect to its *institutional framework*, the Interdepartmental Commission on Climate Change (CICC) was created in 2005 as a permanent body. The Commission is headed by the Department of the Environment and Natural Resources (SEMARNAT), is supported by the Department of Finance (SHCP) with the participation of the Departments of Agriculture, Communications and Transportation, Social Development, Economic Affairs, Energy, and Foreign Affairs. Its objective is to coordinate the formulation and implementation of the national climate change policies of federal agencies and institutions and, in general, to promote the development of programs and strategies in fulfillment of the commitments undertaken by Mexico in the UNFCCC. Among the CICC's most notable work is publication of the National Climate Change Strategy (ENACC), approved in 2007, which includes an agenda of potential mitigation and adaptation actions in response to climate change in Mexico.
- 1.6 **Mitigation.** According to the 2007 ENACC, Mexico contributed 622.6 metric tons of carbon dioxide equivalent (MtCO<sub>2</sub>e) in 2000, or around 1.51% of annual global GHG emissions, making it the thirteenth largest contributor of emissions in the world. In terms of per capita emissions, Mexico was ranked 93<sup>rd</sup> in 2000, with 6.4 tons of CO<sub>2</sub>e emissions per inhabitant, slightly below the world average of 6.55. The National Inventory of Greenhouse Gas Emissions (INEGEI) indicates the following breakdown by sector of CO<sub>2</sub> emissions in Mexico in 2002: (i) energy generation and use, accounting for 69% of total emissions, including transportation (18%), energy generation (24%), other consumption (5%), manufacturing and construction (8%), fugitive emissions (6%), and industrial processes (8%); (ii) land-use change and forestry (14%); (iii) agriculture (7%); and (iv) waste (10%), including sanitary landfills (5%) and sewage (5%).
- 1.7 The ENACC identifies two main areas of mitigation opportunities: (i) energy generation and use, and (ii) land-use and land-cover change. The opportunities for reduction in annual GHG emissions from energy generation and use from 2007 to 2014 are: (i) energy efficiency (27.9 MtCO<sub>2</sub>e), including the regulations and programs of the National Commission for Energy Conservation (CONAE), and energy efficiency and conservation of the Electric Power Saving Trust Fund (FIDE); (ii) production and distribution of electric power by the Federal Electricity Commission (CFE) and Luz y Fuerza del Centro (LFC) (27.7 MtCO<sub>2</sub>e), such as transmission and distribution of electricity, thermal efficiency of thermoelectric plants that use fuel oil, conversion to natural gas, and the repowering of thermoelectric plants on the Pacific coast, together with modernization of the National Refinery System; (iii) industrial sector (>25 MtCO<sub>2</sub>e), such as tapping the cogeneration potential of the cement, iron and steel, sugar, and other industries; (iv) Pemex activities (14.7 MtCO<sub>2</sub>e), such as cogeneration, centralized electrical supply to oil platforms, better energy performance in refineries, and reduction in

- fugitive methane emissions; (v) electricity generation from renewable energies (8 MtCO<sub>2</sub>e); and (vi) transportation (3.5 MtCO<sub>2</sub>e), such as elimination of the old vehicle fleet and promotion of train transportation. Many of these opportunities to reduce GHGs also provide a cleaner and more sustainable, efficient, and competitive energy matrix.
- 1.8 With respect to land use and land cover, opportunities for annual reductions for this period include: (i) in the agriculture sector (9.7 MtCO<sub>2</sub>e), restructuring of production, conservation farming and soil conservation, rangeland reclamation, efficient use of fertilizers, and prevention of forest fires from the burning of fields; and (ii) carbon capture and storage through forest management (18-42 MtCO<sub>2</sub> and 11,000-21,000 MtCO<sub>2</sub>e, respectively).
- 1.9 **Adaptation.** The ENACC proposes to identify and reduce vulnerabilities, promoting a preventive culture in all areas of Mexico's national development, and incorporating financing mechanisms to facilitate implementation of climate change adaptation measures. It is also geared toward building adaptation capacities in the areas of hydrometeorological risk management and management of water resources, biodiversity and environmental services, agriculture, coastal regions, human settlements, and energy generation and use. The proposed lines of action are to: (i) enhance installed risk management capacity; (ii) strengthen implementation of information and early warning systems; (iii) review seasonal prohibition instruments, coastal-marine natural protected areas (NPAs), and environmental services programs; (iv) establish biological corridors and evaluate changes in NPA boundaries to support the adaptation capacity of ecosystems and species; (v) strengthen epidemiological surveillance systems; (vi) strengthen the National Civil Protection System; (vii) implement a climate modeling program as part of a national climate information system; (viii) promote inclusion of vulnerability reduction actions and adaptation strategies in regional, state, and municipal development plans; and (ix) design a communication and education strategy.
- 1.10 The President of the Republic has issued instructions for the CICC to prepare a 2008-2012 Special Climate Change Program (PECC) based on the ENACC, in the framework of the 2007-2012 National Development Plan. The Government of Mexico is developing lines of action, policies, and sector strategies to formulate the PECC, and has requested the Bank's support for such purposes.
- 1.11 **Program rationale and strategy.** The Bank's support in the area of climate change is an important part of the Bank's new strategy with Mexico, which is in the process of being prepared. In a manner consistent with the Bank's country strategy with Mexico, the program promotes the instruments and means necessary to implement the climate change mitigation and adaptation agenda based on an operational framework and strengthens the institutional framework to support the mainstreaming of climate change considerations into public policy.
- 1.12 The program is also consistent with a series of activities that the Bank's Sustainable Energy and Climate Change Initiative (SECCI) (document GN-2435-1) has been



carrying out in Mexico in the framework of a comprehensive dialogue that includes technical cooperation projects, nonfinancial support, and synergies with other sector division initiatives (see section C). Those activities have helped define the thrust of the proposal of reforms included in this operation.

- 1.13 The program strategy is to act through three main planks: (i) mitigation of GHG emissions by improving the efficiency of public energy suppliers, actively promoting energy efficiency initiatives in productive sectors, promoting the development of alternative energy sources, and supporting the development of financial instruments that contribute to the reduction of GHG emissions; (ii) adaptation to climate change by supporting subnational programs on adaptation to climate change and promoting the protection and rational use of natural resources in a context of climate change; and (iii) institutional strengthening by supporting SEMARNAT and the government departments that have been given priority in the climate change agenda and that participate in implementation of the ENACC and PECC, as well as in the establishment of specific strategies and targets in the annual work plans (AWPs) of the national budget, thus defining the fiscal instrument for implementing the PECC during the current administration.
- 1.14 The program is structured as a programmatic policy-based loan (PBL). This strategy, agreed upon with the Government of Mexico, is motivated by the comparative advantages of the instrument. It embodies the following lessons derived from evaluations of the action of the Bank and other international organizations with respect to the design of PBLs: (i) the process of preparing the policy matrix can start a dialogue within the government that strengthens the viability of the policies; (ii) the policy program should be based on a sound sector analysis; (iii) the programmatic modality can be useful for mitigating the risks associated with implementation of policy actions; (iv) outcomes should be included in the policy matrix, provided they are under the government's control; (v) in order to ensure that the government takes ownership of the program, documents containing the national strategy and objectives should be adopted; and (vi) it is important to provide for a series of nonfinancial products and technical assistance from the Bank related to the policy actions. Based on the outcome of and learning from this first programmatic PBL on climate change, another lesson that should be added to the above is the importance of channeling the Bank's support towards a gradual process of "policy innovation," which is expected to culminate in a "policy reform" agenda. This approach is developed in the technical annex entitled "Reform versus Policy Innovation as a basis for PBLs."

## **B. Objective and components**

- 1.15 The objective of the program is to develop the instruments and means necessary to implement the climate change mitigation and adaptation agenda based on an operational framework and to strengthen the institutional framework to support the mainstreaming of climate change considerations into public policy. In order to achieve those objectives, the program consists of the following components:

(i) macroeconomic stability; (ii) institutional framework; (iii) mitigation agenda; and (iv) adaptation agenda.

### **Component 1 - Macroeconomic stability**

- 1.16 The objective of this component is to support the development and maintenance of a macroeconomic context that is consistent with the program objectives and with the sector policy letter. Those objectives include maintaining relatively low inflation and a balanced budget in accordance with the Federal Budget and Fiscal Responsibility Law.

### **Component 2 - Institutional framework**

- 1.17 The objective of this component is to develop the necessary institutional framework to implement the PECC, which should be done at different levels of government and directed at sectors of the economy that are relevant to the mitigation and adaptation agenda. The operation will have two specific objectives with respect to the institutional framework: (a) promote the national climate change policy through analytical activities and the advancement of national and state programs; and (b) institutionally strengthen implementation of the climate change policy, which includes direct strengthening of SEMARNAT, as the entity responsible for climate change programs, as well as support for federal sector entities participating in the agenda (e.g. Department of Energy (SENER)/CFE/CONAE, Department of Agriculture, Rural Development, Fisheries, and Food (SAGARPA), Department of Social Development (SEDESOL), Department of Communications and Transportation (SCT), Department of the Economy (SE), National Water Board (CONAGUA)), for greater mainstreaming of the climate change agenda in the sectors.
- 1.18 *Promotion of the national climate change policy.* This will be accomplished through the implementation of measures aimed at adopting the final version of the PECC, performing studies to evaluate the different climate change scenarios and the economic impacts on the country's productive sectors, and adopting plans and methodologies to address those impacts at the sector and subnational levels.
- Actions precedent to disbursement of the first programmatic operation:** (i) public consultations for review of the PECC project; (ii) initiation of a study on the economic costs and impacts of climate change on the Mexican economy and first status report; and (iii) development and application of the guideline for climate change action plans at the subnational level on the subject of mitigation and adaptation, with application in at least one state (Veracruz).
- Actions precedent to or triggering the second programmatic operation:** (i) approval of the PECC; (ii) study of the impacts and economic costs of climate change; and (iii) application, in at least five states, of the guideline for development of climate change action plans at the subnational level on the subject of mitigation and adaptation.
- Actions precedent to or triggering the third programmatic operation:** (i) presentation of the PECC performance report describing progress towards the goals; (ii) identification of an economic incentives system to promote mitigation and

adaptation measures in the sectors; (iii) evaluation of the application of the guideline for development of climate change action plans at the subnational level on the subject of mitigation and adaptation; and (iv) application of the guideline in at least five additional states.

- 1.19 *Institutional strengthening for implementation of the climate change policy.* This will be accomplished through the strengthening of SEMARNAT, the priority sectors participating in the climate change agenda, and the subnational agenda. **Actions precedent to disbursement of the first programmatic operation:** (i) creation of the bureau responsible for promoting climate change policy in SEMARNAT; (ii) formulation of a proposal to amend SEMARNAT's bylaws to change the bureau into an administrative unit; and (iii) appointment of a permanent point person in each of the departments that make up the Interdepartmental Commission on Climate Change. **Actions precedent to or triggering the second programmatic operation:** (i) activation of the Bureau on Climate Change Policy in SEMARNAT; (ii) approval of the work plan to support mitigation and adaption actions at the sector level; and (iii) formulation of a performance indicators framework for evaluating institutional performance. **Action precedent to or triggering the third programmatic operation:** (i) evaluation of the agenda for mainstreaming climate change in the sectors, with performance and impact indicators.

### **Component 3 - Mitigation agenda**

- 1.20 The objective of this component is to promote the design and implementation of specific sector programs with a high demonstration impact on the reduction of GHG emissions, considering—in the structure of those programs—all the elements that can help make them viable from a policy, technical, and economic standpoint. The objective of this component is to boost participation in (regulated and voluntary) carbon markets and promote access to financial instruments that pursue the reduction of GHG emissions and to promote a sector agenda geared toward mitigating GHG emissions.
- 1.21 *Promote Mexico's participation in carbon markets and its access to financial instruments that pursue the reduction of GHG emissions (such as the Climate Investment Funds) and promote a sector agenda for mitigating emissions.* This will be accomplished through five types of measures: (i) evaluate and build capacities in the sectors participating in the climate change agenda; (ii) create a preliminary portfolio of priority projects/programs that are demonstrative in terms of their contribution to the reduction of GHGs; (iii) strengthen the participation of Mexican public financial institutions in promoting sustainable projects; (iv) lower the costs of processing projects under the CDM framework and improve capacities for creating CDM projects; and (v) promote a sector agenda. **Actions precedent to disbursement of the first programmatic operation:** (i) formulation of a proposal of support to evaluate the capacity to develop CDM projects, including FOMECAR and other federal units and academic centers; (ii) layout of a portfolio of projects registered with the Executive Board of the Kyoto Protocol CDM for the reduction

of generation-related GHG emissions, energy savings and efficient use, and other priority sectors; (iii) implementation and promotion of energy efficiency actions in federal government buildings; (iv) formulation of a proposal of support for the Mexican development banks to create a Guarantee Fund or similar instrument to promote the financing of energy efficiency projects; (v) formulation of a proposal to evaluate institutional capacity for the selection of a validation entity for projects capable of reducing emissions; and (vi) identification of regulatory actions and programs to mitigate GHGs in priority sectors. **Actions precedent to or triggering the second programmatic operation:** (i) startup of institutional strengthening actions to prepare CDM projects; (ii) update of the CDM project portfolio and proposals to capitalize on voluntary markets; (iii) expansion of energy savings and efficient use actions in the states; (iv) creation of a Guarantee Fund or similar instrument to support energy efficiency projects; and (v) accreditation of the validation entity before the CDM Executive Board. **Actions precedent to or triggering the third programmatic operation:** (i) evaluation of progress in promoting CDM projects; (ii) operation of the Guarantee Fund or similar instrument to support energy efficiency projects; and (iii) the entity validating CDM projects in operation.

#### **Component 4 - Adaptation agenda**

- 1.22 The objective of this component is to support the Government of Mexico's adaptation agenda at the federal and state levels by promoting a comprehensive action plan that includes complementary activities in both directions: top-down (federal-state) and bottom-up (state-federal). The actions that will be promoted are highly replicable and will be coordinated with the targets presented in the PECC. The component has the specific objective of developing instruments that make it possible to evaluate and reduce the vulnerability to risks associated with climate change in priority sectors in order to strengthen sustainable state and municipal development.
- 1.23 *Develop instruments to assess and reduce vulnerability and risks associated with climate change.* This will be accomplished by identifying and prioritizing pilot adaptation measures (based on the priority sectors identified by SEMARNAT and INE, such as biodiversity and environmental services, hydrometeorological risks, water resources and agriculture, coastal regions, and human settlements) and initiating a process to diagnose capacities, strengths, and needs for the observation, monitoring, forecasting, and prevention of weather and climate, which will make it possible in the future to design effective early warning systems and integrated hydrometeorological data generation and management systems at the national and/or state level. **Actions precedent to disbursement of the first programmatic operation:** (i) formulation of a proposal to conduct a diagnostic assessment of the capacities, strengths, and needs in the face of climate change and variability in Mexico; and (ii) preliminary identification of at least four replicable pilot climate change adaptation sites in coastal wetlands of the Gulf of Mexico. **Actions precedent to or triggering the second programmatic operation:** (i) the startup of

institutional strengthening actions for preparing INE meteorologists on probabilistic climate scenarios; (ii) design of 10 additional pilot measures for adaptation to climate change in priority regions and sectors; (iii) design of an effective and efficient early warning system in at least one state or priority sector; and (iv) design of a comprehensive data generation and management system for hydrometeorological data in at least one state. **Actions precedent to or triggering the third programmatic operation:** (i) implementation of 10 pilot measures for adaptation to climate change in priority regions and sectors; (ii) early warning system in operation in at least one state or priority sector; and (iii) comprehensive hydrometeorological data generation and management system in operation in at least one state.

### **C. Technical cooperation projects linked to the program**

- 1.24 As part of the program's preparation, the Bank will be channeling a package of technical cooperation projects to help create the conditions that facilitate its implementation. Those activities and outputs will be related to the program's policy matrix and to the actions that are precedent to or that trigger the programmatic operations.
- 1.25 With respect to the program's institutional strengthening component, the technical cooperation projects will support: (i) SEMARNAT, in completing the PECC document, preparing the study of the economic impacts of climate change in Mexico, and establishing the new Climate Change Policies Bureau; (ii) the sectors participating in the climate change agenda and in the development of mitigation and adaptation actions; (iii) the SHCP, in identifying the tools that will result in better use of budget resources currently allocated to the sectors for the implementation of mitigation and adaptation programs; and (iv) state governments, in the development and initial implementation of climate action plans in five states (Tabasco, Yucatan, Chiapas, Oaxaca, and Tamaulipas).
- 1.26 With respect to the program's mitigation component, the technical cooperation projects will help promote carbon markets and financial instruments through: (i) support for Mexican development banks (BANCOMEXT/NAFIN) in feasibility studies for sustainable projects, the creation of a guarantee fund for energy efficiency projects, a support program to increase Mexico's participation in carbon markets in the framework of FOMECAR's activity and through the sector entities and centers of excellence, and support in establishing a validation entity; (ii) support for wind projects through development banks (BANOBRAS); and (iii) estimate of the benefits of reducing emissions in the housing sector for carbon financing via the CDM or voluntary markets. Likewise, the technical cooperation projects will help advance the sector agenda by: (i) promoting renewable energies and energy efficiency in residential lighting, the use of biofuels in the transportation sector, and the development of the wind and solar photovoltaic sectors for connection to the power grid; and (ii) defining and disseminating a single national strategy for green housing solutions.

- 1.27 With respect to the program's adaptation component, the technical cooperation projects will support adoption of climate action plans in five states, based on the guidelines designed by INE and applied in certain states.

**D. Key outcome indicators**

- 1.28 The results matrix presents the *outcome* indicators stemming directly from execution of the program components (see Appendix 3). However, as a programmatic PBL, the program's *impact* indicators also need to be monitored. Identifying the program's impact indicators presents a significant challenge given the nature of global budget support financing, which does not allocate resources to a program of specific investments. The issue of climate change is a global public good, and implementation of the climate change agenda in a country is subject to many factors unrelated to the public administration of the country, such as the price of energy, technological change, and international rules and regulations. For example, in the case of outcome indicators in the area of GHG mitigation, although GHG emissions are produced at the national and local levels, the requirements for presenting and financing emissions reduction projects (under the CDM) are defined at the international level and are primarily the result of private sector initiatives. Likewise, the procedures themselves are starting a process of change with a view to the new post-Kyoto protocol that will take effect in 2012. In the case of outcome indicators in the area of climate change adaptation, Mexico faces a challenge because the country still has little experience in measuring the costs and benefits of adaptation to climate change. In order to measure those indicators, the type of impact the country is adapting to must be identified (flood, drought, etc.), as well as the location of the impact (coastal regions, urban areas, agricultural areas, etc.), among other factors.
- 1.29 In light of the above, the following strategy is proposed for defining the program's *impact* indicators, which should form part of the PECC. With respect to the mitigation component, the baseline of GHG emissions must be established and monitored (although as noted above, the change in this indicator cannot be directly attributed to the program). The baseline corresponding to the population participating in energy efficiency programs regulated by the government and their energy consumption must also be established and monitored. With respect to the adaptation component, the baseline corresponding to the beneficiary population of the adaptation pilots implemented at the state level must be established and monitored. With respect to the institutional component, the level of annual public spending on activities related to implementation of the PECC must be established and monitored. Progress is expected to be made in the future in terms of the methodology used to identify and measure these and other program *impact* indicators through the support of several of the technical cooperation projects financed by SECCI.

## **II. FINANCING STRUCTURE AND MAIN RISKS**

### **A. Financing instrument**

- 2.1 The loan's financing modality consists of a programmatic PBL based on the guidelines and directives established in the New Lending Framework (document GN-2200-13) and on the document on preparation and implementation of PBLs (CS-3633). Specifically, the programmatic PBL will consist of a series of three individual operations (expressed as individual operations in the policy matrix) for total financing of up to US\$600 million. Initial financing for the first individual operation will be US\$200 million, to be presented to the Bank's Board of Executive Directors in October 2008. The amounts of the second and third individual operations will be defined and approved at a later date. Each programmatic PBL operation will have an individual contract and therefore does not cause financial obligations for the indicative total amount of US\$600 million.
- 2.2 During this first operation, the elements that will comprise the policy matrix for the program's subsequent operations will be identified in an indicative manner, as well as the Bank's technical cooperation projects that will help fulfill the objectives of that program. The Government of Mexico will determine with the Bank when the conditions have been met to request financing from the Bank for subsequent operations. Preparation of those operations will be triggered by evidence of progress in implementing the policies and complying with interim targets or, failing that, by actions aimed at increasing the likelihood of meeting those targets. The preparation of subsequent operations under the program will be done by simplified procedure since they would be the continuation of the program agreed upon in the first operation. The second and third operations are expected to be presented to the Bank's Board of Executive Directors during the second half of 2009 and 2010, respectively.
- 2.3 This modality is considered to be the Bank's most suitable financing instrument for promoting Mexico's climate change agenda during 2008-2010, since it combines flexibility in terms of access to resources with a program of technical activities agreed for that period. The rationale for this structure is: (i) the proposed reforms are not immediate and require a sequential action plan for their maturation that corresponds to the tranches of the operation; and (ii) the deterioration of the international economic context, combined with the potential demands for public spending to implement the climate change agenda, and particularly the PECC, makes it necessary to have financing that makes it possible to maintain the country's fiscal and financial stability.

### **B. Coordination with other financing and cooperation agencies**

- 2.4 This operation complements the climate change development policy loan recently approved by the World Bank (P110849). The objective of that loan is to support the Government of Mexico's efforts under its National Climate Change Strategy to mainstream climate change considerations in public policy.

- 2.5 During preparation of this operation, the Government of Mexico convened coordination meetings with the IDB and the World Bank. That coordination complements certain existing collaboration efforts between various agencies, such as the Study on the Economic Impacts of Climate Change in Mexico conducted by the United Kingdom's Department for International Development (DFID) and the IDB, with partial support from the World Bank and the Economic Commission for Latin America and the Caribbean (ECLAC). Additionally, at the request of the Government of Mexico, an agreement has been reached to maintain the coordination and periodic exchange of information with the World Bank during the program. This includes coordination during the preparation of projects to be submitted by Mexico for financing under the two Climate Investment Funds (CIFs)—the Strategic Climate Fund and the Clean Technology Fund. Based on a preliminary decision by the SHCP, the IDB will focus on the preparation of energy efficiency projects to be presented to the CIF, while the World Bank will focus on transportation projects.

**C. Environmental and social risks**

- 2.6 The reform framework that supports the operation is focused on reducing GHG emissions and vulnerability to the impacts of climate change in Mexico. No significant direct or indirect impacts are expected that are harmful to the environment. Instead, positive environmental impacts are anticipated. In accordance with directive B.13 of the Safeguard Policy, and as a programmatic loan that supports policy reforms (programmatic PBL), the operation is not subject to classification (see Appendix 5).

**D. Other key issues and risks**

- 2.7 Risk analysis. The main risk of the operation is an institutional risk stemming from the need for high-level and complex coordination between the different sector agencies and levels of government. This risk will be mitigated through the Bank's support for SEMARNAT, particularly the new Climate Change Policies Bureau (in the process of being set up as an administrative unit), as well as the Technical Secretariat of the CICC, which is responsible for intersector coordination. Another risk identified is the lack of budget incentives to encourage sector agencies to commit to ambitious climate change targets. Accordingly, the Bank will support the SHCP with technical cooperation resources to conduct an analysis of public spending on climate change. Consequently, the level of risk is considered to be moderate.

### **III. IMPLEMENTATION AND MANAGEMENT PLAN**

**A. Summary of implementation arrangements**

- 3.1 The borrower is the United Mexican States. The Department of Environment and Natural Resources (SEMARNAT) will be the executing agency, with Nacional Financiera, S.N.C. as the borrower's financial agent. As a special condition



precedent to disbursement of the single tranche, the borrower, SEMARNAT, and NAFIN will sign a contract setting out the rights and obligations of the parties. SEMARNAT will have technical responsibility for the program, and will coordinate with other entities that are necessary for the policies and programs that it intends to promote to be comprehensive. The SHCP and SEMARNAT will be the formal interlocutors with the Bank.

- 3.2 SEMARNAT will have the following responsibilities: (i) deliver reports and evidence of compliance with the conditions for the operation and the annual program status report, as well as any other reports required by the Bank; (ii) promote actions geared toward achieving the policy objectives defined in the program, particularly those considered to be triggers for the second and third operations; and (iii) gather, file, and deliver to the Bank all information, indicators, and parameters that help the government and the Bank to monitor, measure, and evaluate the results of the program's three operations.

**B. Summary of arrangements for monitoring outcomes and impacts**

- 3.3 The project team will be responsible for monitoring fulfillment of the conditions established in the Policy Matrix. The borrower is responsible for compiling all the information required in accordance with the Means of Verification Matrix.

#### **IV. POLICY LETTER**

- 4.1 The Bank has agreed with the Government of Mexico on the macroeconomic and sector policies included in the policy letter (see Appendix 1). The letter describes the main components of the government's strategy that is being implemented in the program action areas described in this document, and the government has reaffirmed its commitment to institute the reforms and carry out the activities agreed upon with the Bank.

**PROGRAM IN SUPPORT OF MEXICO'S CLIMATE CHANGE AGENDA (ME-L1053)**  
**POLICY MATRIX**

Objectives	Commitments Programmatic Phase I	Triggers Programmatic Phase II	Triggers Programmatic Phase III
<b>I. General macroeconomic policy framework</b>			
<i>Macroeconomic stability</i>	Macroeconomic framework consistent with the program objectives and guidelines established in the sector policy letter.	Macroeconomic framework consistent with the program objectives and guidelines established in the sector policy letter.	Macroeconomic framework consistent with the program objectives and guidelines established in the sector policy letter.
<b>II. Institutional framework of the sector</b>			
<i>a. National climate change policy</i>	(i) public consultations for review of the PECC project; (ii) initiation of a study on the economic costs and impacts of climate change on the Mexican economy and first status report; and (iii) development and application of the guideline for climate change action plans at the subnational level on the subject of mitigation and adaptation, with application in at least one state (Veracruz).	(i) approval of the PECC; (ii) study of the impacts and economic costs of climate change; and (iii) application, in at least five states, of the guideline for development of climate change action plans at the subnational level on the subject of mitigation and adaptation.	(i) presentation of the PECC performance report, describing progress towards the goals; (ii) identification of an economic incentives system to promote mitigation and adaptation measures in the sectors; (iii) evaluation of the application of the guideline for development of climate change action plans at the subnational level on the subject of mitigation and adaptation; and (iv) application of the guideline in at least five additional states.

Objectives	Commitments Programmatic Phase I	Triggers Programmatic Phase II	Triggers Programmatic Phase III
<i>b. Institutional strengthening for implementation of the climate change policy</i>	(i) creation of the bureau responsible for promoting climate change policy in SEMARNAT; (ii) formulation of a proposal to amend SEMARNAT's bylaws to change the bureau into an administrative unit; and (iii) appointment of a permanent point person in each of the departments that make up the Interdepartmental Commission on Climate Change.	(i) activation of the Bureau on Climate Change Policy in SEMARNAT; (ii) approval of the work plan to support mitigation and adaption actions at the sector level; and (iii) formulation of a performance indicators framework for evaluating institutional performance.	(i) evaluation of the agenda for mainstreaming climate change in the sectors, with performance and impact indicators.
<b>III. Mitigation agenda component</b>			
<i>a. Promote carbon markets and financial instruments to reduce GHG emissions</i>	(i) formulation of a proposal of support to evaluate the capacity to develop CDM projects, including FOMECAR and other federal units and academic centers; (ii) layout of a portfolio of projects registered with the Executive Board of the Kyoto Protocol CDM for the reduction of generation-related emissions, energy savings and efficient use, and others; (iii) implementation and promotion of energy efficiency actions in federal government buildings; (iv) formulation of a proposal of support for the Mexican development banks to create a Guarantee Fund or similar instrument to promote the financing of energy efficiency projects; (v) formulation of a proposal to evaluate <i>institutional capacity for the selection of</i> a validation entity for projects capable of reducing emissions; and (vi) identification of regulatory actions and programs to mitigate GHGs in priority sectors.	(i) startup of institutional strengthening actions to prepare CDM projects; (ii) update of the CDM project portfolio and proposals to capitalize on voluntary markets; (iii) expansion of energy savings and efficient use actions in the states; (iv) creation of a Guarantee Fund or similar instrument to support energy efficiency projects; and (v) accreditation of the validation entity before the CDM Executive Board.	(i) evaluation of progress in promoting CDM projects; (ii) operation of the Guarantee Fund or similar instrument to support energy efficiency projects; and (iii) the entity validating CDM projects in operation.

Objectives	Commitments Programmatic Phase I	Triggers Programmatic Phase II	Triggers Programmatic Phase III
<b>IV. Adaptation agenda component</b>			
<i>a. Promote instruments to assess and reduce vulnerability and risks associated with climate change</i>	(i) formulation of a proposal to conduct a diagnostic assessment of the capacities, strengths, and needs in the face of climate change and variability in Mexico; and (ii) preliminary identification of at least four replicable pilot climate change adaptation sites in coastal wetlands of the Gulf of Mexico.	(i) the startup of institutional strengthening actions for preparing INE meteorologists on probabilistic climate scenarios; (ii) design of 10 additional pilot measures for adaptation to climate change in priority regions and sectors; (iii) design of an effective and efficient early warning system in at least one state or priority sector; and (iv) design of a comprehensive data generation and management system for hydrometeorological data in at least one state.	(i) implementation of 10 pilot measures for adaptation to climate change in priority regions and sectors; (ii) early warning system in operation in at least one state or priority sector; and (iii) comprehensive hydrometeorological data generation and management system in operation in at least one state.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION \_\_/08

Mexico. Loan \_\_\_\_/OC-ME to the United Mexican States  
Program in Support of Mexico's Climate Change Agenda

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the United Mexican States, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a program in support of Mexico's climate change agenda. Such financing will be for the amount of up to US\$200,000,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Executive Summary of the Loan Proposal.

(Adopted on \_\_ \_\_\_\_\_ 2008)

LEG/SGO/CID/IDBDOCS#1627313  
ME-L1053