Template for Organizing Framework for Scoping of PMR activities

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

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

- **Chile’s mitigation strategy:** “to work towards becoming a low-carbon economy as a means of promoting sustainable development and contributing to global efforts to reduce GHG emissions”.

- Chile is a UNFCCC and Kyoto Protocol signatory, pioneer in CDM projects and has pledged mitigation goals within the Copenhagen Accord. At the same time Chile has signed commercial agreements with the most important economic blocks in the world, recently joined the OECD and is in the process of joining the IEA.

- **Political commitment:** President Sebastián Piñera, Address to the Nation (May 21, 2010): "... In terms of greenhouse gases, global warming [....] Chile committed and will comply with a 20% limitation of its GHG emissions by 2020..."
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (1/3)

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

- **UNFCCC pledge**: Chile committed to take nationally appropriate mitigation actions to reduce the growth rate of its GHG emissions by 20% deviation below the “Business as Usual” by 2020, using 2007 as the base year.

Chile will fulfill this pledge with:

- Domestic effort
- International support
- New Market Mechanisms

Source: LEAP Model Implementation (PROGEA Study), January 2011, Ministry of Energy
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (2/3)

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

◆ **Role of new market mechanisms:** Chile believes in the role of market mechanisms to achieve long lasting mitigation objectives.

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**UNFCCC context:**
- Design and implement new market mechanisms.
- Support CDM reform.
- NAMA crediting.
- High MRV standards for all type of NAMAs (unilateral, financed, and credited).
- International consultation and analysis processes to monitor mitigation results of countries.
- NAMA registry with emissions reductions data, cost analysis, etc.

**National level:**
- Seminars
- Studies on market mechanisms
- Promotion of CDM

**Decision making context:**
«Among the options we have (to limit the growth of GHG emissions) in addition to the efforts we are making in renewable energy and energy efficiency, it is essential to increase the opportunities for using market mechanisms to enhance mitigation efforts that the country develops in the energy sector” (from the opening speech at PMR Workshop, Mr. Laurence Golborne, BI-minister of Mining and Energy).
Development goal: The goal of the Chilean Government is to reach a developed country status by 2020.

To reach that goal, the annual growth rate of the economy must be 6% during this period.

This economic aim represents an additional challenge for the energy sector, which must fulfill three objectives:

- produce energy at competitive prices
- achieve energy security
- be environmentally friendly
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (1/3)

1.2 Overview of country’s GHG emissions

- From 1990 to 2007 the annual average GHG emissions growth rate was 3.7%, a higher rate than Latin America, the World and the OECD countries.

![Chart showing GHG Emissions: Annual Growth Rate 1990-2007]

1. Policy context: Domestic mitigation objectives and role of market instrument(s) (2/3)

1.2 Overview of country’s GHG emissions

- Chile’s GHG inventory show a net emissions growth of 790% from 1984 to 2006.
- While gross emissions increased 137%, removals by sinks only grew 61%.

![Balance of emissions and removals by sinks](https://example.com/balance_graph.png)

Source: Chile’s National GHG Inventory 2010. Ministry of the Environment
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (3/6)

1.2 Overview of country’s GHG emissions

Characteristics of sectoral emissions:
- Energy sector emissions grew 168% in the same period.
- The net capture of the LULUCF sector diminished 34%.

Source: Chile’s National GHG Inventory 2010. Ministry of the Environment
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (4/6)

1.2 Overview of country’s GHG emissions

- The energy sector shows a 4.8% annual growth during the period 1984-2006.
- In 2006, the main contributors were: Energy Industry (36%); Transport (29%); and Industry and Mining (23%).

![Energy sector emissions by category graph](Source: Chile’s National GHG Inventory 2010. Ministry of the Environment)
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (5/6)

1.2 Overview of country’s GHG emissions

- Electricity production showed an increase in emissions of 389% since 1984, and represents 79% in 2006.

Source: Chile’s National GHG Inventory 2010. Ministry of the Environment
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (6/6)

1.2 Overview of country’s GHG emissions

Source: LEAP Model Implementation (PROGEA Study), January 2011, Ministry of Energy
Our research shows that market mechanisms are one of the most cost effective tools for the country’s mitigation efforts.

The PMR offers a great opportunity for Chile to implement the necessary market mechanisms building blocks given the country’s characteristics:

- Developed and robust financial sector
- Large number of abatement opportunities
- Growing interest by the private sector on climate change issues, shown by the large number of national companies measuring their carbon footprint
1. Policy context: Domestic mitigation objectives and role of market instrument(s) (2/2)

1.3 Interest in market-based instrument(s)

Among the market mechanism identified by the Government to contribute to mitigation efforts are the following:

- An Emission Trading Scheme for the sectors with more emissions.

- NAMAs that interact with other market mechanisms and avoid double counting. For example, incentives for energy efficient buildings.

- Financial mechanisms tailored to overcome non-economic barriers in sectors with high mitigation potential, but low market share, such as renewable energy and energy efficiency certificates.
2. Organization and consultations (1/2)

2.1 PMR contact point

- The overall objective of the Ministry of Energy is to develop and coordinate plans, policies and standards for the proper functioning and development of the sector, ensure compliance and advise the Government on all matters related to energy.

- The Division of Sustainable Development (DSD) of the Ministry of Energy is the focal point for the PMR. Among its mandate/tasks, the DSD will:
  - Coordinate with the Ministry of Finance officials during the phase of funding allocation/management;
  - Develop the ToRs for the PMR preparation and implementation phases and coordinate their execution;
  - Engage and coordinate the participation of stakeholders;
  - Participate in the preparation of ToRs for specific studies and perform the selection process for consultancy work;
  - Coordinate capacity building and outreach activities.
2. Organization and consultations (2/2)

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

- The following ministries have a key participation in the PMR preparation and implementation:
  - Energy, Environment, Finance, Transportation, Foreign Relations and Economy

- Key stakeholders from industrial associations and civil society will be invited to participate in the PMR:
  - production and commerce, generation and distribution utilities, renewable energy, environmental NGOs, etc.

- The consultation process include workshops and roundtable discussions on (among others): ETS and other Market Mechanisms design and implementation in Chile; development of NAMAs; MRV and registry design.
Chile is concluding two sets of preliminary studies to define its GHG mitigation strategy:

- A pre-feasibility study to implement an emission trading system to reduce GHG in Chile (ETS Study).
- NAMA design options for several relevant sectors (energy; agriculture and forestry; and transportation).

The sectors to be regulated by an ETS were identified; other regulated sectors can be addressed by other market mechanisms, e.g.: NAMAs.

The non-regulated sectors of an ETS can also contribute to mitigation efforts through a Baseline and Credit mechanism.
3. Technical building blocks of market-readiness (1/4)

3.1 Taking stock of relevant sectors (and/or regions) - Energy

- The ETS Study reached the following preliminary conclusions:

- Sectors pre-identified to be regulated by the ETS within the Energy Sector:
  - Energy Industry
  - Transportation
  - Commercial, Public, Residential (CPR)
  - Industry and Mining

Source: ETS Study 2011, Ministry of Energy
3. Technical building blocks of market-readiness (1/4)

3.1 Taking stock of relevant sectors (and/or regions) - Energy

- Studies show an abatement potential of 90-110 MtCO₂ for the period 2011-2020.
- Introducing an ETS from 2015, the limitation goal by 2020 is achieved in the following way:
  - Regulated sectors: **23.4 MtCO₂** in 2020
  - Non regulated sectors: **7.2 MtCO₂** in 2020

Source: LEAP Model Implementation (PROGEA Study), January 2011, Ministry of Energy
The Energy Sector was identified as the first sector to be regulated by an ETS because:
- High share of total emissions.
- Availability of detailed data at emission source (generation sub-sector) and the technology aggregation in other subsectors.
- Real abatement options at reasonable costs.
- Feasible cost-effective regulation and institutional framework.

In order to prepare and inform the due process, a detailed analysis is required, especially in the following areas:
- Sectors to be regulated by the ETS.
- ETS phases and timeframe.
- Abatement potential and costs in order to estimate the overall economic cost.
- Emissions projections under the BAU scenario and with mitigation goals by 2020.
- Design and feasibility of different financial instruments for mitigation projects/programs.
- Regulatory changes needed in the regulated sectors (Electricity, Fuel, Transport Laws).
- Design of the institutional framework to operate an ETS.
3. Technical building blocks of market-readiness (2/4)

3.2 OPTIONAL - Assessment of readiness of Other Sectors

- The Government already conducted studies of the design of NAMAs for the transport, energy and agriculture sectors, which need more detailed analysis, in order to better estimate:
  - Abatement potential
  - Technology penetration rate
  - Potential linking with an ETS in its design or through an offsetting mechanism (baseline and credit).

- Double counting is a relevant issue to be addressed.
Although Chile has solid foundations to implement a robust and transparent MRV, further research is needed to design the appropriate infrastructure for the implementation of a high standard MRV.

PMR support is envisioned/planned for the following activities:

- **Monitoring, measurement and reporting guidelines/standards:** Development of guidelines/standards.

- **Verification procedures:** plans for developing/implementing a system of independent verification.

- **Tracking tool.** Plans of the country to keep track of mitigation activities and associated GHG impact, allocation, compliance status, among others.
4.2 OPTIONAL - Institutional/legal components

- The country has yet to identify specific institutional and legal components. The following areas will be elaborated during the Preparation Phase:

- The Government agencies responsible for the design, implementation and compliance of the market mechanisms will be identified and their roles specified, including the regulating authority.

- The data collection assignments and responsibilities will be assigned to the appropriate government agencies.

- Performance verification duties will be assigned, which will include GHG emissions reductions verification and certification.

- Issuance of assets (e.g., allowances, credits).
5. Other key relevant initiatives

- Carbon footprint Study (Ministry of Energy).

- Portfolio of NAMAs in the energy sector/MRV pilot system (Ministry of Energy).

- Portfolio of NAMAs in the transport and agriculture sector (Ministries of Transport and Agriculture).

- MAPS (Mitigation Action Plans and Scenarios) Initiative: Options to comply with the 20% mitigation goal at 2020 (Ministry of the Environment).


- GHG inventory task force: regularly update Chile’s national inventory (M. of the Environment).
6. Organization of work and estimated timeline (1/2)

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

In order to prepare and inform the due process on the design of market mechanisms, the following activities are necessary:

1. Establishment of a Steering Committee
2. ETS detailed studies, in order to establish:
   - Sectors regulated
   - Implementation phases
   - Infrastructure requirements
   - Legislative requirements
   - Detailed Abatement Curve Cost for regulated and unregulated sectors
3. NAMA detailed study:
   - Registry
   - NAMA crediting / sectoral crediting
   - MRV Design and Data gathering
4. Other feasibility studies:
   - Energy Efficiency
   - Renewable Energy Certificates
   - Technology-based approaches.
6. Organization of work and estimated timeline (2/2)

### 6.2 Overview of estimated timeline for formulation of Market Readiness Proposal

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| Stage 1   | 6 months |        |        |        |        |
| Stage 2   |         | 1 year |        |        |        |
| Stage 3   |         |        | 6 months |        |        |
| Stage 4   |         |        |        |        | 3 years |

**Stage 1**: Preparatory phase to enable the use of US$350,000 (agreement between the WB and the Ministry of Finance, funding acceptance, management and disbursement, etc.)

**Stage 2**: Formulation of Market Readiness Proposal

**Stage 3**: Preparatory phase for full-size funding (id. Stage 1)

**Stage 4**: Implementation of full size PMR Project
7. Conclusions – Summary of market readiness priority areas for PMR support

- Research and design of the ETS, including type, scope and scale.
- Research complementary mechanisms, such as a carbon tax, boosting programs for energy efficiency and renewable energy markets, etc.
- Develop necessary institutional and financial tools and instruments that will facilitate the implementation of the ETS.
- Build capacity for further research, implementation and operation of the ETS.
- Develop a platform to carry on a permanent discussion on all technical issues.
- Quantify the GHG emissions reduction that will be achieved by the system.
- Determine the potential impact on the economy, paying special attention to impact on economic growth and structural adjustments of the economy.
- Establish an MRV system with a suitable registry that are consistent with international carbon markets requirements.
Thank you