



## Partnership for Market Readiness

### Expression of Interest

### Brazil

August 17, 2011



## Expression of Interest

## Introduction - Capacity building needs assessment: How to get started?

This document is meant to provide a framework for countries to express their interest in participating in the Partnership for Market Readiness (PMR)<sup>1</sup>. It contains a series of questions designed to help countries make an early assessment of opportunities to use market-based instruments<sup>2</sup> within their national and/or sectoral mitigation strategies, their existing capacity and what gaps may need to be filled. Capacity is a central element in the overall process to implement market-based instruments, both in the design and implementation phase. The individual needs for additional capacity vary substantially depending on the starting point of a country, the selection of instruments and the scope of the envisaged implementation.

The process is divided in two parts.

A. The **Expression of interest**, which includes an official cover letter and policy statements, provides an opportunity for a country to formally seek for support through the PMR and express its interest in using market instruments as a potential mechanism to achieve climate mitigation actions within its national political context.

B. A **Questionnaire** supports the Expression of Interest. The Questionnaire is a tool that can be used to provide further detailed technical information on the current capacity related to the implementation of market mechanisms. While it is not required to respond to all the questions, interested countries are encouraged to provide as much information as possible in order to shed light on their domestic contexts and provide an understanding of their respective market readiness capacity. The questionnaire covers five areas:

- *Policy, legal frameworks and institutions*: this section covers the existing policy framework national policy-making processes, and institutions related to climate change which form an important part of the relevant government capacity – crucial for the effectiveness of any policy instrument, especially market-based instruments This section looks at regulatory capacity, links to the UNFCCC, experience with the Clean Development Mechanism (CDM) and other environment-related market-based instruments.
- *Measurement, reporting and verification (MRV)*: this section provides an overview of government capacity and existing procedures for data management and MRV of energy use and GHG emissions. This is important both for the use of market instruments, but also for assessing and non-market based mitigation actions.
- *Understanding of the sector(s)*: this section is intended to provide a more detailed insight related to individual sectors, particularly with respect to government capacity, data availability and organization of the sector.
- *Non-governmental actors*: while the focus of the capacity needs assessment is clearly on public capacity, to successfully implement mitigation actions, especially market-based instruments, a solid capacity base within non-governmental actors is essential. This section therefore supports the assessment of this capacity to allow a government to evaluate the overall situation and capacity building needs within the country.

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<sup>1</sup> The reader should refer to the Partnership for Market Readiness Design Document for a detailed description of the PMR.

<sup>2</sup> For reference purposes, Annex 1 contains an overview of market instruments being discussed internationally.

**List of acronyms**

CDM	Clean Development Mechanism
DNA	(CDM) Designated National Authority
DOE	Designated Operational Entity
GHG	Greenhouse gas
ISO	International Organization for Standardization
JI	Joint Implementation
LEDS	Low emissions development strategy
MRV	Measuring, reporting and verification
NAMA	Nationally Appropriate Mitigation Action
PMR	Partnership for Market Readiness
VER	Voluntary Emission Reduction
UNFCCC	United Nations Framework Convention on Climate Change

## A. Expression of interest

### Partnership for Market Readiness (PMR) Expression of interest in participating in the PMR

1. NAME OF THE GOVERNMENT AGENCY SUBMITTING EXPRESSION OF INTEREST:

MINISTRY OF FINANCE, BRAZIL

2. Name and contact information of designated PMR Government focal point

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3. Domestic mitigation action: Please outline what are the purposes and main objectives of your country's mitigation strategy

- a. Provide an overview of domestic mitigation policies and plans and the status of the implementation- at both the national and sub-national levels.

Brazil has enacted its National Climate Change Policy (PNMC) by the end of 2009 (Law No. 12.187/2009). According to the law, the country took on a voluntary commitment to reduce its greenhouse gas emissions by 36.1% to 38.9% regarding its business as usual projections for 2020. To fulfill this commitment, the law states that Brazil will design sectorial plans on mitigation and adaptation, as well as plans to prevent and curb deforestation. All these plans are integral parts of the National Plan on Climate Change, which is planned to be revised.

In January 2010, Brazil presented some of the actions related to this national effort to the United Nation Framework Convention on Climate Change (UNFCCC). All the informed actions are part of the five plans that Brazil has already concluded or is about to conclude: agriculture, energy, iron & steel, Amazon deforestation and "Cerrado" deforestation. Additional plans are to be concluded this year (transportation, a variety of industries, mining, building and health).

In parallel, Brazil is making arrangements to design its National REDD+ Strategy (ENREDD+). Recently, the government designed a road map and created an Interministerial Group which has the task of steering the development of the strategy and discuss it with stakeholders from civil society and the Brazilian states' delegates.

Regarding REDD+ projects, by the end of last year the Ministry of Environment launched the REDD+ Portal, a fundamental tool to enhance visibility of REDD+ actions and to boost stakeholder participation. Through the Portal, projects and other voluntary initiatives can be recorded and made public available, stimulating the debate around the issue.

At the same time, some Brazilian States have enacted laws on climate change, in some cases including targets for emissions reductions (as in the case of São Paulo) and indications regarding use of market instruments to fulfil voluntary commitments.

- b. Briefly identify the key sectors targeted by the mitigation strategy.

Mitigation actions included in the PNMC cover the following sectors: forests, agriculture, energy, iron & steel and a variety of other industries, transportation, mining and building.

4. Market Instruments<sup>3</sup>: Please briefly outline experience to date with relevant market instruments as well as future plans.

- a. Provide a brief description of experience to date with market-based instruments, e.g., type of instrument, dates of implementation, scope, and key outcomes

- CDM Experiences

The Kyoto Protocol establishes the possibility of developed countries using flexibility mechanisms to complement their domestic effort in meeting quantified greenhouse gas emission limitation and reduction commitments. Brazil participates in the Clean Development Mechanism – CDM, which allows for voluntary participation of developing countries.

In September 2002, the Secretariat of the UNFCCC was officially informed by the Brazilian Government that the Interministerial Commission on Global Climate Change (CIMGC) is the Designated National Authority for approval of projects for the Kyoto Protocol's Clean Development Mechanism.

The Commission is headed by the Ministry of Science and Technology and includes the Ministries of Mines and Energy, of Transportation, of Development, Industry and Commerce, of Agriculture, Livestock and Supply, of Environment (Vice-President of the Commission), of Finance, of Budgeting and Management, of External Relations, of Cities, as well as the Civil Office of the Presidency of the Republic of Brazil.

The first Brazilian CDM project was approved in 2004 and the statistics of CDM project activities in Brazil, up to June 30th, 2011, are presented below.

1 - Number of project activities and expected emission reductions in the world

On June 30th, 2011, a total of 7,742 CDM projects worldwide were in one of the CDM project cycle phases; 3,214 were already registered by the CDM Executive Board, and 4,528 were in other phases of the cycle. Brazil occupies the third place in number of project activities, with 499 projects (6%).

In terms of expected emissions reductions for the first crediting period, Brazil ranks third, being responsible for a reduction of 412,197,677 tCO<sub>2</sub>e (corresponding to 5% of the worldwide total for the first crediting period).

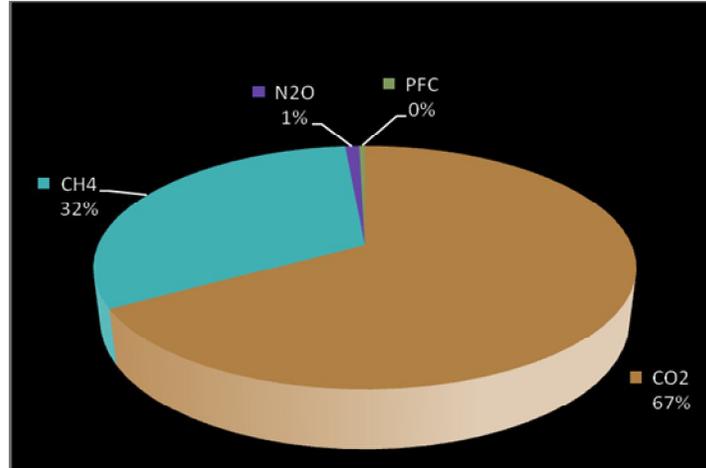
2 - Distribution of project activities in Brazil by type of greenhouse gas and by sectoral scope

Figure 1 shows the global contribution of the greenhouse gases reduced by CDM project activities in Brazil. It can be noted that carbon dioxide is currently the most relevant, followed by methane and

<sup>3</sup> Without prejudging future developments on market instruments, this question refers to instruments providing a price signal that create an incentive to use or invest in climate-friendly technologies and/or processes. Such market instruments can include domestic instruments (e.g. emissions trading and non-GHG based schemes such as renewable energy and energy efficiency trading systems) and international market instruments such as reformed CDM, sectoral and NAMA crediting.

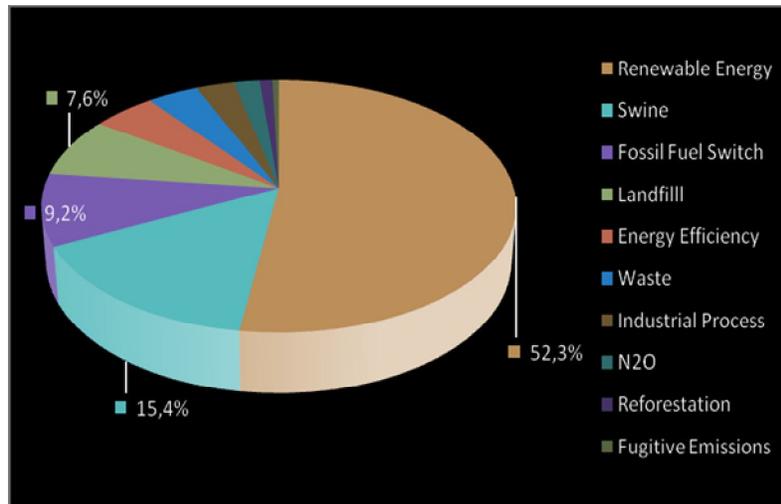
nitrous oxide, respectively. Figure 2 shows that the majority of the project activities developed in Brazil is in the energy sector, which explains why CO<sub>2</sub> is preponderant in the Brazilian emissions reduction.

**Figure 1 – Distribution of project activities in Brazil by type of greenhouse gas**



Source: Current status of the project activities under the Clean Development Mechanism (CDM) in Brazil and the world - CIMGC

**Figure 2 – Distribution of project activities in Brazil by sectoral scope**



Source: Current status of the project activities under the Clean Development Mechanism (CDM) in Brazil and the world - CIMGC

3 - Distribution of project activities in Brazil by type of project

Table 1 shows that the largest number of Brazilian projects is in the area of energy generation and swine, which represents the majority of the project activities (68%). The scopes that will reduce more tons of CO<sub>2</sub>e are landfill, energy generation and reduction of N<sub>2</sub>O, with a total of 293,004,348 tCO<sub>2</sub>e to be reduced during the first crediting period, representing 71% of the total emission reduction of Brazilian project activities.

Table 1 – Distribution of project activities in Brazil by type of project

Projects Under Validation/Approval Process	Number of Projects	Annual Emission Reduction	Emission Reductions on the 1st crediting period	Number of Projects (%)	Annual Emission Reduction (%)	Emission Reductions on the 1st crediting period (%)
Renewable Energy	261	21,125,083	157,315,462	52.3%	40.3%	38.1%
Landfill	38	12,307,823	91,071,614	7.6%	23.5%	22.0%
N2O	5	6,373,896	44,617,272	1.0%	12.2%	10.8%
Swine	77	4,244,755	39,435,666	15.4%	8.1%	9.5%
Fossil fuel switch	46	3,329,139	27,958,720	9.2%	6.3%	6.8%
Energy efficiency	30	2,180,709	20,928,010	6.0%	4.2%	5.1%
Reforestation	3	440,275	13,132,369	0.6%	0.8%	3.2%
Industrial process	14	1,002,940	7,449,083	2.8%	1.9%	1.8%
Waste	21	709,921	5,616,091	4.2%	1.4%	1.4%
Fugitive emissions	4	720,068	5,721,011	0.8%	1.4%	1.4%

Source: Current status of the project activities under the Clean Development Mechanism (CDM) in Brazil and the world - CIMGC

#### 4 – Current status of the projects in the Brazilian Designated National Authority - DNA

Table 2 shows how many project activities have already been submitted, approved, approved with restriction, or are under review by the CIMGC, the Brazilian DNA. Project activities are considered to be submitted only after the Executive Secretariat has verified that all documents referring to these project activities, required in compliance with the resolutions of CIMGC, have been duly delivered and, thus, this documentation will become public electronically in the website of the Ministry of Science and Technology.

The project activities whose contribution to sustainable development is considered adequate, but which present editorial errors or less relevant inconsistencies, will be considered approved with restriction. However the activities that need clarification about the description of the contribution to sustainable development or that present editorial errors or any relevant inconsistencies will be considered under review.

Table 2 – Current status of the project activities in the Brazilian DNA Projects approved by the CIMGC

Projects approved by the CIMGC	264
Projects approved with restrictions by the CIMGC	3
Projects under review in the CIMGC	1
Projects submitted to the next CIMGC meeting	0
<b>CIMGC Total</b>	<b>268</b>

Source: Current status of the project activities under the Clean Development Mechanism (CDM) in Brazil and the world - CIMGC

#### 5 – Current status of Brazilian projects in the CDM Executive Board

Table 3 presents how many project activities were submitted for registration or are registered by the CDM Executive Board.

Table 3 – Current status of the Brazilian project in the CDM Executive Board

Brazilian Projects approved in the Executive Board	193
Brazilian Projects submitted to the Executive Board	71
CIMGC Total	264

Source: Current status of the project activities under the Clean Development Mechanism (CDM) in Brazil and the world - CIMGC

- Voluntary Markets

Voluntary carbon markets are still incipient in Brazil but have been growing, representing around 60% of voluntary credits originated in Latin America in 2010. Two private standards for voluntary markets have been developed: Brasil Mata Viva (BMV), a certification program for forestry projects, which has 9 projects; and the Socialcarbon Standard, which has 37 projects. Socialcarbon is a standard for co-benefits and does not include specific criteria on emission reductions.

This year the Brazilian Association for Standardization (ABNT) has also developed a standard for verified emission reductions (RVE) in the country and by the end of 2010, the Brazilian stock exchange (BM&F/Bovespa) in tandem with the Brazilian Development Bank (BNDES) launched the Carbon Efficient Index (ICO2), a tool that informs investors on corporate GHG emissions. This kind of initiative complements the government action and helps the country to make the transition to a low carbon economy.

- To the extent that one (or more) specific market instrument is already identified for future implementation, please provide a brief overview of the status of development/implementation and its relevance to the country's overall mitigation strategy.

Brazil is considering introduction of a domestic market instrument to help deliver its 2020 mitigation objectives. Law No. 12.187/2009 refers to the creation of the Brazilian Emission Reductions Market (MBRE), operationalized by Brazilian stock exchanges and/or over-the-counter and authorized by the Securities Commission. Brazil has been considering options that can be assessed and implemented, according to the results of a cost-benefit analysis and mitigation potential.

**5. Support from the PMR:** Please provide a short summary of your current assessment of the capacity needs and gaps for which support from the PMR is being sought. To the extent that one (or more) specific market instrument is identified, please outline the type of support that your country may be seeking from the PMR.

Brazil believes that the adoption of a market instrument can be useful to meet the objectives of the PNMC, as well as to reduce the overall mitigation costs in the country. Notwithstanding, Brazil has a long way to go to implement such an instrument, mainly due to technical difficulties and regulatory challenges.

In this regard, participation in the PMR could support activities such as:

- Cost-benefit analysis of different instruments, identifying which instrument suits best to each sector, and further research on any specific chosen one(s);
- Analysis of technical requirements;
- Analysis on institutional needs to implement the instrument(s), taking into account the Brazilian federative system;

- Analysis on the potential impact on the overall economy.

**6. Institutional setting:** How would you plan to coordinate the PMR efforts at the domestic level, i.e. which Ministry would lead, and which government agencies would be involved.

The Interministerial Committee on Climate Change (CIM) has the task of steering the development, implementation, monitoring and evaluation of the National Plan on Climate Change, among other functions. The CIM is coordinated by the Executive Office of the Presidency of the Republic and it is composed of seventeen federal bodies. The Brazilian Forum on Climate Change – FBMC, body that counts with representation of the civil society, is invited as observer.

The Executive Group on Climate Change - GEx, under the CIM, is composed by seven Ministries plus de FBMC. Coordinated by the Ministry of Environment, GEx is in charge of developing, implementing, monitoring and evaluating the National Plan on Climate Change.

Ministry of Finance intends to lead the PMR process, in coordination with GEx and CIM, and work closely to key relevant Ministries.

**7. Stakeholder participation:** Are there intentions/plans /processes to engage non-governmental stakeholders (e.g. private sector)? If so, please provide brief description.

Brazil intends to engage non-governmental stakeholders as much as possible and, in fact, this is already an ongoing process. Not only the FBMC has a seat on GEx but the private sector is already involved in the design of sectorial plans. For example, the first workshop to discuss preparations and views about the Industry Sector Plan was realized in April, 2011 and the Federal Government has plans to consult the private sector more often during the design phase of sectorial plans.

**8. Initiatives by other bilateral and multilateral development partners:** Please outline any initiative(s) pursued with other international partners underway in your country that is (are) relevant to market readiness support (e.g., low carbon development strategies, MRV, etc).

To support Brazil's effort to identify opportunities to reduce its emissions, the World Bank developed the Brazil Low Carbon Study.

## **Annex 1: Market instruments being discussed internationally**

The market instruments listed below include proposals that have been put forward so far by countries and organizations as a potential way to scale-up mitigation efforts beyond the scope of the CDM in its current form. This is an indicative list and is not intended to be exhaustive, nor does it prejudge any further development of the instruments or discussions under the UNFCCC. As yet there is no international agreement on the design and use of these instruments. The definitions provided below have also not been agreed internationally. Hence this list is also not intended to be prescriptive in terms of the types of market instruments countries could choose to pursue through piloting supported by the Partnership.

### **Offsetting Mechanism**

**Reformed CDM** – e.g. Introducing standardized baselines to create consistent performance thresholds that can be applied across multiple projects of the same project type.

### **Crediting Mechanisms**

**Sectoral Crediting** – a baseline and (ex-post) credit mechanism where a government is responsible for surpassing its sector specific crediting baseline. If the crediting baseline is set below the BAU level of emissions, then the difference between the two represents the country's domestic abatement effort ('own action'). Any abatement beyond the agreed baseline would be eligible for crediting, with the credits equal to the reductions being issued at the end of the crediting period. The government would need to agree its sectoral emissions baseline at the outset, and then use a portfolio of domestic policy instruments to reduce its actual emissions below the baseline. The government could choose to devolve the target across firms or specific installations. Sectoral crediting is sometimes also referred to as a 'sector no lose target', where the "target" could be expressed in the form of absolute reductions or emissions intensity.

**Technology based approach** – a technology diffusion goal would be established for a specific sector, such as share of the physical capacity of a sector to be fitted with technology X by a specific date or increasing the capacity of technology Y by a specified amount or rate. Countries would then receive emission credits for technology performance beyond the initial goal.

**NAMA crediting** – credits would be issued for the verifiable emission reductions from the nationally appropriate mitigation actions (NAMAs) undertaken by developing countries. Eligible NAMAs would be supported through full or discounted crediting in the carbon market for activities beyond the baseline or NAMA level.

### **Allocation Mechanisms**

**Sectoral Trading** – a cap and trade mechanism where a government is responsible for meeting an agreed sector specific emissions target. Emissions allowances would be allocated to the government ex-ante, up to the level of the target. The government would then need to make installations in the sector limit their emissions to the level of this cap during the specified period. Sectoral Trading would involve carbon units (allowances) being issued at the start of the period, and the government ultimately purchasing extra carbon units from abroad if the sector is unable to meet the target domestically.

**Domestic Emissions Trading** – a cap is set on emissions and allowances are provided ex-ante, either through allocation or auction, to emitters covered by the cap. These emitters are required to submit

allowances equal to the amount of greenhouse gases emitted over a predetermined period. The difference between expected emissions and the cap creates a price for the allowances. Emitters who can reduce emissions for less than the price of an allowance will do so. If, however, abatement costs more than the price of an allowance, it makes sense to purchase additional allowances from other emitters with surplus allowances. The relative difficulty of abatement or scarcity of allowances sets the price of carbon. In theory, those that can reduce emissions most cheaply will do so, achieving the reductions at the lowest possible overall cost to the country.

*Sources: Information is drawn from: Global Carbon Trading: a Framework for Reducing Emissions - Mark Lazarowicz & Office of Climate Change (2009), and submissions to the UNFCCC.*