

# PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC815

<b>Project Name</b>	MA-Partnership for Market Readiness (P128654)
<b>Region</b>	MIDDLE EAST AND NORTH AFRICA
<b>Country</b>	Morocco
<b>Sector(s)</b>	General finance sector (100%)
<b>Theme(s)</b>	Climate change (100%)
<b>Lending Instrument</b>	Specific Investment Loan
<b>Project ID</b>	P128654
<b>Borrower(s)</b>	Ministry of Economy and Finance
<b>Implementing Agency</b>	Ministe de l'Energie, des Mines, de l'Eau et de l'Environnement
<b>Environmental Category</b>	C-Not Required
<b>Date PID Prepared/ Updated</b>	22-Apr-2013
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<b>Estimated Date of Appraisal Completion</b>	30-Apr-2014
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<b>Concept Review Decision</b>	Track II - The review did authorize the preparation to continue

## I. Introduction and Context

### Country Context

Morocco strives to contribute to the efforts of the international community to address climate change. Though it is a low emitter of greenhouse gases (GHG), Morocco has steadily endeavored, since the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in 1995, to contribute to international efforts to tackle the adverse effects of climate change. As a non-Annex I party to the UNFCCC, Morocco ratified the Kyoto Protocol in 2002. Since then, the country has made significant efforts to ensure its implementation, establishing a Designated National Authority for the Clean Development Mechanism (CDM) and launching a series of CDM projects. The Moroccan climate change institutional framework currently includes the following structures: (i) a National Committee on Climate Change (CNCC) created in 1996, an inter-ministerial body in charge of climate change stakeholders' coordination and awareness-raising, (ii) a National Scientific and Technical Committee on Climate Change (CNSTCC), (iii) a Designated National Authority for approving eligible projects for CDM, (iv) a Climate Change Unit, set up in 2005 and hosted in the Department of Environment, which serves as the focal point of the

UNFCCC in Morocco.

Morocco stated its commitment to lowering GHG emissions at international level. In the context of the post-Kyoto international negotiations, it appeared important for Morocco to communicate on the mitigation measures it intends to voluntarily undertake, as well as those it already launched. The Government of Morocco (GoM) issued a National Action Plan against Global Warming (Plan National de Lutte contre le Réchauffement Climatique, or PNRC) in Copenhagen in 2009, which outlined a comprehensive campaign to tackle the sources of its own GHG emissions, by identifying national priorities for mitigating GHG emissions and building resilience through managing impacts and encouraging mitigation and adaptation to climate change. The Action Plan covers key sectors in line with national development priorities: energy, transport, industry, waste, agriculture, forestry, and buildings. In addition to the PNRC, Morocco also submitted its Second National Communication to the UNFCCC in 2009, and its Third National Communication is currently under preparation. In 2010, Morocco announced the development of a National Charter for Environment and Sustainable Development based on a broad consultative process. The Charter provided the foundations to the Framework Law '99-12' on the Environment and Sustainable Development, which was adopted by the Council of Government in December 2012.

Morocco is a low GHG emitter, but its emission profile is rapidly changing. Per capita emissions stand at around 2.2 tCO<sub>2</sub> eq per capita, for a global GHG contribution of 63.4 Mt CO<sub>2</sub> eq. Energy accounts for half of net GHG emissions (50.9%), followed by agriculture (32.5%) and industry (5.9%). Between 1994 and 2010, Morocco's GHG emissions have increased by an average rate of 4% per year, and are projected to increase faster in the future to 134 MtCO<sub>2</sub> eq by 2020, largely driven by a surging electricity demand due to a rapid economic growth and a growing middle class. Total demand has grown by more than 6% yearly, compared to 3.5% growth, thus increasing the energy intensity of the economy. Demand is forecasted to double by 2020 and to be four times higher than today by 2030. As energy mix is dominated by oil (61% of primary energy demand) and coal (28%), CO<sub>2</sub> emissions per kWh generated are 50% higher than the world average. This will be compounded by the rapid growth of high emitting sectors, particularly in industry.

The energy and industrial sectors are responsible for the bulk of Morocco's GHG emission mitigation potential. The country's high dependence on energy imports (97% of domestic needs) spurred the GoM to make a clear strategic choice towards low carbon growth and an ambitious strategy to promote renewable energy and sustainable technologies. The objective is to reach 42% of renewable energies for its electric production in by 2020 (14% would come from solar, 14% from wind and 14% from hydro) and to achieve energy savings of 12% by 2020. Improving energy security whilst ensuring energy access for all citizens and businesses at the lowest possible cost go hand in hand with fulfilling the country's mitigation potential, estimated at 57.6 MtCO<sub>2</sub>eq/y (equivalent to its 1998 emission levels). However, fulfilling this potential requires an estimated investment of \$US 30 billion for the 2010-2030 period and highlights the financing challenge ahead of GoM.

### **Sectoral and Institutional Context**

Morocco is actively seeking climate-financing opportunities to stimulate investments in renewables and sustainable energy technologies. The Clean Technology Fund (CTF) provides scaled-up financing for the demonstration, deployment and transfer of low carbon technologies that have a significant potential for long term GHG emissions savings. In Morocco, it supports the large scale renewable energy development through the Ouarzazate Solar Plant (197 M\$) as well as the National

Integrated Wind/Hydro and rural electrification program (125 M\$). The Global Environment Fund (GEF) provides grants to support Morocco's policy to further develop renewable energy and to promote private participation. Most prominent renewable energy and energy efficiency related GEF projects include Ain Beni Mathar Integrated Solar Combined Cycle Power plant (43.2 M\$, IBRD), market development for solar water heaters (2.96 M\$, UNDP), energy efficiency codes in residential buildings and energy efficiency improvement in commercial and hospital buildings (3 M\$, UNDP), and energy efficiency in the Industrial sector (2,7 M\$, AfDB).

The country has shown an active interest in mobilizing carbon finance. Morocco is leading in carbon finance at a regional level with 8 registered CDM projects (3 MtCO<sub>2</sub>/y mitigation potential) and 13 projects in validation process (2 MtCO<sub>2</sub>/y). A number of public and private agencies have developed a solid expertise with carbon finance instruments particularly through CDM type projects (Box 1). Despite this relatively strong track record, domestic capacities are still relatively limited to fully capture the current and particularly future opportunities offered by carbon markets. GoM is now keen on building on its CDM experience and to develop its readiness to benefit from future market mechanisms and mobilize additional finance for its national mitigation programs.

GoM is already active in developing NAMA approaches. Nationally Appropriate Mitigation Actions (NAMA) are currently being identified based on existing national sectorial strategies and programs. Besides this preliminary NAMA identification, Morocco is in the process of launching a consultation process with NAMAs proponents (public and private), in order to proceed with a detailed NAMA development plan, including sector baselines and Measurement, Reporting and Verification (MRV) components. Preliminary results include:

- Energy sector: 2020 National Energy Strategy: 13 potential NAMAs identified in the following sub-sectors: wind power, solar power, solar water heaters, low energy lamps, green cities, energy efficiency in buildings, industry, and public lighting. 50.9 MtCO<sub>2</sub>eq/y potential for an investment of US\$ 28.1 billion
- Agriculture sector: Green Morocco Plan: 3 identified NAMAs: improving crop yields (practices, solar pumping, etc), technologies for improving the use of nitrogen fertilizers, and installation of biogas recovery systems. 2 MtCO<sub>2</sub>eq/y potential for an investment of 2.6 US\$ million
- Solid waste sector: National Solid Waste Program: 3 identified NAMAs: Rehabilitation of former landfills, biogas capture and energy valorization from sanitary landfills, and biogas capture and energy valorization for a total of 3.5 MtCO<sub>2</sub>eq/y potential
- Forestry sector: Reforestation Plan. Identified NAMA: reforestation of 50,000 ha/y, strengthening the olive cultivation program with a 500,000 ha reforestation, plantations in the oases of Tafilelet, program against deforestation, for a total of 3.7 MtCO<sub>2</sub>eq/y, potential and US\$ 450 million

The energy and industrial sectors show high potential for sector based crediting schemes. The US\$ 9 billion Moroccan Solar Plan aims at developing 2000 MW of solar energy (PV and solar thermal) by 2020, as well as preventing the emission of 3.7 MtCO<sub>2</sub>/y. The US\$ 3.5 billion Moroccan Integrated Wind Energy Plan will enable to bring the installed capacity from 280 MW to 2000 MW by 2020, and prevent the emission of 5.6 MtCO<sub>2</sub>/y. In the industrial sector, there are two fast growing subsectors, namely phosphates and cement. Morocco has the largest reserves of phosphates in the world, and the National Phosphates Office (OCP) is a world champion with more than 90 years' experience in mining and 45 years in industrial processing of acids and fertilizers, with an

export turnover of more than US\$ 4 billion representing 24% of Morocco's national export value. OCP total emissions are around 3 MtCO<sub>2</sub>/y. As for cement production, the Professional Cement Association encompasses all major international players (Lafarge, Holcim, Italcementi). Despite its prominent importance in terms of GHG emissions, the agriculture sector only represents 4% of the mitigation potential in Morocco (See Figure 1). Moreover, for this particular sector, the level of readiness for carbon markets is not as mature as in electricity, cement and phosphate production.

### **Relationship to CAS**

This Project is aligned with the current FY10-FY13 Country Partnership Strategy (CPS). The project will support the CPS 'Sustainable Development' pillar and will specifically contribute to achieving the outcomes of 'Additional revenue sources generated by CDM', 'Exploration of new mitigation ways' and 'Developing renewable energy and energy efficiency'. The project is also in line with several operations in the Bank's portfolio aimed at supporting Morocco's response to climate change. These include:

- **Municipal Solid Waste Management DPL (phase 1 & 2):** The Bank has been working closely with the GoM over the last several years to support the upgrading of environmental practices in the solid waste management sector, including through two Development Policy Loans. Carbon finance has been envisaged in these operations as an incentive for landfill operators, supported by municipalities, to invest in methane capture from new landfills and during improvements to existing operations. FEC, the communal equipment fund (Fonds d'Equipement National), is managing the outreach to municipalities and landfill operators.
- **MIGG DPL:** The PMR project is also related to the Morocco Inclusive Green Growth (MIGG) DPL series that focuses on enhancing the governance framework for green growth, fostering the preservation of natural capital, encouraging the development of low carbon physical capital and igniting human capital through R&D and the adoption of green technologies. This project will be closely coordinated with the PMR, as activities supported by the PMR could support DPL prior actions. This operation also provides a context for policy discussion on the possible use of scaled-up crediting mechanisms.
- **Ouarzazate CSP:** The Ouarzazate Solar CSP Project (P122028) which includes CTF financing also falls within the scope of PMR activities.

Additionally, the PMR Project will actively seek coordination and partnerships throughout preparation and implementation with donors involved in climate finance related activities in Morocco, including:

- **UNDP's Low Emission Capacity Building (LECB) program:** funded by the European Union (EU) and the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), this collaborative program aims to strengthen technical and institutional capacities at the country level, while at the same time facilitating inclusion and coordination of the public and private sector in national initiatives addressing climate change. More specifically, this four-year program will strengthen capacities in Morocco in the following ways: (i) develop GHG inventory management systems, (ii) identify opportunities for NAMAs, (iii) design low emission development strategies (LEDS) in the context of national priorities, (iv) design MRV systems of proposed actions and means to reduce GHG emissions, and (v) facilitate the design and adoption of mitigation actions by selected industries. The German Technical Development agency (GIZ)

supports on behalf of the federal ministries of Economic Cooperation and Development (BMZ) and Environment (BMU) a large number of partner countries with respect to climate change mitigation, including help with the development of low-emission development strategies, as well as with the design of NAMAs and MRV frameworks.

- **Japan's Bilateral Offsetting Crediting Mechanism (BOCM):** In order to achieve its long-term emission reduction target following the Fukushima incident, Japan would rely more heavily on international offsetting activities. Concurrent to vigorous proposals to reform the CDM, Japan is also promoting an offset crediting scheme through bilateral agreements with developing countries as a post-2012 market mechanism. The Bilateral Offsetting Crediting Mechanism (BOCM) can be an effective way to achieve Japan's post 2012 targets, complementing the existing Kyoto Mechanism. Since 2010, Japan has initiated the development of the BOCM by engaging in over a hundred feasibility studies, the objectives of which are to identify potential emissions reduction projects to be implemented and to develop MRV standards and methods, especially for those activities that currently do not exist in the CDM. Japan is interested in investigating the potential of the transport sector in Morocco.
- **The African Development Bank's Agriculture DPL:** The African Development Bank supports the elaboration of a NAMA in the agriculture sector (to be finalized by 2013) in its Green Morocco Plan Support Program (reform support loan) in cooperation with the national Agency for Agriculture Development (ADA).

## II. Proposed Development Objective(s)

### Key Results (From PCN)

- 1) PMR Market Readiness Proposal adopted by PMR Partnership Assembly
- 2) Establishment of core technical market readiness components including a crediting mechanism for targeted sectors, a monitoring, reporting and verification (MRV) system, and a registry/tracking tool, for at least one sector
- 3) Identification and development of potential incentive schemes with international financial partners and countries on a NAMA basis.

## III. Preliminary Description

### Concept Description

#### PMR Background

As the world seeks to enhance global GHG mitigation efforts post-2012, countries are exploring innovative and cost-effective ways to scale up emission reductions and foster financial flows, including through carbon market instruments. The Durban outcome led to the definition of a new market-based mechanism and an invitation to Parties for submissions on modalities and procedures. The Parties emphasized that such a mechanism must meet standard that deliver real, permanent, additional and verified mitigation outcomes, avoid the double counting of effort and achieve a net decrease or avoidance (or both) of GHG emissions. New market-based mechanisms could expand the scope of the conventional CDM beyond project levels to sector levels. In addition, mechanism options under discussion could include among other options the crediting of NAMAs. Nevertheless,

it usually takes years to agree on the establishment of a new market mechanism and could take even more time to set up operational rules.

To support, facilitate and build “readiness” for such instruments, the World Bank established the Partnership for Market Readiness (PMR). The PMR is a grant-based, capacity building multi-donor trust fund that provides funding and technical assistance for the collective innovation and piloting of market-based instruments for greenhouse gas emissions reduction. The PMR Secretariat recently reached its US\$100 million funding target (donor pledges) during the 4th Partnership Assembly in October 2012 in Sydney, Australia. The Partnership brings together developed countries (i.e. the Donor countries Australia, Denmark, EC, Germany, Japan, the Netherlands, Norway, Spain, Switzerland, United States, and United Kingdom) and developing countries (i.e. the fifteen Implementing Countries Brazil, Chile, China, Costa Rica, Colombia, India, Indonesia, Jordan, Mexico, Morocco, South Africa, Thailand, Morocco, Ukraine and Vietnam), as well as other key experts and stakeholders.

The PMR provides a platform for technical discussions on market instruments, fostering South-South exchange, facilitating collective innovation for pilot efforts and harnessing financial flows for implementation and scale up. Decisions in the PMR are made by the Partnership Assembly, including criteria for and allocation of funding (consisting of both the PMR Donors and Implementing Countries). The PMR supports four core objectives: (i) provide grant funding for building market readiness components, (ii) pilot and test new concepts for market instruments (e.g., domestic Emission Trading System and new crediting mechanisms), (iii) provide a platform for technical discussions, South-South exchange and collective innovation on new market instruments, and (iv) share lessons learned and best practices.

The PMR is a country-led initiative tailored to each implementing country needs. It provides systemic support to enhance countries’ technical and institutional capacities in order to implement market-based instruments, such as a domestic emissions trading system (ETS) or a scaled-up crediting mechanism. As the Implementing Countries are at different stages of development and market readiness, each will approach the use of market instruments in a different way. Some will focus on building core “readiness” components, such as new systems for MRV, data collection, baseline setting, and establishing regulatory institutions; others will go further and pilot an appropriate domestic or international market-based scheme. Regardless of a country’s choice, capacity building and piloting can have cross-cutting benefits relevant to implementing non-market based mitigation actions, designing low emission development strategies, and identifying areas of low cost mitigation potential.

PMR activities involve a preparation phase and an implementation Phase. Preparation Phase: With a benefit of a US\$350,000 preparation grant, each PMR Implementing Country formulates a Market Readiness Proposal for review and endorsement by the PMR Partnership Assembly. The Implementing Country may also use the preparation grant for activities that continue into and overlap with the Implementation Phase. Implementation Phase: The Implementing Country enters into the PMR Implementation Phase once the PMR Partnership Assembly has reviewed and endorsed its Market Readiness Proposal and awarded an Implementation Grant to it. Each Implementing Country is required to present its draft Market Readiness Proposal within two years after the award of the preparation grant (with a possibility of extension of six months in extraordinary circumstances). With the benefit of the Implementation Grant, which will range between US\$3 - \$8 million per country, the Implementing Country puts in place the readiness

components outlined in the Market Readiness Proposal, including, where applicable, piloting the proposed market instrument. The size of the funding is determined by the Partnership Assembly in accordance with a set of criteria and availability of funding. The criteria for evaluation of the Market Readiness Proposals include (i) the scope of the proposal and sound rationale behind the choice of the instrument and sectors, (ii) comprehensiveness of the proposal with regard to planning for a implementation/piloting of a market-based instrument (scaled up GHG crediting instrument or domestic emissions trading), (iii) estimate of GHG mitigation potential, (iv) identification of milestones and the timetable for implementation, and (v) ratio of co-financing. The first implementation grants may be awarded by the Partnership Assembly in the spring of 2013.

### Morocco PMR Project

Morocco submitted its Expression of Interest (EoI) to join the PMR in May 2011, and was subsequently confirmed a PMR implementing country. The extraordinary meeting of the PMR Partnership Assembly (PA) held on 14 March 2012 in Shenzhen, China witnessed the allocation of the preparation phase funding in the amount of \$315,000 to Morocco to prepare its Market Readiness Proposal. The GoM requested the PMR Partnership Assembly to approve the World Bank as its Delivery Partner in preparing it.

An inter-ministerial task force was set up to coordinate the project preparation and implementation phases. The Ministry of General Affairs and Governance (MAGG) and the Ministry of Economy and Finance (MEF) are the PMR focal points in Morocco, along with the Department of Environment of the Ministry of Energy, Mines, Water and Environment (MEMEE). The MEF supports carbon finance initiatives such as the PMR as well as potential innovative climate finance sources. It will ensure economic consistency of the Market Readiness Proposal and monitor funding allocation will implement the project. MAGG will be responsible for the much needed stakeholders' coordination. Finally, the Department of Environment will assume its technical role as the PMR's implementing agency.

The GoM has defined a precise focus for the preparation phase activities. These include (i) a market readiness assessment and rationale for the choice of sectors, technical and institutional/regulatory market readiness components for each sector, and assessment of the appropriate market based instruments for the sector, as well as on (ii) the preliminary design of a scaled-up GHG crediting instrument for each sector, taking into account its technical and policy components (crediting baseline, registry/tracking tools, MRV system), its potential emission reduction, its investment plan, its regulatory and institutional framework as well as its implementation schedule (see Box 2). The Market Readiness Proposal will further detail the technical readiness activities to be funded by the PMR Grant and to be realized during implementation. It is envisaged that PMR Implementation Phase activities would run from June 2014 through June 2017.

PMR preparation is based on a broad based consultative process including public, private and NGO actors. The consultation process has been conducted in three complementary stages: an information workshop, direct interviews with potentially involved institutions, and a restitution workshop presenting the proposed PMR Organizational Framework. This preliminary consultation process held by the Team allowed to confirm stakeholders' interest, as well as to identify high potential sectors, and to shed some light on several key technical and institutional questions (New Market Mechanism model to follow, sectors to target, institutional framework to adopt, private and public

actors to include, capacity building needs, resources required...). In order to be able to prepare its Market Readiness Proposal, the Department of Environment, jointly with MEF and MAGG, will organize consultations and utilize the Preparation Phase grant to organize such meetings, training events and outreach to stakeholders, as well as to establish effective project management capacity. It may also commission background studies (that may continue or be complemented during the Implementation Phase).

#### IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01		x	
Natural Habitats OP/BP 4.04		x	
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12		x	
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

#### V. Financing (in USD Million)

Total Project Cost:	5.35	Total Bank Financing:	0.00
Total Cofinancing:		Financing Gap:	0.00
<b>Financing Source</b>			<b>Amount</b>
Borrower			0.00
Partnership for Market Readiness			5.35
Total			5.35

#### VI. Contact point

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