Partnership for Market Readiness
- Morocco's Expression of interest -

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Ministry of Economic and General Affairs
Outline

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Overview of country’s GHG emissions
key sectors targeted by the mitigation strategy

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- Transport
- Industry
- Waste
- Agriculture
- Forest
- Transversal measures

Experiences with current market instrument
Other key relevant initiatives
Interest in market-based instrument(s)
PMR contact & focal point
Conclusion
Morocco intends to continue to support the efforts of the international community to face the climate change challenge.

Morocco signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and ratified it in 1995. It also hosted COP7, in 2001 in Marrakech, which made operational the Kyoto Protocol that it ratified in 2002.
Morocco presented its strategy in the fight against climate change "The National Plan against Global Warming", at COP 15 in Copenhagen. This strategy is guided by three principles:

- The **implementation** of a mitigation policy of climate change in line with its overall development, particularly including the introduction of clean technologies (TP);

- The **mainstreaming** of adaptation actions across sectors in order to prepare the population and all economic actors to address climate change impacts.

- **Territorialization** : The development of territorial plan against global warming allowing regions to take carry out mitigation and adaptation actions with clear frameworks for monitoring and implementation.
## Overview of country’s GHG emissions

<table>
<thead>
<tr>
<th>Net emissions</th>
<th>Gross emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>69 063,60 Gg Eq-Co₂, either 2,4 t Eq-Co₂/capita</strong></td>
</tr>
<tr>
<td>63 439, 86 Gg Eq-Co₂, either 2,21 t Eq-Co₂/capita</td>
<td>total</td>
</tr>
<tr>
<td><strong>CO₂</strong></td>
<td><strong>42 812 Gg</strong></td>
</tr>
<tr>
<td>37 187,78 Gg</td>
<td><strong>CO₂</strong></td>
</tr>
<tr>
<td><strong>CH₄</strong></td>
<td><strong>433 Gg</strong></td>
</tr>
<tr>
<td>433,05 Gg</td>
<td><strong>CH₄</strong></td>
</tr>
<tr>
<td><strong>N₂O</strong></td>
<td><strong>55 Gg</strong></td>
</tr>
<tr>
<td>55,04 Gg</td>
<td><strong>N₂O</strong></td>
</tr>
<tr>
<td><strong>Absorptions de CO₂</strong></td>
<td><strong>5624 Gg</strong></td>
</tr>
<tr>
<td>5 623,73 Gg</td>
<td><strong>Absorptions de CO₂</strong></td>
</tr>
</tbody>
</table>

- N₂O: 25.66%
- CH₄: 15.70%
- CO₂: 58.62%

The inventory results attest that Morocco’s contribution of GHG is: 63 439, 86 Gg Eq-Co₂, either 2,21 t Eq Co₂/capita.
The breakdown by sector of greenhouse gases emissions in 2000 is as follows:

<table>
<thead>
<tr>
<th>Sectors</th>
<th>CO₂ %</th>
<th>CH₄ %</th>
<th>N₂O %</th>
<th>Total CO₂ Eq-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>80,08%</td>
<td>22,36%</td>
<td>1,75%</td>
<td>50,90%</td>
</tr>
<tr>
<td>Industry</td>
<td>10,14%</td>
<td>0,00%</td>
<td>0,00%</td>
<td>5,95%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0,00%</td>
<td>51,16%</td>
<td>95,37%</td>
<td>32,53%</td>
</tr>
<tr>
<td>Forestry</td>
<td>9,78%</td>
<td>0,08%</td>
<td>0,00%</td>
<td>5,75%</td>
</tr>
<tr>
<td>Waste</td>
<td>0,00%</td>
<td>26,39%</td>
<td>2,87%</td>
<td>4,88%</td>
</tr>
</tbody>
</table>

Without adequate mitigation action, the rapid growth of high-emitting sectors (energy, transport, waste) will lead to a fast increase in emissions.
Mitigation measures currently planned or under implementation in Morocco concern many sectors: **energy, transport, industry, waste, agriculture, forestry, and housing.**

**Energy**
The energy strategy launched in 2008, aims to develop a low carbon energy system capable of meeting the energy needs of present and future generations.

The energy strategy plans to build a balanced and diversified energy portfolio where renewable energy occupies a prominent place, 42% of the total electric capacity installed (14% wind energy, 14% solar energy, and 14% Hydraulic energy), to both meet this increasing demand, preserving the environment and to reduce our dependence on energy from outside.

The key actions to achieve this goal include the two large-scale solar and wind energy programs, aiming to install 4000 MW (2000 MW for each program) by 2020.

**Realized Projects:**
- wind energy: 286 MW;
- solar energy: 20 MW, CSP Ain Beni Mathar combined cycle gas solar
- PV decentralized Rural Electrification: 13MW.
Transport
Mitigation in the transport sector is addressed at 3 levels, namely means of transport, their management and fuel consumption.

Types of transport
- Introduction of the Euro pollutant emissions standards for vehicles and labelling new vehicles;
- Strengthening technical control for vehicles in use;
- Premium for replacement of vehicles, to encourage fleet renewal (Taxis, road transport of goods);
- Development of Urban transport projects in Casablanca & Rabat (Buses);
- Start up of the Tramway in Rabat and in the Casablanca in the future;
- Start up of the High Speed Train (TGV) between Casablanca and Tangier in the future.

Transport management
- Training program on eco-driving for professional drivers;
- Study of optimization of logistics goods, by placing a national network of national multimodal platforms;
- Reduction of customs duty to a minimum of 2.5 for hybrid vehicles.

Fuels
- The Government generalized the use of 50 ppm diesel and unleaded gasoline in 2009.
Industry
The measures taken by several companies and public institutions for their energy and for their processes to reduce greenhouse gas emissions are:

- Slurry Pipeline for Transportation of phosphate;
- Installation of System of energy recovery in 4 sites of the Cherifian Office of Phosphates (OCP);
- Substitution of biomass - wood instead of fuel in Cellulose Morocco
- Wind energy: 32 MW, in Lafarge Tetouan Morocco (1st wind farm 10MW extended by +22MW New regulatory framework in Morocco for self-generating energy electric up to 50 MW);
- National Office of drinking water- Wind Energy for desalination of sea water: 10 MW.
- Oujda Clean Tech: a site dedicated to the industrialists in the renewable energies and the energy efficiency sectors with fiscal incentives, customs duties and land tax measures.
- Use of renewable energy by Renault in the Tangier industrial unit: No emissions;

Waste
- Rehabilitation of non-Controlled waste areas and Valorization of their methane emissions, according to National Plan of Household Waste (PNDM);
- Several projects under study for production of energy from landfills.
key sectors targeted by the mitigation strategy (4/4)

Agriculture
- Agricultural sector strategy (*Plan Maroc Vert -PMV*);
- Reinforcement of the olive-growing reforestation program by the Olive-Growing National Plan;
- Improving the efficiency of agricultural land;
- Recovery of the methane of the manure and valorization of the animal manure into alternative fuel, for 10% of the livestock in 5 years.

Forest
- Reforestation - reforestation according to the Reforestation Plan (*PDR*), adopted in 1994, which plans the reforestation of 50,000 ha/year until 2013, and 1 million hectares by 2030;
- Fire protection for the forest according to the Prevention and Fire Control Plan (*PDCI*), adopted in 2003.

Transversal measures
- Capacity Building reinforcement;
- Communication and awareness.
CDM-Projects
Morocco currently holds a portfolio of about sixty CDM projects, with a GHG reduction potential of about 8.4 millions CO2/year.

<table>
<thead>
<tr>
<th>Projects</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>Registered</td>
</tr>
<tr>
<td>15</td>
<td>Under validation</td>
</tr>
<tr>
<td>08</td>
<td>Project Design Document (PDD) approved</td>
</tr>
<tr>
<td>12</td>
<td>Approved at Project Information Note (PIN)</td>
</tr>
<tr>
<td>19</td>
<td>Under development</td>
</tr>
</tbody>
</table>

Over two thirds of the 43 projects examined by the DNA-CDM are developed by the Public Sector and are available by sector:

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First Meeting of Partnership Assembly
May 30- 31, 2011
Morocco is developing its first Programmatic CDM (PoA), this is a project on waste and landfills for a dozen dumpsites. The development of this project is supported by the WB under the Participation Agreement with the Carbon Partnership Facility (CPF), which was signed between Morocco and the WB in October 2009.

Launch of a regional strategy (Morocco, Algeria and Tunisia) for Carbon Capture and Storage (CCS). This strategy is supported by Carbon Capture and Storage Trust Fund (CCS-TF) which is administered by the WB. The setting up of the strategy will contain the following tasks:

- Study of the sectors that emit less CO2 and capture opportunities for Moroccan oil shale;
- Study of the sectors that emit less CO2 over the existing power plants and major projects in three countries;
- Study of storage potential, particularly in Algeria and Tunisia, and associated transportation issues.

Morocco is one of the two pilot countries (with Nigeria) for the program "tools of analysis for the electricity sector low carbon content in developing countries". This program is supported by the WB and ESMAP. CDM

German Initiative to support the MENA region in the CDM (I joins implementation Initiative).
The Government is conscious of the need to establish measures and systems that can give the country the possibility to benefit from the opportunities offered by the evolution of the international carbon market in the post Kyoto environment.

The mobilization of financial and technical support via multilateral and bilateral cooperation is needed to pursue the major projects initiated and the implemented strategy on the fight against global warming, while addressing Priority issues at stake, these include:

- Build and Improve MRV Processes, including the establishment of a permanent GHG information and monitoring system;
- The identification, development and crediting of NAMA (Nationally Appropriate Mitigation Actions) in relevant sectors;
- Capacity Building reinforcement for piloting new market instruments in a suitable sectors.
The **Ministry of Economic and General Affairs** will be leading the coordination and implementation of the PMR support activities in Morocco, alongside the **Ministry of Economy and Finance**.

PMR implementation will rely on the **Department of Energy and Mines**, & the **Department of Environment**, together with other sectoral agencies such as Communal Equipment Fund and Moroccan Agency for Solar Energy.
Partners in the formulation and implementation of the country’s Market Readiness Proposal

These are the **institutional partners** involved in each of the PMR support proposal:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Main partner</th>
<th>Other partners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity building</strong></td>
<td>- Dep. of Energy and Mines ;</td>
<td>- Ministry of Equipement &amp;Transport ;</td>
</tr>
<tr>
<td></td>
<td>- Dep. of Environment.</td>
<td>- Ministry of Housing &amp; Urbain Dev. ;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ministry of Agriculture.</td>
</tr>
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<td></td>
<td></td>
<td>- Ministry of Agriculture.</td>
</tr>
<tr>
<td><strong>Identification, development and crediting of NAMA</strong></td>
<td>- Dep. of Energy and Mines ;</td>
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<td>- Dep. of Environment.</td>
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<td></td>
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<td>- Ministry of Agriculture.</td>
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Conclusion

Mitigation = Continuous Processes

Financial & technical support

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Thank You for Your Attention

For questions, comments and more of information, please contact:

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