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Support to the Moroccan Solar Plan – the “APSM” Project

2.000 MW of solar energy by 2020

With respect to the large potential of solar energy in Morocco, the Moroccan Solar Plan (MSP) aims at exploiting this sustainable, inexhaustible resource which is at the free disposal of all citizens throughout the country. In doing so, the MSP constitutes the first step of a strategic project which will reduce Morocco's energy dependency while supporting economic growth and thereby creating employment.

Implementation of the MSP has been entrusted to the 'Moroccan Agency for Solar Energy' (Masen), a joint-stock company which is publicly-funded and was created in March 2010. Seeking to promote sustainable development and following an integrated approach, Masen's mission includes:

1. The realisation of power plants based on the technologies of concentrated solar power (CSP) and photovoltaics (PV) with an overall capacity of 2.000 MW by 2020;
2. The establishment of a solar technology industry;
3. The reinforcement of training schemes and applied research.

By 2020, the MSP aims to achieve a solar energy share of 14 per cent of total installed capacity and about 7.5 per cent in electricity production.

Through the project “Accompagnement du Plan Solaire Marocain” (APSM), GIZ supports Masen in its mission to expand the use of solar energy in Morocco.

Objective of the Project: support solar energy industry and technology integration in Morocco

Germany has extensive experience in promoting innovation and seizing opportunities for enterprise development and job creation in different industrial sectors. It is against this background that GIZ contributes its experience in the field of renewable energy to strengthen synergies between private

GIZ in Morocco

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is active in Morocco since 1975. The current priority areas are the sectors of sustainable economic development, use and management of water resources, as well as environment and climate change, including promotion of renewable energy.

The services delivered by GIZ draw on a wealth of regional and technical expertise and tried and tested management know-how. As a federal enterprise, we support the German Government in achieving its objectives in the field of international cooperation for sustainable development.

Most of our work is commissioned by the German Federal Ministry for Economic Cooperation and Development. GIZ also operates on behalf of other German ministries – including, amongst others, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety – as well as public and private sector clients in Germany and abroad.

companies, applied research and training institutions. In this process, all stakeholders – including the Ministry of Energy, Mines, Water and Environment (MEMEE), the Ministry of Industry, Trade and New Technologies (MCINT), the Ministry of Higher Education, Scientific Research and Management Training (MESRSFC) as well as the Research Institute in Solar Energy and Renewable Energies (IRESEN) join forces to valorise Morocco's large solar energy potential.

Approach and activities

APSM is a participatory, cross-sectional technical assistance project supporting its partners in four key areas:

1. Realisation of an innovation cluster in solar technologies;





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2. Establishment of a national and international cooperation network to facilitate knowledge - and technology transfer;
3. Support to small and medium-sized companies, research institutes and academic training institutions, focused on innovation in the field of solar technologies;
4. Systematic exchange of information and knowledge between the involved project partners through structured cooperation, enabling the ministries concerned to continuously adapt their strategies and policies towards the needs of companies and institutions for the promotion of the solar energy sector.

The Moroccan solar industry: an overview of the current situation

In 2011, a study was carried out to analyse the potential for local production of components and to assess capacities in the private sector, in particular in electronics/electro-technics, metallurgy, civil engineering. This study provides an overview of the industry base, with a detailed description of solar technology value chains, including both concentrated solar power (CSP) and photovoltaics (PV). It presents a first insight of existing capacities and technical skills at national level: a valuable source of information for public and private actors. The results of this study are a starting point for the establishment of a solar energy industry cluster.

Capacity building and strategic alliances

The development of an innovation cluster requires close cooperation between stakeholders, with MASEN as a lead partner together with MEMEE, MCINT, MESRSFC and IRESEN. In 2011, the project conducted several study tours to Germany and Spain for the benefit of key persons in partner institutions to strengthen capacities and to build strategic alliances between Morocco and Europe. These trips included the conference EU-PVSEC (European Photovoltaic and Solar Energy Conference and Exhibition) in Hamburg (Germany) on photovoltaic technologies, the conference SolarPACES in Granada (Spain) on CSP technologies, and a study tour to analyse the mechanisms of the German solar energy cluster "Solar Valley". Main results were detailed insights into the solar technology value chains and the creation of strategic alliances.

Lead executing agency	Ministry of Energy, Mines, Water and Environment (MEMEE)	Contact : Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH APSM Project, c/o MASEN Av. Al Araar, Imm. Extension CMR 3° ét., Hay Riad-Rabat, Morocco Project Manager Sascha GAJEWSKI Technical Advisor Verick SCHICK E-mail apsm-maroc@giz.de
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Target region	Based in Rabat, operating in the entire country	
Project duration	02/2012 - 06/2014	