



Promoting science and research for climate friendly technologies

Activity	Support to national research activities on climate friendly technologies in Morocco
Area	Research
Country	Morocco
Project title	German Climate Technology Initiative (DKTI I), Morocco
Duration	10/2013 - 12/2017
Partner institution	Institut de Recherche en Energie Solaire et Energies Nouvelles (IRESEN)
Implementing organisation	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
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Summary

A focus point of the project of the German Climate Technology Initiative (DKTI I) is promoting the area of science and research for climate friendly technologies. Local competencies are developed by supporting diverse activities, like the establishment of a Green Energy Park as a testing platform for solar energy systems and a pilot research project on electric mobility. Given that actors from the private sector and science have been involved, not only a strong knowledge base but also network building between these actors has been achieved. In general, supporting national research activities can be replicated in other countries, leading to greenhouse gas reductions in the long term.

Initial situation

Morocco possesses a high potential to generate electricity from renewable energy sources and to increase energy efficiency. At the start of the project, this potential was only rudimentarily used.

To reduce the country's strong dependency on imports of fossil energies, national development plans with the target to install 6000 MW wind, solar and hydro power (2000 MW each) were adopted. Installing solar and wind power plants not only requires substantial financial resources, but also the relevant knowledge and capacities. To increase these in Moroccan businesses and research institutes as well as in formation and employment, this project supports the strengthening of capacities of institutions and actors in solar research through a research component in the context of the German Climate Technology Initiative (DKTI).

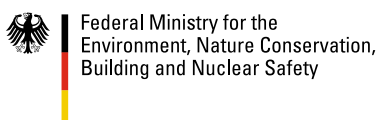
Contribution to GHG mitigation

The project activities contribute to strengthening the local capacities in the area of renewable energies and therefore to a long term mitigation of greenhouse gases. This is exemplified by two project activities:

- 1) The Green Energy Park developed by the national research institute for solar energy and renewables (IRESEN) serves as a testing platform for solar energy systems. Diverse modern technical



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equipment is available for testing and demonstration in laboratories and outdoors. In addition to the funding by the Office Chérifien des Phosphates (OCP), international research projects and private sector contributions have added to the technical equipment. As a result, the Green Energy Park contributes substantially to research and education in the area of renewable energy systems and in the long term also to greenhouse gas mitigation.

2) In addition, a pilot research project on the deployment of electric vehicles for social services was supported. In cooperation with Moroccan universities and IRESEN, the Moroccan research institute for renewable energies, research on the optimization of the lifespan of batteries in electric vehicles and on the dissemination of the technology in Morocco has been supported. This contributes to the mitigation of greenhouse gases in the transport sector.

Success factors

The activities possess a high potential for replication since, in principal, they can be implemented independent of the Moroccan context. Involving a great number of partners considerably contributed to the successful implementation. Not only IRESEN, which already possessed a solid knowledge base on renewable energy technologies, but also other researchers from universities and the private sector were involved in the process which was adapted to their needs. In consequence, the knowledge capacities were developed at a high number and diversity of partners. Surpassing the completion of the project, this can lead to other sectors developing interest in and knowledge on climate friendly technologies. In addition, the approach is very flexible and adaptable to local needs.

Lessons learned

Intensively involving the private and the research sector is an important requirement for the success of the activity. This ensures that projects are pursued in line with actual practices. One challenge is uniting the different perspectives of science and businesses so that the competency level of both sectors can be increased. The cooperation of the two sectors constitutes the basis on which trust and networks between the relevant actors can be developed. This is not only important for the promotion and advancement of climate friendly technologies, but also for ensuring that in the long term the activities become independent from the implementing organization GIZ, which increases the likelihood of actors further cooperating after the completion of the project. To achieve this, it is helpful when locally already existing structures for knowledge development and cooperation can be accessed.

