

# **REEECAP 2.5 COMMUNITY DEVELOPMENT AND TRAINING FOR RE AND EE TECHNOLOGIES AND PRACTICES**

## **Executive Summary**

DANIDA is acknowledged for providing the funding for the REEECAP project, and in particular the support to subproject 2.5, i.e. *Community Development and Training for Renewable Energy and Energy Efficiency*.

This report presents the process of implementation and the findings of this subproject. The purpose of the subproject was to develop skills of selected communities in renewable energies (RE) and energy efficiency (EE). To achieve this, the following objectives were defined:

- to develop training materials within the field of RE and EE technologies and practices,
- to train trainers to carry out demonstrations to communities, and
- to provide training to develop selected communities' skills in applying RE and EE technologies and practices.

The Desert Research Foundation of Namibia (DRFN) implemented the project. One project coordinator facilitated the process, supported by three field facilitators, accompanied by an assistant each, who visited selected communities in northern, western and southern Namibia demonstrating RE and EE.

Based on the findings of this report, it can be concluded that the objectives of the project have been achieved, in that

- training materials were developed,
- field facilitators and their assistants were trained to carry out the demonstrations to selected communities, and
- training was provided to these communities, giving participants improved skills in applying RE and EE technologies and practices.

However, even though communities have been informed about these technologies, and can be considered to have gained skills in RE and EE, they still might not have the means to actually implement these technologies, which is a well-known barrier to RE and EE in Namibia.

The planning and implementation of the project was done in a participatory manner, involving the entire REEECAP staff at the DRFN. Initially, an assessment of various methods of dissemination and sharing of information was conducted. To be able to bring all necessary demonstration materials to the communities visited it was decided that energy information platforms would be

used, allowing community members to get hands-on experience of RE and EE technologies. These energy information platforms are mobile trailers that can be towed to remote areas and are equipped with a wide range of RE and EE technologies, thus allowing the community to see and experience the various technologies first-hand.

During an extensive field campaign, rural and urban communities were given demonstrations on various technologies, e.g. solar water heating, various fuel-efficient stoves, solar cookers, solar-powered submersible water pumps, and energy efficient lighting displays. In addition, several videos about renewable energy and energy efficiency were screened using a solar powered computer system fitted to the energy information platforms.

During the field campaign, some 36 settlements were visited, and several demonstrations were given to the different communities at each settlement. In total, over 450 participants completed questionnaires about renewable energy and energy efficiency. Based on these questionnaires, it was estimated that the total number of individuals exposed to the demonstrations of RE and EE technologies during the field campaign exceeded 4,500.

The beneficiaries of the demonstrations ranged from learners in primary and secondary schools, their teachers and other personnel at the schools visited, to traditional authorities and local decision-makers. Many of the participants in the rural areas were communal farmers and pastoralists. In the urban areas, the audience ranged from unemployed people living in informal settlements, to representatives from the business community, politicians and other decision-makers.

In general, rural communities showed great interest in all technologies demonstrated, but at the same time showed little willingness to actually invest in these systems, claiming that they cannot afford them. Urban communities on the other hand showed less interest in the RE technologies, which could be due to the fact that they often already have access to electricity.

The interest for more information about the demonstrated technologies is illustrated by the 276 requests received from participants. Some 220 of these requests came from the Erongo and Kunene regions, both in the western parts of Namibia. The most popular technology, both in rural and urban communities, was the solar home system (SHS), for which 150 requests for further information were received by the field teams. The SHS was followed by fuel-efficient stoves (29 requests), and wind chargers (24 requests). Many farmers expressed an interest in the solar powered water pumps, as diesel costs are steadily increasing, necessitating more cost-effective alternative solutions.

The report presented here illustrates a number of issues that require follow ups, and that will form the foundation for new potential projects, all contributing to increasing skills of the Namibian population to apply RE and EE technologies and practices. It shows that there are many misconceptions and a general lack of knowledge about these technologies among Namibian communities, which suggests that the REECCAP initiative should be expanded, reaching more substantial sections of the Namibian population. It is also recommended to use the media to inform people about RE and EE technologies and practices. The power of using the radio to reach people became clear during this project, where the field teams announced their field visits using this medium, and found well-prepared communities wherever they went.

The need for additional information to be used for teaching about RE and EE on secondary school level became apparent during the field campaigns. Therefore the revision, reprinting and

dissemination of the information materials is something that should be prioritised for the future, an effort that would however require additional funding.

A central lesson learnt from this project is that even though people that have been informed, and now have increased their skills in regard to RE and EE technologies and practices, they commonly do not have the means to acquire such technologies. To improve this situation, making these technologies available to more people in Namibia, current Solar Revolving Fund (SRF) loan facilities must be extended, thus allowing an increased number of people, often without any significant ability to provide collateral, to take loans to purchase and operate such technologies. To realise such an extension of the SRF requires continued commitment from the Government of Namibia, as well as the willingness of donors, the private sector and other funding agencies, to make such investments.

The Namibian Cabinet has recently accepted the Off-Grid Energisation Masterplan (OGEMP), which will govern future investments in rural energisation in Namibia. It is encouraging to note that the present project has considerably contributed to prepare rural communities to be able to participate in the eventual roll-out of the OGEMP, which is a necessary ingredient of a sustainable implementation effort that affords rural Namibians in particular with the energy services that is taken for granted in most urban areas in Namibia.