



Country

Kiribati

Client

Solar Energy Company (SEC)

Date

2006

Sogreah services

- ▶ Technical assistance:
 - Technical audit
 - Feasibility study

Background

The "Solar Energy for Outer Islands" project is financed by the EC with a maximum commitment of 4,000,000 Euros.

The initial implementation period of the programme was ending in March 2005, but was in the end extended until 31 December 2007. The overall objective of the project is to improve the living conditions of the Gilbert Islands' populations, and to reduce migration towards Tarawa, the capital of Kiribati where one third of the population is located.

The purpose of the programme is to supply rural households and Maneabas (local meeting houses) with a sustainable source of electricity. This electrification is possible thanks to the installation of individual solar kits for the households and generators for the Maneabas, managed by the Solar Energy Company (SEC).

The programme allowed to install 1,700 individual solar kits for 20% of the Gilbert Islands' households, providing 4 hours a day of basic lighting (100 Wp). Furthermore, 46 generators (300 - 600 Wp) have been installed into Maneabas

(local meeting houses). The project sustainability primarily depends on the sustainability of the Solar Energy Company.

So the project is implemented by the Solar Energy Company, with a technical assistance provided by the ENERGO/ICAEN consortium. Three experts have provided support based on short or medium term missions: a photovoltaic expert (project manager), a financial expert and an expert in social affairs. The Technical Assistance ended in December 2005.



The objective of the final evaluation and feasibility study was to analyse and evaluate the results of the programme, to verify the efficiency of the technical assistance and to verify that the final objectives have been reached. Four experts were forming the evaluation team: a technical, an institutional, a social and a financial expert.

Services provided by Sogreah

Technical audit of 50 systems and procedures

- Verification of the kits and systems size.
- Verification of the technical quality of the equipments
- Verification of the installation and maintenance procedures, their intelligibility and good application.

- Assessment of the systems flexibility, for a potential expansion of services.
- Assessment of: the impact of the non-application of the batteries maintenance procedures (e.g. topping-up of the battery), the impact of an increased daily use of the kits.
- Emphasize the good practices developed to solve technical, environmental, institutional and social problems.
- Write the recommendations intending to correct the project and procedures, should the occasion arise.

Feasibility study

- Detailed analysis of the geographical potential of extension of the project inside the Gilbert Islands.

- Detailed analysis of the geographical potential of extension of this project towards other Kiribati's islands or groups of islands.
- Detailed analysis of the expansion possibilities of the current systems services.
- Analysis of the equipments conformity with the predicted increase in demand and services : sola pumps, fridges, TV sets, DVD players etc. for the individual dwellings, and computers, fridges, etc. for the Maneabas.