

Report of solar loading station Tumbatu Island



Done at Tumbatu Jongowe Island



North West region from Zanzibar town

20th to 22nd of April, 2009

Prepared by:

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Team leader

Introduction:

A study by the Zanzibar Solar Energy Association (ZASEA) was conducted on Tumbatu, the island where many solar home systems were installed with handling on the German-Tanzanian Partnership (DTP) from July 2007, concerning the state of these systems after two years of operation, from April 20th to April 22nd.



From left, A Tumbatu local technician-Juma Ali, vice chair parson of Jongowe committee, owner of house solar user, Chair person, executive secretary Julian and students who did installation together Germans students 2007

This study was very much alike the study conducted on the Uzi peninsula only two weeks earlier where the technicians found out that many of the systems were not running any more.



Team guider:

The mission on Tumbatu was carried out by a ZASEA team whose members were Ramadhan Said Omar (ZASEA executive secretary), Julian Jeroen Fitz (ZASEA Volunteer), Juma Ali (the local solar technician of Tumbatu) and Ame Haji Abbas (vice chair person of Jongowe committee and headmaster of the local school).

Project functions:

Surprisingly the outcome was in many ways more positive than expected. Compared to Uzi where battery maintenance was hardly to be found or even done in a wrong way or even total died and charge controllers

were short circuited and as a result of that only few running solar systems remained.

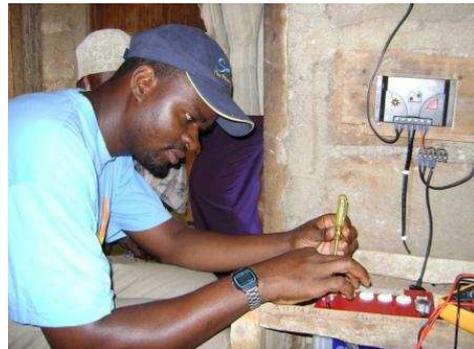
On Tumbatu almost all systems were operational. All in all only two of the twenty systems were not in use by the time the ZASEA mission arrived. These were repaired by the technicians right away.



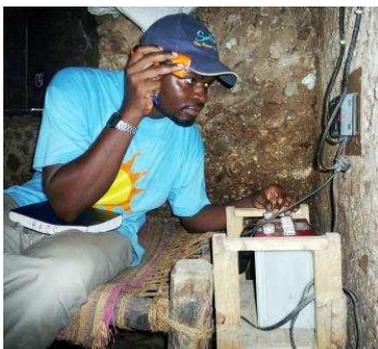
What we see:

The main problem was the little knowledge of the people of Tumbatu about improving and maintenance their solar systems. Juma Ali (a local technician) is enough for Tumbatu but he needs more practical and solar training.

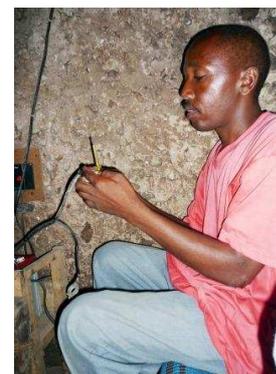
For instance some batteries had not been cleaned regularly which enhances the probability of oxidation many systems also lacked distilled water. The ZASEA mission was just on time. No irreversible damages had yet been caused. Only a little rust and a few cables installed in wrong ways could be found and of course the usual signs of use.



Some light bulbs had died in many cases batteries were in need of a little water. Such signs of use are not regular and in many cases are to be expected after a certain amount of time.



The larger problems were solved right away at the time by Ramadhan Said Omar. The smaller ones will be solved by Juma Ali little by little. Juma Ali a local technician was chosen by the village



community for SHS maintenance trained by Kizimkazi solar workshop 2007.

The large difference between the people of Tumbatu and Uzi seems to be that the people of Tumbatu who possess just as little knowledge about solar systems as the people of Uzi do not meddle with theirs and hardly



even have contact with them except for cleaning and flipping the light switch. It would be ideal if a specialist, for example the local solar technician, would have a look at all the systems every one or two years and carry out maintenance work

needed for the upkeep. With this solution the people of Tumbatu would not have to carry the burden of having to look after their installations but still everything would go on running in a very good way in the long run.

The conclusion of the study is that Tumbatu was and still is a story of success.



All solar systems are up and running and a lot of knowledge was transferred to the villagers and the local technician. In the future Juma Ali will solely be responsible for the upkeep and maintenance of the solar systems on Tumbatu, the island that will

hopefully go on using solar energy in the times still to come.

Till now there is no additional use of solar personally.

Thanks very much