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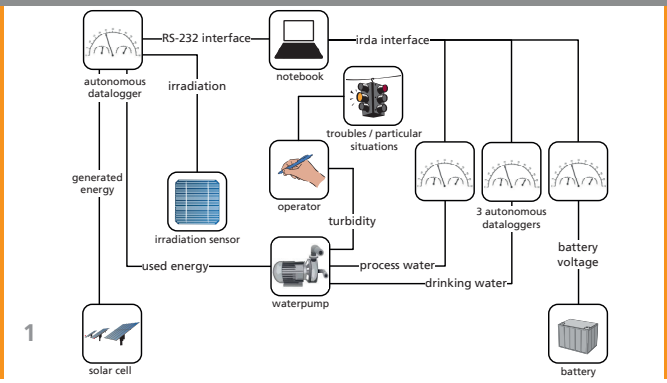

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1 Monitoring concept for the field test of WATERpps in Laos.
2 Introduction of the WATERpps to the Lao partners in Vientiane/Laos.

MONITORING OF DECENTRALIZED PV POWERED WATER TREATMENT SYSTEMS

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The PV powered system for water pumping and purification WATERpps was tested in three sites in Laos under real conditions in remote rural areas. Therefore Fraunhofer Institute for Solar Energy Systems ISE designed a robust, autonomous and simple to operate monitoring system.

For the acquisition and evaluation of the system performance all relevant technical data were saved. These are the solar irradiation, the momentary power of the PV module, the power consumption of the pump, the battery voltage and volume of tapped raw water or filtered water.

The objectives of the field tests were the identification of the technical potential for optimization as well as learning about the typical user behavior in rural areas.

In addition to the acquisition of technical data the systems were evaluated by means of socio-economic criteria.

The social and economic aspects are crucial for a successful development and implementation of PV powered water treatment plants.

The use of WATERpps in Laos is aiming at promoting the development of a market for decentralized water treatment systems in rural areas and therewith to contribute to the amelioration of the dwellers' living conditions.

It is planned to rent WATERpps through local partners analogical to the renting of Solar Home Systems.