



## Working Group on Development Techniques

The WOT is a knowledge centre for small-scale applications of sustainable energy and hand pumps for developing countries. The WOT is a non-profit organisation and is run by volunteers. The WOT is located at the University of Twente in the Netherlands. Therefore, the majority of WOT-members are students. Two professional staff members support the WOT-members;

An office manager for administrative activities in the WOT-office, and a technical assistant who assists WOT-members in their practical technical skills and keeps an eye on the safety in the WOT-workshop.

### Goal

The WOT supports the development of social and economic living conditions in developing countries by means of;

- transfer of technical information for sustainable development in the view of appropriate technology.
- making people aware of the situation in developing countries, and especially the role that appropriate technologies can play in improving these situations.

The WOT focuses on renewable energy sources, like waterpower, solar energy and wind energy. In our work we try to involve appropriate technologies. This means we take into account the local circumstances in developing countries. For instance making use of locally available materials, knowledge and skills. The needs of the current generation do not have to be satisfied at the expense of future generations, and therefore the WOT supports sustainable development.

### Activities

#### **Advisory service**

People and organisations from developing countries, and development workers can contact the WOT for (technical) advice. The applications for advice should be done in written form. This can be done by means of fax or mail, but in recent years the use of e-mail has increased considerably. Usually, an answer is sent to the applicant within a few weeks. The WOT can answer questions in the areas of small-scale application of sustainable energy and hand pumps. For example;

- **Wind energy**

- construction and usage of small wind mills for water pumping
- construction and usage of small wind mills for electricity generation

- **Solar energy**

- solar crop dryers
- solar water heating systems
- solar cookers
- solar water distillation/desalination
- PV-systems for electricity generation

- **Water power**

- micro hydro power systems
- water rams for water pumping

- **Hand pumps**

- rope pumps
- piston pumps

To be able to give the best possible advise, the WOT tries to tailor the advise to the local conditions. For instance, what are the climatic conditions in the area? What practical skills are present? What materials can be used? What kind of tools are available?



The WOT is part of the International Network on Technical Information. INTI brings together the combined information resources of development organisations providing an enquiry service. The main objective of the network is to improve the services provided through co-operation and mutual support. INTI is open to all information services focused on development issues.

### **Technical research**

To be able to give appropriate advise, the WOT carries out research in the construction and testing of existing or newly developed systems. The WOT has its own workshop with facilities for basic technical skills. WOT-members are actively involved with maintaining existing systems on the WOT-field and construction new ideas. The practical experience that is gained can be used in the advisory service.

### **Publications**

New knowledge and results from research is regularly published. This can be as specific as a construction manual of a rope pump, or as general as a description about the use of solar energy.

### **Awareness raising**

The WOT tries to make people in the developed world aware of the situation in developing countries, and especially the role that appropriate technology can play in improving these situations. We do this by among others things organising symposia about development related topics and giving tours on the WOT-field to interested people.

### **Courses**

The annual T-week (Technical week) is a (Dutch) course in basic technical skills. It is intended for Dutch-speaking development workers. In co-operation with local technical schools the participants are learning skills like masonry, wood working, metal working and electrical conduits. The T-Week is a very practical course.

Other courses are given on a non-regular basis, and are announced via the WOT-website and other media.

### **Facilities**

The WOT has a test field where applications of renewable energy technologies are displayed. There are several windmills, hand pumps, solar cookers, solar water heating systems, a solar dryer, etc. WOT-members can become familiar with these systems to be able to participate in the question answering service. Regularly, tours are given on the WOT-field. On the WOT-field is a workshop that is used by WOT-members to conduct practical research and maintain the demonstration objects on the WOT-field.

A small office is present on the WOT-field. The documentation centre is located in the office.

### **Contact**

You can contact the WOT via:

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