



Prepared for the future

Times are certainly chaotic. Catchphrases from just a few years ago are now becoming personal experiences. Globalization and cuts in social services, energy and the environmental crisis, war against terror and debates over Islam – those are movements and influences that affect us all. SOLUX's goal is to promote the use of photovoltaic light in developing countries. However, developing countries are suffering far more under



No future without education

the influences mentioned above than we are. Looking beyond our borders puts our situation into perspective. Is it possible for the prosperous North to continue exploiting impoverished people in the South without leading to catastrophe? We certainly do not lack the knowledge or technology, but rather the political will of the North and the South to solve the problems at issue. Instead of practicing a sustainable economy, entire nations and their environment are – contrary to better options – continuing to be exploited. SOLUX and its numerous partners are more than

ever asked not to slow down in their engagement for the Southern countries. We greatly thank our customers, partners, suppliers and activists for their trust and good cooperation for the work accomplished until today. Despite all problems at issue we are looking forward to the future with great hope. There is a lot left to do!

SOLUX e.V. 5/5/2005

Board of Directors

Our web address
www.solux.org

From a One-Man Operation to an Association

In 1990, after his retirement, Mr. Rolf Martin still had the energy to start a new project. Mostly by chance, during an assignment in Africa, he realized that photovoltaic mini-lamps are a better alternative to kerosene lamps, both environmentally, as well as economically. Hereupon he developed the respective lamps

SOLUX I and SOLUX II within the scope of the Ludwig-Bölkow-Foundation and built a network of workshops around the world. In the meantime the SOLUX project has grown out of its fledgling stages and is organized as an independent association. About 30 activists are currently volunteering in Munich and Dresden,

and the SOLUX project is transforming to an organization that is eager to advance the idea of its founder with new impetus.



Rolf Martin: Founder and Senior President of SOLUX



The SOLUX-IC charging station is gaining more and more popularity. 10 SOLUX-I units can be charged simultaneously. In Zanzibar for example, school children take their SOLUX-I into school and take it back home fully charged in the evening. In Peru the following concept has been proven to be successful: whoever finances a lamp with a micro-credit charges it at the charging station until he has paid off the credit. After that the 3W-module is turned over to him and he is recognized as a proud owner in his social environment.

Peru, a strong location

In the middle of July 2004, our two senior experts Dr. Georg Speckbacher and Fritz Rehak travelled to the opening of the new workshop INTI-WAIRA in Palcamayo/Tarma, Peru. The town is situated in the Andes at a height of 3200 m and accessible only via a 4600 m high pass. The employees of the workshop were mainly



Palcamayo/Peru: Assembly with gentle hands.

women.

It was of high importance to the manager that a large number of people were trained in the assembly of the lamps. Shortly after the completion, the assembled lamps were forwarded to family Wielgoss, who sold them with a rate credit system to local people in the South of the country in the name of "Frederic Hilfe für Peru e. V.". The rest of the produced lamps were forwarded to the surrounding population in Palcamayo in the name of "Perukreis Neunkirchen". The SOLUX-I is met with great interest in Peru.

Despite the poverty there, people are willing to save money for the lamp over a period of many months. About 9 million out of 26 million residents do not have access to electricity. In

april 2005, we have opened a second workshop with the "Klima-Bündnis der europäischen Städte mit indigenen Völkern der Regenwälder / Alianza del Clima e.V." in Iquitos in the rain forest. We are hopeful that Peru will become an important country for the introduction of solar lanterns.



Palcamayo/Peru: Forging a new tool

Socotra, Island in the Gulf of the Andes

In April 2004 our senior expert Dr. Jehmlich packed his bags and flew via Saana in the Yemen to Socotra, an island in the Gulf of the Andes with about 50,000 inhabitants.

A workshop was set up there for the "Socotri Women Development Association" with the support of the German Embassy.

The island is occasionally only accessible by plane due to strong winds, which cause problems with the supply of diesel oil and kerosene. As a result, the supply of electricity with diesel

generators is neither area-wide nor stable. Therefore the use of photovoltaic technology is very appropriate



The Island of Socotra/Yemen: Veiled lamp assembly

in Socotra. A particularity was that some of the employees were veiled young Muslim women. The level of education varied greatly. Almost all manual skills, like the measuring of foamed rubber parts, maintaining a list of assembled lamps, and especially soldering, drilling and electrical measuring had to be taught. Therewith it once again becomes clear, that SOLUX does more than just delivering a product.

SOLUX activists, from the office

Without forgetting about all the other active people, at this point we would like to introduce our team from the office in Ottobrunn. More will follow...



Power women: Christa Lampe, Accounting, and Gabriela Mayer-Demir, Management SOLUX e. V. – Financial Department



Stefan Erbacher, Management SOLUX e. V. – Technical Department



Ekkehard Barchewitz, Management SOLUX e. V. – Sales Department

The microcredit, more than just a catchphrase

In November 2004, the United Nations proclaimed the “Year of the microcredit”.

Very poor people never used to be able to obtain a credit, which often sealed their poverty. The concept of the microcredit was developed by Prof. Muhammad Yunus in Bangladesh in the seventies.

In the meantime, the GRAMEEN bank that he initiated, has more than two million mainly female customers, and numerous other institutions are now trying to encourage the effected people to take their fate into their own hands by using this service in the struggle against pov-

erty. With this, a large potential of innovation and creativity can be unleashed in the very poor. It is surprising that in the meantime a large amount of the assets of the GRAMEEN bank is covered by the



Socotra/Yemen: Testing after the Assembly

savings of poor people.

For a few years now, several partners of SOLUX have tried to enable the users of SOLUX lamps to buy the lamps with the aid of loan communities and credit rate systems.

SOLUX lamps are often the largest investment a household makes in a developing country.

It often requires several months' income. Naturally this is only possible with a credit that does not ruin the credit user.

To be precise: a *microcredit!*

www.yearofmicrocredit.org
www.grameen-info.org
www.oikocredit.org

SOLUX-IP, good technology can be improved!

The well established SOLUX-I has been enhanced and is now available to our customers as SOLUX-IP.

P stands for **P**rocessor, for **P**lus or **P**ro! Here briefly the main improvements:

- The charge control is now controlled by a microprocessor and charges the battery with a charging strategy that leads to a highly efficient charge.
- In addition to that, overload and total discharge are safely avoided.
- A red blinking LED shows the user the state of the charge: “full”, “half full”, or “empty”?

- The new LED charge level display reliably provides this information.
- The five rechargeable batteries of the SOLUX lamp are now combined into one pack.
- This facilitates assembly process, exchange of parts, and prevents the power supply's polarity from being reversed.
- The lamp can now be charged at other 6-12 Volt power sources

Old price ... improved technology! Although the SOLUX-IP has been significantly improved, we were able to maintain the price: 36 Euros per lamp in the assembly set.

such as wall power supplies, car adapters or foreign modules.

• The supplied tools have been significantly extended and were adjusted to take advantage of current

technologies.

- The documentation was radically revised.
- Graphics and photos guide the reader through the assembly step-by-step.

Liberia, problematic

Unfortunately, liberty is not Liberia's program. In summer 2004, the Mercy Corps ordered a SOLUX workshop, completely outfitted, for the capital city Monrovia. Due to the unsafe conditions in the area, it was unfortunately not possible to send a senior expert for the training of the workshop employees. There is no German Embassy, and travel to Liberia is greatly advised against.

Hans-Peter Hecking, manager of the African unit of mission in Aachen writes:

“Even a year after the enforced de-

parture of ex-president Charles Taylor to the Nigerian exile on August 11th 2003, Liberia is suffering from the consequences of a twenty-five year long catastrophic retrogression: run down and devastated by the harsh vicious circle of military coup, dictatorship and civil war.

Thereby, until the 1980s, the formerly prospering “oldest republic of Black Africa”, rich in natural resources, founded in 1847 by freed US slaves, was economically regarded as the “Switzerland” of West Africa.

Today, Liberia is a ruined country at

the bottom of the UN ranking list of the least developed countries”.

Meanwhile (May 2005) the problem is solved: Brian

Barber from Mercy Corps passed a training in Dresden, succeeded with the assembly of the first lantern when returning to Monrovia and ordered a second set of 100 lanterns.



SOLUX-IP, convenient.

SOLUX

Mobile solar lanterns

**SOLUX E.V. MÜNCHEN/
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What is the objective?

SOLUX e.V. encourages the technological development and distribution of mobile photovoltaic mini-lamps in rural areas of developing countries that do not have access to the electricity grid.

The non-profit organisation SOLUX e.V. has about 30 active volunteers in Munich and Dresden.

The congeniality of the SOLUX ideas lies in its comprehensive approach:

We supply the parts for the assembly of the lamps, we help establish new workshops by training the employees on-site, we consult, and we provide spare parts for our customers. Together with our partners, we now have assembled about 23,000 lamps in 44 workshops.

Compared to about 500 million families world-wide who do not have electricity, this is a small number. In this respect, SOLUX can be seen merely as a "door opener" for a technology that is an alternative in the light of the pressuring world-wide energy problems. Certainly, an area-wide provision with photovoltaic lamps will only be possible when the industry sees a market in it.

SOLUX prices – stable like the lamp

Assembly sets in boxes of 100 pieces	
SOLUX-IP	36,00 €
3W Module amorphous	29,00 €
4W Module crystalline	47,50 €
40W charging station	278,00 €
Tools for SOLUX-IP	730,00 €
Tools for 3W Module	243,00 €
Tools for 4W Module	248,00 €
Assembled Sample Lamps	
SOLUX-IP (operational)	78,00 €
Power plug 500mA 9V	8,50 €
3W Module amorphous	43,50 €
4W Module crystalline	60,50 €
40 W Charging center	315,50 €
SOLUX-II (operational)	99,00 €
4W Module crystalline	60,50 €
5W Module crystalline	74,50 €

Prices plus 16 % VAT, packaging and freight. VAT does not apply upon submission of a certificate of export.



Please found a SOLUX workshop so my grand-children can do their homework in the evening!

SOLUX delivers all spare parts directly from Dresden. Simply order from:

SOLUX e.V.
Freimut Wätzig
Phone/Fax: 0049 351 4719037
E-Mail: waetzig@SOLUX.org

Price lists for spare parts can be found on our homepage www.solux.org under "Downloads".