

# Solar Cooking Foundation the Netherlands

Uganda, Kampala / Mbarara district  
Solar Connect Association (SCA) Uganda

## Final report fieldtrip July 6 – 30, 2007

Clara Thomas

1. Motivation fieldtrip Solar Cooking project Mbarara district
2. Objectives fieldtrip
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4. Solar cooking and water pasteurization in Kikokwa, Ruharo, Biharwe and Orukinga, refugee settlement.
5. Training of instructors and staff SCA for pasteurizing water, group cooking, evaluation
6. Quality of cookits (sets), WAPI"s and other sustainable cooking devices
7. Sustainability of the solar cooking project and SCA for PR, networking and fundraising
8. Answering the objectives
9. SCA fulfills an impressive job - conclusions, decisions and management 2007

### Attachments:

- a. Organigram SCA
- b. Program fieldtrip
- c. Decisions, conclusions and agreements SCA → ← SCN
- d. Some data on firewood/ charcoal, trees, prices (HIVOS page ....),

### **1. Motivation fieldtrip Solar Cooking project Mbarara district**

In December 2006 Henk Criettee and Clara Thomas in close communication with Mr Mukasa, executive director of Solar Connect Association (SCA) Uganda set up a contract and program which was presented and accepted by Wilde Ganzen/ICCO in January 2007. The project started February 1, 2007.

In good communication with Mr Kawesa Mukasa, Solar Cooking Foundation the Netherlands (SCN) was regularly informed about proceedings, which resulted in a detailed narrative and financial quarterly report by mr Mukasa, SCA.

SCA requested SCN, Clara Thomas, to supervise train, visit targeted villages and beneficiaries and to discuss management of the project and program development. SCN decided to make a fieldtrip of three weeks, to be organized July 6 until 30, 2007.

### **2. Objectives**

1. Evaluate and discuss proceedings SCA project and program development in relation to the contract SCA-SCN and Wilde Ganzen;
2. Supervision of staff and volunteers about production cookitsets and WAPI's;
3. Training of solar cooking instructors;
4. SCA and SCN revise Application form Wilde Ganzen 2008;
5. In view of budget 2008, SCA and SCN to fill in HIVOS climate fund format

### **3. Program fieldtrip Mbarara district (see attachment b)**

Mr Kambaza, district manager proposed a concept program for the working visit; after investigating all the subjects and dilemmas concerning the project proceedings, mr Kambazza made a new program. A very interesting and informative program with management and staff meetings, training solar instructors, supervising / upgrading local fabrication of cookits and production of WAPI's to be learned by three student/ volunteers.

### **4 Solar cooking and water pasteurization in Kikokwa, Ruharo, Biharwe and Orukinga refugee settlement**

#### *Target group*

Although in all four communities the target group is low income women, there is a difference between the 4 communities. In Ruharo there are quite a few households who cannot be defined as very low income. Some of the beneficiaries live in good houses and have a garden. These families can pay for a cookitset, a hay basket, a wood efficient stove and even a parabolic. They also can buy charcoal and wood. They are aware of the need to save the environment.

In Kikokwa many women cultivate some land and grow vegetables, potatoes, bananas and sometimes pineapple or other fruits. However their income is low. They buy charcoal or wood, or collect wood. Motivation is present to change to solar cooking habits.

There is an obvious request for building wood efficient stoves.

In Biharwe women experience a great need for alternative energy sources in stead of buying or collecting firewood. Many women have a very low income and struggle to organize daily food and daily cooking.

In Orukingo settlement the problems are immense related to traumatic situations of the inhabitants. They are extremely poor, hardly any variety in food and hours walking to collect wood. The problems in this community have to be considered separately by SCA management.

#### *Introduction and follow up of solar cooking in four targeted communities*

The program of distribution and selling of solar cookits is on schedule.

In Biharwe: 300, in Kikokwa 350, in Ruharo 310 and in settlement Orukinga 350 cookits.

The insulated basket has become an extremely important integral part of cooking.

Mrs Maryam Kawesa teaches in all the communities how to insulate baskets. These baskets have a wonderful function for slow cooking, e.g. when it becomes very cloudy, women put the pan with food from the cookit in the hay basket, the food remains very hot for at least 5 hours and the cooking process continues.

During rainy days women cook on a fire or on a wood efficient stove. Once the food cooks after some minutes they put the pan with food in the hay basket; the food will be ready after 2-4 hours.

Another 700 cookitsets need to be distributed.

Target for 2007 is that 2030 household learn how to use the cookit.

Follow up workshops (monthly solar group cooking) still need to be developed; first workshops will start in August and will continue up to January 2008.

Each beneficiary belongs to a group and each group will cook each month (see contract SCN/Wilde Ganzen).

#### *Some conclusions*

- SCA made an impressive effort to introduce 1310 cookit sets, developed an introduction program in the 4 (each village divided in 2 communities) villages.
- Solar cooking instructors take their task as teacher, encourager, stimulator very seriously and are very motivated. They have to learn a lot about all the subjects and technical ins and outs concerning the use of the cookit, hay basket, wood efficient stove. One of the instructors organized in three days a big community solar cooking happening. Present were 110 women, men and many children and babies; local government representatives chairmen of the village, coordinators etc. Food presented and eaten by everybody had been cooked in 35 cookits, 10 hay baskets. Since the weather was cloudy, cooking was done on fire followed by hay basket cooking'. The quality of the cookit, owned by the women, and other technical aspects need urgent improvement (see attachment: decisions, etc)
- Because of the important impact on all inhabitants and authorities in villages, once or twice yearly a big solar cooking party should be organized.

## ***5. Training of instructors and some staff members SCA about water pasteurization, group cooking and evaluation***

### *Solar cooking instructors*

In each village 2 or 3 instructors are selected, a total of 10 women and 3 men. Some of them are very skilled in organizing and teaching groups solar cooking in all aspects.

Others have to learn esp. how to teach solar cooking and water pasteurization; all have to be trained in organizing follow up meetings and solar group cooking. The instructors had a first training given by mr Mukasa. Up until now Olivia Kanyesigye (senior trainer and staff member) who is very experienced in solar cooking, has supervised instructors on location during workshops. Mr Kambazza and Olivia will develop programs to train instructors as a group in regularly organized meetings in Mbarara, to start with in the beginning of August. The other staff member Maria Sebyonga has the task of mobiliser next to the instructor (encouraging women, husbands etc.) and gives technical advices on how to cook in the cookit and the hay basket.

The 13 instructors are involved in the project from February 1 onwards.

Mr Mukasa and MR Kambazza agreed that a training program is organized on Wednesday 18<sup>th</sup> and 25<sup>th</sup> of July for all the instructors and staff members, given by Clara; assisted by ms. Olivia:

The program:

#### **1. Water pasteurization and the use of WAPI's (Water Pasteurization Indicator)**

- Water pasteurization in general;
- How do women experience the quality of available water;
- Are women aware of the need to pasteurize water for their baby and for themselves being pregnant / giving birth;
- Use of the WAPI

#### **2. Develop a group cooking 6- months program (monthly meetings/ classes)**

In each village the instructor will organize and teach 20 women in monthly group cooking, to continue during the rainy season.

Suggestions for subjects to be discussed:

- socio-cultural aspects, like reactions of husband, neighbours; change in cooking habits, cooking baby food and pasteurizing water for babies,
- economic aspects as saving money, saving time, costs of firewood, charcoal
- technical aspects as damage of cookit, pan, sizes pans, plastic bags.....
- environmental aspects as rain, clouds, wind in relation to the use of the cookit, hay basket etc.

#### **3. Develop an evaluation form (training by Olivia and Clara)**

- On the basis of a concept evaluation form (concept Marjo Vervoorn and Clara Thomas) all subjects were discussed in 4 small groups. Each group discussed the points, added new points, proposed to change or delete points.
- Olivia and mr Kambazza will discuss all the comments and revise the format; this version is sent to Clara Thomas (→ and Marjo Vervoorn).
- The final evaluation form will be discussed in a training for instructors to be given by Olivia;
- The instructors will evaluate in end user groups in October 2007. On the basis of all the evaluation forms each instructor will write a summary.
- All the material will be given to mr Kambazza and Olivia and discussed.
- Management and Olivia will formulate conclusions and problems to be solved.

### *Some conclusions concerning the training program*

- All instructors express that they need more training and realize more and more all the different aspects that are important;
- In this training also participated staff members, hay basket teacher and 3 volunteers. It expresses the cohesion in SCA organization and staff. Everybody wants to know everything. Up till now this seems to be very important for the motivation and encouragement of everybody involved in the project.
- Some of the instructors have to travel for 4 hours back and 4 forward. Yet they were present, even in time!!!

## **6 Quality of Cookits and WAPI's and other sustainable energy cookers.**

### *Local fabrication of Cookits*

Although the quality of cookits had improved, very often the quality was not good and not correct. Many beneficiaries own a cookit of bad or moderate quality. Each morning we spent one hour practising all details of the fabrication process. Finally the quality has improved enormously, thanks to the open attitude of the 3 students Fiks, Adams and Ruth, they are volunteers receiving a monthly allowance.

### *Production of WAPI's*

In the Netherlands Clara Thomas communicated with KOZON and esp Wietske Jongbloed about the wish to produce WAPI's in Uganda by SCA.

On the advice of Wietske Clara took 50 empty BIC's to Uganda, as well as MYVEROL (thanks to KOZON), 100 small and 100 bigger rings, fish thread.

The students Fiks, Adams and Ruth experienced making WAPI's and Clara takes 4 good quality WAPI's home; she will discuss and practise the WAPI with KOZON / Wietske. SCA will order some thousand empty BIC's in factory Kampala. Kambazza will arrange all the other materials. The availability of Myverol in Uganda, will also be investigated by SCA.

### *Production of hay baskets*

The quality of the now produced (mrs Maryam) insulated basket is very good and very sustainable. The price is high (25.000 ush/ E 12.50 ). A necessary discussion is how to make the same quality insulation with cheaper locally available materials (or from materials women can collect themselves).

### *Production of wood efficient stoves*

SCA is experienced in building / introduction of these cookers, Lorena's, Rock stone stove and .....stove. Many women express the urgent need to have these stoves. In 2007 SCA will contract a young (woman) experienced stove builder to build 20 Lorena stoves in Kikokwa.

### *Jatropha*

Very often discussed, data are not yet available?

## ***7. Sustainability of the solar cooking project in Mbarara district***

As very often discussed in the Netherlands the great concern is how to develop sustainability of this solar cooking project and how to develop SCA as an NGO independent from yearly organized fundraising by SCN and others. This topic has also been discussed very regularly with mr Mukasa during the fieldtrip.

In this context we discussed the following subjects:

### *District networking in Mbarara:*

- MDI project, Millennium Development Initiative (Overview).in 2 millennium villages Ruhiiira and Nindyee. (Mbarara district) Collaboration University Notre Dame, Sacramento? USA (name: dr Joseph Isanga) and University Martyrs Kampala Uganda (cluster manager: dr John Okorio). Contacts with coordinator of MVP in Ruhiiira (see page 8, Overview) and with GLOBES (see p 9 Overview). Name: Jenna Rogers (Baltimore, Maryland. Expert: alternatives for collecting wood for cooking).
- Local governments and authorities in district Mbarara
- SCN discussed with SCA the need for integration of the NGO marketing / education activities into the business of solar cookers and solar cooking equipment. SCA appreciates the need for this but first the present approach in solar cooking needs to be fully materialized.

### *National networking in Uganda:*

- Investigate Jatropha nurseries/ project in Uganda.
- Communication with Marieke Janssen, Dutch Embassy in Kampala: suggestions PSOM/ BID (Business in Development). Send e-mail to Marieke Janssen with short program proposal solar cooking project 2008 and formulate request for funds (max E 25.000). Marieke Janssen suggested to develop small businesses and sell products by SCA for the generation of income.
- NEMA (on environmental programs?)
- Other Embassies
- GTZ or other on wood efficient stoves
- Networking with other solar cooking initiatives in Uganda;
- NGO expert/ PUM representative Uganda. Alida Bakema-Boon, [rabakema@utlonline.co.ug](mailto:rabakema@utlonline.co.ug), telephone: 0772-895100. Her advice to SCA:
  - SCA writes a plan of action 2007-2012; pays much attention to describing mission, vision and philosophy SCA. Send this to Alida Bakema,-Boon, she will investigate how to connect SCA to other organizations, etc.
  - SCA integrates teaching nutrition in the solar cooking project;
  - SCA could advice on introduction solar cooking etc in school in Kibale district.

### *International networking:*

- Kenya: Margaret Owino, SCIEA, Nairobi; publ. Review SCIEA
- Africa Solar Cooking Network, Crosby Menzies, South Africa. Send quarterly narrative reports;
- SCI California, USA. / public Review.
- EG solar (reduction on alum. panels for parabolics)

- Switzerland ..... ..

#### *Fundraising 2008 - 2009*

- Revision Application form Wilde Ganzen 2008 on concept made by Henk Criete and Clara Thomas, request SCA a budget of E 42.000 ??
- HIVOS climate fund formats have been filled in and completed as far as SCA/SCN are able to do. SCN (Henk Criete) will take this format to HIVOS The Hague in the beginning of August..

### **8. Answering the objectives**

#### Proceedings SCA project and program development in relation to contract SCA-SCN/Wilde Ganzen

- The project started February 1, 2007 and is on schedule concerning the introduction of solar cooking workshop, selling of 1310 cookitsets. Another 720 cookitsets will be distributed and sold to beneficiaries of the 4 targeted villages. This will take at least August and September.
- SCA has the impression that beneficiaries are very motivated to learn how to use the cookit, nevertheless it will take a longer time to change cooking habits and integrate this in their own daily family life with completely other cooking traditions.
- Solar group cooking in all communities start in the beginning of August.
- Next to the cookit the insulated hay basket has become a hot item; all women are very interested to buy and use one. The hay basket has a very useful function when cooking in the cookit, but also (on cloudy or rainy days) cooking on a wood efficient stove or on traditional firewood. The food can be quickly heated until the moment of cooking, then put the saucepan into the hay basket and the cooking process will continue, after 4 hours the food is ready. The hay basket is expensive, because of the very nice and sustainable production by a woman from Mbarara. The price should go down for women who cannot afford the high price; SCA management will look for a solution.
- Many visits to targeted communities were organized. After ceremonial welcomings, speeches by chairwomen, chairmen, mr Mukasa and Clara, and sometimes beautiful dancing, the home visits are as before a very important program point. It gave a very good impression of the strength and weaknesses in the use of cookits by beneficiaries. For me these were the most impressive program activities of my fieldtrip.
- Price of a cookitset is E 7.50 with a cover, without a saucepan. Many women pay in instalments. Clara criticized the price and discussed this thoroughly with SCA. SCA has decided to order 2000 3 ½ pans, to be painted black by SCA and will offer the saucepan for free to all beneficiaries (SCN subsidized €2 for each cookitset .)

The cotton bag, bought in local shops, looks very nice (with SCA/SCN/Wild Geese print) but is too expensive for some/many women; SCA will consider a cheaper way of production by beneficiaries.

- Many discussions with SCA and beneficiaries took place on the use, price and amount of firewood / charcoal used for traditional cooking (see attachment d, (Hivos format).

### Supervision to staff and volunteers

- Quality of the cookitsheets has improved considerably; almost everyday Clara discussed all the details of the production process.
- SCA is now ready to produce WAPI's (Water Pasteurization Indicators). The quality of the WAPI's made by 3 volunteers is good. SCA will buy empty BIC points, necessary equipment and will investigate about Myverol. Is Myverol is not available in Uganda, SCA will contact SCN, Clara Thomas.
- Many technical aspects of using the cookitset have been discussed and practised: size plastic bag, stones inside and outside, repair the cookit sheet, painting the pan. etc etc.
- The saucepan is an important point to be improved. SCA provides for a big cover, but very often a small pan is used, causing much shadow. SCA will order 2000 3 ½ litre pans in factory Kampala. If a family needs a small pan, SCA should provide for this.

### Training SCA solar cooking instructors and staff SCA.

- 13 solar cooking instructors are selected and had some training to organize and perform solar cooking introduction and follow up workshops. The instructors are motivated and some of them are skilled in leading and teaching groups. On the other hand instructors need to be much more trained because of all the subjects to be discussed in solar cooking group cooking meetings s.a. social cultural changes in solar cooking, economic aspects, technical aspect and last but not least perform evaluation meetings.
- Clara Thomas organized a 2-day training for instructors and staff; the 2<sup>nd</sup> day the training was reviewed and performed together with staff member Olivia, who will set up and perform more trainings for instructors (read 5)

First priorities in August:

Training in many technical aspects of the cookit (repair damages) and the use the cookit/pan, plastic bag, etc.

Training in organizing, preparing and performing solar group cooking workshops

Training in how to evaluate with the beneficiaries.

### SCA and SCN revise application form 2008 Wilde Ganzen

On the basis of a concept written by Henk Crietee and Clara Thomas February '07, Mr Mukasa and Clara discussed all the subjects and revised the format. The format has been signed by mr Mukasa. SCN will offer the application form to Wilde Ganzen, mrs Johanne van Dijk.

### SCA and SCN complete HIVOS climate fund format in perspective fundraising 2008 / 2009.

In June 2007 Henk Crietee and Clara Thomas discussed with Harrie Oppenoorth of HIVOS the solar cooking project SCA and discussed the possibilities of funding by HIVOS by application to the climate fund program. This will then be for the 2008 budget. Mukasa and Clara spent many hours discussing and writing all the requests formulated in the format.

Henk Critee will review/ revise the contents and send the format and attachments to Harrie Oppenoorth in first week of August.

### ***9. SCA management of solar cooking project 2007 Mbarara district***

SCA managed up until now an impressive job. Mr Mukasa is very experienced on the subjects concerning deforestation and the environmental dramatic situation for families in this district. SCA, under the very inspiring leadership of mr Mukasa had already a very broad experience in introduction solar cooking in other districts in Uganda. Although targets were met it is also good to realize and mention that the targets are complex and ambitious.

During this fieldtrip SCA showed a very open attitude to discuss strengths and weaknesses. All relevant subjects have been discussed thoroughly and very often it was possible to define conclusions and even decisions (read attachment C).

In this context it is also good to express appreciation to mr Kambazza, district manager, who is now (only) 5 months coordinator/ manager. His motivation is very strong to learn, gather information and get more and more involved in his task.

This means a very hard job for mr Mukasa who managed to develop the project this far. There still is a lot of work to do, to improve, to solve problems. It should be considered that he could delegate as much as possible to the project coordinator and district manager.

I met for three weeks a strongly motivated SCA staff; it was a great pleasure to collaborate together. We all worked very hard, I learned a lot, I experienced even more.

SCN should do her utmost best to support SCA in developing a sustainable project.

I am very impressed.....

Clara Thomas  
Entebbe, Uganda  
July 29, 2007