Workshop attendants arrived on Sunday 16th September 2007 beginning 7:00 am and checked into various hotels. Official registration began in the afternoon at 5:00 pm (See a list of attendees in Appendix 1). After the registration, the Chairperson of the Workshop Organizing Committee gave welcome remarks. The participants thereafter introduced themselves to let their colleagues know their names, which institutions they were coming from and the type of work they do at their workplaces. The workshop process was explained to the participants and the participants were given an opportunity to explain their expectations for the workshop. The session ended with an informal get together in which participants had an opportunity to interact informally and get to know each other better.

On Monday 17th September 2007, the workshop proceeded with Session II through Session V. In session II (8:30 through 10:30 am) there were two presentations. Presentation No. 1 by Prof. Theoald Mosha (Appendix 2) focused on the adverse health consequences of the current cooking practices, while Presentation No. 2 by Prof. Henry Laswai (Appendix 3) focused on the Agro-food issues and the current energy crisis in Tanzania. Workshop participants had an opportunity to discuss the presentations and the presenters addressed several questions from the participants.

Session III was an official opening session in which the Tanzania’s Minister for Energy and Minerals, Hon. Mr. Nazir Mustafa Karamagi (MP) presided over in the opening ceremony. Welcome remarks were given from:

i) The Chairperson of the Organizing Committee – Prof. Theoald Mosha, (Appendix 4)
ii) Collaborators from Michigan State University (MSU) - Prof. Brian Thompson;
iii) President of the Solar Circle – Ms Judy Martin,
iv) Head of Department of Agricultural Engineering and Land Use Planning at Sokoine Sokoine University of Agriculture (SUA)
The Sokoine University of Agriculture (SUA) Deputy Vice-Chancellor (Academic) – Prof. Dominic Kambarage.
The honorable Minister for Energy and Minerals Mr. Nazir Mustafa Karamagi (Member of Parliament - MP) gave an exhilarating opening speech (Appendix 5), and officially opened the workshop. After the opening, one of the Organizing Committee members - Prof. Valerian Silayo gave a vote of thanks (Appendix 6) to both the Minister and the workshop attendants for accepting the invitations. The participants thereafter took a group photo with the guest of honor Mr. Nazir Mustafa Karamagi (MP) (Appendix 7) to keep alive the memory of this important event. The guest of honor had an opportunity to see various models of solar ovens that were being displayed outside the hotel and witnessed how the ovens were effective in cooking various foods such as cakes, peanuts and cornmeal (Ugali).

In sessions IV and V, there were three presentations. Presentation No. 3 by Dr. Kimambo, and Mr. Fineas Magessa (Appendix 8) focused on the renewable energy utilization in Tanzania and the National consequences; Presentation No. 4 by Dr. Tarimo Justin (Appendix 9) focused on solar appliances for Tanzania while Presentation No. 5 by Dr. Gedi, (Appendix 10) focused on the entrepreneurship for small and medium sized enterprises. For each presentation the workshop participants had an opportunity to discuss and the presenters addressed several questions from the participants.

On Tuesday 18th September 2007, the workshop started with a recap of the previous day’s activities and tasks ahead for the present. The workshop proceeded to Session VI. In session VI (8:30 through 10:45 am) there were two presentations. Presentation No. 6 by Ms Judy Martin (Appendix 11) focused on the design and development of a solar cooker; Presentation No. 7 by Ms Joyce Haji Liundi (Appendix 12) focused on the marketing/sociological issues of solar ovens while Presentation No. 8 by Mr. Odilo William and Sebastian was a demonstration of materials, equipment and skills for manufacturing a solar cooker. Workshop participants had an opportunity to discuss the presentations and the demonstration and the presenters addressed several questions from the participants.

In sessions VII, there were two presentations. Presentation No. 9 by Ms Joyce Haji Liundi was a demonstration of cooking various dishes using solar cookers while Presentation No. 10 by Prof. D.E. Hirleman (from Purdue
University, Indiana, U.S.A.) and his students Jeff Velker and Matt Carroll (Appendix 13) focused on the design, development and thermodynamics of solar ovens.

In sessions VIII, the participants were divided into five discussion groups. The groups were charged with the responsibility of suggesting the way forward by proposing what should be done, how and which institution will oversee the implementation of each proposed activity. Each group discussed the task and came up with suggestions that were presented to the workshop. The resolutions suggested as “the way forward” are summarized in Appendix 14.

The last session (Session IX) comprised a wrapping-up statement and a summary of strategies for Tanzania (by Prof. Brian Thompson, from MSU) and closing remarks by the Mayor of Morogoro Municipal His Lordship Prof. Romanus Ishengoma (Appendix 15).

MAJOR ACHIEVEMENTS OF THE WORKSHOP

1. The workshop was well attended. More than 50 participants attended the workshop from a diverse community of professions ranging from policy makers, educators, engineers, designers, fabricators, technicians, solar cooker users, marketing specialists, economists, small and medium sized entrepreneurs and extension/social agents.

2. Publicity of the solar oven technologies. Seven local newspapers namely Majira, Nipashe, Uhuru, Tanzania Daina, Mwananchi, Daily News and The Guardian carried articles on the solar oven technologies (Appendix 17). These newspapers are read countrywide. Apart from the newspapers, five TV stations namely SUA TV, Abood TV, Independent TV (ITV), Tanzania National VT (TVT) and Star TV broadcasted the event during the 8 pm prime time news. SUA TV and Abood TV conducted interviews with the members of the organizing committee and some of the workshop participants and ran a 15-minute special program (Jicho la wiki or the Major Issues of the Week!) after the 8 pm news on Wednesday 18th Sept 2007 and on Saturday 22nd Sept 2007. TVT, ITV and Star TV broadcast countrywide while SUA TV and Abood TV broadcast only in the coast regions.

3. The establishment of a Tanzanian Solar Oven Promotion Group comprising a group of dedicated eclectic individuals residing in municipalities nationwide. Prof. Valerian Silayo was selected as an interim Chair of the group and convener of the group meetings.

4. The establishment of a network of people working in the field of solar ovens to foster the exchange of technical information/ideas and psychological nourishment. A website is currently being created at MSU and other connections established.

5. Agreed to call a meeting comprising competent engineers, designers, technicians, users of solar ovens to go through the testing data (which would be done at SUA) and evaluate the different designs of solar ovens and then recommends the best solar oven for multiplication and dissemination nationwide. Agreed that after the solar oven performance data are collected, the group will meet at Vocational Education Training Authority (VETA) center in Morogoro in October 2007. The group will also collect information on reliable, inexpensive sources of materials, look at the government tax policies that may help to reduce the cost of materials for the ovens, and devise technical approaches that will simplify and hasten the process of fabricating the solar ovens and reduce the labor charge.

6. Agreed that, subsequently we shall launch, refine, and sustain the growth of a solar oven manufacturing industry in Tanzania and VETA should take an active role in this endeavor.

7. When the idea of solar ovens is known and widely accepted, VETA in all 21 regions of Tanzania will modify their curriculum to incorporate the aspects of manufacturing of solar ovens. Artisan students pursuing training at VETAs will be encouraged to make their own proto-types of solar ovens (probably quite different from the oven to be manufactured in an industrial setting), and upon returning to their home places, they can establish their own small scale solar oven enterprises. This in turn will help the local communities access the solar ovens at affordable prices. The families can then get safe drinking water and also cost-effective cooking! This organic grass-roots approach has tremendous potential for the nationwide dissemination of the technology and the real transformation of lives. The consequences are immeasurable.
8. To stimulate the advancement and refinement of solar oven technologies, it was suggested to start a competition among different solar oven stakeholders such as regional Vocational Education Training Authority (VETAs), Small Industry Development Organizations (SIDOs), Tanzania Industrial Research Development Organization (TIRDO), Center for Agricultural Mechanization and Rural technology (CAMARTEC), Small and Medium Level Entrepreneurs (SMEs), Non-Governmental Organizations (NGOs) to stimulate the refinement of solar ovens and the exchange of ideas for sustainable energy nationwide and the harvesting of energy from the abundant tax-free sunshine.

9. A representative from Arusha Bio-Contractors Co. Ltd (an SME) in collaboration with an employee of SIDO - Arusha Region agreed to jointly design and build an efficient solar oven with a view to commercialization. They promised to showcase their solar oven design and the performance data in a SIDO website.

10. A representative from Village Schools Tanzania (an NGO) has agreed to initiate a pilot project to build 50 solar ovens by February 2008. This pilot project aims at determining the feasibility of adopting the solar ovens for cooking and pasteurizing the drinking water for children in all the schools administered under the NGO.

11. The Masasi group of solar oven manufacturers and entrepreneurs were bolstered by the realization that they were pioneers on the national stage and others were working in the same field.

12. Professors from SUA were stimulated by the vision portrayed by workshop speakers and how they could join the tide of change that is poised to flood over this East African nation. For example, the Head of the Department of Food Science & Nutrition at SUA spoke of using ovens in his fruit processing business in Morogoro. A strong potential for collaborations between engineering and food science at SUA and MSU was established.

13. There were discussions on creating cookbooks to offer guidelines on how to effectively use solar oven for the normal cooking at the households.

14. There were discussions on giving households living in villages near Morogoro some solar cookers, and then monitoring their impact on improving socio-economic status of the people e.g. health, nutrition, maternal workload, time saving, improved care of children and other family members.