



*Pic above: Some of the students of Green Valley High School listen to Dorothy Lsoto, CREEC's research assistant, teaching them how to operate one of the solar lamps donated to the school solar*

## Message from Editor

The year 2013 has begun on a very promising note. CREEC management has been involved in a series of strategic partnerships and planning meetings for upcoming projects. Some of these projects include stove testing services and training in CREEC's Regional Testing and Knowledge Centre. A solar PV national data collection project that will involve assessing the national solar situation in the country began at the end of the quarter. The solar PV department has been a beehive of activities since the beginning of the year. Don't miss reading about the new solar club that was established at Green Valley High School under the Solar Lamps for Health and Wealth national campaign and the installation of a solar PV mini grid in Nakagensere, Kiboga District. The bioenergy department has continued participating in trainings and workshops at regional and international levels including the Global Alliance for Clean Cookstoves (GACC) workshop in the United States.

Enjoy reading.

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Public Relations Officer

## QUARTERLY NEWSLETTER

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## CREEC/GIZ NEW SOLAR PROJECT

CREEC is delighted to announce the signing of an agreement with GIZ to carry out a "data collection and solar market development" project. In this project, CREEC will collect and analyze data and the solar market development in Uganda for a period of one year.

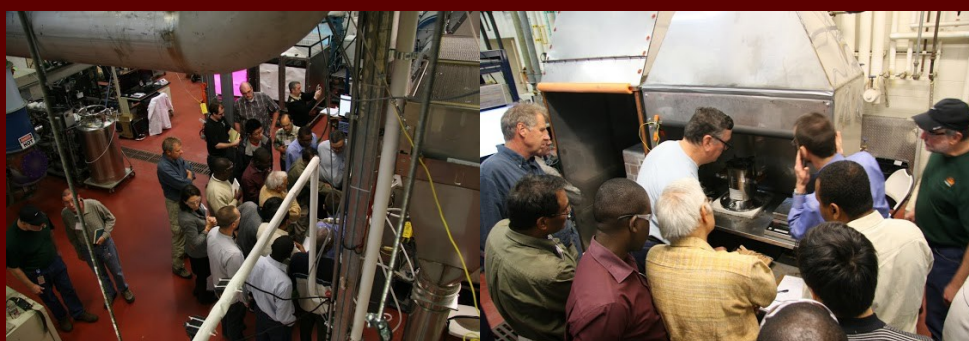
The agreement was signed between GIZ and CREEC on March 15th and project activities have commenced.

CREEC hopes to gain valuable information about the status of the solar PV market in Uganda through participation in this project.

## CREEC PARTICIPATES IN GACC CONFERENCE AND TRAINING



*Above: L-R Participants pose for a group picture and CREEC's representatives Karsten Bechtel and Jackson Mutegeki light up a MWOTO stove during a demo session.*



*Above: Participants tour the stove testing laboratory facilities launch.*

Karsten Bechtel and Jackson Mutegeki, CREEC's bioenergy departmental head and technician were part of the GACC workshop at the U.S. Environmental Protection Agency (EPA) research facility in the Research Triangle Park in North Carolina. Forty stove testers, researchers, developers and implementers, from sixteen countries gathered to discuss collaboration for development of regional stove testing centers from January 28 to February 1, 2013.

Under the theme "establishing and enhancing a Cookstove Testing Laboratory," the intensive training workshop involved formal and informal interactive discussions about development of regional testing and laboratory practices.

The participants also held extensive discussions on the needs, requirements and constraints for stove testing and knowledge centers in various regions.

They discussed laboratory setup, maintenance, calibration and management, safety, quality assurance, fuel measurements, field equipment, strengthening collaboration and knowledge sharing between testing centers, data processing and analysis, and identifying important outstanding issues to be addressed in future Alliance activities.

Participants in the workshop came from countries like Ghana, Haiti, South Africa, Uganda, Cambodia, Mexico, Kenya, Senegal, Bolivia, Nepal, India, Germany, Ethiopia and China.



## REHABILITATION OF THE PICO-HYDRO TEST RIG

With support from Sida, CREEC's pico hydro department rehabilitated the hydro power demo test rig for use by students to understand how hydropower systems operates.

The test rig which was donated by GIZ, has been of great value for the public, university and the private sector in providing an understanding of hydro power technology through exhibitions and guide tours at CREEC.

The test rig involves a 500W pico-hydro system.

*Below: Students doing their practical sessions with the system*





## INSTALLATION OF A SOLAR PV MINI GRID



*Above: Installation process of the solar PV panels on the rooftops of some of the homes that are benefitting from the mini grid.*



*Above: Connection and wiring process inside the houses for solar PV power access.*

A solar PV mini grid system was installed at Nakasengere village in Kiboga District to supply lighting power to people. The installation was done on 18<sup>th</sup> December 2012 and now supplies five homes. The system faced a challenge of overconsumption before the end of 2012. CREEC's solar PV team re-instated a charge controller to solve the issue of overconsumption of energy from the system.

All these efforts were part of the Rural Electrification MSI-UNCST project promoting independent power distribution to improve on standards of living of people in off grid areas of Uganda.

CREEC is using this mini grid to perform research and collect data about the user responsiveness and human factors arising in using such technologies. Nakasengere parish is located in Muwanga Sub County of Kiboga District.

## CREEC introduces solar club to Green Valley High School

CREEC's solar PV department has implemented a research activity under which a solar club has been established in Green Valley High School of the Kyebando neighborhood in Kampala.

Fifteen solar lamps were given to club members through a memorandum of understanding with the school management.

The lamps were used to establish a solar club and promote the use of solar lamps over the kerosene lamps and ta-doobas among students for reading. CREEC will collect data about the quality of various solar lamps on the market for research purposes.

The centre is also interested in researching about the functionality of the different lamps, their durability and user behavior.

This project is part of the Solar Lamps for Health and Wealth campaign geared at promoting the use of solar lamps among households and in institutions nationwide.

Mr. Mulungi Julius, the patron of the solar club and teacher at the school thanked CREEC for bringing such a project to their school. He promised to manage the club in order to make sure that students and CREEC gain from the solar lamps.

Some of the lamps that were given to the school solar club included d.light S 10, firefly TM Mobiles, SUN KING Pro, ASE SOLAR, Sundial, and others. Green Valley High School is located in lower Nsooba, Kyebando of Kawempe division. The school was selected after a thorough research being carried out in twelve schools of Bwaise, Kawempe, Kamwokya, Makerere Kikoni and Kalerwe areas.

## MWOTO STOVES DONATED TO NOAH'S ARK CHILDREN'S MINISTRY

CREEC's bioenergy assistants, a volunteer and the public relations officer visited Noah's Ark Children's Ministry and donated six MWOTO stoves to the home on Wednesday 27th March. Dorothy Lsoto, Sheila Nantambi, Lauren Harroff and Rehema Namukose, visited this community and home to over 200 children. The stoves were donated with the aim of promoting the use of improved cookstoves.

This donation is part of CREEC's corporate social responsibility program aimed at promoting clean, efficient and modern types of energy .



During this give-away, cooks were trained in MWOTO stove functionality basics.

Piet Buitendijk, one of the founders of Noah's Ark was grateful to CREEC for donating the energy saving stoves. He is also interested in teaching students from the vocational wing of the school how to make the stove and fuels like briquettes. He is looking forward to working with CREEC in other aspects of capacity building in renewable energy for the children of institution.

Noah's Ark Children's Ministry is a non-profit organisation located about 3kms off the Mukono-Kayunga road in Mukono District. Some of the renewable energy technologies this institution uses include improved institutional stoves, biogas and solar thermal energy.



## BIOGAS SENSITIZATION WORKSHOP

Two CREEC staff participated in the regional Compassion International Staff Retreat in Uganda. Sheila Nantambi and Dorothy Sheila, CREEC's bioenergy assistants were invited to sensitize participants about biogas and other energy efficient technologies that can be adopted by the Compassion International community.

Among others, they educated participants about biogas technology and its benefits to homes and institutions.

## ABOUT CREEC

CREEC is a not-for-profit organization for research, training and consultancy, located at the College of Engineering, Design, Art and Technology (CEDAT) within Makerere University, Kampala, Uganda. CREEC's mission is "to enhance access to modern types of energy through research, training and consultancy in East-Africa". The centre focuses on four areas: bioenergy, solar PV, pico-hydro and energy management and aims at application and adaptation of technologies to the specific Ugandan and local environment with an emphasis on systems with components that can be locally manufactured.

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