

ACTION FOR RURAL WOMEN'S EMPOWERMENT (ARUWE)

Promoting Environmental Protection by adopting green technologies with a special focus on biogas production in Mulagi Sub County, Kyankwanzi District

ARUWE has been implementing an environmental promotion intervention among women households in Mulagi Sub County. The technologies explored included biogas plants, solar dryers, rain water harvesting tanks, solar water heaters, compost baskets and the poly-green house. All of the technologies were made of bamboo as the major material. The aim was to integrate bio gas technology and solar based technologies among the women's energy sources.



The term "green technologies" refers to environmentally friendly inventions that usually include renewable resources, recycling, health concerns and energy efficiency. These technologies include solar dryers, solar water heaters, bamboo water harvesting tanks, poly green houses, bamboo based bio gas plants among others.

In Uganda, the energy exploitation pattern is such that biomass accounts for 92% of the total energy consumed. Most of the biomass energy is from wood, which is consumed in the form of charcoal and fire wood. This exploitation pattern is not sustainable because it heavily relies on non-renewable energy that is both costly, untimely, limited and has serious environmental effects.

Human interest story

Ms. Jane Ntege a mother of two and taking care of 4 grand children lives in Mugereka village, Mulagi Sub County, Kyankwanzi district with her husband. Before ARUWE's interventions, Jane faced a lot of struggles especially providing food for her family. However, with seed support programs and agricultural training, the family can now have three meals a day as opposed to the one meal they used to have. The challenge however is that Jane cooked her food using fire wood. In addition to this being harmful to the environment, Jane and her children had to walk long distances in search for wood, her children used to arrive late at school as they first had to collect wood, being HIV positive, her health was in danger due to the long periods of time she spent inhaling the smoke from the wood. Further, she could not participate in other social or economic activities due the long hours she spent preparing food and the family used to have their meals late since they had no readily available cooking energy.



Jane cooking with wood before the intervention

With the active participation of the beneficiary households and the community, ARUWE constructed a low cost biogas plant made with a local material called bamboo for Jane. Having been supported with livestock through ARUWE's livestock projects, Jane had enough manure to supply the plant and within 25 days her situation had changed positively.

The bio gas plant made with bamboo has been proven to last for over ten years as compared to the concrete plant which lasts for about five years.

In relation to gender roles and empowerment of women, energy saving technologies not only ease their household chores but save time for women to be actively involved in activities outside their homes such as community meetings



Jane cooking with biogas after the intervention

This is what Jane had to say; *"My life has changed greatly ever since I started using biogas. I no longer walk long distances in search for fire wood, my children go to school in time and our meals are prompt. I also can now participate in other activities outside of my home such as my group meeting and community activities which make me feel an active contributor towards my society. I am very grateful to ARUWE for supporting me to construct the biogas plant"*.

At present, it takes Jane just seconds to light up her gas stove, the gas is smoke free, it cooks faster and it is reliable. Jane further mentioned that the cost of buying paraffin for lighting her house has reduced because she uses bio gas to provide light. This has enabled her to channel the money to other productive activities.

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