

Farmers Field & Exhibition Day on Water Harvesting and Irrigation Using Solar Water Pumps for Climate Change Adaptation and Improved Livelihood

Climate change impacts such as increasing frequent crop failures and livestock deaths have been imposing high economic losses and undermining food security. More frequent droughts / dry spells and rising water scarcity have devastated large parts of the farming community and undermined irrigation and drinking water amongst these vulnerable communities. These impacts have since then affected quite a large number of farmers' households and contributed to poor livelihoods.

In order for smallholder farmer's to improve on their livelihoods and the productivity of their economic activities, climate change adaptation practices needs to be put into practice and the innovative technologies and techniques must also be available and accessed by all communities.

Following the above stated farming constrains, Farmers' Field and Exhibition Day was held in Homabay County early this Month of August 2019 which brought on board Devolution and Climate Change Adaptation Partner organization representatives, Solar water pump producing companies, farmer groups from Kisumu and Homabay Counties, ward administrators, relevant line ministries from Water and irrigation, Environment, agriculture and energy departments, high school students, teachers and other institutions of higher learning (Moi University) to advocated for the use of devolved funds for water harvesting and irrigation using solar water



pumps for climate change adaptation.



Mr George Muga has been able to increase and improve on his farm productivity, management and reduce farm operational costs allowing him and his family to meet market demands thus improving his households' well being. He showed the participants the key role of learning fields for the dissemination of innovative water harvesting and fish farming and breeding techniques and at the same time an example of sustainable farming practices.

During an interview with Mr Muga, he stated that improved and diversified agricultural productivity systems will not only increase the availability of food but also generate enough revenue for families to meet their basic needs. He further urged community farmers to embrace simple water harvesting techniques as it's the only way to increase productivity at farm level and a gate way towards diversifying farm enterprises for improved food and nutritional security

Following the visit to Mrs. Caren Omollo and Ms Phoebe farm, farmers saw the importance of using solar water pumps and drip irrigation systems under green houses as were practiced by the hosting farmers. Mrs. Omollo said that it's very much possible to produce a wide variety of crops during dry seasons and produce enough vegetables and other crops both for household consumption and for sale.



Ms Phoebe on the other side noted a large reduction in the amount of water she used for producing crops through the use of drip lines, controlled disease problems; such powdery mildew caused by soil splashing onto plant leaves and reduced fuel costs. She continues by saying that she has been able to effectively manage and save her finances and found the solar pumps and drip line systems more efficient to adapt to and meet her particular needs enabling her to produce enough food crops for her families and for market.



The days' Success Factors

Solar water pumps producing companies and promoters clearly understood the acquisition gaps that can easily be addressed to ensure positive adoption of the technology. They called for close collaboration with farmers to ensure that market prices of such solar pump equipments are subsidized to enhance competitiveness of the most efficient and sustainable thus raise adoption of the system in the whole community.

DaCCA project partners who participated in this event reinforced partnerships between relevant government line ministry stakeholders and other private organizations and companies on their capacity to provide access to local funds for smallholder farmers in regards to promoting appropriate, innovative and sustainable technologies that could enable them improve on their production.

Stakeholders from different lines assured the local community for their support towards implementing on ground practices and appropriate interventions that could enable them strengthen their livelihoods resilience against climate change.