# Building the evidence base for gender responsive circular economy innovations for food and energy security of refugee and host communities in East Africa

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**Project Location** 

The Resource Recovery and Reuse (RRR) in Refugee Settlements in *Africa* project is being implemented in six refugee camps and settlements and their surrounding host communities in Ethiopia, Kenya and Uganda.





### **Project Aim**

The aim of the project is to increase the resilience of these communities through the implementation of RRR solutions.

Objectives include developing, testing and verifying technologies and livelihood models for gender-responsive, circular bio-economy solutions to capture energy, water and nutrients, and building resilient food and energy systems for refugee settlements and their host communities.

#### **Completed Project Activities (to date)**

- Training manual in home garden, agroforestry and energy technologies has been developed and used for the 'training of trainers' and the subsequent delivery of training to over 1,360 beneficiaries from both host and refugee communities.
- This has included the implementation of over 700 home gardens, with fruit and multipurpose trees also planted in each garden.

Figure 1. The home garden-agroforestry-cooking energy nexus.

Map 1. Project sites in Ethiopia, Kenya and Uganda.

Figure 2. Beans being cooked with briquettes on a fuelefficient cooking stove in a host community household in Imvepi Settlement in Uganda. Note lack of smoke emitted from stove (photo: IWMI).





Figure 3. Harvesting amaranth leaves from a greywater irrigated home garden in Kalobeyei Settlement in Kenya – a bunch of leaves retails at KES 10 (USD 0.1) (*photo:* IWMI).



Figure 4. Synergies of carbon, nutrient and water flows between the practical activities at the household level.



#### Lessons Learned (to date)

1) Regenerative activities of the project – home gardens, agroforestry and cooking energy (improved fuel use) – were met with great interest, particularly for women with extensive childcare responsibilities. Despite tough agronomic conditions, successful home gardens were evident on plots allocated for living space.

2) Evidence of peer-to-peer knowledge sharing particularly in the case of home gardens and vegetable production for sale. Consequently, the adoption of innovative home gardening by non-beneficiaries is high. It must be noted that knowledge sharing tended to be along gendered lines (women informing women, men sharing with men).

3) At all project sites, the feedback included requests for more tools, gum boots, fencing and seeds to allow more planting and an increased number of participants.

4) Substantial innovation and entrepreneurship were evident among the participants. It was also evident that there was a clear desire to have a means to enhance their livelihoods. This was true among refugees and host community members even when the preexisting social and cultural context had not included agriculture.

5) Urgent need for high-quality seeds. Seed saving can help and there was some evidence of such activity. Nonetheless, a next step would be to develop a local seed enhancement and replication effort to reduce the need to import seeds from outside the region.

6) Provision of continuous extension services from the communitybased facilitators in both the refugee camps and host communities could bring greater impact.

7) Extensive uptake of the project training indicates the success of this project's definition of scale as a function of many participants rather than measuring success via the area cultivated or kilograms of vegetables produced.













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