



International Water  
Management Institute



# Circular economy solutions for resilient refugee and host communities in East Africa

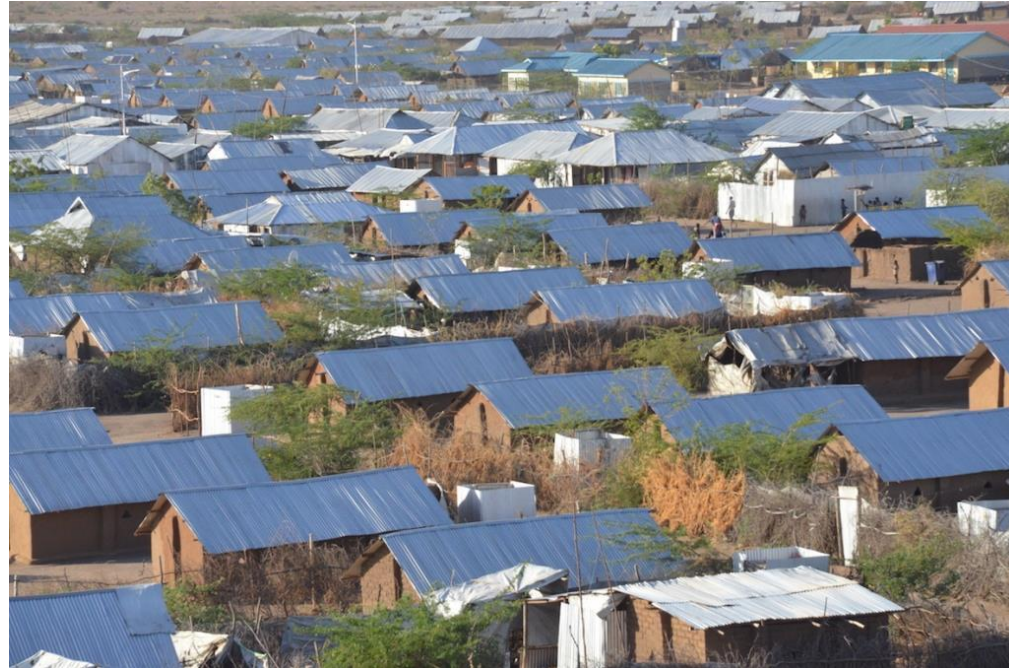
*Capacity building workshop in CE  
Oct 29, 2024*

*Solomie Gebrezgabher ([s.gebrezgabher@cgiar.org](mailto:s.gebrezgabher@cgiar.org))*

Innovative water solutions for sustainable development  
Food · Climate · Growth

# Refugees in East Africa

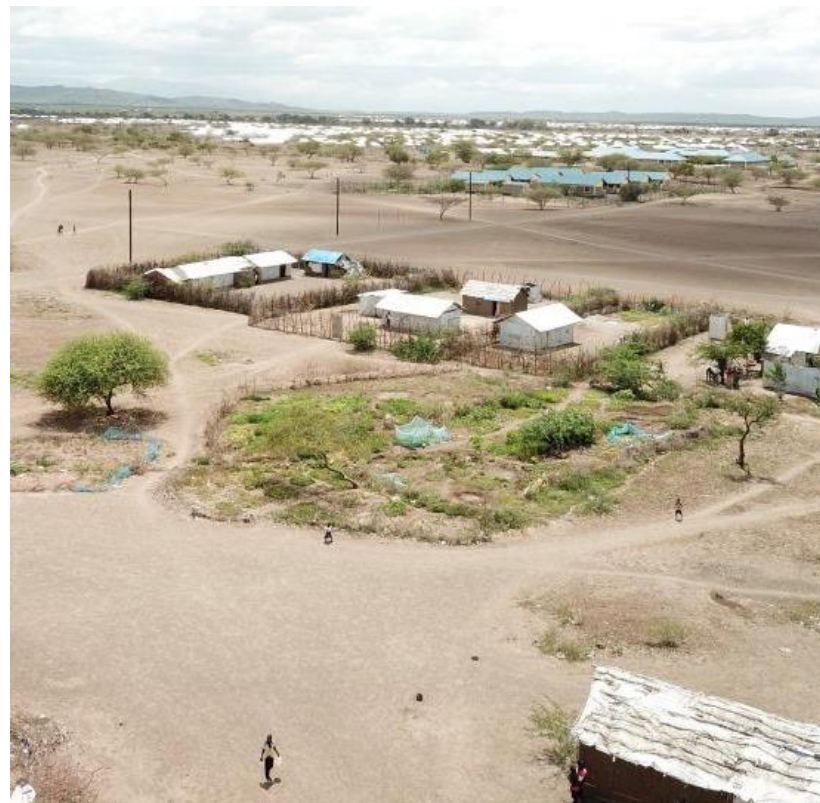
- Region hosts 4.9 million refugees, and 10 million internally displaced people at the end of 2022 (UNHCR, 2022)
- Uganda, Ethiopia and Kenya are the largest refugee hosting nations in Africa
- Refugee populations exponentially increasing due to continued civil and political unrest



Kakuma refugee settlement, Kenya (Photo: Takeshi Kuno: UN Habitat)

# Dwindling resources in refugee and host communities

- **Competition for resources:** Population pressure on land, soil, water and wood energy
- **Resource degradation:** Increased soil fertility depletion, water shortage and deforestation
- **Gender-specific challenges** to access alternative resources
- **Food and nutrition insecurity:** Food supplied to refugees is not sufficient in terms of dietary diversity.
- **Conflict between host and refugee** communities for resources



*Kalobeyei Settlement in Kenya (Photo: CIFOR-ICRAF)*

# Circular bioeconomy in refugee settlements in Africa

- To pilot and **scale-up** locally viable and **gender-responsive circular economy-based** solutions for increased food and energy security and sustainable socio-ecological systems in refugee and host communities
- Implemented in six refugee settlements and their host communities

## Focusing on:

- Recovering cooking energy and water and nutrients for home gardening using gender-responsive solutions
- Knowledge dissemination and capacity development
- Piloting and Scaling





# Our approach

## Participatory approaches

- Stakeholder consultation
- Gender integration strategy
- Co-development of training manual
- Training of trainers (ToT)
- Training of refugee and host communities
- Continuous technical backstopping

## Project partners

### *Coordination and technical advise:*

- International Water Management Institute (IWMI)
- World Agroforestry Center (ICRAF)
- International Centre for Tropical Agriculture (CIAT)

### *Capacity development and pilot implementation:*

- Danish Refugee Council (DRC), Kenya and Uganda
- Adventist Development and Relief Agency (ADRA), Ethiopia

### *Technical backstopping:*

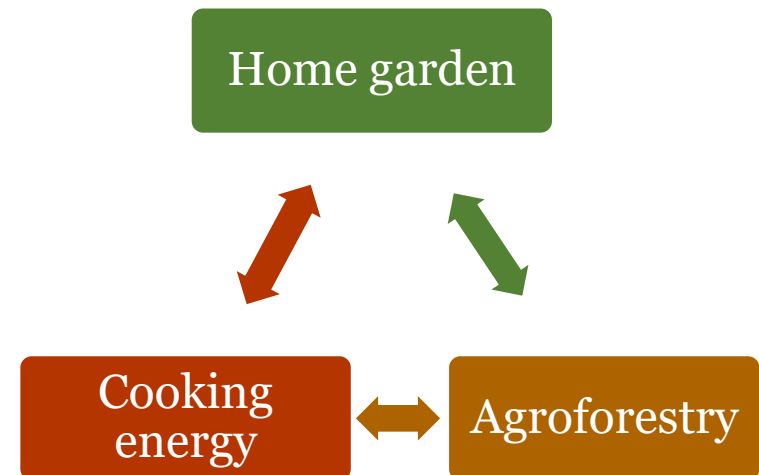
- Pennsylvania State University (PSU)
- Wollo University, Ethiopia
- Dr Andrew Adam-Bradford, Urban agriculture expert

### *Upscaling and stakeholder dialogue:*

- International humanitarian aid and donor community (UNHCR, UN Habitat)

## Proposed circular bio-economy solution

- A nexus through a circular bio-economy approach that exploits organic waste and grey water at the household level.



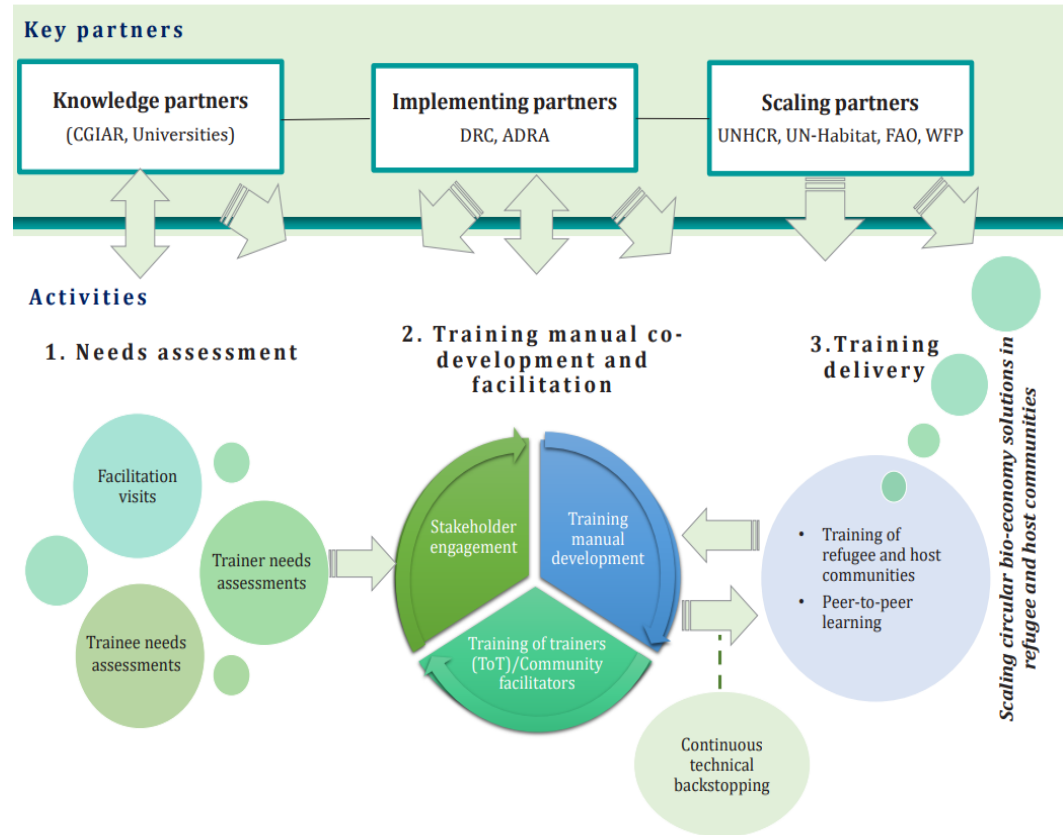
# Scaling circular solutions in refugees and host communities

## ❖ Enhancing food and nutrition security:

- Home gardening with culturally important, nutritious fruits and vegetables, and
- Safe use of greywater for irrigation and compost, and biochar for soil improvement

## ❖ Enhancing access to cleaner cooking energy and reducing women's burden:

- Conversion of organic residues into fuel briquettes
- Sustainable biomass harvesting
- Agroforestry and efficient use of biomass energy



*Capacity building and scaling framework*

# Scaling circular solutions in refugee and host communities

- 3,600+ households from refugee and host community trained in **home gardening, agroforestry** and **biomass energy**
- >80% adoption rate for the regenerative practices
- 200,000 households reached indirectly
- Project's lessons cited/applied in action plans and strategies by UN agencies:
  - **UN-HABITAT's Kakuma Regeneration Strategy** (<https://unhabitat.org/kakuma-regeneration-strategy-enhancing-self-reliance-for-refugees-and-hosting-communities-in>)
  - **FAO policy brief** on climate and conflict sensitivity in dryland humanitarian projects (<https://doi.org/10.4060/cc1603en>)





# Some highlights

- **The circular bio-economy solutions** were met with great interest.
- **Capacity development:** Improving community and other stakeholder's skills and knowledge is crucial in implementation of solutions.
- **Scaling up:** Partnerships development is important for wide- spread adoption and sustainable impacts
- Despite tough agronomic conditions, **successful home gardens were evident** on plots allocated for living space.
- There was evidence of **peer-to-peer knowledge sharing** particularly in the case of home gardens and vegetable production for sale.
- **Innovation and entrepreneurship** were evident among households. There was a clear desire to have a means to enhance their livelihoods.





International Water  
Management Institute

# Thank You!

For more information visit the project  
website <http://rrr-refugee.iwmi.org/>

Innovative water solutions for sustainable development  
Food · Climate · Growth

