

Webinar Series:

Productive Uses of Energy for Improved Livelihoods in Humanitarian Contexts

Session 3:

The Energy-Livelihoods Ecosystem in Humanitarian Settings
– Finance, Technology Supply Chains, Market Linkages and Stakeholder Roles

Date and time:

Tuesday, 29 March 2022
14:00-15:30 CET

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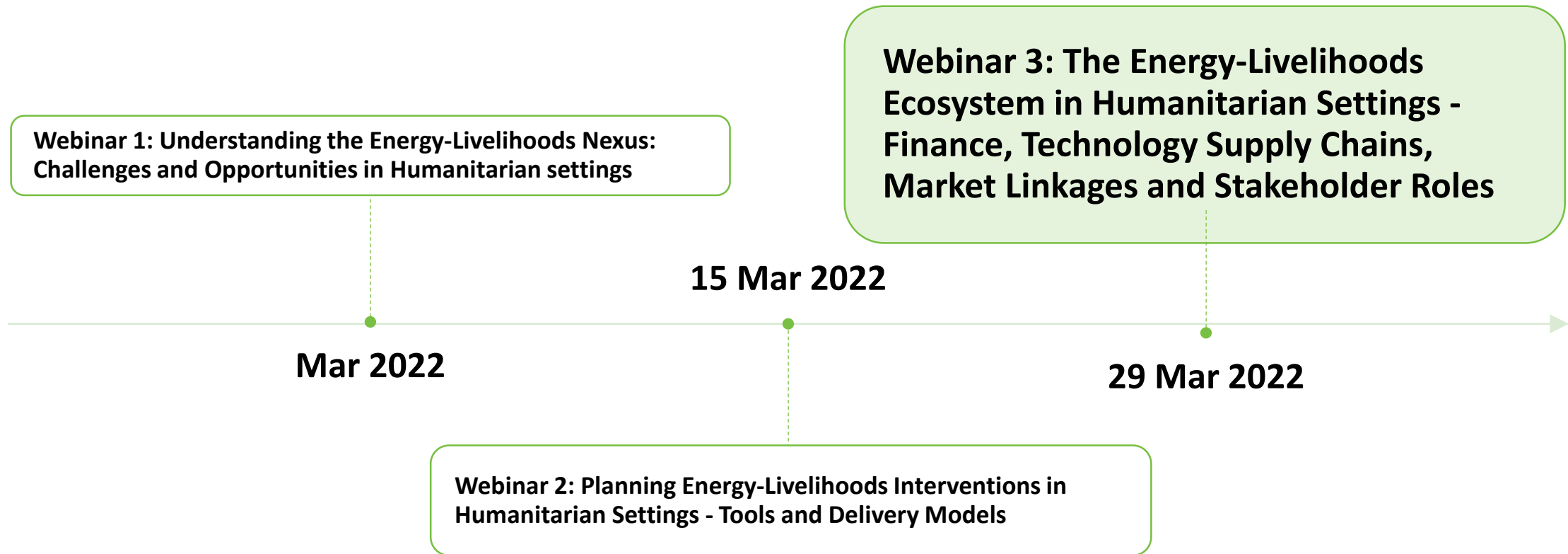
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United Nations Institute for Training and Research

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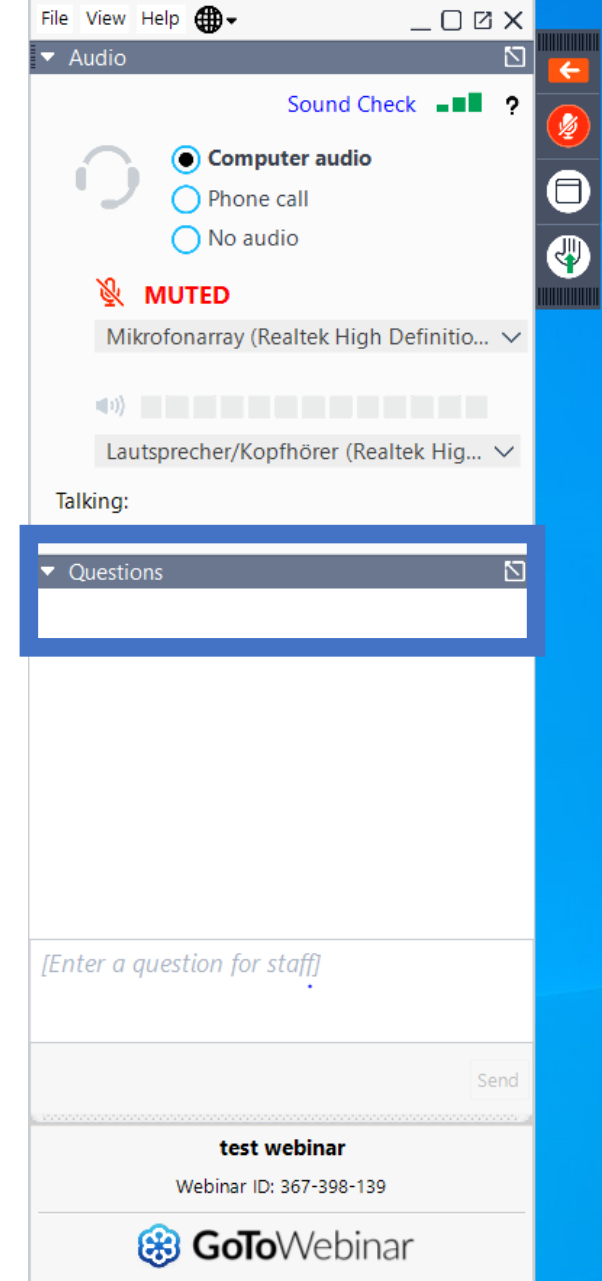
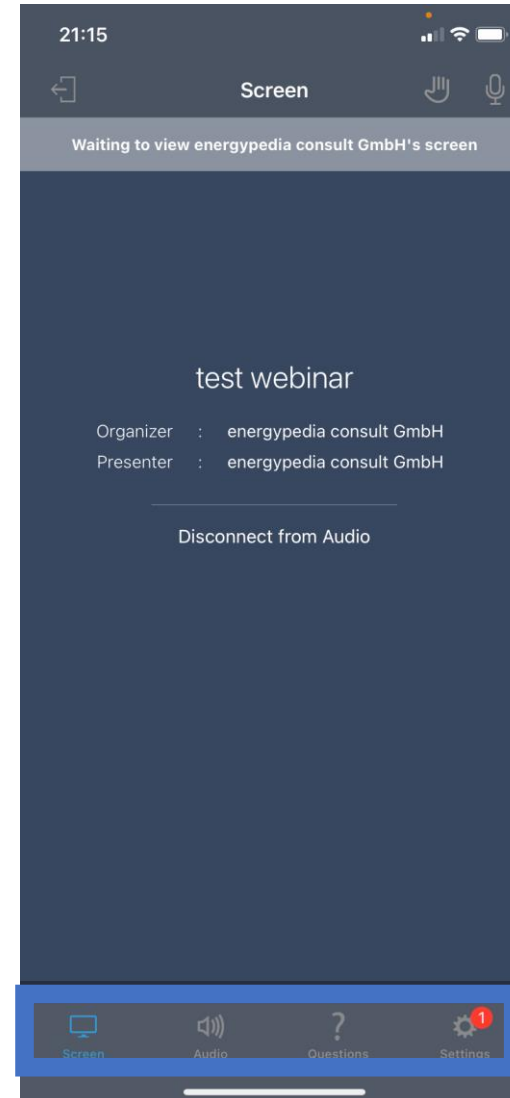
GLOBAL PLATFORM FOR ACTION

Webinar Series on Productive Uses of Energy for Improved Livelihoods in Humanitarian Contexts



Housekeeping

Please send us your questions via the „**QUESTIONS**“ tab!



Agenda

Ecosystem aspects for energy-livelihood solutions	Rachita Misra SELCO Foundation and TENN (joint presentation)
Impact on support to livelihoods/productive uses in Rwandan refugee camps	Anaclet Ndahimana and Herbert Nyaga Joint presentation from Practical Action and Energy for Impact
Panel discussion	Moderator: Rachita Misra Panelists: Florent Eveille (EnDev) Paul Yillia (TENN) Abishek Bharadwaj (Equatorial Power) Anaclet Ndahimana (Practical Action) Herbert Nyaga (Energy4Impact)

Presenter



Rachita Misra , SELCO Foundation

Rachita Misra is the Associate Director (Knowledge and Policy) at SELCO Foundation. She brings in over a decade of experience in the development sector, with a primary interest in reducing uneven access to resources and opportunities for the marginalised. Seeing sustainable energy as a means for development, she examines the role of energy in furthering access to livelihood, health and well-being. Her work lies at the intersection of research, program design and implementation. With SELCO Foundation, over the past 7 years, Rachita has shaped the organization's knowledge management practice that is centered on active collaboration with end users, grassroots practitioners and field teams.

Presenter

Ndahimana Anaclet, Practical Action

Ndahimana Anaclet is a senior Renewable Energy Expert, actually Thematic Lead Energy and Agriculture (With Business Development responsibilities), but also the Renewable Energy for Refugee(RE4R) Project manager at Practical Action.

Herbert Nijru Nyaga, Energy4Impact

Herbert Nyaga is an enterprise development expert with over 18 years' experience in Micro finance, energy access and project design and delivery. His work experience cut across the countries in East Africa including Kenya, South Sudan and Rwanda.

RENEWABLE ENERGY FOR REFUGEES (RE4R- LIVELIHOOD DEVELOPMENT)

Webinar on Energy-Livelihoods in
Humanitarian Settings

Practical Action: Ndahimana Anaclet
Energy for Impact: Herbert Njiru







Practical
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RE4R Project approach

- Providing Total Energy Access (Households, Livelihoods, Communities)
- Strengthening and supporting markets
- Promoting economic activity for refugees and host communities
- Fostering systems change

	Rwanda
Households	 Renewable biomass cooking technologies  Solar home systems
Livelihoods	 Productive uses of energy  Solar systems for small enterprises
Communities	 Camp-wide solar street lighting  Solar mini-grid for institutions and community facilities

RE4R Summary

- **Project start/end dates:** July 2019 - February 2022
- **Location:** Working with refugees and host communities in Gihembe, Kigeme and Nyabiheke refugee camps in Rwanda
- **Partners:** Energy for Impact (E4I) to deliver the PUE component. Lead partner UNHCR, the UN Refugee Agency
- **Direct PUE beneficiaries:** >150 entrepreneurs

*“We are now able to continue our business activities when it is dark! I have a small shop and now, even late at night, a customer can come and ask me for salt, and I can easily serve them! My earnings continue day or night.”
Female, 26, Nyabiheke camp*

RE4R; Productive Use of Energy for livelihoods

- RE4R supported refugees and their host communities to access;
 - Energy
 - finance,
 - training,
 - technology,
 - Skills,
 - Markets
- These Enabled entrepreneurs to flourish and increase their economic independence.
- 150 entrepreneurs in Rwanda were supported to develop profitable Productive Use of Energy enterprises such as hairdressers and salons, butchers, a cybercafé, phone repair shops, tailoring, and shoe repair shops, food production, egg incubation, carpentry, and cafes.



Enterprise Development activities

1. Mobilization and stakeholder engagement, Mapping viable PUEs pipelines in the camp and host communities and evaluating other existing and potential support systems.
2. Awareness raising on potential of PUEs for livelihood development.
3. Mentoring, technical and business skills training to increase entrepreneur capacity.
4. Establishing supply chains for appliances and equipment, raw materials and stocks,
5. Market development activities to expand and create sustainable markets,
6. Establishing Business hubs to offer various services in one location and provide suitable business premises.



RE4R; Productive Use of Energy for livelihoods-PUE activities: Business Centres



“Some years ago, I was working in the business belonging to somebody else, but now, I am proud to have my own business. I have a dream to construct a family house” Emmanuel

RE4R; Productive Use of Energy for livelihoods

Lessons and Recommendations

Lessons

- ❑ Refugees still face challenges when raising additional financing from formal institutions, which seem reluctant to extend loans to them. This could be attributed to the fact that the formal financial institutions prefer working with registered enterprises.
- ❑ Refugees have good initiatives that can generate income and improve livelihood opportunities for themselves and their communities;
- ❑ Access to grid power for refugees remains a challenge even in areas served by the national grid due to their legal status and economic status.
- ❑ To be successful, enterprises need a package of support alongside access to energy – financial, technical, business mentoring etc
- ❑ To be successful, entrepreneurs need buy-in and commitment and need to see results

Recommendations

- ❑ Tailored support and mentoring is key to translating initiatives into reality
- ❑ Coordination across partners, institutions and programmes to bring these elements together is needed
- ❑ Trust, relationship building, and expectation management set the conditions for successful outcomes
- ❑ Promote the creation of saving and lending groups in refugee camps.
- ❑ Support financial institutions to develop loan products suitable for displaced communities and where possible, create blended financing with partner organizations. For example, Umutanguha Microfinance developed a product that enabled RE4R entrepreneurs to access loan

RE4R; Productive Use of Energy for livelihoods

Impacts

Uptake → Usage → Improvements to Quality of Life

- Increased awareness on potential of PUEs for livelihood development among refugees. E.g., 862 refugees visited PUE clinic to learn how they can start their own enterprises.
 - 65% of the business reported over 50% increase in profits which they used to improve lives in their households,
 - Increased business acumen among refugees where Re4R was implemented. “*we have noted refugees from Gihembe being more aggressive in business compared to the ones they found in Mahama*” UNHCR.
 - 218 PUE appliances were acquired through partial subsidy and contribution from entrepreneurs which they dearly valued. “*Entrepreneur from Gihembe were so passionate with their appliances that, they ensured it was the first item to loaded in the trucks during relocation to Mahama*” ADRA
 - The business centers created hubs that clouded in other enterprises not under direct Re4R project support.
-

THANK YOU

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The logo for Energy4Impact features the text "ENERGY4IMPACT" in a bold, sans-serif font. The number "4" is stylized as a thick horizontal line. To the right of the "4" is a white outline of the African continent. Below the main text, the phrase "POWERED BY MERCY CORPS" is written in a smaller, red, sans-serif font.

Panel Discussion



Rachita Misra
SELCO Foundation



Florent Eveille
EnDev



Paul Yillia
TENN



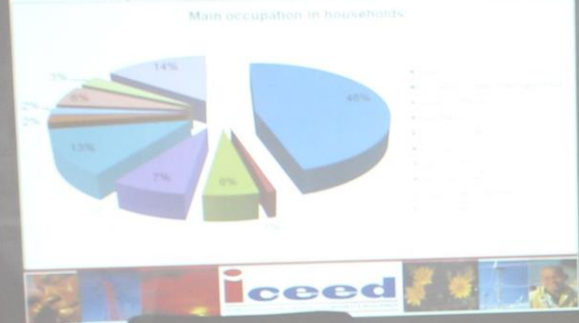
Abishek Bharadwaj
Equatorial Power

Anaclet Ndahimana
Practical Action

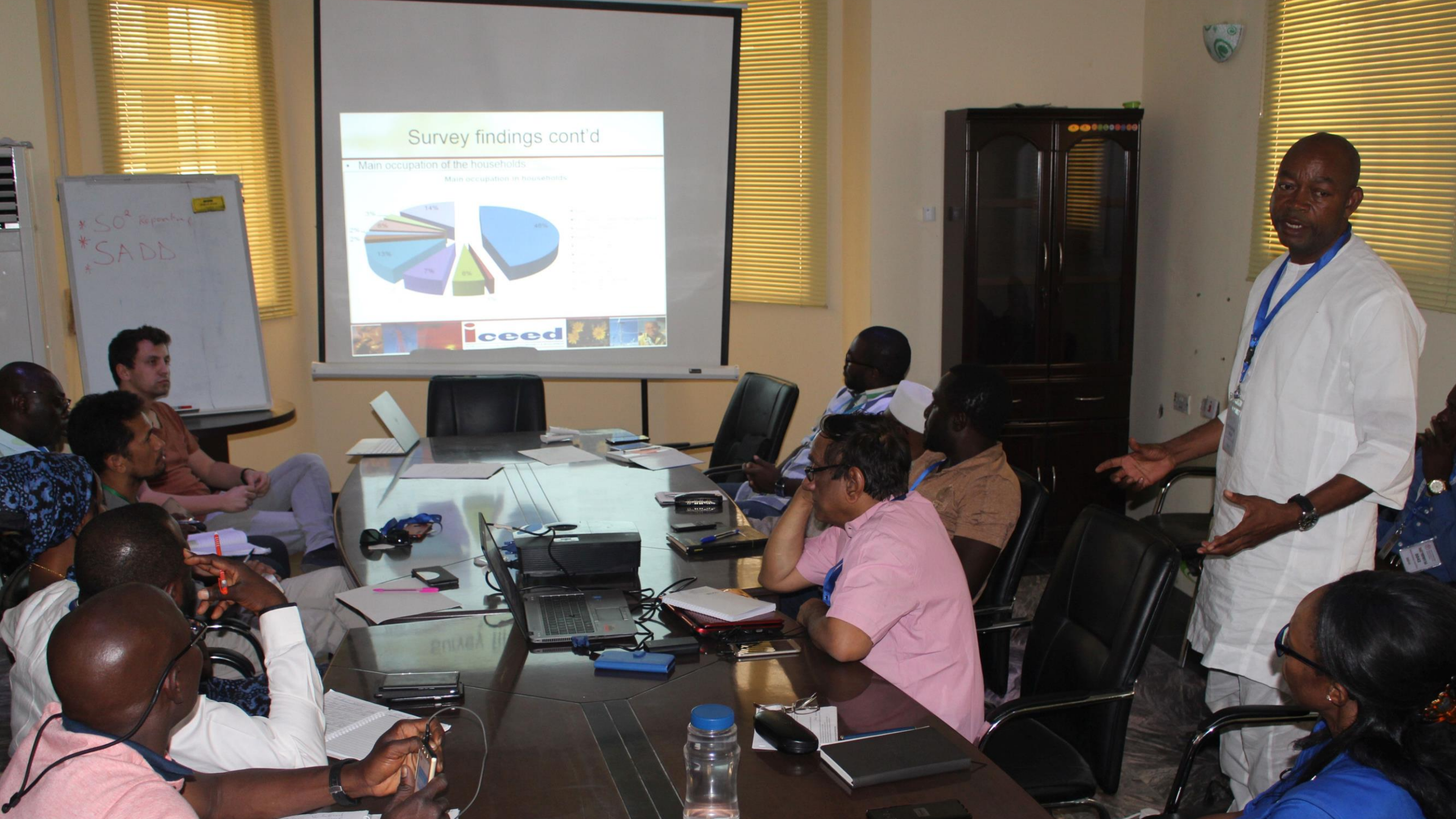
Herbert Nyaga
Energy for Impact

Survey findings cont'd

Main occupation of the households



* SO₂ Reporting
* SADD





Save the Children



Save the Children

giz giz

giz giz

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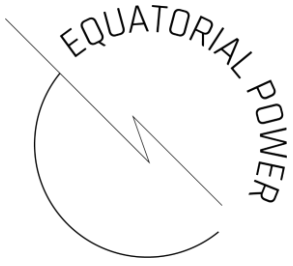
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Philips Lighting

PHILIPS



EQUATORIAL POWER



EQUATORIAL POWER

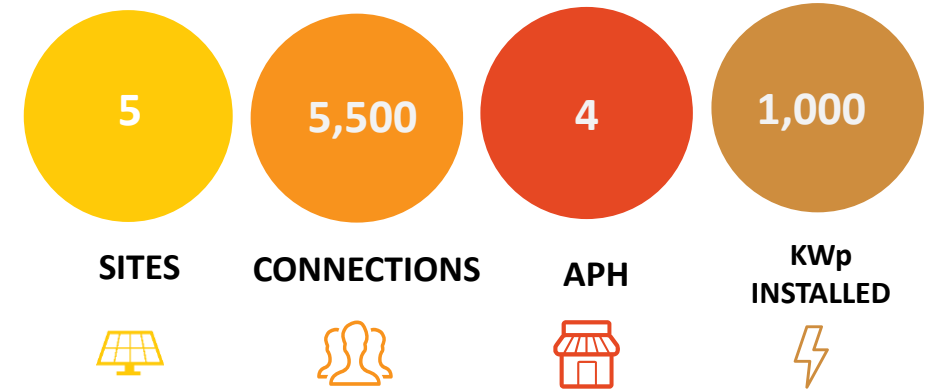
The Equatorial Power Model

Equatorial Power (EP) is a **de-centralised multi-utility, focused on customer growth through its service offering.**

Equatorial Power goes beyond electrons, to provide an integrated service offering to peri urban and rural communities. EP's Model has a unique characteristics that distinguish it from its peers:

EP's INTEGRATED service offering:

- (1) **Electricity** distribution, mainly solar PV generation with a storage component, which is distributed through pre-paid mobile-enabled smart meters;
- (2) **Water** purification and **agro-processing** services, through its owned and operated Productive Hubs;
- (3) **Electric mobility**, with charging infrastructure for both motorcycles and boats; and
- (4) Business Incubation and **productive asset financing**, through partners (e.g. EnerGrow).



EQUATORIAL POWER

EP's PUE applications



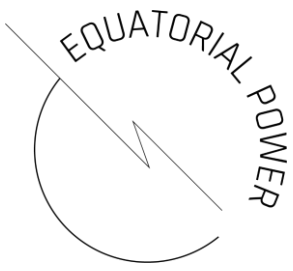
The **Agro-Processing Hub** provides a mix of the following services:

- agriculture value addition (i.e. fish drying, ice making, milling, cooling, etc.)
- water purification
- charging services

The **E-mobility** proposition:

- 1) Electric boats
- 2) Electric motorcycle
- 3) Utility vehicle (pickup)





EQUATORIAL POWER

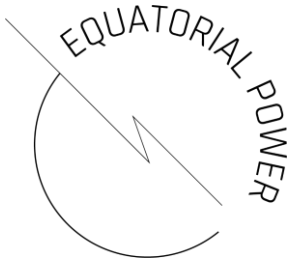
Key success factors

SUCCESS FACTORS

- A few opportunities are **ubiquitous - cold storage**
- **Electric boats** also is promising on Lake Islands.
- Must be **Tailored** to specific needs.
- EP installs **IOT sensors**. Data monitoring key to success.

POSITIVE EFFECTS

- **Increased service:** delivering a better service and at lower cost.
- **Lower tariff/ Higher returns** : Efficiency of scale and demand response lowers LCOE
- **Additional (unregulated) revenue streams:** hedging single commodity market risk and boosting revenues against existing market demand, increasing ARPU.
- **Greater Resilience:** any shock reducing the electricity tariff, will therefore increase the margin from the other services (energy main input).



EQUATORIAL POWER

Key challenges

KEY CHALLENGES

- **Informal economy** making it hard to predict demand
- While the **concept is replicable**, actual applications are not.
- **Access to affordable capital** is a major challenge.
- Until a PUE model is proven in scale, access to **testing capital (pilots)** will remain a need.
- Affordable and efficient **equipment/appliances** are not locally available.

SOLUTIONS

- **Access to learnings** from all unique business models across different companies will help the sector.
- **Specific tailored PUE models** that can be scaled produces the most impact
- **Donor programs** to test and validate PUE model

Thank you

- **Feedback:** info@energypedia.info
- **Webinar documentation/Additional Resources:**
[https://energypedia.info/wiki/Webinar Series: Sustainable Energy in Humanitarian Settings](https://energypedia.info/wiki/Webinar_Series:_Sustainable_Energy_in_Humanitarian_Settings)
- **GPA website:** <https://www.humanitarianenergy.org/>