



Uganda Off-Grid Energy Market Accelerator

# Reaching unserved refugee markets in Uganda

Insights from case studies on energy access

February 2020

# Agenda

**Executive summary**

**Background on Ugandan refugee populations**

**Energy challenges and emerging issues in serving refugee markets**

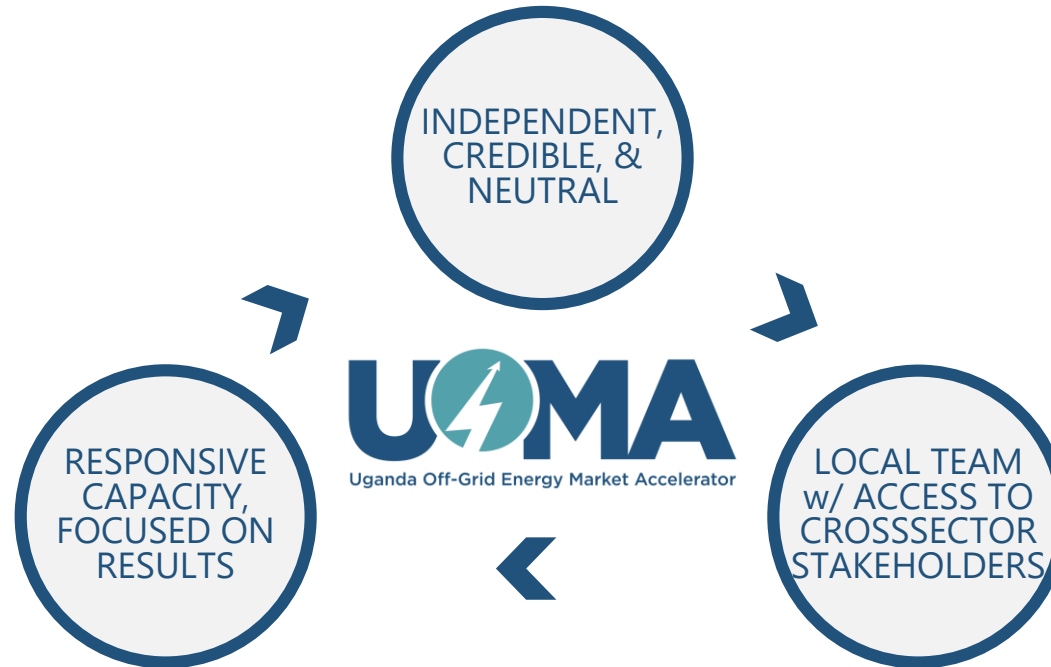
**Lessons and opportunities from case studies**

- Focus on private sector engagement on energy access in humanitarian settings

**Summary and next steps**

**Appendix**

# Uganda Off Grid Energy Market Accelerator (UOMA) is a dedicated and neutral intermediary, focused on scaling off-grid energy access



UOMA accelerates the off-grid energy market in Uganda through:

- **Research & insights:** providing data, analysis, and insights to businesses, investors, development partners, and policy-makers
- **Coordination:** coordinating industry actors and resources to increase efficiency; and
- **Direct Interventions:** catalyzing interventions where necessary to reduce barriers to off-grid energy access.

# Executive summary

# Several challenges face energy access for UG refugees; opportunity for private sector to collaborate, provide market-based solutions



## Background Context

- Uganda hosts 1M+ refugees, mostly from South Sudan and DRC **majority of whom lack access to clean and affordable energy** sources for household needs
- Currently, most energy interventions in refugee settlements led by humanitarian organizations and development partners have **limited private sector engagement**
- However, **chronic under-funding of refugee response** is hindering humanitarian organizations' ability to continue delivering lifesaving assistance and livelihoods support



## Evolution & Trends

- In 2016, **OPM\* & UNHCR adopted Comprehensive Refugee Response Framework** in recognition of need **to expand opportunities for solutions in refugee settings**
- Most actors in the sector are **gradually shifting refugee response from in-kind distribution to cash-based assistance** to build refugee financial inclusion & resilience
- **Several recent examples of on-going partnerships** to enable development of refugee markets e.g. SCC collaborative model to drive more private sector engagement in sector



## Key Insights & Opportunities

- **Existing interventions focused on integrating sustainable off-grid energy solutions** in situations of displacement i.e. via de-risking private sector investment in target markets
- **Future interventions could be targeted towards** more structural issues e.g. **infrastructure development, long-term investments, and market coordination**
- Overall, **opportunity for more private sector engagement:** private sector has capacity and expertise to **work with a range of market and humanitarian actors in a coordinated way** to understand refugee needs and realities, and deploy innovative finance to develop these markets and improve livelihoods in a commercially viable way

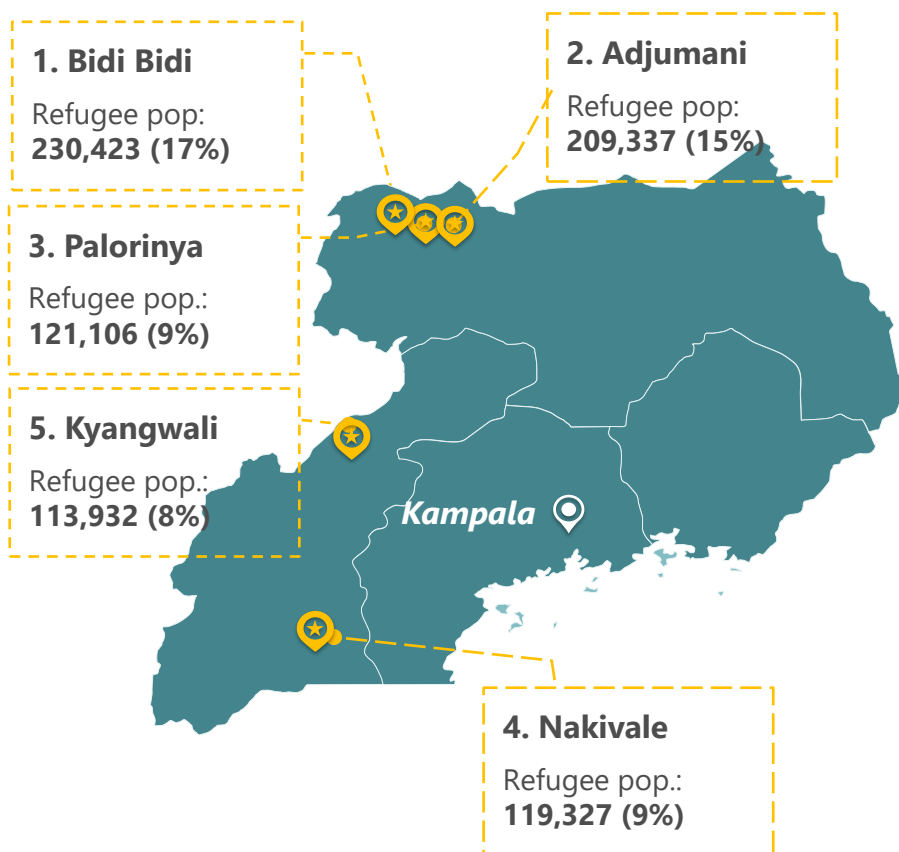
\*Note: OPM stands for Office of Prime Minister in Uganda

Source: UOMA research and analysis

# Background context on Uganda refugee populations

# Uganda hosts >1M refugees, mostly from South Sudan & DRC; UNHCR forecasts refugee population to grow by ~40% by 2020

## 5 largest UG refugee settlements by size<sup>1</sup>



Total refugees (Oct. 2019): 1,362,269<sup>1</sup>

## Summary<sup>1,2</sup>

- Uganda currently hosts the **3rd largest refugee population globally**, 92% of whom are settled in Northern Uganda, and 54% are biometrically verified as of 2018<sup>2</sup>
- 28 refugee settlements** located mostly in northern and western part of the country, with **65% of population from South Sudan**
- UNHCR projects refugee population in Uganda to reach 1.73M (2020)**, net of voluntary repatriations<sup>2</sup>

## Key demographics<sup>1,3</sup>



94% living in settlements



83% women and children



64% been in Uganda for >1 year



60% below 18 years

# Refugees in Uganda are entitled to work & freedom of movement, but have low purchasing power & struggle to build resilience



## What's been positive...

Uganda refugee policies among most progressive in the world allowing freedom of movement & ability to work

- Refugees and asylum seekers allowed **freedom of movement** and **are entitled to access to work**
- Refugees typically engage in a variety of economic activities, **with 72% having 3+ sources of income** i.e. practicing agriculture, engaging in sale of household products and other non-agricultural casual labour<sup>3</sup>
- Each household is **allocated land for shelter and protection** (50m x 50m or ~0.6-acre plots)



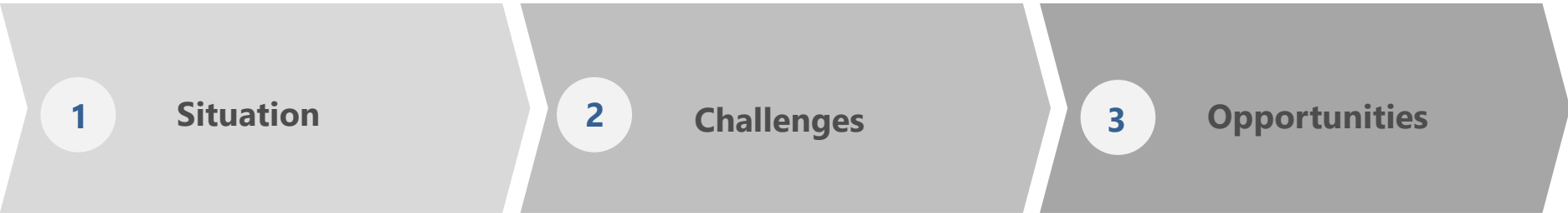
## ...and not so positive

However, majority of refugees in Uganda also struggle to earn a decent living and build resilience compared to Ugandan nationals

- **According to UNHCR, 81% of refugees live below poverty line of UGX 1M per year** with 28% relying solely on humanitarian aid to cope
- A 2018 study revealed an **average income of a refugee household in a rural area / settlement could range from UGX 72,000–177,000 per month** which is **3–4x less than earnings for a typical rural Ugandan household**<sup>5</sup>



# Efforts to build refugee resilience hampered by underfunding in humanitarian sector; opportunities exist for private sector to support



1

Situation

2

Challenges

3

Opportunities

Several humanitarian-led initiatives exist aimed at building refugee resilience

**UNHCR & several NGOs are leading efforts** to promote refugee and host community livelihoods & self-reliance

There is, however, an overall lack of sufficient investment in refugee response plans

**Chronic & persistent underfunding of refugee response** is hindering humanitarian organizations ability to continue delivering lifesaving assistance & livelihood support

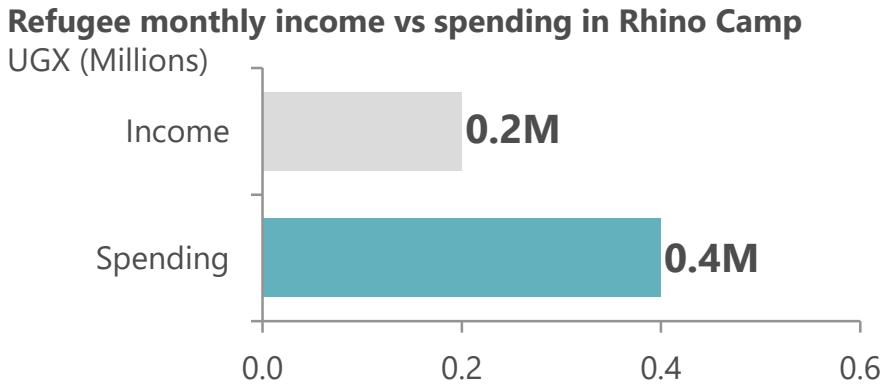
Opportunities for private sector exists to support in market systems development

This presents viable **opportunities for private sector & impact-focused investors** to bring expertise & innovation to **support with refugee & host community market systems development**

Sources: <sup>1</sup>UNHCR, Uganda Country Refugee Response Plan January 2019 — December 2020, [Link](#); <sup>2</sup>Humanitarian Policy Group-2019 The refugee response in northern Uganda, [Link](#); <sup>3</sup>Refugee Economies in Uganda-What Difference Does the Self-Reliance Model Make?, [Link](#); <sup>4</sup>NpM Diagnostic Study Expanding Financial Inclusion of Refugees in Uganda-August 2018, [Link](#); <sup>5</sup>Energising Development (EnDev) Uganda GIZ-PREEEP- June 2017, A Rapid Assessment of Energy Needs and Practices in Refugee Settlements in West Nile, [Link](#)

# Most refugee spending is on HH needs, food & education; policy shift to cash-based assistance designed to build refugee resilience

## Income vs. spending trends

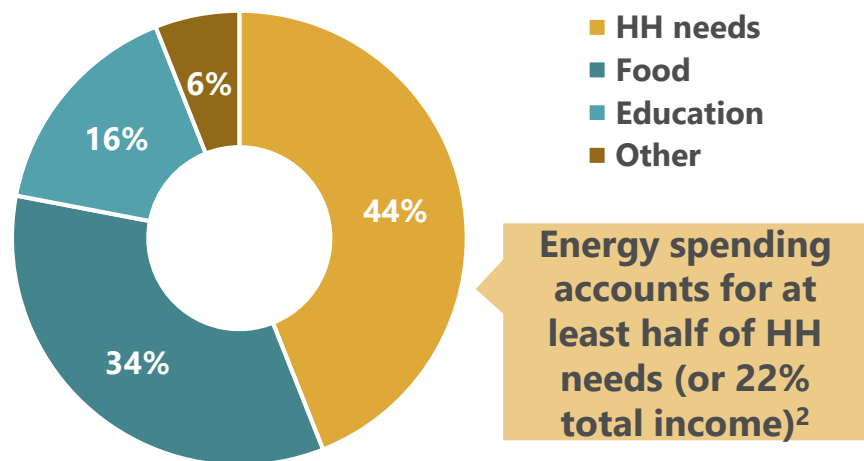


Refugee spending in Rhino Camp, one of the largest settlements in West Nile region, outpaces earnings by >2x<sup>5</sup>

### Monthly finance gap typically filled by:

- Humanitarian/social assistance (NGOs)
- Remittances (family & friends)
- Borrowing (informal e.g. VLSAs, friends) & formal (banks, MFIs)

### Most spending goes to household (HH) needs



Energy spending accounts for at least half of HH needs (or 22% total income)<sup>2</sup>

### Key donor policy shift

Gradual shift from in-kind food aid distribution to cash-based assistance to build financial inclusion and self-reliance

Vouchers, cash transfers, electronic cards are increasingly used at scale to cover basic refugee needs based on a Minimum Expenditure Basket (MEB) that local markets can meet sustainably

Sources: <sup>2</sup>UNHCR, Uganda Country Refugee Response Plan January 2019 — December 2020, [Link](#); <sup>3</sup>Humanitarian Policy Group-2019 The refugee response in northern Uganda, [Link](#); <sup>4</sup>Refugee Economies in Uganda-What Difference Does the Self-Reliance Model Make?, [Link](#); <sup>5</sup>Npm Diagnostic Study Expanding Financial Inclusion of Refugees in Uganda-August 2018, [Link](#); <sup>6</sup>Energising Development (EnDev) Uganda GIZ-PREEEP- June 2017, A Rapid Assessment of Energy Needs and Practices in Refugee Settlements in West Nile, [Link](#)



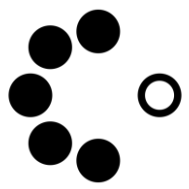
# OPM & UNHCR adopted the Comprehensive Refugee Response Framework (CRRF) in 2016 to expand solutions in refugee settings

## CRRF<sup>13</sup> in Uganda



CRRF Steering Group coordinates the national refugee response plan in Uganda

### CRRF Steering Group



**Time of displacement**

1. Admission & Rights



**Host community generosity**

2. Emergency Response & Ongoing Needs



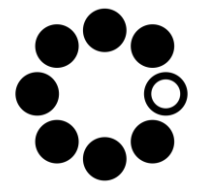
**Build refugee resilience**

3. Resilience & Self-Reliance



**Global responsibility sharing**

4. Expanded Solutions



**Durable solution**

5. Voluntary Repatriation

<p><b>Key focus:</b>          Joint humanitarian &amp; development programming<sup>14</sup>          Private sector engagement          Environmental protection</p>	<p><b>Key policies &amp; supporting frameworks:</b></p> <ul style="list-style-type: none"> <li>- National Development Plan II</li> <li>- Sustainable Energy for Refugees Response Plan*</li> <li>- Support for refugee hosting districts</li> <li>- Inclusion of refugees in gov't planning (STA)</li> </ul>
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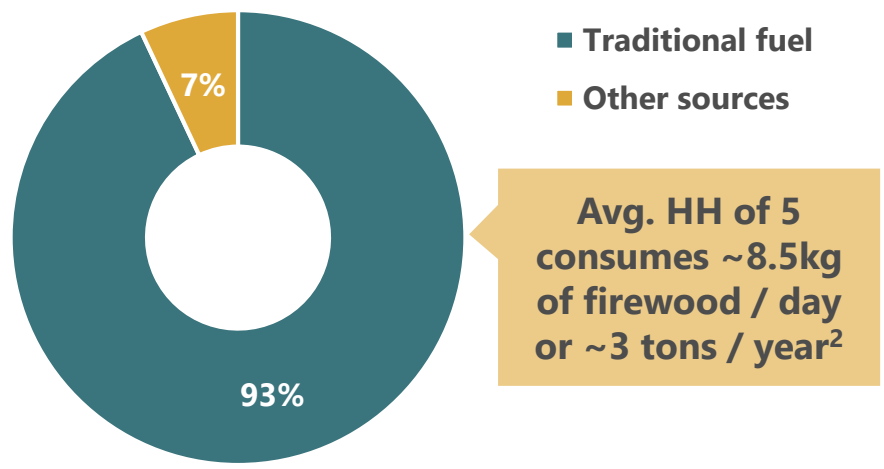
\*Note: Ministry of Energy & Mineral Development in partnership with UNHCR is developing the Sustainable Energy for Refugees Response Plan  
 Source: <sup>13</sup>CRRF in Uganda <https://opm.go.ug/comprehensive-refugee-response-framework-uganda/> <sup>14</sup>ReHoPE: Refugee and Host Population Empowerment strategic framework

# Energy challenges & emerging issues in serving refugee markets

# Reliance on traditional energy sources for cooking has significant environmental & financial impact; need for scalable innovations

93% dependent on biomass fuel for cooking...

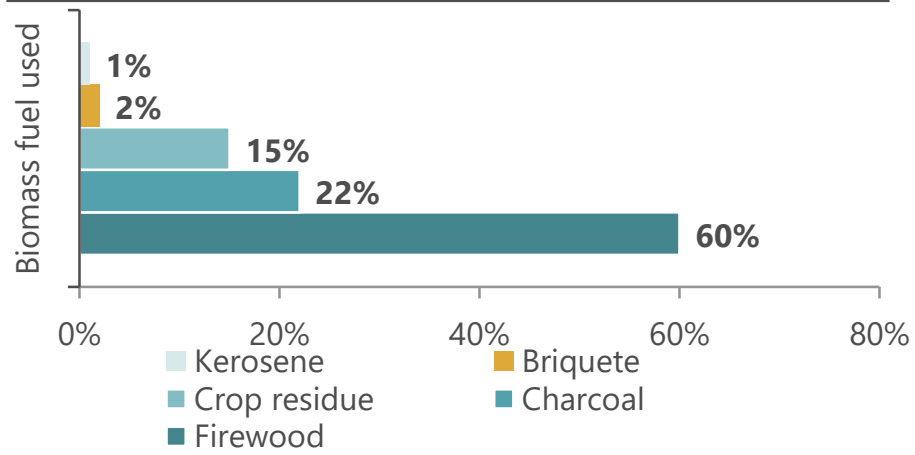
...& comes at a cost; low clean cookstove use



Over-reliance on traditional biomass energy for cooking (e.g. firewood) incurs a huge cost:

- A Time:** On average HH take 12-24 hours per week, and must walk 4-10 km to access and collect firewood
- B Protection:** Women who collect firewood are vulnerable to gender-based violence; also increased tension with host comms.
- C Environment:** Deforestation has led to acute shortages of fuelwood; impacts on bio-diversity & climate likely significant

Various types of biomass cooking fuels used



Notably, only 45% of refugee and 20% of host community HHs report using energy saving stoves distributed by NGOs<sup>2</sup>

- Distributed stoves are often left unused due to cultural dynamics on food preparation & limited training on use cases<sup>7</sup>

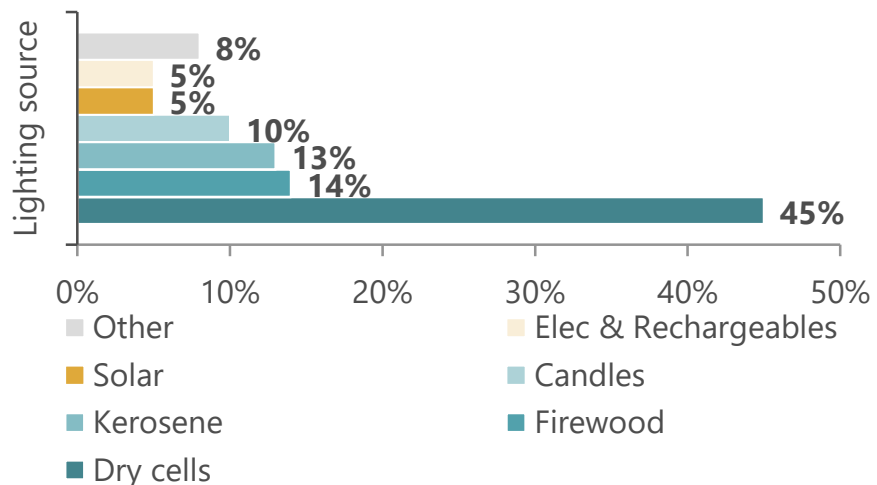
**Opportunity for private sector expertise and innovation to expand availability & adoption of alternative cooking fuels**

Sources: <sup>2</sup>UNHCR, Uganda Country Refugee Response Plan January 2019 — December 2020, [Link](#); <sup>7</sup>UNHCR Uganda, Safe access to fuels and energy strategy, 2016-2020, [Link](#)  
<sup>6</sup>Energising Development (EnDev) Uganda GIZ-PREEEP- June 2017, A Rapid Assessment of Energy Needs and Practices in Refugee Settlements in West Nile, [Link](#)



# Reliance on fossil fuels for lighting is also costly & indicates need for targeted interventions to expand off-grid lighting solutions

< 10% of HHs use renewable lighting sources



**For lighting needs, majority of households use dry cell batteries, phone torches & firewood while so far only 5% use solar products**

- In Rhino camp, it is estimated HHs require between UGX 52,000 – 130,000 per year for lighting which is usually not enough to cover purchase of quality clean energy sources
- With regards to power for businesses, only 15% of businesses in Rhino Camp are reliant on electricity e.g. for phone charging, barbers, photo copying, indicating low uptake<sup>7</sup>

Challenges with uptake/use of solar lighting

A

**Cost:** Solar lanterns are perceived to be expensive; initial cost of integrated solar home system kits are also viewed as high

B

**Quality:** Some models light for limited time (up to 3hrs) depending on level of lighting used; also number & type of appliances that can be used limited given low wattage

C

**Warranty:** Solar products get damaged & require replacement, yet warranty and repair services aren't yet as robust

D

**Distribution:** Sales, installation & support infrastructure is underdeveloped leading to high delivery & maintenance cost

E

**Security:** In remote, unguarded locations, there is risk of components being stolen and/or vandalized

**Opportunity for private sector expertise and innovation to expand availability & adoption of off-grid lighting solutions**

<sup>2</sup>UNHCR, Uganda Country Refugee Response Plan January 2019 — December 2020, [Link](#); <sup>7</sup>UNHCR Uganda, Safe access to fuels and energy strategy, 2016-2020, [Link](#)

<sup>6</sup>Energising Development (EnDev) Uganda GIZ-PREEEP- June 2017, A Rapid Assessment of Energy Needs and Practices in Refugee Settlements in West Nile, [Link](#)

# Currently, most energy interventions in refugee settlements led by NGOs & dev't partners; opportunity for private sector collaboration

NGO efforts

**NGOs such as Mercy Corps, World Vision et al. are leading implementation of several energy interventions in refugee settlements in Uganda but face huge challenges**

- Several efforts are focused on distribution of clean cook stoves & solar home system kits
- Many have limited in-house expertise regarding development & management of cost-efficient & effective energy solutions<sup>10</sup>
- Chronic underfunding of refugee response is also hindering humanitarian organizations' ability to continue delivering lifesaving assistance and livelihoods support

Private sector engagement

***Private sector actors could play a larger role in alleviating sustainability challenges with market-based solutions associated with scaling energy access in humanitarian settings.***

**Recent strategic focus for refugee interventions is via cross sectoral partnerships typically structured as follows:<sup>12</sup>**

1. *Orienting around a problem:* Aligning objectives & resources around specific market-led solutions
2. *Defining partnership roles:* Allocating roles according to stakeholder strengths
3. *Committing resources:* Forming multi-stakeholder partnerships with strong commitment on deploying human resources, and financial capital from all parties involved
4. *Pilot, monitor and learn:* Employing a startup mindset i.e. given uncertain environment in addressing the refugee market it is important to test, monitor, and adapt initiatives as needed to achieve successful outcomes for business & society at large

# Learnings from case studies on private sector engagement in humanitarian settings





# Moving Energy Initiative (MEI) is working to achieve access to clean, affordable and reliable energy among displaced populations in SSA

## Org. overview

- MEI is a 3-year DFID-funded research consortium led by Energy4Impact, and includes Practical Action, Chatham House, Norwegian Refugee Council (NRC) & the UN refugee agency (UNHCR)

## Pilot pillars

- Access and affordability
- Market advocacy
- De-risking private sector market entry

## Program background

- Research program was founded in 2015, and in collaboration with public & private sectors, it seeks to demonstrate viability of off-grid energy solutions in refugee camps
- MEI has provided funding support to implement energy solutions and develop research reports on results and lessons learned from pilots



## Program design & rationale

- *Phase 1:* Began in 2015 by investigating challenges for energy programs & negative impacts of limited sustainable energy provision on security of displaced populations
- *Phase 2:* (2016-2018) Conducted detailed research into energy needs of refugees in Burkina Faso & Kenya & tested new approaches to improving clean energy access in refugee settings



Source: <sup>14</sup>Moving Energy Initiative – Private-sector Energy Provision in Displacement Settings March 2019 [Link](#); <sup>15</sup>GSMA Mobile-enabled energy for humanitarian contexts, [Link](#); <sup>16</sup>Moving Energy Initiative brings clean energy and improves livelihoods for Kakuma refugees, February 2018, [Link](#).



# Research showed that by enabling robust private sector engagement, refugee energy markets can become sustainable

## Challenges

- Research showed **lack of robust data on energy access** and priorities of refugee populations and **mismatch between conventional donor funding & project mgmt. processes** that don't accommodate private sector involvement
- Research also consistently highlighted that **despite prevalence of suitable businesses & prevailing appetite to engage in displacement settings, private sector engagement is not yet widespread**

## Key learnings

- **Demand exists for solar energy products if priced properly & businesses are interested to meet refugee energy needs;** "...prior to engaging MEI, Kakuma was not considered a priority market for BBOXX. But, during MEI Phase II site visits helped change this outlook."<sup>15</sup>
- **Private sector is not a one-size fits all solution for solving energy crisis in refugee settings;** however, in partnership with various stakeholders it has potential to contribute expertise, innovation to expand market viability

## Impact

- Highlighted strong appetite among businesses to provide solutions in displacement settings; 101 businesses tendered for grants to provide low-carbon projects across Burkina Faso, Jordan & Kenya
- Research paper presented diverse set of lessons from field activities seeking to improve energy access, manage risk, offer finance, stimulate markets, and structure private sector partnerships & contracts



# SNV project sought to alleviate poverty and enable access to clean cooking & lighting for refugees using market-based strategies

## Org. overview

- SNV is a Dutch-based NGO that provides practical knowledge to alleviate poverty by improving incomes & access to basic services using market-based approaches in concert with private sector

## Pilot background

- Project ran from Sept. 2017 to Nov. 2018<sup>15</sup> and aimed to promote sustainable market-based energy access for cooking and lighting by supporting clean energy entrepreneurs<sup>16</sup>
- Project availed cooking stoves, pico & solar home system products to trigger demand from HH in Kakuma refugee camp and host community<sup>16</sup>

## Pilot design & rationale

- Supporting innovation in efficient cooking; SNV collaborated with LOKADO to develop models of efficient & clean locally made stoves;
- Enabling clean lighting: Supported distribution of PAYGo solar home systems to replace costly lighting from diesel generators in Kakuma<sup>16</sup>
- Creating awareness: SNV ran weekly awareness events and training sessions with community influencers and identified entrepreneurs<sup>16</sup>

### Pilot pillars

- Behavioral change
- Market intelligence
- De-risking private sector market entry



Source: <sup>14</sup>Laura Patel, Faisal Razzaq, Karen Sosis, Smart Communities Coalition- Make Change Pilot, March 2019, [Link](#); <sup>15</sup>EnDev partners with SNV to provide Kenyan refugee camps with access to energy, [Link](#); <sup>16</sup>Market Based Energy Access (MBEA) project - Kakuma Turkana County, [Link](#); Image from GSMA-Mobile-enabled energy for humanitarian contexts, [Link](#)

# Key lesson from the project was that investing resources to learn and test the market is key in rolling out successful business models

## Challenges

**Main challenge faced was changing refugees' mindsets to accept to purchase a product** that was previously handed out for free or when cheaper alternatives are available<sup>15</sup>

## Key learnings

**Creating awareness is key in promoting uptake of new market systems to access new products**

- For SNV to gain traction, it invested heavily in engaging in-training sessions with not only the refugee consumers but also locally identified entrepreneurs

## Impact

- To facilitate sales, SNV awarded grants to 4 solar companies: Azuri, Greenlight Planet, Pawame & Sollatek; within the first 9 months (by June 2018) all companies had sold 950+ units of solar lights.<sup>14</sup>
- SNV reports first phase was a success (key outcomes pending publication) and is currently planning to scale up the intervention with continued partnership and support from EnDev.<sup>14</sup>



# Equity Bank seeks to improve the social economic lives of refugees by giving refugees a chance at financial inclusion via EcoMoto Loan

## Org. overview

- Equity has 170+ branches, 40 in Uganda & delivers mobile banking via Equitel. In 2012, it opened branches in Kenya’s Kakuma & Dadaab camps & introduced EcoMoto loan<sup>13</sup>

## Pilot background

- Product was co-developed with Micro Energy Credits (MEC) & involved selling Burn Jikokoa efficient cook stoves via Equity branches with marketing & training from MEC<sup>16</sup>
- Later product sales were via Equity Bank agents. Marketing of the stoves was done in the agents’ shops who would then facilitate loan provision on the Equity Bank digital platform, Equitel<sup>15</sup>

## Pilot design & rationale

- In partnership with UNHCR, Equity Bank opened bank accounts through which refugees would receive cash-based assistance<sup>12</sup>
- Product allowed Equity Bank access to critical data used in designing a loan scheme refugee customers would use to access energy products
- EcoMoto loan has a 12 months repayment period although average savings on charcoal users would pay off the loan in 6 months<sup>15</sup>

## Pilot pillars

- Access & affordability
- Market intelligence
- De-risking private sector market entry



Source: <sup>15</sup>USAID & Winrock International, Equity Bank’s EcoMoto Loan Profile, [Link](#); <sup>12</sup>International Finance Corporation, Private Sector & Refugees, April 2019, [Link](#); <sup>16</sup>Smart Communities Coalition market profile: Kakuma- December 2018, [Link](#).

# Equity Bank has used its deep understanding of market in KE & RW to tailor its financial products to suit refugee needs & preferences

## Challenges

### Equity faced the following challenges in offering the EcoMoto product:

- Lack of asset security was the key obstacle to expanding lending<sup>16</sup>
- Financial literacy gap remains a major hindrance to growing the customer base

## Key learnings

### The lessons learnt were:

- Businesses must build on their previous experiences and expertise to tailor the right products for refugees
- Equity started off by working with UNHCR to understand the refugee market and leveraged its previous experiences<sup>12</sup>
- Also identified need to streamline access to services to end user i.e. Equity made it easy for refugees to access its services through locally present Equitel agents<sup>15</sup>

## Impact

- Increased financial inclusion in marginalized markets with 60,000 accounts opened with refugees in Kakuma<sup>12</sup>
- Provided asset financing via loan product to improve access to clean energy products and services



# Inyenyeri is a for-profit renewable energy company, seeking to break energy poverty cycle through efficient cooking technology

## Org. overview

- Inyenyeri is a clean cooking technology firm founded in 2011 and funded by the World Bank’s Carbon Initiative for Development (Ci-Dev). In 2016, it launched a successful pilot in Kigeme refugee camp in Rwanda

## Pilot background

- In partnership with UNHCR, Inyenyeri carried out a pilot with 100 households with each family receiving a free lease to energy efficient stove and signed a subscription to the fuel pellets.
- UNHCR provided cash-based assistance that proved to be the amount that each HH needed for bio-mass pellets used by the Inyenyeri stove.

## Pilot design & rationale

- Inyenyeri chose to pilot its product with 100 households in Kigeme, set up a retail shop & hired 20+ refugees as customer representatives
- Inyenyeri was the first for profit company in Rwanda that opened in Kigeme, realized high uptake & customer retention
- Business model is being supported to scale by a set of donors & revenue from pellet sales; UNHCR cash assistance to refugees still a key component

## Pilot pillars

- Behavioral change
- Market intelligence
- De-risking private sector market entry



# Pilot demonstrated that investing resources to learn and test the refugee market is critical to rolling out successful business models

## Challenges

### Inyenyeri continues to face the challenge of funding.<sup>12</sup>

- After initially piloting the World Bank-funded concept, the company still faces challenges raising private sector capital to increase activities in other refugee camps
- While it has not achieved break even point yet, it expects to become financially sustainable upon scaling up by expanding to serve host communities near camps & building new pellet production factories

## Key learnings

### The lessons learnt were:

- Importance to test the market & learn from experience first-hand: Inyenyeri gauged demand using the 100 households and leveraged that experience to scale up.
- Research on the realities of the refugees: Inyenyeri used Kigeme because they knew they received cash-based assistance which was conducive for the initial business model set-up

## Impact

- Set up a retail shop and provided employment to more than 20 refugees as customer representatives
- Served 1,700 households (HH) in Kigeme Camp & projected to have sold to 3,900 HH by May 2019<sup>12</sup>
- Reduced the environmental and social impact of intense use of charcoal and firewood in refugee settlements<sup>12</sup>





# SCC<sup>1</sup> is leveraging multi-stakeholder collaboration among private, public & non-profits to test & scale viable pilots in refugee markets

## Org. overview

- SCC is a 40+ member coalition advancing energy, connectivity & digital tools solutions to improve delivery of essential services to forcibly displaced individuals & host community members through enhanced coordination between public & private entities & strategic implementation of technology

## Pilot background

- Aimed at providing a de-risking mechanism to encourage private sector PAYGo SHS companies to expand their market reach into two refugee settlements and host communities in the region
- Program awarded 3 grants worth \$145-175k targeting private sector companies to pilot expansion of energy products/services & scale use of digital payment tools e.g. mobile money

## Pilot design & rationale

USAID/Power Africa-funded de-risking grant designed for discrete investment activities and not subsidize or distort local energy markets & involves:

- Lowering operational costs for new branches
- Sales agent recruitment and training
- Product line-up customization, and innovation
- Awareness building and promotional activities
- Training on product use and financial literacy

## Pilot pillars

- Market coordination
- Market intelligence
- De-risking private sector market entry



# Grant has recently launched and seeks to generate lessons & build case for incentivizing market-based approaches to energy delivery

## Challenges

- **Administrative delays** in accessing settlements slowed start-up
- **Market distortions from in-kind distributions** hampering scale of commercial models
- **Logistical challenges with last-mile distribution** of goods to settlements

## Key learnings

- **Private sector needs tailored information and local presence** to carve out optimal market entry strategies
- **Innovative concepts require incubation** i.e. developing and piloting such concepts requires timely, concrete resources and funding that are typically not available at an early stage
- **Humanitarian actors are ready to bridge sector silos** e.g. this pilot is supported by various actors with energy sector and digital tools expertise to amplify scope of impact

## Impact (expected)

- Increased private sector PAYG sales in refugee settlements & host communities using targeted incentives – to date, grantees have reported stronger than expected sales and have indicated desire to expand operations in refugee settlements
- Socio-economic development through private sector participation and market development in line with OPM & UNHCR-coordinated Comprehensive Refugee Response Framework



# Power Trust recently launched a pilot to develop solar-powered business hubs for refugees in Kiryandongo with UOMA support

## Org. overview

- Founded in 2011, Power Trust (U) Ltd, a for-profit entity, provides clean energy solutions to meet growing energy needs of unserved & underserved communities in East Africa

## Pilot background

- Focus is to promote productive use of solar energy by off-grid communities using hubs
- Innovative approach involves using a solar-powered 40-ft container to house 3 business units: milling services, salon and a small kiosk
- These solar-powered hubs are designed to bring services closer to remote communities

## Pilot design & rationale

- Held inception meetings with refugee leaders, gov't representatives, and development partners operating in Kiryandongo
- Also held focus group discussions with women and youth groups, farmer co-operatives and rural producer organizations
- Goal was to validate commercial viability of business hub concept & assess capacity of local organizations to partner on implementation

## Pilot pillars

- Productive use awareness
- Infrastructure development
- De-risking private sector market entry



# Consultations revealed potential for improved incomes of refugee HHs and need to partner with dev't partners to drive pilot success

## Challenges

- **Limited resource envelope** from which to get funds to support such types of projects on a large-scale
- **Fluctuating market prices** for agro-produce, limited land available for agriculture, conditional grant funding from donors which may not address most-pressing challenges in communities

## Key learnings

- **Refugee populations are very well organized** with grass roots leadership structures
- **Development partners and refugee leaders recognize the value of the business hub** but recommend strategic placement and price adjustments for best impact
- **Potential exists for improved incomes of refugee and host community households** and that partnering with development partners is crucial to ensure success of pilot and **commercial viability for private sector**

## Impact (expected)

- Increased economic activity, household income; self-reliance from hubs on outskirts of settlement and close to upcoming trading centers
- Improved financial inclusion among the refugees and host communities in Kiryandongo

## Summary & next steps

# Summary: Several demand-side factors require interventions to scale access & uptake of affordable energy among displaced communities

## Demand-side challenges

## Potential opportunities



1

**Access & affordability:** Purchasing power among refugees remains low given limited household incomes and low economic development



- Introduction of tailored Pay-As-You-Go (PAYG) models & access to micro-credit to allow an entry-point to previously expensive products



2

**Behavioral change & willingness to pay:** Often, NGOs have distributed energy products in-kind, creating dependencies and reducing commercial market opportunities



- Shift to more cash-based assistance can allow for potential for more market-based interventions to be explored & scaled up
- Awareness campaigns on PAYG & energy-as-a-service models can support uptake



3

**Market intelligence:** Fragmented data on energy demand and spending given informal markets disincentivizes action using private sector expertise



- Comprehensive market research, analysis & demand assessment will allow ventures to make informed investment decisions



4

**Productive use awareness:** Lack of proper understanding of current & future needs and the potential for productive use assets to drive more holistic market-systems development







- Market awareness strategies on productive use opportunities for refugees and host communities would help drive uptake of assets needed to drive market activity and development

# Summary: More strategic & structural challenges facing interventions in humanitarian settings; efforts underway to address some of them

## Supply-side challenges

## Potential opportunities

<p>5</p> 	<p><b>Lack of robust infrastructure:</b> Remoteness of some refugee markets with low connectivity &amp; transport networks limits service provision</p>	<ul style="list-style-type: none"> <li>Aggregating demand can support in making a business case e.g. for MNOs</li> <li>Coordinated action to co-develop infrastructure &amp; enable local economic dev't can justify project implementation</li> </ul>
<p>6</p> 	<p><b>Short-term resource allocation:</b> Mismatch of humanitarian funding cycles &amp; long-term investment needed to meet energy needs sustainably</p>	<ul style="list-style-type: none"> <li>Recent shift to more sustainable refugee response cycles which allow for piloting business models focused on scalability &amp; long-term impact as outlined in UNHCR Uganda Refugee Response Plan (RRP)<sup>1</sup></li> </ul>
<p>7</p> 	<p><b>Perceived limited opportunity:</b> Insufficient market intel leads to low interest and risk appetite by private sector to make long term investments</p>	<ul style="list-style-type: none"> <li>Supporting with de-risking mechanisms and risk pooling can facilitate market engagement, improve intel &amp; strategic longer-term investments by private sector in partnership with public sector</li> </ul>
<p>8</p> 	<p><b>Inadequate market coordination:</b> Existing programs are limited in scope, often overlap in implementation and lack focused scaling up of markets</p>	<ul style="list-style-type: none"> <li>UNHCR, SCC, &amp; several other market actors are leading efforts to drive more coordination in humanitarian settings to enhance impact<sup>1</sup></li> </ul>

## Next steps: Deeper market coordination with private sector can enable more sustainable value chain development e.g. maize value chain



### Summary context

- UNHCR<sup>1</sup> in *'A Guide to Market-based Livelihood Interventions for Refugees'* recognizes need for holistic approach in combining market 'push' & 'pull' factors
  - 'Push factors' entail humanitarian actors helping to build capacities of refugees to engage market
  - 'Pull factors' consist of private sector developing market systems to expand & diversify opportunities for target groups
- OPM & UNHCR have also adopted enabling framework (CRRF) to guide and support private sector participation & enable more market-based interventions in displaced settings

### Examples of intervention opportunities

- **Maize value chain development:** Private sector has capability & expertise to work with various market & humanitarian actors in a coordinated way to understand productive uses of energy value addition opportunities especially in maize value chain, a key agricultural crop that refugees grow, eat & trade in settlements e.g. Rwamwanja
- **Holistic market systems development:** Private sector can collaborate with humanitarian actors to develop energy products tailored to refugee lighting & cooking needs, develop & integrate market value chains, create business, employment opportunities and improve refugee talent and skills



## Next steps: Existing NGO budgeting mismatched with longer term needs for refugees; private sector can deploy capital more effectively



### Long-term investment

#### Summary context

- Humanitarian budgets are declining yet Uganda's refugee population is expected to increase to 1.73M+ (2020)
- Private sector capital is required to more meaningfully address key market failures in a viable manner, and provide innovative financing for critical infrastructure gaps e.g. energy, connectivity, financial access

#### Examples of intervention opportunities

- **Assess viable business cases:** Private sector can also work in concert with humanitarian actors to deploy greater early-stage funding e.g. via de-risking mechanisms to pilot market entry & evaluate business cases for tailored products & services e.g. agricultural value addition & solar-powered productive use opportunities
- **Capital deployment:** Private sector can also leverage expertise to deploy capital innovatively and efficiently to viably develop key infrastructure gaps e.g. mobile connectivity that enable PAYGo business models for solar companies



**Contact us if you have any feedback or interest in partnering to further explore providing energy access to Ugandan refugee markets**

**[contact@uoma.ug](mailto:contact@uoma.ug)**

# Appendix: IFC meta-study of 170+ refugee initiatives points to a set of key pathways of private sector engagement beyond funding aid

