

READS SUMMARY

KENYA RWANDA UGANDA

01

Countries

Contexts
of forced
displacement



Kenya

Kenya hosts nearly 600,000 people of concern, of which 55% of refugees are from Somalia and 31% of refugees are from South Sudan. The country has had an “encampment policy” since the 1990s under which refugees are required to live in one of the two official camp complexes, Kakuma in Turkana County and Dadaab in Garissa County, and face legal restrictions to their right to work and move. Many refugees also live in Nairobi and other urban areas, facing a more precarious legal situation.

In recent years, the Government of Kenya has taken steps to improve the economic inclusion of refugees by signing onto the Comprehensive Refugee Response Framework (CRRF) process. Efforts have been made to localise the Global Compact for Refugees through the Kalobeyei Integrated Socio-Economic Development Programme (KISED) and Garissa Integrated Socio-Economic Programme (GISED), which aim to foster local economic and private sector development. The Kalobeyei Integrated Settlement, which opened in 2016 and is home to 53,383 people, was designed to benefit both refugees and hosts by enhancing self-reliance based on market principles, for example by creating designated zones for businesses and facilitating a cash-based economy, and is intended to endure even after refugees return to their countries of origin.

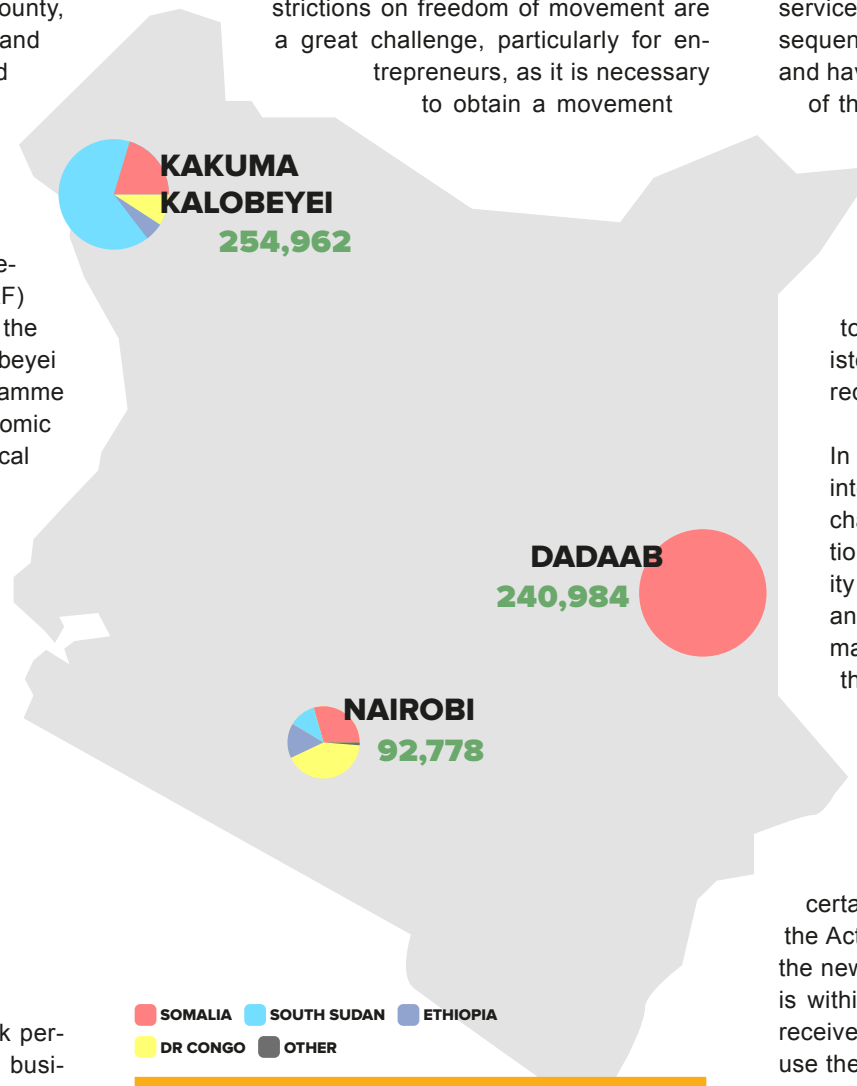
Policy frameworks for displaced populations

Refugees in Kenya are allowed to obtain work permits, seek and gain employment, and start a business. However, the process to obtain work permits is very slow and many people struggle to fulfil the

requirements, such as presenting an offer letter from a potential employer with a supporting document showing that the refugee candidate has unique skills that no other Kenyan candidates have, or to present a Kenya Revenue Authority (KRA) certificate (which refugees are not eligible for). Restrictions on freedom of movement are a great challenge, particularly for entrepreneurs, as it is necessary to obtain a movement

pass (usually valid for 21 days) from the Department of Refugee Services to leave the camp, a process which can take a long time. Many refugees lack official means of identification because of the time-consuming processes to obtain it, which further hinders them from gaining access to employment and other services such as education and microfinance. Consequently, many refugees work in the informal sector and have restricted access to services. The creation of the new Huduma-Biashara centre in Kakuma, an initiative by the Turkana County Government and supported by the Kakuma Kalobeyei Challenge Fund and UNHCR, which opened in May 2023, is a welcome development as the centre should make it faster, cheaper and easier to access government services such as registering a business, applying for permits, and requesting small business loans.

In February 2022, the Refugee Act (2021) came into force which includes significant policy changes on refugee economic inclusion, integration, refugee status determination, and the ability of refugees to contribute to Kenya’s national and local economy. However, similar barriers remain because although the Act grants refugees the right to employment, it requires refugees to have their qualifications recognised by the Kenyan National Qualifications Authority, a long and complex process. Advocates for refugee rights recommend simplifying and clarifying the process of obtaining work permits for refugees. In addition, there is uncertainty as to the extent of freedom of movement the Act provides. A further significant change under the new Act is that refugees whose country of origin is within the East African Community (EAC) would receive the option to give up their refugee status and use their status as EAC citizens instead. At the time of writing, the implementation of this policy was still being refined.



Map of Kenya with the locations of refugee settlements and a breakdown of the population of concern as of 31 March 2023.

Access to finance, humanitarian assistance and income levels

Banks have been expanding their services in Kakuma refugee camp and Kalobeyei settlement, although a socio-economic study in 2019 showed that only 11% of refugee households had access to a regular bank account. Requirements of providing a work permit and/or KRA PIN mean that many refugees struggle to open an account. Informally or semi-formally organised saving groups like Village Savings and Loan Associations (VSLAs) and *chamas*, which provide simple savings and loan facilities to their members, remain the primary source of credit services.

Access to mobile money is limited and varies across gender and year of displacement; only 43% of refugees have an account, mostly M-Pesa, compared to 73% of the national population. SIM card registration for refugees requires the official refugee ID which presents a barrier, commonly leading to sharing of one mobile phone among multiple family members for mobile money transactions. Since 2015, a programme called Bamba Chakula (known as BC, translating to “get your food” in Swahili) has been operating in Kakuma as a transitional arrangement from in-kind assistance to cash-based assistance. Refugees are given a proportion of their assistance through BC in mobile money whilst refugee- and host-run shops are contracted by the programme.

Across the Kakuma-Kalobeyei area, an average household has a monthly income of KES 10,000 (\$93), with half of households earning a consistent monthly income. Significant differences in average income persist between host communities and refugees: residents of Kakuma town earn about three times more than refugees in Kakuma camp, while in

The population of concern by county and location.

COUNTY	LOCATION	POC
TURKANA (KAKUMA)	Kakuma Refugee Camp	201,579
	Kalobeyei	53,383
GARISSA (DADAAB)	Hagadera Refugee Camp	82,955
	Dagahaley Refugee Camp	79,028
	Ifo Refugee Camp	79,001
NAIROBI	-	92,778

Kalobeyei settlement a higher proportion of host community members (78%) compared to refugees (58%) were found to live below the poverty line. Refugees living in Nairobi earn more than those living in camps but significantly less than the average Nairobiian: host community members in areas with a high concentration of Somali and Congolese refugees had a median monthly income of about \$180 and \$130 respectively, while for refugees it was \$50 and \$30 lower.

A quarter of households rely on self-employment or business as their main source of income. Around 15% of households, all of which are refugees, depend on grants from NGOs or donor agencies as their main source of income, and 14% reported having no source of income. Humanitarian assistance is estimated to provide 58% of formal jobs in the refugee camp. Over half of the surveyed refugees from South Sudan and Democratic Republic of the Congo (DRC) who were employed were hired by the UN or other humanitarian organisations, usually paid “incentive pay” rather than full wages due to restrictions on formal employment. ●

The population of Kenya, the populations of concern and their countries of origin as of 31 March 2023.

	PEOPLE	%	
POPULATION	RURAL	39,318,626	72
	URBAN	15,667,080	28
	TOTAL	54,985,706	100
REFUGEES	SOMALIA	281,319	48
	SOUTH SUDAN	157,402	27
	DRC	33,766	6
	ETHIOPIA	21,847	4
	BURUNDI	8,392	1
	SUDAN	5,756	1
	OTHERS	2,985	1
	TOTAL	511,467	100
ASYLUM SEEKERS	DRC	21,653	28
	BURUNDI	16,434	21
	SOMALIA	14,761	19
	ETHIOPIA	12,077	16
	SUDAN	4,822	6
	OTHERS	7,510	10
	TOTAL	77,257	100

Rwanda

Rwanda offers a welcoming policy environment for displaced people. The country has a total population of concern of 133,671, of which 118,502 people are refugees, 436 are seeking asylum and 14,733 are others of concern or new arrivals. Almost all these people are from the neighbouring countries of DRC, of which some refugees have been resident in Rwanda for more than 20 years due to ongoing political instability, and Burundi, from where people fled following political violence since 2015. Most displaced people are resident in one of five camps located around the country: Kiziba, Nyabiheke, Kigeme, and Mugombwa camps mainly host displaced people from DRC, whilst Mahama camp hosts mostly those from Burundi. Around 10% live in urban centres including the capital Kigali. In January 2023, a transit centre at Nkamira was opened to accommodate new arrivals from DRC.

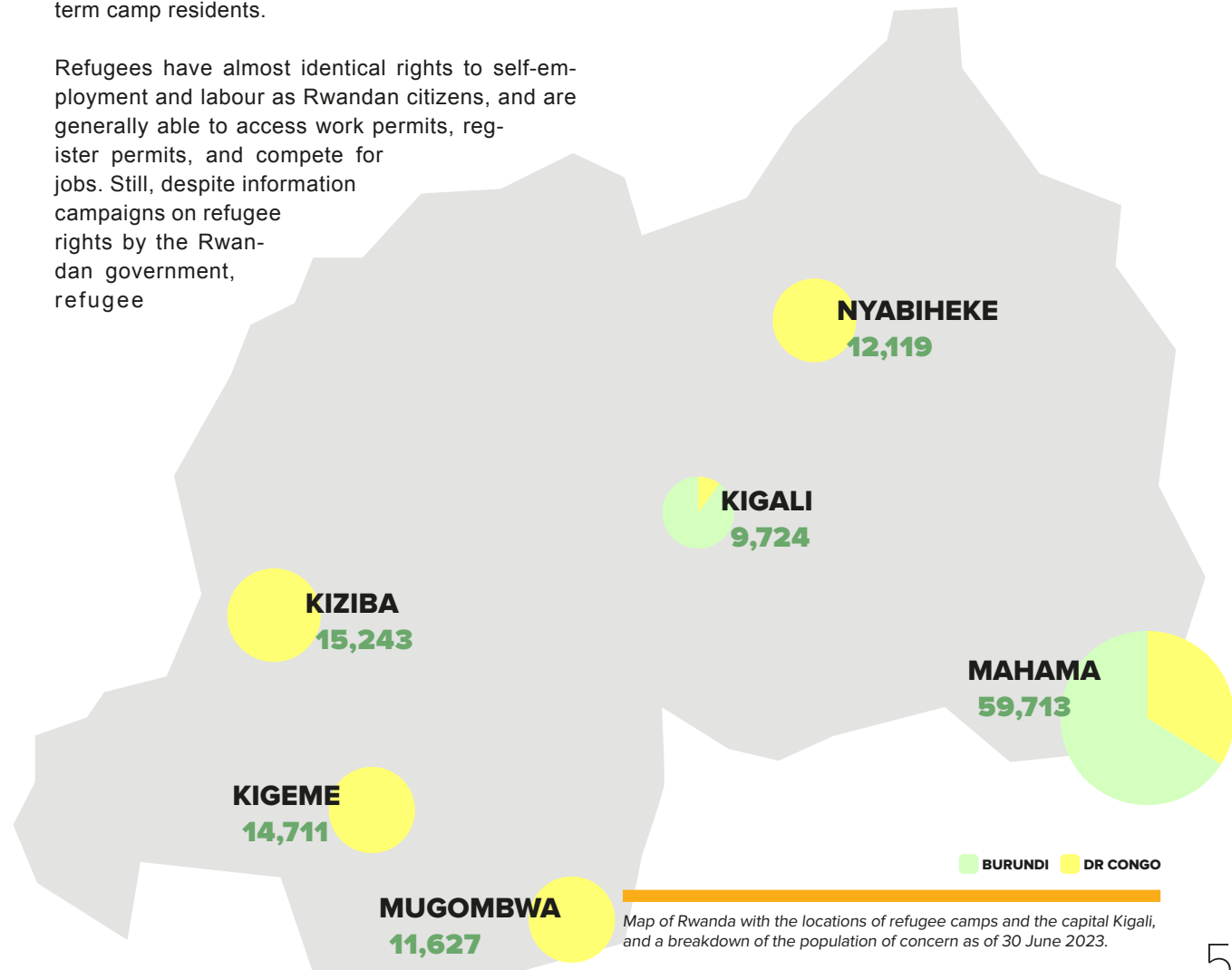
Policy frameworks for displaced populations

Rwanda is party to the 1951 Refugee Convention and its 1967 Protocol, albeit with a reservation to restrict the movement of refugees and determine their place of residence. Rwanda has adopted the Comprehensive Refugee Response Framework (CRRF) and the Global Compact on Refugees (GCR), both of which emphasise the long-term integration of displaced people into national socio-economic and legal systems. In general, refugees have the same levels of access to education, healthcare, and formal financial services as Rwandan citizens, and refugees are included in the national birth registration system which decreases the risk of statelessness. As part of their commitment to the CRRF, since 2018 the Government of Rwanda has taken steps to increase access to national ID cards, jobs and services, and to increase mobility between

refugee and host communities. All refugees are issued a Proof of Registration (PoR) document and all refugees above the age of 16 are eligible for a refugee ID card which constitutes legal identity and residence. Refugees have freedom of movement, although there are limitations to this: travel to Kigali or a different district requires ID and PoR documents as well as an authorisation letter. Although some refugees live in urban areas, the vast majority are long-term camp residents.

Refugees have almost identical rights to self-employment and labour as Rwandan citizens, and are generally able to access work permits, register permits, and compete for jobs. Still, despite information campaigns on refugee rights by the Rwandan government, refugee

businesses face additional levels of scrutiny and have lower employment rates than Rwandan citizens. While refugees can own property and engage in leasing contracts, they are not included in social housing programmes intended for Rwandan nationals and very few refugees can afford to buy a home in practice, instead relying on the provided shelter in camps. >>



Access to finance, humanitarian assistance and income levels

Access to financial services is relatively high across both refugees and host communities. Refugees can use their refugee ID card to open a bank account which they can use to receive cash assistance, and can obtain SIM cards with telecom providers. In a study by the Alliance for Financial Inclusion and National Bank of Rwanda, 93% of refugee and 100% of host community respondents reported having access to a formal channel of financial inclusion, including bank accounts, microfinance institutions (MFIs), savings and credit cooperatives (SACCOs), mobile money accounts, insurance providers and pensions. The same study found that 91% of refugees and 94% of hosts had access to a mobile money account. However, only 25% of refugees and 35% of host community respondents had opened a bank account. There is a gender gap when it comes to accessing both mobile money and bank accounts: 88% of female refugees had access to a mobile money account compared to 94% of male refugees (92% and 96% in the host communities), and 13% of female refugees had access to a bank account compared to 34% of male refugees (31% and 40% of hosts). Bank loans were also less common: only 12% of host community members had obtained one and just 2% of refugees. Only 10% of refugees and 12% of host community respondents used ATMs, although 26% of refugees (compared to 13% of hosts) have a type of bank card, mostly to use for vouchers for food and non-food items.

Across all settings 22% of respondents indicated that they participated in savings groups, and 43% were part of a VSLA. Only 17% used bank accounts for saving, but 20% of respondents had access to MFIs

(22% for men and 18% for women) and 26% had access to Umurenge SACCOs (government-supported saving and credit credit cooperatives, used by only 6% of refugees and 46% of hosts). Some firms specifically target refugee and host community entrepreneurs: Inkomoko, for example, provides business advisory and financial services, and 64% of its customer base are refugees. There is a stark difference between refugees and host community members when it comes to pension and insurances: 98% of hosts have insurance (as it is mandatory for Rwandans) and 48% have pensions, compared to 11% and 15% respectively for refugees. The main barriers to the financial inclusion of refugees were unfamiliarity and lack of trust in formal financial institutions, and concerns about opting into longer-term financial products due to potentially relocating.

All refugees receive cash-based assistance for non-food items from UNHCR. Cash-based interventions (CBI) for food assistance are provided by WFP and, since May 2021, this is determined by *ubudehe*, the national categorisation of economic status, under which households receive different amounts of money depending on their vulnerability levels: 10,000 RWF for households in the most vulnerable category, 5,000 RWF in the second category, with those in the third category not receiving CBI. These amounts are susceptible to change depending on the availability of funding.

Humanitarian assistance remains a major income source for refugees (77%), as well as small businesses (53%) and informal labour (26%). For host communities, major income sources include self-employment (68%, including agriculture), small business (58%) and informal labour (31%). The average monthly income for refugee households living in Mahama and Nyabiheke refugee camps was \$44 in both camps. Host communities had significantly higher incomes: \$81 for hosts in Mahama and \$53 for hosts in Nyabiheke. ●

The population of Rwanda, the populations of concern and their countries of origin and locations.

		PEOPLE	%
POPULATION	RURAL	10,944,098	82
	URBAN	2,332,422	18
	TOTAL	13,276,520	100
PoC BY COUNTRY OF ORIGIN	DRC	81,987	61
	BURUNDI	50,877	38
	OTHER	807	1
	TOTAL	133,671	100
PoC BY LOCATION	MAHAMA CAMP	59,713	45
	KIZIBA CAMP	15,243	11
	KIGEME CAMP	14,711	11
	NYABIHEKE CAMP	12,119	9
	MUGOMBWA CAMP	11,627	9
	KIGALI (URBAN)	9,724	7
	NKAMIRA TRANSIT CENTRE	6,906	5
	NYAMATA (URBAN)	2,128	2
	HUYE (URBAN)	828	1
	OTHER	672	1
	TOTAL	133,671	100

Uganda

Uganda offers a welcoming environment for displaced people, hosting around 1.5 million refugees in 13 refugee settlements across 12 districts and Kampala. The majority of the Persons of Concern live in settlements in the north of the country, with most of those people originating from South Sudan; whilst around one third, mostly people from DRC, live in settlements in the west and southwest of Uganda; and 8% of displaced people live in Kampala. Around 2.5 million host community members live near the refugee settlements. Settlements in the North and West Nile regions tend to have higher poverty levels than those in the West and Southwest.

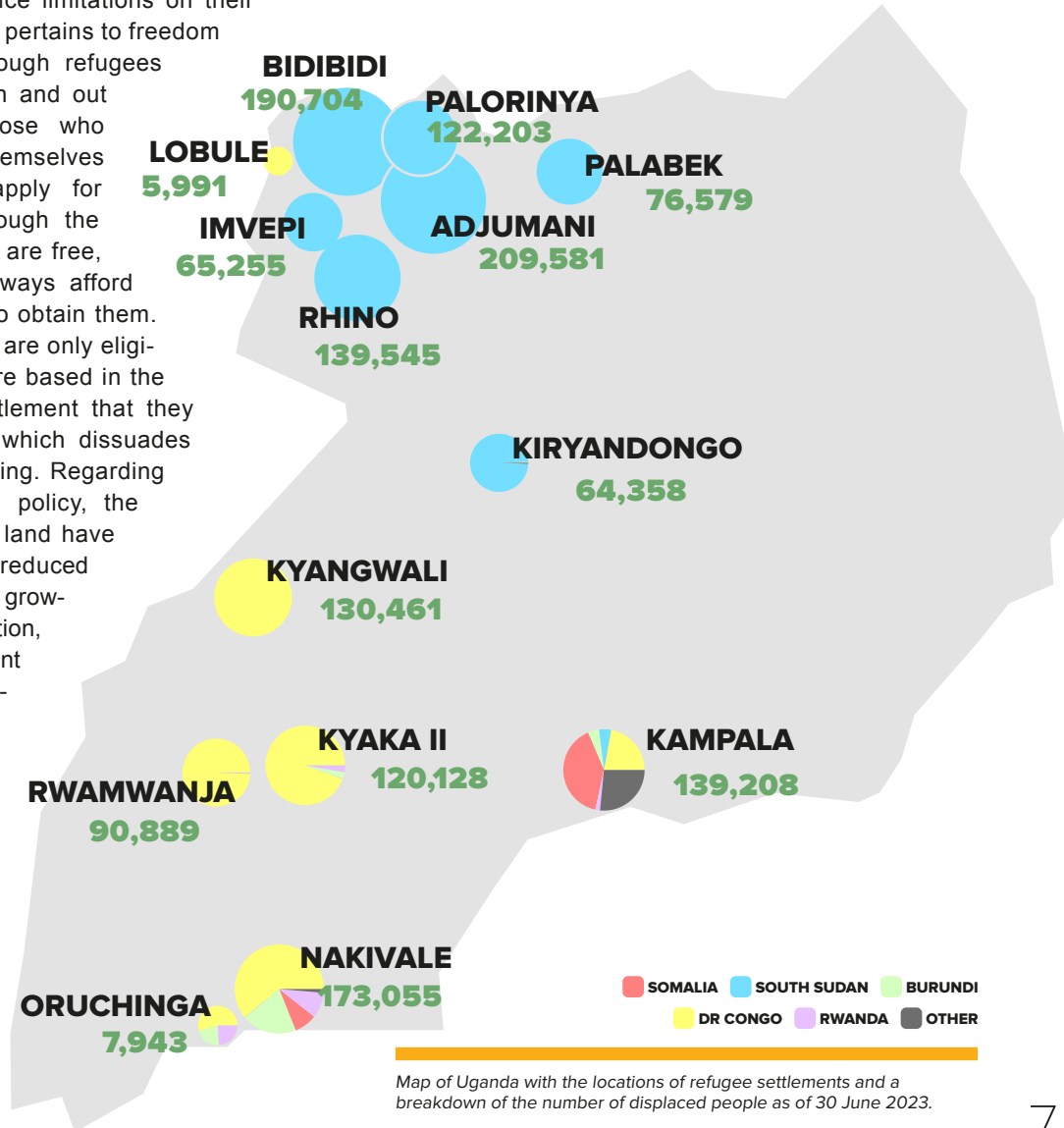
Policy frameworks for displaced populations

Refugees have the same rights to basic and social services for refugees as Ugandan nationals, established in the Refugee Act of 2006 and the 2010 Uganda Refugee Regulations. These include the right to work, the right to establish a business, and the right to freedom of movement. The Refugee Act also laid the foundation for Uganda's settlement approach, in which refugees are allocated a plot of land for farming upon arrival and live in open settlements alongside the host communities. Taking into account the protracted nature of displacement settings, the Government of Uganda introduced the Settlement Transformation Agenda (STA) in 2015 with the goal of encouraging social development in refugee-hosting areas, recognising the potential for refugees to contribute to local economies. The STA was subsequently incorporated into Uganda's National Development Plan II, paving the way for the New York Declaration for Refugees and Migrants and subsequently the CRRF, with Uganda being one of the first countries to adopt it in March 2017.

Various ministries have since issued sector-specific refugee response plans, including for energy, which aim to integrate displaced people into national systems to promote self-reliance.

Despite these welcoming policies, in practice refugees still experience limitations on their rights. One of these pertains to freedom of movement: although refugees are free to move in and out of settlements, those who wish to establish themselves elsewhere must apply for a permit. Even though the permits themselves are free, refugees cannot always afford the transport fees to obtain them. Moreover, refugees are only eligible for aid if they are based in the official refugee settlement that they were assigned to, which dissuades people from relocating. Regarding the land allocation policy, the size of the plots of land have been significantly reduced in response to the growing refugee population, now reaching a point that the plots are insufficient to support subsistence farming, let alone income generation. It has also been reported that the soil is infertile in some settlements and water shortages further hamper productivity. The land can also not be sold or used

as collateral. Moreover, many refugees have no agricultural expertise and struggle with insufficient non-agricultural opportunities in the settlements. >>



Access to finance, humanitarian assistance and income levels

Mobile money is fairly widespread among refugee (64%) and host community members (75%) according to a study by U-Learn, although various barriers to its uptake persist. These include a lack of agents in settlements, a lack of IDs to meet know-your-customer requirements, difficulties with mobile network coverage, and a lack of trust in mobile wallets. Refugees must use either a refugee ID or an attestation document issued by the Office of the Prime Minister to open an account, which many people lack, leading to the borrowing of IDs and associated security concerns. Fewer than 20% of refugee and host community respondents had access to a bank account, which were perceived as expensive and complicated to open. Informal savings groups are an important form of savings and credit among both refugee and host communities. A study by BFA Global found that 35% of surveyed refugees and 85% of host communities use Accumulating Savings and Credit Association (ASCA) which allow members to borrow money, and there are more than 6,000 Village Savings and Loan Associations (VSLAs, a form of ASCA) in refugee settlements in Uganda. Receiving credit at local stores and lending among friends and family is also common. Several banks, MFIs, and SACCOs operate in refugee settlements with a growing number of customers, although there are issues around a lack of agents, limited trust in financial products, and problems with network connectivity.

Poverty is high among refugee and host communities, with 91% of refugees considered highly economically vulnerable. Formal employment opportunities in refugee-hosting areas remain rare for both refugees and host community members, often limit-

ed to short-term jobs for humanitarian and development agencies. According to a study by BFA Global, the average monthly earnings of refugees was approximately UGX 160,000 (\$431), with significant variations across the country and poverty levels being higher in the West Nile and North regions than in the Southwest. Urban refugees living in Kampala tend to earn more - around UGX 200,000 - than refugees living in settlements, with residents in Palorinya earning around UGX 90,000.

Refugees rely on a variety of sources of income including self-employment, agriculture, cash and food

The population of Uganda, the populations of concern and their countries of origin.

		PEOPLE	%
POPULATION	RURAL	35,082,057	74
	URBAN	12,041,480	26
	TOTAL	47,123,537	100
DISPLACED PEOPLE BY COUNTRY OF ORIGIN	SOUTH SUDAN	882,765	57
	DRC	494,874	32
	SOMALIA	69,535	4
	BURUNDI	41,863	3
	ERITREA	34,631	2
	RWANDA	23,584	2
	OTHERS	14,382	1
	TOTAL	1,561,634	100

transfers from WFP. Common small enterprises include small shops, hair salons, phone repair and charging, restaurants, secretarial services, bakeries and entertainment halls. Many people also engage in subsistence farming, and to a lesser extent in trade and agri-processing. More than half of refugees reported receiving direct cash (given directly through an aid agency) or over-the-counter cash (via a financial service provider) from humanitarian or development agencies. This form of assistance seems to work well, but there are barriers such as security concerns resulting from the risks of carrying cash and the public distribution of cash on commonly-known days. ●

The number of displaced people and host community population by district.

DISTRICT	DIS-PLACED PEOPLE	HOST COMMUNITY	% POC
MADI OKELLO & TEREKO	211,657	454,200	32
ADJUMANI	210,741	238,800	47
YUMBE	191,309	736,400	21
ISINGIRO	184,704	616,700	23
KAMPALA	144,802	1,738,600	8
KIKUUBE	131,139	376,600	26
OBONGI	124,632	51,300	71
KYEGEGWA	120,785	475,600	20
KAMWENGE	91,855	475,600	16
LAMWO	79,036	146,800	35
KIRYANDONGO	64,981	322,300	17
KOBOKO	5,993	277,500	2

02

Policy

Energy
policy
landscape



Kenya

NATIONAL
ACCESS TO**ELECTRICITY**
CLEAN COOKINGRURAL 63%
RURAL 5%URBAN 94%
URBAN 45%

CLEAN COOKING

Kenya aims for 100% access to clean cooking by 2028 but, despite having a mature market, rates of clean cooking are currently low. National strategies aim to implement sustainable biomass resource management and the KOSAP project supports cookstove sales in underserved counties, including Turkana and Garissa. Biomass cookstoves are subject to mandatory quality standards but enforcement is rare. Some households use electricity for cooking, supported by the special “Pika Na Power” tariff; customer reactions are positive but uptake is low.

ELECTRIFICATION AND
THE NATIONAL GRID

Kenya’s national electrification policies have historically prioritised the national grid network. The country aims for universal nationwide electricity access through a least-cost pathway under which around 3 million connections will come from the national grid, 35,000 from mini-grids, and around 2 million from solar home systems (SHS).

OFF-GRID SOLAR
PRODUCTS

The private market for off-grid solar products is mature but most sales have been in wealthier counties. The KOSAP project aims to increase access in underserved counties, including Turkana and Garissa. Solar products must comply with quality standards and many are exempt from import duties. The country has relatively well-developed e-waste regulations.

MINI-GRIDS AND
STANDALONE SYSTEMS

Mini-grid developers are required to maintain a minimum level of system performance and comply with environmental and safety regulations. The mini-grid approval and licensing process is well-established and consultations are ongoing regarding grid interconnection. A concern is that 30% of planned connections must be in place before a license is issued, introducing potential risks to developers.

Rwanda

ELECTRICITY
CLEAN COOKINGRURAL 38%
RURAL 0.3%URBAN 98%
URBAN 10%

Rwanda’s clean cooking policies focus primarily on the transition away from traditional biomass, motivated by the high dependence on firewood and the need for its sustainable management. The government has introduced guidelines such that, from 2024, only stoves which reach Tier 3 standards will be allowed – applicable to households, restaurants, and schools, and specifically including refugee camps. Despite support for higher-Tier stoves, these standards are not yet widely tested or enforced.

Rwanda targets 100% electrification by 2024. Its electrification plans designate areas for on-grid (70% of connections) and off-grid (30%) solutions and includes productive uses and community facilities. All refugee camps have a national grid connection but shelters are not permitted to connect owing to safety and legal issues.

The government supports off-grid solar products through duty exemptions, results-based financing, and subsidies of up to 90% depending on socio-economic status. Solar products must conform to quality standards and come with minimum warranty periods of one to three years depending on their MTF Tier. There are not yet any specific regulations for the safe disposal of solar e-waste.

Regulations for mini-grids and standalone systems are relatively strong and well-defined. Systems can be owned and operated by private developers which can charge cost-reflective tariffs, subject to approval. Systems under 50 kW, appropriate for groups of businesses and community facilities, are exempt from licensing regulations whilst larger sizes have streamlined approval processes.

Uganda

ELECTRICITY
CLEAN COOKINGRURAL 33%
RURAL 0.2%URBAN 70%
URBAN 1%

Uganda targets 50% access to clean cooking and a reduction of the use of biomass, from 85% to 50%, through a transition to more sustainable biomass management. The country has adopted quality standards for biomass stoves but little information is available about their adoption by suppliers. Designed to increase the adoption of electric cooking, households with national grid connections can use the cheaper “Fumba” electricity tariff for cooking.

Uganda aims for 65% of households having electricity access by 2040, mostly via the grid (1.3 million connections) and partially through off-grid solutions (140,000). Refugee settlements and host communities are explicitly included in electricity access policies.

Off-grid solar products are supported under the national electrification strategy and both supply- and demand-side financing is available. SHS are exempt from import duties and VAT, as are some solar appliances. Uganda has adopted quality standards for off-grid products up to 350 W and enforces these regulations on imported products. Regulations on e-waste have been introduced but their implementation is nascent.

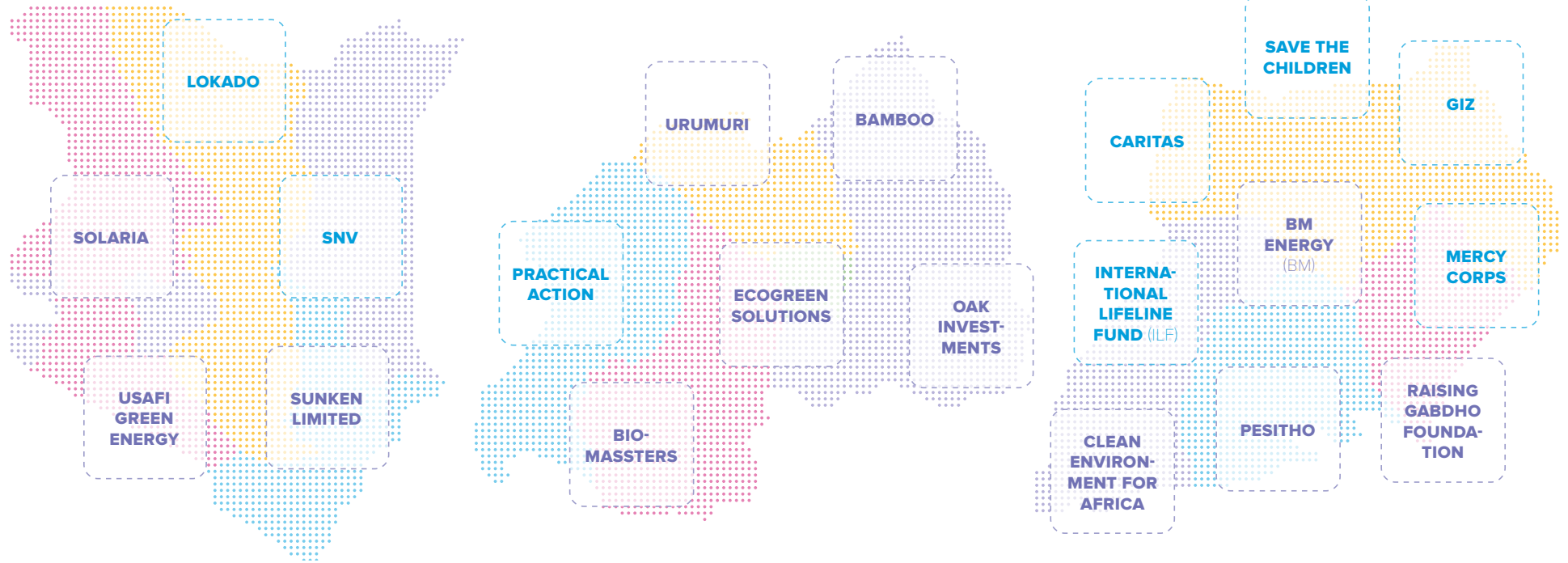
Recent improvements to regulations have simplified mini-grid implementation. Systems below 2 MW (suitable for most in displacement contexts) are eligible for a license exemption, whilst those under 500 kW require only a short project brief. Developers can propose cost-reflective tariffs, subject to approval, and systems must meet technical, service quality, and safety standards.

03

Energy Needs and solutions



Clean cooking



Energy needs and solutions

Access to cooking fuels is an essential and pressing need for refugee and host communities which share scarce resources. Heavy reliance on biomass fuels has had harmful effects on both the natural environment and social cohesion among refugees and hosts. Many refugees are forced to leave their camp or settlement to forage for firewood in hosting areas; this can lead to conflicts and exposes people to assault, especially women and girls. Several organisations and private companies work to address this issue, and increasingly clean cooking or improved cooking solutions are available in camps and settlements. However, their uptake is limited due to high up-

front costs compared to traditional stoves and the collection of firewood which are free. Mechanisms such as results-based financing, improved access to credit, end-user subsidies, and flexible repayment methods can contribute to enhancing access to clean cooking. Close coordination among different actors implementing clean cooking interventions is key to avoid distorting market-building activities through the free distribution of products. The development of supply chains and stove and fuel production sites, as well as the establishment of shops in or near camps and settlements, play an important role in increasing the availability of products. It also presents an opportunity to create local jobs both in the production and sale of cooking technologies. Awareness raising campaigns and cooking demonstrations that include cost-value comparisons can support the uptake

of more efficient cooking solutions. These demonstrations should involve all household members and could also be conducted at schools to encourage the involvement of men and boys in cooking, as women and girls typically bear the brunt of all cooking tasks. Previous interventions have found that men expressed pride and interest in acquiring new cooking technologies which increased their involvement in cooking activities.

Biomass

Cooking with biomass fuels, such as firewood and charcoal, remains the norm for almost all refugee and host community households across all three settings. In Kenya, 92% of people living in Kakuma and Kalobeyei rely on firewood as their >>

primary cooking fuel, while charcoal use is also common. Most households use basic charcoal and firewood stoves that they received for free or have built their own clay stoves. Local companies, like Usafi Green Energy and Sunken, also produce charcoal cookstoves within the camps. Their products have proved popular and demand is significantly higher than the available supply, and the companies intend to scale up their production. In Uganda, an estimated 97% of households in refugee settlements use firewood to cook, typically collected from 4-10 km away. A recent study in Adjumani and Palabek settlements in the West Nile region found that more than 90% of households rely on three-stone fires as their primary cooking system. With the support of results-based financing schemes implemented by GIZ ESDS, various improved cookstoves have been sold in West Nile refugee settlements. In Rwanda, most camp residents and the surrounding host communities rely on mud stoves, three-stone fires or improved cookstoves. The latter are mostly to be found in Kigeme and Nyabiheke refugee camps, where

almost 7,000 improved cookstoves, along with biomass pellets for fuel, have been sold by two Rwandan companies, Ecogreen and Urumuri, with support from the RE4R Project. Except for these two camps, charcoal remains the most common fuel in Kigeme, Nyabiheke and Kiziba camps, and wood in all host communities.

LPG

The use of LPG remains limited in displacement settings in East Africa due to the high upfront costs of cylinders and of establishing supply chains, as well as the high cost of ongoing fuel purchases. While LPG has very low prevalence in displacement settings in Kenya and Uganda, LPG stoves and fuel are distributed in two camps in Rwanda, Mugombwa and Mahama. Most households there (100% and 94% respectively) have access to this high-tier cooking solution; however, the ongoing fuel costs are currently borne by UNHCR which brings the long-term financial sustainability of this intervention into question.

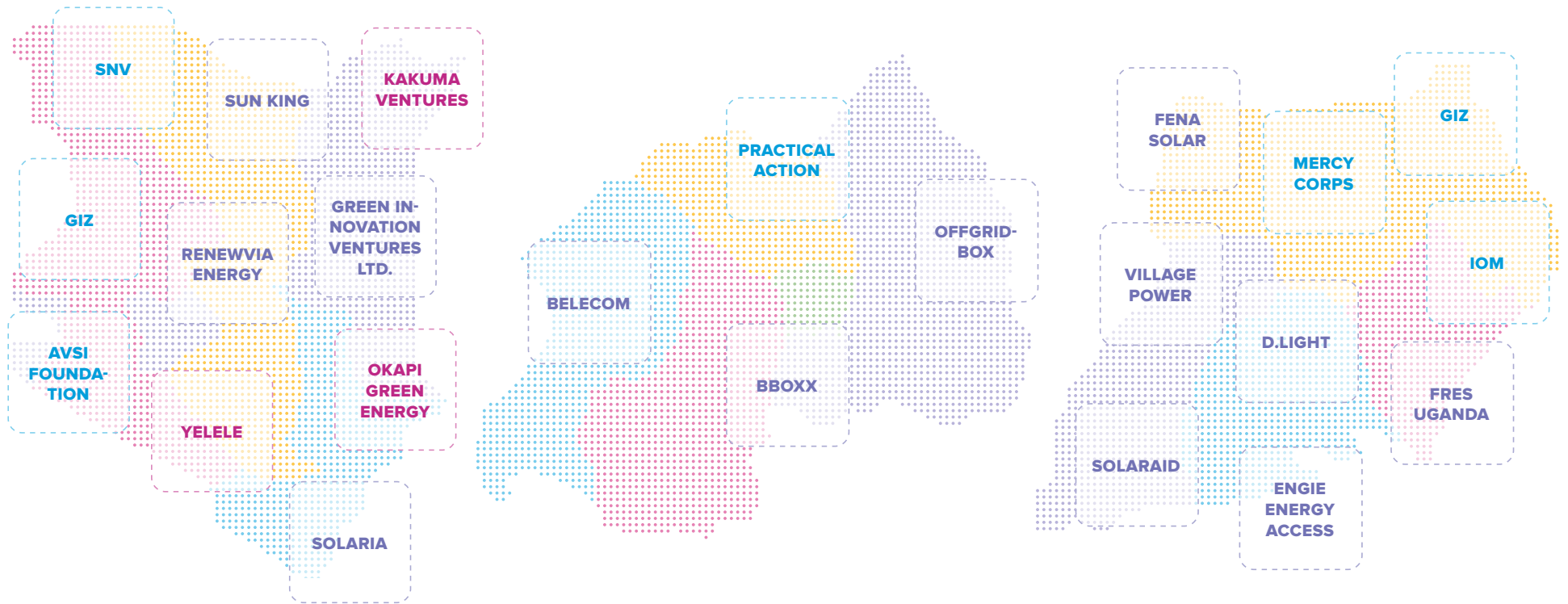
Electric cooking

Electric cooking is not prevalent across displacement settings in East Africa. However, a variety of pilots have shown promising results. In Kenya, the rapid expansion of the Renewvia mini-grid in Kalobeyei has made e-cooking far more accessible. The PEPCI-K project, implemented by SNV with Solaria to pilot electric pressure cookers in households and social institutions, showed that there was high willingness to pay for the cookers and that they reduced cooking time and fuel usage. In Uganda where grid and mini-grid connections are less prevalent, the company Pesitho, whose ECOCA technology consists of an insulated cooking pot which comes with a solar panel and battery system, partnered with Mercy Corps, and separately with Caritas, to pilot e-cooking in Bidibidi. The stove is also equipped with two USB chargers and two portable lanterns. Demand quickly outstripped supply for the piloted product, with time and cost savings being the most popular features. ●

Project concepts for clean cooking and their potential reach, duration, budget, and scalability.

KENYA	IMPROVED CHARCOAL STOVE PRODUCTION	100,000 households	3 years	\$1 million	Moderate
	SCALING ELECTRIC PRESSURE COOKERS	6,000 households, businesses and social institutions	3 years	\$1 million	Moderate
RWANDA	RBF SCHEMES FOR IMPROVED BIOMASS STOVES AND WOOD PELLETS	30,000 households	4 years	\$2 million	Moderate
	ELECTRIC PRESSURE COOKERS PILOT FOR HOST COMMUNITY HOUSEHOLDS AND BUSINESSES AND SOCIAL INSTITUTIONS IN CAMPS	400 stoves	2 years	\$500,000	High
UGANDA	ELECTRIC COOKING THROUGH GRID OR MINI-GRID CONNECTIONS OR STANDALONE SOLUTIONS	6,200 households	3 years	\$3 million	High

Electricity



Energy needs and solutions

Most households in displacement settings in East Africa do not have reliable access to electricity. Many refugee settlements and camps remain unconnected to the national grid; in the cases where there is a grid connection, this tends to be limited to humanitarian office buildings, community facilities, and trading centres, leaving most households and small businesses unconnected. While there are a few examples of solar mini-grids serving refugee and host communities, the most common option for households and small businesses to gain access to electricity is through smaller off-grid solar

solutions. An increasing number of companies have been supported to establish operations in refugee camps and settlements to sell domestic off-grid solar solutions, like SHS and solar lanterns. These have become increasingly popular, however their uptake has partially been dampened due to the many uncertified, low-quality products which are in circulation in the market, creating distrust among prospective customers. Many products were given out for free with neither adequate trainings on how to use them nor information on how to gain access to repair and maintenance services. As the sale of these products increases, it is paramount that they are subject to strict certification standards and that there are adequate provisions to dispose of e-waste in a responsible manner.

National grid

The vast majority of households in refugee camps and settlements do not have access to the national grid. Even for settlements or camps that are grid-connected, this is usually limited to trading centres and administrative buildings. In many cases, the homes of refugee and host community households are not deemed to be built in a way that would allow a safe grid connection.

Mini-grids

Mini-grids remain relatively rare in displacement settings in East Africa. Their high upfront costs and ongoing maintenance costs, along with >>

the relatively long return on investment timeline, makes mini-grid developers averse to establishing them in refugee camps and settlements which are often designated as temporary – despite the protracted nature of many settings. The low ability to pay of customers for connections and ongoing electricity costs also dissuades investments in mini-grids, as well as national grid extension plans. Still, there are some prominent examples of mini-grids in displacement settings. Most notably, the 541 kWp solar mini-grid in Kalobeyei settlement in Kenya was established by Renewvia with a grant initially from GIZ and then the Kakuma Kalobeyei Challenge Fund. There are currently plans to expand the system to 2.5 MWp and Renewvia has also entered joint ventures with refugee mini-grid developers, Okapi Green and Yelele Limited. The former runs a 20 kWp solar mini-grid in Kakuma, the latter a 7 kWp solar mini-grid in Kalobeyei

settlement. There is also a network of informal electricity providers who run diesel mini-grids who are currently looking into opportunities for solarisation. In Uganda, GIZ ESDS are currently exploring options to establish a mini-grid in Palabek refugee settlement.

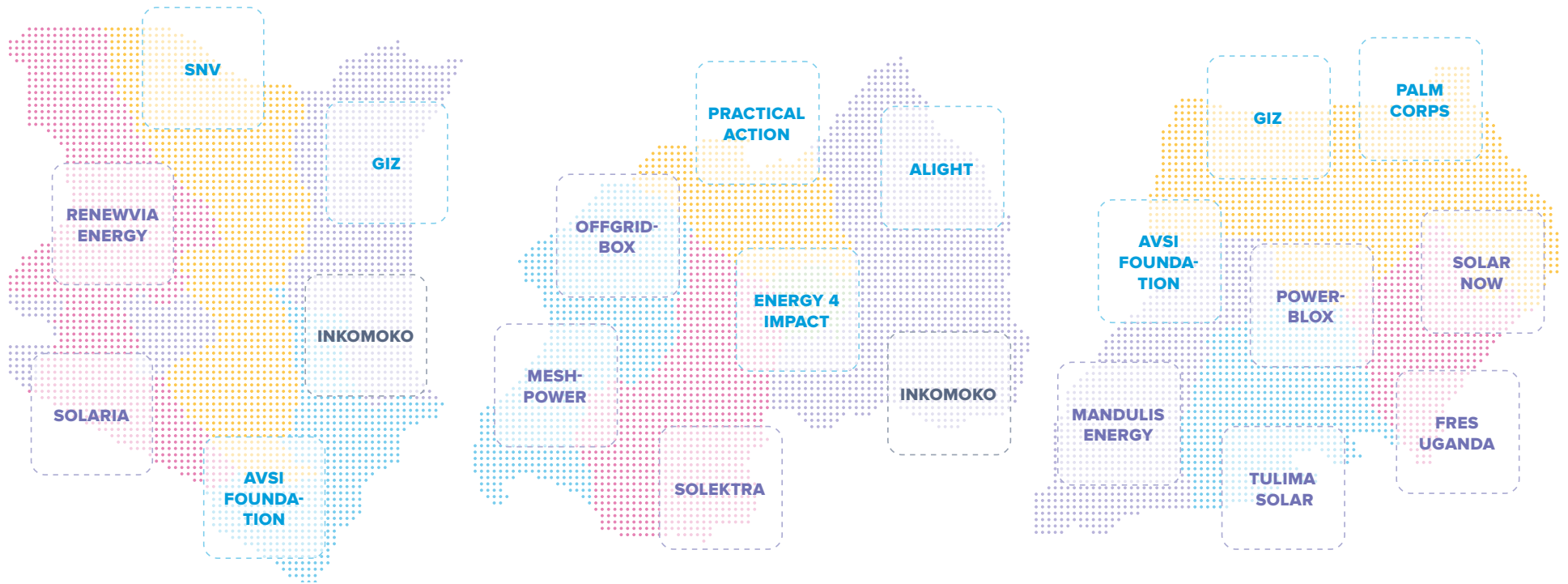
Solar off-grid solutions

Solar off-grid solutions like SHS and solar lanterns have become increasingly available in refugee camps and settlements. This is in part thanks to efforts of humanitarian and development actors to support companies with establishing their operations in displacement settings, such as through subsidy schemes. While the upfront costs of these systems might typically be too high for households,

flexible repayment mechanisms and demand-side subsidies have gone a long way to make these systems more affordable. In Kenya, SNV and En-Dev through the MBEA project have supported companies such as SunKing and Bboxx through results-based financing schemes. In Uganda, Mercy Corps and GIZ have also worked with a variety of companies to sell their products through support of results-based financing schemes. The latter supported the establishment of energy kiosks that are managed by teams of refugee and host community members which sell a variety of sustainable energy products. In Rwanda, Practical Action supported two SHS providers, Belecom and Bboxx, to sell SHS, as well as Solektra who provided systems to vulnerable households. Also in Rwanda, OffGridBox sells solar lighting kits which can be recharged at their central systems. ●

Project concepts for electricity access and their potential reach, duration, budget, and scalability.

KENYA	HOUSEHOLD LIGHTING SOLUTIONS IN DADAAB	10,000 households	3 years	\$500,000	High
	SOLAR MINI-GRID EXPANSION IN KAKUMA AND KALOBEYEI	15,000 connections	3 years	\$5 million	High
	FEASIBILITY STUDY FOR SOLARISING PRIVATE DIESEL-BASED ELECTRICITY PROVISION	N/A	1 years	\$300,000	Moderate
RWANDA	STANDALONE SOLAR SYSTEMS FOR HOUSEHOLDS AND BUSINESSES	10,000 households, 125 businesses	3 years	\$1.5 million	High
UGANDA	SCALING MARKET-BASED APPROACHES FOR SOLAR LANTERNS AND SHS FOR HOUSEHOLDS AND SMALL BUSINESSES	100,000 households	4 years	\$2 million	Moderate



Businesses

A wide range of businesses operate in displacement settings, including small shops, phone charging and repair, hair salons, restaurants, bakeries, tailoring shops, secretarial services, and entertainment venues. Current access to electricity remains low as many businesses are unable to connect to the grid or afford a SHS. As a result their productive use of energy (PUE) applications, like solar irrigation, welding, carpentry and agro-processing, is also limited. Electric appliances are often not available in refugee camps or settlements and have to be sourced from larger towns. Many have high upfront

costs which make them unaffordable, as access to financing is often limited in displacement settings. In addition, many restaurants cook using inefficient stoves and rely on biomass fuels, a great ongoing expense.

Several initiatives exist to support access to sustainable energy for businesses. Practical Action has established grid-connected business centres in refugee camps in Rwanda, allowing clusters of businesses to operate from a centralised location with a reliable power source and avoiding ID requirements which would be needed for individual connections. Practical Action also piloted a financ-

ing scheme for PUE appliances along with a business mentorship programme. OffGridBox offers the option for a handful of businesses to connect to each of their central systems in the five refugee camps in Rwanda. Meanwhile, Power-Blox and International Lifeline Fund have piloted modular solar units which power individual businesses and can also be combined to form nano-grids in refugee settlements in Uganda. In Kenya, the rapid expansion of the Renewvia mini-grid in Kalobeyi has allowed many more businesses to get a connection. At the time of writing, around 350 businesses had been connected, representing 13% of total connections but two-thirds of the electricity consumption. >>

Community facilities

Community facilities like health clinics and schools have a wide variety of energy needs to be able to provide essential services. Access to a reliable source of electricity for health clinics is crucial for the refrigeration of medications and vaccines, as well as the powering of medical devices. Schools, in addition to needing lighting for a conducive learning environment, are reliant on large quantities of firewood or charcoal to cook meals for students, as there is a lack of institutional-sized cooking solutions that do not rely on biomass as a fuel. As for electricity, in some cases community facilities are connected to the national grid. Others rely on standalone systems which are not always cor-

rectly sized or functional. There is often a lack of funding for the maintenance of the systems, meaning they are susceptible to falling into disrepair. GIZ has worked on solarising six health centres and five schools in West Nile region in Uganda, emphasising the importance of O&M plans and piloting generating revenue from income generating activities to fund O&M costs, like running canteens in health centres. In Rwanda, MeshPower has installed a 24.6 kWp mini-grid with ALight which powers a health centre, MINEMA offices and a police station, as well as a small number of businesses who pay MeshPower for their electricity consumption. In Kenya, SNV piloted institutional electric pressure cookers in various schools with promising results.

The installation of streetlights can also have transformative effects on entire communities. Practical Action's RE4R Project in Rwanda installed a total of 185 streetlights with local company Solektra in the first phase of the project, with a further 800 lights planned in the second phase. The most cited benefits of the lights included making people feel safer, enabling businesses and market stalls to stay open longer as more customers went out in the evenings, safer access to health centres in cases of emergencies at night, and cleaner latrines. Key to the success of this intervention was the close involvement of the community members through mapping exercises and the creation of streetlight cooperatives to operate and maintain the lights. ●

Project concepts for businesses and community facilities and their potential reach, duration, budget, and scalability.

KENYA	BLOCK MINI-GRIDS FOR COMMUNITY GROUPS	300 connections	3 years	\$600,000	Moderate
	PUBLIC LIGHTING THROUGH COMMUNITY COMPOUNDS	400 streetlights	3 years	\$1.4 million	Moderate
RWANDA	MODULAR SOLAR UNITS FOR BUSINESSES	100 businesses	3 years	\$500,000	High
	GRID-CONNECTED BUSINESS CENTRES	75 businesses	3 years	\$1 million	Moderate
UGANDA	SOLAR MINI-GRIDS AND STAND-ALONE SYSTEMS TO GROW THE LOCAL AGRO-ECONOMY	1,000 businesses	3 years	\$3.5 million	Moderate
	FINANCING FOR PRODUCTIVE USE OF ENERGY APPLIANCES	1,000 businesses	3 years	\$1 million	High
	MODULAR NANO-GRIDS THROUGH STANDALONE SOLAR UNITS	1,000 connections	4 years	\$1 million	High
	SOLARISATION OF HEALTH CENTRES	50 health centres	3 years	\$2.5 million	Moderate

Acknowledgements

The **Roadmaps for Energy Access in Displacement Settings (READS) Programme** aims to identify viable implementation opportunities to increase sustainable energy in displacement settings. Spanning ten countries, the programme will develop a “roadmap report” for each nation which are informed by workshops with in-country stakeholders to develop and refine the research. READS focuses on all communities which are affected by forced displacement, spanning host communities, refugees, and other groups, and is inclusive of camps/settlements and urban settings in accordance with each specific national context.

Learn more about the READS Programme by visiting the [GPA website](#) and download the READS Reports for [Kenya](#), [Rwanda](#), and [Uganda](#).

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The **Global Platform for Action on Sustainable Energy in Displacement Settings (GPA)** is the global initiative to promote actions that enable sustainable energy access and use in displacement settings. The GPA strives to remove barriers to energy access in humanitarian settings by providing a collaborative agenda for energy, development, and humanitarian partners to deliver concrete actions of Sustainable Development Goal 7 (SDG 7) for displacement contexts. It promotes and contributes to the humanitarian sector's transition to renewable energy, which will increase efficiency and reduce costs and carbon emissions. Hosted by the United Nations Institute for Training and Research (UNITAR), the GPA Coordination Unit galvanises collective action towards the GPA's realisation.

The **IKEA Foundation** is a strategic philanthropy that focuses its grant making efforts on tackling the two biggest threats to children's futures: poverty and climate change. It currently grants more than €200 million per year to help improve family incomes and quality of life while protecting the planet from climate change. Since 2009, the IKEA Foundation has granted more than €1.5 billion to create a better future for children and their families. In 2021 the Board of the IKEA Foundation decided to make an additional €1 billion available over the next five years to accelerate the reduction of greenhouse gas emissions.

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