Sustainable Energy, Displacement and Climate Resilience

September 2020

Today, **90 per cent of the forcibly displaced** living in rural settlements have very limited access to energy in their homes, while camp facilities which are run on diesel generators incur a high CO2 emissions bill.

Energy is a factor in achieving **125 of all 169 targets, i.e. 74 per cent** [1] of the 2030 Agenda for Sustainable Development and therefore central to achieving the SDGs.

Only **10 per cent of refugees** [2] have access to Tier 1-2 electricity, i.e. 4h per day. Light at home increases opportunities for studying, business development and connectivity.

ENERGY IN DISPLACEMENT SETTINGS

People who flee conflict often find refuge in densely populated and **ecologically fragile environments** that already experience the adverse effects of climate change.

Most environmental impacts that occur in refugee hosting areas happen at the **onset of an emergency** and as a result of **unmet energy demands.**

Burning solid fuels for cooking and heating in homes contributes to global climate change, accounting for approximately **25 per cent of total black carbon emissions worldwide.** [3]

Displaced people are **rarely included in national or international energy access agendas** and energy is not always prioritized in humanitarian assistance. The energy sector remains chronically **under-funded** which continues to place a serious financial and ecological toll on refugees and host communities.

SOLUTION: CLEAN ENERGY CHALLENGE

The Clean Energy Challenge is a multi-stakeholder effort to address collective energy challenges and help deliver a **high-energy, low-carbon future for displaced populations by 2030**.

Led by UNHCR and the Global Plan of Action (GPA), it aligns the humanitarian community with **Climate Action** and the UN's efforts in Greening the Blue.

The Challenge moves away **from grant-based funding to sustainable market-based energy models**, engaging the private sector to develop local market capacities. It creates a space for **sharing data and best practices** between the humanitarian, development and private sectors.

Central to the Challenge is the commitment to **support host governments' own energy agendas**, build on national capacities and ease the pressure on local communities**.**

PROTECTION, ECOLOGICAL AND DEVELOPMENT DIVIDENDS OF SUSTAINABLE ENERGY PROVISION

- Sustainable and clean energy can provide **significant benefits associated with protection**, gender equality, food security, water, sanitation, health, education, livelihoods, connectivity and environmental protection. Access to energy is also empowering, enabling women in particular to gain greater control over their lives and futures. It reduces risks of **sexual and gender-based violence** (SGBV) and tensions between refugees and host communities due to environmental impacts or competition over energy resources.
- Cleaner cooking fuel **reduces indoor pollution** and fire-related hazards while **improving nutrition**. Installing Solar PV or other electrification services to health posts also **improves the availability of clinical services**.
- Energy access allows for diversification of livelihoods activities, improved education opportunities, less reliance on diminishing local resources and **overall increased resilience**.
- According to the Intergovernmental Panel on Climate Change [4], the most severe impacts of climate change may still be avoided if efforts are made to transform current energy systems. Renewable energy has a large potential to reduce emissions of greenhouse gas and thereby to **mitigate climate change**
- Investing in energy in refugee host countries help integrate displaced populations and provide a legacy asset for local communities. It also contributes to **national development agendas and global SDGs**.

Refugee Inclusion: The Government of Uganda affords refugees access to the same rights as its citizens. In line with the Comprehensive Refugee Response Framework embraced by the Government in 2017 and the Global Compact on Refugees adopted in 2018, refugees have been included in national planning and local development. Comprehensive sectoral plans have been formulated which link the refugee response to government sector plans, including for energy and environment. According to World Bank data, 42 per cent of the population in Uganda have access to electricity at the national level with 38 per cent in rural areas. Largest refugee hosting country in Africa, support is needed to effectively expand energy access to all, including to the 1.4 million refugees living in Uganda.

Way Forward

The UNHCR Global Strategy for Sustainable Energy 2019-2024 aims to enable refugees, host communities and other persons of concern to UNHCR to meet their energy needs in a safe and sustainable manner. The Clean Energy Challenge is the externalization of UNHCR's strategy, and all actors are called to play their part:

- ⇨ **Individuals** everywhere can support the Challenge through donations;
- ⇨ **Businesses** can find ways to bring affordable solar, wind, biomass, and other forms of clean energy to displaced populations;
- ⇨ **Civil society organizations** can ensure the communities they support are included in the design of local clean energy solutions;
- ⇨ **Energy experts** can collect local data on the energy needs of displaced populations and design bottom-up energy projects;
- ⇨ **States** can integrate refugees into their energy and development policies, planning and programmes.

The four outcome areas of the Clean Energy Challenge are:

Outcome Area 1: Meeting Energy Needs in Emergencies	
The Goal	**Good Practice**
To ensure the energy needs of refugee households (cooking, lighting and heating) are met swiftly and safely during an emergency response and until more sustainable energy systems can be established.	UNHCR Bangladesh Energy Activities (link to report) • LPG distribution to **112,188 refugee** and **8,548 Bangladeshi families**, resulting in environmental protection of surrounding ecosystem, reduced health impacts from smoke and improved security • The use of LPG cooking gas is preventing the collection of **700 metric tons of wood from local forests every day**, allowing UNHCR and partners to plant 150,000 tree saplings covering an area of 62 hectares in the settlements • **Solar power mini-grids** implemented for electricity access, water pumping, and improved health service delivery

Outcome Area 2: Energy for Cleaner Cooking	
The Goal	**Good Practice**
All refugees and host communities have access to sufficient access to safe, sustainable energy to cook three daily meals.	International Climate Initiative- IKI Project: Burundi, Sudan, Chad (link) • **48,500 households** received energy saving cookstoves • **30 schools** were provided with **clean cookstoves** and **30 classrooms** were electrified with **solar panels** • **1,920 hectares** of land restored and **3 million** trees planted.

Refugee Family in Cox's Bazar, Bangladesh, cooking with LPG Solutions. © UNHCR.

Clean cookstove production in the West Nile state of Sudan, IKI project run by UNEP, UNICEF, UNHCR and WFP. © WFP

Outcome Area 3: Sustainable Household Lighting and Electrification	
The Goal	**Good Practice**
All refugees to have access to a minimum of 200 Wh/household/day [5], allowing for basic lighting and connectivity.	AMPERE Pilot, Bidi Bidi, Uganda (online here) • Market-based access to solar products **benefiting 2,270 refugee households** • **56%** of solar systems **purchased by women** • Energy access for **small business improving livelihood opportunities** • Strengthened off-grid solar market and mobile money sector linkages for PAYGo expansion

Outcome Area 4: Sustainable Electrification of Community and Support Facilities	
The Goal	**Good Practice**
Ensure use of energy-efficient technologies and renewable energy to meet the electricity needs of communities: centralized water supplies, street lighting, educational and health facilities and humanitarian support facilities such as offices and staff accommodation.	Camp solarization Project with KfW Development Bank (Zaatari, video) and Ikea Foundation (Azraq), Jordan (report online) • Solarisation of **Zaatari and Azraq refugee camps** enables sustainable energy access to some **114,000 Syrian refugees** • An average **14 hours of electricity per day** is provided to refugee shelters and any **excess produced is sent to the national grid** supporting the host community energy needs • Renewable energy in the two camps help **mitigate over 20,000 tons of CO2 and save US$ 7 million** annually

UNHCR staff inspects solar panels in Bidi Bidi refugee camp, Uganda. © UNHCR

Zaatari refugee camp switched to clean energy in Nov. 2017 and its solar plant remains the largest ever built in a refugee setting. © UNHCR