

## Understanding the relationship between household primary energy consumption, livelihoods and development in protracted refugee settlements: case study of Rhino camp, Arua district, Uganda

This note summarises the focus of a research project being carried out by UNEP DTU Partnership (UDP), and how it relates to similar ongoing studies. The ultimate aim and purpose of UDP's research is to identify project opportunities and/or recommendations for investment in the production and consumption of sustainable energy, for the mutual benefit to refugee settlements and host communities. The note is being circulated to all relevant stakeholders.

### Background

As of early 2018, Uganda is host to approx. 1.4 million refugees, mostly from South Sudan. The majority of these displaced households gather or purchase woodfuel or charcoal to cook their food, as do most Ugandans in rural areas. The rapid influx of refugees has an inevitable impact on local economies and the environment, including demand for primary energy for cooking, heating and drying. The scale and nature of these impacts in Northern Uganda is not well understood, partly as the increase in refugees has occurred since 2015. However, unlike most other host countries, Uganda gives refugees the right to work and establish businesses. This provides an important opportunity to explore the relationship between household primary energy consumption, livelihoods and wider economic development. In particular, given the average age of refugee settlements is more than 20 years, there is a need to understand these cause-and-effect dynamics in protracted situations<sup>1</sup>.

### Research focus / questions

The UNEP DTU Partnership (UDP) is conducting research in parallel, and in partnership with, a related study on the environmental impacts of refugees to be carried out by the Centre for Research in Energy and Energy Conservation (CREEC). CREEC's work has been requested by the Office of the Prime Minister (OPM) and is managed by the World Food Programme (WFP). This research collaboration enables both

---

<sup>1</sup> A *Protracted Refugee Situation (PRS)* encompasses displaced individuals who continue to be in exile after 5 years or more, without immediate prospects for the implementation of durable solutions.

groups to combine data collection efforts, reduce duplication risk or survey fatigue and provide peer review of outputs. The WFP/CREEC study has a larger scope and is targeted at 13 settlements across Uganda, while the UDP study is focused on Rhino Camp settlement in the Arua district as an example of a 'protracted' refugee community. For the UDP study it is important to gather basic data on household incomes, employment and opportunity costs from woodfuel collection, in order to:

- Understand the potential for a market in alternative fuels and/or cooking technologies or reforestation projects in and around the refugee settlements
- Understand the relative environmental sustainability of various energy use scenarios (going up the energy 'ladder'), as well as the income generation and co-benefits of doing so
- Understand of the economic relationships between refugees and the host communities, the scope for donor-backed projects for mutual benefit
- Understand how investment and/or interventions related to more sustainable energy production and consumption can help support the objectives of Uganda's Comprehensive Refugee Response Framework (CRRF)

To summarise: this study will inform UDP's analysis of 1) the potential for energy technology and fuel switching in and around the Rhino Camp settlement; 2) the broader relationship between energy and development in and around 'protracted' refugee communities, in the context of the CRRF.

### **How does this study relate to UDP's previous and planned work in this area?**

Since 2016, UDP has been working with UNHCR to conduct research and advisory services on sustainable energy in its refugee camps, supporting the global coordinator for energy at UNHCR, based in Geneva. In October 2017, UDP published the results of a research on *"The true cost of using traditional fuels in a humanitarian setting. Case study of the Nyarugusu Refugee camp, Kigoma region, Tanzania."* The study is available [here](#). UDP is now working on a plan to create a market for LPG, to help UNHCR and the Tanzanian government to implement one of the key recommendations of the study. The ultimate aim and purpose of UDP's research in Uganda is to identify similar project opportunities and/or recommendations, of mutual benefit to refugee settlement and host communities.