

Research Terms of Reference

Knowledge, Attitudes, and Practices (KAP) on Energy, Environment, and Climate Change

UGA2305

Uganda

August 2023

1.0

REACH Informing
more effective
humanitarian action

1. Executive Summary

Country of intervention	Uganda				
Type of Emergency	<input checked="" type="checkbox"/>	Natural disaster	<input checked="" type="checkbox"/>	Conflict	<input type="checkbox"/> Refugee response
Type of Crisis	<input type="checkbox"/>	Sudden onset	<input type="checkbox"/>	Slow onset	<input checked="" type="checkbox"/> Protracted
Mandating Body/ Agency	Foreign, Commonwealth, & Development Office (FCDO)				
IMPACT Project Code	25AMI				
Overall Research Timeframe (from research design to final outputs / M&E)	25/06/2023 to 26/03/2024				
Research Timeframe Add planned deadlines (for first cycle if more than	1. Pilot : 1/09/2023 - 02/09/2023		6. Preliminary presentation: N/A		
	2. Start collect data: 06/09/2023		7. Outputs sent for validation: 05/02/2024		
	3. Data collected: 23/10/2023		8. Outputs published: 18/03/2024		
	4. Data analysed: 08/12/2023		9. Final presentation at workshop: 26/03/2024		
	5. Data analysis sent for validation: 08/12/2023				
Number of assessments	<input checked="" type="checkbox"/>	Single assessment (one cycle)			
	<input type="checkbox"/>	Multi assessment (more than one cycle)			
Humanitarian milestones Specify <i>what</i> will the assessment inform and <i>when</i> e.g. The shelter cluster will use this data to draft its Revised Flash Appeal;	Milestone		Deadline (can be tentative)		
	<input checked="" type="checkbox"/>	Donor plan/strategy (FCDO, GIZ,EU,ECHO,etc.)	26/03/2024		
	<input type="checkbox"/>	Inter-cluster plan/strategy	_/_/_/____		
	<input type="checkbox"/>	Cluster plan/strategy	_/_/_/____		
	<input checked="" type="checkbox"/>	NGO platform plan/strategy	26/03/2024		
<input checked="" type="checkbox"/>	Inter-Agency Refugee Response Plan (RRP)	2026-2029			
	Audience type		Dissemination		

Audience Type & Dissemination <i>Specify who will the assessment inform and how you will disseminate to inform the audience</i>	X Strategic X Programmatic <input type="checkbox"/> Operational <input type="checkbox"/> [Other, Specify]		X General Product Mailing (using the IMPACT Uganda mailing list) X Cluster Mailing (WorkGrEEen¹) and presentation of findings at next cluster meeting X Presentation of findings (to donors + relevant stakeholders) X Website Dissemination (Relief Web & REACH Resource Centre, U-Learn website)
Stakeholder mapping <i>Has a detailed stakeholder mapping been conducted during research design to identify all actors that could contribute to and/or benefit from the research?</i>	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/> No
General Objective	<i>To inform the humanitarian and development actors in the refugee response about the barriers and enablers of behavior change among the refugee and host community with regards to their energy consumption in the context of environmental degradation and climate change adaptation.</i>		
Specific Objective(s)	<ul style="list-style-type: none"> • To create baseline indicators for knowledge, attitudes, and practices on the themes of energy, environmental degradation, and climate change. • To understand potential barriers to uptake of sustainable energy practices (based on existing knowledge, attitudes and practices) and identify measures to overcome them . 		
Research Questions	<ul style="list-style-type: none"> • <i>What are the knowledge, attitudes, and practices of refugees and host community members on sustainable energy alternatives?</i> • <i>What are the knowledge, attitudes, and practices of refugees and host community members on environmental degradation?</i> • <i>What are the knowledge, attitudes, and practices of refugees and host community members on climate change?</i> • <i>What are the preferred channels of communication for awareness raising on energy consumption, environmental degradation, and climate change.</i> • <i>How do all the above vary between refugees and host communities, within and across the 13 settlements of interest?</i> 		
Geographic Coverage	<i>All 13 refugee settlements: Adjumani, Bidibidi, Imvepi, Kiryandongo, Kyaka II, Kyangwali, Lobule, Nakivale, Oruchinga, Palabek, Palorinya, Rhino, and Rwamwanja.</i>		
Secondary data sources	<ol style="list-style-type: none"> 1. The Impact of Refugee Settlement on Landscape and Green Environment in Yumbe District West Nile Sub Region, Uganda - Advances in Social Sciences Research Journal 2. Response to increased environmental degradation and promotion of alternative energy sources in refugee hosting districts in Uganda – Project Overview 3. Assessment of forest degradation and fragmentation in the refugee hosting landscape of Kikuube District, Western Uganda - Makere Univ. dissertation 4. Impact Evaluation Report for the Project 'Emergency Response to Deforestation Crisis of the Kyangwali Refugee Settlement' - UNHCR 		

¹ The Working Group on Energy and Environment.

		<ol style="list-style-type: none"> 5. Woodfuel Consumption in Refugee Hosting Areas and Its Impact on the Surrounding Forests—The Case of Uganda - FAO 6. The impact of refugee settlements on land use changes and vegetation degradation in West Nile Sub-region, Uganda – Geocarto International 7. An assessment of economic and environmental impacts of refugees in Nakivale, Uganda - Migration and Development 8. Displaced communities, environmental degradation and sustainable livelihoods in Uganda – Univ. Dundee 9. The European Union emergency trust fund for stability and addressing the root causes of irregular migration and displaced persons in Africa – EU ECHO 10. Rapid Assessment of Natural Resource Degradation in Refugee Impacted Areas in Northern Uganda - WB / FAO 11. Refugees, host communities and the environment: A study on the impact of settling refugees in refugee hosting areas in Uganda - CREEC 12. Refugees, host communities and the environment: A study on the impact of settling refugees in refugee hosting areas in Uganda - CREEC 13. Sustainable Energy Response Plan for Refugees and Host Communities - 2022-2025 – CRRF / GoU 14. Energy Access in Refugee Settlements: Creating Evidence for Market-Based Approaches - energy access baseline for refugee settings in arua district (Rhino Camp & Imvepi) - GIZ 15. Baseline assessment for market-based energy access for scale up projects in refugee settlements – GIZ/CREEC 16. <i>The Market Opportunity for Productive Use Leveraging Solar Energy (PULSE) in Uganda</i> - WB 17. <i>Resilience Index Measurement and Analysis (RIMA)</i>- FAO 18. Renewable energy access model - WWF 19. Report on Climate Change Knowledge, Attitude and Behavioural Practice Study - Caribbean Institute of Media and Communication, University of the West Indies, Mona Campus 20. Knowledge attitudes and practice study on climate change - UNDP 21. <i>Energy consumption efficiency knowledge, attitudes and behaviour among the community</i> - International Journal of Sustainable Energy Planning and Management 				
Population(s) <i>Select all that apply</i>	<input type="checkbox"/>	IDPs in camp	<input type="checkbox"/>	IDPs in informal sites		
	<input type="checkbox"/>	IDPs in host communities	<input type="checkbox"/>	IDPs [Other, Specify]		
	<input checked="" type="checkbox"/>	Refugees in settlements	<input type="checkbox"/>	Refugees in informal sites		
	<input type="checkbox"/>	Refugees in host communities	<input type="checkbox"/>	Refugees [Other, Specify]		
	<input checked="" type="checkbox"/>	Host communities	<input type="checkbox"/>	[Other, Specify]		
Stratification <i>Select type(s) and enter number of strata</i>	<input checked="" type="checkbox"/>	Geographical #: 13 settlements Population size per strata is known? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/>	Group #: 2 (HC and refugees per settlement) Population size per strata is known? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	[Other Specify] #: __ Population size per strata is known? <input type="checkbox"/> Yes <input type="checkbox"/> No
Data collection tool(s)	<input checked="" type="checkbox"/>	Structured (Quantitative)	<input checked="" type="checkbox"/>	Semi-structured (Qualitative)		
	Sampling method		Data collection method			
Structured data collection tool # 1	<input type="checkbox"/> Purposive		<input type="checkbox"/> Key informant interview (Target #):_ _ _ _ _			

Select sampling and data collection method and specify target # interviews	<input type="checkbox"/> Probability / Simple random <input checked="" type="checkbox"/> Probability / Stratified simple random <input type="checkbox"/> Probability / Cluster sampling <input type="checkbox"/> Probability / Stratified cluster sampling <input type="checkbox"/> [Other, Specify]	<input type="checkbox"/> Group discussion (Target #):_ _ _ _ _ <input type="checkbox"/> Household interview (Target #):_ _ _ _ _ <input checked="" type="checkbox"/> Individual interview (Target #): 2'382² <input type="checkbox"/> Direct observations (Target #):_ _ _ _ _ <input type="checkbox"/> [Other, Specify] (Target #):_ _ _ _ _	
Semi-structured data collection tool (s) # 1 Select sampling and data collection method and specify target # interviews	<input checked="" type="checkbox"/> Purposive <input type="checkbox"/> Snowballing <input type="checkbox"/> [Other, Specify]	<input type="checkbox"/> Key informant interview (Target #):_ _ _ _ _ <input checked="" type="checkbox"/> Individual interview (Target #): 52³ <input type="checkbox"/> Focus group discussion (Target #):_ _ _ _ _ <input type="checkbox"/> [Other, Specify] (Target #):_ _ _ _ _	
Target level of precision if probability sampling	95% level of confidence ⁴ 90% level of confidence ⁵	10+/- % margin of error	
Disaggregation by gender and age Are you planning to conduct sex/age disaggregated analysis?	Gender <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Age <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Data management platform(s)	<input checked="" type="checkbox"/> IMPACT <input type="checkbox"/> [Other, Specify]	<input type="checkbox"/> UNHCR	
Expected output type(s)	<input type="checkbox"/> Situation overview #: _ _ <input type="checkbox"/> Presentation (Preliminary findings) #: _ _ <input type="checkbox"/> Interactive dashboard #: _ _ <input type="checkbox"/> [Other, Specify] #: _ _	<input checked="" type="checkbox"/> Report #: 1 <input checked="" type="checkbox"/> Presentation (Final) during workshop #: 1 <input type="checkbox"/> Webmap #: _ _	<input type="checkbox"/> Profile #: _ _ <input type="checkbox"/> Factsheet #: _ _ <input type="checkbox"/> Map #: _ _
Access	<input checked="" type="checkbox"/> Public (available on REACH resource center and other humanitarian platforms) <input type="checkbox"/> Restricted (bilateral dissemination only upon agreed dissemination list, no publication on REACH or other platforms)		
Visibility Specify which logos should be on outputs	REACH, U-Learn Donor: FCDO Coordination Framework: Working Group on Energy and Environment (WorkGrEEen) Partners: U-Learn		

2. Rationale

2.1 Background

² The surveys target both refugees and host communities in all 13 locations listed under geographic coverage. The sample per group in each location is calculated with a 95% confidence level, 10% margin of error, and 10% buffer.

³ 4 IDIs per settlement, 2 of which with a host community member and 2 with refugees.

⁴ For Adjumani, Bidibidi, Imvepi, Kiryandongo, Lobule, Palabek, Palorinya, and Rhino.

⁵ For Nakivale, Oruchinga, Rwamwanja, Kyaka II, and Kyangwali.

The humanitarian crisis in Uganda, a low-income country^{6,7}, is becoming increasingly protracted. As of April 2022, more than 1.5 million refugees reside in Uganda, arriving primarily from South Sudan and the Democratic Republic of Congo (DRC).⁸ The refugee influx and subsequent increase in population size in some locations in Uganda has often been observed along environmental impacts (e.g., land degradation and forest depletion) and risk of tensions with host communities over the competition for natural resources. Forest resources in refugee-hosting areas are at risk of exacerbated pressure on the environment, adding to existing pressures from high rates of agricultural expansion linked to population growth, chronic poverty, and limited livelihoods resilience to climate shocks. Uganda has seen a total net loss of its forests between years 2000-2015 for an estimated of 1.8 million ha, making an average annual loss rate of 4%.⁹ This is mainly attributed to deforestation for biomass fuel and timber.^{10,11} Deforestation, coupled with intense rainfall, also contributes to the country's landslide and flood challenges.¹² Traditional biomass¹³ is the most important source of energy for 97% of the population, providing for 90% of the total primary energy consumption, in form of firewood, charcoal or crop residues, and making Uganda the 6th country most reliant on biomass on a world scale.¹⁴ Over 93% of refugee and host community households are reliant on wood for cooking fuel, leading to calls for innovations on sustainable biomass production and efficient utilization.¹⁵

Energy is increasingly recognized as an essential commodity and enabler of social and economic development. Given the large number of refugees who have received asylum in Uganda as well as the indication of further influx, and the varied types of impacts on both the natural and social capital of the host communities, there is a need to develop comprehensive interventions for sustainable energy usage and access, targeting both refugees and hosts. Uganda has made considerable progress expanding the population's access to electricity in the last years: between 2015 and 2021, access to electricity increased from 18.5% to 45.2% nationwide.¹⁶ Despite this progress, it still ranked among the top 20 access-deficit countries in the world in 2021, with 25 million people lacking access to electricity and only 1% of the population with access to clean fuels and technologies.¹⁷ Uganda is also projected to be the 3^d country with the largest population without access to electricity by 2030.¹⁸

The protracted refugee crisis and its burden on an already heavily exploited environment is also occurring in the context of climate change, which will inevitably exacerbate the vulnerabilities of the refugee of host communities. In 2020, Uganda ranked 15th on climate change vulnerability and 147th on readiness, meaning it is relatively unprepared to respond to climate change impacts¹⁹. It is projected that, without drastic action, as many as 12 million people (11% of the population) could move within Uganda by 2050 due to slow onset climate related events.²⁰

⁶ With a per capita gross national income (GNI) of \$1,085 or less based on the World Bank Atlas method.

⁷ [2023 Tracking SDG7 Report](#), p.177.

⁸ See [UNHCR's Uganda Comprehensive Refugee Response Portal](#).

⁹ [FAO](#), "FAO, UNHCR, Uganda Government release 'Blueprint' Plan for managing forests around Refugee settlements in Uganda."

¹⁰ *Idem*.

¹¹ "Other drivers are expansion of agricultural land, urbanization, poverty, industrialization and inadequate incentives for private plantation of forests." [FAO](#).

¹² [UNFCCC](#).

¹³ The term "traditional uses of biomass" refers to the use of local solid biofuels (wood, charcoal, agricultural residues, and animal dung), which are burned using basic methods, such as traditional open cookstoves and fireplaces. The low conversion efficiency of such methods can result in adverse environmental effects, as well as indoor pollution causing health hazards. The energy consumed in such practices, which are still widely used in households in parts of the developing world, is difficult to estimate due to their informal and noncommercial nature. [2023 Tracking SDG7 Report](#), p.119.

¹⁴ [GIZ](#).

¹⁵ [World Agroforestry](#).

¹⁶ [World Bank](#).

¹⁷ [2023 Tracking SDG7 Report](#), p.77, p.252.

¹⁸ [2023 Tracking SDG7 Report](#), p.199.

¹⁹ [Land Use Policy, Volume 115, April 2022](#).

²⁰ [World Bank](#).

It is within this context that stakeholders in the refugee response who are active in the energy, environment, and climate space have voiced an interest in understanding barriers and enablers to sustainable energy consumptions, attitudes towards environmental degradation, and practices in and attitudes towards climate change preparedness. There are currently many alternatives that have been developed (e.g., a variety of improved cookstoves and more sustainable fuels). Despite their potential for large-scale impact, it appears that, according to the consulted stakeholders, such solutions are not getting the expected/desired traction. This is hypothetically due to barriers (possibly habits, or misconceptions) which may not have been obvious enough to be incorporated in project designs. Therefore, understanding what the barriers and enablers are to such alternatives, as well as the attitude and understanding of the environmental and climate context, could shed light on the potential actions that could be conducive to the desired behavior change.

Perhaps it is worth noting that this assessment does not seek to look at the refugee influx or the humanitarian response's impact or contribution to climate change ("greening the humanitarian response"), but rather the perceived impact of climate change on refugees and the host communities and their attitudes towards it in order to better inform actors on what actions could be conducive to climate adaptation. The negative impact of the refugee intake on the environment is of interest in that it will directly weigh on the refugees and host communities, as will the consequences of climate change.

2.2 Intended impact

The intended impact of the research is essentially twofold. Firstly, the findings are intended to assist in donors' (humanitarian and development) strategic decision-making regarding energy, environment, and climate programming in Uganda, for both refugees and host communities, with an eye on building on more sustainable energy consumption. Secondly, the research is meant to inform programmatic decision-making of the WorkGrEEEn, its members, and any other actors that are investing in sustainable energy, environmental degradation, and climate change in Uganda.

3. Methodology

3.1 Methodology overview

Methodology step-by-step

This planned research is based on a mixed methodology, with both a quantitative and a qualitative component. The quantitative method approach serves to capture representative information regarding 1) knowledge, attitudes, and practices on energy consumption, 2) climate change, and 3) environmental degradation, among the refugees in the settlements and host communities around the settlements in Uganda. The three themes can essentially be seen as separate but interrelated research components. 3 teams of 2 Field officers and 20 enumerators each will be collecting 2'382 In-Depth Interviews (IDIs) during 8-9 weeks in all 13 locations with a Kobo tool on their tablets/phones. The survey tool was built with extensive inputs from six IMPACT Field Officers and eight external technical reviewers from relevant stakeholder organisations²¹. Data will be cleaned and analysed using R. Results will be disseminated through the publication of a publicly available report and through a presentation at a workshop with U-Learn. The qualitative component serves to provide additional context, specifically on the attitude towards the three stone stove and improved stoves, fuel consumption, and environmental degradation. The qualitative component will consist of a minimum of 4 IDIs per settlement, 2 of which with members of the host community and 2 with refugees.

Key definitions

- **Climate change** is a global phenomenon where we observe long-term shifts/changes in terms of weather (rainfall, temperatures, wind) and seasonal patterns - over several decades or longer.

²¹ CRRF, FAO, GIZ, NURI, UNDP, WorkGrEEEn, WWF, and YARID.

- **Settlements** in the Ugandan context are areas assigned for refugee settlement by the Government of Uganda. The settlements are managed by the Office of the Prime Minister (OPM) with the support of UNHCR.
- **Refugees** are “people who have fled war, violence, conflict or persecution and have crossed an international border to find safety in another country”.²²
- The **host community**, for this assessment, does not refer to all host communities in the refugee-hosting districts covered. Instead, data collection will focus on the host communities that reside in sub-counties that border or overlap with the targeted refugee settlements, and who are at most 15 kilometres from the settlement border.
- **Attitudes** can be understood as the settled way of thinking and feeling about a topic.
- **Traditional biomass** refers to “the use of local solid biofuels (wood, charcoal, agricultural residues, and animal dung), which are burned using basic methods, such as traditional open cookstoves and fireplaces. The low conversion efficiency of such methods can result in adverse environmental effects, as well as indoor pollution causing health hazards. The energy consumed in such practices, which are still widely used in households in parts of the developing world, is difficult to estimate due to their informal and non-commercial nature.”²³
- **Environmental degradation** is the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems and the extinction of wildlife. It is defined as any change or disturbance to the environment perceived to be deleterious or undesirable.²⁴

3.2 Population of interest

Data collection aims to cover the **adult refugee and host community** population for all **13 settlements**: Adjumani, Bidibidi, Imvepi, Kiryandongo, Kyaka II, Kyangwali, Lobule, Nakivale, Oruchinga, Palabek, Palorinya, Rhino Camp, Rwamwanja.

Refugees are individuals who have been forced to flee their country because of persecution, war, or violence. As such, data collection will include refugees who have fled to Uganda and live in the 13 settlements. The population of reference used for the sampling sizes is the UNHCR updated Active Population count.²⁵

The **host community** refers to the national population in the sub-districts bordering the settlements in Uganda. The population of reference used for the sampling sizes is the Uganda Bureau of Statistics (UBOS) population projection for 2022.

3.3 Secondary data review

The secondary data review was used for the following purposes:

- Duplication and information gaps in Uganda
The SDR found that while there were some studies on energy consumption, it was either focused on Productive Use of Energy (PUE), on quantifying fuel consumption (charcoal, wood fuel, etc.), non-refugee communities, or with limitations in terms of geographical scope. No KAP has been conducted specifically on energy, environment, and climate combined as well as the link between them.
- Context in Uganda
The SDR served to assess the general situation of energy use, climate change, and environmental degradation in Uganda. This allowed to tailor the survey and make it context-appropriate.
- Similar KAPs in other countries

²² [UNHCR](#).

²³ [2023 Tracking SDG7 Report](#).

²⁴ [UNEP](#).

²⁵ Updated on May 31, 2023.

Very few KAPs on related topics have been conducted in Uganda aside from GIZ and WWF which are somewhat in that area. However, KAPs in other countries have been conducted, all specifically on one of the three thematic. These have been used to support the development of the tool design.

3.4 Primary Data Collection

3.4.1 Quantitative Data Collection

- **Method** –The individual surveys will be collected in all 13 locations with refugees and host communities between 07/9 – 24/10. A total of **2’382** surveys will be conducted
 - based on a 95% confidence level, 10% margin of error, and 10% buffer, for Adjumani, Bidibidi, Imvepi, Kiryandongo, Lobule, Palabek, Palorinya, and Rhino (**900** surveys).
 - based on a 90% confidence level, 10% margin of error, and 10% buffer, for Nakivale, Oruchinga, Rwamwanja, Kyaka II, and Kyangwali (**1’482** surveys).
 - The difference in parameters can be explained due to budgetary limitations. Settlements in the North of Uganda were prioritised as most of the humanitarian activities are focused on those.
 - Sampling targets are set separately for refugees and host communities in each location. Data collection will be done by enumerators hired in the field from the IMPACT enumerator database. The field team, trained prior to departure to the field by the assessment team, will train the enumerators on location ahead of data collection. Data will be collected using KoBo. Enumerators will be provided with phones and tablets to do the data collection. The refugee and host community households will be randomly selected for data collection, through random geospatial sampling. For more information, see the sampling section below.
- **Sampling** – Refugee and host community sampling will be calculated with a confidence interval of 95% and a margin of error of 10%, with a representativity for each community on the settlement level. The aggregated sample sizes of the district (refugee and host community combined) will allow for a gender representativity on the regional level (Northern Uganda/West Nile and Southern Uganda/South West). Households will be selected through the random selection of geopoints using GIS by the GIS Officer, and members of each household (if there are more than one available adult) will be randomly selected by the enumerator through the [Kish grid method](#) to avoid selection bias. A full table with sampling calculations can be found in Annex 1. A summary of the final targets per group and location can be found below.

Region	District	Settlement	Groups targeted	Final sampling targets ²⁶
West Nile	Adjumani	Adjumani	Refugees	106
			Host communities	106
West Nile	Yumbe	Bidibidi	Refugees	106
			Host communities	106
West Nile	Terego	Imvepi	Refugees	106
			Host communities	106
South-west	Kiryandongo	Kiryandongo	Refugees	75
			Host communities	75
South-west	Kyegegwa	Kyaka II	Refugees	75
			Host communities	75
South-west	Kikuube	Kyangwali	Refugees	75
			Host communities	75
West Nile	Koboko	Lobule	Refugees	105

²⁶ Based on a 95% confidence level, 10% margin of error, and 10% buffer, for Adjumani, Bidibidi, Imvepi, Kiryandongo, Lobule, Palabek, Palorinya, and Rhino, and based on a 90% confidence level, 10% margin of error, and 10% buffer, for Nakivale, Oruchinga, Rwamwanja, Kyaka II, and Kyangwali. The result for each location is rounded up.

			Host communities	106
South-west	Isingiro	Nakivale	Refugees	75
			Host communities	75
South-west	Isingiro	Oruchinga	Refugees	75
			Host communities	75
West Nile	Lamwo	Palabek	Refugees	106
			Host communities	106
West Nile	Obongi	Palorinya	Refugees	106
			Host communities	105
West Nile	Madi Okollo	Rhino Camp	Refugees	106
			Host communities	106
		Rwamwanja	Refugees	75
South-west	Kamwenge		Host communities	75
			Total	2,382

- **Tool** – The quantitative tool has been designed in excel to be used with Kobo on tablets. Similar KAPs (in different countries) as well as a contextual analysis were used to establish the first draft. This draft was then reviewed internally with six Field Officers with extensive experience in surveying in the settlements for IMPACT, in order to get their feedback in terms of local-appropriateness, vocabulary and phrasing, answer options, etc. This version was then sent for technical review to eight relevant (external) stakeholders/specialists on the topics²⁷, and then reviewed again with IMPACT Field Officers to update them on the external inputs.
- **Triangulation** / briefing and debriefing of enumerators – explain how incoming data will be monitored / triangulated and enumerators briefed/ debriefed. The triangulation strategy for quantitative data is extensive. Enumerators will be trained by the field team prior to data collection. Two days of training will take place, so that the tools as well as the assessment background can be covered in depth. From the start of data collection, all submitted data will be closely monitored. Every night, a data monitoring script will run on the data, checking for the following:
 - Performance against sampling targets
 - Verification of GPS points
 - Number of surveys per enumerator
 - Time lapsed per survey
 - Time lapsed between surveys
 - Logical errors or inconsistencies

A tracker as well as a cleaning log will be produced and shared with the assessment and field teams every morning. The cleaning log will also illustrate the surveys that will or may be deleted, for example as a result of incorrect GPS points or short duration. A summary of the issues and performance against targets will be created by the assessment team and shared with the field officers. These summaries will be used by the field team to brief the enumerators before data collection every morning. The most common logical errors will be discussed in those briefings. Additionally, the data monitoring will flag any enumerators that are not collecting according to schedule, submitted surveys that are suspiciously short, or making a large amount of logical errors. The field team will follow-up with these enumerators in particular, to make sure these issues are resolved for the continuation of data collection.

3.4.2 Qualitative Data Collection

²⁷ CRRF, FAO, GIZ, NURI, UNDP, WorkGrEEEn, WWF, and YARID.

4 respondents will be selected in each location by the Field Officers based on proximity and availability, provided that they fit the demographic selection criteria: 2 host community members, 2 refugees. Due to time constraints, a selection question in the quantitative tool cannot be used for the selection of the qualitative IDI participants.

Sampling:

Region	District	Location	Final targets
West Nile	Adjumani	Adjumani	4
West Nile	Yumbe	Bidibidi	4
West Nile	Terego	Imvepi	4
South-west	Kiryandongo	Kiryandongo	4
South-west	Kyegegwa	Kyaka II	4
South-west	Kikuube	Kyangwali	4
West Nile	Koboko	Lobule	4
South-west	Isingiro	Nakivale	4
South-west	Isingiro	Oruchinga	4
West Nile	Lamwo	Palabek	4
West Nile	Obongi	Palorinya	4
West Nile	Madi Okollo	Rhino Camp	4
South-west	Kamwenge	Rwamwanja	4
Total			52

3.5 Data Processing & Analysis

3.5.1 Quantitative

As per the triangulation section above, data quality will be closely monitored during data collection. The scripts used for quantitative data collection will be used after data collection to do the data cleaning, as per IMPACT's Data Cleaning Minimum Standards Checklist. Data cleaning will focus on correcting logical errors where necessary, deleting surveys that are too short or submitted by enumerators who for whatever reason are not trusted, and dealing with 'other' responses in the survey. The cleaning log will serve to track any changes that need to be made. The cleaning log will then be used to update the raw data and produce the clean dataset.

Analysis of the quantitative data will also be done in R, in line with the analysis and indexing strategy highlighted in the methodology section. All the indicators will be disaggregated by gender on the regional level (it will remain statistically representative), as men and women tend to have distinct household roles which may impact their knowledge, attitude, and practices on energy, environment, and climate change. Furthermore, indicators pertaining to environment climate change will be disaggregated per age groups as it is expected that different generations may have different attitudes towards environmental degradation and climate change. During aggregation, the smallest parameters of representation will be held (90% - 10%). For this analysis, a statistical significance test will be run as appropriate.

3.5.2 Qualitative

Interviews will be recorded, provided that consent for this is given. Recordings will be used by staff to transcribe immediately after the data collection takes place. For the duration that recordings are saved, they will be stored offline in password protected files. Recordings will be deleted after the transcription is finalized. Informed consent will be gathered prior to the interviews. Additionally, IMPACT Minimum Standards for Qualitative Data processing will be followed; field teams will ensure that IDIs are transcribed in English as soon as possible after they have been conducted. They will then be typed and saved into a central server (Teams SharePoint) at the end of each day. Data saturation grids will be used throughout data collection.

to track the progress and saturation of incoming KII and IDI transcripts. The saturation grids will inform the consistency in collected data, and the potential need for follow-ups or additional data collection. The KIIs and IDIs will be analyzed in MAXQDA. The transcripts will be uploaded to the software and coded on common themes. The coding system will be exported as a data saturation grid to highlight the key themes, areas of consensus, and areas of disagreement. Data saturation grids will be developed separately for both the KIIs and IDI data but the information from both will complement each other in the writeup.

3.6 Limitations

- Consider possible limitations of the assessment regarding:
 - o Methodology : respondents might give the answer they expect to be most socially acceptable.
 - o Sampling – gender and age representativity: time and budget do not allow gender representativity on the settlement level.
 - o Enumerator training: climate change is a relatively new concept in Uganda and understanding by the enumerators might impact the quality of the data.
- Due to these limitations, it is possible that the data collected may point towards a more positive situation analysis than the reality on the ground. These caveats will be described during the presentation of the results and will be included in the report.
- To mitigate this, a two day training will be provided to the enumerators in order to make it thorough. A printed list of important definitions will be handed over to the enumerators. During the survey design, the hints were carefully developed to support the enumerators and clarify the questions and answer options.

4. Key ethical considerations and related risks

The proposed research design meets / does not meet the following criteria:

<i>The proposed research design...</i>	<i>Yes/ No</i>	<i>Details if no (including mitigation)</i>
... Has been coordinated with relevant stakeholders to avoid unnecessary duplication of data collection efforts?	Yes	
... Respects respondents, their rights and dignity (<i>specifically by: seeking informed consent, designing length of survey/ discussion while being considerate of participants' time, ensuring accurate reporting of information provided</i>)?	Yes	
... Does not expose data collectors to any risks as a direct result of participation in data collection?	Yes	
... Does not expose respondents / their communities to any risks as a direct result of participation in data collection?	Yes	
... Does not involve collecting information on specific topics which may be stressful and/ or re-traumatizing for research participants (both respondents and data collectors)?	Yes	
... Does not involve data collection with minors i.e. anyone less than 18 years old?	Yes	

... Does not involve data collection with other vulnerable groups e.g. persons with disabilities, victims/ survivors of protection incidents, etc.?	Yes	
... Follows IMPACT SOPs for management of personally identifiable information ?	Yes	

5. Roles and responsibilities

Task Description	Responsible	Accountable	Consulted	Informed
Research design	SAO	SAO	CC, HQ-Research	U-Learn
Supervising data collection	SAO	SAO	CC	U-Learn
Data processing (checking, cleaning)	DO	SAO	HQ-Research	CC
Data analysis	DO	SAO	CC, HQ-Research	
Output production	SAO	SAO	CC/U-Learn-LH, HQ-Research Reporting	U-Learn-CM
Dissemination	U-Learn	U-Learn	SAO/CC	
Monitoring & Evaluation	U-Learn	U-Learn	N/A	
Lessons learned	SAO	SAO	CC, HQ-Research MEL	U-Learn-LH

Responsible: the person(s) who executes the task

Accountable: the person who validates the completion of the task and is accountable of the final output or milestone

Consulted: the person(s) who must be consulted when the task is implemented

Informed: the person(s) who need to be informed when the task is completed

6. Data Analysis Plan

For the research questions addressed with structured and semi-structured tools: click [here](#).

7. Data Management Plan

The Data Management Plan is available upon request.

8. Monitoring & Evaluation Plan

IMPACT Objective	External M&E Indicator	Internal M&E Indicator	Focal point	Tool	Will indicator be tracked?
Humanitarian stakeholders are accessing IMPACT products	Number of humanitarian organisations accessing IMPACT services/products Number of individuals accessing IMPACT services/products	# of downloads of x product from Resource Center	Country request to HQ	User_log	<input checked="" type="checkbox"/> Yes
		# of downloads of x product from Relief Web	Country request to HQ		<input checked="" type="checkbox"/> Yes
		# of downloads of x product from Country level platforms	Country team		<input type="checkbox"/> Yes
		# of page clicks on x product from REACH global newsletter	Country request to HQ		<input type="checkbox"/> Yes
		# of page clicks on x product from country newsletter, sendingBlue, bit.ly	Country team		<input checked="" type="checkbox"/> Yes
		# of visits to x webmap/x dashboard	Country request to HQ		<input type="checkbox"/> Yes
IMPACT activities contribute to better program implementation and coordination of the humanitarian response	Number of humanitarian organisations utilizing IMPACT services/products	# references in HPC documents (HNO, SRP, Flash appeals, Cluster/sector strategies)	Country team	Reference_log	<i>WorkGrEEen strategy</i>
		# references in single agency documents			
Humanitarian stakeholders are using IMPACT products	Humanitarian actors use IMPACT evidence/products as a basis for decision making, aid planning and delivery Number of humanitarian	Perceived relevance of IMPACT country-programs	Country team	Usage_Feed back and Usage_Survey template	<i>U-Learn, the key partner for this exercise, deploys satisfaction surveys that will be used to also inform the perceived relevance of the exercises that IMPACT is also involved with.</i>
		Perceived usefulness and influence of IMPACT outputs			
		Recommendations to strengthen IMPACT programs			

	documents (HNO, HRP, cluster/agency strategic plans, etc.) directly informed by IMPACT products	Perceived capacity of IMPACT staff Perceived quality of outputs/programs Recommendations to strengthen IMPACT programs			
Humanitarian stakeholders are engaged in IMPACT programs throughout the research cycle	Number and/or percentage of humanitarian organizations directly contributing to IMPACT programs (<i>providing resources, participating to presentations, etc.</i>)	# of organisations providing resources (i.e.staff, vehicles, meeting space, budget, etc.) for activity implementation	Country team	Engagement_log	X Yes
		# of organisations/clusters inputting in research design and joint analysis			X Yes
		# of organisations/clusters attending briefings on findings;			X Yes

ANNEX 1: METHODOLOGY NOTES (IF RELEVANT)

Refugee sample

	Stratification	# surveys	# units to assess	Cluster size	Cluster size set	ICC	DESS	Effective sample	% buffer	Confidence level	Error margin	Population	Sampling type
1	Adjumani	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	209,260	2 stages random - st1
2	Bidibidi	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	190,828	2 stages random - st1
3	Imvepi	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	65,459	2 stages random - st1
4	Kiryandongo	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	64,799	2 stages random - st1
5	Kyaka II	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	119,906	2 stages random - st1
6	Kyangwali	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	130,677	2 stages random - st1
7	Lobule	105	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	5,973	2 stages random - st1
8	Nakivale	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	175,072	2 stages random - st1
9	Oruchinga	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	7,977	2 stages random - st1
10	Palabek	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	79,159	2 stages random - st1
11	Palorinya	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	122,797	2 stages random - st1
12	Rhino Camp	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	143,131	2 stages random - st1
13	Rwamwanja	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	91,362	2 stages random - st1

Host community sample

	Stratification	# surveys	# units to assess	Cluster size	Cluster size set	ICC	DESS	Effective sample	% buffer	Confidence level	Error margin	Population	Sampling type
1	Adjumani	106	7	NA	NA	NA	NA	NA	0.1	0.95	0.1	149000	2 stages random - st1
2	Isingiro	75	7	NA	NA	NA	NA	NA	0.1	0.90	0.1	189600	2 stages random - st1
3	Kamwenge	75	3	NA	NA	NA	NA	NA	0.1	0.90	0.1	55900	2 stages random - st1
4	Kikuube	75	1	NA	NA	NA	NA	NA	0.1	0.90	0.1	142000	2 stages random - st1
5	Kiryandongo	75	2	NA	NA	NA	NA	NA	0.1	0.90	0.1	59500	2 stages random - st1
6	Koboko	106	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	45200	2 stages random - st1
7	Kyegegwa	75	3	NA	NA	NA	NA	NA	0.1	0.90	0.1	93000	2 stages random - st1
8	Lamwo	106	3	NA	NA	NA	NA	NA	0.1	0.95	0.1	23900	2 stages random - st1
9	Madi Okollo	106	3	NA	NA	NA	NA	NA	0.1	0.95	0.1	60500	2 stages random - st1
10	Obongi	105	1	NA	NA	NA	NA	NA	0.1	0.95	0.1	7300	2 stages random - st1
11	Terego	106	3	NA	NA	NA	NA	NA	0.1	0.95	0.1	113600	2 stages random - st1
12	Yumbe	106	5	NA	NA	NA	NA	NA	0.1	0.95	0.1	135000	2 stages random - st1