

# Sustainable Energy in Refugee Camps

Technologies, Politics, and Governance

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April 2024



# Introduction

## Welcome



INDEPENDENT SOCIAL RESEARCH FOUNDATION  
[www.isrf.org](http://www.isrf.org)

## Today's topic

- Energy uses
- Access and sustainability
- Governance and politics

## Issues

- Technologies
- Politics
- Governance

## Combining Academic and Practitioner Research



### Academic Research

- 9 years of academic research: 2015 to 2024.
- Refugee camp focused in Kenya and Rwanda.
- Over 200 interviews: with refugees, policy-makers and implementers.
- Academic research process, politics of life literature, and Fassin.
- Journal papers and presenting at research conferences.



### Practitioner Research

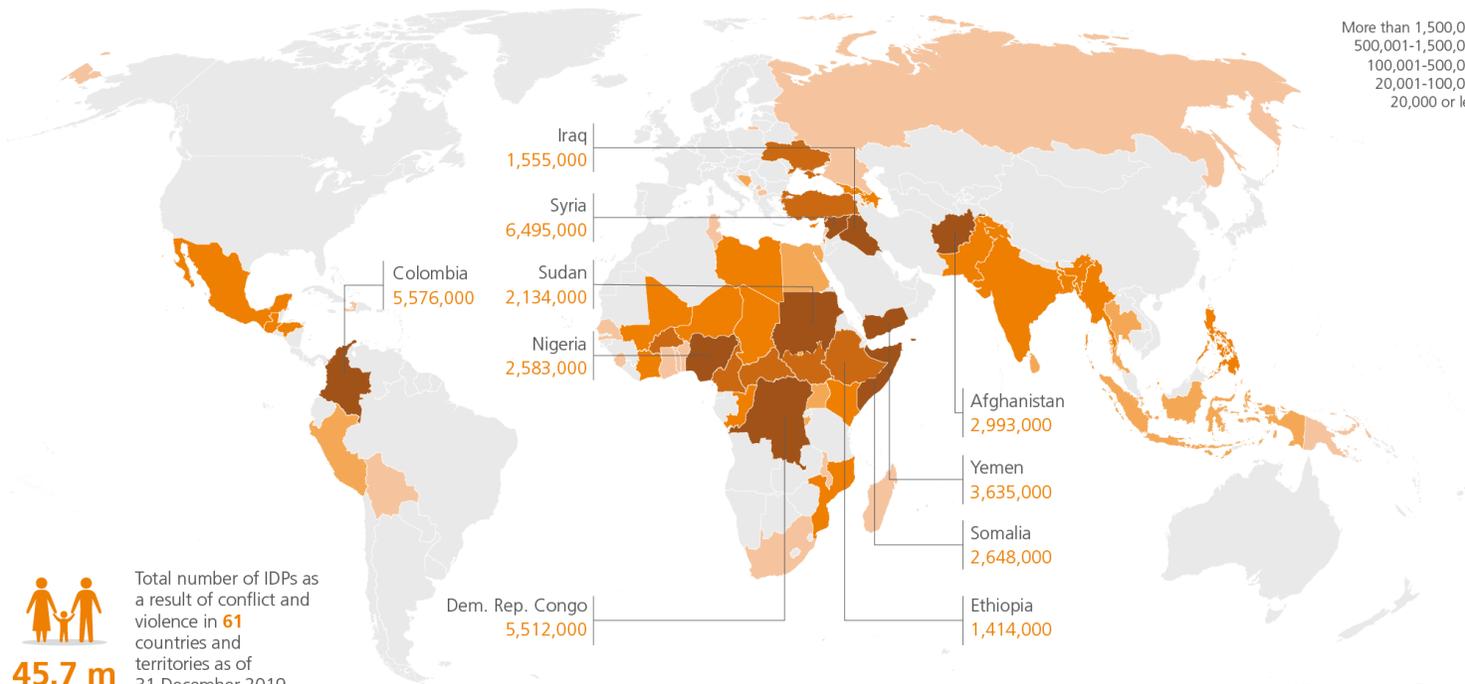
- 17 years as a humanitarian practitioner and energy specialist.
- Several years of practitioner research and founding the GPA.
- 50 interviewees: practitioners and sector leaders.
- Launched SOHES report in Kigali in May 2022.
- Wouldn't have been possible without academic foundations.



# Displaced People: IDPs and Refugees Globally

**102 million displaced people worldwide in 2022**  
(now over 110 million people at end of 2023)

- 21.7 million people forced over borders as refugees
- 52.1 million people internally displaced within their own countries
- 4.7 million are asylum seekers
- 4.7 million returnees and 4.6 million stateless people
- 14.4 million 'other' persons of concern



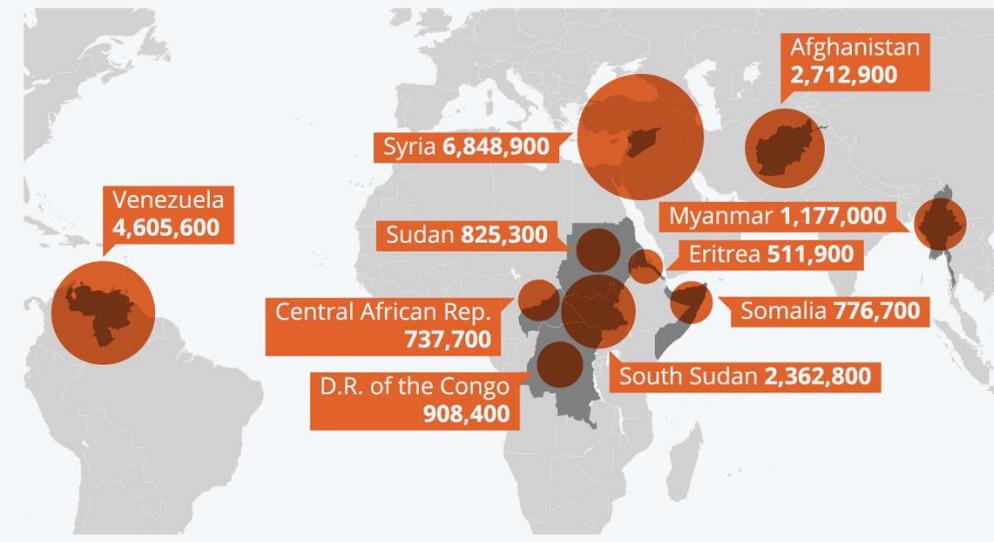
**45.7 m**

Total number of IDPs as a result of conflict and violence in **61** countries and territories as of 31 December 2019

The boundaries, names and the designations used on this map do not imply official endorsement or acceptance by IDMC.



Top 10 origin countries of people displaced across borders at the end of 2021



Excludes asylum seekers abroad  
Source: UNHCR



# Camps

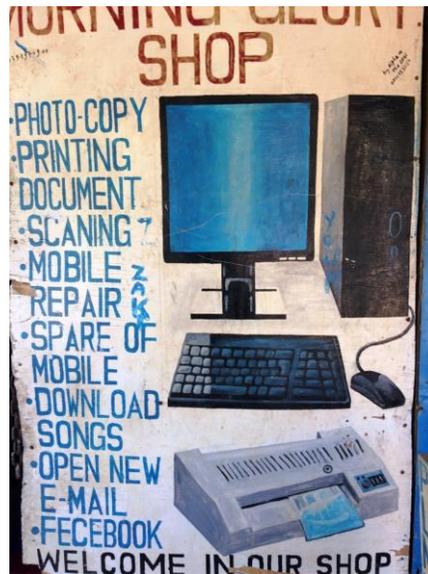


Kakuma refugee camp in Kenya

# Energy Needs of Displaced People: Not just refugee camps



# Energy Needs of Displaced People: Homes, Businesses, Community Facilities, and Institutions



# Energy Needs of Displaced People: Cooking As Well As Electricity



# Definition

## Humanitarian energy

- “Institutions, policies, programmes, global initiatives, actions and activities
- which use a range of sustainable and fossil fuel energy sources in contexts of displacement,
- to meet the energy needs of people in camps and urban settings, self-settled refugees, host communities, and internally displaced people”.
  
- “Humanitarian energy covers needs during emergencies and protracted situations,
- and all populations impacted by war, famine, violence and persecution, climate change, and natural disasters,
- and can be considered the umbrella term for the sector”.

Al-Kaddo, H. and Rosenberg-Jansen, S. (2021) Definitions and Differences:  
The Evolving Space of Energy Access in Humanitarian Energy. HEED briefing paper, Coventry University UK.  
DOI: 10.18552/HEED/2021/0003  
Online [here](#).

# Findings

## Energy Access in Refugee Camps

# Findings from my academic research and my practitioner research

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Energy Research & Social Science

Volume 92, October 2022, 102779



Review

## The emerging world of humanitarian energy: A conceptual research review

Sarah Rosenberg-Jansen [✉](#)

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### Abstract

The world is facing a humanitarian crisis, with over 102 million people now forcibly displaced from their homes due to wars, conflict, environmental and climate drivers, and disasters. The energy needs of displaced people are neglected both in humanitarian response, and in the academic literature. For many years it has been claimed that there is an extremely limited literature on humanitarian energy needs. This paper puts that claim to the test, by conducting a content review of the topic, interviews with sector specialists, and analysing existing literature to understand the current state of play of published work on energy in displaced contexts. The results reveal a rapidly emerging humanitarian energy literature: over 320 research publications were identified, including

## UN-led Global Platform for Action on Sustainable Energy in Displacement Settings (GPA)



Home What is the GPA? Who is involved? What do we do? News+ [Q](#)

### State of the Humanitarian Energy Sector

Home > GPA Activities > State of the Humanitarian Energy Sector

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## The State of the Humanitarian Energy Sector:

Challenges, Progress and Issues in 2022



GPA hosted by UNITAR  
SOHES Report

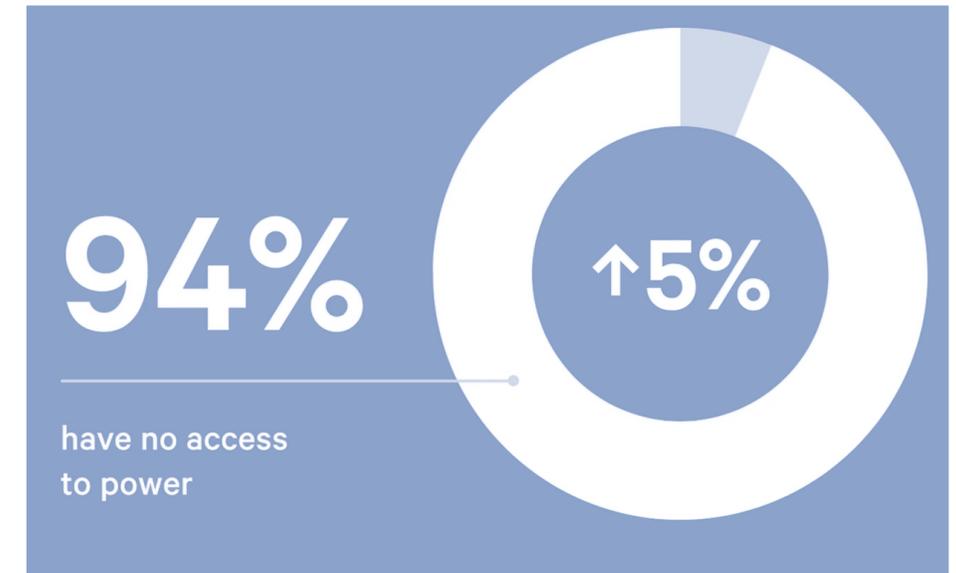
[www.humanitarianenergy.org/thematic-working-areas/state-of-the-humanitarian-energy-sector/](http://www.humanitarianenergy.org/thematic-working-areas/state-of-the-humanitarian-energy-sector/)

Report co-authored with Dr Hajar Al-Kaddo

# Who Lacks Access to Energy in Camps?

2022

- Access rates are failing in real terms.
- Chatham House modelling suggests that in 2022: 94% of forcibly displaced people living in camps do not have meaningful access to power, and 81% lack anything other than the most basic fuels for cooking.
- Sustainable energy access rates are not keeping pace with the rate of displacement.
- Achieving SDG 7 in displacement contexts is further away than ever.



# Homes - Cooking



# Homes - Lighting



## Homes - Electricity



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REPAIR  
SPARE OF  
MOBILE  
DOWNLOAD  
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FACEBOOK  
WELCOME IN OUR SHOP

A hand-drawn illustration of a computer setup. It includes a monitor with a blue screen, a keyboard, a mouse, and a printer. The drawing is done in a simple, sketchy style with blue and black colors. The text is written in blue and black ink on a light-colored background.

## Electricity Entrepreneurs

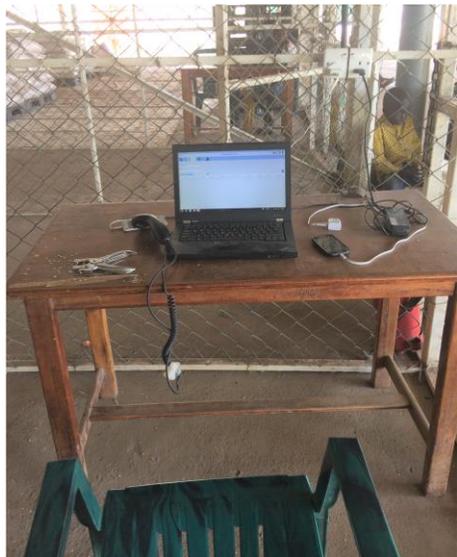


# Informal Energy Markets

Refugee market street in Nyabiheke camp in Rwanda



# Institutions



# Sustainable Solutions

# Some Solar Solutions



## Clean Cooking Projects



## Solar Solutions within Refugee Markets



## Solar Public Streetlighting and Solar for Institutions



## Space for Hope



Za'atari refugee camp in Jordan

Source: UNHCR.

<https://www.unhcr.org/uk/news/stories/jordans-zaatari-camp-goes-green-new-solar-plant>

© UNHCR/Yousef Al Hariri

Jordan's Za'atari refugee camp made the switch to clean energy on Monday 13 November, with the inauguration of the largest solar power plant ever built in a refugee setting.

# Governance of Access

# Who Supplies Energy in Refugee camps?

## Governments?



- National grid connect humanitarian agencies
- Connect some displaced households and businesses in countries such as Jordan and the global north.

## Humanitarian Agencies?



- Supply their own energy and own their own generators or pay for grid connections.
- Fund the provision of firewood or basic cooking fuels.

## NGOs?



- Supply their own energy and own their own generators or pay for grid connections.
- Deliver projects to some supply refugees with cookstoves, solar lanterns or home systems, and sometimes mini-grids.

## Refugees



- Buy their own energy – lanterns, cooking fuel, or electricity connections.
- Pay a disproportionate amount for their energy. Estimated to be between 15-40% of their disposable income on energy.
- ‘Self-provision’ and through local markets.

# Who Supplies Energy in Displacement Settings?

## The Private-Sector

Underneath almost all energy access in refugee camps is the privatised energy sector, energy companies, and businesses selling energy.

### Governments



- Buy energy from national utilities or privatised energy sector

### Humanitarian Agencies



- Buy generators and diesel from energy suppliers.
- Buy firewood from local suppliers.

### NGOs



- Buy generators and diesel from energy suppliers.
- Buy solar lanterns, solar home systems, solar streetlights and sometimes mini-grids from energy companies.

### Displaced People



- Buy energy from refugee enterprises – lanterns, cooking fuel, or electricity connections.
- Buy firewood or charcoal at local markets (sometimes also collect firewood by cutting trees and bushes).

# Who Governs Energy in Displacement Settings?

**Humanitarian Agencies**

**Control and access**

**Development Agencies**

**Expertise and skills**

**Implementing Partners and NGOs**

**Delivery and distribution**

**Research organisations**

**Knowledge and evidence**

**Donors**

**Funding and money (and power)**

**The Private Sector**

**Supply and provision**

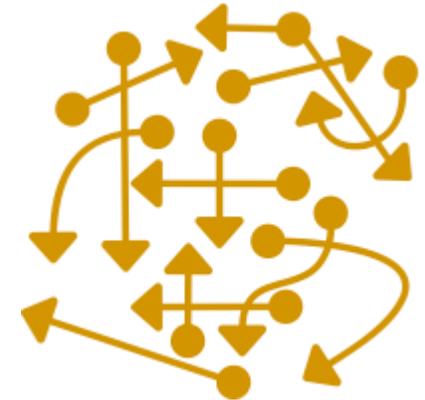
**including Refugee Entrepreneurs**

**Soft coordination and governance by the GPA**



## Issues

- ❖ Humanitarian responses on energy are often *chaotic* and the governance of sustainable energy for refugees is highly *complex*.
- ❖ Energy is not governed in a traditional way within the UN system and most refugees access energy *independently* of the UN and NGOs.
- ❖ Refugees are *not included* in decision-making on energy and displaced people are being *left behind* in the global sustainable energy transition.



# Reflections

... Visible, invisible energy, and the secret life of energy

..... Is energy a human right?

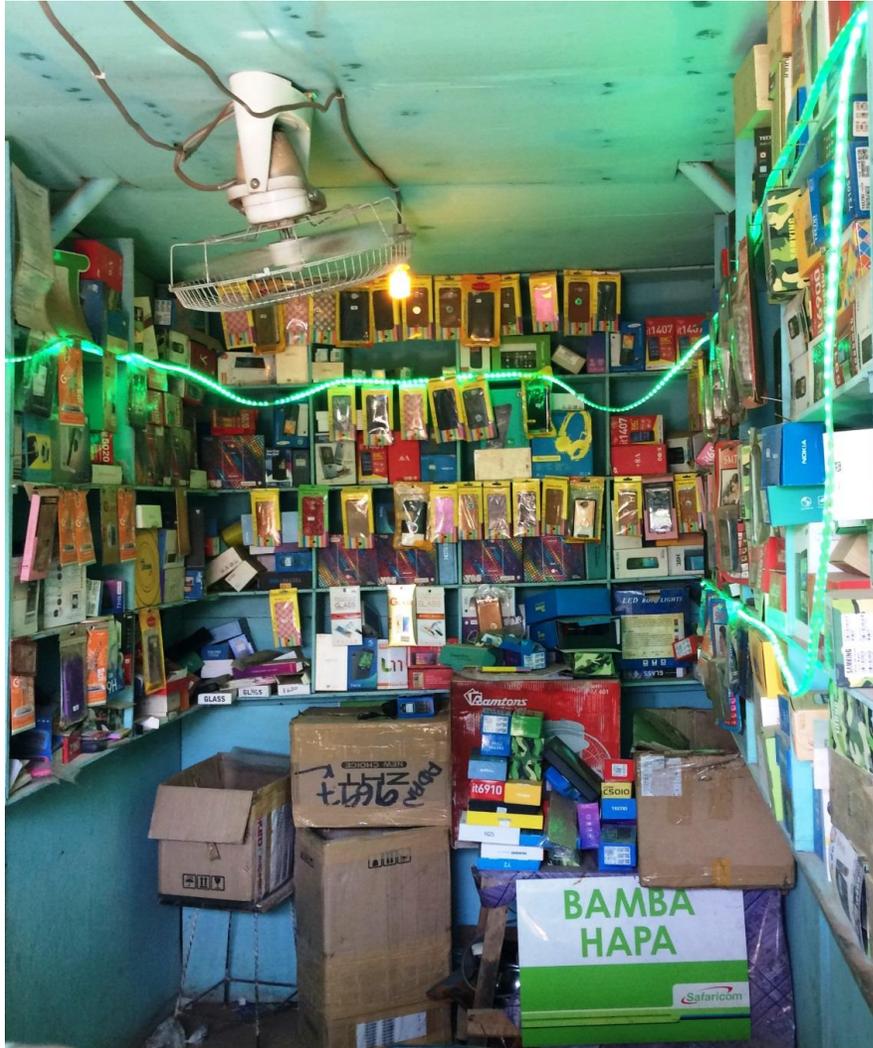
# Visible Products

- Often see pictures and energy products like this from UN agencies



# 'In-Visible' Energy ... to the formal humanitarian system

- But rarely see diverse pictures of energy products, services, and uses.





# The Secret Life of Energy in Humanitarian Settings

## There is very limited research on energy in humanitarian settings

- In the case of humanitarian energy, there are several ‘secret’ **undiscovered aspects** of humanitarian energy.
- Firstly, energy connections are sometimes ***invisible*** and beneath the obvious technologies and appliances. For example, while humanitarian technologies such as shelters, tents, food and blankets are recognised as the material objects of humanitarianism, energy objects such as cookstoves, firewood and diesel generators are not.
- Secondly, secrecy can mean ***marginalised***: energy systems are often not viewed as important within refugee camps, therefore, energy technologies are marginalised within humanitarian practices.
- Thirdly, refugees and IDPs often secure and supply their own access to energy, ***independently*** of humanitarian providers. This independent access is often not recorded or recognised within humanitarian systems.
- Finally, energy needs and systems within displaced settings such as refugee camps are ***methodologically challenging*** to reveal: the opinions of refugees are not well represented within published papers or practitioner processes.
- These levels of invisibility suggest that energy services and systems operate under the radar of many practitioners and academics, and demonstrate that energy is not yet recognised as a vital part of life in humanitarian settings.

### The Secret Life of Energy in Refugee Camps: Invisible Objects, Technologies, and Energy Systems in Humanitarianism [Get access](#)

Sarah Rosenberg-Jansen

Journal of Refugee Studies, feac026, <https://doi.org/10.1093/jrs/feac026>

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#### Abstract

Within humanitarian systems and refugee spaces, energy technologies are often invisible and unrecognized. Beyond basic UN and emergency interventions to supply solar lanterns, lie vibrant systems of connection underpinning refugee electricity and cooking access: a world of energy needs and provision exist within refugee camps in East Africa. The article frames energy within forced migration debates on technology: contributing to the social anthropology and migration studies literature by exploring the material culture of energy in humanitarian contexts. The article argues that some forms of energy are highly visible—for example, solar lanterns and cookstoves—while others remain invisible. Certain objects are in danger of becoming fetishized by the humanitarian system while others are neglected and ignored. Analysis for this article reveals the invisibility of energy as a marginalized topic, highlights the methodological challenges of revealing the energy needs of displaced people, and explores institutional ignorance on the importance of energy.

# Energy Access as Human Right

- Energy as a human right?
  - Not all refugee studies academics or practitioners support this idea!
- Energy access sometimes seen as a luxury ....

*“Look, it’s just the basic technologies they [the refugees] need. We are only here doing life saving stuff, the basic things. Emergency action is blankets and bottles and tents. Not all these things you are talking about. You can live without a lantern.*

*We can’t provide all the luxuries. Really, once you start with that, where do you stop? Next, we will have to provide wifi and smart phones.*

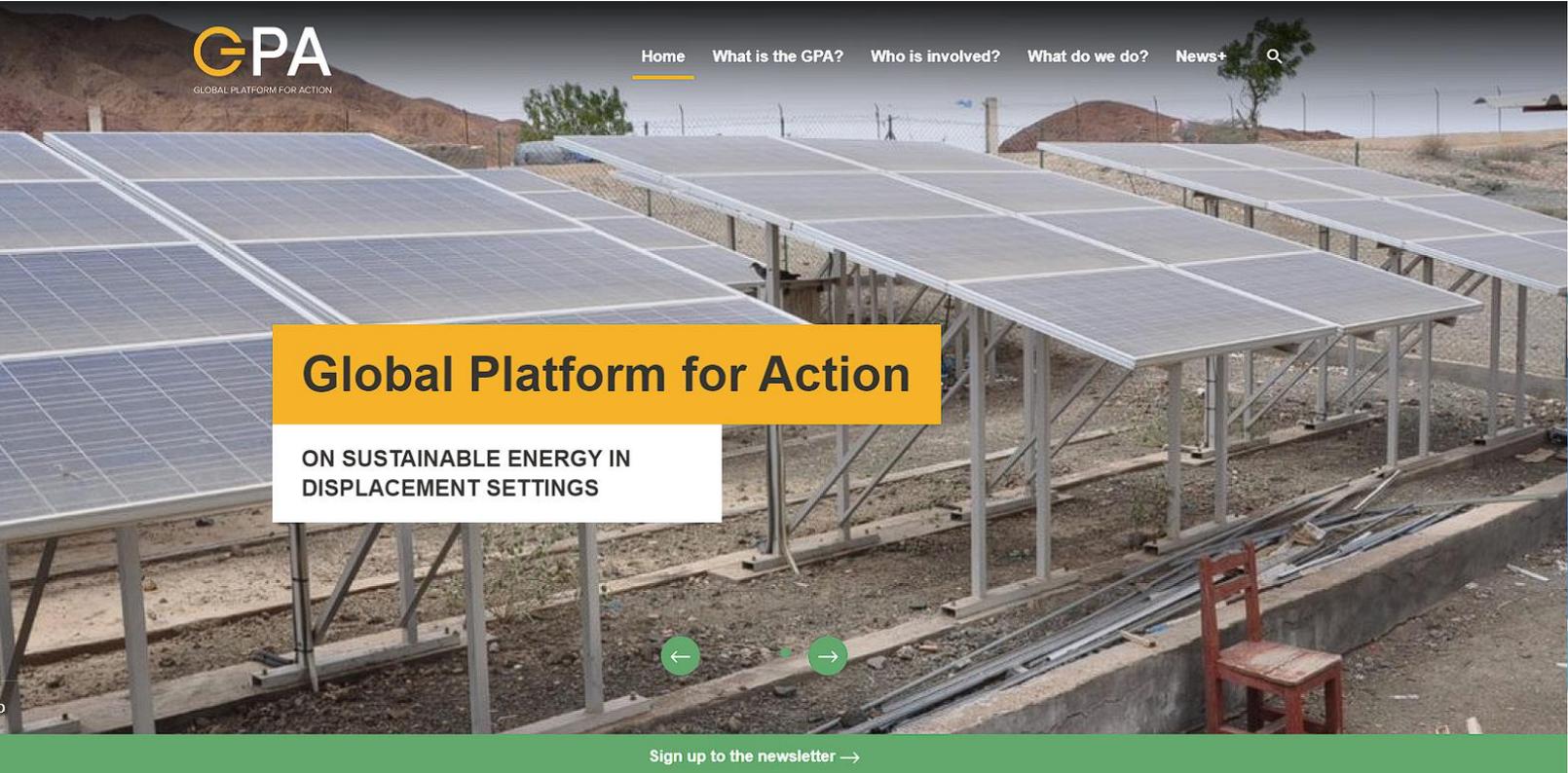
*Then what will the donors say? They will say you are providing luxury, development, more than people need to survive. We will be accused of being the “luxury agency”.*

*No, we have to stick to the basic poverty goods—the NFIs [Non-Food Items]. For my operation, the rule of thumb is: if you don’t die without it, you don’t get it. That applies to energy. You don’t die without energy. So you don’t get it”.*

*Humanitarian Practitioner in Switzerland.*

## Further Resources

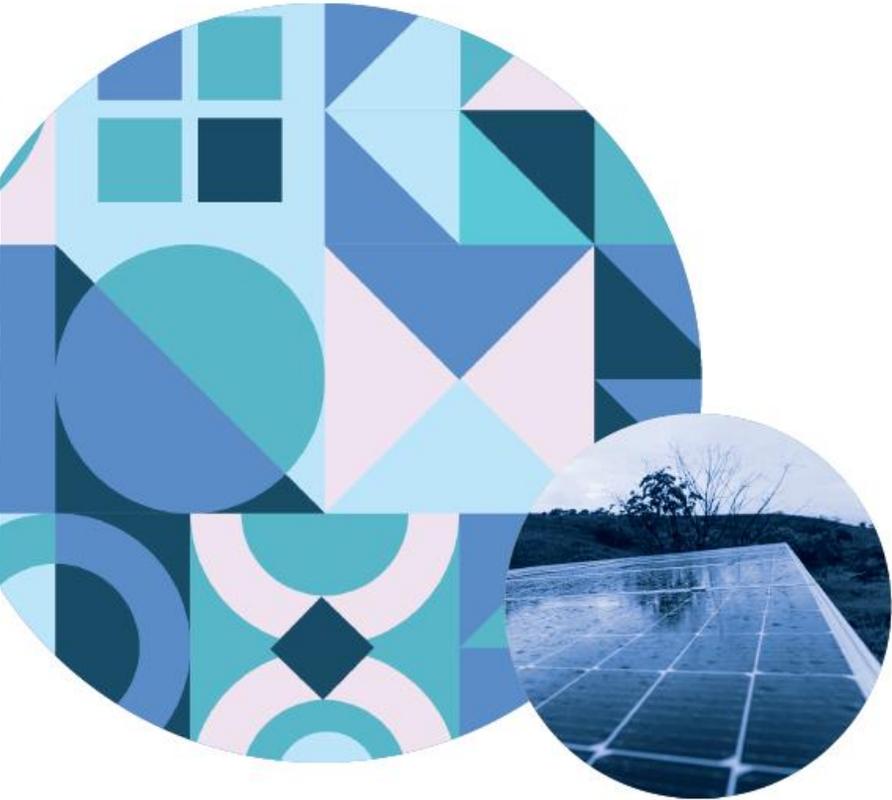
# Further Resources – Policy and Practice

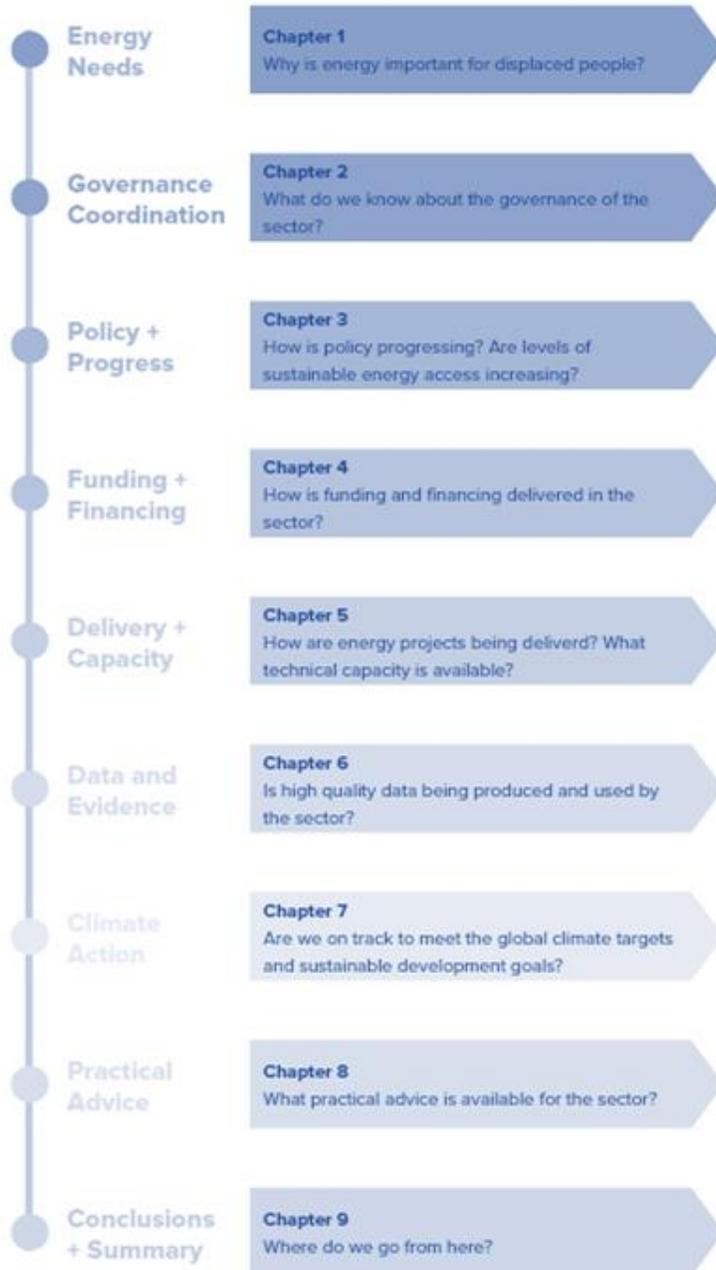


<https://www.HumanitarianEnergy.org/>

## The State of the Humanitarian Energy Sector:

Challenges, Progress and Issues in 2022





## GPA SOHES Report

The GPA State of the Humanitarian Energy Sector report is a first-of-its-kind analysis of many of the issues facing the sector.

- A joint effort, with all chapters co-authored by GPA steering group institutions such as Chatham House, IOM, SEforAll, GIZ, Practical Action, NORCAP, Mercy Corps, and UNHCR.
- The voices of refugees and displaced people are included directly within the report, and as co-authors, highlighting core knowledge on the issues by our displaced colleagues.
- The report starts with an issue analysis outlining, why energy is a human right and a key need in humanitarian settings.
- Key research publication as well as for practitioners.

*Co-authors for Chapter 1: Energy needs and the voices of displaced people*



# Further Resources - Academic



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### Energy Research & Social Science

Volume 92, October 2022, 102779



Review

## The emerging world of humanitarian energy: A conceptual research review

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Title	Creator	Date
Life Without Light: Light Poverty in Precarious Environments Within Developing Countries	Abdallah and Abdallah	2015
Fuel-efficient stoves for Darfur: The social construction of subsistence marketplaces in po...	Abdelnour and Branzei	2010
Technologizing Humanitarian Space: Darfur Advocacy and the Rape-Stove Pinacea	Abdelnour and Saeed	2014-01-06
Examining Enterprise Capacity: A Participatory Social Assessment in Darfur and Southern ...	Abdelnour et al.	2008-01-01
Clean cooking interventions: Towards user-centred contexts of use design	Abdelnour et al.	2020-12-01
Medical Humanitarianism: Ethnographies of Practice	Abrahamowitz and Parter-Brick	2015-08-28
Mapping a child's life in a refugee camp	ACTED	2014-10-04
World Humanitarian Summit: Core Commitments	Agenda for Humanity	2016
Electricity Access Scale-Up Project Stakeholder Engagement Framework	Aguti et al.	2022-08
The transformative power of renewable energy in humanitarian responses: Experiences fr...	Al Absi	
Definitions and Differences: The Evolving Space of Energy Access in Humanitarian Energy.	Al-Kaddo and Rosenberg-Jansen	2021-06-11
The HEED project: Summary of multi-level cross sectional impact	Al-Kaddo et al.	2021
Economic Life in Refugee Camps	Alfoush et al.	2017
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Participatory impact assessment of electricity access in Zaarani and azraq Camps Decemb...	Arcidiacono	2018-12
Techno-policy spaces for e-cooking in Kenya	Atela et al.	2021-11
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Aid Agencies Must Revire Their Approach to Refugees' Energy Needs	Bailey and Keating	2015-06-20
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Maximising the benefits of renewable energy infrastructure in displacement settings: Opt...	Beath et al.	2023-04-01
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Renewable energy in the camps of Tamil Nadu	Berohi Xavior	2011
How to Enhance Energy Services in Informal Settlements? Qualitative Comparison of Ren...	Beshe et al.	2023

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# VOICES IN THE DARK

THE ENERGY LIVES OF REFUGEES



SARAH ROSENBERG-JANSEN

**Thank You**

**Questions  
Welcome**

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