The State of the Humanitarian Energy Sector:

Challenges, Progress and Issues in 2022

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GLOBAL PLATFORM FOR ACTION

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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, as laid out in the Global Plan of Action Framework and hosted by the United Nations Institute for Training and Research (UNITAR).

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 reduce health impacts and environmental damage, increase efficiency and reduce costs and carbon emissions, with the aim of supporting all displaced people in accessing sustainable energy.

This report has been produced by the GPA Coordination Unit with inputs from the GPA Steering Group, and partners including UNITAR, UNHCR, International Organization for Migration, GIZ, World Food Programme, Food and Agriculture Organization, Chatham House, Practical Action, UNEP, UNDP, Clean Cooking Alliance, Mercy Corps, Sustainable Energy for All, SNV, Lifeline Fund, NORCAP, SELCO Foundation, and MECS. The views contained in this report do not necessarily reflect those of all GPA Member institutions.

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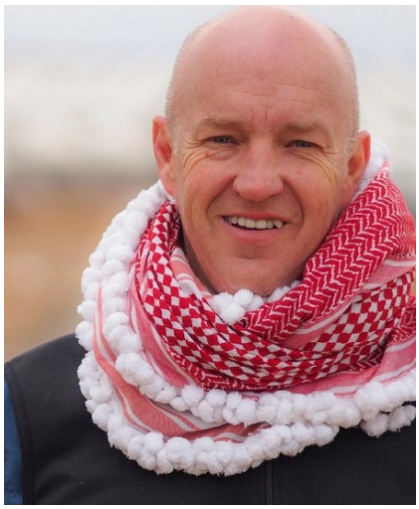
Foreword

Climate change is a human and protection crisis. The impacts of a warming world are already being felt globally but are particularly devastating in regions like the Sahel, the Middle East, and South Asia. The interplay between climate change, environmental degradation, and lack of energy access are already leading to growing inequalities, conflict and persecution, and poverty. Climate action and the delivery of sustainable energy solutions are now urgently needed to reduce the negative impacts on the most vulnerable populations, including people already displaced, and the communities who host them.

Worldwide there are now an estimated over 102 million forcibly displaced people of concern to the UN High Commissioner for Refugees (UNHCR). The scale of displacement is shocking, with this figure doubling in less than a decade and not yet reflecting the impact from the Ukraine crisis. Increasing displacement is likely to continue, aggravated by the triple threats of conflict, COVID-19, and climate change.

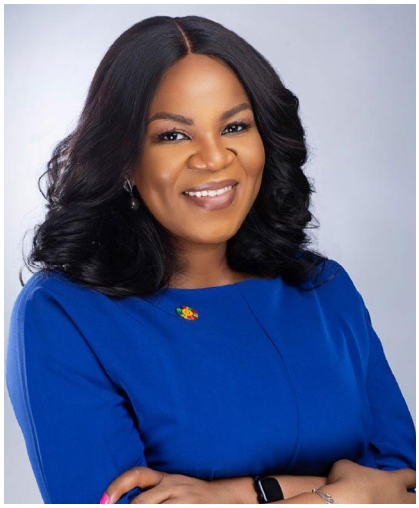
About 90% of refugees under UNHCR's mandate and 70% of internally displaced people are from countries highly vulnerable to climate shocks. Protection risks, such as violence against women and girls collecting firewood, are driven up when access to energy, including clean cooking, are unavailable. Displaced people also face literal darkness: the vast majority of the world's refugees live without access to electricity and all the essential services it provides. Everyone needs energy for cooking, connectivity, heating, cooling, and communication. Clean cooking and sustainable electricity provide the opportunity for prosperous, dignified, and healthy lives.

Sustainable Energy for All (SEforALL) works to ensure a clean energy transition that leaves no one behind. Through partnerships and targeted action, we can achieve Sustainable Development Goal (SDG) 7: delivering clean, affordable energy for all, as well as achieving net zero greenhouse gas emissions by 2050. SEforALL is committed to bringing the humanitarian and energy sectors together, promoting a just and inclusive energy transition that includes populations vulnerable to humanitarian and climate crises. Renewable energy technologies offer a route to build back better, and greener, after the shocks of the COVID-19



Andrew Harper, Special Advisor to the High Commissioner for Refugees on Climate Action, UNHCR

UNHCR
The UN Refugee Agency



Damilola Ogunbiyi, CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All and Co-Chair of UN-Energy

SUSTAINABLE ENERGY FOR ALL

pandemic and multiple humanitarian conflicts. Actors from across the energy, humanitarian and development sectors can drive progressive change: joining forces to deliver sustainable access and improve the lives of displaced people.

As co-founders of the Global Platform for Action on Sustainable Energy in Displacement Settings (GPA), UNHCR and SEforALL are determined to leave no displaced person behind in the global energy transition and to facilitate the comprehensive inclusion of displaced people in global climate and energy issues. Whether it be the current crisis in Ukraine, or conflicts in the Sahel, Syria, Afghanistan or Myanmar, the importance of emergency planning and preparedness is apparent, demonstrating the need to prepare for green operations at the start of emergencies. In protracted situations, which often last for decades, sustainable energy can offer a lifeline and chance to support self-reliant communities.

Local entrepreneurship and rapid advances in renewable energy technologies offer durable and viable solutions in displacement settings. Investments in energy data and capacity building can support the delivery of new sustainable energy projects. And innovative financing can reduce energy costs in the short-term and the long-term. The creation of livelihoods and green jobs offer income and economic opportunities for displaced people and host communities. Renewable and hybrid energy solutions can also support the decarbonization of the necessary electricity infrastructure in these settings and, combined with energy efficiency measures, they can offer an opportunity to invest savings from energy to other important life-saving activities.

There are many opportunities for collective action on sustainable energy: working together can offer significant benefits for displaced people, offering new solutions and rapid progress to address conflict, COVID-19, and climate crises. As we move forward to address these challenges, we must see greater collaboration between humanitarian organisations, host governments, development organisations, and energy expert partners. Achieving real change will require all actors to work with displaced people as partners, rather than beneficiaries, to support the delivery of an inclusive and sustainable energy transition that leaves no one behind.

Finally, delivering sustainable energy and mitigating the impacts of climate change will require substantial investment from donors and partners, especially from the private sector. As this State of the Humanitarian Energy Sector report highlights, progress on policy and coordination is already underway: this is a real moment for bold reforms and commitments from across a range of partners. But to systematically improve the lives of displaced people and green humanitarian operations, much more change is needed. Words without action will not reduce emissions or provide the energy that displaced people need and deserve.

Executive Summary

In 2022 there are over 102 million people forcibly displaced from their homes: over 21.7 million people forced over borders as refugees, 52.1 million people internally displaced within their countries, 4.7 million asylum seekers, 4.7 million returnees, 4.6 million stateless people, and another 14.4 million persons of concern. The Russia–Ukraine crisis which started in February 2022 drives these figures up daily. In protracted and emergency situations, the vast majority of displaced people do not have access to clean cooking solutions and are not able to access modern electricity to meet their needs.

This report provides an analysis of the humanitarian energy sector in 2022: describing the state of play in energy access, governance, policy, financing, delivery, and evidence on energy in situations of displacement. The analysis and description covers energy issues in humanitarian situations: drawing on interviews with practitioners, experts on energy in displacement contexts and entrepreneurs, results from key implementation programmes and case studies, data assessments, progress on key topics, and expert recommendations for future programming and policymaking. The report highlights the core issues needed to deliver Sustainable Development Goal (SDG) 7 on energy in displacement contexts.

Voices of Refugees and Displaced People: Energy is Essential

Energy access is essential in humanitarian settings: refugees, displaced people, and host communities need electricity for their homes and businesses, to power their community spaces and water, sanitation and hygiene facilities, and to support humanitarian institutions. Modern energy supply includes clean cooking solutions and electricity access, and supports communities in moving beyond the use of traditional and biomass sources of energy. Life without modern energy is radically constrained and displaced people face protection and health issues without access to electricity and clean cooking sources. Without access to energy, displaced people cannot work or study at night, they do not have electricity for their livelihoods, and they are unable to move around safely after dark. Self-reliance and livelihood opportunities are limited without access to modern energy resources, and progress towards global climate goals will not be made without renewable solutions for energy needs.

Chapter 1 provides an overview of energy access issues in humanitarian settings, including hearing from refugees and displaced people directly on their energy needs. A short overview of technologies and spaces of access is provided, alongside a description of humanitarian contexts and the challenges of providing energy within UN institutions. COVID-19 has hit the humanitarian energy sector hard: energy needs have increased at a time when resources within the humanitarian system are stretched thin and have been redirected to pandemic response. Refugees and internally displaced people (IDPs) have seen their freedom of movement restricted by lockdowns and the financial impacts of the COVID-19 pandemic on displaced livelihoods has been severe. At the same time, energy access and connectivity have supported remote working by humanitarians, and in some spaces online working has enabled displaced people to connect into discussions that they may not have been able to join physically. The importance of a stable wi-fi connection, reliable electricity access, and ability to cook at home has been essential in keeping people worldwide physically and mentally healthy during the COVID-19 crisis. The same needs are present in refugee camps and displaced locations: a fact that is now being recognised internationally and by UN agencies and their partners who support the provision of energy in humanitarian settings. Despite this glimmer of hope, currently, the need for energy in displacement contexts remains considerable and many refugees and internally displaced people still live in the dark.

Governance and Coordination

While the emergence of energy for displacement as a specific sector has been a relatively recent development, there has always been programming within refugee camps and IDP settings to provide basic firewood and cooking solutions. Similarly, power has always been needed by humanitarian operations: largely this has been supplied in remote locations by diesel generators. Over the past ten years, the humanitarian energy sector has expanded considerably: traditional and innovative partnerships have developed, and specialist staff numbers have grown. There is still much to do, but the issue of the energy needs of displaced people is now firmly on the agenda.

Chapter 2 outlines the types of institutions and organisations working on humanitarian energy in the world today. Some progress within global forums is evident: for example, energy is included in some humanitarian policies, and displacement situations are included in relevant energy strategies. To some extent, there is also progress at the strategic level within humanitarian partners. Some organisations have introduced internal policies and strategies to work on energy and reduce their own environmental footprint. Resourcing within the sector has grown from just a few energy technical staffing positions in 2010 to over 200 energy professionals working in humanitarian agencies and partners. Despite this progress, there is still a desperate shortage of technical staff, with an estimated 2,000 to 5,000 energy staff needed for the sector. Governance within humanitarian energy is a complex topic, with many competing priorities and actors. The Global Platform for Action on Sustainable Energy in Displacement Settings (GPA) has led coordination, advocacy, and analytical learning within the sector: bringing together actors from across the humanitarian–development nexus to drive progressive change on energy access. Collective action and alternative leadership, working beyond traditional humanitarian structures, has enabled rapid policy progress. Investing in technical capacities and coordination will enable partners to build on this progress to ensure sustainable energy is available for all displaced people.

Key messages

A number of key messages have emerged from this report:

- The vast majority of the world's displaced people do not have access to affordable, reliable, sustainable and modern sources of energy: an estimated 94% of displaced people in camps do not have access to electricity and 81% rely on firewood and charcoal for cooking.
- Millions of displaced people live in the dark, surrounded by smoke and pollution, unable to access basic electricity services or sustainable cooking solutions.
- The total energy and environmental investment funding requirements listed in current humanitarian response plans, covering 28% of global refugee populations, was estimated at US$300 million for 2021. Scaling this to all refugee populations would have cost over US$1 billion for 2021. To cover all refugee energy needs globally between 2022 and 2030 would require over US$10 billion.
- Without substantial investment and decisive political action, Sustainable Development Goal 7 is highly unlikely to be achieved in displacement contexts by 2030.

Action is needed on:

- **Governance and Coordination:** Alternative partnerships that collaborate beyond the traditional humanitarian mechanisms are required to deliver energy access. While investment is required to increase clean energy deployment, dedicated support is also critically needed for coordination and advocacy for policy change and increased resources.
- **Policy and Access to Clean Energy:** While there has been some progress on policy at the global level, national and local progress on delivering access to sustainable energy and transitioning to cleaner energy sources in infrastructure is still highly limited.
- **Funding and Financing:** Alternative forms of institutional funding are needed to finance the supply of sustainable and renewable energy in displacement contexts. Innovative financing mechanisms and collaboration with the private sector can enable new ways of working, but institutional changes within agencies and collaboration with local markets are necessary to support such progress.
- **Delivery and Technical Capacity:** There is a critical deficit for funding of staffing and expert technical capacity within the sector. Urgent resources are needed at the local, national and global levels to ensure low-carbon energy delivery is possible. There are many complex delivery models and implementation mechanisms which require new research to facilitate more effective implementation.
- **Evidence and Data:** There is limited reliable data within the sector that could guide larger-scale programming. Practical progress and systematic reform of humanitarian energy cannot take place without high-quality data. Inclusive and targeted research is necessary to work with displaced communities and their hosts and generate evidence to inform systemic change.
- **Climate Action and Decarbonisation:** The humanitarian sector contributes to greenhouse gas emissions, much of which is driven by the use of fossil fuels. To reduce its contribution to the global climate crisis, the humanitarian sector must invest in renewable and low-carbon sources of energy.
- **Practical Tools and Inclusive Action:** Practical solutions and expert energy partners are available to support the humanitarian sector in delivering sustainable energy access and decarbonising energy infrastructure. Progressive action must be inclusive, working with displaced people at every stage of response: facilitating jobs and livelihoods for refugees, internally displaced people, migrants and host communities.

Policy Action and Collective Targets for Delivering Sustainable Development Goal 7

Sustainable Development Goal 7, to ensure access to affordable, reliable, sustainable and modern energy for all, offers a framework for reaching global and national energy-related targets. However, ensuring energy access for displaced people is challenging within many national contexts. This is especially true in developing countries where nationwide energy availability, access and affordability remain obstacles. Within competing national and local priorities, energy access for displaced people often receives limited attention and in many cases is entirely omitted from national planning and policies. At the global level, progress has been made to ensure humanitarian energy issues are embedded within institutional decision-making processes and global energy strategies.

Chapter 3 offers an overview of the global, national and sectoral policies supporting action to increase clean energy deployment in displacement settings. Substantive progress on policies has been made within humanitarian organisations and on sectoral issues. However, the integration of energy needs into national government planning is still slow. Practical progress on delivering energy access for displaced people is glacial and measurement of progress remains challenging. Still in 2022, we do not know how many people have access to what types of energy, nor is there a clear figure on the progress towards SDG 7. Our analysis suggests that the vast majority of displaced people do not have access to affordable, reliable, sustainable and modern energy, and that SDG 7 targets will not be met by 2030 in displacement situations. This chapter also recommends a series of targets for the humanitarian energy sector: in the short term, humanitarian agencies and their partners should ensure basic energy access for households, displaced enterprises and community facilities before 2030. In the longer term, more ambitious targets on renewable and sustainable solutions are required to meet international climate goals.

Energy access is critically important in humanitarian settings, as refugees and displaced people need electricity to power their homes and businesses, their community spaces, facilities such as water, sanitation and hygiene (WASH), and their supporting humanitarian institutions. The vast majority of refugees and displaced people have almost no access to sustainable energy solutions. Life without modern energy is radically constrained, limiting the quality of life of displaced people. Progress towards global climate goals will not be made without renewable solutions for energy needs in contexts of displacement.

Focus area	Status	Progress in Humanitarian Energy 2012–2022
Access to Sustainable Energy	 Overall Reduction in Progress	• While a substantial number of sustainable energy access programmes have developed in recent years, these have not been enough to match the rising rate of displacement globally. • 94% of displaced people in camps do not have access to electricity and 81% rely on firewood and charcoal for cooking. • There are now more displaced people than ever before and we estimate that overall there has been a reduction in energy access rates, with millions of displaced people currently living without energy access. • As very limited measurement is currently happening, estimating the overall level of access is challenging. However, given rising fuel costs, the impact of COVID-19, increasing energy access needs, and the rising numbers of displaced people, it is likely that overall energy access rates within displaced populations are declining in real terms.
Sufficiency of Access	 No Progress	• Levels of access are still very low and there are limited resources within the system to raise ambitions to provide more electricity and cleaner cooking solutions. • Fuel for cooking is provided in some locations. Solar lanterns are often part of non-food distribution packages and therefore widely distributed, but challenges with recycling and disposal of electronic waste remain. These technologies only offer basic lighting and minimal cooking. • Tier 2 for household electricity access is still the minimum standard and 'clean' access to cooking is often not defined. • Within community facilities, spaces are often unelectrified or do not have sufficient power. Within institutions, access is usually sufficient but still relies on diesel and other fossil fuel sources. • As a result, no progress has been made in terms of the humanitarian system in raising levels of sufficient access to energy.
Reliability	 Limited Progress	• At the household level, displaced people have been supported in some settings to access solar home systems or mini-grid connections, which can increase the reliability of their connections. For community spaces and businesses in displaced settings, there are cases of sustainable technologies providing more reliable access. • The reliability of energy access at the institutional level is a very mixed picture. In some locations, projects have supplied mini-grid and back-up systems which can reduce problems of variability and broken systems.

		• Therefore, it is estimated that some limited progress has been made in terms of the reliability of access within humanitarian contexts.
Affordability	 Mixed Progress	• Some projects actively support the reduction of energy costs through provision of solar and renewable solutions, which can reduce fuel costs. A few household projects have also made sustainable sources of energy affordable for displaced people. • However, many communities are not served by such projects. In these locations, refugees and internally displaced people are forced to secure and pay for their own energy. These costs place a significant burden on displaced communities. • Therefore, mixed progress has been made on the affordability of energy access.
Sustainability	 Limited Progress	• There has been some progress on the sustainability of technologies, using low-carbon and renewable sources of energy. New global policies and strategies have committed to provide sustainable energy and to move beyond traditional and fossil fuel sources. • Environmental sustainability is increasingly considered by programmes and decarbonising energy infrastructure receives a lot of attention from agencies and donors. • Energy efficiency is recognised as an important topic but is still underutilised. • However, in terms of the financial and long-term sustainability of programming, little progress has been made to reduce free distribution of energy items in protracted situations, and practical examples of alternative delivery models are not yet delivering at scale. • Therefore, there is limited progress on the sustainability of programming in humanitarian systems.
Accountability of Institutions for Energy Provision	 Improvement	• Since 2018, many institutions have committed to providing energy access for refugees and displaced people. The UN Refugee Agency (UNHCR) and the International Organization for Migration (IOM) have created strategic plans and suggested measurable targets to achieve SDG 7 for displaced people. • Such commitments enable progress to be tracked and institutional accountability to be facilitated within the sector. • However, it should be noted that currently progress towards many of these targets is not measured or tracked. While some measurement tools exist, detailed data is not available, and so overall accountability of institutions remains low.

Inclusion and Participation of Displaced People	 Limited Progress	• Building on the experiences of the humanitarian system in other sectors, inclusion remains a key programming principle. Progress is being made within energy programming on inclusion accordingly. However, inclusive change is still limited due to the need for funding for specific technical expertise on energy within displaced communities. • Several humanitarian energy programmes have pursued active hiring processes for refugees. • Many events are still happening without meaningful participation of refugees or internally displaced people, and programming is not inclusive. The Global Platform for Action is committed to mainstreaming inclusion and has secured funding to ensure displaced people have a voice in data and programming discussions. • Therefore, progress on inclusion and meaningful participation is limited.

Table: Progress towards SDG 7 within the Humanitarian Energy Sector in 2022.

Understanding Institutional Funding and Innovative Financing

Many existing energy markets have developed organically in protracted situations from the needs of displaced people, local supply options, and entrepreneurship by refugees and host community businesses. However, such local energy markets are sometimes not considered by humanitarian interventions. Understanding energy market dynamics is complex, and further challenged by the difficulties faced within the humanitarian system due to lack of funding and complex financing arrangements. There is currently a lack of funding for humanitarian energy programming, and humanitarian procurement and supply mechanisms are not necessarily designed to deliver innovative financing approaches.

Chapter 4 outlines some of the core terms used on funding and financing across the sector. The chapter explores the prevailing delivery mechanisms within the sector, with a focus on grant funding, donations, challenges and opportunities within market systems. Conventional approaches to energy financing and funding in displacement settings have traditionally been led by humanitarian organisations. To date, progress has been slow and many agencies lack energy budgets on a global and institutional scale. However, there has been some progress within the development of innovative financing, through the use of blended approaches and market-based solutions. Considerably more investment and research are needed to understand the costs of humanitarian energy, and there is a need for collaborations with existing markets to enable alternative ways of sustainably financing the sector.

Delivering Change at Scale: Technical Capacity and Alternative Delivery Modes

Energy is sourced and supplied in many different ways in displacement contexts, with energy supply structures, access mechanisms, and payment processes highly dependent on context and national hosting arrangements. Understanding the state of play on delivery and technical capacity requires

analysis of the actors and institutions involved, how programming is developed and delivered, and what funding routes are used to deliver sustainable energy interventions.

Chapter 5 describes the main types of energy delivery mechanisms in displacement settings, which include: humanitarian provision, public or governmental provision, NGO provision, community-based provision, and independent access through markets. The chapter analyses progress in terms of effective delivery and building sectoral expertise, and the major capacity challenges and alternative delivery mechanisms. Much has been achieved in recent years in terms of improving the overall capacity and skills related to sustainable energy in the humanitarian sector. However, there remain systemic challenges affecting delivery mechanisms based on procurement and distribution. The report emphasises the need to continue to build effective public–private partnerships, push for more dedicated energy expertise within the humanitarian system, focus on developing capacities of local communities and energy utilities, and share knowledge across stakeholder groups about successes and failures equally.

Clear Evidence: Data and Measurement Needs

The challenge of providing energy data in humanitarian settings is considerable. Currently, there is very little data directly on humanitarian energy. While national urban and rural data on electrification rates and access to clean cooking fuels and technologies exist, there is limited accurate quantitative evidence on how displaced people use energy. Energy data reporting in humanitarian situations is multifaceted. It covers everything from reporting needs for UN agencies, to project assessments by NGOs and implementing partners, to the results of feasibility and impact assessments, alongside evidence from academic and research reports. Currently, data that does exist is piecemeal or site specific, and is not comparable between camps or settlements.

Chapter 6 showcases the types of evidence that is missing in humanitarian settings, including the lack of evidence from programmes and planning processes, and summarises the limited global baseline data available. Without sufficient baseline data for the sector, progress towards SDG 7 cannot be accurately tracked. This chapter outlines progress on evidence: highlighting global strategies that provide specific baselines and targets, describes where current sources of energy data can be found, and suggests what actions might be taken to deliver high-quality usable evidence on energy within the humanitarian system.

Climate Action: Ensuring a Clean Energy Transition for All Displaced People

Climate change is increasing and exacerbating multiple displacement risks. Extreme weather events and changing climates can induce displacement and the effects of these are disproportionately felt by people in vulnerable situations, increasing the need for both immediate humanitarian assistance and long-term adaptation strategies. The effects of climate change, both present and future, will have a significant impact on the humanitarian system. But while humanitarian agencies respond to these crises, their activities also contribute to climate change. Achieving SDG 7 on sustainable energy in displacement settings can also support the realisation of SDG 13: to take urgent action to combat climate change and its impacts.

Chapter 7 indicates the major challenges associated with climate impact and climate resilience in displacement contexts. It highlights that increasing energy access means going beyond energy provision alone and identifying pathways for enhancing the role of clean energy solutions in national development plans and key strategic sectors. The chapter provides case studies and examples of where UN agencies and humanitarian organisations have encouraged environmentally sustainable and clean energy transitions, which bridge the gap between humanitarian and development work and help address climate action. Although there has been progress towards climate action, there is still much to do to scale up action and identify issues around the climate impact of the humanitarian sector.

Inclusive Change: Practical Recommendations and Learning within the Sector

Experience within the sector demonstrates the importance of learning from existing projects to support energy access for displaced populations. Although the humanitarian sector is evolving quickly, many topics require further exploration, these range from knowledge of levels of energy access, inclusive planning, embedding policy knowledge to support host countries, and energy targets within humanitarian agencies. Chapter 8 therefore, explores practical learning that is essential to the progression and sustainability of the humanitarian energy sector and for the implementation of necessary energy services for displaced populations. The chapter provides an overview of recommendations on household cooking, household electricity, energy for enterprises, energy needs for community facilities, and energy for operations and institutions. It is vital to place the voices and knowledge of displaced people at the heart of global and national decision-making on energy policies in humanitarian contexts. While some displaced people demonstrate considerable knowledge and skills on sustainable energy, policy-making and programming, they are not included in the development of the humanitarian energy sector. Inclusive change is essential to drive forward progress on delivering sustainable energy with displaced people.

Concluding Thoughts: Progressive and Collective Action

Chapter 9 highlights that the world faces a growing humanitarian challenge with over 102 million people forcibly displaced from their homes by multiple and protracted conflicts in 2022. The realities of living without access are extreme. Many people still cook over three-stone fires using firewood and live in the dark at night. Small enterprises run by displaced people are unable to access the energy they need to run their businesses, provide local jobs, or drive local economic development. Community facilities such as schools, hospitals, water, sanitation and hygiene facilities, and refugee community spaces are without reliable power. Humanitarian facilities, offices, compounds and registration spaces use expensive and polluting diesel fuel. These factors reduce the quality of life of refugees and displaced people, cause financial and environmental pressures on humanitarian agencies and host communities, and contribute to global climate emissions. The final concluding chapter of this report summarises the key advocacy issues and recommendations suggested from our analysis: demonstrating the urgent need for sustainable investment and political commitment to delivering SDG 7 in humanitarian settings.

Topic	Advocacy Issue	Recommendations
Coordination and Governance	• Substantial investment is required to embed sustainable energy within humanitarian response, dedicated support is needed for coordination and advocacy for policy change and increased resources. • Collaborative working is essential to deliver sustainable and long-term change. Individual actions and stand-alone programmes by agencies will not deliver change at scale. • Alternative partnerships that collaborate beyond the traditional hum anitarian mechanisms are required to deliver energy access.	• Dedicate funding for coordination: Donors to invest in long-term, multi-year, adaptable funding with resourcing for core coordination functions. • Work in partnership: Develop and deliver programmes and investments using substantive co-design with partners and displaced people. • Actively coordinate and share learning: Donors and programmes to openly and publicly share knowledge, data, evidence and reflections from their programming. • Mainstream sustainable energy response: Cluster leads should mainstream transformation on sustainable energy solutions within their activities.
Policy and Advocacy	• There has been some progress on policy at the global, national and local levels and within some humanitarian partners. • Progress on delivering access to sustainable energy and transitioning to cleaner energy sources in infrastructure is still highly limited. • The majority of the world's displaced population still live without access to sustainable, reliable, affordable or modern sources of energy. • Sustainable Development Goal 7 is highly unlikely to be achieved in displacement contexts by 2030.	• Support progressive national and global policy-making: Host countries to be supported to include displaced populations in national and regional energy planning, in line with the Global Compacts on Migration and Refugees. • Reduce emissions levels: Organisations should commit to a clear timeline and investment plan to reduce greenhouse gas emissions related to the use of diesel generators. • Set measurable targets to measure progress: Setting short-term targets for 2025, medium-term targets for 2030, and long-term targets for 2050 can provide accountability and demonstrate progress. • Advocate for inclusive change: Donors and other energy stakeholders to firmly include displaced people in the 'leave no one behind' agenda.
Funding and Financing	• Alternative forms of funding are needed to finance the supply of sustainable and renewable energy in displacement contexts.	• Increase of donor funding: Donors should consider cross-sectoral funding of energy programmes and include displaced people in existing broader energy programmes.

	• Innovative financing mechanisms and collaboration with the private sector can enable new ways of working, but institutional changes within agencies and collaboration with local markets are necessary to support such progress. • Free distribution of energy products in protracted situations can damage local markets and reduces self-reliance opportunities for displaced people.	• Make use of new financial mechanisms: Organisations should collaborate and learn about new innovative financing and alternative funding structures, such as blended finance, cash-based transfers and vouchers for energy. • Use market-based approaches: Organisations should align with local markets and in protracted situations support private-sector provision of energy services for long-term sustainability, for example, potential carbon financing support for clean cooking solutions. • Use holistic approaches: Organisations should identify financial synergies in the decarbonisation of existing energy infrastructure and electricity provision for displaced people.
Delivery and Capacity	• There is a critical deficit for funding of energy delivery staff and expert technical capacity on energy within the humanitarian sector. • Urgent resources are needed at the local, national and global levels to ensure low-carbon delivery is possible. • There are many complex delivery models and implementation mechanisms which require new research to facilitate more effective implementation.	• Collaborate with expert energy partners: While core staffing is needed within agencies, humanitarians cannot deliver sustainable energy approaches alone – working with expert NGOs and energy suppliers is essential. Organisations should invest in energy expertise providers, such as NORCAP or GIZ, to support capacity. • Develop new sustainable delivery models: The GPA and World Food Programme delivery models training is available to kickstart innovative delivery processes.
Evidence and Data	• There is limited reliable data within the sector. New data and analysis can guide sustainable programming with clear evidence. • Practical progress and systemic reform of humanitarian energy cannot take place without high-quality data. • Inclusive and targeted research is necessary to work with displaced communities and their hosts and generate evidence to inform systemic change.	• Develop a global baseline for energy access: Core funding for data collection and analysis on most of the world's displacement sites is needed to measure progress towards delivering SDG 7 by 2030. • Invest in new research and evidence: Organisations should support the development of new data on humanitarian energy needs and programming. • Utilise and build inclusive evidence structures: New evidence on humanitarian energy must be developed with displaced people.

Climate Action and Decarbonisation	• The effects of climate change are already being felt in displacement contexts and all stakeholders must act immediately to reduce their greenhouse gas (GHG) emissions. • In order to reduce its contribution to the global climate crisis, the humanitarian sector must invest in energy efficiency as well as renewable and low-carbon sources of energy. • Efforts to achieve SDG 13 on climate action can spur direct action towards SDG 7 on sustainable energy as a means to reduce emissions, and unlock climate financing to make these a reality. • Policy action and international commitments can motivate local and national change.	• Action to address climate change must happen now: A rapid and sector-wide scale-up of sustainability interventions is necessary to stand a chance of meeting organisational or national GHG reduction targets by 2030. • Leverage sustainability targets to catalyse large-scale implementation: Organisations could capitalise on political and organisational commitments to reduce emissions by identifying the ways in which energy efficiency and sustainable energy can support GHG reductions. • Link sustainability with operations: Organisations should support the alignment of decarbonisation of energy infrastructure with the provision of energy for displaced households and businesses. • Raise political ambitions on supporting climate action: For example, by adopting the Climate and Environment Charter for Humanitarian Organizations.
Practical Tools and Inclusive Action	• Practical solutions and expert energy partners are available to support the humanitarian sector in delivering sustainable energy access and decarbonising energy infrastructure, for example, through resources developed by the GPA and partners. • Progressive action must be inclusive, working with displaced people at every stage of response, facilitating jobs and livelihoods for refugees, internally displaced people, migrants and host communities. • Without such approaches, displaced people will always be viewed as beneficiaries rather than decision-makers or customers. A change in language is needed to support systemic reform of the humanitarian system to work with displaced people as partners.	• Open-source collaboration: Continue and expand the use of open-source-platforms, such as Energypedia to distribute results and offer training for interested stakeholders. • Build a bottom-up inclusive sustainable energy system: Ensure priority involvement of displaced people, host communities and host governments from planning to implementation of sustainable energy interventions. Hire displaced people and host community members within humanitarian energy programming and policy-making. • Be site-specific in response planning: Develop context appropriate solutions, not one-size-fits-all approaches, as energy is not an end in itself, but a means to enable human development. Promote recovery, self-reliance and livelihood opportunities.

		• Align progressive inclusive approaches on energy with key response issues: Integrate gender-sensitive approaches and work directly with displaced people. Focus on local solutions and financial sustainability. Adhere to the 'do no harm' principles and ensure consumer protection measures are in place if using market-based approaches.
Energy for Households	• 94% of displaced people in camps do not have access to electricity and 81% rely on firewood and charcoal for cooking. • A step-up in investment is needed to move to cleaner cooking options to meet World Health Organization guidelines: Tier 4 for indoor emissions from stoves is a minimum for improving health outcomes. • Basic solar lantern provision only provides Tier 0 or 1 lighting solutions, which often do not align with national energy provision standards. • Free distribution of products can damage livelihoods in protracted situations where existing local energy markets already exist. Extremely poor people within displaced communities may need additional cash-based support. • Power demand will grow once electricity is available; designing scalable solutions is necessary, which may also include displaced people paying for additional services.	• Conduct a full needs assessment before designing solutions. • Develop market-based solutions for electricity and cooking interventions, where possible. • Cash-based assistance can also be used to support the extremely poor and most vulnerable displaced people, who may be unable to access markets without support. • Design interventions to include electricity as well as lighting provision. Solar lanterns should also include mobile phone charging capacity. • Design of household electricity solutions should be market-based and align with existing local markets. • For cooking needs in households: Tier 4 solutions to reduce indoor pollution should be provided, using clean technologies and fuels. • For electricity in households: Tier 3 or above access to electricity should be provided and should be powered by renewable technologies.
Energy for Enterprises	• Energy for refugees' and internally displaced people's (IDP) livelihoods is often a neglected topic in humanitarian actions.	• Include energy planning for livelihoods in response planning. • Local informal businesses should be supported and engaged throughout design of interventions. Conduct a market assessment before designing solutions.

	• Local businesses in refugee and IDP settings do not currently have enough energy to support their livelihoods or to develop self-sufficient communities. This includes the energy needs for small-scale agriculture and productive uses. • Informal refugee and IDP-led businesses can provide considerable access to energy in protracted camp settings.	• For energy for enterprises: Tier 3 or above access to electricity should be provided for displaced businesses and should be powered by renewable technologies.
Energy for Community Facilities	• Electricity for public spaces such as community halls, playgrounds and refugee governance spaces is often a forgotten investment area: many of these spaces are without electricity access. • Water, sanitation and hygiene and health posts are a key electricity need in displacement settings. • In most cases, electricity production through solar or renewable solutions is significantly cheaper over their lifetime than through traditional fossil fuel generators. • Systems can be aligned with national and institutional power provision to decarbonise electricity supply effectively.	• Conduct a co-design and needs assessment before developing solutions. • Include energy planning for public spaces in response planning. • Align provision of power for water pumping, other water, sanitation and hygiene facilities and other community services, to reach economies of scale. • Support energy service models through local partners through grant-based energy products. • For community facilities: Tier 4 or above access to electricity should be provided for community facilities in displacement settings and should be powered by renewable technologies.
Energy for Institutions	• Slow progress is being made to decarbonise humanitarian operations. The sector is not on track to meet SDG 7 by 2030, emissions from the humanitarian sector are driven by energy use and continue to rise.	• Conduct a co-design and needs assessment before developing solutions. • Include energy planning for public spaces in response planning. • Align provision of power for water pumping, other water, sanitation and hygiene facilities and other community services, to reach economies of scale. • Support energy service models through local partners through grant-based energy products.

	• Renewable and mini-grid energy can support low-carbon, reliable, lower-cost solutions in humanitarian settings. Payback rates for solarisation projects are usually between three to five years, for energy-efficiency projects even lower. • Grant subsidies can support alternative parts of the energy delivery chain, but need to be market-based and planned. Purely grant-based models without long-term operation and maintenance support, including finance for spare parts, are not recommended.	• For institutions: Tier 4 or above access to electricity should be provided for community facilities in displacement settings and should be powered by renewable technologies.

Table: Advocacy Issues and Recommendations for Energy in Displacement Settings.

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