

Lighting the Path: Innovative Finance for a Just and Inclusive Transition to Energy in Humanitarian Settings



Jelila, walking from the classroom to the dormitory together with two friends from Tumaini Lifeworks Girls' Secondary School in Kakuma, Kenya. Without access to sustainable and reliable electricity the school lacks outdoor lights. The girls are afraid of snakes, scorpions and spiders. With the support from NORCAP and UNHCR, solar-power systems are being installed at schools, health centres, refugee reception centres and other facilities in the area. But more needs to be done. (Photo: Ingebjørg Kårstad/NRC)

As the world prepares for COP30 in Belém, Brazil, the urgency of delivering scalable and innovative climate finance solutions has never been greater. The fallout from COP29 in Baku, where the new climate finance goal fell short of expectations, deepened frustration among developing nations, highlighting the widening divide between the global north and south. Despite government agreements on strong standards for carbon markets under Article 6 of the Paris Agreement, a credible framework for mobilising large-scale finance remains elusive. Meanwhile, climate disasters are intensifying, the 1.5°C target is slipping further out of reach, and geopolitical shifts—including the potential U.S. withdrawal from the Paris Agreement and dismantling of USAID—threaten to weaken global climate cooperation. In this uncertain landscape, innovative financing mechanisms such as blended finance, impact investing, catalytic capital, and risk-mitigation instruments are sine qua non to bridging the investment gap and accelerating a just and inclusive clean energy transition in the global south, and particularly in contexts of fragility, conflict, and violence.

A just and inclusive transition - Why?

Despite global momentum toward clean energy adoption, stark inequalities persist, leaving millions without access to affordable and sustainable energy solutions. In 2023, 750 million people lacked electricity, about a 1.3% reduction from 2022, and the first time in decades where there has been a reversal in the numbers lacking electricity access globally, while over 2 billion people remained without access to clean cooking.³

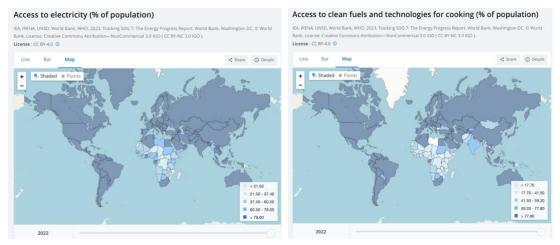


Figure 1: Access to electricity and access to clean fuels and technologies for cooking (% of population) Source: World Bank (2023)

¹ United Nations Climate Change Conference (2024) *Paris Agreement Crediting Mechanism*. Available at: https://unfccc.int/process-and-meetings/the-paris-agreement/article-64-mechanism (Accessed February 14, 2025)

² Reuters (2025) *EU warns of 'serious blow' from Trump on climate change*. Available at: https://www.reuters.com/business/environment/eu-warns-serious-blow-trump-climate-change-2025-01-08/ (Accessed February 14, 2025)

³ IEA (2024) *SDG 7: Data and Projections*. Available at https://www.iea.org/reports/sdg7-data-and-projections/overview#access-to-electricity (Accessed 24 January 2025)

This disparity is most severe in Sub-Saharan Africa and crisis-affected regions (figure 1), where many depend on costly and polluting energy sources such as diesel generators and firewood.⁴ The Group of Twenty (G20)-endorsed principles of a just and inclusive energy transition emphasise the need to tackle energy poverty, promote social equity, and ensure human rights,⁵ aligning with the UN's 'leave no one behind' principle and the 2030 Sustainable Development Agenda.⁶ However, realising these goals requires scaling up investments in renewable energy and deploying innovative financial approaches to unlock capital for clean energy in the global south.⁷

Blended finance: A catalyst for a just and inclusive clean energy transition in fragility

Figure 2: Overview of blended finance in delivering SDG 7. Source: GPA and NORCAP (2022)

In settings of displacement due to conflict and disasters, Humanitarian Innovative Finance (HIF) emerges as a promising approach, blending public humanitarian funds with development finance and private capital to significantly increase the financial resources available for market-based

⁴ World Bank (2023) Access to clean fuels and technologies for cooking (% of population). Available at: https://data.worldbank.org/indicator/EG.CFT.ACCS.ZS?view=map (Accessed 24 January 2025)

⁵ G20, Brasil 2024 (2024). Energy Transitions Working Group reaches consensus in Foz do Iguaçu. Available at: https://g20.gov.br/en/news/energy-transitions-working-group-reaches-consensus-in-foz-do-iguacu (Accessed 24 January 2025)

⁶ UN Sustainable Group (2025) *Leave No One Behind*. Available at: https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind (Accessed 24 January 2025)

⁷ IRENA (2024) A just and inclusive energy transition in emerging markets and developing economies: Energy planning, financing, sustainable fuels and social dimensions. Available at: https://www.irena.org/Publications/2024/Sep/A-just-and-inclusive-energy-transition-in-emerging-markets-and-developing-economies (Accessed 24 January 2025)

solutions to humanitarian crises.⁸ According to the Grand Bargain, HIF refers to various financing models and approaches that leverage humanitarian capacity and grant funding to catalyse capacity, partnerships and capital financing from development, local and private sectors. HIF aims to expand the resources available in fragile settings, increase efficiencies, and achieve greater sustainable impact on affected populations and by so doing, reducing needs and providing exit strategies for humanitarian assistance with time.⁹

Importantly, HIF is a form of blended finance, which is an approach for increasing the amount of project funding by combining different types of financing and instruments from various sources and for different purposes. These sources collectively leverage and contribute to development, social, environmental, or humanitarian impact while also generating financial returns.¹⁰

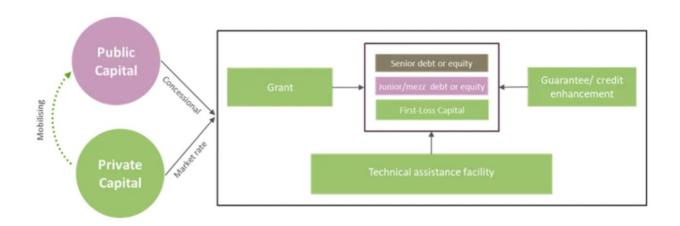


Figure 3: Typical blended finance structural features. Source: Hogan Lovells (2024)

⁸ ODI (2024) *Humanitarian Innovative Financing in fragile settings. Taking stock and charting the road ahead.* Available https://odi.org/en/publications/humanitarian-innovative-financing-in-fragile-settings-taking-stock-and-charting-the-road-ahead/. (Accessed 24 January 2025)

⁹ Inter-Agency Standing Committee IASC) Grand Bargain (2024). Strategic Dialogue on Innovative Financing. Summary Note – 24 June. Available at: https://interagencystandingcommittee.org/sites/default/files/2024-07/Summary Note Innovative Financing 24 June 2024.pdf. (Accessed 24 January 2025)

¹⁰ GPA and NORAP (2022) *Blended Finance Solutions for Clean Energy in Humanitarian and Displacement Settings*. Available at: https://www.nrc.no/resources/reports/blended-finance-solutions-for-clean-energy/ (Accessed 24 January 2025)

Blended finance integrates risk-tolerant capital, often termed as 'concessional capital,' with capital that seeks market-rate returns, known as 'private capital' (figure 3).¹¹ This strategic combination aims to address pressing social and environmental issues and create complementarity and additionality in impact making it particularly relevant in the context of humanitarian settings where traditional funding mechanisms fall short. For example, in 2023, only 39.5% of requested humanitarian funding needs were met.¹² Therefore, by leveraging creative mechanisms—such as technical assistance, and advisory models, direct grant funding for the removal of commercial barriers, and risk transfer mechanisms like contractual guarantees, guarantee funds and insurance—this approach facilitates sustainable energy solutions. Additionally, market incentives such as results-based financing and challenge funds further enhance the viability of clean energy initiatives in humanitarian contexts.

An illustrative example of such a context could be the capital stack for a mini-grid electrification project that seeks to provide clean energy access in a refugee camp in settings of protracted crisis for productive uses. Philanthropic (humanitarian and development) donor grants are deployed to support technical assistance to increase the 'invest-ability' of the project. Development finance institutions (DFIs) then provide public capital investments structured as concessional and subordinated ('junior') capital which is then added to the fund pool and is provided with low or almost zero profits, such that if losses occur, these junior investments are affected first. This makes the project more attractive to private capital investments which have a 'senior' position in terms of returns and are only affected by losses after junior investments have been exhausted. With such catalytic use of capital, the risk-return profile of the mini-grid project is now improved and attracts private commercial capital from impact investors in humanitarian settings.

A real case study is the commitment to unlock Africa's clean energy potential by the United Arab Emirates (UAE) at the 2023 African Climate Summit. Under the Etihad 7 platform, the UAE committed USD 4.5 billion in blended finance to provide clean electricity to 100 million people across Africa by 2035. This initiative exemplifies how partnerships and innovative financing can address the continent's dual challenges of energy access and transition. Let's break this down to better understand its implications!

¹¹ Hogan Lovells (2024) *Blended finance: funding sustainable development with public and private funding*. Available at: https://www.hoganlovells.com/en/publications/blended-finance-funding-sustainable-development-with-public-and-private-funding (Accessed 24 January 2025)

¹² Farber, V. et al. (2024) Humanitarian Impact Finance: Instruments & Approaches. Switzerland: Institute for Management Development (IMD). Available -Overview. (Accessed 24 January 2025)

¹³ IRENA (2024) *A just and inclusive energy transition in emerging markets and developing economies: Energy planning, financing, sustainable fuels and social dimensions*. Available at: https://www.irena.org/Publications/2024/Sep/A-just-and-inclusive-energy-transition-in-emerging-markets-and-developing-economies (Accessed 24 January 2025)

Problem

Africa continues to face significant energy challenges, with millions lacking access to reliable electricity and clean energy solutions. These challenges are compounded by high capital costs, fragmented infrastructure, and insufficient private sector participation. Traditional financing models have fallen short of the scale needed to catalyse investments and address these gaps.

Impact

The initiative aims to deliver 15 GW of renewable energy capacity by 2030, significantly expanding electricity access across Africa. It will lower energy costs through regional integration, support the transition to renewables, and create a sustainable investment ecosystem. By addressing key barriers to private sector participation, this initiative lays the foundation for scalable, long-term energy solutions that benefit both the environment and local economies.

Solution

The UAE's initiative combines public, private, and development resources to drive investments in Africa's clean energy sector. The Abu Dhabi Fund for Development (ADFD) has committed USD 1 billion to fund critical infrastructure and mobilise private capital. Etihad Credit Insurance (ECI) is providing USD 500 million in credit insurance to de-risk investments. Masdar, through its Infinity Power platform, is deploying USD 2 billion in equity and USD 8 billion in project financing to develop 10 GW of renewable energy capacity by 2030. AMEA Power is contributing USD 1 billion in equity and USD 4 billion in project financing to add 5 GW of capacity by the same year. Supporting these efforts, Africa 50 is ensuring project readiness and facilitating investments through the Alliance for Green Infrastructure in Africa, fostering a robust pipeline of bankable green infrastructure projects.

The UAE's initiative highlights the transformative potential of blended finance in driving renewable energy investments. By aligning public, private, and development resources, it creates a pathway for scalable solutions that address energy access and transition challenges. This case underscores the importance of partnerships, risk mitigation, and innovative financing in achieving sustainable development goals and bridging Africa's energy gap

The road ahead: Scaling efforts!

The global drive for clean energy is gaining momentum, but significant challenges remain, particularly in humanitarian settings where energy access is most critical. These challenges include financing gaps, infrastructure deficits, insufficient political will to create an enabling environment within some countries, and inadequate technical capacity, all of which constrain the scalability and sustainability of clean energy solutions. Addressing these barriers requires targeted and bold action, innovative approaches, cross-sector collaboration and collective impact alliances that align humanitarian energy initiatives with global sustainability goals, ensuring that displaced populations are not excluded from the just transition.



Onwards and Upwards! Together!

Achieving a just and inclusive energy transition necessitates the collective efforts of individuals, organisations, and governments. The clean energy transition offers a unique opportunity to address pressing global challenges—climate change, energy inequality, and resilience in humanitarian settings—while improving lives and creating a sustainable future for all.

- 1. For policymakers, the focus must be on creating enabling environments that support investment in renewable energy and foster innovation. This includes developing clear regulatory frameworks, incentivising clean energy adoption, and ensuring that energy transition policies prioritise underserved and displaced populations. Governments must also work closely with humanitarian actors to integrate renewable energy solutions into crisis response plans and broader development strategies. For example, the Azraq refugee camp in Jordan became the world's first to be powered by renewable energy, exemplifying how collaboration among host countries, the private sector, and aid communities can bring affordable, clean, and sustainable energy to forcibly displaced persons.¹⁴
- 2. Private sector innovations including social enterprises have a critical role to play as drivers of technological innovation and investment. Companies specialising in renewable energy technologies can develop scalable solutions tailored to the needs of off-grid and crisis-affected populations. Partnerships with humanitarian organisations can bridge gaps in expertise and resources, while creating sustainable energy systems that reduce operational costs, environmental impact, and ensures that vulnerable populations are not excluded from the global clean energy transition. For example, the Renewable Energy Access Challenge (REACH) brings together private enterprises such as Charm Impact, Acumen, and Open Capital Advisors alongside humanitarian actors such as Mercy Corps to accelerate energy solutions in underserved regions. By combining market expertise, capacity building, and financing, these partnerships develop scalable, off-grid solutions tailored to crisis-affected populations.¹⁵
- 3. Philanthropic funders and commercial financiers are key to scaling clean energy access by deploying capital into high-impact, sustainable projects. Blended finance and concessional funding help de-risk investments and attract private sector participation. For instance, the German Federal Foreign Office's €21 million commitment to the Decarbonising Humanitarian Energy (DHE) Programme exemplifies this approach, financing the transition from diesel generators to renewable energy in displacement settings across five

¹⁴ Live Wire (2020) Energy Solutions for Forcibly Displaced Persons and Their Host Communities: Closing the Financing Gap. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-for-Forcibly-Displaced-Persons-and-Their-Host-Communities-Closing-the-Financing-Gap.pdf?sequence=1">https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-for-Forcibly-Displaced-Persons-and-Their-Host-Communities-Closing-the-Financing-Gap.pdf?sequence=1">https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-for-Forcibly-Displaced-Persons-and-Their-Host-Communities-Closing-the-Financing-Gap.pdf?sequence=1">https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-for-Forcibly-Displaced-Persons-and-Their-Host-Communities-Closing-the-Financing-Gap.pdf?sequence=1">https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-for-Forcibly-Displaced-Persons-and-Their-Host-Communities-Closing-the-Financing-Gap.pdf?sequence=1">https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-for-Forcibly-Displaced-Persons-and-Their-Host-Communities-Closing-the-Financing-Gap.pdf?sequence=1">https://openknowledge.worldbank.org/bitstream/handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-handle/10986/33951/Energy-Solutions-ha

¹⁵ Lighting Global (2025) *Renewable Energy Access Challenge (REACH) Partnership*. Available at: https://www.lightingglobal.org/activities/reach-partnership/ (Accessed February 15, 2025)



- Sahel countries. Similarly, the International Committee of the Red Cross (ICRC) Climate and Environment Transition Fund, launched with an initial USD 18 million investment, aims to transition ICRC operations to solar power, cutting carbon emissions by 140,000 tonnes and saving up to USD 58 million over 20 years. ¹⁶
- 4. Humanitarian entities such as NORCAP and the Global Platform for Action (GPA) play a central role in facilitating clean energy access in humanitarian settings. By leveraging diverse financing sources, like donor funds from agencies such as NORAD, blended finance models, and partnerships with the private sector, they can better coordinate and align priorities among humanitarian, development, private sector, and government actors to support the delivery of impactful, sustainable, and scalable renewable energy solutions in humanitarian settings. Their expertise in deploying experts who tailor projects to local contexts in disaster settings around the world ensures that energy access is aligned with broader humanitarian objectives. Additionally, their ability to convene stakeholders across sectors positions them as catalysts for partnerships that bridge financing and capacity gaps in crisis-affected regions. For example, the Clean Energy Challenge co-led by the GPA seeks to bring private companies, international/national NGOs, research institutes, UN agencies and philanthropic organisations together to provide green and safe energy to forcibly displaced populations.¹⁷
- 5. As individuals, we can contribute to this mission by advocating for clean energy policies, supporting organisations that work to provide energy access in humanitarian contexts, and adopting renewable energy technologies in our own lives. Every action, no matter how small, helps to build momentum for a global transition to clean energy.

This article was written by Joseph Ubek, Innovative Finance Lead, Energy & Environment, NORCAP

¹⁶ GPA (2023) *Humanitarian Energy Outlook 2023*. Available at: https://www.humanitarianenergy.org/what-is-the-gpa/resources-and-tools/humanitarian-energy-outlook-2023/ (Accessed February 15, 2025)

¹⁷ GPA (2022) Clean Energy Challenge. Available at: https://www.humanitarianenergy.org/thematic-working-areas/clean-energy-challenge/ (Accessed February 15, 2025)