

2024 Climate Action Results Report



Children stand beside an old water pump in the village of Nhier, South Sudan, which is surrounded by sandbags—an effort by locals to hold back the floodwaters slowly encroaching on their homes. With the rainy season approaching, their temporary defenses may not hold, forcing them to relocate to the nearby IDP (internally displaced people) site in Bentiu.
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FOREWORD

Conflict, violence and persecution continue to uproot millions of lives each year. Increasingly, extreme weather events are compounding these hardships. Floods, droughts, heatwaves and cyclones are striking with greater frequency and intensity.

As the data show us, climate-related hazards and forced displacement are closely interlinked. Today, three-quarters of the more than 120 million forcibly displaced people live in countries highly exposed to climate-related hazards. This makes it imperative that we work to ensure forcibly displaced people and their hosts are protected from climate-related hazards and are able to adapt and be resilient to the climate-related challenges.

Addressing these complex challenges is beyond any single entity. It demands a response that is efficient, effective and sustainable.

Climate action is not new to UNHCR. It is core to our work and central to protecting those forced to flee. For decades, we have responded to weather-related disasters and supported forcibly displaced people and their hosts in adapting to the impacts of climate change.

This report brings together, for the first time, the full scope of UNHCR's climate action results. It highlights how we are helping communities prepare for and respond to emergencies, adapt and build resilience, advance legal and policy frameworks, and reduce our own environmental footprint.

The achievements outlined in these pages are a testament to what is possible – even in the most difficult contexts – when we act with purpose and in partnership. In 2024, UNHCR's climate action ranged from emergency responses to climate-related hazards, such as the devastating floods in Afghanistan, Brazil, Yemen and South Sudan, to forward-looking initiatives that help communities anticipate and adapt to existing and future risks. These include the launch of early warning

systems, smart water sensors in drought-prone areas, or the provision of weather-resilient, sustainable shelters – to name a few. Our progress also reflects a strong commitment to minimizing our own environmental impact, including reducing our own carbon footprint through solarizing our facilities and making our supply chain more sustainable.

None of this would be possible without the partnership and support of Governments, civil society and communities, the generosity of our donors, and the dedication of UNHCR staff. We are deeply grateful for these contributions.

Looking ahead, UNHCR will continue to strengthen its partnerships and to ensure that responses are sustainable, nationally owned and deliver lasting protection to those in need. This includes working with Governments to ensure refugees and forcibly displaced persons are included in national policies, plans and services; collaborating with our wide network of partners on the ground to promote local ownership and sustainability; and joining forces with our sister UN agencies and development actors to leverage our respective comparative advantages. In line with the UN80 initiative, and rooted in our mandate, UNHCR will continue to leverage its expertise, decades of experience, and strong operational footprint to support the most effective and efficient collective responses – ensuring meaningful impact for those who need it most.

UNHCR will continue to act with urgency and resolve – protecting those most at risk today, while advancing sustainable responses that reduce vulnerabilities and foster a more resilient and inclusive future for displaced and host communities alike.

FILIPPO GRANDI

High Commissioner, United Nations High Commissioner for Refugees



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UNHCR's Approach to Climate Action

UNHCR is committed to climate action that is protection-centred, risk-informed, environmentally sustainable, and designed to address the growing **climate challenges faced by refugees and others in need of international protection, including asylum seekers as well as returnees, and stateless people, as well as internally displaced people (IDPs) and host communities and communities of origin.**

UNHCR works closely with partners, at-risk affected communities and host Governments in the following areas of climate action:

I. UNHCR's Emergency Response to Climate Shocks

Immediate humanitarian responses to life-threatening impacts of climate-related shocks such as floods, droughts and cyclones on forcibly displaced people and host communities.

II. Preparedness, Resilience & Adaptation to Climate Change

Improving the physical and economic means of forcibly displaced and stateless people, and their hosts to prepare for, withstand, and recover from the impacts of climate change. UNHCR ensures they have access to:

- Protection services.
- Sustainable, climate-resilient shelter and settlements.
- Climate-resilient and environmentally sustainable livelihoods.
- Preparedness measures in case of climate shocks, such as access to early warning systems.

III. Expanding Access to Climate-Smart & Sustainable Services

Ensuring forcibly displaced and stateless people, and their hosts have access to services that promote a peaceful and sustainable use of natural resources and a healthy environment. These services include:

- Sustainable water services.
- Renewable and cleaner energy services.
- Waste management and sanitation services.

IV. Law and Policy for International Protection and Inclusion

Leveraging our expertise in protection and displacement, along with our data, research, and advisory support to States, we work to ensure that national and international legal and policy frameworks can provide international and complementary protection where needed. This work is complemented by promoting inclusive policies and access to climate financing in host and origin countries, ensuring that no one is left behind.

V. Reducing UNHCR's Environmental Footprint

UNHCR is taking concrete steps to reduce the negative environmental impacts of its infrastructure and operations, including through the reduction of our carbon footprint and by transitioning to renewable energy sources in our operations.

Pillars of UNHCR's Climate Action Strategy

Emergencies	Adaptation and Resilience		International Protection	Reducing UNHCR's Carbon Footprint
UNHCR is actively strengthening its ability to respond to climate shocks, which are increasingly triggering and exacerbating emergencies, while heightening risks and vulnerabilities for forcibly displaced and host communities.	Forcibly displaced, stateless, and their hosts have improved physical and economic means to prepare for, withstand, recover and be protected from the impacts of climate change.	Forcibly displaced, stateless and their hosts have increased access to services that promote the rights-based, sustainable use of natural resources and a clean and healthy environment.	People fleeing persecution, violence and human rights violations occurring in relation to the adverse effects of climate change and disasters who need international protection are effectively protected.	UNHCR operates sustainably with systems in place to minimize negative impacts on the environment.

Habiba Djida, 44, walks with her children, Kajeeta, Ramsay, and Edi, along a dyke she is helping build at the Guilmei refugee site near N'Djamena, Chad. Her family fled climate-related conflict in Cameroon three years ago. Now, rising floodwaters from the Chari River threaten the site despite efforts to contain them with sandbags. November 2024.
©UNHCR/Andrew McConnell



EXECUTIVE SUMMARY

This report highlights the collective achievements of UNHCR's climate action by presenting results from the country, regional and global levels, demonstrating our impact in this critical area. It underscores UNHCR's protection-centred approach and showcases progress across regions and areas, ranging from enhanced preparedness, emergency response, adaptation and resilience-building, delivering sustainable services, law and policy, strategic partnerships, and efforts to reduce our own environmental footprint.


In 2024, UNHCR launched its [Focus Area Strategic Plan on Climate Action 2024-2030](#) to turn its climate commitments into action. The plan aims to strengthen protection and the resilience of displaced and stateless people at risk from or impacted by the effects of climate change, ensuring measurable progress across operations and partnerships. This first annual report covers UNHCR's response to climate-related hazards and the results of climate action taken in 2024, particularly in the 22 priority countries identified in the Focus Area Strategic Plan. (See Annex 2)

Emergency Response to Climate Shocks

Responding to humanitarian emergencies and providing protection and assistance to displaced populations is core to UNHCR's operational work and mandate. Increasingly, we are called upon to prepare for and respond to emergencies related not only to conflict and violence, but also to the impacts of climate change.

In 2024, one third of the emergencies declared by UNHCR were issued in response to the impact of natural hazards, enhanced by climate change, which shift the humanitarian needs of refugees, internally displaced people and their hosts – from drought in Zambia, to floods in Brazil, Burundi, Cameroon, Chad, Mali, Niger, Nigeria and South Sudan. UNHCR mobilized global teams to deliver life-saving assistance to those affected.

In response to the changing protection needs of forcibly displaced people, UNHCR enhanced risk analysis, monitoring and global early warning systems to prepare for and respond to emergencies.

A photograph showing a woman in a striped dress and headwrap walking through a flooded area. In the background, there are several makeshift tents or shelters made of white plastic sheeting, suggesting a displacement camp. The water is murky and reflects the sky. Other people can be seen in the distance near the tents.

Nyaguen Koang Garang, 39, walks through a flooded IDP camp in Bor, South Sudan, where heavy rains and climate-related flooding continue to displace thousands and worsen an already dire humanitarian crisis.

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Innovative solutions to climate risks in displacement settings

The UNHCR enhanced the resilience of displaced people to climate shocks and stresses through a range of initiatives, including the solarization of water systems and healthcare facilities, as part of **Project Flow**. Moreover, in **Malawi**, **UNHCR partnered with the Government to launch RapidShield**, an innovative, private sector-backed insurance initiative that **protects people from losses related to droughts** (see box on p.20).

Sustainable access to energy, water, and natural resources

Sustainable access to critical resources like clean energy and water saves and transforms lives, empowering displaced communities while safeguarding ecosystems and habitats for future generations.

- Through **Project Flow**, UNHCR supported displaced communities' access to clean energy and water by solarizing water systems and health facilities in **Ethiopia, Mauritania, Rwanda, and Sudan**, benefiting **1.2 million people**.
- Through its first pilots in **Rwanda and Uganda**, the **Refugee Environmental Protection (REP) Fund** is demonstrating how **reforestation and clean cooking** can curb deforestation and protection risks in displacement settings, while generating refugee-driven carbon credits to sustain and expand the Fund globally.
- The **SAFE+2 project** provided **190,000 refugee households in Bangladesh** with clean cooking solutions and restored degraded ecosystems.
- In **Pakistan**, UNHCR's clean energy initiatives have benefited 250,000 people.

Law and policy

In 2024, UNHCR worked with legal experts, policymakers, institutions, UN agencies, development actors, academics, and civil society—including refugee-led organizations—to strengthen international and internal displacement protection systems in the face of climate change. The agency advocated for inclusive climate policies at global, regional, and national levels to ensure refugees, displaced communities, and stateless people are part of climate action while safeguarding their rights. UNHCR delivered results across law and policy areas, including research, development frameworks, legal guidance, advocacy, and legislative reforms.

UNHCR also fills critical protection gaps for people forced to flee due to conflict, violence, persecution, disasters, extreme weather, or a combination of factors. It provides technical guidance to States to help them uphold their responsibilities toward displaced populations, whether within their borders or across them. From Mexico to the Philippines, UNHCR held consultations with local communities and advised Governments on developing laws that address all causes of internal displacement, including climate-related hazards.

Reducing UNHCR's environmental footprint

UNHCR operates in some of the world's most remote and challenging environments, which present unique logistical demands. **In alignment with the UN-wide "Greening the Blue" initiative and UNHCR Strategic Plan for Climate Action**, UNHCR is working to **reduce its environmental footprint, aiming for a 30 per cent cut in overall emissions by 2030**. So far, it has achieved a 21 per cent reduction.

KEY HIGHLIGHTS



Solarization of Water Infrastructure - In 2024, UNHCR solarized 41 additional boreholes, bringing the total to 336 solar-powered water pumps—51% of all borehole pumps operated by UNHCR and its partners. This transition from diesel to solar energy is estimated to reduce annual CO₂ emissions by 4,500 tons. Beyond environmental benefits, solar solutions offer lower operating costs and reduce reliance on fuel deliveries, enhancing operational efficiency.

Early Warning - In Mozambique, UNHCR and INGD developed an Early Warning Action Plan, trained 169 responders, and deployed aid to 30,000+ people within 48 hours of Cyclone Chido, the first of three cyclones that hit the country in the 2024-2025 season. Efforts focused on preparedness, protection, and inclusion of displaced communities in disaster planning.



Early Warning - In 2024, UNHCR launched the Early Warning and Effective Response System with Forced Displacement Forecast, in partnership with the Luxembourg Institute of Science and Technology and support from Luxembourg. The system uses predictive analytics to detect early signs of displacement risks. In 2025, a prototype will forecast flood-induced displacement in pilot countries, enhancing preparedness and resource allocation.

Disaster Risk Reduction - In Yemen, UNHCR identified flood-prone IDP sites and 91 of these received mitigation measures like drainage, sandbagging, and elevation, protecting 154,800+ people. These efforts aim to benefit 2.4M people across the country. In partnership with UNDRR and NGOs, technical assessments and community-led actions reduced damage, safeguarded lives, and supported sustainable development despite relocation challenges.



Parametric Insurance - In Malawi, UNHCR launched RapidShield, a parametric insurance program protecting refugees from climate shocks. Triggered by rainfall deficits in 2024, it delivered \$400K in payouts to 3,673 households. Each received \$100 to offset drought impacts. Backed by African Risk Capacity, the initiative is expanding with integration into national systems and technical support to optimize early payouts.

KEY HIGHLIGHTS

Climate Smart Services - In 10 countries, UNHCR expanded Smart Water Sensors (SWS) to improve real-time monitoring of water systems in drought-prone areas. With 42% of sensors installed, the system enables quick issue detection via instant alerts and dashboards. Combined with a shift from diesel to solar-powered pumps, these innovations help deliver more reliable, sustainable water access while building local capacity.



Innovative Finance - In Ethiopia, Mauritania, Rwanda and Sudan, UNHCR launched the first phase of the Project Flow initiative. This US\$ 10M initiative aims to solarize water systems and health facilities in refugee settings, benefiting 1.2M people and cutting 1,400 tons of CO₂ annually. Using a revolving financing model, \$900K/year in fuel savings are reinvested into new solar projects—boosting sustainability, reducing diesel use, and improving access to clean water.

Innovative Finance - In Uganda and Rwanda, UNHCR launched the Refugee Environmental Protection (REP) Fund, which invests in reforestation and clean cooking in refugee-hosting areas, aiming to generate the first refugee-driven carbon credits. Pilots will reforest 20,000+ hectares and support 45,000 households. Backed by public and private partners, the Fund targets 1M households over 10 years, linking climate action with livelihoods and sustainability.



Innovative Finance - In Tanzania's Kigoma region, a US\$ 19M UNEP-led climate resilience project was approved by the Green Climate Fund (GCF) with UNHCR and the Vice President's Office as executing agencies. The five-year initiative supports 570,000 people and protects 261,000 hectares through nature-based solutions like climate-smart agriculture, flood control, and water harvesting. In 2024, UNHCR planted 1.2M trees and trained 136,300 people.

Reforestation - In Uganda, UNHCR's ReForest Project combats deforestation in refugee-hosting areas by restoring forest reserves, establishing woodlots, and promoting sustainable fuel sources. Since 2019, 35M seedlings have been distributed and 1,223 hectares replanted. Plans include 820 hectares of new woodlots and restoration of wetlands. Solar-powered irrigation and repurposed rainwater dams also support agriculture and fish farming, enhancing resilience, reducing GBV risks for girls collecting firewood, and strengthening livelihoods.



KEY HIGHLIGHTS

Sustainable Access to Energy - In Ethiopia, Kenya and Uganda, the Energy Solutions for Displacement Settings programme, led by the German Corporation for International Cooperation (GIZ) provided sustainable energy to 450,000 people, including 3,000 mini-grid connections, five energy kiosks, and 17,300 improved cookstoves. These efforts saved up to 4,000 tons of CO₂ annually and offered practical guidance for scaling energy access in displacement settings.



Clean Energy - In Pakistan, a project funded by the German Federal Ministry of Economic Cooperation and Development (BMZ) delivered clean energy to 500,000+ forcibly displaced people and host communities, cutting 5,300 tons of CO₂ in 2024. Achievements include solar kits for 32,605 households, solar power for 124 facilities, improved WASH in 24 schools, and training in climate resilience. The initiative saved \$1.5M in electricity costs and generated 8,600 kW of clean energy.

Law and Policy - In Mexico, UNHCR supported the Government of Oaxaca to host over 50 consultation sessions with indigenous communities, including those affected by sea-level rise. These consultations aimed to develop an innovative IDP law addressing all causes of displacement, including disasters and the adverse effects of climate change—the first of its kind in the Americas.



Law and Policy - In the Philippines, UNHCR supported the adoption of Southeast Asia's first rights-based law on internal displacement. This landmark regional framework addresses all causes and phases of displacement, marking a major step toward protecting IDPs through comprehensive legal measures.

Law and Policy - To support the multi-stakeholder implementation of the Global Compact on Refugees (GCR), UNHCR co-authored a review of global jurisprudence, legislation, and case law on cross-border displacement in the context of climate change and disasters. Informed by research from DLA Piper and developed with experts from the Platform on Disaster Displacement (PDD), [the analysis](#) was published in June 2024 as part of UNHCR's legal and protection policy research series.



KEY HIGHLIGHTS

Refugee-led Innovation - UNHCR's Environment and Climate Action Innovation Fund supported 22 pilot projects in 20+ countries, benefiting 15,572 refugees and 228,783 others. With \$2.8M committed, projects advanced nature-based solutions, clean energy, and climate-smart livelihoods. Refugees co-designed eco-products and led green enterprises.



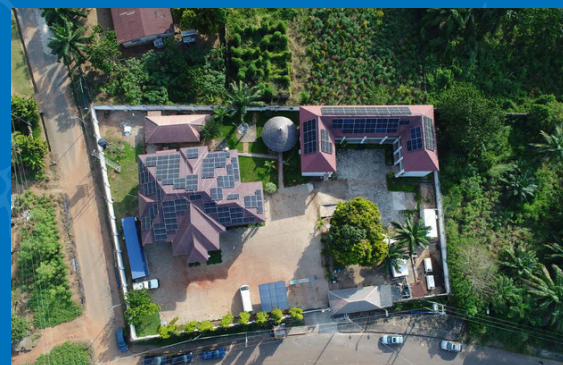
Partnerships for Climate Action - At COP29, UNHCR signed an MoU with the Green Climate Fund to boost climate finance for displaced communities, focusing on fragile settings, inclusive policymaking, and knowledge exchange. This builds on a \$19M GCF-funded project in Tanzania. UNHCR also partnered with Climate Group to engage donors and drive joint climate action through strategic communications and events.


Sustainable Infrastructure - UNHCR uses Green Boxes—remote energy meters—to track energy use across offices. Data from these devices helps identify inefficiencies, build business cases for solarization, and prioritize energy-saving interventions. Offices can view live updates and installed Green Boxes, enabling smarter, data-driven decisions for sustainable infrastructure.



Reducing UNHCR's Carbon Footprint - UNHCR transformed its supply chain to cut emissions, with nearly 60% linked to core relief items. Through its Supply Strategy 2024–2030, it aims to reduce supply chain emissions by 30% by 2030. For example, blankets are now made from 100% recycled materials, cutting production emissions by 56%. UNHCR is also sourcing eco-friendly, unbranded items and applying sustainability criteria in procurement.

Reducing UNHCR's Carbon Footprint - UNHCR's Green Financing Facility helps reduce its carbon footprint by transitioning offices from diesel to solar energy. Using a revolving fund model, operations lease solar systems at lower costs, with savings reinvested into new installations. This ensures long-term sustainability, supports local renewable energy markets, and delivers financial savings, improved infrastructure, and environmental benefits from day one.





Goodwill Ambassador Theo James visits south-eastern Mauritania to spotlight the challenges Malian refugees are facing due to the impact of the climate crisis and listens to a discussion between leaders from the host and refugee communities.
© UNHCR/Caroline Irby

INTRODUCTION

By mid-2024, over 120 million people were displaced globally. About 75 percent, or 90 million, were living in countries highly vulnerable to climate hazards. Already forced to flee conflict or persecution, they now face growing risks from floods, cyclones, droughts, and heatwaves, which are worsening as climate change accelerates.

At the same time, **refugees and other displaced and stateless people are often marginalized** and excluded from national and local level policies, plans and public services. Along with their host communities, they **lack the resources needed to reduce vulnerability and adapt**, and face particular risks related to their displacement or statelessness.

Furthermore, **climate change is contributing to the drivers of displacement**, mainly within countries but also across borders. Climate-related hazards can exacerbate or prolong conflict, for example, by increasing tensions over access to limited natural resources such as food, water and pasture, or by increasing economic instability.¹

Particular groups of people, such as women, children, older people and people with disabilities, often suffer the greatest impacts, which may be compounded by discrimination, gender-based violence, human trafficking and exclusion from climate action and disaster preparedness and response.

Recognizing the urgency to address these challenges, the [2022-2026 High Commissioner's Strategic Directions](#) emphasize the need to act and mitigate the effects of climate change on displacement. To operationalize this climate-driven direction, UNHCR launched its [Focus Area Strategic Plan on Climate Action 2024-2030](#).

To enable implementation, nearly US\$ 80 million was mobilized in 2024 from Governments, UN pooled funding, individual giving, intergovernmental donors and the private sector – including a notable contribution from the IKEA Foundation for the [Green Financing Facility](#).

This funding included over US\$ 20 million for climate-related emergencies and over US\$ 57 million for projects enhancing climate resilience and mitigating greenhouse gas emissions and other negative environmental impacts. The latter figure alone nearly doubled the US\$ 30 million raised for climate action in 2023. UNHCR also launched a [Climate Resilience Fund](#) to enable the channeling of resources to impactful climate action initiatives benefiting refugees and their host communities.

[Climate Resilience Fund](#)

The [UNHCR Climate Resilience Fund](#) aims to **protect forcibly displaced people fleeing from or living in climate-vulnerable countries by enhancing their resilience to the impacts of climate change**. It facilitates direct climate financing and action to support refugees, stateless and displaced people, as well as their host communities. Contributions to the Fund enable UNHCR to expand the reach and impact of climate-related interventions by investing in projects that build resilience, mitigate risks, and promote sustainable solutions in displacement settings vulnerable to climate change.

¹ IPCC. Synthesis Report of the IPCC Sixth Assessment Report (AR6). Available at: <https://www.ipcc.ch/report/ar6/syr/>

Why UNHCR?

As the climate crisis intensifies, UNHCR is uniquely placed to support forcibly displaced and stateless people, who are often among the hardest hit by its devastating consequences.

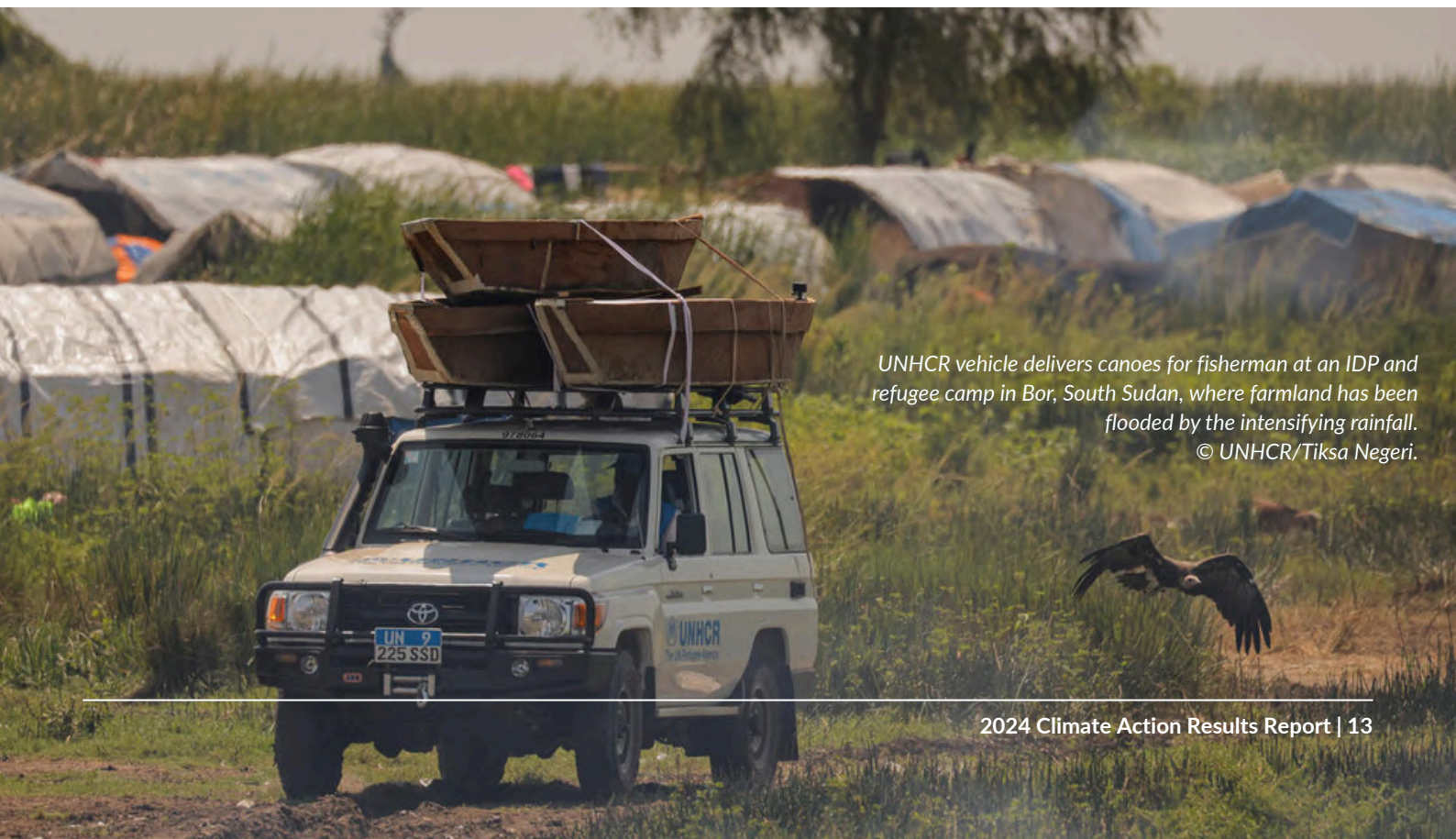
UNHCR has an operational presence in the most climate-vulnerable and socio-economically complex areas in the world. In remote regions, conflict zones, and fragile settings, UNHCR is often the sole international actor reaching displaced populations who are on the frontlines of climate disruption. We work with displaced populations and their host communities in 136 countries, and 91 per cent of our workforce is based in the field.

UNHCR's unique mandate to work with States to provide international protection and seek solutions for refugees, as well as for internally displaced people (IDPs), is clearly relevant to addressing their needs in the context of climate change and to ensuring they are not overlooked or excluded from climate action policies, development plans, and financing streams. UNHCR is a pragmatic and collaborative actor, playing a catalytic and coordinating role.

The scale, diversity and urgency of needs for climate action in displacement contexts cannot be effectively addressed by any one actor. Where other organizations are better placed to lead technical or development-focused climate action, UNHCR works in collaboration with them to ensure that impactful interventions reach the forcibly displaced people, who are among the most vulnerable to the impacts of climate change.

UNHCR's climate action portfolio is backed by evidence-based innovative solutions and tested models, from extending parametric insurance coverage to both refugee settlements and host communities and increasing access to renewable energy in refugee camps, to greening our supply chains and infrastructure.

In line with its commitment to sustainable responses, UNHCR is working to reduce long-term aid dependency and enhance stability through inclusive climate action. Its programmes strengthen water, education, energy, and food security systems that not only benefit refugees but also broader host communities, with dividends for stability and peaceful co-existence.



UNHCR vehicle delivers canoes for fisherman at an IDP and refugee camp in Bor, South Sudan, where farmland has been flooded by the intensifying rainfall.
© UNHCR/Tiksa Negeri.

In Nowshera District, Pakistan, an Afghan refugee looks over the remains of his home after devastating monsoon floods. UNHCR is providing emergency aid to displaced communities, including tents, blankets, and kitchen sets. The floods have affected millions, with refugees among the hardest hit.
© UNHCR / Qaiser Khan Afridi

I. Emergency Response to Climate Shocks

Of the [emergencies](#) declared by UNHCR in 2024, one third were triggered by the impacts of climate-related hazards on refugees, internally displaced people, and host communities – ranging from droughts in Zambia to severe flooding in Afghanistan, Brazil, the East and Horn of Africa, West and Central Africa, and Yemen. Other hazards, such as typhoons affecting Myanmar and Bangladesh, also prompted emergency declarations in those regions.

Floods, cyclones, drought and heatwaves are becoming a growing threat to people already fleeing war and violence. Displaced populations, already in precarious situations, are now facing intensified risks and deeper vulnerabilities due to climate change.



Afghanistan: Emergency response to deadly floods

Beginning in March and April 2024, **extreme flooding claimed over 300 lives and damaged more than 10,500 homes across the northern and western parts of the country.** Road destruction left tens of thousands stranded, while the loss of

livestock and farmland, along with damaged health facilities, water networks, and schools, severely impacted livelihoods.

By year-end, the **flooding had affected over 145,000 people across 33 of the country's 34 provinces**, further contributing to the challenges faced by refugees, returnees and IDPs.

Response: UNHCR swiftly deployed prepositioned emergency supplies to support families affected by the flooding:

- **Shelter:** Distribution of 918 emergency tents and provision of disaster-resilient shelter solutions.
- **Essential Supplies:** Over 2,200 kits containing household items like blankets, jerrycans, and kitchen sets.
- **Cash Assistance:** Shelter repair or rent support for over 4,700 households.
- **Livelihoods:** Startup grants and training to support income generation.
- **Mental Health Support:** Psychosocial services through community centres and mobile teams, including support for survivors of sexual exploitation and abuse.



Brazil: Floods and extreme weather

In April 2024, **Rio Grande do Sul in Brazil** experienced devastating floods caused by heavy rainfall, impacting 96 per cent of the state. The disaster **affected 2.4 million people and displaced over 600,000**.

Response: By the end of 2024, while the acute emergency subsided, challenges in restoring services persisted. UNHCR stepped in and delivered:

- **Essential supplies:** 17 tonnes of relief supplies were provided by UNHCR along with essential information, community outreach, and cash assistance to help affected individuals address urgent needs.
- **Shelter and capacity building:** 308 Refugee Housing Units, and training for shelter management to local authorities.
- **Sustained support:** UNHCR continued its broader support for forcibly displaced people in Brazil, where over 790,000 people under its mandate resided, including 144,000 people with refugee status.



East Africa: Region-wide flooding and displacement

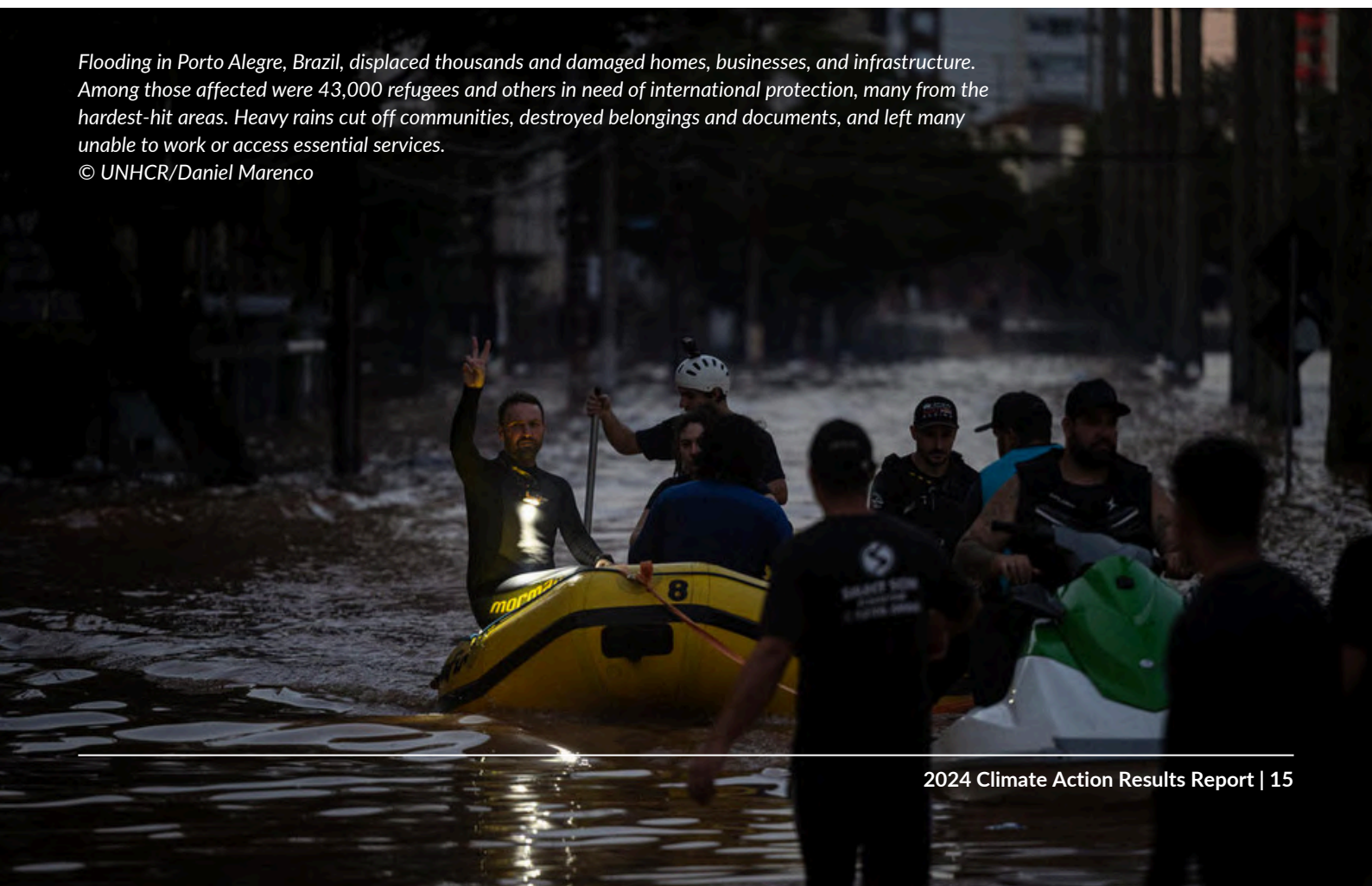
In 2024, above-average rainfall and severe flooding, triggered by the El Niño phenomenon, caused devastation across East and Horn of Africa and the Great Lakes region. Over 3.7 million people were impacted, including refugees and IDPs in Burundi, Ethiopia, Rwanda, Somalia, South Sudan, and Sudan, and hundreds of thousands were displaced within their countries. **South Sudan was the hardest hit, with 1.3 million people affected and 327,000 newly displaced, including in areas hosting Sudanese refugees and returnees.**

Response: Early warnings in at-risk areas issued by UNHCR and the **World Meteorological Organization (WMO)** in December 2023 enabled **preparedness efforts**. Once the disaster hit, UNHCR and partners provided critical assistance across affected countries:

- **Burundi:** Relief items distributed; transportation facilitated for relocation to safer areas; cash assistance provided to 5,700 households; authorities supported in replacing lost or damaged identity documents.

Flooding in Porto Alegre, Brazil, displaced thousands and damaged homes, businesses, and infrastructure. Among those affected were 43,000 refugees and others in need of international protection, many from the hardest-hit areas. Heavy rains cut off communities, destroyed belongings and documents, and left many unable to work or access essential services.

© UNHCR/Daniel Marengo



- **Ethiopia:** Cash for shelter repairs in Melkadida refugee camp; land secured for relocating 6,600 people to less flood-prone areas.
- **Rwanda:** Shelter repairs, reconstruction, and improved drainage systems in refugee camps to reduce future flood impact.
- **Somalia:** Flood preparedness messaging had reached over 70,000 people. Emergency kits distributed to 7,000+ people; 173,000 received supplies; 59,000 households received plastic sheeting; cash assistance supported 2,300 households.
- **South Sudan:** Emergency supplies and cash assistance provided; infrastructure projects such as a **7.2 km dyke and large culverts constructed** to enhance resilience. Flood awareness messaging conducted.
- **Sudan:** Protection assessments, health and nutrition services, flood awareness messaging. **WASH improvements benefited hundreds of thousands since over 668,000 people gained access to safe water, and 584,000 benefited from better sanitation facilities.**

West and Central Africa: UNHCR's lifesaving response amongst record floods

Severe flooding, driven by torrential rains, impacted over 4.9 million people across **West and Central Africa** in 2024, a staggering 485 per cent increase compared to the previous year. The hardest-hit countries included **Chad** (1.9 million affected), **Niger** (1.5 million), **Nigeria** (612,000), **Cameroon** (448,000), and **Mali** (733,000). These countries, home to large refugee and internally

displaced populations, were therefore especially vulnerable to the crisis.

An estimated 330,000 forcibly displaced individuals were directly impacted, particularly in flood-prone areas such as Maradi (Niger), Borno State (Nigeria), the Far North (Cameroon), Gao and Segou (Mali), and regions of Chad. The combination of conflict and extreme weather underscored the urgent need for stronger climate resilience and humanitarian support.

The flooding's impact extended well beyond the rainy season, exacerbating challenges for displaced populations.


Response: UNHCR provided critical support to flood-affected populations, including:

- **Emergency Relief:** Emergency supplies provided to nearly 454,000 flood-affected people.
- **Cash Assistance:** Provided cash to over 136,000 individuals, primarily for shelter and latrine repairs.
- **Protection Services:** Delivered protection services to approximately 20,000 individuals and issued essential documentation such as birth certificates to 26,000 flood-affected people.
- **Infrastructure Improvements:** Constructed and rehabilitated water infrastructure, including dykes and drainage systems, to protect communities from future floods.
- **Shelter:** Rebuilt shelters and schools to support displaced populations and host communities.

Dykes protect the largest IDP camp in South Sudan—formerly the Bentiu Protection of Civilians site—now home to over 103,000 people amid four years of historic flooding in Unity State, where climate change has permanently displaced hundreds of thousands and made return or escape nearly impossible. Once reliant on farming and cattle herding, communities have seen their traditional livelihoods washed away, leaving many dependent on humanitarian aid for survival.

© UNHCR/Andrew McConnell.



A photograph showing a woman in a patterned dress holding a young child in her arms. They are standing in front of a makeshift shelter constructed from sticks and mud. The shelter is situated on a muddy bank next to a body of water. In the background, other people and a motorcycle are visible, suggesting a displaced community. The scene is set in a rural area with some trees and a clear sky.

In Tougoude near N'Djamena, Chad, 60-year-old Djoda Marie cares for her grandchildren in a makeshift shelter after floods forced them to flee their village. Rising waters, worsened by heavy rains, have displaced hundreds and left families waiting on higher ground with little certainty about the future.
© UNHCR/Andrew McConnell



Myanmar and neighbouring countries: Displacement surges as conflict and Typhoon Yagi converge

Throughout 2024, over 1 million people were newly displaced within **Myanmar** as conflict escalated and violence surged, pushing the total number of **IDPs to more than 3.5 million**. This also triggered thousands to flee across borders, with **1.5 million refugees and asylum-seekers** from Myanmar now in neighbouring countries.

The dire humanitarian situation was compounded by extreme weather events, including **Typhoon Yagi**, which impacted over 1 million people across **11 states and regions in September 2024**. The typhoon destroyed infrastructure such as health facilities, schools, and essential roads in Myanmar. In **Bangladesh**, which is hosting 1.3 million refugees from Myanmar, ongoing heavy rains in refugee camps **triggered outbreaks of waterborne diseases** like cholera and dengue fever.

Response: UNHCR provided critical assistance both within Myanmar and in neighbouring countries:

- **Myanmar:**

- Overall, UNHCR supported **625,000 people with humanitarian aid**, including essential supplies for 360,000 people and shelter assistance for 73,500 people.

- Delivered **multi-purpose assistance** to **18,200 individuals** with specific needs, such as single-headed households and flood-affected people.
- **Assisted 26,500 flood-affected individuals** with emergency supplies and shelter in response to **Typhoon Yagi**.
- **Bangladesh:**
 - **Rebuilt infrastructure** like roads and bridges, and provided shelter materials during the rainy season.
 - Scaled up awareness efforts around waterborne diseases through community health workers.
 - Distributed mosquito nets and stocked **medicines** for treatment in UNHCR-managed refugee camps.
- **Across the region:**
 - **Supported partners in Thailand and Vietnam** in assisting stateless and local communities affected by the typhoon and resultant floods.
 - **Delivered food, hygiene supplies, and access to water and sanitation services at hosting sites in Indonesia.**
 - Advocated for the **safe disembarkation of Rohingya refugees** arriving by boat across the region, especially in **Indonesia**, where UNCHR provided lifesaving aid, documentation, and refugee status determination.

Yemen: Flash floods deepen a protracted humanitarian emergency

Between April and August 2024, heavy rains and flash floods devastated 19 governorates across Yemen, impacting more than 63,000 households and displacing more than 480,000 people, particularly in areas hosting IDPs. In Marib alone, over 8,000 families across 73 IDP sites were hit by rainstorms, including more than 1,100 families in UNHCR-managed sites, while Sa'ada City and Al Mahweet's Malhan district were also heavily impacted.

This crisis occurred against the backdrop of ongoing conflict and localized escalations, leaving 18.2 million people — 50 per cent of Yemen's population — in need of humanitarian aid, including 4.5 million IDPs, of whom 1.6 million were living in informal, hazard-exposed sites vulnerable to flooding and fire risks. By year-end,

Yemen also hosted over 60,000 refugees and asylum-seekers, primarily from Somalia and Ethiopia, who were fleeing from persecution, conflict and violence.

Response: As the lead agency for protection, shelter/non-food items (NFI), and camp coordination and camp management (CCCM) clusters, UNHCR collaborated with partners to provide critical assistance, including:

- **Emergency Supplies:** Distributed shelter kits, plastic sheeting, and other essential materials to over 47,700 affected families.
- **Cash Support:** Delivered multipurpose cash aid to meet essential needs, address crises, replace lost documentation, and repair damaged shelters.
- **Long-Term Solutions:** Supported home rehabilitation for IDPs returning home, upgraded host community facilities, and implemented social cohesion initiatives (see p. 21).

Yemen. An internally displaced woman walks through thick mud and debris at an IDP site in Sa'ada city following devastating floods on 23 July 2024. Torrential rain and hailstorms destroyed over 1,300 shelters. UNHCR provided emergency aid, shelter, and cash support to displaced families left without basic necessities.

© UNHCR/YDF



Recently arrived refugees gather at Uganda's overcrowded Nyakabande transit centre. As violence drives displacement, climate shocks like floods and landslides—worsened by El Niño—are compounding the crisis.
© UNHCR / Yonna Tukundane

II. Preparedness, Resilience and Adaptation to Climate Challenges

UNHCR is helping forcibly displaced people, along with their hosts, to adapt to the changing climate and be resilient to climate shocks and stresses. **By investing in preparedness, resilience and adaptation today, communities will be better able to maintain and develop progress towards sustainable, longer-term solutions.**

In 2024, UNHCR strengthened its risk analysis and risk reduction efforts to boost resilience against weather-related hazards. Initiatives included:

- Investments in **durable shelters, early warning systems, and shock preparedness.**
- Support for livelihoods and social safety nets, including cash-based interventions.

Risk monitoring and early warning

When disasters strike, the most vulnerable often suffer the most as they lack the tools and knowledge for a quick, effective response. Given the surge of climate-induced emergency declarations and their increasingly devastating impact on displaced populations, UNHCR has strengthened its risk analysis, monitoring and preparedness for countries at high risk of emergencies including those triggered by climate-related hazards. Actions taken in 2024 included:

- Improved monitoring and risk analysis to boost preparedness at country levels, including a risk management tool on climate change to guide UNHCR operations.

- In October 2024, UNHCR joined the **World Meteorological Organization (WMO) Coordination Mechanism (WCM) Advisory Group**, working alongside organizations including the **European Commission Joint Research Centre, IFRC, UNICEF, WMO**, and national meteorological institutions to monitor and guide WCM activities. The mechanism enhances UNHCR's ability to better prepare for adverse weather impacts, make informed emergency preparedness decisions, and implement measures to minimize their impacts through:
 - Providing **HydroMet scans and flood outlooks** (designed to raise awareness of potential hydrometeorological events, such as floods, tropical cyclones and droughts).
 - Delivering **climate outlook briefings** to anticipate extreme weather impacts on displaced and stateless people and UNHCR operations.
- The project is being piloted over 15 months in select countries, with plans for global expansion based on the insights gained. This initiative aligns with the [WMO's Early Warnings for All initiative](#), which aims to protect everyone from hazardous weather, water, or climate events through early warning systems by 2027.

UNHCR's expertise in supporting vulnerable populations, mobilizing resources, and fostering partnerships ensures that those most at risk receive the support they need when it matters most.

Collaborative innovation for early warning and response

UNHCR successfully launched the **Early Warning and Effective Response System with Forced Displacement Forecast in partnership with the Luxembourg Institute of Science and Technology, with support from the Government of Luxembourg in 2024**. The predictive analytics project aims to develop a system that detects the escalation of risks that may cause forced displacement via early warning indicators to deliver a displacement forecast ahead of emergencies. The project enhances humanitarian preparedness by improving early detection of displacement risks and optimizing resource allocation. In 2025, it will develop a prototype to forecast flood-induced displacement in selected pilot countries.

East and Horn of Africa and Great Lakes Region

In **South Sudan**, climate change is increasingly driving displacement and making life harder for displacement-affected communities. Seasonal flooding is typical, given its flat wetlands and position along the Nile basin; in 2024, the country struggled with record-breaking rains and floods for a fifth consecutive year, with water inundating roads and homes, farmlands and the traditional transhumance routes of cattle herders.

UNHCR has implemented flood-resilience projects in **South Sudan's Bentiu and Maban camps** (close to the Sudanese border), including the **building of**

dykes to protect refugees in flood-prone areas and enable refugee farmers to grow crops in flood-prone areas. Given the long-lasting presence of flood waters in the area, UNHCR has provided **canoes** for refugees to navigate these waters and adapt their livelihoods. **Canoes** are used to collect the roots of water lilies, which can be used as flour when dried. Further north, UNHCR also invested in **flood risk mitigation in Renk County**, which hosts thousands of refugees fleeing the war in **Sudan**. These efforts help communities adapt to climate impacts, but more support is needed as floods worsen in volume and frequency.

UNHCR, working with the **Government of South Sudan and humanitarian partners**, is expanding **community-based early warning systems** to protect **500,000 forcibly displaced people**. These efforts include:

- **Disaster risk management committees** for coordinated flood response
- **Monitoring programs** that track environmental changes
- **Training initiatives** in disaster risk reduction and resource management
- **Advancing Climate Risk Management in Displacement Settings**

To reduce the impact of stagnant water in areas with no natural drainage, **UNHCR deploys mechanical water pumps** to quickly drain flooded areas around households and communal spaces. **This flood management helps improve sanitation and reduces the risk of waterborne diseases such as cholera and typhoid, benefiting over 20,000 residents.**



*Displaced by floods, fishers in Bor, South Sudan, adapt to new waters using UNHCR-donated canoes.
© UNHCR/Tiksa Negeri*

Southern Africa Region

Mozambique

Mozambique is at the forefront of a crisis driven by conflict and climate shocks. Cyclical extreme weather events such as **flooding, tropical cyclones, and drought worsen the dire situation for the over 1.3 million people in need**. The 2024-2025 cyclone season was a prime example, with **three major tropical cyclones striking the country**: Cyclone Chido, Dikeledi and Jude. These storms affected hundreds of thousands of people and caused widespread destruction, particularly in Cabo Delgado and Nampula provinces. **Many of the hardest hit districts were already hosting large numbers of IDPs** who had been uprooted by conflict, compounding existing vulnerabilities and straining local capacities.

In **Mozambique**, integrating refugees and IDPs into **Local Adaptation Plans, disaster management committees, and early warning systems** is crucial for reducing vulnerability to extreme weather. These measures ensure timely alerts, preparedness, and proactive responses to protect lives, livelihoods, and property from climate-related risks.

In 2024, UNHCR significantly advanced early warning and disaster preparedness efforts **in collaboration with the Government of Mozambique**. A key achievement was the development of an **Early Warning Action Plan with the National Institute for Disaster Management (INGD)**, designed to strengthen stakeholders' ability to anticipate and respond to extreme weather events. This included prioritizing preparedness of actions, timely early warnings, and the pre-positioning of resources for rapid emergency response. UNHCR and INGD also trained 169 members of Local Disaster Risk Reduction Committees, equipping them with practical skills in disaster risk reduction and protection-sensitive emergency response. These efforts proved critical during the December 2024 Cyclone Chido, where UNHCR:

- Rapidly deployed lifesaving assistance within the first 48 hours, reaching over 30,000 people.
- Ensured that emergency interventions addressed key risks such as gender-based violence and the needs of people with disabilities and older people, given the early assessments conducted with protection partners.

Together, these initiatives underscored the importance of integrating preparedness and protection into climate-related emergency responses to safeguard vulnerable communities before, during, and after disasters.

Forcibly displaced families recover from heavy rain and flooding at the 25 de Junho IDP Site in the district of Metuge, Cabo Delgado, northern Mozambique.
© UNHCR/Martim Gray Pereira



An aerial view of Cedeño, Honduras, a small coastal town in southern Honduras, shows buildings along the eroding shoreline where rising sea levels and coastal storms have devastated livelihoods. Once sustained by fishing, the town now faces compounded threats from climate change and violence, driving displacement and deepening community vulnerability.

© UNHCR/Santi Palacios



Americas Region

In the Americas, the second most disaster-prone region globally,³ climate change and displacement are deeply interconnected. In **Honduras**, for example, rising temperatures, erratic rainfall patterns, and an increase in extreme weather events have become the norm. To address these challenges, UNHCR has partnered with local communities and authorities across the country to strengthen disaster preparedness and integrate protection measures into local emergency systems.

During **Tropical Storm Sara** in November 2024, UNHCR worked with local and national institutions to provide emergency relief, monitor protection risks, and assist families facing displacement from violence and flooding. These efforts included:

- Technical support for municipal emergency planning.
- Training for emergency committees, equipment provision, and support to women's and community networks. These included training in evacuation protocols, risk mapping, and shelter management, along with the distribution of essential emergency tools and supplies.

These initiatives **reinforced early warning systems, enhanced local response capacities, and promoted the inclusion of climate-related displacement risks in preparedness and response efforts.**



Middle East & North Africa Region

In **Mauritania**, prolonged droughts, extreme heat, desertification, and erratic rainfall have depleted water, grazing land, and wood for heating and cooking, driving competition over scarce resources and heightening tensions between refugees, returnees and host populations.

To mitigate fire risks during the dry season, the refugee-led Brigade Anti-Feu (BAF) played a pivotal role in preserving through bushfire management strategies such as fire regulation and the construction of a firewall. With around 200 volunteer members, BAF has established itself as a valuable partner to the local Government in fire prevention, rapid response, and community advocacy efforts.

³ UNDRR, Disaster Risk Reduction and Climate Change Adaptation in Fragile and Conflict-Affected Contexts: A Review of Existing Literature. Available at: <https://www.undrr.org/media/89900/download?startDownload=20241205> (accessed 5 December 2024).

Yemen: Protecting displaced communities through disaster risk reduction

In the context of Yemen's severe flooding crisis (see p. 14) the Camp Coordination and Camp Management (CCCM) Cluster, led by UNHCR, identified 571 IDP sites — representing 43 per cent of all displacement sites — which were identified as being at high risk of flooding.

In 2024, UNHCR as the CCCM Cluster lead implemented site-level flood mitigation measures at 91 of these high-risk locations, including drainage works, sandbagging, and site elevation. These efforts **safeguarded over 154,800 people**, protecting lives and assets, saving costs, and preventing further movements that would uproot displaced people once again. These community-based projects are projected to benefit over 2.4 million people across affected areas.

UNHCR and partners also collaborated with the United Nations Disaster Risk Reduction (UNDRR) agency and local NGOs, such as the Yemen Al-Khair for Relief and Development (YARD), to introduce disaster risk reduction initiatives. Technical assessments in 18 high-risk IDP sites identified strategies to protect lives and property. Although relocating communities to safer areas remains the best long-term solution, high costs and IDPs' need to stay near income opportunities complicate this approach.

Despite these challenges, disaster risk reduction efforts have delivered positive results. Joint interventions with local partners and displaced communities have minimized flood damage, safeguarded lives, and supported sustainable development.

Lessons learned include the importance of community engagement, local support, and comprehensive mitigation plans.



Floodwaters submerge makeshift shelters at an IDP site in Sa'ada city, Yemen, after heavy rains in July 2024. UNHCR is providing emergency shelter, supplies, and cash assistance to displaced families facing urgent humanitarian needs.

© UNHCR/YDF

RapidShield: Protecting refugees through climate insurance in Malawi

Malawi is highly vulnerable to climate hazards, including **droughts and floods**, which have grown in frequency and intensity in recent years. These events severely impact food and water security, energy resources, and livelihoods, with refugees among the most affected populations.

What is RapidShield?

When natural hazards such as floods or hurricanes strike, refugees are usually uninsured and can easily lose everything from possessions to crops and entire livelihoods. In 2023, UNHCR partnered with the **Government of Malawi** and other organizations to launch **RapidShield**, a parametric insurance initiative under the Replica programme. This programme allows humanitarian actors to purchase insurance on a country's behalf.

How Parametric Insurance works:

- Pays a fixed amount when a specific parameter, such as rainfall levels or wind speed, triggers the policy.
- Payouts are quick because they rely on preexisting triggers and pre-agreed contingency plans, avoiding lengthy claims processes.
- Supports emergency response by delivering rapid funds to address the financial impacts of disasters.

Insurance for the initiative is provided by the **African Risk Capacity (ARC)**, an agency of the African Union. **RapidShield's** pilot phase, launched in September 2023. This phase covered the 2023/2024 agricultural season with a US\$ 250,000 insurance premium for drought coverage supported by KfW in **Malawi's Dzaleka Settlement**.

Results in 2024

A **record-breaking dry spell, worsened by the El Niño weather pattern, caused severe crop failures in Malawi**. A state of **emergency** was declared in 23 of 28 districts. Rainfall deficits triggered the drought insurance, resulting in over US\$ 400,000 in payouts to refugees and host communities. Key achievements included:

- Support for 2,203 refugee farmer households and 1,470 host community households (around 13,000 individuals).
- Each household received US\$ 100 in three instalments of US\$ 33.3 to sustain them throughout the agricultural season.

In 2024, **UNCHR supported the project to test complementary resilience-building activities and plan for further scaling**. **Humanity Insured**, an international charity backed by the insurance sector, joined as a funder to expand **RapidShield** beyond its pilot phase, insuring vulnerable households for the 2024-2025 season.

Strengthening for 2025

UNHCR and ARC are enhancing the program in **Malawi** with:

- 1 Advanced Monitoring and Evaluation to measure long-term impacts, developed with **CGIAR**.
- 2 Integration with national agricultural support systems and early warning mechanisms.
- 3 Expanded technical support to help beneficiaries optimize early payouts.

This innovative approach demonstrates how tailored insurance solutions can protect refugees and vulnerable populations, offering life-saving funding when it is needed most.

Resilient shelters for a changing climate: Scalable solutions across regions

In 2024, UNHCR provided **over 205,000 shelter and housing units, supporting around one million forcibly displaced people**. When excluding operations with a significant emergency response, such as Chad, Lebanon, South Sudan and Sudan, 27 per cent of these shelters are sustainable and environmentally friendly. Limited budgets and major emergencies posed challenges to delivering sustainable shelter solutions.

East and Horn of Africa and Great Lakes Region

In **Ethiopia**, UNHCR, in partnership with the **Refugees and Returnees Service (RRS) and Action for the Needy in Ethiopia (ANE)**, supported **293 refugee families** in Nguenyiel and Pugnido camps with culturally and environmentally adapted transitional shelters.

Features of these shelters include:

- Designed with refugee community participation and disaster risk reduction standards.
- Built with local materials like bamboo, eucalyptus poles, grass thatch, and UNHCR plastic sheeting.
- Durable for over five years, capable of withstanding extreme temperatures exceeding 45°C.

Southern Africa Region

UNHCR delivered resilient shelters in **Mozambique** designed to withstand extreme weather events like cyclones and strong winds. UNHCR has also improved the shelter construction techniques by using a new mudding technique. The mudding used to strengthen the walls of shelters makes them more durable and better able to withstand climate shocks like heavy rains and strong winds. This initiative marks a shift from reactive humanitarian efforts to sustainable, long-term solutions.

UNHCR collaborated with the [CGIAR Fragility, Conflict and Migration Initiative](#) to evaluate the project's contribution to the resilience of displaced and host communities. The insights gained will inform and strengthen similar future interventions, driving innovation and impact in humanitarian aid.



Middle East & North Africa Region

Jordan is among the most water-scarce countries in the world and faces increasing exposure to extreme weather events such as heat waves, droughts, desertification, cold spells, and sandstorms. In **Jordan**, UNHCR developed an assessment methodology- the [Climate Vulnerability Index \(CVI\)](#) to better understand these risks. The CVI measures exposure, sensitivity, and adaptive capacity and equips humanitarian efforts with precise data to address specific vulnerabilities and strengthen refugees' climate resilience. In 2024 the CVI was introduced as part of a socioeconomic survey on refugees. Findings showed that 40 per cent of refugees in **Jordan** are already vulnerable to climate change impacts such as heat waves. These risks are heightened due to inadequate shelter conditions, including water leakages and fragile structures. As a response, in 2024, UNHCR and its partners launched a shelter rehabilitation program, focused on upgrading and replacing shelters to improve ventilation, thermal regulation for extreme temperatures, and living space. With funding from the **Korea International Cooperation Agency (KOICA)**, the program is set to expand, aiming to support 11,000 refugees and build a more resilient living environment.

For years, **Yemen** has remained as one of the world's most protracted humanitarian crises, with climate-related disasters exacerbating humanitarian needs and the country's dire displacement situation. Heavy seasonal floods trigger new waves of displacement, leading to an estimated 4.5 million internally displaced people who are unable to return home. In response, in 2024, UNHCR implemented a shelter strategy to address urgent housing needs and strengthen the resilience of displaced communities in IDP sites

and areas of return. The strategy consists of building transitional shelters with locally sourced materials that are safer, durable, and designed to withstand **Yemen's** harsh climate conditions. These have improved insulation, ventilation, and structural durability, while their construction stimulates the local economy through job creation and increased demand for local materials.



Asia and the Pacific Region

In **Afghanistan**, the UNHCR incorporated **climate-adaptive features into all shelter designs**, thereby mitigating environmental risks and **enhancing the durability and sustainability of these structures**. These shelters have integrated solar energy systems into their provision of permanent shelters, as well as disaster-resilient shelter solutions. These sustainable solar energy sources are cost-effective and efficient in overcoming electricity shortages caused by an unreliable or non-existent power grid.

A community-led approach empowered displaced communities to plan and implement shelter solutions that prioritize cultural appropriateness and long-term viability.

Likewise, to address challenges faced by Rohingya refugees in **Bangladesh** — especially those worsened by climate change — UNHCR is providing vital support in **Cox's Bazar**:

- **Safer Shelter Solutions:** Constructing weather-resilient, fire-resistant shelters for improved safety and durability.
- **Integrated Site Planning:** Mapping vulnerabilities like floods, landslides, and fires while implementing proper site planning aligned with Sphere standards.
- **Watershed and Canal Rehabilitation:** Managing watersheds, rehabilitating canals, and improving wastewater management, benefiting both refugees and host communities.
- **Water Supply Improvement:** Tackling water shortages, especially in Teknaf, where desalination technology is critical to meet the needs of both refugees and host communities.



Rohingya refugee and climate activist Mohammed Anower, 18, is part of UNHCR's Refugee Climate Network. With his youth group, he led a project to clean and restore a flood-prone stream near his home, improving the environment and reducing disaster risks in the community.

© UNHCR/Susan Hopper

Climate-smart agriculture: Cultivating resilience in displacement settings

Globally, **over 75 per cent of the population under UNHCR's mandate depend on agriculture for their livelihoods**. Climate-smart agriculture is an approach that helps farmers adapt to climate change while improving food security and reducing environmental impact. The approach focuses on three goals:


- **Increasing productivity** to ensure stable food supplies and livelihoods.
- **Enhancing resilience** by using techniques like drought-resistant crops, efficient irrigation, and soil conservation.
- **Reducing emissions** by promoting sustainable practices that lower greenhouse gas output.

The approach is vital for refugees and displaced communities living in regions highly vulnerable to climate change. Many rely on farming for food and livelihoods, but unpredictable weather, droughts, and floods threaten their survival. This approach not only supports refugee self-sufficiency but also eases pressure on host communities and local resources, fostering long-term stability.

In **Cameroon**, a project aims to **regenerate degraded ecosystems and promote green energy in refugee-hosting regions**. The initiative involves establishing tree nurseries and training communities in sustainable agroforestry practices. By engaging refugees, IDPs and host communities in reforestation and environmental protection efforts, the project enhances resilience, economic stability, and social cohesion, **reaching 500,000 people in the Far North and Eastern Cameroon regions**.

In **Niger**, a total of **185 hectares of degraded land has been restored** using **half-moons** — semi-circular basins designed to collect runoff water — and 2 hectares have been revitalized through assisted natural regeneration. The reforestation initiative has successfully planted over 17,000 trees. Awareness-raising campaigns have also reached 48,440 individuals.

In **Ethiopia**, between July 2024 and December 2025, UNHCR is implementing an **EU-INTPA funded project to support Sudanese refugees in Benishangul-Gumuz and Amhara regions**. The Solutions from the Start initiative focuses on building new settlements with sustainable housing,



Land restoration through the construction of half-moons—one of the key techniques for soil and water conservation—in Niger's efforts to combat desertification. So far, 185 hectares of degraded land have been restored, over 17,000 trees planted, and more than 48,000 people reached through awareness campaigns.

© UNHCR/Niger

renewable energy, and livelihood opportunities, in line with the Government of Ethiopia's commitment to the Global Refugee Forum (GRF) Multi-stakeholder pledge on climate action. **By partnering with regional authorities, FAO, UN-Habitat and others, the project promotes food security, climate-smart farming, and natural resource management to help refugees and host communities thrive.**

UNHCR supported greener livelihoods in **Tanzania** in response to the country's severe environmental degradation and deforestation. **UNHCR helped refugee households establish kitchen gardens in the country using Good Agricultural Practices (GAP) which benefitted 3,650 individuals.** Training was provided through **Farm Training Centres,**

communal farms, and household sessions, focusing on nutrient-rich crops and climate-resilient techniques like drip irrigation.

Given the increased frequency of climate shocks in **Tanzania**, such as **intensified flooding events**, **staple maize yields have dropped.** UNHCR has introduced **mushroom cultivation as an alternative livelihood option**, supporting food security and climate adaptation. Overall, 150 participants were trained in cultivation techniques, **with support from Uyogaplus**, a Tanzanian enterprise. This initiative helped refugees with food security and host community members with income generation.

In Bogo, Far North region, Cameroon, internally displaced women and local associations plant 2,000 trees to combat desertification and restore degraded land.

© UNHCR/Eugene Sibomana

In Melkadida, Ethiopia, refugees and host community members operate a solar-powered water pump, improving access to clean water through renewable energy.
© UNHCR/Eduardo Soteras Jalil



III. Expanding Access to Climate-Smart and Sustainable Services

UNHCR is committed to **improving access to environmentally sustainable and climate-resilient services** for forcibly displaced and stateless people and returnees, as well as their host communities.

From climate-smart water and sanitation services to cleaner cooking fuels and energy technologies, these initiatives bring multiple benefits: from protection to adaptation and disaster risk reduction, as well as the mitigation of carbon emissions and ecological preservation. Furthermore, benefits enjoyed by both refugees and their host communities reduce competition and tensions over access to limited resources and promote peaceful co-existence.

Climate-smart water, sanitation and hygiene (WASH) services

UNHCR recognizes the critical link **between Water, Sanitation, and Hygiene (WASH) and the protection of forcibly displaced people**. WASH services are essential for their health, well-being, and dignity, and play a vital role in preventing disease outbreaks. UNHCR works to ensure access to safe water, sanitation, and hygiene practices for

refugees and displaced people, both in camps and in urban settings. With increased drought and flooding, access to sustainable WASH services becomes even more important.

UNHCR uses **boreholes** – deep shafts drilled into the ground to access groundwater – as a reliable **source of fresh water** for refugee camps or host communities, especially in areas with limited access to surface water or during drought conditions.

Because refugee camps tend to be remote and off-grid, many boreholes use diesel-operated pumps, which are costly in terms of fuel, as well as harmful for the environment. **Solarizing boreholes saves money over time as well as produces virtually zero pollution or CO₂ emissions.**

During the year, **UNHCR solarized 41 boreholes, meaning that by the end of 2024, 51 per cent of water pumps operated by UNHCR and partners had been solarized (336 out of a total of 659 borehole pumps).**

Thanks to the solarization of these boreholes, **an estimated additional 4,500 tons of CO₂ emissions are mitigated annually**. Beyond the positive environmental effects, solar solutions have a lower operating cost and ensure that remote field locations are less dependent on fuel deliveries.

In settings where water is scarce or droughts are prevalent, UNHCR has expanded its use of **Smart Water Sensors (SWS)**, a cutting-edge solution for real-time monitoring of water supply systems, in 10 countries: **Angola, Bangladesh, Cameroon, Kenya, Iraq, Malawi, Nigeria, Tanzania, Uganda, and Zimbabwe**.

With approximately 42 per cent of the planned sensors now installed, SWS enable swift identification of technical issues in water supply systems. The accompanying online dashboard and instant alerts to staff have significantly reduced response times, resulting in better water services for the communities we serve.

Groundwater monitoring is also being improved through **SWS installed in 65 motorized boreholes in seven UNHCR operations in several African countries as well as Iraq and Bangladesh**, to provide reliable long-term data to ensure safe extraction of water and contribute to environmental sustainability.

Groundwater management was strengthened in **Chad** through private sector support from both **Veolia Foundation and BGC Engineering**, a Canadian-based engineering company that provided pro-bono support. BGC undertook detailed groundwater assessments for the new settlements for refugees from **Sudan** to identify safe water use rates. As a result, three boreholes were drilled in 2024, increasing water supply for the most vulnerable.

In **Uganda**, devices are being supplied to vulnerable refugee families for **purifying and heating up water powered by solar energy**. In 2024, **over 4000 such devices were donated to UNHCR by Solvatten**, who have, in total, donated devices at a value of **US\$ 1.9 million**.

Managed aquifer recharge, an approach to protecting vulnerable groundwater resources, was initiated in **Malawi and Chad**. The aim is to **distribute and slow down floodwaters to maximize infiltration to the groundwater aquifer**, improve surrounding ecosystems, and enhance access to drinking water. The impact of this intervention is therefore twofold, reducing flood damage and increasing vital water supplies.

At Tongogara refugee camp in Zimbabwe, Congolese refugee Mbiswa Kashi, 63, collects water from one of five solar-powered boreholes. As climate change threatens water availability, solarization is helping ensure a more reliable and sustainable supply for the 16,000 refugees living in the camp.

© UNHCR/Hélène Caux



Project Flow: Solarizing water systems for refugees through innovative finance

Project Flow is a pioneering initiative that leverages an innovative financing mechanism to solarize water systems and health facilities in refugee settings. The first phase of the initiative is now being implemented in **Ethiopia, Mauritania, Rwanda and Sudan**, aiming to **solarize 21 water systems and 4 health facilities, benefiting approximately 1.2 million people and mitigating approximately 1,400 tons of CO₂ emissions each year.**

The transition from diesel to solar is expected to reduce annual operating costs, which in the first phase of solar investments alone is equivalent to **around US\$ 900,000 saved each year**. **Project Flow** covers the initial solar investment costs, and the achieved fuel savings enable country operations to repay the investment to **Project Flow**. This funding is then reinvested in new solar projects, creating a self-sustaining cycle that enables new solar installations without requiring additional funds.

A Transformative UNHCR Initiative

Project Flow is a 10-year, **US\$ 10 million** initiative that aims to solarize **100-160 systems (including both boreholes and health facilities)** across climate-vulnerable countries in Africa. It is **funded by the Grundfos Foundation and the Governments of Denmark and Germany**. The project represents a shift toward more environmentally sustainable humanitarian operations – replacing diesel-run infrastructure with cleaner, more cost-effective solar energy solutions.

Key Objectives

- **Sustainable and efficient use of financial resources:** Project Flow covers the high upfront costs of solar installations through a revolving financing mechanism, in which the investment is repaid over time using fuel savings, allowing funds to be reinvested in new solarization projects.
- **Reduce CO₂ emissions:** Through solarization of diesel-run systems, **Project Flow reduces CO₂ emissions.**
- **Improve access to clean water:** Provide a reliable and sustainable solar-powered water supply to refugees and host community members.

Potential Impacts

- **Lowering operating costs**, thereby freeing up resources for other critical humanitarian needs.
- **Reducing diesel dependency**, aiming to mitigate CO₂ emissions by 60,000 tons over 10 years while also contributing to improved local air quality.
- **Benefitting more than 1 million refugees and host community members** with sustainable water access.
- The multiplier effect of funding enhances sustainability and efficiency.
- **Environmental benefits** include a cleaner and cost-effective solution that reduces dependency on external fuel suppliers and market fluctuations.

With support from bold partners, **Project Flow** demonstrates how **innovative financing mechanisms can integrate environmental and financial sustainability into humanitarian responses** without diverting donor funds from other life-saving services.

UNHCR Project Flow

SolarizingWaterAccessthroughInnovative Finance
The Vision

How it Works

Problem

To meet lifesaving water needs for refugees and their hosts, UNHCR operates close to 300 boreholes currently powered by diesel generators.

Diesel generators require low initial investment but on the long run they entail high operating costs and generate significant CO2 emissions.

While, solar systems can solve these issues, they come with high capital cost.

Funding Challenges

Current funding structures with limited annual budgets are hindering investments in the transition to solar power.

Solution

Innovative financing mechanism can support transition of refugee-serving water systems to renewable solar energy.

Project Flow covers the initial solar investment costs, and the benefitting operation repays through the generated fuel savings.

The solar transition reduces the operational costs of the systems while also mitigating CO2 emissions.

Potential Impact

A single dollar is re-used multiple times and operational costs are decreased, thereby improving efficiency and sustainability of financial resources.

US\$ 910,000
saved annually through solarization of 25 systems in the first round of implementation.

~60,000t CO₂
emission mitigated over 10 years.¹

1 million

beneficiaries (refugees and their host community)

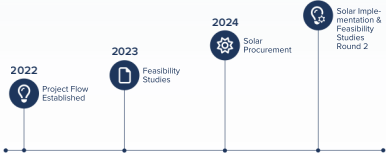
With US\$ 10.5 million, 100 to 160 water systems solarized over 10 years. Traditionally with grant funding, this amount would cover only 50-70 water systems.

¹ With the solarization of the systems in the first round of implementation, it is estimated that ~4,000 tons of CO₂ emissions are avoided in 10 years. Per solarized system, which vary in size, 2 – 115 tons of CO₂ are avoided each year. Multiple rounds of implementation are foreseen for Project Flow, eventually aiming to mitigate ~60,000 tons of CO₂ emissions over 10 years.

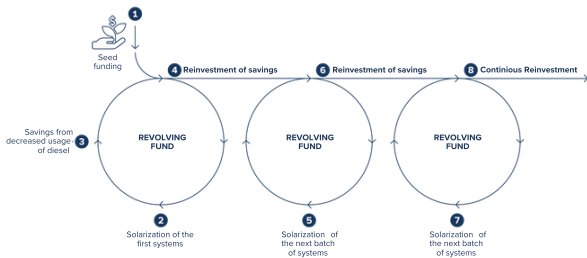
Funding

Project Flow has raised US\$ 10.5 million. This amount supports the delivery of Project Flow's solarization of water systems in line with UNHCR's Strategic Plan for Climate Action.

Timeline



Revolving Funding Model



Partners



POUL DUE JENSEN / GRUNDFOS FOUNDATION

Federal Ministry for Economic Cooperation and Development

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



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Congolese refugees in Burundi access water at a hosting site in Rugombo, as UNHCR scales up emergency support following recent displacement from DRC.
© UNHCR/Charity Nzomo

Chad is characterized by prolonged droughts, shorter and more erratic rainy seasons, and intensified rainfall events. **These changes have accelerated soil degradation, reduced vegetative cover, and diminished access to water, placing growing pressure on already vulnerable communities and exacerbating protection risks, particularly for women and girls.** By the end of 2024, **Chad** had become one of UNHCR's largest operations in Africa, requiring improved water management to meet the increasing water and sanitation needs of the high number of refugees from **Sudan**. In response, UNHCR is constructing eight spreading weirs—water retention structures designed to boost groundwater recharge and support sustainable agriculture. These structures also enrich soils with sediment, helping to maintain water availability and enhance land productivity.

In 2024, UNHCR strengthened its collaboration with **Chad's Ministry of Environment** to advance climate resilience and environmental sustainability in line with the country's **Global Refugee Forum (GRF) commitments**. By working hand-in-hand with national environmental authorities, UNHCR's interventions promote shared responsibility for sustainable natural resource management through reforestation and clean cooking, and help communities build a safer, greener future. Importantly, this collaboration serves as a building block for future large-scale projects that will attract climate finance to strengthen the refugee response in **Chad**.

In **South Sudan**, to combat water shortages during the dry season, **UNHCR is constructing and maintaining hafirs**, large water catchment basins designed to capture and store rainwater. These reservoirs play a critical role in:

- Recharging underground aquifers
- Supporting agriculture and livestock
- Preventing soil degradation

UNHCR has committed to building six new hafirs, which will support 600 hectares of farmland, benefit 10,000 livestock, and provide reliable water access to 1,000 community members. This initiative sustains local agriculture and livelihoods. It also strengthens environmental resilience in the face of climate challenges and contributes to a peaceful coexistence between communities by reducing pressure on resources.

Clean cooking: From firewood to cleaner fuel

UNHCR estimates that **20 – 25 million trees are cut down in and around refugee settlements each year**. 90 per cent of this deforestation is driven by the urgent need for cooking fuel. This results in several problems:

- Large-scale environmental degradation, including soil erosion, landslides, and desertification.
- The environmental degradation and increasingly scarce essential resources heighten the risk of conflict between refugees and host communities.
- As more trees are cut down, women and children must travel further to collect wood, putting them at increased risk of sexual- and gender-based violence.
- Respiratory illnesses from open-fire cooking are often the most common health issues in refugee camps.

In some cases, UNHCR provides **Liquid Petroleum Gas (LPG)** as an alternative to solid fuels like wood or charcoal. Although it is not a renewable form of energy, it does **have several advantages** where renewable energy is not an option. It reduces dependency on firewood and addresses the problems associated with deforestation. Transitioning to LPG also enhances safety, protecting women and children from the dangers tied to the gathering of firewood.

Refugee Environmental Protection (REP) Fund

The **Refugee Environmental Protection (REP) Fund** is a groundbreaking, innovative financing mechanism established by UNHCR to invest in reforestation and clean-cooking programmes in climate-vulnerable, refugee-hosting communities worldwide. This initiative not only aims to protect the environment but also to produce the first-ever refugee-generated carbon credits. At the end of 2024, the Fund started procurement for pilot projects in **Uganda** and **Rwanda**, to **reforest over 20,000 hectares** and **deliver clean cooking solutions to 45,000 households**. These pilots will serve as a foundation for achieving the Fund's 10-year ambition of restoring ecosystems by implementing nature-based solutions supporting both environment and livelihoods and providing clean cooking solutions to 1 million refugees and host community households.

Key Features of the Refugee Environmental Protection (REP) Fund

- **Reforestation and Clean-Cooking Programmes**
 - The REP Fund invests in projects that enhance environmental sustainability, such as planting trees and promoting clean-cooking technologies.
- **Carbon Credits**
 - Grounded in carbon finance, the REP Fund is pioneering the first large-scale refugee-driven carbon credit initiative, linking environmental restoration with sustainable livelihoods and providing a sustainable way to fund further environmental projects. The fund has received support from the **Governments of Norway and Denmark**, as well as private sector contributions from UNHCR's National Association Partner in Germany. These funds have been pivotal in supporting key foundational activities that are setting the stage for pilot projects in 2025.

Economic and Social Benefits

The initiative fosters the creation of green jobs for refugees and host communities, contributing to local economies and building resilience against climate impacts. Social benefits include enhanced peace and security within communities as well as health improvements and reduced risks for vulnerable groups associated with collecting firewood.

Impact

- **Sustainable Financing**
 - The REP Fund provides a sustainable financial model to support ongoing environmental projects.
- **Environmental Protection**
 - By investing in reforestation and clean cooking, the initiative helps reduce carbon emissions and combat deforestation.
- **Community Empowerment**
 - Creation of green jobs empowers refugees and host communities, enhancing their livelihoods and promoting environmental stewardship.

Feasibility studies have begun in **Bangladesh and Brazil**, with growing interest from other countries.

REP Fund

UNHCRRefugeeEnvironmental Protection Fund

The Vision

Problem

32.6M
People were forcibly displaced by climate related disasters in 2022. 98 per cent were caused by weather-related hazards such as floods, storms, wildfires, and droughts.

20–25M
Trees are used by refugees, IDPs and stateless people each year, with 90 per cent burnt for cooking fuel.

Mostly women and girls gather firewood which exposes them to Sexual and Gender Based Violence.

Peace and security issues as there is a perceived or actual impact on local natural resources.

Lack of sustainable funding available for long-term environmental and social programs in some of the hardest to reach areas in the world.

Solutions

Innovative and sustainable financing mechanism to invest in reforestation and clean-cooking programs at scale in climate vulnerable refugee-hosting communities worldwide.

Carbon impact of these programs registered to generate the first-ever large scale refugee-generated carbon credits.

1–5B
Carbon markets are expected to grow in the next 5 years. The REP Fund accesses an untapped source of financing for under-invested areas.

Potential Impact

10-year ambition to mitigate environmental and social effects at scale, in a socially responsible and financially sustainable manner.

120M+ trees
Planted, in addition to the effect of additional trees being cut down.

1M+
More refugee and host households access clean cooking solutions.

Additional benefit of creating green jobs for refugees and host communities.



Taungya system agro-forestry being practiced in Kyongwali Refugee Settlement, Uganda.
© UNHCR

How it Works

Source Funding: Applied across a portfolio of projects

Benefits: Includes carbon reduction and regeneration

Additional Funding: Carbon credit sales

Concessional Financing

Grants

Pre-purchase of carbon credits

Refugee Environment Protection (REP) Fund

Execution of aid projects Working with refugee communities

Carbon credit certification Ensure environmental impact of projects are recognised

Carbon markets place

Refugee and host community protection

Refugee and host community livelihoods

Environmental Improvement

Progress to Date


- Feasibility studies were carried out across 11 sites in Sudan, South Sudan, Rwanda and Uganda. With additional studies to be carried out in Bangladesh and Mozambique.
- First pilots to begin implementation in Rwanda and Uganda by Q4 2025.

Funding

The REP Fund has raised US\$ 7 million out of an initial target of US\$ 30 million. This initial amount could potentially mobilize more than US\$ 100 million from carbon markets.

Partners





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East and Horn of Africa and Great Lakes Region

Rwanda is currently host to over 135,000 refugees and asylum-seekers, 90 per cent of whom live across five refugee camps. More than 75,000 people across three of these locations benefited from LPG distribution. 67 per cent of refugees and asylum-seekers in Mahama and Mugombwa camps accessed clean cooking energy (LPG). Pellets and biomass fuel were provided in three other camps.

In 2024, over 29,000 households in **Uganda** were supported with energy-efficient cookstoves, and 19 facilities, including Small and Medium-Sized Enterprises (SMEs) institutions, adopted energy-saving institutional cookstoves.

Recognizing that meeting basic energy demands is driving environmental degradation around the settlements is the need to meet basic energy demands, UNHCR plans to

advocate for improved access to cleaner and more reliable energy sources, including extending the national grid to refugee settlements. This will help ensure that both refugees and host communities have sustainable and dependable energy options.

As of early 2024, **Tanzania** hosted 241,883 refugees and asylum-seekers, mainly from **Burundi and The Democratic Republic of Congo (DRC)**. Nearly 5,500 people in four facilities, including a hospital and two departure centres, adopted LPG for communal cooking, this was in accordance with a government ban on firewood use for large facilities. Additionally, fuel-efficient stoves and biomass briquettes were introduced, benefiting 19,992 people, including 13,422 women, which promoted sustainable energy practices.

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US\$ 19M Climate Project Supports Tanzania's Most Vulnerable

On 25 October 2023, **UNEP and the Green Climate Fund (GCF)** announced a **US\$ 19 million climate resilience project** in **Tanzania's Kigoma region**, a refugee-hosting area with 2.3 million residents and 250,000 refugees. The initiative, in which **UNHCR is the executing entity**, aims to address severe environmental degradation, worsened by rapid population growth, deforestation, and extreme weather events such as floods and droughts.

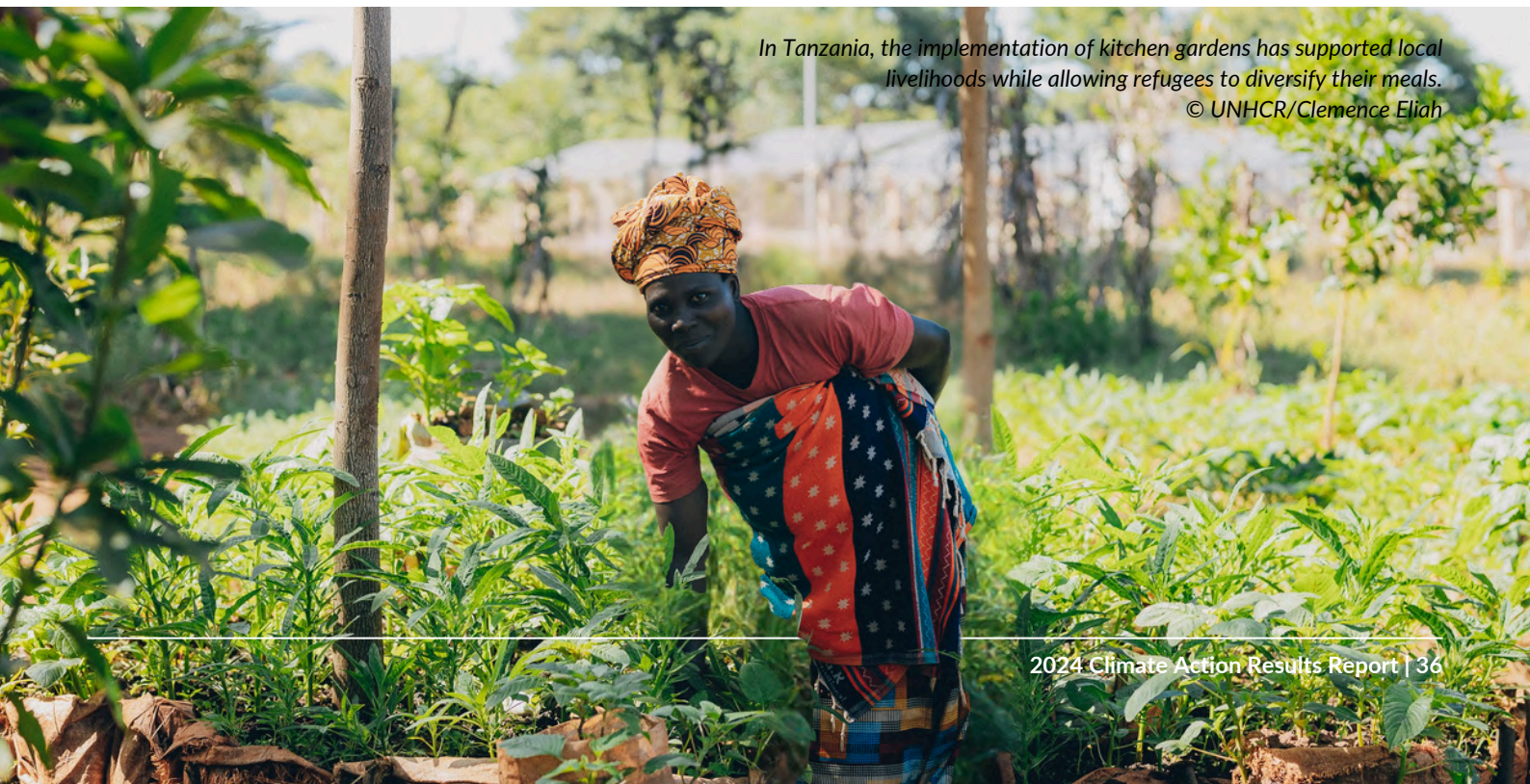
The five-year project focuses on ecosystem-based adaptation, using nature-based solutions to **strengthen resilience for 570,000 people while protecting 261,000 hectares of forest and agroecological land**. Interventions include climate-smart agriculture, flood control, innovative water harvesting techniques to enhance water security, and livelihood diversification.

UNHCR, already working on sustainable energy and environmental protection for refugees in **Tanzania**, welcomed this groundbreaking effort to help both displaced people and host communities adapt to climate challenges. The initiative aligns with **Tanzania's National Adaptation Plan**, which aims to support long-term climate resilience, economic stability, and disaster preparedness.

Greening Refugee and Host Communities: 1.2 Million Trees Planted

In 2024, significant efforts were made to restore degraded areas and manage woodlots across refugee camps and host communities in **Tanzania** as part of a **UNHCR environmental rehabilitation, protection and climate change mitigation project**. A total of over **1.2 million trees** were planted, covering 2,449 acres, to combat climate change. This included **477,779 trees in camps** and **746,431 trees in host communities**, achieving a 70 per cent survival rate. **Over 136,300 individuals, including 96,000 women, received education on environmental protection and sustainable resource management.**

In Tanzania, the implementation of kitchen gardens has supported local livelihoods while allowing refugees to diversify their meals.
© UNHCR/Clemence Eliah



Addressing Deforestation in Refugee Settlements: The ReForest Project

In **Uganda**, reliance on firewood for cooking in refugee settlements has led to rapid deforestation, severely impacting local ecosystems. With the increasing influx of refugees, the demand for firewood is almost ten times greater than the rates of natural regrowth in some areas. This is an unsustainable trajectory that demands urgent action.

To tackle this crisis, with funding from the European Union and Ireland, the **Refugee Forestation (ReForest) Project** was launched in **Uganda** in **2019**. Its mission is to restore and protect forests in refugee-hosting areas, promote sustainable land use, and enhance the resilience of both refugees and local communities. Activities include:

- Restoring forest reserves near settlements.
- Establishing plantations and sustainable woodlots.
- Providing high-quality planting materials for sustainable fuel sources.

Since its inception, the project has made significant strides. **By October 2024, around 35 million seedlings were produced and distributed, and 1,223 hectares of degraded central forest reserves were replanted and actively protected.** UNHCR has collaborated closely with the **Government of Uganda** and NGOs, mobilizing resources and engaging communities in these efforts.

Expanded Reforestation Goals for 2025:

- Establish 820 hectares of woodlots in host communities and refugee settlements.
- Raise and distribute 7.9 million seedlings. Restore 50 hectares of wetlands, lakeshores, and riverbanks—areas critical for water quality, biodiversity, and flood control.
- Sustain 1,280 hectares of woodlots and plantations within refugee-hosting districts.

UNHCR also emphasizes community empowerment. Through the **Cash-for-Work system**, communities are mobilized to participate in agroforestry activities. Additionally, **training on Farmer Managed Natural Regeneration (FMNR)** helps community members gain skills and strengthens the sustainability of these efforts.

The ReForest Project stands as a testament to the power of collaboration in combating deforestation and building a sustainable future for all.



Uganda. At Palabek Refugee Settlement, South Sudanese refugee and climate activist Opira Bosco Okot joins reforestation efforts to restore degraded land. Supported by the ReForest Project, refugees and host communities are planting millions of trees to combat deforestation, protect biodiversity, and build climate resilience.
© UNHCR/Francis Mukasa



Middle East & North Africa Region

Access to clean energy for cooking is also challenging in **Mauritania**, where the refugee population had reached 200,000 by early 2024. **In that same year, around 1,200 households accessed complete LPG kits through a "cash-for-gas" assistance programme.** The Pay-As-You-Save (PAYS) LPG initiative, supported by the **Innovation Fund** (see p.44), also continued. This initiative aimed to reduce dependence on firewood, which is scarce and sourced from host communities, as well as on expensive charcoal sold in camp areas, by allowing households to access loan credit facilities for purchasing or renewing gas kits.

The efforts undertaken by UNHCR in recent years to promote clean cooking in the Mbera Camp have led to a significant shift, with the **percentage of households using polluting cooking fuels dropping to less than 7 per cent. Over 35 per cent of refugees are now using clean cooking energy.**

Land restoration and reforestation are important parts of creating a sustainable living environment. In **Mauritania**, this has involved restoring degraded land, transforming barren dunes into thriving green spaces. Through collaboration with **SOS Desert**, refugee-led groups, and local NGOs, the initiative has planted 10,000 trees across a secured 5-hectare area and surrounding regions.

- 768 smallholder farmers, primarily women heads of households, cultivated 7 hectares in four areas between October 2023 and April 2024.
- **80,000 kg of produce was harvested, with over 33,000 kg consumed locally and the rest sold in markets—boosting food security and economic empowerment.**

Thanks to this initiative, **45 hectares (10 per cent of a 450-hectare camp) of land has been restored to productivity, with strengthened environmental sustainability and community resilience.**



West and Central Africa Region

Minawao camp and surrounding host villages in northern Cameroon experienced transformative agroforestry and clean energy initiatives aimed at fostering sustainability and resilience. Overall, **more than 546,000 forest, fruit, and nutritional plants were cultivated across 900 hectares, resulting in the creation of 55 green spaces that enhanced biodiversity and livelihoods.** To support these efforts, tree-planting and orchard-maintenance kits were distributed to orchard owners in refugee and host communities.

Meanwhile, **clean cooking energy access improved significantly in Minawao and neighbouring villages**, with the percentage of households using clean and innovative technologies rising from **21 per cent to 49 per cent**, driven by local production of eco-friendly briquettes, biofertilizer, and the introduction of improved cookstoves.

An initiative in **Niger** has reduced reliance on forest resources, improving environmental sustainability.

- **Cleaner Energy Alternatives:**
 - UNHCR distributed 160 gas kits to households in Maradi, and assisted 738 households in Hamdallaye and Agadez with cash for gas recharge.
 - **242 improved stoves** in Banco were manufactured and used by households in **Tahoua and Tillabery.**



Asia and the Pacific Region

From Deforestation to Resilience: The SAFE+2 Programme in Action

In Bangladesh, over 1.1 million Rohingya refugees rely entirely on humanitarian aid for food, water, shelter, and healthcare. Most live in crowded camps in Cox's Bazar or temporary shelters on Bhasan Char, facing severe climate risks like cyclones, flooding, and landslides.

Refugees required 900,000 kilograms of firewood daily for cooking, leading to the degradation of 7,000 hectares of forest and over 400,000 tons of annual CO₂ emissions. Rapid deforestation led to soil erosion and the loss of cultivation land.

Traditional cooking fires produced toxic smoke, worsening health outcomes. Meanwhile, resource scarcity heightened gender-based violence, domestic disputes, and financial hardship.

In response, the **SAFE+ Programme** was launched (2019–2022) by UN agencies, donors, and the Government of Bangladesh, providing cleaner cooking energy. The second phase, **SAFE+2** (2022–2027), builds on these achievements with three integrated objectives:

- 1 Cleaner Cooking Energy:** Provide 190,000 refugee households with safer, cleaner cooking solutions.
- 2 Environmental Action:** Rehabilitate degraded ecosystems, benefiting 167,000 refugees and local residents.
- 3 Community Resilience:** Support 100,000 households (refugees and host communities) to build resilience.

In 2024, over 93,000 households, 98 per cent of the population in Cox's Bazar, received **LPG assistance**, highlighting the importance of scaling climate-friendly solutions to protect refugees and their surroundings. In 2024, UNHCR and IOM distributed over 1.77 million LPG refills, supported by various funding sources. The distribution of LPG led to the protection of 14,539.7 hectares of forests and the reduction of 376,822 tonnes of carbon dioxide compared to the utilization of firewood.

Donor support remains integral to the success of the **SAFE+2 programme**. Grateful acknowledgment is extended to **Canada (GAC), France, Norway and Sweden** for their generous contribution, which enabled the implementation of SAFE+2 activities in 2024. Moreover, with funding from the **United Kingdom**, UNHCR was able to support 63,043 households (315,215 individuals) in 16 UNHCR-managed camps, meeting a minimum of five-month fuel needs through the distribution of LPG.

Advancing renewable and sustainable energy access for refugee communities

UNHCR is setting a bold agenda to address the energy needs of refugees and host communities, expanding access to solar energy in communal facilities worldwide. Solar energy offers several significant advantages for refugee communities, including:

- Reduction of reliance on expensive and difficult-to-transport fuel sources.
- Significantly lower operating costs over time, freeing up resources for other essential needs.
- Reduction of pollution and carbon emissions.
- Creation of safer environments at night through solar lighting, allowing for extended working or studying hours.
- More reliable operation of medical equipment, refrigeration for vaccines and medicines, and lighting for emergency healthcare services.

The expansion of access to solar energy provides refugees and host communities a **reliable and sustainable energy source for essential education and healthcare services**. In 2024, data from 25 countries showed that 42 per cent of health facilities now use solar energy, totaling 215 solarized facilities globally.



Americas Region

In Ecuador, solar panels were installed at the El Palmar Community Development Centre, an important gathering place for displaced and local families.

UNHCR has also equipped the centre with refurbished containers and classrooms where social services are provided in collaboration with the Manta Municipal Government. Built using sustainable methods, the centre offers art workshops, technical training, and a safe community space. Additionally, the centre serves as an emergency community hub, facilitating organized responses to disasters.



East and Horn of Africa and Great Lakes Region

In Rwanda, 2,190 refugee households in various camps received solar home systems. 43 per cent of refugees and asylum-seekers in Rwanda have **access to electrical energy for lighting and charging** small appliances, such as radios. Infrastructure improvements in camps include:

- 815 streetlights installed in all camps, enhancing safety and enabling business and study after dark.
- School feeding programs in all camps used renewable biomass energy.
- 94 per cent of returnees have access to clean cooking energy.

In Kenya, UNHCR and partners have worked to improve access to sustainable energy for lighting. **34 per cent of refugees and asylum-seekers now have energy for lighting** and small enterprises, up from 24 per cent in 2023.

In Tanzania, UNHCR distributed solar lanterns to over 12,800 Congolese asylum-seekers, including over 6,800 women, enhancing nighttime safety and visibility. Moreover, a project in **Tanzania** to solarize 14 health centres has led to **improved access and quality of health care for more than 200,000 refugees**. The initiative saves 158,000 liters of diesel consumption yearly, reducing CO₂ emissions by 317 tons. It is also more cost-efficient. The project was **funded by the Swedish Postcode Lottery with a contribution of US\$ 1.5 million**.

In South Sudan, over 100 solar cookstoves have been distributed around refugee camps, empowering communities with sustainable, clean energy solutions. Additionally, 460 women have been trained in briquette fuel production, fostering economic independence and environmental responsibility.

Sustainable energy solutions for displacement settings

The Energy Solutions for Displacement Settings (ESDS) programme, in partnership with the German Corporation for International Cooperation (GIZ) under the SUN Global Programme and funded by BMZ, concluded in 2024, having implemented impactful energy solutions over seven years in four settlements in Ethiopia, Kenya, and Uganda.

Achievements include:

- Over the course of the programme, **over 450,000 people**, 83 per cent refugees and 17 per cent from host communities, **benefited from improved access to sustainable energy**.
- 3,000 mini-grid connections provided electricity to households, businesses, and social institutions.
- Development of five energy kiosks, which are off-grid, solar-powered community hubs that provide basic energy services like phone charging and lighting
- Sale of 17,300 improved cookstoves.

These efforts save up to 4,000 tonnes of CO₂ emissions annually, contributing to environmental sustainability.

Lessons were learned from the programme and turned into practical guidance to address the challenges of security, sustainability, and scaling private investments.

Signify Foundation

Insufficient lighting can have negative consequences on the protection and livelihoods of refugees. It can lead to increased risks of **accidents, sexual and gender-based violence, and limited opportunities for education and income generation**. Therefore, addressing the lighting needs of refugees is essential to enhance their safety, well-being, and livelihood opportunities in camp settings.

In 2024 the **Signify Foundation**, working with UNHCR, has provided solar-powered lighting to refugee camps in **Pakistan and Uganda**.

An aerial view of the solar mini-grid across the Kakuma-Kalobeyei refugee camps in Kenya, developed by GIZ to provide clean, affordable power to refugee and host community households and businesses. UNHCR and partners are scaling up solar energy use across Kakuma to improve access to sustainable services.

Credit: © UNHCR/Samuel Otieno



West and Central Africa

Solar-powered lamps mean people can work, cook, study, socialize and continue with their lives long after the sun has gone down. In **Burkina Faso**, UNHCR distributed **portable solar lamps to 29,565 households**, providing a reliable lighting source where alternative energy solutions remain unavailable.

Minawao Camp, located in Cameroon's Far North region near the Nigerian border, hosts tens of thousands of refugees who fled Boko Haram violence. In this harsh, deforested environment, UNHCR and partners have worked to **expand sustainable energy solutions**. As part of these efforts, the proportion of people with access to energy - mainly through solar lanterns and streetlights - rose from 25 per cent in 2023 to 35 per cent in 2024. Lanterns, being familiar and easy to use, have significantly improved safety for residents moving around homes and public spaces after dark.

The **Central African Republic** has made significant strides in **energy access for lighting**, primarily through solar lamp distribution. In 2021, only 0.5 per cent of the population had access to lighting. By 2024, **55 per cent of refugees and asylum-seekers and 25 per cent of IDPs gained access to energy**. This improvement highlights better living conditions and essential energy support.

To enhance energy access in **Niger's** refugee sites, **UNHCR provided solar energy kits**, including household kits, streetlights, and lanterns. In 2024, 233 households in Tahoua and 1,131 in Maradi received these kits, assisting 3 per cent of households overall. Additionally, 39 solar streetlights were installed to improve safety in refugee reception areas.

At the **Emergency Transit Centre in Hamdallaye**, **solarization efforts reduced unsafe connections and diesel generator use, cutting CO₂ emissions by 1,127 tons annually**. Currently, 9.47 per cent of refugee households have been covered, indicating a significant demand that needs to be met.

In **Niger**, three projects tackle climate challenges while supporting forcibly displaced people:

- **Eco-friendly Shelters & Reforestation:** Constructing sustainable homes and boosting greenery.
 - **Over 8000 green homes have been built using Hydraform Interlocking Stabilized Soil Blocks (ISSB)**, making homes **climate-resilient and significantly cutting CO₂ emissions by 80 per cent** while improving thermal insulation and fostering stronger community ties. As a result, over 50,000 people now reside in safer, climate-adapted homes.
 - The initiative included **planting over 17,000 plants** in the context of the regeneration exercise.
- **Water & Sanitation Improvements:** Enhancing facilities in refugee-hosting areas.
 - Through targeted interventions across key sites in **Niger**, UNHCR has enhanced climate resilience by **expanding access to safe water and sanitation for displacement-affected populations**. By the end of 2024, 114,334 people benefited from improved water and/or sanitation services. Key climate-smart investments include the **installation or repair of 574 water taps and 5 solar-powered water supply systems, which reduce reliance on diesel and lower greenhouse gas emissions**. In addition, 126 collective sanitation facilities were constructed or rehabilitated, and 507 household latrines were built, helping communities adapt to climate-induced water stress and protect local ecosystems. These results strengthen community health and resilience in fragile and displacement-affected settings.
- **Community Empowerment:** Offering vocational **training and income-generating opportunities**.
 - Climate-smart agricultural production on 839 hectares the region resulted in a significant yield of crops and contributed to livelihood opportunities.

These initiatives drive sustainable development, reduce climate vulnerability, and foster economic integration for displaced populations.

In **Chad**, transformative projects are improving the lives of 200,000 forcibly displaced people and their host communities by focusing on clean energy, sustainable water access, and green job creation.

- **Clean Energy for Conservation:** Solar-powered lighting and cooking solutions are being introduced in refugee camps, reducing environmental impact while meeting energy needs and reducing GBV risks.
 - **Solar-powered lighting has reached 50,000 people in Zaboud camp**, as well as providing lighting for health centres in 3 camps for over 132,000 people. Clean cooking solutions have reached 22,500 people through ecological charcoal, 10,000 people through solar thermal cookers, and 2,400 people through improved cooking stoves.

Also in **Chad**, the data shows significant progress in access to energy for lighting, although **disparities remain between different population groups**. In 2021, only 0.5 per cent of this population had access to an energy source for lighting. As of 2024, **55 per cent of refugees and asylum-seekers and 25 per cent of IDPs had acquired access to lighting**. This remarkable progress reflects a real improvement in living conditions and better support for essential energy needs, particularly through the distribution of solar lamps to forcibly displaced households.



Middle East & North Africa Region

UNHCR in **Jordan** provides refugees in **Zaatari and Azraq camps with solar-powered energy**. Solar plants within the camps, along with energy transition under the Green Deal (South Amman), generate approximately 54,000 MWh annually. **This initiative contributes to US\$ 12 million in energy savings and reduces CO₂ emissions by 34,000 metric tons every year whilst providing electricity to 100 per cent of the camps' populations.**

Also in these camps, a **smart energy dispensers** project was launched, installation of a device that supplies a controlled amount of electrical power to the shelters, to manage the electrical grid and energy consumption.

Benefits of the system include:

- Regulated energy consumption and reduction of electrical waste
- Electrical grid stability
- Electricity supply 24hrs a day if managed properly



Asia and the Pacific Region

In **Afghanistan**, **1,190 solar systems were distributed** as part of assistance to communities in newly constructed shelters.

In **Bangladesh**, UNHCR enhanced refugee settlements by implementing climate-resilient infrastructure, boosting emergency preparedness, and promoting community-driven initiatives. Solarization of five facilities, electrification of 52 sites, and maintenance of 11,000 solar streetlights improved sustainability, ensured safer movement, and reduced reliance on non-renewable energy sources. Additionally, a three-year watershed management project supported over 10,000 refugees and planted 800 tree saplings, contributing to environmental restoration and protection.

Advancing Refugee Energy Access in Pakistan

In Pakistan, UNHCR is implementing a multi-year project funded by BMZ, to provide refugees and host communities with sustainable energy solutions. The initiative has brought clean energy to over 250,000 individuals at the household and community levels, improving cooking measures, lighting, and connectivity, while reducing greenhouse gas emissions by 3,000 tons annually.

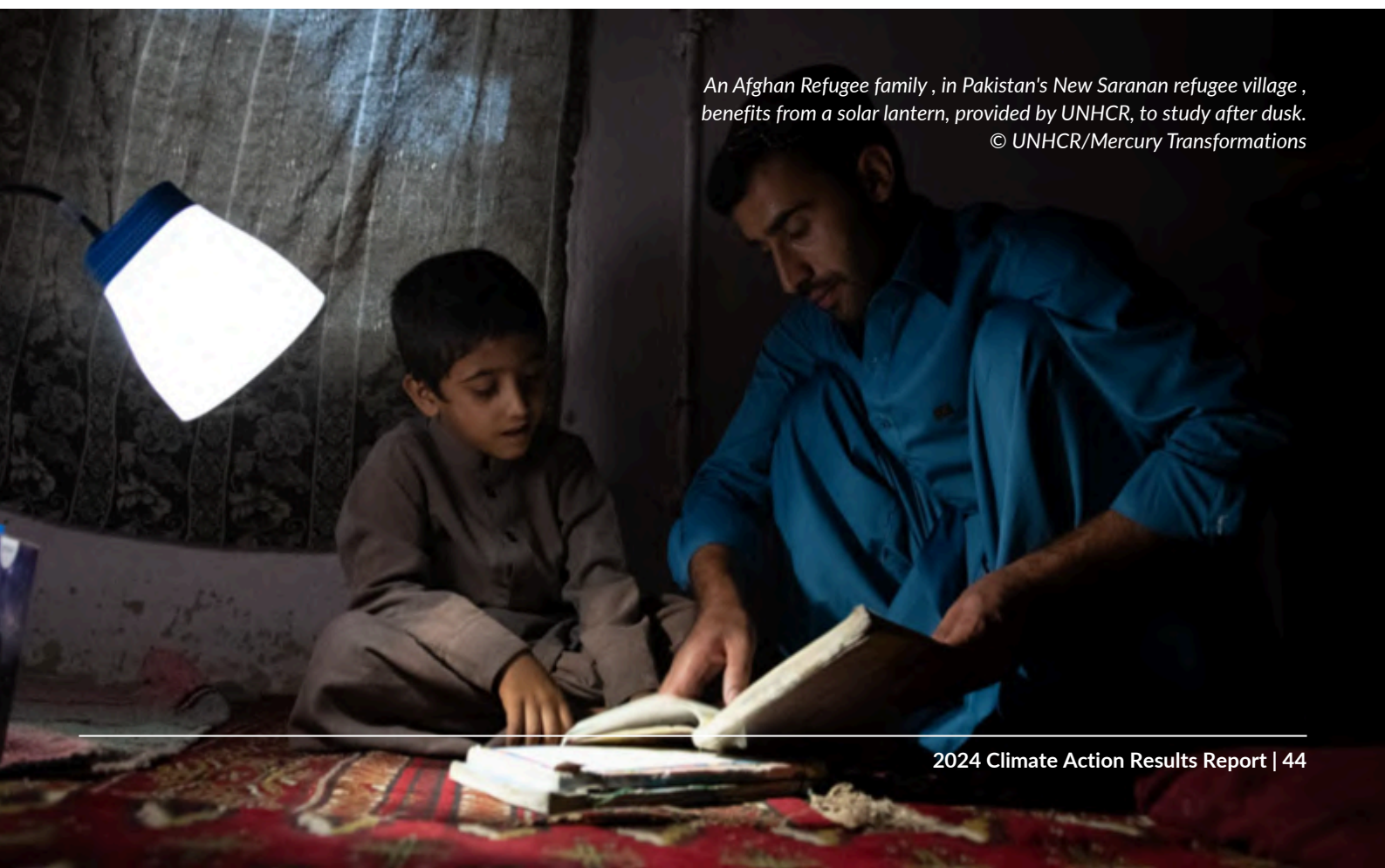
In 2024, UNHCR accelerated efforts to provide sustainable, climate-resilient solutions for refugees and host communities. **Significant progress was made in enhancing access to clean energy and improving refugee village infrastructure.**

Achievements:

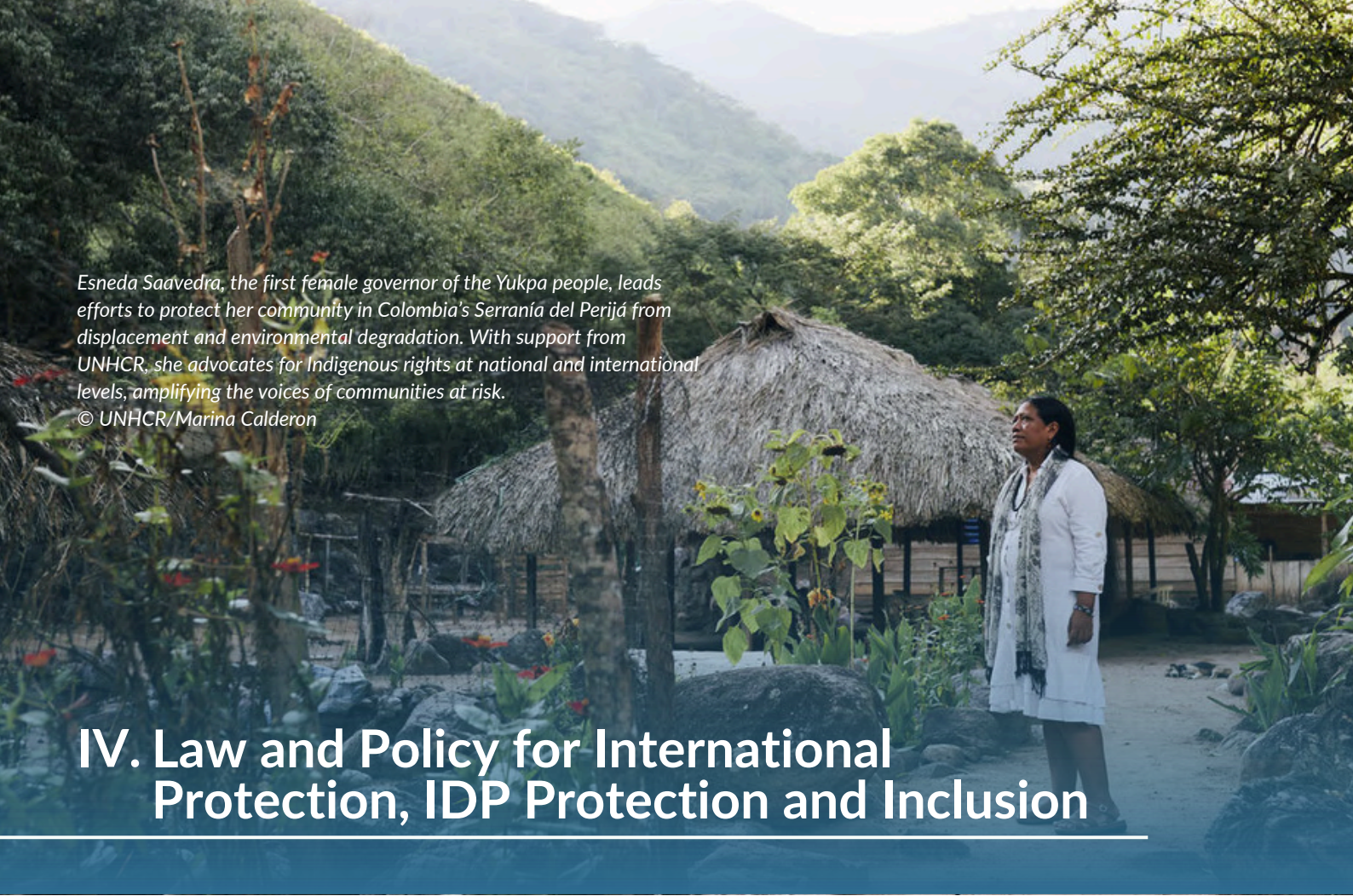
- **Solar Energy Equipment:** 124 public and community facilities, including schools, health centres, and livelihood hubs, were equipped with solar energy.
- **Household Solar Kits and solar streetlights:** 32,605 households received solar kits, covering all refugee households in Baluchistan's refugee villages and providing energy access in 15 refugee villages in Khyber Pakhtunkhwa.
- **Awareness Sessions:** Approximately 14,000 individuals participated in sessions on energy, gender mainstreaming, and climate resilience.
- **Training:** 10 RVs received training on compost making and solid waste management.
- **WASH Infrastructure:** UNHCR improved 14 priority water supply schemes, installed 50 rainwater harvesting units, and enhanced WASH infrastructure in 24 refugee village schools.

Impact:

- These interventions have generated 8,600 kW of clean energy in 2024, cutting annual carbon emissions by 5,300 tons and benefiting over 500,000 people.
- Estimated savings of over US\$ 1.5 million in electricity bills for the Government of Pakistan.



*An Afghan Refugee family , in Pakistan's New Saranan refugee village , benefits from a solar lantern, provided by UNHCR, to study after dusk.
© UNHCR/Mercury Transformations*



Esnera Saavedra, the first female governor of the Yukpa people, leads efforts to protect her community in Colombia's Serranía del Perijá from displacement and environmental degradation. With support from UNHCR, she advocates for Indigenous rights at national and international levels, amplifying the voices of communities at risk.

© UNHCR/Marina Calderon

IV. Law and Policy for International Protection, IDP Protection and Inclusion

Most refugees, asylum-seekers and IDPs are disproportionately vulnerable and impacted by climate-related challenges.

Central to UNHCR's role and mandate is ensuring that existing legal frameworks — including the **1951 Refugee Convention and its 1967 Protocol** — are correctly interpreted, particularly considering the complex interplay between climate-related hazards, conflict and violence as drivers of displacement across borders.

The organization's mandate has also been extended by the UN General Assembly to encompass responsibility, in cooperation with other partners, for internally displaced persons in situations where there is a request from the UN Secretary-General (and agreement of the concerned country).

In 2024, UNHCR collaborated with judges, legal practitioners, state policymakers, institutions, UN agencies, development actors, academics, and civil society —including refugee-led organizations — to strengthen systems for international and IDP protection in the context of climate change. The agency also worked to promote climate action

policies and plans at global, regional, and national levels that are inclusive of refugees, displaced communities, and stateless people while safeguarding their rights.

UNHCR continues to advocate for laws and policies that effectively address the specific needs and vulnerabilities of displaced populations, **ensuring that no one is left behind in the face of climate change**. In this spirit, 2024 marked another year in which UNHCR continued to **influence law and policy through research, tools and advocacy**.

Legal and policy research, guidance and advocacy

- In 2024, UNHCR expanded its partnership with the University of Pretoria to examine how the **1969 OAU Convention** applies to cross-border displacement caused by climate change and disasters. This research focuses on the refugee criterion of “**events seriously disturbing public order**” and **explores how extreme weather events fit within this framework**.

- To support the multi-stakeholder implementation of the **Global Compact on Refugees (GCR)**, UNHCR co-authored a review of global jurisprudence, legislation, and case law on cross-border displacement in the context of climate change and disasters. Informed by research from DLA Piper and developed with experts from the **Platform on Disaster Displacement (PDD)**, [the analysis](#) was published in June 2024 as part of UNHCR's legal and protection policy research series.
- Throughout 2024, UNHCR co-facilitated consultations with legal experts and practitioners to develop a Practical Toolkit on international protection for people displaced across borders in the context of climate change and disasters, alongside the **Kaldor Centre for International Refugee Law (UNSW Sydney)**, the **School of Law and Human Rights Centre (University of Essex)**, and the **Centre for Gender and Refugee Studies (University of California College of the Law, San Francisco)**.
 - Launched early in 2025, the Practical Toolkit supports decision-makers, courts, lawyers and others by providing clear legal guidance on international protection claims involving climate change and disasters, based on existing refugee and human rights laws, and drawing on positive legal precedent in jurisdictions across the world.
- To promote the implementation of the **Sendai Framework for Disaster Risk Reduction (DRR)** and States' commitments to develop people-centred DRR strategies that leave no one behind, a [global mapping of human mobility in national and regional DRR strategies and related instruments, including displacement and refugees](#), was developed in partnership with **UNDRR and PDD**. The publication was launched in October at the **Asia-Pacific Ministerial Conference on DRR in Manila**.
 - It emphasizes the needs of refugees and forcibly displaced people while identifying gaps in their inclusion in existing DRR strategies. Only 20 out of 112 national DRR strategies specifically reference the term "refugees" or related concepts.
- UNHCR also contributed technical expertise in National Adaptation Plan development processes through the UNFCCC's UN4NAPs initiative. This support was tailored to specific Government requests at regional and country levels, ensuring displacement issues were well integrated into climate adaptation strategies. This addresses a major gap where only six countries mention refugees in their NAPs, and only four include concrete provisions.
- UNHCR co-led, along with IOM and ILO, the development of the first **UNFCCC Technical Guide** on the integration of human mobility considerations, including as related to refugees, in national climate plans. The guide was published in November during COP 29.
- Throughout the year, UNHCR provided technical and policy briefings and advice to the Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM) as a member of its Task Force on Displacement (TFD). UNHCR contributed to discussions to operationalize the Santiago Network on Loss and Damage (SNLD) for catalyzing technical assistance to developing countries.

Advancing international protection claims amid climate impacts

- In May 2024, UNHCR presented arguments in Manaus, **Brazil**, following its Amicus Brief submission to the Inter-American Court of Human Rights for the Advisory Opinion on the Climate Emergency and Human Rights, requested by **Colombia and Chile**.
- UNHCR made a submission to **Australia's** Parliamentary inquiry into responses to Pacific Island nations' climate priorities, emphasizing the protection of displaced people in the region.

Advocating for inclusive laws and policies on internal displacement

UNHCR is advocating for legislative and policy reforms that promote states' responsibility in addressing internal displacement and strengthen IDP (Internally Displaced People) protection and solutions, including support to the development and adoption of new instruments by States.

- Legislative and policy reforms in **Ethiopia**, **Nigeria** and **Somalia** were supported by UNHCR to strengthen protection and solutions for IDPs in the face of climate change.
- Between July and September 2024, UNHCR supported the **Government of Oaxaca, Mexico**, in hosting over 50 consultation sessions with indigenous communities, including those affected by sea-level rise. These consultations aimed to develop an **innovative IDP law addressing all causes of displacement, including disasters and the adverse effects of climate change**—the first of its kind in the Americas.
- In Honduras, UNHCR is collaborating with the Secretariat of Social Development (SEDESOL) to [develop public policies](#) addressing the needs of people displaced by the impacts of climate change, including support for consultations with the most affected communities. By 2050, more than 40,600 people are expected to be internally displaced.
- In November, **SEDESOL, with the support of UNHCR, CIAT-CGIAR, and IOM, organized a [forum](#) on climate change, disasters, and forced displacement**, bringing together stakeholders to assess protection challenges and gaps in social protection policies. The event

highlighted the role of community organizations in disaster response through experiences shared by leaders from affected areas where UNHCR has contributed to the empowerment of communities.


- In the **Philippines**, UNHCR supported the passage of a landmark law on the rights of IDPs in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), adopted in September 2024. **As Southeast Asia's first rights-based legal framework on internal displacement, it addresses all causes and phases, including climate-related impacts.** UNHCR's support was part of a joint UN Peacebuilding Fund project with UNDP and IOM, reflecting progress at the local or sub-national level.



UNHCR supported the Cartagena+40 Process and, which led to the adoption of the [Chile Declaration and Plan of Action \(PAC\) 2024-2034](#), a regional framework for Latin America and the Caribbean which guides refugee protection, statelessness, and displacement responses for the next decade. In partnership with the Platform on Disaster Displacement (PDD), UNHCR provided technical expertise and contributed to a chapter on "Protection in situations of displacement in the context of disasters and the adverse effects of climate change". The PAC introduces a comprehensive protection and solutions regional approach to displacement linked to disasters and climate change, promoting regional cooperation and national measures such as early warning systems, legal frameworks, evacuation plans, solidarity strategies, and community resilience.

A photograph showing a person walking through a thick, orange-brown sandstorm in a dry, dusty landscape. The person is wearing a light-colored shirt and dark pants, and is carrying a bag. The background is hazy and filled with dust.

A Somali refugee walks through a sandstorm in Kobe Refugee Camp, Ethiopia, highlighting the harsh climate conditions faced by displaced communities.
© UNHCR/Tiksa Negeri



Cameroonian refugee children run along a dyke at Guilmei site in Chad, built to hold back rising floodwaters from the Chari River. The community, displaced by climate-related conflict, faces renewed threats from flooding.

© UNHCR/Andrew McConnell

VI. Driving Inclusive Climate Action Through Partnerships

Recognizing that the challenges are far too great, UNHCR's partnerships play a crucial role in advancing climate action that is inclusive of refugees, IDPs, stateless people, and their host communities. By fostering collaboration across Governments, multilateral organizations, research institutions, and civil society, UNHCR aims to strengthen legal frameworks, mobilize climate financing, and promote innovative solutions that address the complex challenges at the intersection of displacement, climate change, and conflict. These coordinated efforts help ensure that displaced populations are meaningfully included in climate policies, preparedness measures, and funding mechanisms, ultimately enhancing resilience and protection for some of the world's most vulnerable communities.

Advancing the Global Compact on Refugees through climate action pledges

At the 2023 Global Refugee Forum (GRF), **Ethiopia, Somalia, Denmark, and Germany** co-led the first [Climate Action Multistakeholder Pledge](#) — a significant step toward improving climate action for developing countries and communities facing climate risks, fragility, and conflict. The pledge emphasizes that refugees, displaced individuals, and stateless people should receive the same level of climate support as nationals. It includes four focus areas: inclusive laws and policies, accessible climate financing, projects based on best practices, and strengthened data and capacity.

- In 2024, UNHCR and pledge co-leads launched a follow-up process to oversee the implementation of over 66 pledges, share best practices, and enhance tracking of climate action in displacement contexts.

Geneva Technical Hub (GTH) Initiatives

Launched in 2021, the **Geneva Technical Hub (GTH)** funded by the **Swiss Development Cooperation (SDC)** brings together Swiss academia and expert practitioners to tackle complex technical problems, share learnings, and find solutions that can be applied in diverse UNHCR operational contexts. In 2024, the GTH continued to further the resilience of displaced and host communities to climate-related risks and strengthen preparedness and early action.

In 2024, the GTH, in partnership with **ETH Zurich University**, launched the **Flood Risk Mitigation Toolbox**, providing risk mitigation tools for humanitarian settlements, including field-tested solutions in the **Republic of Congo**. The toolbox includes a compendium of risk mitigation measures, together with a **Risk Mitigation Strategy GIS Tool** and a **Participatory Risk Mapping Methodology**.

GTH also advanced the **Shelter Sustainability Assessment Tool**, which evaluated shelters globally, with top performance in **Syria, Ethiopia, and Myanmar**.

Enhancing capacity for emergency response

In 2024 UNHCR contributed to the UN Secretary General's [Early Warnings for All Initiative](#), focusing on strengthening risk knowledge and promoting the inclusion of refugees and IDPs in early warning systems. Our efforts supported national and local-level preparedness for early action, enhancing disaster response mechanisms.

Moreover, UNHCR's emergency stand-by partners continued to provide essential technical support in the areas of energy and environment through the deployment of experts. During the year, 20 experts supported UNHCR operations deployed by **NORCAP (14)**, **Swiss Agency for Development Cooperation (SDC) (3)**, **MSB Swedish Civil Contingencies Agency (2)** and **CANADEM International Civilian Response Corps (1)**. Five of the deployments were based in headquarters supporting various operations remotely, the remainder were deployed to the following operations: **Chad, DRC, Ethiopia, Kenya, Mauritania, Mozambique, Niger, Tanzania, Venezuela and Zambia**.

Advancing evidence and data

In 2024, UNHCR strengthened its collaboration with the **Consortium of International Agricultural Research Centres (CGIAR)** and formalized the partnership with a Memorandum of Understanding (MoU) in April. The work leverages displacement-specific climate data to analyze and communicate current and future climate-related risks, particularly in fragile and conflict-affected contexts, and has been used to inform internal capacity building, strategic planning and the development of [global](#) and regional climate action plans, as well as evidence-based and joint advocacy in multiple fora.

Since mid-2024, **CGIAR** has also been supporting access to expert capacity through two secondments, first, to UNHCR's regional bureau for the East and Horn of Africa and the Great Lakes on risk management and secondly, for the Regional Bureau for Southern Africa on the partnership with ARC.

Advancing refugee inclusion at COP29

UNHCR participated in the Conference of the Parties to the **UN Framework Convention on Climate Change (COP29)** in November 2024 in Baku, **Azerbaijan**, where it advocated for the recognition of refugees and other displaced people and, along with increased access to finance in Parties' decisions, while elevating the voices and participation of forcibly displaced people. Ahead of **COP29**, UNHCR worked with partners to ensure forcibly displaced people were included in discussions on loss and damage, adaptation, and climate financing. Highlights included:

- UNHCR released [No Escape: On the Frontlines of Climate Change, Conflict, and Forced Displacement](#), a report developed in collaboration with 13 expert organizations, research institutions, and refugee-led groups. Combining data with frontline testimonies, it reveals how climate shocks intensify conflict, further endangering those already at risk.
 - The report highlights the exclusion of displaced communities from climate policies and financing, leaving them unable to adapt to worsening climate impacts. It was widely cited during and after the conference, shaping public discourse and media coverage.
- Sustained advocacy and the targeted provision of text formulations to Parties ahead of and during negotiations at **COP29 successfully secured a reference** in the landmark decision on a **New, Collective and Quantified Goal (NCQG)** for climate finance that explicitly recognizes refugees as among vulnerable groups for inclusion.
- The **Refugees for Climate Action Network** was launched with Goodwill Ambassador **Theo James** to champion displaced communities affected by climate change, and refugee advocates participated in several high-level events and panels. Refugee engagement was a core component of UNHCR's participation at COP29.

UNHCRs MoU with The Green Climate Fund

UNHCR strengthened partnerships with multilateral climate funds by signing an MoU with the Green Climate Fund (GCF), the world's largest climate fund, at COP 29. The MoU seeks to leverage UNHCR's knowledge and expertise about working in fragile and conflict-affected settings with the GCF's goal of scaling up the delivery of climate finance to developing countries and improving financial flows to displaced communities. The MoU's implementation focuses on knowledge exchange, inclusive policy-making, and the active engagement of the affected population in innovative and cooperative solutions. **This agreement builds on an existing relationship between UNHCR and the Fund, as in October 2023, GCF approved a US\$19 million project, led by UNEP in collaboration with UNHCR, which aims to build climate resilience in the United Republic of Tanzania.**


In addition to partnerships established with multilateral climate funds, **UNHCR has signed an MoU with Climate Group** - an international non-profit organization focused on accelerating climate action - to pursue joint business development opportunities through the engagement of climate donors, thought leadership, events, and strategic communications.

Hardest Hit Campaign

Launched in 2024, the **Hardest Hit Campaign** represents UNHCR's first major global fundraising initiative dedicated to addressing the devastating impacts of climate change on forcibly displaced communities.

As one of the groups hardest hit by extreme weather events—including recurring droughts, floods—refugees and displaced populations face compounded crises. The campaign plays a pivotal role in engaging audiences with UNHCR's climate response, underscoring the urgency of action.

Following a successful pilot that raised over US\$5 million with private sector donors, the initiative now seeks to **deepen donor engagement by sharing powerful stories of those uprooted by conflict and further devastated by climate disasters and acute food insecurity.** By highlighting these intersecting vulnerabilities, the campaign reinforces **why UNHCR must scale up its efforts to protect and support displaced communities on the frontlines of the climate crisis.**



Rukaiya Abdullahi, 14, collects water at El-Miskin camp in Maiduguri, Nigeria, after floods triggered by the collapse of the Ajuja Dam submerged the site. Already displaced by conflict, Rukaiya now faces the compounded effects of climate change.
© UNHCR/Colin Delfosse

UNHCR's Innovation Funds

UNHCR's [Environment and Climate Action Innovation Fund \(ECAIF\)](#) supports creative, locally relevant solutions to environmental and climate crises, with other innovation funds also supporting work in this space. In 2024, the Innovation Funds backed 22 pilot projects across more than 20 countries, benefiting 15,572 refugees and reaching an additional 228,783 people indirectly. A total of US\$ 2.8 million was directly committed to scalable, community-driven climate solutions.

This was made possible through contributions from various supporters in 2024, particularly the **Government of Luxembourg, ARM UK and Quadrature Climate Foundation (QCF)**, a charitable foundation working to build a just, equitable, and low-carbon future. The grant for QCF is supporting the continuation of this work in 2025.

Achievements:

- **Scaling Climate Solutions:** Since its launch in 2022, the ECAIF has tested solutions across multiple areas, including **nature-based solutions, renewable energy access, and climate-smart livelihoods** while integrating climate adaptation into UNHCR programming.

- **Building Resilience:** In 2024, 1,600+ refugees were trained in sustainable agriculture, conservation, electrical repair, and waste management and other skills, fostering self-reliance and green employment.
- **Advancing Sustainable Processes:** Refugees co-designed eco-friendly products, including recycled plastic doors (**Lebanon**), biodegradable bags (**Uganda**), and insulation mats (**Ethiopia**) while supporting community-led green enterprises.

All [innovation pilots](#) must have strong community participation as a selection criterion; however, some projects finance Refugee-led Organisations directly to explore these solutions. The [Refugee-led Innovation Fund](#) places displaced and stateless people at the heart of humanitarian efforts, enabling them to identify needs and design solutions for lasting community impact. Through financial support, mentoring, and technical expertise, this Fund empowers refugee-led organizations to drive change. The fund works in various thematic areas, including climate.

Kenya. Samuel Binja, founder of the Kalobeyei Initiative for Better Life (KLiBL), stands with beneficiaries of a sprout farming project in Kalobeyei settlement. The refugee-led initiative—one of the winners of UNHCR's 2024 Innovation Fund—uses soil-free, rapid-growth farming to boost nutrition and livelihoods in refugee communities.

© UNHCR/Charity Nzomo



VII. Reducing UNHCR's Environmental Footprint

UNHCR assists over 120 million forcibly displaced and stateless people as well as their host communities, which often means **working in areas without a stable grid connection and with high-security risks, making the use of fossil fuels to power operations a practical necessity.**

As a result, **UNHCR's operations generate** direct annual emissions of **over 50,000 metric tonnes of CO₂ equivalent (tCO₂ eq)**, mainly generated by office infrastructure, followed by the vehicle fleet and air travel. This is in addition to the carbon emissions related to the sourcing and distribution of core relief items.

In line with the wider **UN initiative, Greening the Blue**, **UNHCR's vision is to become the leading humanitarian agency in environmental sustainability.** We aim to transform our infrastructure, along with fleet and travel, to maximize efficiencies and enable sustainable solutions, while continuing to adhere to the highest standards of refugee protection and response.

To this end, **UNHCR is taking steps to cut emissions from its offices, and its vehicle fleet and travel**, employing **innovative funding solutions** to achieve this and creating financial savings through efficiency. It is also **reducing the environmental impact of its supply chain**, ensuring that the life-saving relief items provided to people forced to flee are sourced sustainably, with the lowest possible CO₂ emissions.

Sustainable operations: Infrastructure, fleet and travel

By 2030, **UNHCR strives to achieve an ambitious 30 per cent reduction in CO₂ emissions** – arising from buildings, fleet and travel – compared to 2010 levels. **As of 2024, we have already achieved a 21 per cent decrease, which positions UNHCR confidently on the path toward its goal.**

With **550 offices worldwide and one of the UN's largest fleets**, UNHCR is creating impact through innovation and by adopting **bold solutions** to be more sustainable and reduce costs such as:

- **Energy monitoring and efficiency:** Tools such as Green Box energy meters (*see p.49*), smart air conditioning sensors, and generator usage data loggers ensure that **UNHCR gathers the data necessary to optimize electricity and fuel usage in our operations.**
- **Green Financing Facility (GFF):** An innovative financing mechanism enabling private sector contracts to transition offices from diesel to renewable (solar) energy using a revolving fund for lasting impact. The GFF is supported through earmarked funding from the **Swedish International Development Cooperation Agency (Sida), the German Federal Ministry of Economic Cooperation and Development (BMZ) and the IKEA Foundation.** In 2024, nine UNHCR offices in **South Africa, Mauritania, Uganda and Nigeria** were supported by the GFF in their switch to solar energy. These projects will **reduce 25 per cent in energy costs** and 1,486 tons of CO₂ emissions annually. A further **38 solar facilities are in the construction phase**, which are expected to save UNHCR an average of US\$ 1.6 million in energy bills.

Green Boxes

To optimize and increase the efficiency of its global infrastructure, UNHCR relies on data-driven technology solutions. **One such solution is the use of Green Boxes, which are remote energy meters that measure our global energy consumption in our offices.**

As data from the Green Boxes is gathered, it is analyzed with the goal of producing business cases for office solarization and identifying outliers in energy consumption and management. **This data allows UNHCR to identify the operations with the highest potential for efficiency and improvement interventions,** enabling prioritization of solarization and energy efficiency interventions. Offices can view live updates for the offices enrolled in the initiative and the number of green boxes installed.

A sustainable humanitarian supply chain

UNHCR sources goods internationally and locally to support people forced to flee. **Core relief items such as tents, blankets, and sleeping mats play a vital role in humanitarian efforts. However, producing and distributing these items contribute to almost 60 per cent of UNHCR's carbon emissions.**

To tackle this challenge, UNHCR is **reshaping its supply chain with a focus on sustainability.**

Improvements include better planning, sourcing, manufacturing, delivery, and lifecycle management of relief items.

UNHCR applies a sustainability criterion in its procurement to integrate environmental protection, social progress, and economic development into its processes. By adopting these principles, UNHCR ensures its efforts support both the people in need and the planet.

In 2024, UNHCR launched its [Supply Strategy 2024-2030](#), aiming to reduce its supply chain carbon emissions by 30 per cent by 2030. This initiative includes revising specifications for high-emission items. **So far, eight items have been redesigned to include up to 100 per cent recycled materials.**

Globally, UNHCR has started replenishing its stock with more eco-friendly items. Additionally, the agency is starting to source items without visible UNHCR branding, which can be transferred at cost to partners responding to urgent needs. Some of the items have already been unbranded and more will be in 2025.

Through these efforts, UNHCR is driving sustainability in humanitarian supply chains and setting itself apart as a leader in sustainable relief practices.



Proximity sourcing: Driving local impact with sustainable sourcing

In 2024, UNHCR launched two new tenders to support its commitment to sustainable, local sourcing — one in the Americas and another in East and Horn of Africa. These initiatives aim to procure **greener core relief items from suppliers using locally sourced recycled materials.**

The results are promising as three contracts were established in East and Horn of Africa, ensuring sustainable and locally manufactured relief items. Additionally, potential suppliers in Southern Africa and Latin America are undergoing technical and capacity evaluations, with plans to expand this approach to other regions.

By assessing local markets and engaging with suppliers, UNHCR's proximity sourcing strategy continues to promote greener, more inclusive supply chains.

Additionally, UNHCR is introducing new sustainability provisions into inventory, transportation, and waste management. A new transport management system will allow the UNHCR to start tracking, mitigating and reducing carbon emissions related to international air, sea and road transportation of goods to optimize logistics, mitigate and reduce the environmental impact of humanitarian transportation.

Green Financing Facility: Innovating for a Sustainable Future

The Challenge: Responding to global refugee needs comes with a high carbon footprint, especially from infrastructure.

The Vision: A more efficient and sustainable UNHCR.

The Solution: The Green Financing Facility. To reduce its environmental impact, UNHCR focuses on transitioning its offices from diesel generators and fossil-fuel-heavy energy grids to solar energy. In order to ensure that donor funds are used for long-term sustainable solutions, **the facility utilizes a revolving fund model where operations lease the asset for a cost lower than their previous energy costs.** This model ensures that funds flow back to the facility to be reinvested in new offices and that funds are secured for the operation and maintenance of the system throughout its lifetime, all while ensuring that UNHCR operations see savings from the first day of operation.

The Outcome:

- 1 Financial savings and sustainability for UNHCR operations.
- 2 Improved local environment and infrastructure.
- 3 Development and support of the local renewable energy market.
- 4 Support for industries and skills transfer.

Read UNHCR's office solarization story in [Mauritania and Nigeria](#).



Rooftop solar panels now power UNHCR's office in Ogoja, Nigeria, following the completion of solarization in late 2024 as part of the Green Financing Facility, a key initiative to reduce the environmental footprint of UNHCR operations worldwide.
© UNHCR/Owoche Igwe

Complete solarization of the emergency stockpile in Uzbekistan

Termez, **Uzbekistan** – UNHCR and **LONGi Green Technology Co Ltd**, a global leader in solar technology, have completed a groundbreaking project to [solarize the UNHCR Regional Humanitarian Logistics Hub](#) located in the Termez Cargo Centre in Surkhandarya, **Uzbekistan**. The 700kW solar photovoltaic powerplant is expected to generate around 989,993kWh of electricity annually, resulting in the reduction of carbon emissions and significant cuts to the annual electricity and operating costs.

The project, part of a wider **UNHCR-LONGi climate action partnership**, marks a significant step towards ensuring a sustainable energy supply for logistics that support refugees and IDPs across the region and beyond.

The solarization has transformed the Hub into a critical **operation powered by clean energy**. With the installation of high-efficiency solar panels, a substantial amount of renewable energy will be generated each year, reducing the Hub's reliance on the grid and significantly lowering its carbon emissions.

Smart fleet ridesharing and UN FLEET: advancing sustainable vehicle management

UNHCR's **Smart Fleet Ridesharing Programme** is streamlining travel by consolidating vehicle bookings for personnel traveling to similar destinations, boosting efficiency and cutting costs.

implemented in **188 offices** by the end of 2024, it saved **US\$ 1.2 million** during the year and reduced **O₂ emissions** by over **550 tonnes**. Expansion plans for 2025 include carpooling initiatives with other UN agencies, already piloted in **Chad, Iraq, and Lebanon**.

The programme was featured in [the 2024 Greening the Blue Good Practices on Environmental Sustainability in the United Nations System](#).

UNHCR's partnership with UN FLEET—a UN Reform initiative with WFP—aims to further optimize fleet management. During 2025, UNHCR vehicle leasing operations will transition to UN FLEET. Moreover, 25 per cent of UN FLEET's 2024 vehicle orders from UNHCR were for lower-emission models, including more efficient ICE, hybrid, and electric vehicles (EVs).

Driving sustainability: Reducing UNHCR Jordan's carbon footprint

UNHCR **Jordan** has expanded its EV fleet, adding seven new Skywell LV2 and LV3 models. **Sixteen e-vehicles are now in operation in the country, equivalent to 42 per cent of the fleet**. These vehicles are projected to cut CO₂ emissions by 55 tons annually. **Each EV reduces carbon emissions by over 70 per cent compared to conventional cars, while also lowering energy costs by up to 75 per cent**.



UNHCR and LONGi Green Energy Technology Co., Ltd. launch technical works on renewable energy solutions at the Termez Cargo Center, in Uzbekistan, following a global agreement to solarize UNHCR warehouses and support local communities.
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[Annex 2] The 22 Priority countries under the Focus Area Strategic Plan on Climate Action



Priority countries according to the Focus Area Strategic Plan for Climate Action 2024-2030

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- Bangladesh
- Burkina Faso
- Cameroon
- Central African Republic
- Chad
- Democratic Republic of the Congo
- Ecuador
- Ethiopia
- Honduras
- Jordan
- Kenya
- Malawi
- Mauritania
- Mozambique
- Niger
- Pakistan
- Rwanda
- Somalia
- South Sudan
- Uganda
- Yemen



2024 Climate Action Results Report

This report was developed by the **Climate Financing Hub** within UNHCR's Division of External Relations. We extend our sincere gratitude to the many Teams, Divisions, Country Operations, and Regional Bureaux whose collaboration and support enabled the Hub to compile the 2024 Climate Action Results Report.

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