

2025 Final Report

OPERATIONAL STRATEGY FOR CLIMATE RESILIENCE AND ENVIRONMENTAL SUSTAINABILITY 2022-2025



INTRODUCTION

Three-quarters of all forcibly displaced people fleeing war and persecution now live in countries that are highly vulnerable to climate-related hazards^[1]. Extreme weather events and slow-onset changes are destroying homes and essential infrastructure, damaging crops and livestock, and eroding long-term resilience. Forcibly displaced communities and their hosts are being hit increasingly hard by climate-related shocks, often without the resources or systems needed to adapt, recover and rebuild. Refugee settlements and sites hosting internally displaced people (IDPs) are frequently located in areas exposed to flooding, cyclones, drought and extreme heat, amplifying existing protection risks and humanitarian needs.

These communities are also often on the front lines of environmental degradation. Across Africa, for example, where an estimated 75 percent of the land area is deteriorating due to climate-related hazards and unsustainable land use, around half of refugee and IDP settlements are situated in areas under severe ecological stress. Degraded landscapes lack the ecological resilience needed to provide food, water, energy and other basic services; they undermine livelihoods and self-reliance for forcibly displaced people and host communities alike. As natural resources become scarcer, tensions can increase, social cohesion can fray and the prospects for sustainable solutions diminish.

[1] UNHCR (2025), *No Escape II: The Way Forward*.

In response to these interlinked challenges, UNHCR continued to implement the [Operational strategy for climate resilience and environmental sustainability 2022-2025](#) throughout 2025, aligned with the [Focus Area Strategic Plan for Climate Action 2024-2030](#). Across operations, UNHCR and its partners worked to deliver tangible benefits for forcibly displaced people and host communities by strengthening climate resilience, restoring and protecting ecosystems, and promoting access to clean energy and sustainable infrastructure. At the same time, UNHCR pursued efforts to reduce its own environmental footprint and improve operational and cost efficiencies.

The year also saw the Global Compact on Refugees Progress Review Meeting, which provided an important opportunity to take stock of and advance the implementation of pledges related to [Climate Action](#), [Sustainable Human Settlements](#), and the [Humanitarian-Development-Peace Nexus](#).

Building on these commitments, this report presents key achievements up to the end of 2025 in advancing the objectives of the Operational Strategy for Climate Resilience and Environmental Sustainability 2022–2025. It highlights progress and achievements during the past four years.



I. PREPARE AND RESPOND

SUMMARY OF KEY OUTCOMES

- Strengthened preparedness for natural hazards through enhanced risk analysis, weather forecasting and contingency planning, including through co-chairing of the inter-agency Early Warning and Risk Analysis group, active engagement in the Early Warning for All Initiative, and closer collaboration with the World Meteorological Organization.
- UNHCR and the Luxembourg Institute of Science and Technology developed a preliminary system to forecast flood-induced displacement in Somalia, marking a key milestone in the multi-year AI driven initiative.
- UNHCR and the Consortium of International Agriculture Research Centers conducted a joint evaluation of an ecosystem rehabilitation programme (Sustainable Land Management and Environmental Rehabilitation - “SULMER”) in refugee settlements in Cox’s Bazar, Bangladesh.

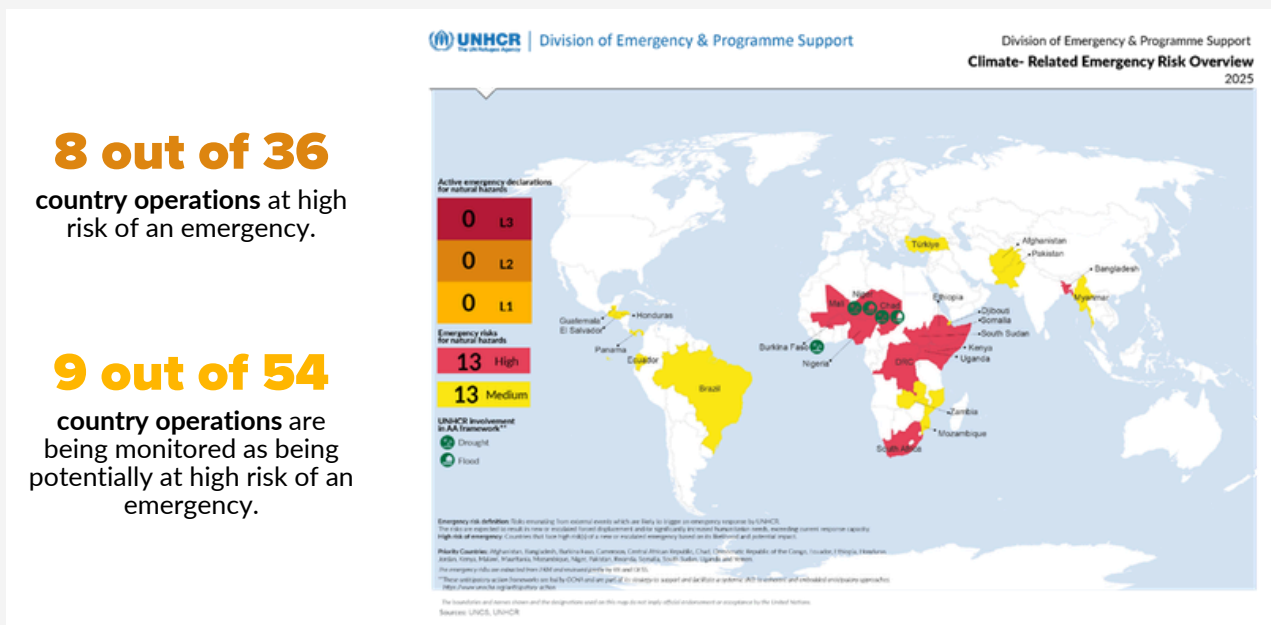


KEY HIGHLIGHTS

At the **country, regional and global levels**, UNHCR ramped up its risk analysis and preparedness activities to enhance resilience to weather-related hazards:

- A total of eight countries hosting forcibly displaced people were identified as being at high risk of emergency due to climate-related hazards, including droughts and cyclones, in the Americas (**Brazil and El Salvador**) and in Africa (**DRC, Ethiopia, Malawi, Mozambique, Somalia and Zambia**). In these high-risk contexts, country operations strengthened their contingency planning to ensure timely, coordinated, and effective preparedness measures. These plans outline potential scenarios, preparedness actions, and resource requirements, enabling UNHCR to respond quickly should a hazardous event occur, while advocating for forcibly displaced people and their hosting communities to be included in national-led preparedness and response plans.
- In **Bangladesh**, UNHCR and the Consortium of International Agriculture Research Centers (CGIAR) conducted a joint evaluation of an ecosystem rehabilitation programme (Sustainable Land Management and Environmental Rehabilitation - "SULMER") in refugee settlements in Cox's Bazar. The evaluation highlights that the intervention significantly mitigates risks posed by disasters and enhances environmental protections in the refugee camps. This demonstrates that even in a challenging context, with high levels of vulnerability to natural hazards, there is scope to build the resilience of refugee and host communities, and the surrounding environment, through integrated humanitarian, development, and peacebuilding (HDP) approaches.

In 2025, the impact or risk of emergencies related to natural hazards (droughts, floods and cyclones) featured in:



In 2025, UNHCR also enhanced emergency preparedness and response through **engagement with external actors and partners**:

- UNHCR advanced its engagement in inter-agency mechanisms dedicated to monitoring, analysing, and preparing for potential emergencies including those arising from weather-related hazards through chairing an **Inter-agency Early Warning and Risk Analysis Group (EWA)** together with the [Steering Committee for Humanitarian Response](#) (SCHR) and closely collaborating with the Inter-Agency Preparedness, Early Action and Readiness Group (PEAR).
- UNHCR continued its engagement in the [Early Warning for All Initiative \(EW4A\)](#) as a member under Pillar 1 (Disaster risk knowledge) led by UNDRR along with IFRC, Microsoft, Save the Children, and other UN agencies.

I. PREPARE AND RESPOND

- UNHCR maintained a strong collaboration with the **World Meteorological Organization (WMO)** on climate outlooks to enhance preparedness in fragile areas hosting displaced people. Over the year, [166 co-designed hydrometeorological scans](#) covering global and seven specific operational situations delivered timely weather outlook briefings to UNHCR colleagues in regional bureaux. The hydrometeorological scans highlighted potential extreme meteorological events that could impact displaced and stateless persons, as well as UNHCR operations. These engagements continued to enhance UNHCR's ability to anticipate how adverse weather events could affect operations, supporting more informed emergency preparedness and response planning. They also enabled the implementation of targeted measures aimed at minimizing the impacts of such events on affected populations. UNHCR continued to contribute in the [WMO Coordination Mechanism \(WCM\)'s Advisory Group](#), launched in October 2024, alongside the European Commission Joint Research Centre, IFRC, UNICEF, and national meteorological institutions to provide guidance for its enhanced support to humanitarian action.
- UNHCR, in collaboration with the Luxembourg Institute of Science and Technology, successfully developed a preliminary **Early Warning and Effective Response System** based on a predictive model that forecasts flood-induced displacement with a lead time of seven days in a pilot country, **Somalia**. The aim of the project is to anticipate emerging humanitarian needs, strengthen the efficient mobilization of resources, and help communities build resilience by preparing for and taking early action ahead of extreme weather events. The project is supported by the Government of Luxembourg and is strengthened by broad partnerships with humanitarian actors, academic institutions, meteorological agencies, and other key stakeholders. This achievement marks an important milestone ahead of the multi-year AI project aimed at generating displacement forecasts driven by other drivers.
- In alignment with the key UN agencies engaging in disaster risk financing (DRF) and pre-arranged finance (PAF) - FAO, UNICEF, OCHA and WFP - UNHCR co-created a **United Nations Disaster Risk Financing (DRF) Platform** to scale up the use of PAF to protect and assist more vulnerable people exposed to disaster risks. Through stronger collaboration at operational and strategic levels, harmonized data, joint analysis, and coordinated financial instruments, the Platform strengthens the collective capacity of UN agencies to anticipate shocks, protect people, and deploy resources rapidly and effectively. Simultaneously, UNHCR developed a solution concept for the implementation of a climate insurance portfolio solution to enable rapid and scalable financing for relief, recovery and protection for refugees in climate vulnerable situations and geographies with limited resilience, with implementation for the first set of countries planned for 2026.

A pilot in Malawi offered protection for two consecutive agricultural seasons through an insurance policy through the African Risk Capacity (ARC) until May 2025. This insurance coverage was complemented with resilience building activities to enhance local capacities for managing natural hazards, including enabling the use of climate-smart agriculture techniques, access to localised information and diversifying businesses. The safety net provided by the insurance was instrumental to support farmers in trialling new techniques.



Somalia. Internally displaced people are hit particularly hard by drought. © UNHCR / Nabil Narch

II. RESPOND AND DELIVER

SUMMARY OF KEY OUTCOMES

- Five boreholes solarized in Mauritania through Project Flow, reducing an estimated 190 tons of CO_{2eq} per year.
- 32 displacement sites in some of the most climate-vulnerable countries have completed integrated spatial planning and climate-resilient studies.
- For 10 displacement settlements at greatest risk of flooding, detailed infrastructure management plans are ongoing.
- Improved solid waste management programmes supported in five countries.
- E-waste management programmes supported in one country.
- 20% of people supported by UNHCR with shelter assistance in 2025 live in environmentally sustainable shelters.
- 37% of communal facilities are built in an environmentally sustainable manner.
- Nine countries invested in improved groundwater management.
- Through the Refugee Environmental Protection Fund pilots commenced in three sites in Rwanda and Uganda targeting 7,000 hectares of reforestation and clean cooking solutions for 90,000 households.
- Clean cooking for more than 949,100 people supported through LPG distributions.
- An additional 32 water boreholes running on diesel generators are solarized.
- An additional 34 UNHCR-supported health centres are powered by solar energy.



KEY HIGHLIGHTS

Climate-Resilient Communities and Settlements

In 2025, UNHCR strengthened its support for climate-resilient settlements by advancing integrated planning approaches and evidence-based decision-making in high-risk displacement contexts. Efforts focused on reducing vulnerability to climate hazards while improving safety, access to services and long-term settlement functionality.

A key milestone was the National Workshop on Integrated Settlement Planning held in Cox's Bazar, **Bangladesh**, convened by the [Geneva Technical Hub](#) (GTH) in collaboration with UNHCR Bangladesh and partners. Bringing together government authorities, inter-sector coordination mechanisms and operational agencies, the workshop promoted a shared understanding of integrated settlement planning in one of the world's most densely populated and climate-fragile refugee settings. Participants examined site-specific challenges, including population density and exposure to fire, floods and landslides, and explored practical planning tools, standards and nature-based solutions. Field observations and group work informed joint advocacy messages calling for more coordinated and forward-looking planning approaches across the camps.



Kenya. Groups during planning exercises in workshop sessions in Nairobi. © UNHCR

UNHCR partnered with Deltares to deliver a comparative economic assessment of flood adaptation and risk-reduction options in Kule Refugee Camp, **Ethiopia**, and Renk Transit Centre, **South Sudan**. The study, titled [A tale of two sites: Flood risk and Adaptation](#), supports a shift from reactive flood response toward proactive risk management, combining hydrodynamic modelling, cost-benefit analysis and local knowledge. Its findings demonstrate that targeted investments in flood adaptation can significantly reduce risks while delivering broader benefits related to health, safety, access and dignity.

The standardized assessment approach provides a replicable framework to guide transparent, evidence-based investments in climate resilience across flood-prone settlements.

In 2025, UNHCR and partners strengthened surveillance and outbreak response mechanisms across refugees hosting countries as climate related shocks, including flooding, heat waves and shifting rainfall patterns, continued to amplify risks of transmission of epidemic prone diseases. Cholera outbreaks were particularly severe in **South Sudan** (2,920 cases and six deaths), **Sudan** (1,450 cases and 29 deaths), where Sudan's case fatality rate of two percent, exceeding World Health Organisation threshold of less than one percent, reflecting gaps in water and sanitation systems exacerbated by extreme weather. Malaria remained the leading cause of mortality (12 percent) and a major contributor to morbidity, with over 850,000 consultations across 21 countries where the Integrated Refugees Health Information System is used. Moreover, dengue incidence in **Kenya** (766 cases) and **Thailand** (94 cases) underscore the expanding geographic footprint of vector bone diseases as temperature rise, enhancing transmission near the 27.8 °C optimal range for Aedes vectors.

UNHCR supported health facilities and community systems and implemented multi-layer approaches to reduce these risks. This included strengthened early detection, rapid outbreak response, risk communication and community engagement, hygiene promotion and vector control activities.

Environmentally Friendly and Sustainable Shelter and Housing

In 2025, UNHCR continued to promote environmentally friendly and sustainable shelter and housing solutions, despite the significant operational and budgetary constraints affecting several country programmes.

Across reporting operations, more than 35,900 shelters and housing units were constructed or maintained, assisting nearly 180,000 forcibly displaced persons. Of these, 20 percent incorporated environmentally friendly or sustainable features, such as enhanced durability, improved material efficiency, or reduced environmental impact. When emergency response operations are excluded, the share of sustainable shelter solutions increases to over 43 per cent, reflecting the stronger uptake of sustainability measures in longer-term contexts.

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Operations in **Afghanistan, Ethiopia, Lebanon and South Sudan** accounted for the majority of shelter support, with notable implementation of more durable approaches in **Jordan and Nigeria**, where all reported shelter units met environmental sustainability criteria. These efforts contributed to reducing environmental pressures around settlements while supporting safer and more dignified living conditions for displaced populations.



33 housing units constructed in 2025, in Bokh Refugee Site, Ethiopia. © UNHCR

At the global level, UNHCR advanced strategic guidance by finalizing the [Circular Economy Principles in Infrastructure Projects Guideline](#), developed jointly with WFP and UNICEF. The guideline provides practical recommendations for integrating circular design, resource efficiency and lifecycle thinking into humanitarian infrastructure projects. Its launch, scheduled for early 2026, aims to support field operations in improving efficiency, reducing waste and strengthening the environmental sustainability of shelter, housing and infrastructure interventions across humanitarian settings.

Climate-Smart WASH Services

During the year, UNHCR solarized 32 additional boreholes, mitigating an estimated additional 1,600 tonnes of carbon dioxide (CO_{2eq}) emissions 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.

The innovative financing mechanism of [Project Flow](#), designed to support the transition of refugee-serving water systems and health facilities to sustainable solar energy by reducing the financial burden of upfront investments, achieved several key milestones during 2025: the first solar-powered installations were completed in the M'bera settlement in **Mauritania**, while solar implementation works were launched in **Ethiopia** and **Rwanda**, and procurement process finalized in **Sudan**.

The participating country operations begun repaying the solar investments through the achieved cost savings, allowing replenishment of the Project Flow funding mechanism and enabling investments in additional solar systems in new locations. The five solarized boreholes in Mauritania now deliver 35 per cent more water while the operational costs are reduced by up to approximately 68 per cent, and CO_{2eq} emissions reduced by around 190 tons each year. A further 20 water systems and health facilities are expected to become operational during 2026, which in total are estimated to reduce CO_{2eq} emissions by 1,400 tons annually.



Mauritania. Five boreholes in M'bera solarized through Project Flow now consume 50% less fuel than previous systems. © UNHCR/Jupsergi Prodigé Dimi Ngolo

The smart water sensors (SWS) project, which provides real time data from water supply systems to improve water resource management, operational efficiency and minimize losses, continued in 2025, despite severe budget restrictions. The importance of this multi-year project in strengthening the resilience of WASH systems was highlighted in several operations: enhanced groundwater monitoring for short-term operational effectiveness and longer-term safe extractions of water contributing to environmental sustainability was a key benefit noted by **Bangladesh, Cameroon, Malawi and Nigeria**.

The successful handover of the SWS to the **Government of Iraq**, who manage the water supply systems for the refugee settlements, reflected the importance of groundwater monitoring for both the refugees and the surrounding host community.

Building on the value of this project, UNHCR **Zimbabwe** implemented an innovative pilot to explore automation of the water supply system to remotely programme and control optimized water production schedules, safeguard pumps, and support energy efficient, solar-powered schemes.

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The ability to track service provision remotely was particularly valued in **Cameroon and Nigeria**, with particular emphasis on critical parameters such as chlorine and water flow, noting the reduced travel to refugee settlements to run physical inspections, and thus the reduced carbon footprint of the WASH programme.

Groundwater management was further strengthened through a **GTH** mission to Kakuma, **Kenya**, to facilitate a multi-agency, participatory workshop on “Sustainable Water Engineering”. Working towards a technical master plan for inclusion of the Kakuma water supply system into the national system, participants from UN agencies, INGOs and Kenyan authorities used existing information to characterize the hydrogeological setting of Kakuma and subsequently developed a water balance, to estimate how much water was used, and how much was available. On the basis of this water balance, the group then designed sustainable borehole exploitation rates, to avoid overexploitation of the shared water resource.

Groundwater management was enhanced in **Malawi** through private sector support from **Veolia Foundation** through two separate missions. Low-cost recommendations were made to improve water production, ensure sustainable management of the groundwater, minimise losses from the system and prevent contamination of water resources. Pilots for managed aquifer recharge, an anticipatory approach to protecting vulnerable groundwater resources, continued 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 potable water. Initial analyses undertaken for the **Chad pilot** demonstrate positive impacts on the environment, as well as social and financial.

Sanitation: A number of countries continued to implement solid and faecal waste management activities, targeting reduced impacts on the environment, including minimizing sources of contamination within water catchments. Waste-to-energy projects made it possible to reduce emissions from poorly managed waste and provide alternative sources of energy.

In **Bangladesh**, for example, more than 10,000 cubic metres (m³) of solid waste was processed in ten material recovery facilities, producing compost and recycled plastic products benefiting refugees and host communities.

In **Cameroon**, faecal sludge was composted and turned into biofertilizer which contributed to improved agricultural yields and strengthened household resilience. Similarly, in **Mauritania**, in collaboration with the government and World Bank, a treatment and valorization site was established for faecal sludge from toilets, which converts sludge into fertilizer to support reforestation activities. In **Kenya**, bio-digester toilets were constructed in schools.

In **Algeria**, UNHCR and partners continued to process plastic waste and generated revenues that covered staff incentives and some operational costs, contributing to the sustainability of the plastic recycling initiative.

The **GTH** further contributed to best practice for sanitation through the compilation of Frequently Asked Questions (FAQ) documents on the waste-to-energy topics of briquette and biogas production and use. These documents explore the challenges of these technologies in refugee settings and provide technical guidance and best practices in an easy and simple-to-use-format.

Clean Cooking and Reforestation

Whilst the severe funding decrease experienced in 2025 impacted distributions of Liquid Petroleum Gas (LPG) in **Rwanda**, where distributions were limited to 15,000 of the most vulnerable households in two of three major hosting sites, nine other countries continued with distributions of such clean cooking fuel. In **Bangladesh** and **Algeria**, for example, over 108,000 and 28,000 households, respectively, received LPG assistance to combat deforestation and explore more sustainable clean energy alternatives.

In **Chad**, for areas impacted by the Sudan emergency, the ALBIA project implemented in partnership with the Ministry of Environment and with financing from the World Bank and the Global Environment Facility (GEF) distributed LPG kits to 11,500 households.

Innovative mechanisms for supporting access to LPG continued to be explored in several operations: in **Mauritania**, the previous “cash-for-gas” programme was expanded beyond M’bera Camp to out-of-camp and refugee-hosting areas in Nema, and included strengthening engagement with local suppliers and markets. A new pilot supported by UNHCR’s Environment and Climate Action Innovation Fund (ECAIF) tested a Green Loan mechanism for more sustainable LPG adoption, contributing to an overall reach of more than 7,300 people through **innovative mechanisms**.

II. RESPOND AND DELIVER

Reinforcing local markets, cash assistance was used to improve access to LPG in **Jordan** and **Niger**. Aligning with the government's directive to reduce consumption of firewood in institutions, **Tanzania** supported four facilities (reception / departure centres and a health facility) with LPG or LPG-electricity hybrid systems.

Through collaboration with a wide range of partners, including FAO, Norwegian Refugee Council, Qatar Charity, the Kenyan Faida Investment Bank, national governments and private sector, improved cooking technology and cleaner fuels also continued to be supported in nine country operations, reducing reliance on wood and benefitting more than 230,000 people. In **Uganda**, for example, solar technology, briquettes and improved cookstoves improved cooking time, reduced smoke and improved indoor environments. In **Tanzania**, households were similarly supported with improved cookstoves and bio-briquettes, whilst **Kenya** initiated a market-based approach with Community-Based and Refugee-Led Organizations and the host community to enhance access to improved cookstoves and pellets. **Niger** and **Ethiopia** also aimed for greater cooking efficiency with distributions of improved cookstoves.

The [Refugee Environmental Protection \(REP\) Fund](#) entered its implementation phase, operationalizing large-scale reforestation and clean cooking pilots in displacement settings via carbon markets.

Across the initial pilot sites in **Rwanda** and **Uganda**, projects are designed to restore a minimum of 7,000 hectares of degraded landscapes and deliver clean cooking solutions to approximately 90,000 refugee and host community households. Over the project lifetime, the pilots are expected to generate an estimated USD 95 million in carbon revenue under conservative pricing assumptions. These pilots form the foundation of the Fund's 10-year ambition to restore ecosystems at scale, expand access to clean cooking to more than one million refugee and host community households, and establish a financially sustainable model that reinvests carbon revenues into environmental protection and community resilience. The first projects were formally [launched at COP30](#) as the first large-scale refugee-led carbon finance initiatives in a humanitarian context, marking a significant milestone in linking climate finance with displacement response.

Feasibility studies have been finalized in Bangladesh and Brazil (Roraima, including Indigenous Lands), confirming technical, legal, social and commercial viability of the project. Formal expressions of interest have now been received from 17 host countries across Africa, Asia, and the Americas. The REP Fund is therefore evolving into a scalable platform for mobilizing private climate finance in displacement settings.

REP Fund Key Achievements & Upcoming Milestones

- Carbon credit model operationalized. The Fund is developing high-integrity, large-scale refugee-driven carbon credits under recognized voluntary carbon market standards, including alignment with Integrity Council for the Voluntary Carbon Market frameworks and certification pathways such as Gold Standard. The model combines assisted natural regeneration, enrichment planting, agroforestry, and locally produced clean cooking technologies, adapted to site-specific conditions.
- Transition from grant dependence to revenue generation. The REP Fund represents a structural shift from short-term donor-funded environmental programming toward long-term, revenue-generating delivery. Verified carbon and social impacts are converted into re-investable revenue streams that support continued environmental restoration and livelihood activities.
- By reducing reliance on fuelwood collection, the programme mitigates protection risks faced by women and girls and supports the creation of green jobs within refugee and host communities, including nursery management, stove production, forest management, and community monitoring roles. Benefit-sharing mechanisms are embedded in project design to ensure equitable distribution of revenues and community reinvestment.
- Pilot projects are designed to align with Nationally Determined Contributions, National Adaptation Plans, and National Biodiversity Strategies and Action Plans of partner countries. Governance arrangements include National REP Fund Pilot Steering Committees in Uganda and Rwanda to ensure alignment with national regulatory processes, carbon approval frameworks, and sectoral policies.
- Private sector mobilization. The Fund operates through structured consortium arrangements, and as such mobilizing upfront private capital to finance implementation and manage long-term delivery risks. The broader platform maintains an ambition to catalyze significant private investment in displacement contexts over the coming decade.
- Collaborative partnerships and governance. Implementation is supported by multi-layered governance architecture including monthly delivery oversight groups, and national steering committees. Collaboration with governments, local authorities, technical experts, and UN partners ensures alignment with national priorities, safeguards implementation, and scalability.

Transition to Renewable Energy

Solar lanterns enhance protection, safety and security for refugees. As such, they are an integral core relief item in displacement settings. As part of its emergency response, UNHCR distributed more than 125,000 solar lanterns to meet the basic lighting requirements of refugees. [2]

In 2025, several countries, including **Ethiopia, Kenya, Niger, Mauritania, Pakistan, South Sudan, Sudan, Tanzania, Uganda, and Zambia**, reported upgrading communal facilities with solar energy to fill gaps in energy access and reduce the financial and environmental costs of non-renewable energy sources.

In **Pakistan**, for example, UNHCR collaborated with both LONGi Green Energy Technology Co. Ltd. and Zonergy (Tianjin) Company Limited to solarize four hospitals, three water pumping systems and 54 facilities (schools, women / children-friendly spaces, community centers and legal protection facilities). The additional clean and renewable energy capacity is generating nearly three million kWh per annum, mitigating approximately 1,206 tons of CO_{2eq} emissions. The generated energy will save approximately USD 450,000 in electricity costs.

In **Uganda**, the installation of solar power systems has been completed at seven health care facilities (HCF), for ICT laboratories at two schools and at an additional 40 schools in Kyegegwa, Isingiro and Kamwenge to support the Education Management Information system.

In **Mauritania**, UNHCR upgraded energy systems for community facilities serving refugees and host communities, including for four HCF serving approximately 80,000 people, improving the reliability of electricity for essential health services, including telemedicine, cold chain support, and extended service hours. Energy systems were also upgraded in ten primary and high schools benefiting approximately 8,000 students through improved ventilation, lighting, and extended hours of use.

In **Kenya**, three HCFs were solarized in Kakuma-Kalobeyei and Dadaab, benefiting more than 11,000 people in the host community and refugee settlements.

In **Chad**, UNHCR supported the rehabilitation of existing solar installations in several HCF serving refugees and host communities, re-establishing reliable electricity for lighting, basic medical equipment, and vaccine refrigeration.

A total of five country operations (**Chad, Kenya, Mauritania, Pakistan and Uganda**) reported new solarization of 34 HCF in 2025, mitigating at least 400 tons of CO_{2eq} emissions annually, and enhancing business continuity.

The Green Innovation Hub, the ongoing e-waste management initiative in Cox's Bazar, **Bangladesh**, was further strengthened through UNHCR's ECAIF, resulting in 90 per cent return of non-functioning items to use, reducing e-waste and creating jobs for refugees.

Building on assessments and learnings from the e-waste activities in **Kenya**, [GTH](#) released its latest guidance on [Management of e-waste from portable solar lanterns in displacement settings](#). It provides comprehensive guidance for the management of end-of-life solar lanterns in displacement settings. It also provides financial modelling for the management of solar lanterns in Kakuma, **Kenya**. This guidance proves that while safe recycling and disposal of solar lamps is theoretically possible in displacement settings, procurement of services from specialized and ideally certified e-waste recyclers is required. The local presence of such actors facilitates e-waste handling and potentially lowers its costs. In the absence of these systems, repair is a key measure to extend the lifespan of solar lanterns.

Whilst the analysis of the data collected from Kenya showed that net costs are created by the safe management of e-waste from solar lanterns, these costs are far less than those incurred by retrospectively managing lead and mercury emissions, plastic leakages and contributions to global warming. External funds and subsidized actions could reduce such net costs.



*Chad. UNHCR supports Sudanese refugees in Farchana Refugee Settlement, with renewable energy initiatives.
© UNHCR / Ala Kheir*

[2] [UNHCR's 2025 Impact Report: Response to New Emergencies and Protracted Crises](#).

III. SUPPLY AND DELIVER

SUMMARY OF KEY OUTCOMES

- Six new updated environmentally sustainable technical specifications developed, including eco-design options (with and without logo).
- Ten global and two proximity frame agreements established for environmentally sustainable Core Relief Items.
- Twenty-six contract amendments implemented to integrate environmentally sustainable and no-logo CRIs into UNHCR Frame Agreements.
- One new ITB in Europe and one REOI in West and Central Africa launched to identify local CRI suppliers.
- Over 6,720 cubic metres of surplus stock redeployed to priority emergencies, optimizing existing inventory, reducing storage needs and avoiding unnecessary procurement.
- UNHCR Waste Management Programme implementation initiated in three pilot countries.
- 12 staff certified as ISO 14001 Lead Auditors for Environmental Management Systems, strengthening sustainability integration in auditing processes.
- New SOPs and audit tools integrating sustainability criteria implemented.
- New Environmental Sustainability in Humanitarian Logistics learning course launched on the UNHCR Learning Platform.



KEY HIGHLIGHTS

Sustainable Supply Planning

In 2025, UNHCR further strengthened the integration of environmental sustainability into supply chain planning processes, including multiple engagements within the framework of humanitarian joint initiatives focused on the reduction of the humanitarian supply chain carbon footprint.

Planning efforts were also supported by analytical and research initiatives, including the publication of a paper on [Decarbonization Opportunities for Relief Mattresses](#), and the development of concept papers on integrated energy systems and solar streetlighting. A warehouse energy management survey was also conducted to inform about future improvements in energy efficiency across supply operations.



Lebanon. UNHCR delivers relief items to displaced people sheltering in Beirut. © UNHCR / Ximena Borrazas

These efforts contribute to embedding sustainability considerations upstream in supply planning, supporting more informed decision-making and long-term environmental performance improvements.

- **Partnerships**

UNHCR strengthened strategic partnerships to advance sustainable supply solutions, including joining the SWEEP Partnership – a global multi-stakeholder platform – to scale sustainable waste management, promote circular economy approaches and support environmentally sustainable job creation in displacement settings.

- **Inter-agency collaboration**

Inter-agency collaboration was further reinforced through contributions to joint initiatives and technical working groups, supporting harmonized approaches to sustainable procurement, energy solutions, technical specifications, quality control processes and e-waste management across humanitarian operations.

As Co-Lead of the Environmental Sustainability thematic area under the EU ECHO-led **Humanitarian Leadership Group on Supply Chain (HLGSC)**, alongside France's Crises and Support Center (CDCS), UNHCR organized the first of five thematic workshops in Lyon (France), bringing together over 40 stakeholders from humanitarian supply chains, the private sector, donors and academia. The outcomes were presented at a final event hosted by EU DG ECHO in Brussels, Belgium, resulting in a collective commitment by the humanitarian supply chain community to implement concrete joint actions in 2026, with stronger collaboration and shared accountability.

UNHCR also joined the UNHRD-led **Harmless Plastics Project** as a board and technical member. The project aims to improve plastic waste management in emergency responses through the deployment of containerized recycling micro-factory systems.

Inter-agency collaboration also supported market development efforts, including contributions to the Logistics Cluster WREC Coalition solar supplier mapping initiative and the [IOM E-waste Management Toolkit](#), promoting circular economy approaches in displacement settings.

- **Training**

UNHCR continued to prioritize internal capacity building to enhance staff skills, performance and awareness.

Through ongoing collaboration with the [Logistics Cluster WREC Coalition](#), UNHCR integrated the Environmentally Sustainable MOOC Modular Course into the UNHCR Learning Platform, providing access to high-quality training for Supply and Requesting functions.



Additionally, 12 staff from Sustainability, Procurement and Quality Assurance functions were certified as ISO 14001 Lead Auditors, strengthening the integration of sustainability requirements into auditing processes.

III. SUPPLY AND DELIVER

Market-Shaping and Sustainable Sourcing

- **Procurement**

Procurement of **environmentally sustainable CRIs** continued to scale up in 2025, reflecting increased availability and integration of sustainable products into procurement pipelines. More than 464,000 plastic tarpaulins, 358,000 sleeping mats, 310,000 jerrycans and 525,000 other environmentally sustainable relief items were procured, supporting the mainstreaming of environmentally improved CRIs while maintaining operational readiness.

UNHCR also continued to play a proactive role in shaping markets for sustainable humanitarian supplies through targeted sourcing strategies, supplier engagement and innovation.

A comprehensive market assessment for solar lanterns in Africa was conducted, covering global and regional trends as well as UNHCR demand. This supported supplier mapping, procurement planning and identification of more sustainable and cost-effective solutions.

A mission to Kenya in November 2025, conducted under the proximity sourcing project, helped further strengthen the capacity of local suppliers to improve their production and meet UNHCR's environmentally sustainable requirements for core relief items.



Kenya. Factory visit. © UNHCR / Valeria Dell'Aquila

- **Technical Specifications**

Six new updated environmentally sustainable technical specifications were developed, including eco-design variants (with and without logo), covering key CRIs such as family tents, kitchen sets, multipurpose solar lanterns and mosquito nets. These specifications improve durability, material efficiency and reduce environmental footprint, contributing to lifecycle sustainability of relief items.

- **Tenders & Frame Agreements**

UNHCR expanded its portfolio of frame agreements (FAs) for environmentally sustainable CRIs, establishing ten global and two proximity FAs. In parallel, 26 contract amendments were implemented to integrate environmentally sustainable and no-logo items into existing agreements, enabling faster adoption of sustainable alternatives across operations.

New Invitations to Bid (ITBs) were launched for environmentally sustainable CRIs, including solar lanterns, kitchen sets, family tents and tarpaulins. These included a dedicated proximity ITB for Europe and a Request for Expression of Interest (REOI) for West and Central Africa, reinforcing supply chains localization and reducing transport-related environmental impacts.

Logistics & Inventory Management and Emergency Preparedness

UNHCR strengthened the environmental sustainability and efficiency of its logistics and inventory management systems, with a strong focus on emergency preparedness.

Stock redeployment was significantly scaled up, with over 6,720 cubic metres of CRIs transferred from surplus locations to priority operations. This reduced the need for new production – estimated at USD 7.5 million – while minimizing environmental impacts.

Emergency preparedness was further enhanced through a joint initiative with IOM to improve the management of GSM-held no-logo CRIs, aiming to diversify sourcing, harmonize inter-agency approaches and strengthen system efficiency.



Ukraine. UNHCR provides life-saving aid to people affected by war. © UNHCR / Dmytro Babenko

III. SUPPLY AND DELIVER

Compliance, Quality Assurance & Supplier Engagement

In 2025, UNHCR [reinforced compliance and quality assurance mechanisms](#), integrating sustainability across supplier management processes.

New SOPs for factory audits, inspections and laboratory testing were developed, incorporating environmental criteria and supported by updated inspection tools and acceptance quality limits for environmentally sustainable CRIs.

More than 170 sustainability-related actions identified during 2024 factory audits were successfully closed, highlighting the importance of integrating sustainability into compliance and quality assurance to enhance business performance.

Supplier engagement was strengthened through participation in AIDEX 2025 and collaboration within the Quality, Social and Environmental (QSE) group. The continuous engagement with QSE resulted in the harmonization of technical specifications for eight CRIs, together with their associated quality control processes and factory audit procedures, incorporating an enhanced focus on social accountability and environmental management systems.

Product Life Cycle Management

- **Supply Waste Management**

Following generous donor contributions, the [Waste Management Programme](#) was launched in three pilot countries (Chad, Ethiopia and Mauritania). An initial desk assessment conducted by two waste management experts will be followed in 2026 by in-depth field assessments and local stakeholder engagement. The programme aims to develop a multi-stakeholder roadmap for piloting durable, circular and self-sustaining solid waste management solutions.

- **Packaging**

UNHCR published [Sustainable packaging sourcing guidelines](#) to guide UNHCR staff and partners in identifying, sourcing and using sustainable packaging solutions. The guidelines define and categorize packaging materials, highlighting common and problematic packaging materials options and possible alternatives for replacement.



Sustainable packaging sourcing guidelines



Communications & External Relations

In 2025, UNHCR continued to showcase environmental sustainability efforts and best practices in several multilateral stakeholder networks. UNHCR was invited by the Logistics Cluster WREC Coalition to present its sustainability activities in multiple online webinars dedicated to sustainability in procurement and logistics waste management.

In addition, [the European Union provided dedicated funding](#) to further expand the Proximity Sourcing and RUSH++ programmes, two innovative working models promoting environmental sustainability sourcing and supporting urgent and underfunded humanitarian crises.



In 2025, UNHCR distributed over **2.3 million** environmentally sustainable core relief items (CRIs) in **34 country operations**. This included blankets, jerrycans, buckets, solar lanterns and sleeping mats produced with recycled materials and a lower carbon footprint. Despite limited funding and consequently slower procurement and stock rotation, UNHCR achieved a 14.9 per cent reduction in CO₂ emissions from the sourcing of environmentally sustainable CRIs. While below the 20 per cent target for 2025, this reflects continued progress towards the **2030 target of 30 per cent reduction**.

2025 Final Report

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