UNHCR Environment and Climate Action in Hodh Chargui, South-East Mauritania

Mauritania, 2021. Malian refugee women help green the Mbera camp as part of a reforestation project. Photo: ©UNHCR/Colin Delfosse.

Mauritania is a Sahelian country that has long been affected by desertification and drought. The Sahel is one of the regions most impacted by climate change, with a projected temperature rise of 3°C compared to the global average of 1.5°C by 2050. Extreme temperatures and weather conditions associated with climate change have recently contributed to crop degradation and soil erosion in the south of the country and the oasis areas. Rural households living there are finding it increasingly difficult to sustain their livelihoods. The prolonged presence of refugees in Mbera camp in Hodh Chargui has also increased pressure on local sources of water, fuelwood and grazing land, creating potential sources of tension between refugees and host communities.

The Mauritanian Government, as well as humanitarian and development actors, have made environmental preservation and regeneration a central element of their strategies and initiatives. Mauritania has in fact developed a National Strategy for the Environment and Sustainable Development. The refugee-hosting region of Hodh Chargui has in turn aligned its Regional Strategy for Accelerated Growth and Shared Prosperity (SCAPP/SCRAPP) with this national environmental strategy, with the 2030 objective being to slow down environmental degradation and reverse trends so that sound natural resources management underpins green and inclusive growth. In complementarity with the Government, the United Nations is working to strengthen the resilience of ecosystems, communities and national systems in Hodh Chargui.

UNHCR, for its part, is specifically focused on (1) preserving and restoring natural resources, (2) providing clean and renewable energy, (3) promoting sustainable sanitation and waste treatment solutions, and (4) promoting a green economy.

A Malian refugee, gas cylinder distributor and retailer, engages with a UNHCR representative in Mauritania for a pilot project in Mbera camp. Photo: ©UNHCR/ OMAR DOUKALI

Discover how warming climate threatens livelihoods of Malian refugees and Mauritanians

UNHCR Operational Needs in the Environment Sector in Mauritania

YEAR	2024	2025	2026
Needs in US$	1,042,778	1,372,278	1,262,778

Economic inclusion path in Mauritania

Preserving and restoring natural resources

Reforestation: Since 2016, UNHCR and its partners SOS Desert and RET-Germany have planted thousands of trees inside and outside Mbera refugee camp thanks to the support of volunteers from host and refugee communities who are at the heart of this initiative. The significant impact of the support of the UN's Peacebuilding Fund (PBF) in this area was evident between 2021 and 2022, when enough resources were available for UNHCR to accelerate reforestation efforts and experiment with different techniques. In doing so, UNHCR deliberately involved local associations of women and youth.

- 59,000 trees planted in Mbera camp and nearby localities (Mbera 1 and 2, Samarassa, Libreini) between 2016 and 2022, including 24,000 trees in 2022.
- 500 volunteers (260 men, 240 women) mobilized in 2022.
- 5,000 trees planted directly by SOS Desert in 2023, with the support from UNHCR.

Our Vision: Scale up reforestation projects to restore natural habitats and regenerate the soil around the Mbera camp and neighbouring communities. Reforestation will also improve social cohesion and the living environment for refugees and host populations.

YEAR	2024	2025	2026
Trees to be planted	50,000	50,000	50,000
Budget in US$*	381,000	381,000	381,000

**The estimated budget includes costs related to sowing, protection of reforested sites (sustainability), human resources (UNHCR and partners), and monitoring and evaluation.*

Mauritania, 2023. Mbera Fire Brigade leader, representatives from the refugee community, and UNHCR representative in Mauritania jointly presenting the Nansen Award certificate. ©UNHCR/Malika Diagana

Preventing and managing bushfires: Established in 2018 by refugee volunteers with support from UNHCR, a local NGO and local authorities, the Mbera Fire Brigade has worked side by side with host communities to prevent and fight bushfires in and around the Mbera refugee camp. Since 2018, more than 125 fires have been extinguished by the brigade. At the same time, firebreaks stretching 800 kilometers have been built. Education campaigns have also been conducted to prevent bushfires.

In 2022, the Mbera Fire Brigade won the UNHCR Nansen Refugee Award for the Africa region. The award recognizes the Brigade's exceptional courage and dedication in fighting bushfires and protecting the environment, the refugees living in Mbera camp and the surrounding host population.

- More than 200 fires extinguished by the Mbera Fire Brigade since 2018 (with an estimated area burned of more than 1500 km2)
- More than 2,000 kilometres of firewalls built since 2020
- More than 200 refugee volunteers are part of the brigade as of October 2023

Our Vision: Strengthen local capacities to effectively respond to bushfires and ensure the safety of the people, goods and the environment. By supporting the efforts of local authorities, the Fire Brigade and other partners to prevent and control bushfires, UNHCR aims to limit the outbreak and spread of fires, and thus contain carbon dioxide emissions.

YEAR	2024	2025	2026
Extension of fire breaks	500 km	500 km	500 km
Budget in US$	280,998	280,998	280,998

Providing clean and renewable energy

Access to clean and reliable energy for cooking: In 2022, UNHCR initiated several pilot projects in partnership with GIZ and UNDP to encourage households to produce biogas locally by recovering sludge and to use environmentally friendly cooking solutions that do not present health risks.

- Around 1,000 refugee households received cash assistance for the purchase of gas cylinders (LPG) through the "Cash for Gas" project.

Our vision: Promote the transition to clean, reliable energy for cooking. Over the next four years, UNHCR aims to stimulate the supply and demand for butane gas in the camp, by supporting households and businesses through the "Cash for Gas" project, and to build community biogas production units (in schools and communal areas). The use of biogas will limit the use of firewood for domestic purposes and livestock and will ease the pressure on natural resources in and around the camp (it is estimated that 60 tons of wood are being used every day in the camp).

- 1,800 individuals received technical training and support in market gardening between 2020 and 2022
- 100 refugee youth trained to install and maintain solar systems
- 50 refugees trained to maintain small biogas production units

YEAR	2024	2025	2026
Number of households benefitting from the project "Cash for Gas"	1,000	2,500	1,000
Number of new biodigesters installed in community spaces	5	5	5
Budget in US$	276,780	386,280	276,780

Electrification via renewable energy: Under the World Bank's financing mechanism for refugees and host communities (IDA-18 sub-window), the Mauritanian Government – in close collaboration with UNHCR – is developing a plan for the electrification of Mbera camp and surrounding areas with the construction of a hybrid diesel-solar power plant by 2026. To minimize its impact on the environment and reduce the cost of electricity in the camp, UNHCR is also solarizing its offices and targeted community structures (e.g. boreholes and health centres).

Our vision: Reduce UNHCR's dependency on fossil fuels and transition to the exclusive use of solar energy within its infrastructure in Mbera camp by 2025. Through the implementation of the Flow project, UNHCR aims to solarize 5 boreholes in Mbera camp by 2024. This will improve the quality of life of the communities in Mbera camp and neighbouring communities by reducing CO2 emissions and the operational and maintenance costs of the water system.

YEAR	2024	2025	2026
Percentage of camp infrastructure solarized	70%	80%	100%
Budget in US$	30,000	30,000	30,000

Promotion of green jobs

UNHCR, GIZ and ILO offer refugees and host communities training and entrepreneurship coaching on clean energy and environmental restoration both in Mbera camp and in neighbouring villages.

- Over 1,800 individuals worked in the market gardening sector and received technical training from UNHCR partner SOS Désert (2020-2023).
- Around 120 young refugees trained to install and maintain solar systems (2018-2022).
- Over 60 small and medium-sized green enterprises (market gardens, waste management, solar panel sales, etc.) were established in the camp and in host communities (2018-2022).

Our vision: Increase the number of green jobs available for refugees and host communities. As of 2024, UNHCR will work with several partners to leverage the potential of the agropastoral activities in Hodh Chargui (market gardens and green value chains) through the development of new sectors, supporting 95 income-generating activities focusing on recycling and renewable energies.80 income-generating activities and 10 small and medium green businesses in the 16 host community villages between 2018 and 2021

YEAR	2024	2025	2026
Number of green income-generating activities supported	95	40	40
Number of income-generating activities to support	20	75	75
Budget in US$	74,000	294,000	294,000

Mauritania, 2021. Andrew Harper, Special Advisor to the UN High Commissioner for Refugees on Climate Action, meets with Ndambele, a refugee and manager of the solar and water system in the Mbera refugee camp. ©UNHCR/Colin Delfosse

Main areas	Ongoing initiatives	Outlook by 2026
Preservation and restauration of natural resources	- Tree planting - Fire prevention and management	- 100,000 trees planted - Capacity of the Mbera Fire Brigade reinforced
Access to clean and renewable energy	- "Cash for Gas" Project - Popularizing cooking initiatives using biogas - Solarization of UNHCR infrastructure and services in Mbera camp - Collaboration on innovative projects (LPG gaz BtoB, CoolTainer initiative)	- 100% of households in Mbera use clean cooking energy - 100% of UNHCR infrastructure running on solar energy - Electrification of Mbera camp with a mix of solar and thermal energy
Sustainable sanitation and waste treatment solutions	- Latrine sludge extraction to fertilize tree planting and gardens - Recovery of solid and liquid waste - Construction of a rainwater evacuation system	-Improvement of standards (from 20 households per latrine to 10 households per latrine) - Reliable rainwater evacuation system installed - 80% of solid waste recycled - Capacity of Refugee Volunteers Cleaning the Camp (RVCC) reinforced
Promotion of green jobs	- Market gardening - Training of young people in green industries and eco-friendly construction	-Surface area and productivity of market gardens increased - 1,000 women trained in advanced market gardening techniques - 2,000 young people trained in renewable energy and eco-friendly construction

Using Evidence to build a Greener Future: Promising green value chains in Mbera refugee camp and in Bassiknou

UNHCR and its partners carried out studies (2018, 2022, 2023)[1] mapping which activities have the potential to generate added value in the context of the Mbera camp and, more broadly, in Bassiknou. Three activities that may have beneficial effects on the environment identified:

1. Establishment of forage production chains

In five years, a local fodder production chain for livestock can be developed if two projects are implemented: **the production of high-yield fodder** adapted to the agropastoral context with the local and refugee communities, and the creation of **pastoral reserves** protected from livestock for five years and then with the gradual reintroduction of certain types of livestock.

2. Cultivation of Arabic gum

While managing Arabic gum stands sustainably and collectively is a challenge, benefits of their harvesting and exportation are numerous, given the growing international demand, particularly in the food industry. The preservation (and cultivation) of acacias is also an environmental asset in the context of the Great Green Wall project.

3. Reasonable management of waste

If focused on organic materials, waste management initiatives can contribute to better sanitation systems and create jobs linked to waste processing (effluent, compost, biogas).

[1] https://data.unhcr.org/en/documents/details/73409

Note: Identification of economic opportunities for the population of Mbera refugee camp and neighbouring host populations: an analysis of value chains (UNHCR, 2018); Study of green value chains and the socio-economic and environmental potential resulting from a circular-type economy (GIZ, 2022); Mission report: environmental support in the field (UNHCR - GTH, 2023)