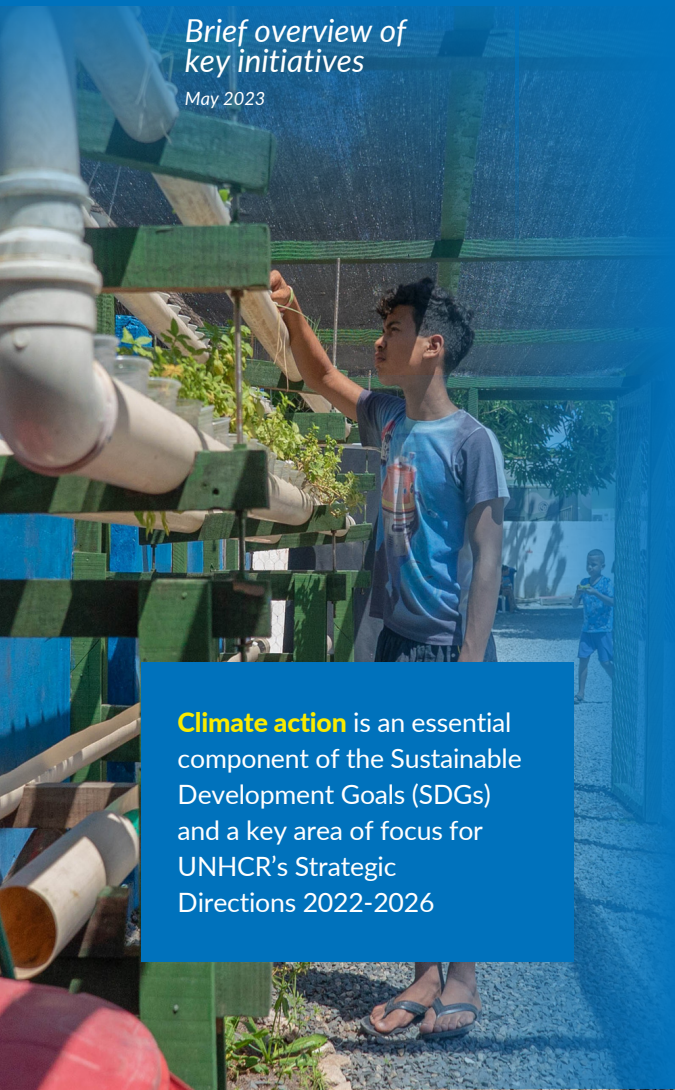


CLIMATE & SUSTAINABILITY INTERVENTIONS

BRAZIL

Brief overview of key initiatives

May 2023



Climate action is an essential component of the Sustainable Development Goals (SDGs) and a key area of focus for UNHCR's Strategic Directions 2022-2026

Climate change is a significant risk multiplier that is contributing to displacement and protection needs worldwide, including in Latin America and the Caribbean. To address this urgent issue, the High Commissioner for Refugees appointed a Special Advisor for Climate Action in January 2020 to drive UNHCR's climate action agenda, which focuses on law and policy, operations, and "greening" UNHCR.

This is particularly important in the context of Brazil, which has seen an increasing number of natural disasters occurring in the past few years. Although drought is the most common of them, especially in the Northeast, floods have the most devastating effects, including loss of human life, damage to property and infrastructure, and destruction of crops and livestock, which can lead to homelessness and displacement. According to the 2023 Report by the NRC's Internal Displacement Monitoring Center, Brazil is the country with most internal displacements recorded in the Americas in 2022 - some 708,000 had to leave their homes due to natural disasters.

The state of Roraima, the main entry point for refugees and migrants from Venezuela, is among those that are mostly experiencing the effects of environmental hazards. According to the Amazon Environmental Research Institute, in Roraima there has been a 122% increase in the annual average area impacted by deforestation between 2019 and 2021, making the area more likely to suffer from desertification, soil erosion, fewer crops and increased greenhouse gases. Furthermore, the state suffers from illegal mining that causes environmental and social damage to the indigenous communities. Roraima is also home to over 6,000 indigenous peoples from Venezuela who face compounded challenges to access their rights, including collective rights, and local integration opportunities adapted to their socio-cultural needs.

Against this background, UNHCR Brazil is prioritizing environmental actions to reduce the long-lasting impacts of climate change on natural resources that directly affect displaced and host communities. These programs also aim to raise environmental awareness among refugee and host communities and mitigate UNHCR operations' ecological footprint. The geographic focus is on Roraima where refugees heavily rely on the assistance provided by the State, UNHCR and other actors, in the framework of the federal humanitarian response "Operation Welcome".

IN PROGRESS

SUSTAINABILITY CENTRE

Located in Boa Vista, the capital of Roraima at the border with Venezuela, **the Sustainability Centre is a space where UNHCR, together with its partner Fraternidade Sem Fronteiras, carries out technical and educational activities to further engage refugees on environment issues.** Young refugees, living in the city's emergency shelters, compose the Sustainability and Environmental Youth Committee, which organizes focus group discussions on SDGs so to expand their environmental responsibility and leadership skills. They also engage in hands-on activities on ecofriendly practices such as composting, biodigesters, aquaponics, and the management of a seedbed and arboretum that so far grew and donated 5,000 trees and plans for the reforestation of shelters and public areas in Boa Vista. About 1,500 people participated in such activities in 2022. The space also promotes refugee and host community further interactions, since the practices developed in there are also being disseminated within Boa Vista's public schools, ultimately facilitating refugee integration with Brazilian peers/students.

ECOFRIENDLY SHELTER UNITS



UNHCR's emergency shelter response in Roraima focuses on site management, technical guidance, and coordination of seven shelters with a capacity for some 9,000 people. In these facilities, refugees and migrants from Venezuela, including indigenous and non-indigenous populations, are living in Refugee Housing Units (RHUs). These are structures designed by UNHCR, Better Shelter and the IKEA Foundation with a protection-focused design aimed at privacy, improved fire safety and adaptable for family settings. **While RHUs have provided a temporary fix at the onset of the Venezuela emergency, the need for a more sustainable shelter solution has become crucial to protect against Roraima's tropical climate** with daytime temperatures reaching 35°C and a heavy rainy season.

In the Sustainability Centre, **UNHCR has recently piloted two shelter alternatives that are better suited to Roraima's climate and have a longer lifespan than the RHUs, potentially resulting in operational savings in the long run.** The first is the Transitional Shelter Unit (TSU), made of an engineered wood formed by compressed layers of wood strands. The second one is the "mud-house", which uses bio-construction methodologies consisting in the application of sand, water, dry foliage, and clay. Both prototypes demonstrated to be effective in mitigating extreme temperatures, improving luminosity (and therefore energy efficiency) and reducing CO2 emissions. Refugees have also evaluated these options positively in terms of privacy and durability.



INDIGENOUS COMMUNITIES ENGAGING IN SUSTAINABLE FARMING



The city of Cantá, Roraima, hosts some 140 Warao and Kariña indigenous persons living in a self-organized community based on subsistence farming. To address the needs that the community expressed during participatory consultations, **UNHCR and the University of Aalto, Finland, promoted a capacity building on composting and piloted a rainwater gathering system that makes available water for personal hygiene and irrigation purposes.**

Participants are now producing a booklet to disseminate these practices, and the lessons they learned throughout the process, with other indigenous and rural communities.

ASSESSMENT ON JOB CREATION IN RENEWABLE ENERGY SECTORS

Roraima is facing significant challenges regarding energy provision. Until 2019, the state, which is not connected to the Brazilian electrical grid, relied on Venezuela for its energy supply. Following the cut-off of electricity provision by Venezuela, Roraima now depends on local generation carried out by diesel oil and gas power thermoelectric plants, which are expensive, polluting, and sometimes insufficient sources of energy. Nevertheless, the state has the potential to pilot improved energy efficiency and renewable energy generation, which is why **UNHCR is conducting a market assessment to identify opportunities, value chains, as well as the skills that refugees should have to access jobs in these fields.**

The study's results will help decision-makers establish more sustainable public policies to address Roraima's energy challenges, and guide UNHCR's interventions for refugee livelihoods and self-reliance actions, with a special focus on young people, women, and indigenous communities.

UP AND COMING

MARKET ASSESSMENT FOR THE INCLUSION OF INDIGENOUS REFUGEES INTO RORAIMA'S FLUVIAL ECONOMY

In refugee contexts, fishing can serve as a valuable source of nutritious food and generate small-scale income opportunities, especially for indigenous communities who have a long-lived experience in this domain.

Since Roraima is part of the Amazon basin, UNHCR is launching a market assessment to gain a better understanding of the riverine economy in the state and the skills that indigenous refugees require to access different stages of fish production in Boa Vista. The assessment will also provide practical recommendations on actions, such as professional training and advocacy initiatives, that UNHCR and its partners can take to enable refugee communities, to pursue sustainable livelihoods that preserve local traditions in harmony with the environment.

STUDY FOR CARBON CREDIT-FINANCED REFORESTATION

UNHCR is launching a feasibility study on carbon credit-financed reforestation programs in Roraima that would link refugees and host communities to the global carbon markets, making them part of the worldwide movement to fight climate change.

The study will assess the technical viability of large-scale refugee-led carbon credits plantations, that would generate an income that these communities can re-invest in new reforestation initiatives, as well as livelihood programs that boost their socioeconomic integration. The study will provide recommendations for project development strategies that mitigate risks and maximize financial results.



GREENING THE BLUE

The “Greening the Blue” initiative is a strategic sustainability project coordinated by the United Nations Environment Programme (UNEP) that aims to reduce the environmental footprint of UN agencies offices worldwide. UNHCR Brazil is actively engaged in the project by sharing data on the consumption of energy, water, garbage of our offices in the country, and reflecting important recommendations into our operation, such as environmental considerations in procurement processes and improving staff awareness on waste reduction and nature-based solutions.

Moreover, UNHCR is also looking to secure funding to equip its offices with on-Grid Photovoltaic Solar Energy Generating Systems that would reduce electricity consumption and preserve natural resources.

Donor countries of UNHCR in Brazil and global programmes with flexible funding that supports the humanitarian response in the country



UNHCR's private sector donors



UNHCR Brazil is also thankful for the important support of and partnerships with other UN agencies, Brazilian authorities (at federal, state and municipal levels) and civil society organizations working together to deliver the emergency response and in the regular programmes of the Brazilian operation.