

Climate Action

Refugees' cooking fuel crisis leaves

The influx of refugees into Uganda from conflict areas of neighbouring countries has intensified pressure on natural resources that were once exclusively utilised by the local populations, resulting in significant environmental degradation.

BY TOBBIAS JOLLY OWINY

Communities of South Sudanese refugees in northern Uganda are heavily dependent on traditional biomass for cooking, leading to rapid loss of tree cover and escalating concerns about environmental sustainability in the region.

Firewood has persistently remained a primary source of cooking fuel among the refugees, with over 90 per cent using it.

The dominance of firewood is attributed to accessibility, affordability and cultural familiarity.

Inside the nine-year-old Palabek Refugee Settlement in Lamwo District, the environment today stands severely stripped of its tree cover, as the refugees not only cut the trees for cooking fuel but also use them for construction.

The settlement that spans across Palabek-kal, Palabek-gem, and Palabek-ogili sub-counties currently houses approximately 90,000 refugees.

Recently, an assessment of zones 1, 2 and 3 by the Daily Monitor revealed the scale of depletion, with refugees facing serious difficulties in accessing poles for construction purposes.

Refugee women and children trekked long distances to harvest firewood and reportedly clashed with locals (the host community) into whose land they stray in search of firewood and construction materials.

"Within the settlement, you barely see a tree to be cut into a pole for building; they are no longer there because they are cut down, and the demand is very high. To get firewood, we go about 6km outside the settlement," Ms Esther Akot, a refugee, said in an interview.

According to Akot, some businesspeople now travel into deep villages to buy firewood and charcoal that is brought to the settlement and resold.

"There are individuals who buy them from the market here because they cannot afford to travel, or they fear the confrontation involving the local community," Akot says.

Mr Christopher Omal, the Palabek sub-county chairman, says incidents involving clashes between the host community and refugees over tree cutting are rampant.

"These complaints and reports of clashes are a very common thing; trees that used to be within the settlement have been exhausted over the years, so the refugees are forced to stray into the neighbourhood to harvest," Mr Omal said.

Some of these refugees get into the host community and cut down planted trees like eucalyptus and

pine woodlots because they assume these trees occur naturally. We have recently held mediations and dialogues among our people, including refugees, Omal stated.

Zones within Palabek-ogili sub-county alone host approximately 26,000 refugees who rely on wood fuel for their daily cooking needs, Mr Omal said.

"Of the about 96,000, we host about 26,000 refugees, including humanitarian workers, the host community and businesspeople. Every day, they need to eat, and wood fuel is the most required for cooking; the trees are depleting at a very rapid rate," Omal added.

Being stripped of tree cover at an alarming rate, Mr Omal decried the limited efforts by the government and humanitarian bodies to carry out restoration.

"The most alarming bit is that we are losing much more than we can replace at a time, and little is being done to plant back and replace the depleted tree cover in these places, and the consequences will be severe on the climate in the near future," Omal added.

Uganda's distinguished refugee policy has been praised globally as it prioritises integrating refugees into their host communities instead of confinement.

Whereas this approach allows refugees access to land for farming, health, education and other services, it has come under criticism for dispersing environmental burden over host environments.

While the use of wood fuel (burning of biomass) for cooking has led to significant depletion of forests and tree cover, resulting in increased levels of greenhouse gas emissions, wood fuel emits smoke, which exposes household members to respiratory infections.

The influx of refugees into Uganda from conflict areas of neighbouring countries has intensified pressure on natural resources that were once exclusively utilised by the local populations, resulting in significant environmental degradation.

Meanwhile, a 2025 research by Energy for Sustainable Development on the environmental impacts of household cooking fuels in refugee settlements in Uganda revealed that charcoal is the strongest influence on household cooking choices, with significant implications for environmental degradation.

"Many (refugees) believe that food prepared on a three-stone open fire using firewood tastes much better than food cooked with briquettes or other improved fuels and that this type of stove cooks faster than others," the researchers said.

Cooks prepare a meal for learners at Pagineya refugee settlement in Adjumani district on PHOTO BY TOBBIAS JOLLY OWINY



In many cases, perceptions related to food taste and cooking performance take precedence over environmental or health considerations; consequently, demand for firewood remains high, perpetuating extraction pressure on nearby forests, they detailed.

The research also revealed increasing weather variability manifested through rising temperatures, flooding, prolonged droughts and the drying up of rivers, largely attributed to deforestation.

"Soil degradation characterised by reduced crop yield over the past years, was prevalent among refugees and the host community. Deforestation exposes the soil to erosion, leading to the depletion of fertile topsoil. The reduction in soil fertility was reported by about 14 per cent of refugees and 8 per cent of hosts, further indicating threats to agricultural productivity," it stated.

In Adjumani, the severe deforestation rates are said to be more than double the reforestation rate, according to environmentalists.

The trend is linked to the impact of thousands of refugees (population pressure) spread across 19 settlements in the district.

The study also portrayed refugees' greater reliance on charcoal and crop residues, reflecting firewood scarcity and charcoal's availability as a traded commodity with women and children, particularly among refugees, facing greater hardships in accessing firewood.



Shea trees chopped and heaped into a kiln before burning into charcoal at Mile, Ofua Sub-county, Adjumani District.

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In the study conducted in Rhino and Imwari refugee settlements in Terago and Madi-Okollo districts in the West Nile sub-region,

"The use of crop residues was more common among refugee households (30 per cent) compared to households in the host community (14 per cent). This was likely due to refugees' restricted access to forests and their need for quick access to fuel for cooking and heating."

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environment bleeding

NUMBERS

While launching the drive at Pagineya Primary School in Lamwo District, Mr Doreen Namara, the Environment and Social Safeguards Officer at the ministry, said the intervention is essential for sustaining water sources since trees play a vital role in groundwater recharge and climate resilience. By the end of 2024, Uganda was hosting approximately 1.3 million refugees and asylum-seekers - the largest refugee population in Africa - reflecting a 105 per cent increase from the previous year. The country also continues to receive new arrivals that have continued to enter the country, mainly from the DRC, Sudan, and South Sudan, due to ongoing intercommunal violence and deteriorating socio-economic conditions in their countries.

At Agropo refugee settlement in Gulu sub-county, the situation has now escalated into physical violence between the refugees and their host, according to Mr Peter Arape, the refugee welfare officer 2, Agropo refugee settlement.

"In a space of 60 days, we mediated a total of 14 different cases of conflicts between refugees and the host communities. Refugees think all the land belongs to the Office of the Prime Minister (OPM) and UNHCR, and they think they can harvest trees from anywhere," Mr Arape said.

Under its broader water and sanitation project that seeks to improve access to clean and safe water while restoring degraded ecosystems, the Water and Environment ministry rolled out a multi-billion tree planting initiative in both Lamwo and Adjumani districts.

The project, which integrates environmental restoration as a critical component of water sustainability, seeks to restore depleted forest cover and protect critical water catchment in these overstretched areas, the ministry says.

tion that takes pressure off natural forests. Developing "eco-charcoal" or briquettes from agricultural residues or sawmill waste provides a circular bioenergy alternative, He stated.

Of Africa's approximately 14 million refugees (nearly one-third of the global refugee population), Uganda alone hosts over 1.8 million refugees, with settlement concentrated on small (50 x 50m) plots of land.

However, for over a decade, this number, exacerbated by pressure from the host communities, has exerted pressure on natural resources and accelerated environmental degradation.

The accessibility of firewood and knowledge of the existence and benefits of clean technologies and cooking fuels, coupled with the high initial cost of renewable energy products, improved cook stoves, and electricity tariffs have curtailed the refugees from embracing clean energy options.

Whereas it says increased demand from population growth outpaced regeneration rates of forest and the gains made from transitioning to energy-efficient cook stoves, the document revealed that limited availability of land in settlements and limited plot sizes for tree growing, lack of clear ownership of established woodlots and low survival of trees due to damage and lack of aftercare discouraged refugees from engaging in restorative efforts.

Encourage the adoption of more efficient cooking technologies, while increasing access to cleaner fuels over the long term, promote the consistent use of clean alternatives in order to displace traditional fuels and stoves and discourage fuel stacking, which prolongs the use of inefficient methods, it is recommended.

Recently, locals living around Nyumani refugee settlement in Dira sub-county, Adjumani district, have petitioned the district

to diversify energy sources." The report stated.

"The environment is severely stressed because the rate is worrying. The population of the district grew significantly high due to the presence of refugees, such that the available natural resources cannot sustain the huge demands for wood fuel and settlement space," Mr William Amanzuru, the coordinator of friends of Zoka, an environmental conservation pressure group in Adjumani district.

Wood fuel got from firewood and charcoal, represents significant environmental challenges, predominantly where energy source remains a huge challenge. Currently extraction and consumption are more than the regeneration efforts in Adjumani district, he says.

"We documented between 2020 and 2024 and discovered that wood fuel is the major driver of forest loss, especially around urban 'hotspots' where charcoal demand is high. In the short run, we are already experiencing reduced soil fertility and disrupted water

cycles due to soil erosion resulting from such indiscriminate tree cutting," he stated.

Economic pressures, poverty and lack of alternative livelihoods force many to continue unsustainable harvesting, especially the refugee communities.

These results to over-exploitation of preferred indigenous tree species threatens local flora and fauna, leading to the disappearance of specialised habitats, Amanzuru stated.

In many areas, forests are seen as an open-access resource, leading the refugees to prioritise short-term survival over long-term environmental health.

The sad bit is that the trees are cut down indiscriminately, he added.

Mr Amanzuru recommends that the government and humanitarian bodies supporting the refugees need to adopt cleaner cooking technologies, such as stoves and modern charcoal kilns, which can reduce wood demand and harmful emissions by up to 80 per cent.

"Sustainable Sourcing, transitioning to wood fuel plantations are already experiencing reduced soil fertility and disrupted water

for cooking, this translates to 4 per cent of rainforests lost each year from unsustainable use, increasing carbon emissions, and reducing carbon sinks.

"The environmental situation influences protection risks in refugee-hosting districts. Women and girls are increasingly exposed to GBV as they walk further to collect wood, competition for resources (land, wood, water) and inequalities in assistance increase tensions between refugees and host communities."

The UN refugee body says in its 2024 Environment, Energy and Climate in Uganda's Refugees Response document.

It also details how limited knowledge of the existence and benefits of clean technologies and cooking fuels, coupled with the high initial cost of renewable energy products, improved cook stoves, and electricity tariffs have curtailed the refugees from embracing clean energy options.

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authorities to take action against refugees who stray into homes, tends to illegally cut down trees and graze their livestock.

Mr Richard Adrawa, a resident of Angwari East village in Dira sub-county, says that unless the sub-county and district leaders introduce tough measures to restrain refugees from indiscriminate tree cutting, it could risk throwing them into deeper conflicts and severe climate impacts.

"There are homesteads where you barely see a tree; they cut everything. The bigger ones are used for construction and cut down the young trees for firewood. Meanwhile, when you plant your crops, it is hard to harvest anything because animals will destroy them, the refugees forcefully graze their animals into our gardens," Mr Adrawa said.

He has also petitioned the district as a community that is hosting these refugees, who claim that all the land in the district belongs to the United Nations High Commission for Refugees (UNHCR) and that they are free to graze their animals anywhere without interference, he said.

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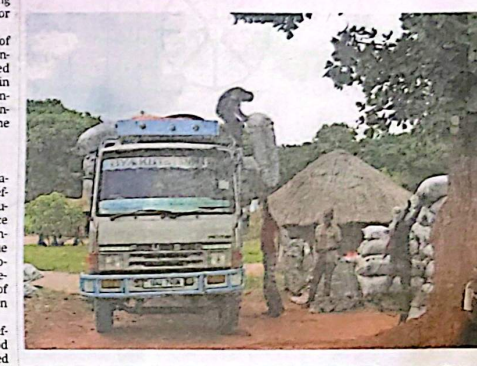
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Traders load charcoal onto a truck at Paloro Trading Centre, Paloro Sub-county, Gulu District.