

Parametric Solutions for Climate Migrants in East and Horn of Africa

Climate mobility, driven by the intensifying impacts of climate change, has become a pressing issue in Africa, particularly in the East and Horn of Africa (EHOA). The combination of climate change and overexploitation of ecosystem services results in landscape degradation, undermining agrobiodiversity and engendering agricultural droughts that catalyse climate-induced migration. As population displacement continues to escalate, humanitarian aid struggles to keep pace with the growing needs of affected populations ([UNHCR 2024](#)).

The rate of ecosystem change in EHOA has accelerated dramatically in recent decades, with more than 3 million hectares of natural habitat being converted to cropland annually ([UNEP 2024](#)). This rapid transformation is driven by both direct and indirect anthropogenic factors such as endemic poverty, persistent food insecurity, and land degradation ([Sahara and Sahel Observatory 2022](#)). Land degradation, characterised by the loss of biodiversity, soil fertility and overall deterioration of natural resources, is both a cause and consequence of climate change ([AGNES 2023](#)).

By 2050, it is projected that climate change effects could cause the internal migration of up to 216 million people globally ([World Bank 2021](#)) with Somalia alone having experienced a drought that forced over 3 million people from their homes ([ICMPD 2024](#)). These displacements occur against a backdrop of preexisting fragility, including weak governance, conflict over resources and strained urban infrastructure ([Climate and Migration Coalition](#)).

Behind these statistics are human stories of displacement and resilience. Families who have cultivated the same lands for generations abandon their homes, agricultural practices and cultural connections due to [increasingly erratic environmental conditions](#). Refugee testimonies from

Ethiopian camps revealed how disrupted rainfall patterns destroyed livelihoods and forced pastoralists into overcrowded cities where traditional knowledge becomes obsolete.

[Parametric insurance](#), which is a type of insurance that provides coverage based on predefined conditions, presents a promising solution for addressing these issues by enhancing access to financing. This approach leverages risk pools supported by international donors, who consider providing premium subsidies to help poor nations participate in regional risk-sharing mechanisms. These pools strategically track statistical thresholds of climate extremes within parametric and agricultural insurance frameworks to determine precise payout triggers.

These thresholds represent statistical mappings of maximum and minimum distributions across different vulnerability and risk zones ([Bahnmann 2015](#)). These include parameters such as fluctuations in water levels (rivers, lakes or oceans), temperature extremes and wind speeds.

The African Risk Capacity (ARC) Replica Insurance programme exemplifies this innovative approach by aiming to protect people at risk of drought across the continent. In 2020, the programme covered 1.2 million vulnerable people, with three policies triggering payouts that provided early assistance to 244,000 people in Senegal, Mauritania and Zimbabwe.

Bolstering financial support for climate adaptation and mitigation efforts can transform the challenge of climate-induced displacement into an opportunity for adaptive resilience approach of integrating parametric insurance mechanisms that prioritise early warning systems and sustainable land management, can establish a foundation for more resilient and adaptive societies in the face of climate change.

This blog is part of the [Youth Blog Series on Climate Mobility: Solutions in the East and Horn of Africa](#)