IN BRIEF

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CLARE brief on adaptation as an enabler of development and growth

HIGHLIGHTS

- CLARE evidence shows that climate adaptation is more than a protective measure – it is a catalyst for inclusive and resilient growth.
- Nature-based activities tailored to how informal economies in Kenya actually function can strengthen productivity and reduce exposure to climate risks.
- Remittance incomes are used by migration source communities in South Asia in ways that drive economic development, job creation, and national prosperity.
- Adaptation measures have co-benefits for fiscal stability and human capital in Rwanda, with reduced strain on public budgets and a stronger workforce.
- Measures which strengthen the climate resilience of pastoralist communities ensure that productivity is sustained despite changes in climate.
- Fishing communities can protect resources vital for their livelihoods and ensure sustainable economic growth.

HOW ADAPTATION DRIVES DEVELOPMENT AND GROWTH

This brief provides on overview of work under the Climate Adaptation and Resilience (CLARE) programme that addresses key socioeconomic vulnerabilities and contributes to resilient economic growth.

OVERVIEW

CLARE is a flagship research programme on climate adaptation and resilience funded mostly by the UK Foreign, Commonwealth and Development Office (FCDO) with co-funding from Canada's International Development and Research Centre (IDRC).

It is often assumed that climate adaptation investments yield economic benefits by reducing the impacts of extreme events – such as flooding and drought. While this is true, with an overwhelming return of investment in terms of damage avoided, climate adaptation investments also bring wider economic, social and environmental benefits. These combined benefits often drive return of investment much more than the avoided losses.

Economic benefits include, for example, increased efficiency and productivity, higher incomes, and new investments motivated by the reduced level of physical risk in the local economy. Socio-environmental benefits include increased well-being, health improvements and community cohesion (Brandon et al, 2025).

CLARE activities not only enhance resilience among poor and marginalised communities in the global South to extreme weather, climate change and related natural hazards in the near and longer term.

Research projects at CLARE are also looking at addressing underlying causes of vulnerability, including socioeconomic marginalisation, and strengthening strategies to reduce poverty, and ensure just and resilient livelihoods, besides protecting people and assets.

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Mitigating economic disruptions

It is possible to reduce economic disruptions, address poverty and inequality, and help ensure long-term development with forward-looking adaptation strategies (World Bank, 2010). The first step toward this is identifying context-specific climate risks and vulnerabilities, then proposing equitable, inclusive, and context-specific measures for mitigating those risks (Hussainzad et al., 2024).

Projects within the CLARE research portfolio are foregrounded in this integrated approach, enabling needs-driven, action-focused research that can safeguard existing economic and well-being gains while fostering stable foundations for future growth.

Economic areas for sustainable growth

Adaptation measures that address structural inequalities and build long-term resilience create enabling conditions for innovation, job creation and productivity (UNFCCC, 2019). CLARE research projects demonstrate this potential, highlighting how the promotion of climate resilience strategies in key economic areas are essential to ensuring sustainable economic growth and development for countries in the global South.

Informal sector

Eight out of ten workers in Africa are in informal employment, a trend that is expected to continue (Murunga et al., 2021). Evidence from CLARE projects show that supporting resilience in this sector can directly contribute to national economic growth, while safeguarding community livelihoods, social mobility and well-being.

In Kenya, one of the focal countries of CLARE's **Tuwe Pamoja** project, the informal economy employs five times more workers than the formal economy and is responsible for an estimated 24% of the country's GDP (Murunga, et al 2021). Despite the vulnerability of these jobs to extreme events such as flooding, heatwaves and drought, Tuwe Pamoja shows that informal initiatives – greening riverine ecosystems, waste management, and greening open spaces – enable economic empowerment. Often led by youth and women groups, who dominate many parts of the informal sector, these nature-based activities are tailored to the way informal economies actually function to strengthen productivity and reduce exposure to climate risks.

Mobile workforce

A pre-requisite for economic growth is living in places that are safe and provide access to economic opportunities, so that populations can invest in livelihoods and businesses. Facilitating economic growth in African and Asian urban centres, where 1.8 billion people currently live, requires interventions that support people's movement, either for economic reasons or moving away from places affected by climate change (Satterthwaite et al., 2020).

Evidence from CLARE's **Successful intervention pathways for migration as adaptation (SUCCESS)** and **Climate Change Local Adaptation Pathways (CLAPs)** projects show that remittance incomes are used by migration source communities in Nepal, India, Bangladesh and Bhutan for education and human capital. Such investments are key drivers of economic development, job creation, and ultimately national prosperity.

This evidence demonstrates that interventions to support migration away from areas at climate risks create conditions of security, build human capital, allow upwards social mobility and stabilise economies in the rural areas where migrants originate.

Further, interventions in urban destinations that integrate new migrant populations create safe and resilient communities and enhance health outcomes, both of which contribute to increased well-being and labour productivity in the formal economy. Deliberate, targeted policies and programmes that centre migrant needs and climate resilience goals are critical in supporting these efforts (Apparaju et al. 2025).

National economic planning

Climate adaptation benefits extend beyond the reduction of potential losses, to drive wider economic benefits that strengthen national development planning. This is demonstrated by the CLARE project **Gender equality and inclusion: Distribution and costs of adaptation (ECONOGENESIS)**, which positions adaptation as a development accelerator that boosts productivity, creates jobs and diversifies economic opportunities.

The project also highlights co-benefits for fiscal stability and human capital, showing that reduced climate shocks lower the strain on public budgets, while healthier, more resilient communities contribute to a stronger workforce.

In Rwanda, the project has facilitated the integration of economic and financial adaptation decision making by national government. This has resulted in measures that capture the value of climate resilience in the country's balance sheet, such as climate budget tagging and green taxonomy. It also recognises measures that exploit economic opportunities from climate adaptation interventions, such as blended finance facilities, besides climate-proofing finance planning through, for example, fiscal risk analysis or physical risk disclosure integrated in national and section development plans.

Notable among these, the coordinated climate country platform called the Rwanda Green Fund, has mobilised large volumes of climate finance, especially concessional finance, which has catalysed new green and resilient economic growth.

Pastoralism

Pastoralism is an important economic and cultural pillar across the Greater Horn of Africa (GHA), encompassing parts of Djibouti, Ethiopia, Kenya, Somali, South Sudan, Sudan and Uganda.

It is estimated that pastoralism contributes between 10% and 44% of GDP of African countries with approximately 1.3 billion people benefiting from the livestock value chain (Karaimu, 2013).

This sector also plays a critical role in social and cultural identity. Practices such as clan-based livestock exchange, traditional conflict resolution, and livestock ceremonies maintain social cohesion, knowledge transmission and inter-generational resilience.

Evidence produced by CLARE shows that measures which strengthen the climate resilience of pastoralist communities require – and support – the cultural continuity of pastoralist systems. At the same time, these actions ensure that productivity is sustained despite changes in climate.

The **Strengthening pastoralist livelihoods through effective anticipatory action (PASSAGE)** project, active across the GHA, and **Pan-African and transdisciplinary lens on the margins: Tackling the risks of extreme events (PALM-TREEs)** in Kenya demonstrate that integrating traditional knowledge with scientific forecasts develops more effective anticipatory action. This contributes to economic protection and growth by mitigating future outcomes like that of the 2022 drought which caused 3.6 million livestock deaths and devastated the region's economy.

Fisheries

Fisheries play a critical role in the livelihoods and food security of communities in the Coral Triangle, a tropical marine region around Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands and Timor-Leste.

The Coral Triangle's reefs directly and indirectly support the livelihoods of 100 million people, and the economic value of coral reef fisheries in Southeast Asia alone is estimated to be USD 2.3 billion per year (McLoed et al., 2010). This diversity and economic value is threatened by a combination of climate change impacts.

The CLARE project **Fisheries sustainability on coral reefs (ClimateREEFS)** has identified adaptive reefs, or reefs with potential to adapt to climate stresses, in the Philippines and Indonesia. The findings are being used by local communities and policymakers to support socially equitable, context-specific climate adaptation pathways and prioritise conservation efforts.

Enabling reef change management and conservation actions to translate into economic and livelihood outcomes that can inform policy and investment, ClimateREEFS shows evidence that fishing communities can protect resources vital for their livelihoods and ensure sustainable economic growth.

CONCLUSION

The CLARE research portfolio shows that climate adaptation is more than a protective measure – it is a catalyst for inclusive and resilient growth. By linking science with local knowledge, and by enabling communities, governments and markets to act together, CLARE projects demonstrate practical pathways where adaptation drives productivity, sustains livelihoods, and protects future prosperity.

The evidence emerging across sectors – from fisheries to pastoralism to informal economies – highlights how climate resilience creates stronger foundations for development. In this way, CLARE positions adaptation not as a cost, but as an investment in long-term economic and social well-being.

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Learn more about CLARE:
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Photos:

Front: CLARE Programme is a UK-Canadian initiative. *Credit: Toomas Tartes*

Page 2: Tuwe Pamoja project area of interest is the Mathare settlement in Nairobi. *Credit: Ninara/Flickr*

Back: ClimateREEFS project focuses on the fishing communities of the Coral Triangle. *Credit: J. Houston*

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