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CASE STUDY | Disaster Risk Financing

HORN OF AFRICA

Building Regional Risk Protection for Pastoralist Livelihoods

Local Ethiopian men herding cattle across a country road. Credit: urosr | iStock

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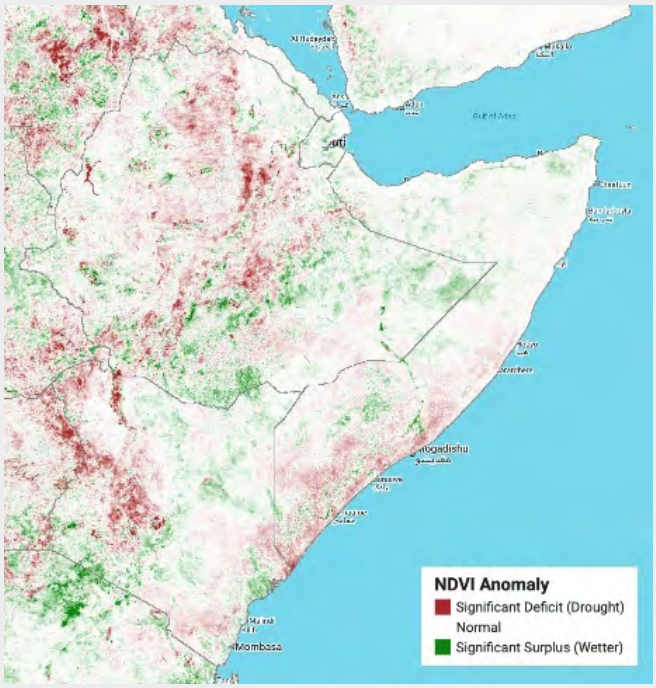
Climate change is intensifying the dry seasons in the Horn of Africa, which covers Kenya, Somalia, Ethiopia, and Djibouti. The region is home to a large population of semi-nomadic pastoralists, and in good years, sustains a thriving trade in live animals, worth an estimated US$1 billion annually. The Horn of Africa has highly variable but interlinked seasonal patterns shaped by shifts in the Intertropical Convergence Zone. Ethiopia cycles through three main seasons: the long dry season (Bega, October–January), the short rains (Belg, February–May), and the main rains (Kiremt, June–September). Across much of the region, the October–December rains contribute a large share of annual rainfall, making them critical for agriculture and water security. By contrast, Djibouti has a predominantly hot, arid to semi-arid climate with very low rainfall year-round, concentrated in cooler months. These patterns underscore the region's high sensitivity to rainfall variability and climate change

Pastoralists' livelihoods in the region are highly vulnerable during the annual dry seasons. Droughts reduce forage quality and increase livestock mortality, triggering cascading impacts on poverty and conflict. When drought strikes, livestock often die or are sold at deeply depressed prices, reinforcing the poverty trap. From October 2020 to May 2022, the Horn of Africa endured five consecutive failed rainy seasons, marking the driest period in 70 years and killing more than 9.5 million animals. Evidence shows that when pastoralists lose half their livestock, it can take up to 10 years to rebuild, during which they incur losses in welfare, nutrition, and income. Limited access

to formal finance further constrains pastoralists' access to the liquidity needed to cope with these challenges.

Index-based livestock insurance (IBLI) is a tool designed to strengthen pastoralists' financial resilience to drought and has been implemented in Kenya and Ethiopia since 2010. IBLI provides payouts that are triggered not by individual loss claims, but by an objective index of local pasture conditions—the Normalized Difference Vegetation Index (NDVI). This index is calculated using satellite imagery to measure vegetation health and detect severe pasture degradation *(see Figure 1).* When the index drops below a pre-agreed threshold, signaling that grazing conditions are critically poor, all policyholders in the affected area automatically receive a payment. These funds can be used to buy animal fodder, veterinary care, or other inputs needed to keep herds healthy. Because payouts are made quickly and often early in the dry season, they can help prevent deteriorating declines in livestock health and value, reducing the risk of large-scale losses.

FIGURE 1. SATELLITE PICTURES OF PASTURE ANOMALY (RED AREAS HAVE HIGH PASTURE DEFICIT)



Source: Google Earth Engine

Program

The governments of Kenya, Somalia, Ethiopia, and Djibouti are working together to protect pastoralist livelihoods from climate shocks through a regional approach that expands access to financial services, strengthens links to livestock value chains, and facilitates cross-border trade**.** The *De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa (**DRIVE**)* project, a US$360 million initiative, serves as a central platform for this effort, enabling regional institutions and development partners to deliver coordinated risk protection, market access, and value chain improvements for pastoralist communities. This integrated approach not only addresses the immediate impacts of climate change but also enhances long-term resilience and economic opportunities for pastoralists.

DRIVE combines financial protection with measures to strengthen market integration. A significant share of the project investment, US$179 million, is dedicated to providing pastoralists with a package of financial services that include insurance, digital accounts, and financial literacy training. These tools help stabilize incomes during climate shocks, while building long-term financial security. By linking pastoralists to reliable markets contracts with livestock processors and exporters, DRIVE also incentives regular animal sales, easing grazing pressure on rangelands and creating a more sustainable cycle of production and trade.

In Ethiopia, Kenya, and Somalia, a financial services package is offered directly to pastoralists, designed to layer risk coverage according to the severity of shocks. For severe drought conditions, the IBLI insurance product provides critical resources to help households cope with impacts. To address moderate shocks, DRIVE encourages pastoralists to contribute regularly to savings accounts, ensuring they can purchase inputs even when the IBLI payout threshold is not triggered.

Djibouti's participation in DRIVE takes a different form, with the national government serving as the primary counterpart. A feasibility study found that microinsurance products for pastoralists were not well suited to Djibouti's context, leading the government to adopt a sovereign climate insurance product for drought and flood through African Risk Capacity Ltd. This marks

Africa's first sovereign multi-peril climate insurance product, financed by IDA with a US$2 million premium split between drought (37.5%) and flood (62.5%).

A key innovation is the program's regional risk-pool approach. By targeting pastoralists across borders, DRIVE leverages scale to lower insurance costs, attract international reinsurance, and create more stable pricing. The regional reinsurer PTA Reinsurance Company (ZEP-RE) coordinates this pooling across participating countries, engaging both local financial institutions and global reinsurers. This model delivers drought protection efficiently while encouraging cross-border cooperation, reducing the need for migration in search of grazing, and helping prevent regional conflict.

Gender is a central consideration throughout DRIVE's design. The program addresses barriers that limit women's access to financial services through gender-sensitive financial literacy training and outreach methods such as village champion networks. Social norms are also factored into implementation—for example, by training men and women separately. As a result, 55% of DRIVE's insurance policies in Ethiopia, Kenya, and Somalia are held by women-led households, many of whom also maintain digital savings accounts.

The program also strengthens institutional capacity at the local and national levels to improve financial access and ensure sustainability. Governments and implementing partners work with banks, NGOs, and community leaders to design accessible financial products and ensure prompt premium collection and payouts. Outreach in remote areas is achieved through partnerships with pastoralist cooperatives and local leaders, supported by government agencies that mobilize communities and raise awareness. In Ethiopia, for example, the Ministry of Agriculture plays a central role in IBLI promotion, though the long-term plan is to transition distribution to private sector agents. In Djibouti, the government implements relief activities under the national operational plan and focuses on monitoring the progress of activities funded through insurance payouts.

Results

Within the first three years of implementation, the DRIVE initiative expanded financial services with over 570,000 active insurance policies benefiting more than 3.2 million people. During this period, participating pastoralists enrolled in IBLI, opened digital accounts, and became eligible for savings bonuses. Nearly 55% of the 572,606 policies are purchased by women *(see Table 1).* To date, the insurance payouts totaled US$5.3 million in Kenya, US$2.2 million in Ethiopia, and US$0.4 million in Somalia, with significantly higher amounts expected in the event of a major drought. Djibouti's sovereign insurance product disbursed a total of US$0.6 million across two payouts in 2023 and 2024. Overall, the IBLI product has mobilized over US$300 million in capital from the (re)insurance market, boosting private sector investment in a historically underserved region and enhancing long-term sustainability. A phased premium support strategy, under which pastoralists gradually take on a greater share of contributions as their financial security improves, further reinforces the program's viability.

The project has also strengthened the enabling environment for *takaful* (Islamic-compliant) insurance in Somalia, a major milestone in expanding financial inclusion in a region where the majority of the population is Muslim. *Takaful* is a cooperative form of insurance based on principles of shared risk and mutual assistance, designed to comply with Islamic

TABLE 1. LIVESTOCK INSURANCE AND SAVINGS ACCOUNTHOLDERS IN THE HORN OF AFRICA (SEPTEMBER 2025)

	YEAR 1	YEAR 2	YEAR 3	TOTAL	% FEMALE
Kenya	74,552	64,127	118,894	257,573	60
Somalia	44,408	68,965	15,674	129,047	59
Ethiopia	52,805	84,646	48,535	185,986	44
Total Insurance Policies	**171,765**	**217,738**	**183,103**	**572,606**	**55**

law by avoiding elements such as interest and speculation. Under DRIVE, the IBLI product was adapted to include a *takaful* component to meet the ethical, religious, and social needs of target communities. To enable this, the project supported regulatory reforms and capacity building for the Central Bank of Somalia and local insurance companies, and secured *parametric retakaful* (reinsurance) capacity. A Shariah governance framework was also developed for rollout across participating countries to guide oversight and ensure compliance. In Somalia, these efforts culminated in the passage of the Insurance (Takaful) Bill, which established the legal foundation for Islamic insurance nationwide. Together, these achievements position the DRIVE project as a global reference for integrating *takaful* into climate risk management and offer valuable lessons for other countries seeking to develop inclusive, Sharia-compliant financial protection mechanisms.

To assess its full impact, the World Bank and partners are conducting a multiyear impact evaluation study, initially focusing on Ethiopia and Kenya where baseline data are available. The study will go beyond standard indicators and enable the attribution of development outcomes to project interventions. The evaluation will examine five preconditions for success—awareness, take-up, product quality and delivery, consumer understanding, and sustained adoption—while identifying constraints and testing solutions. Rapid A/B testing will assess interventions such as pastoral group incentives, strategies for gradually reducing premium subsidies, mobile-based outreach, and innovative savings and insurance designs to address liquidity constraints and boost willingness to pay. Beyond these operational factors, the study will measure DRIVE's broader impact on poverty, including hunger levels, children's education, productive investments, and access to formal credit and savings. It will also explore the most effective distribution channels, from cooperatives and savings groups to mobile money platforms and video-based insurance literacy programs.

Key Takeaways

The DRIVE initiative offers valuable lessons for designing inclusive, climate-resilient financial systems in pastoral economies. Its experience demonstrates how regional coordination, private sector engagement, and culturally appropriate design can expand access to financial protection while strengthening long-term market integration:

1. **Low productivity among pastoralists in the Horn of Africa is closely tied to limited access to financial services and weak integration into livestock value chains.** Traditional efforts to address these challenges have often struggled due to poor targeting, delayed premium payments and payouts, financial sustainability constraints, and low awareness of available products. The DRIVE program tackles these barriers directly through a regional model that delivers a tailored package of financial services alongside expanded market access.

2. **Capacity building lies at the heart of this approach, ensuring that products are understood, trusted, and meet pastoralists' needs.** Complex and technical concepts, such as index insurance, need to be simplified and delivered in ways that reflect local social and cultural norms. The DRIVE project, for example, uses cartoons and other visual materials to overcome literacy barriers, drawing on lessons from past drought insurance programs that underscore the importance of training for both pastoralists and financial service providers.

3. **Achieving regional economies of scale requires balancing the efficiency of standardization with the flexibility of local customization.** Implementing a multi-country intervention demands substantial financial resources, technical expertise, and political commitment, so the benefits must outweigh the effort. While standardizing the index insurance product across countries delivers efficiency gains, other aspects must be tailored to local

contexts. For example, legal and regulatory frameworks for Takaful and Sharia-compliant services vary widely, often requiring new laws and regulations. Striking this balance ensures both efficiency and adaptability, enabling larger, more diversified risk pools that maximize economies of scale.

4 **Finally, private sector engagement can strengthen efficiency, sustainability, and scale, but incentives must align with public development objectives.** In DRIVE, private actors contribute to product design, market delivery, and capital mobilization, but development priorities can differ with public sector partners leading to friction. For instance, one commercial bank in the Horn of Africa was reluctant to expand into unserved areas due to high costs and low expected returns. Successful initiatives must therefore align incentives between public and private stakeholders or secure robust comments from private partners to ensure activities contribute to shared resilience and development goals.

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