

PARES Case Study of Engagement & Involvement for Resilience

Case Study Title/ID **Uganda – Flood – Knowledge Systems Integration**

Country/location Uganda: Kasese and Katakwi Districts

Crisis/challenge type Flooding (recurrent, climate-related)

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PARES Domain illustrated by this case study

Social Relations & Structures: Blending of indigenous and scientific knowledge

Recommended Actions

For Communities: Encourage community forums where elders, farmers, and other local knowledge holders share ecological warning signs alongside official forecasts.

Maintain community platforms such as farmer groups, water committees, and Village Savings and Loans Associations (VSLAs) where risk information can be interpreted collectively.

For Government: Strengthen collaboration between district technical departments, meteorological services, and community leadership structures. Integrate indigenous ecological knowledge into district disaster preparedness and early warning communication strategies.

For NGOs & health program implementors: Facilitate dialogue platforms where communities and technical experts jointly interpret risk signals. Support participatory early warning systems that combine meteorological forecasts with locally observed environmental indicators.

For Funders: Invest in knowledge co-production platforms that bring together communities, local leaders, and technical institutions to jointly interpret climate risk information and support anticipatory action.

Data for this case analysis

46 key informant interviews (Kampala, Kasese and Katakwi districts); 12 focus group discussions (Kasese and Katakwi) in 2023; dissemination and validation workshops with c.60 stakeholders in February 2026.

Key Message

When scientific early warning information was aligned (by multiple stakeholders working together) with indigenous ecological knowledge and communicated through trusted community actors, communities perceived flood risk as credible

and acted earlier.

Case study summary

In flood-prone districts of Kasese and Katakwi, communities rely on both indigenous ecological knowledge and scientific forecasts to interpret climate risks. Local indicators such as rising river levels, unusual rainfall patterns, and changes in environmental signals are discussed alongside meteorological forecasts communicated through district authorities and humanitarian actors. Trusted intermediaries including elders, local council leaders, Village Health Teams, and disaster committee members interpret and validate these signals within community forums. When both knowledge systems converge and are communicated through legitimate actors, warnings are perceived as credible and relevant to local realities. This strengthens trust in early warning messages and encourages households and community groups to take anticipatory actions. These actions include early evacuation, safeguarding assets, protecting water sources, and activating community preparedness structures such as VSLAs and water committees.

Detailed Explanation of engagement mechanisms

Context that provides the conditions in which the observed actions work

Kasese and Katakwi districts experience recurrent floods due to heavy rainfall, river overflow, and waterlogging. Communities in these areas have long relied on experiential knowledge to interpret environmental changes, including river behaviour, rainfall intensity, and ecological signals. At the same time, district authorities and humanitarian actors provide scientific forecasts and risk information through meteorological services and early warning systems. However, trust in scientific forecasts can be uneven when warnings appear inconsistent with local observations or arrive too late. In such contexts, blending indigenous and scientific knowledge through trusted local intermediaries becomes essential for making risk information credible and actionable.

The actions (mechanisms) that were observed to lead to resilience outcomes

Trusted leaders and intermediaries facilitate the translation and comparison of different knowledge systems. Elders and community members share local ecological indicators while district officials, meteorological officers, and humanitarian actors provide scientific forecasts. These signals are interpreted collectively in community meetings, radio communication, and local disaster management forums. When local observations and scientific forecasts reinforce each other, trusted intermediaries communicate early warnings to communities

and mobilize preparedness actions. Community structures such as VSLAs, water committees, and local leadership networks are then activated to coordinate collective response activities.

Observed outcomes

When knowledge systems are integrated and communicated through trusted actors, communities respond earlier to flood warnings. Households undertake anticipatory measures such as evacuating from high-risk zones, protecting livestock and assets, safeguarding water sources, and supporting vulnerable households. Community preparedness structures become active before floods escalate, reducing exposure to hazards and improving collective response capacity during repeated flood events.

Case Evidence

Vignettes #1, #3 and #4 in Uganda – Flood & Drought – Supporting Evidence document

Related case studies

Social Relations and Structures

Uganda – Flood – Drought – Social Capital and Collective Action

Operational Systems

Uganda – Flood – Drought – Multistakeholder Collaboration

Learning and Capabilities

Uganda – Flood – Drought – Embedded and Equitable Partnerships

Other relevant case studies

Uganda

Uganda – Drought – Trusted Leaders and Intermediaries

Cyclone-related Flooding

Madagascar – Cyclones – Social Capital and Collective Action

Madagascar – Cyclones – Communication and Information Systems

Madagascar – Cyclones – Embedded and Equitable Partnerships