THEMATIC SUMMARY

NOVEMBER 2026

CLARE summary on benefits of locally led adaptation



OVERVIEW

Locally Led Adaptation (LLA) is not merely a participatory ideal, but a driver of evidence and impacts that top-down climate research and implementation often fail to achieve, according to evidence generated by the CLimate Adaptation and REsilience (CLARE) programme.

This brief summarises CLARE research evidence demonstrating how incorporating the knowledge and agency of the full range of beneficiaries of climate action produces better evidence and triggers action that results in real-world resilience.

CLARE projects have documented clear outcomes where research grounded in the knowledge and the needs of beneficiaries at different scales has improved early action, informed water governance, reached groups often missed by standard systems, and influenced public policy.

These outcomes have all resulted in more sustainable, systemic resilience for the cities, regions or countries where the projects were situated.

CLARE is a flagship research programme on climate adaptation and resilience funded mostly by the UK Foreign, Commonwealth and Development Office with co-funding from Canada's International Development and Research Centre, that aims to co-create inclusive resilience across several African and Asian countries.

MOVING TO IMPACT: BENEFITS OF LOCALLY LED ADAPTATION

CLARE evidence demonstrates how LLA enhances research impact and enables effective and sustainable resilience outcomes.

WHAT IS LOCALLY LED ADAPTATION?

LLA is an approach that enables greater decision-making power and agency for local actors, particularly focussing on groups that are on the frontlines of climate impacts or have a higher vulnerability to climate impacts (Coger et al, 2022). The approach is based on eight operational principles that underpin adaptation implementation.

Research design that aligns with these principles prioritises local agency, equity, and the integration of local knowledge over top-down, expert-driven approaches. These methodologies shift power to local actors, ensuring that adaptation initiatives are designed, implemented, and monitored by those most affected by climate change.

CLARE PROGRAMME APPROACH TO LLA

CLARE programme design reinforces the LLA approach by supporting Southern-led, co-created research that can inform and strengthen locally led action at different levels, from local to national to global.

CLARE's co-creation approach ensures that the evidence-base informing climate action is comprehensive, inclusive and multifaceted. Also, that projects are needs-driven and based on the priorities and insights of those most affected by climate impacts.

Embedding this understanding of local contexts ensures that the evidence produced by CLARE is relevant and validated. Also that it identifies or informs action that maximises opportunities for socially relevant work.

CLARE CLIMATE ADAPTATION & RESILIENCE
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What do we mean by “local”?

In LLA, “local” is not a single group or scale but can refer to community actors, local governments, subnational institutions, researchers, or local intermediaries, depending on the context and decision in question.

People within the same place do not necessarily experience climate risk equally: gender, disability, age, class, ethnicity, livelihood and displacement all shape whose knowledge is heard and whose needs are likely to be overlooked.

LLA therefore requires attention to power differences within communities and between scales, so that adaptation does not become a tokenistic exercise that includes some “local” actors while reproducing exclusion for others.

Local leadership enables wider influence

Local leadership can support influence beyond the community level. Across CLARE, locally generated evidence is informing decisions by community organisations, municipal authorities, basin institutions and national policymakers.
The strongest examples connect local knowledge with formal systems, enabling locally grounded approaches to influence wider planning, policy and investment.



In many CLARE projects, the lived experiences of past extreme events have provided an accurate picture of climate risks while also highlighting challenges on the ground that can hinder adaptation action.

With a cohort of more than 30 projects, where collaboration is fostered across continents, CLARE supports capacity strengthening not just among researchers but also the key stakeholders involved. This contributes to evidence that is better informed by the ‘real world’ and more likely to be used to inform actions on the ground.

EVIDENCE SUPPORTING LOCALLY LED ADAPTATION

CLARE research is driven by user needs, with projects collaborating with local actors to co-create new knowledge on climate risks and locally appropriate solutions.

Anchoring these processes in the lived experiences of local communities ensures that CLARE supports research that is not only locally relevant but creates solutions that empower local communities and enhance local ownership.

Across the programme, the **CLARE approach to research impact** has been key to ensuring project evidence triggers locally led adaptation. This is due to early, deep and systematic engagement with local contexts, drawing on the significant knowledge of local communities.

This is further enhanced by embedding the political and decision-making contexts at municipal, sub-national and national levels, and leadership by research teams from the countries where the research is focused.

Local knowledge improves the usefulness of risk information

CLARE Insight: Adaptation works better when local experience is treated as credible evidence and local actors frame the partnership.

In **southwest coastal Bangladesh,** as illustrated by the SURF-IT project, CLARE draws on the experiences of local communities and their knowledge, helping researchers map and locate where the impacts of cyclones and tidal surges have been most devastating.

Before Cyclone Remal made landfall in the region in May 2024, researchers were combining local knowledge, hydrological information and impact-based forecasting to identify weak embankment points.

Using this information, the project team was able to predict and engage communities around those potential breach points, enabling communities to reinforce those sections.

Without those reinforcements, the breach points could have resulted in substantial loss and damage. Instead, nearly 200 households benefited directly from the initiative, significantly reducing the potential impact of the cyclone.

Community knowledge and community action were key to making the forecast operational. This was achieved by the SURF-IT project through a long history of engagement in the community, resulting in trust for the impact-based forecast model that was higher than if it were provided by an unknown service provider.

Traditional top-down approaches to embankment management have often failed due to inadequate community engagement. Meanwhile, locally led solutions have proved essential in managing embankments to withstand the frequent threats of cyclones, tidal surges, and flooding.

Now, newly established women's groups in at-risk districts of Satkhira and Khulna are taking leadership roles in monitoring embankments and reporting potential breaches.

The long-term goal is to ensure that innovations supported by CLARE research not only benefit the current project areas but are integrated into national disaster preparedness strategies to protect even more communities across Bangladesh.

In **the Horn of Africa**, CLARE researchers from the PASSAGE project are using community learning hubs to combine scientific forecasts with indigenous indicators, such as wind direction, star alignment, animal behaviour and bird calls, to co-produce risk narratives and trigger-action plans.

Early warning systems are frequently designed at national levels, detached from cross-border complexities or sub-national and community perspectives. These systems often face challenges such as weak dissemination of information, limited access to local data, and centralised decision-making, all of which constrain preparedness.

In the Ethiopian city of **Moyale**, researchers from the PASSAGE project demonstrate that using locally led anticipatory systems provides more locally specific insights into who is most at-risk during droughts and what action should be prioritised.

The process has revealed that lactating mothers and infants are consistently at highest risk, and identified the need for mobile nutrition teams, cash top-ups, and borehole repairs to enhance resilience in anticipation of future droughts.

In **Karamoja** in Uganda, the process highlighted children under five and persons with disabilities as persistently vulnerable during droughts. This has led to anticipatory measures such as accessible alerts, nutrition supplies and inclusive referral systems.

Through an inclusive approach that centres local knowledge and vulnerability analysis of groups most at risk, warnings become trusted and actionable, rather than technically developed but socially detached.



Community priorities shape effective urban adaptation choices

CLARE Insight: Effective urban resilience draws on lived experience as a valid form of evidence and involves dialogue between the state and its most vulnerable citizens.

In the urban context, residents of informal settlements are frequently the most vulnerable populations, with limited ability to influence service delivery and adaptation efforts.

CLARE research aims to understand how vulnerability is differentiated in these contexts, to address power dynamics that restrict marginalised voices from being heard in planning and decision-making. Researchers are working with and supporting communities to enhance their agency to take a leading role in climate-proofing their communities.

In **the Philippines**, researchers from the RURBANISE project are working with the Homeless People's Federation Philippines, Inc. (HPFPI) and other NGOs to ensure that the knowledge and priorities of informal settlement residents inform city-level and national adaptation planning.

By better understanding the lived experiences of local communities and co-producing risk assessments with them, the project helps identify actions to reduce vulnerability and discrimination.

Insights from the project are also expected to inform adaptation planning and investments at the barangay (the lowest level of administrative governance in the Philippines) and city-level for nine communities, and implementation of the National Adaptation Plan at regional and local levels.

By enabling communities to lead co-design activities, their leadership capacity for planning and engaging in decision-making is also strengthened. Institutionalising community-led practices into HPFPI's organisational strategy further strengthens capacity to support adaptation action across its membership of more than 90 homeowners' associations.

In Kanyama and Kalikiliki, some of the largest informal settlements in **Lusaka**, **Zambia**, researchers from the Tuwe Pamoja project are working with communities to address persistent flooding challenges.

By localising climate-resilient development pathways through storytelling, surveys, mapping and co-design, the project team is empowering settlement residents to co-produce interventions that build resilience.

These engagements have **surfaced community priorities** that standard planning approaches often miss. For example, residents identified resilience-building actions such as hotspot mapping, drainage improvements, composting and green spaces. They also stressed the need to finance adaptation through local community development funds and the national budget.

Research is also bringing the voices of informal settlement residents to those making urban development decisions, as illustrated by the MECHANICS project.

The qualitative lived experience shared in over 1,300 in-depth interviews regarding lived flood experiences from residents of Lusaka was presented as critical evidence alongside scientific climate information to the Lusaka City Council and national disaster units.

This has directly informed informal settlement upgrading plans in areas like Kanyama.



Investing in local capabilities improves groundwater governance

CLARE Insight: When local actors can generate part of the evidence base themselves, they are more likely to understand, use and engage in decisions.

LLA supports local stakeholders and organisations to make their own decisions, allowing them to more effectively manage risks and evaluate trade-offs in resource use.

Strengthening capacity of core stakeholders is key to ensuring adaptation actions are as effective as possible while genuine ownership builds long term sustainability.

In **Tanzania**, CLARE researchers from the CLARITY project work with local NGOs to run Transformation Labs (T-Labs) that co-create sustainable and equitable pathways to groundwater management. Held in close collaboration with local stakeholders, the approach aims to improve how institutions diagnose and evaluate water development options.

The project enables effective water management practices at the grassroots level, such as supporting water user cooperatives and establishing community hydrologist programmes. The latter uses a citizen science approach to collect monthly data to enrich scientific modelling and the T-Lab's knowledge base, equipping youth with employable skills, and ultimately building long-term capacity within the community for water management and decision-making.

Through this approach, 24 officials and community members, including 11 women, were trained as community hydrologists. These community hydrologists mapped boreholes and collected water-level data, using local knowledge to collect granular data that was previously missing from official records. This data is now being used by the Wami Ruvu Basin Water Board to inform a more sustainable water extraction regime.

In this way, LLA approaches are ensuring that local data collection is feeding into formal decision-making.

Participatory videos allow community members to voice their experiences on a variety of water management issues, create awareness, and empower others to share their perspectives. They also serve as a tool for local participation in shaping research direction and enhancing the co-production process.

This co-production approach has resulted in local stakeholders taking part in the diagnosis of water problems, assessment of options and interpretation of evidence. It has strengthened water management to be more responsive to local realities while leaving behind enhanced institutional capability.





Inclusive early warning systems reach those often missed

CLARE Insight: Inclusion matters not only for fairness, but because early warning systems work best when they are designed around the people most likely to need and use them.

When Early Warning Systems (EWS) are not designed together with the communities they target there is often a lack of trust in the forecast or poor understanding of what the impacts will be.

CLARE supports the development of improved EWS and anticipatory action by embedding the process within communities. This builds trust and a robust understanding of risks that lead to a more effective response.

CLARE research is improving the understanding of tropical cyclones and associated flooding triggered by them, as illustrated by the REPRESA project. Researchers are developing early action plans and working with local communities in Malawi, Madagascar and Mozambique to design appropriate EWS.

In **Madagascar,** researchers have co-developed the SAP Kiddo programme with children, parents, teachers and local leaders. It now reaches over 3,000 children and is being carried forward beyond the original project by the national NGO ARAKE.

The significance is not only in its scale, but in how the programme treats children as co-researchers and communicators to ensure early warning messages are more accessible, more culturally grounded and more likely to feed into trusted household channels.

Researchers use Living Labs to bring in different voices, while simultaneously strengthening the capacity of participants. Through this approach, and sustained engagement with communities, meteorological services and humanitarian actors co-develop early-warning products and community-specific action plans.

Without this engagement, the needs and lived experiences of those most vulnerable to tropical cyclones and flooding would very likely be overlooked or ignored. This could lead to EWS and adaptation solutions that fail to reach those that need them most or are seen by communities as not addressing their needs.

Similarly, **women's groups in Bangladesh** established through the CLARE project SURF-IT are now monitoring embankments, reporting possible breaches and building local communication networks for timely flood response.

This demonstrates how effective disaster response must address structural inequality: women and children who were less visible in formal systems become active monitors, messengers and advocates.

In **Durban's informal settlements**, research turned community experience into practical flood risk reduction. Participatory work by the INACCT Resilience project with residents of Quarry Road West and Pholani documented not only the impacts of the 2022 floods, but also the locally devised responses already adopted by communities to reduce risk, including the use of sandbags, rubble, stones, mats and carpets to stabilise steep slopes and pathways.

Presented as a **photostory** during a Learning Lab session, these low-cost measures were taken seriously by officials, including a municipal engineer who saw carpets as a promising option and alternative for slowing water and reducing soil erosion.

The approach of co-learning and co-design brought marginalised voices into resilience planning and supported **community-based flood early warning.** In this way, adaptation becomes more inclusive and actionable as communities are recognised not only as recipients of warnings, but as producers of knowledge and workable solutions that can inform municipal planning.

These examples strengthen the case for LLA by showing that inclusion is not an end, but a means to improve who is reached, who acts, and whether EWS function in practice.

Documenting lived experiences of migration as an adaptive strategy

CLARE Insight: Instead of assuming that mobility is a problem to be prevented, policymakers can use locally grounded evidence to design realistic and equitable adaptation pathways.

When communities adapt in ways that are contrary to national priorities, their adaptation measures can be considered undesirable. This is particularly true for migration, which can be seen as a failure to adapt rather than an effective approach to mitigating risks exacerbated by a changing climate.

CLARE research supports the devolution of decision-making to the lowest level by aiming to reframe how migration is presented in policy and practice, as illustrated by the SUCCESS and CLAPS projects.

CLARE research in Bangladesh, Nepal, India and Bhutan explores the lived experiences of migration and immobility as adaptation strategies to climate change. This includes forced relocation, voluntary mobility, and immobile populations, or those who remain behind.

Arguing that adaptation interventions are most effective when grounded in the lived experiences of affected populations, the projects use a participatory, locally led approach that involves affected communities and stakeholders. It prioritises local knowledge, tackles power dynamics and explores intersectional impacts – leading to more inclusive and context-sensitive adaptation pathways.



Over 500 households have been surveyed using these participatory methods, and new survey instruments have been piloted. Early findings highlight the importance of participatory planning, retention of land rights, and the role of remittances in supporting resilience.

Findings from the survey are key reflections of local realities and an important grounding for policies that support long-term resilience.

In **Bhutan**, the Good Governance Committee of the National Council incorporated learning and evidence from CLARE into a report to Parliament on fallow land and absentee households. That report was approved by Bhutan's National Council, including recommendations on land use and agricultural support, and informed relevant sections of the country's 13th Five-Year Plan.

Locally led approaches build resilience

Evidence presented in this brief demonstrates that locally led approaches improve adaptation implementation not only because they are more participatory, but because they produce better and more actionable evidence.

They have resulted in resilience building that would otherwise not have been achieved, as demonstrated by embankment reinforcements in Bangladesh before Cyclone Remal.

Across CLARE, research grounded in local realities improved the usefulness of risk information and anticipatory action, as seen in Bangladesh and the Horn of Africa. It helped surface urban priorities that standard planning often misses and brought the lived experience of residents into city-level decision-making in Lusaka and the Philippines.

CLARE research has strengthened local capabilities to generate and interpret evidence, with community hydrologists in Tanzania producing data that is now used in formal groundwater governance. It has also made early warning systems more inclusive and effective by involving those most at risk, including women, children, disabled communities and informal-settlement residents.

Finally, it widened policy considerations by showing how locally grounded evidence can reshape national debates, including on migration and land use in Bhutan.

Taken together, these examples show that LLA strengthens resilience by making evidence more credible, decisions more grounded, and action more likely to be used, trusted and sustained.

Learn more about CLARE research and locally led approaches:

From Early Warning to Anticipatory Action
Lessons from Horn of Africa's Drylands

Story of change
Informing Bhutan's approach to managing uncultivated land in a changing climate

Story of change
Community hydrologists support water monitoring for climate resilience in Tanzania

Community-Led Embankment Management in Coastal Bangladesh
Local Strategies for Resilience and Disaster Preparedness a Study by SURF-IT

Co-producing resilience strategies
Strengthening communities against flooding in Lusaka's informal settlements

Story of Change
Putting children at the heart of early warning and preparedness against tropical cyclones in Madagascar

Story of Change
Strengthening women's agency in tidal surge mitigation and disaster response



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Learn more about CLARE:
www.clareprogramme.org

Photos:

Front: CLARE research projects collaborate with local actors to co-create new knowledge on climate risks and solutions. *Credit: INACCT Resilience*

Page 2: Research evidence triggers locally led adaptation due to early, deep and systematic local engagement. *Credit: INACCT Resilience*

Page 3: Locally led anticipatory systems provide insights into who is most at-risk during droughts in the Horn of Africa. *Credit: Hanna Grace*

Page 4: Working with NGOs ensures adaptation planning considers the priorities of informal settlement residents. *Credit: CLARExchange*

Page 5: In Tanzania, officials and community members have been trained as community hydrologists. *Credit: CLARITY*

Page 6: Effective disaster response must not overlook the lived experiences of those most vulnerable to tropical cyclones. *Credit: Abir Abdullah / CLARE Programme / Climate Visuals*

Page 7: Evidence from CLARE was incorporated into a report for Bhutan's Parliament on fallow land and absentee households. *Credit: Avash Pandey / SUCCESS*

Page 8: Locally led anticipatory systems provide insights into who is most at-risk during droughts. *Credit: PASSAGE*

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