Farmer-led climate adaptation

Project overview

The Eastern Africa Farmers Federation (EAFF) in collaboration with Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA), is implementing a project to showcase best practice examples of **farmer-led adaptation in managing the negative impacts of climate change on agriculture**.

Beginning in April 2024, the EAFF and AICCRA will work towards **developing a compendium of farmer-led best practice case studies** that demonstrate innovative local activities and methods to enhance agricultural adaptation and ultimately promote resilience across the continent.

These cases will be selected from a **variety of geographical regions across Africa** and will vary in their scale, focus and level of ambition. The selection of these innovations will be done so in **collaboration with local partners**, including regional farmer organisations, local communities, NGOs and other appropriate partners.

Once the case studies have been jointly identified, EAFF and AICCRA will collaborate directly with the **grassroots level innovators** to document their specific activities and best practices in each unique locality. The project implementers will capture the details of each innovation and describe how it responds to the changing climate. They will also describe the lived reality of each context and the key challenges and enabling factors for the project's successes and difficulties. In addition, EAFF and AICCRA will document valuable insights and "key takeaways" and provide recommendations on their suitability and potential application in other areas, with the hope to replicate and scale best practices in different regional areas across the continent.

The final output of this project is a publicly accessible compendium of case studies that will be distributed widely to farmer bodies, policymakers, financers, and community actors to **generate interest and knowledge in these innovative practices; to share lessons; and to potentially attract partnerships and financial support for their scaling**. In addition, the EAFF and AICCRA will organise workshops and events to engage further with the project innovators and case studies.

What is locally led adaptation?

Locally led adaptation to climate change in the agricultural sector refers to **strategies and actions that are designed and implemented at the local level by farmers and their communities to reduce the risks posed by climate change and build resilience to its impacts**. Among other impacts, these initiatives can reduce climate-induced drought, unpredictable weather patterns, reduced soil productivity and reduce the incidence of crop and livestock diseases.

Please note that the level of analysis for these case studies is local. For example, the studies will document the activities planning and performed by individual farmers, farmer households, a single or group of agri-businesses or a farming community. While farmer-led adaptation is often done in collaboration with other stakeholders in the local environment, including community organisations, local governments, civil society organisations, researchers and other stakeholders, **the main project activities must be driven and led by farmers**.

Key steps and timelines

- **30 April 2024:** The EAFF will host an online workshop to launch the project and to introduce its key objectives. At an online meeting, the EAFF will officially launch a collaborative call for case studies that demonstrate innovative farmer-led adaptation.
- **14 June 2024:** The deadline for the submission of case studies.
- **15 June-1 July:** Through a transparent and inclusive process, the EAFF and AICCRA, along with other partner organisations, will select approximately 8 case studies that demonstrate diverse adaptation solutions.
- **July-September 2024:** The EAFF and AICCRA will document the selected studies, conduct interviews with key informants and innovators, and undertake project site visits where possible.
- **October 2024:** Case studies will be published to a wide audience.
- **November-December 2024:** Case studies and best practices will be disseminated at key policy forums.

What is required from our partner organisations?

- Assistance to identify farmers, farmer organisations, local agro-businesses in your particular region that are currently demonstrating leadership and good practices in agricultural adaptation to climate change;
- A motivation as to why this particular project demonstrates leadership and innovation;
- A brief introduction of the project to EAFF and AICCRA staff and the sharing of innovator or project contact details;
- Additional information and images that can help describe the innovation or practice.

TO NOMINATE AN APPROPRIATE INNOVATION IN YOUR COUNTRY OR REGION, PLEASE CONSIDER THE FOLLOWING CRITERIA:

Key aspects of the farmer led adaptation interventions

- **Participation and ownership:** Farmers are actively involved in identifying their vulnerabilities to climate change, determining appropriate local adaptation measures, and implementing these actions. This ensures that the adaptation strategies are tailored specifically to farmer needs and their local context, increasing their effectiveness and sustainability.

- **Local knowledge and practices:** Locally led adaptation draws on traditional knowledge and practices that have been developed and refined over generations, which are often highly effective in addressing local climate challenges. The approach often involves using the knowledge that farmers have of their local environment, in combination with traditional practices and new technologies and information, to adapt farming practices to better protect their livestock, crops and livelihoods from climate change.

- **Building resilience:** Farmer led adaptation focuses on enhancing the resilience of their communities and ecosystems to climate impacts. This can include measures that are beneficial over the long term, such as improving water management, diversifying livelihoods, and enhancing natural resources management.

- **Empowerment and equity:** Farmer led adaptation aims to empower people in their local communities, particularly marginalised groups such as women, young people and indigenous peoples. These activities can help community members participate in decision-making processes, build capacity related to climate relevant technologies or access resources to adapt to climate change, which can help to reduce inequities in vulnerability and enhance the overall effectiveness of adaptation efforts.

- **Integration with development goals:** Locally led adaptation projects contribute to sustainable development goals and enhance overall community well-being and resilience.

Overall, farmer led adaptation recognises the importance of using their **local knowledge, agency, and context-specific approaches** in addressing the challenges posed by climate change, and these innovations emphasise the importance of **building resilience at the local level**.

While farmer led adaptation interventions **vary tremendously across countries and regions**, there are some common actions that can be considered as farmer led adaptation.

Nominated innovations will be **reviewed by an expert committee** against the criteria described above. Those that are selected will be documented and included in a compendium of case studies that will be made publicly available.

Practical examples of farmer led adaptation

- **Crop diversification:** Farmers plant a particular variety of crops with different maturation times and different tolerance to weather extremes and drought. This can help improve the survival rate of crops in adverse conditions and can spread the risk in uncertain conditions.
- **Crop breeding:** Farmers select and breed seed varieties that are better adapted to changing climatic conditions. In addition, farmers save and exchange seeds of traditional varieties that contribute to the conservation of crop genetic diversity.
- **Integrated water management:** Farmers build small-scale water harvesting structures like ponds or tanks that can help conserve water during rainy seasons in anticipation of drier spells. In addition, farmers employ practices like drip pool irrigation to improve water use efficiency.

- **Agroforestry:** Farmers introduce trees and shrubs into agricultural landscapes to provide shade, improve soil fertility, and offer additional incomes sources through the sale of timber, fruits and nuts. In addition, farmers can promote tree regulation, tree stewardship and cultivation to ensure greater tree cover through the cultivation of tree seedlings.

- **Soil conservation:** Farmers implement context-specific practices like contour ploughing, mulching, terracing and intercropping that can reduce soil erosion and improve soil health.

- **Traditional knowledge integration:** Farmers combine traditional and modern farming practices that are effective in dealing with local climate variability. These include growing a variety of crops together, seed saving, terracing, the use of traditional calendars rituals and community-based management systems that incorporate knowledge about seasonal weather patterns and agricultural practices. In addition, farmers use traditional water management techniques in combination with modern ones, such as furrow irrigation, bunyip irrigation and traditional sprinkler systems.

- **Livestock management:** Farmers alter their animal husbandry practices, such as adjusting grazing patterns or providing additional shading, to help livestock cope better with extreme weather conditions.

- **Adjustments to herd composition:** Farmers keeping livestock alter the composition of their herds to adapt to changing agroecological conditions (e.g., switching away from cattle to camels)

- **Agroecological practices:** Farmers employ farming methods that mimic natural ecosystems, minimise chemicals and promote efficient water management. These practices focus on working with nature and seek to promote biodiversity, soil health and ecosystem resilience. These practices include crop diversification, agroforestry, conservation tillage, crop rotation and integrated pest management, among others.

- **Early warning systems:** Farmers establish early warning systems for weather events that can help them prepare and mitigate potential losses. These include using weather forecasts, crop advisories, soil moisture monitoring, pest and disease monitoring, and market monitoring. These early warning systems are often implemented through a combination of traditional knowledge, local expertise, and modern technologies such as mobile phones, radio, and internet-based platforms.

- **Ecosystem conservation and restoration:** Through planting trees and other vegetation types, farmers chose to enrich their land through regenerative and agroecological methods and shoring up nature-based infrastructure.

In addition to agricultural practices, farmer-led adaptation can also include

- **Leadership in mobilising local resources for positive change**, such as the introduction of saving schemes to support climate-resilient practices.
- **Forging of partnerships** with a variety of actors to remunerate community members for their efforts and leverage supplemental resources to scale action on community resilience priorities. This includes partnering with research for development organisations for information and data that can inform their decisions on relevant climate smart agricultural practices.
- Farmer efforts to mobilise the community and to influence **policy and regulatory change for climate smart agriculture**.
- Farmer initiatives that promote **capacity building and knowledge sharing**, such as multistakeholder dialogue platforms.
- Farmer initiatives that seek to **integrate the root causes of climate vulnerability** into their actions, such as gender-based, economic, and political inequalities, are also important as they encourage vulnerable and marginalized individuals to meaningfully participate in and lead adaptation decisions.

Useful definitions

Climate adaptation - The process of adjusting and responding to actual or expected climate changes and their effects. Adaptation is an action and process that helps to reduce the impacts of climate change.

Resilience - Refers to the capacity of a system to cope with and adjust to a hazardous event or trend.

Locally led adaptation – Characterised by local people and their communities having individual and collective agency over their adaptation priorities and how adaptation takes place.

Climate risk – Refers to the level of exposure to hazards, damage, or danger resulting from climate change and the level of vulnerability to these hazards.

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