Catalyzing Resilient and Sustainable Food Value Chain Development in Africa
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About this brief

The brief introduces the Resilient Food Systems (RFS) programme and its twelve projects, currently being implemented across sub-Saharan Africa. It outlines the programme’s coordination mechanism, the Regional Hub, and its integrated approach to transforming the agricultural sector and ensuring sustainable food production. The brief then describes the resilient and sustainable food value chain development (RSFVCD) approach and its relevance to smallholder farming systems. It closes with the three grant winning project proposals for catalyzing the development of resilient and sustainable food value chains in RFS countries. The grants were awarded by the Alliance for a Green Revolution in Africa (AGRA) and the United Nations Development Programme (UNDP), lead organisations for the RFS Regional Hub’s Component 2 work on ‘upscale of integrated approaches’.

Background

The Resilient Food Systems Programme is one of three Integrated Approach Pilots (IAPs) funded by the Global Environment Facility (GEF). Through RFS, GEF seeks to position the management of natural capital as a priority in ongoing efforts to transform the agricultural sector and ensure resilient and sustainable food production in sub-Saharan Africa. Implementation is led by the International Fund for Agricultural Development (IFAD) in collaboration with 12 African countries and several regional partners.

A five-year initiative (2017-2022), the RFS targets four regions in sub-Saharan Africa namely, Sahel, East African Highlands, Horn of Africa and Southern Africa. These regions are seriously affected by environmental degradation and a loss of ecosystem services resulting in low crop and livestock productivity and ultimately food insecurity. Twelve countries (Burkina Faso, Burundi, Eswatini, Ethiopia, Ghana, Kenya, Malawi, Niger, Nigeria, Senegal, Tanzania and Uganda) within these regions are actively engaged in the RFS programme. These countries are well placed to harness good practices for long-term sustainability and resilience of food production by reducing land degradation and biodiversity loss, enhancing natural vegetation cover and improving soil carbon content.
ESWATINI
Climate-Smart Agriculture for Climate-Resilient Livelihoods
Increase the adoption of diversified, climate-resilient agricultural production practices and promote associated market linkages to enhance the food security and livelihoods of smallholder farmers.

NIGER
Family Farming Development Programme
Strengthen sustainable family-farming and climate change adaptation and improve market access for smallholder farmers.

GHANA
Sustainable Land and Water Management Project
Scale up integrated landscape management practices in Northern Ghana to improve food security and maintain ecosystem services.

NIGERIA
Integrated Landscape Management to Enhance Food Security and Ecosystem Resilience in Nigeria
Foster sustainability and resilience for food security in Northern Nigeria through addressing key environmental and socioeconomic drivers of food insecurity across three agro-ecological zones.

SENEGAL
Agricultural Value Chains Resilience Support Project
Improve the sustainability and resilience of smallholder agricultural systems and food value chains by safeguarding and maintaining ecosystem services.

BURKINA FASO
Participatory Natural Resource Management and Rural Development Project
Promote sustainably managed agro-ecosystems to ensure food security and increase smallholder farmers’ resilience in the northern region of Burkina Faso.

GHANA
Sustainable Land and Water Management Project
Scale up integrated landscape management practices in Northern Ghana to improve food security and maintain ecosystem services.

NIGER
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ETIOPIA
Integrated Landscape Management to Enhance Food Security and Ecosystem Resilience
Enhance long-term sustainability and resilience of food production systems by addressing the environmental drivers of food insecurity in Ethiopia.

KENYA
Upper Tana-Nairobi Water Fund
Achieve a well-conserved Tana River basin with improved water quality and adequate quantities for downstream users and strong benefits for agricultural communities in the watershed.

UGANDA
Fostering Sustainability and Resilience for Food Security in Karamoja Sub-Region
Improve food security and the long-term environmental sustainability and resilience of food production systems in the Karamoja sub-region by addressing environmental drivers of food insecurity and their root causes.

BURKINA FASO
Participatory Natural Resource Management and Rural Development Project
Promote sustainably managed agro-ecosystems to ensure food security and increase smallholder farmers’ resilience in the northern region of Burkina Faso.

BURUNDI
Support for Sustainable Food Production and Enhancement of Food Security and Climate Resilience in Burundi’s Highlands
Increase the adoption of resilient, improved production practices for sustainable food and nutrition security through integrated landscape management and sustainable food value chains.

TANZANIA
Reversing Land Degradation trends and increasing Food Security in degraded ecosystems of semi-arid areas of central Tanzania
Reverse land degradation trends in central Tanzania and Pemba (Zanzibar) through sustainable land and water management and ecosystem-based adaptation.

MALAWI
Enhancing the Resilience of Agro-ecological Systems
Enhance the provision of ecosystem services and improve the productivity and resilience of smallholder agricultural systems through addressing land degradation, loss of agrobiodiversity and climate change adaptation and mitigation.
One Regional Hub

The 12 country projects are connected by the Regional Hub which ensures overall coordination by facilitating the exchange of knowledge and upscaling of best practices, as well as joint tracking of impacts at the national and regional levels. The Hub has four key components, led by institutional partners with key technical expertise to support science-policy linkages, implementation and monitoring within the country projects.

COMPONENT 1
Institutional frameworks
Create and strengthen integrated institutional frameworks and mechanisms for scaling up proven multi-benefit approaches

COMPONENT 2
Upscaling of integrated approaches
Scaling up integrated approaches and practices, including resilient and sustainable food value chains

COMPONENT 3
Monitoring & assessment
Monitoring and assessment of global environmental benefits and agro-ecosystem resilience

COMPONENT 4
Programmatic impact, visibility and coherence
Coordination, reporting and general management functions across RFS projects for programmatic impact, visibility and coherence

Programme approach

The integrated approach of the RFS is founded on three guiding principles, which are reflected in the core components of each project.

Engage
Engage and share
Strengthen institutional frameworks and the development and dissemination of scientific knowledge to inform policy dialogues and analyses that promote collective action and coherent policies.

Act
Implement at scale
Scale up proven sustainable practices that harmonise agricultural and environmental outcomes, including the development of resilient and sustainable food value chains, thereby striking a balance between food security demands and safeguarding vital ecosystem services.

Track
Monitor, learn, respond
Monitor ecosystem services and food security resilience to assess progress and enable informed decision-making. This includes gathering high-quality data, applying proven analytical methods, establishing information sharing protocols and integrating risk-management approaches for evaluating the trade-offs and synergies between food production, nutritional security, poverty alleviation and ecosystem services.
Developing resilient and sustainable food value chains in sub-Saharan Africa

For RFS projects, adopting an agri-food value chain approach means designing and implementing interventions that address challenges that exist within specific links of an agricultural production system, from input suppliers to end markets. The role of agricultural value chain greening in the transformation of agriculture in Africa (Adapted from AGRA and UNDP, 2020)

Photos: Top clockwise - ©Random-Institute-Unsplash, ©Swathi Sridharan (CGIAR), ©Mokhamad Edliadi (CIFOR), ©Roman-Synkevych-Unsplash, ©Patrick Sheperd (CIFOR), ©Ollivier Girard (CIFOR), ©Swathi Sridharan (CGIAR), ©Mokhamad Edliadi (CIFOR)
Introducing the training manual for resilient and sustainable food value chain development in Africa

Who developed the manual?
- The Alliance for a Green Revolution in Africa (AGRA) and the United Nations Development Programme (UNDP) collaboratively developed the manual as part of the Resilient Food Systems programme.

Who is the training manual for?
- It is designed for development practitioners in Sub-Saharan Africa.

Why is it needed?
- For the establishment of a structured process in green food value chain development.
- To advance a holistic approach to agricultural productivity and agribusiness development in smallholder farming systems as well as the health of the ecosystem.

What is in the manual?
- The training manual is based on the green food value chain concept as an approach that generates and recaptures value at each level or link of the food value chain, proactively reducing the amount of pollution, climate change and other adverse environmental impacts. The food value chain greening approach is also referred to as the RSFVCD approach.

The manual blends best practices and lessons learned from projects, programmes, and initiatives that promote RSFVCD.

Sub-Saharan Africa context

African smallholder farmers’ agricultural operations are characterised by low productivity and financial returns, small budgets, low-quality standards, and vulnerability to environmental concerns such as pollution, climate change and climate variability, environmental and soil degradation, and limited capacity to adapt (Hilmi, 2019).

Smallholder farmers in RFS countries tend to produce agricultural products for household consumption or operate within informal agri-food value chains that supply their local community. They often sell their produce, either directly or through middlemen, to small local stores or markets. These markets are characterised by low value products, low prices, and low and inconsistent returns for farmers.

This presents an opportunity, as the smallholder farming system has the potential to create value-added products using environmentally-friendly practices that could contribute towards more resilient and sustainable food value chains, ultimately enhancing long-term food security, environmental sustainability, social wellbeing, and economic growth.

However, to achieve this, a number of challenges need to be overcome:

- Lack of capital;
- Inefficient information flows;
- Poor access to inputs;
- Social and economic inequalities;
- Limited agricultural and agribusiness skills; and
- Weak market linkages.

Sub-Saharan Africa context

Poverty

Efficient Value Chains

Sustainable Environmentally-Friendly Practices

Resilient and Sustainable Food Value Chains

Food Security

Environmental Sustainability

Social Wellbeing

Economic Growth

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RFS Country Projects awarded AGRA and UNDP grants

Adopting a resilient and sustainable agri-food value chain approach is vital for RFS projects. In support of this objective, in 2019, two Regional Hub partners - AGRA and UNDP - hosted a training workshop for RFS country project teams on greening agricultural food value chains. The purpose of the training event was to:

- Gauge country project teams’ understanding of the value chain greening concept.
- Build capacity in the application of value chain concepts to farming operations.
- Raise technical awareness of how to make food value chains more sustainable and resilient.
- Identify the training needs within country-specific value chains.

Building on this, in April 2020, AGRA and UNDP invited applications for sub-regional catalytic grants. The grants were to be awarded to organisations working to strengthen the resilience and sustainability of agri-food value chains and the integration of natural resource management into African food systems.

Sixty-three concept notes were received from interested organisations across the twelve RFS countries, nine of which were shortlisted and further developed into full project proposals.

In November 2020, AGRA and UNDP selected three grant winners namely, Kilimo Trust and Musoma Foods Pvt Ltd in Tanzania and Uganda; the GRAD Consulting Group in Burkina Faso; and African Fertilizer and Agribusiness Partnerships in Malawi and neighboring countries.
Grant Winner 1
Kilimo Trust and Musoma Foods

The Lake Zone Smart Farms (LSF) project will promote sorghum value chains in the Lake Zone farming region by strengthening market linkages and promoting regional trade structures between Tanzania and Uganda.

Project goal
To contribute to competitive and inclusive green transformation of smallholder farmers through the promotion and integration of the sorghum value chain by increasing productivity and economic returns through localised value addition and strengthening of market linkages, thereby building socio-ecological resilience in the Lake Zone farming region.

The project aims to directly support the transformation of 25,000 smallholder-farming households, 40% of which will be woman-led, thereby contributing to the programme’s goal of mainstreaming gender considerations. The project will also impact 100 MSMEs of sorghum aggregators, input and other service providers in the Lake Zone.

The project addresses the following challenges:
- **Low farmer incomes** due to limited production-for-sale operations, low sales volumes and limited crop diversification.
- **Low sorghum productivity** due to the insufficient use of technology for crop production, rendering farmers vulnerable to climate shocks.
- **Limited access to input finance**. Financial institutions tend to refrain from lending to farmers unless they have a reliable market for their produce. In addition, farmers’ lack of records, poor understanding of credit terms and non-registration of farm-based organisations, all contribute to making farmers unattractive to commercial lenders.
- **Limited access to structured markets** and a lack of structured marketing facilities lead to farmers selling their produce at a loss early in the season as they are unsure of a guaranteed market at a later stage.

Main Objectives
- Strengthened/formalised farmer/locally owned sorghum aggregation centres.
- Sustainable and structured sorghum trade agreements between local input and output markets’ service providers (entrepreneurs, agro-processors, smallholder farmers and off-takers) in Tanzania and Uganda.
- Increased incomes per household due to increased productivity and market transactions from sorghum.
- At least 2,000 sorghum producers and 100 agro-preneurs have access to finance products (including insurance).
- At least 30,000 MT of sorghum aggregated and sold through national and regional structured markets.
- Sustainable regional sorghum trade structures developed (from Uganda to Tanzania).

The project will support 25,000 smallholder-farming households 40% of which will be woman-led

Expected outcomes
- Lower food insecurity per smallholder farmer household (measured by reduced hunger months per year).
- Increased diversified farm income activities per average household.
- Reduced post-harvest losses at each stage of the value chain.
- Sustainable adoption of green technologies and good agricultural practices that enhance productivity, reduce post-harvest losses and production costs.
- Increased farm(er) level resilience due to crop diversification.

Role of government
- To provide extension services and climate-smart agriculture (CSA) training to new and existing lead farmers. The farmer-extensionist ratio is to be increased to at least 1: 250/300.
- To promote local entrepreneurship and complement agribusiness development.
- Embrace and promote green value chain technology from national research centres.
- Build capacity on gender mainstreaming at the community-level.
The project ‘Linking Farmers to the Private Sector for Enhanced Sustainable and Resilient Rice Value Chains in the Boucle de Mouhoun Region of Burkina Faso’ will develop rice value chains in Burkina Faso by scaling up sustainable productivity-enhancing technologies, improving post-harvest and storage technologies, and supporting agro-processing business units and farmers groups.

The project aims to increase rice yields by at least 30% and sales by at least 50% of the current sales volumes and transactions. At least five knowledge products will be produced on resilient and sustainable agribusiness development and farming technologies in the rice value chain, including case studies and knowledge exchange visits between Burkina Faso and other West African RFS countries.

**Project goal**

To improve nutrition and rice incomes for smallholder farmers through localised agro-processing, women and youth participation in service markets and inclusive agrobusiness models, productivity enhancement and integrated environmentally sound interventions along rice value chains in Burkina Faso and neighbouring countries.

The project addresses the following issues:

- Unavailability of quality rice for processing, particularly due to poor crop management and post-harvest handling.
- Little/no access to working capital and capital expenditure credit to buy enough paddy to fully operate and maintain milling and parboiling plants.
- Competition with imported milled rice products from large corporates.

**Main Objectives**

- To sustainably increase smallholder producers’ rice productivity.
- To create/strengthen small enterprises operating along the rice value chain into competitive and growing business units.
- To promote coordinated marketing models and access to quality inputs to ensure consistent paddy quality.

**30% increase in rice yields**

**Expected outcomes**

Increased adoption of sustainable productivity-enhancing agricultural technologies:

- 2,000 rice producers adopting and using at least two integrated soil fertility management components.
- Increase in crop yields by at least 30% for inland valley and irrigation production.
- At least 60% of farmers secure improved inputs (seed and fertiliser) through contract farming mechanisms.
- 40% of the 5,000 participating farmers have access to land preparation services.

Increased quality of paddy for participating farmers:

- 3,000 farmers adopting and using improved postharvest technologies.
- 10 women cooperatives trained in parboiling and equipped with innovative systems for energy generation and drying facilities, linked to lines of credit on capital equipment.
- 40% of the 5,000 farmers have access to post-harvest services/operations (threshing, cleaning, sorting) service.
- 2,000 participating farmers have access to tillage services to timeously plant their crops and synchronise harvesting for efficient marketing logistics (warehousing, transport and parboiling).

Increased rice sales for the target farmers via the out-grower schemes by at least 50% of the current sales volumes and transactions:

- 3,500 targeted producers contracted to sell their paddy rice to milling firms.
- Technical assistance provided to at least three agro-processors towards the development of business plans for expansion.
- Off-take contracts and marketing MoUs signed between farmers and four processors or markets.

**Role of government**

Government’s role in this project is not direct but through its work on setting a conducive policy environment for the increased supply of inputs and increased market transactions in the rice value chain.
Grant Winner 3
African Fertilizer and Agribusiness Partnership (AFAP)

The ‘Sustainable Agriculture and Marketing for Rural Transformation (SAP-MaRT)’ project will scale up climate-smart agriculture (CSA) technologies in groundnut value chains, restore and protect soil health, and connect women and young groundnut farmers with markets in Malawi and neighboring countries.

The grant will support 9,600 women and 3,200 young farmers in adopting CSA technologies, including the use of certified seeds, inoculants, Aflasafe (to reduce aflatoxin), double row and integrated pest management practices; as well as labour-saving agricultural inputs and services. These farmers will be connected to profitable local and regional groundnut markets and will improve their business management, banking and financial knowledge.

Project goal
To improve women and youth agricultural productivity, improve soil fertility and increase income generation through enhanced access to local and regional markets among smallholder farmers in the Mchinji, Mzimba and Dowa Districts.

Further, at a marketing level, the project will address structural weaknesses of the groundnut value chain for both domestic and export markets, including poor farmer organisation, high post-harvest losses in groundnuts, low participation and investment by the private sector due to inadequate engagement and unconducive policy environment as well as ineffective dissemination of modern and recommended technologies for groundnut production.

The project will promote aflatoxin standards for exporting groundnuts at a regional level, through knowledge sharing and joint capacity building of African traders and farmers. Through the strengthening of the groundnut value chain, the project will also address the problem of continued environmental and soil degradation in agricultural landscapes in Malawi.

Grant will support
9,600 woman
3,200 young farmers

Main Objectives
- To improve groundnut production by women and young farmers.
- To improve market linkages (domestic and external) for the groundnut value chain.
- To foster regional standards and capacity for effective aflatoxin management in rural groundnut value chain activities as the main post-harvest loss management strategy.

Expected outcomes
- 9,600 women and 3,200 young farmers adopt CSA technologies in the groundnut value chain and labour-saving agricultural inputs and services.
- 9,600 women and 3,200 young farmers access profitable and reliable local and regional markets for groundnuts.
- Lower aflatoxins in peanut kernels, not exceeding 20 microgram/kilogram for marketed crops.
- Increase entrepreneurship skills among 50% of the targeted women and youth, focusing on business development, processing, value addition, and saving and banking.
- 5% of groundnuts and associated products are utilised by targeted women and youth.
- 50% of targeted women and youth have improved diets through eating a minimum of three meals a day.
- Enhanced coordination and collaboration among partners within the groundnut value chain.

Role of government
District and sub-district level government staff in conjunction with AFAP field staff will be responsible for designing, planning, implementing and monitoring site-specific project activities. Through documentation and sharing of groundnut value chain greening lessons, best practices and evidence-based results, AFAP will work with other stakeholders to overcome production inefficiencies, gender inequality and high aflatoxin contamination.

Further, AFAP will work with the departments of the Ministry of Agriculture to address challenges that women farmers are facing, to scale up best groundnut farming practices and to improve access to inputs and finance for project beneficiaries.
References


Resilient Food Systems, Knowledge Centre, 2020. UNDP and AGRA select three grant recipients for strengthening green agro-food value chains. RFS Newsletter.


ABOUT THIS KNOWLEDGE BRIEF

This brief is part of a series of knowledge products prepared by the Regional Hub project of the Resilient Food Systems programme. This brief falls under the Act theme, with other knowledge products categorized under the other programme pillars Engage, Act and Track, or within a Cross-cutting tag.

Our programme website allows easy access to these resources.

www.resilientfoodsystems.co

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