



Empowering Women Farmers for Climate Resilience and Economic Growth

A POLICY BRIEF

BACKGROUND



Rwanda has made significant strides in its transformation from a low- to middle-income country, with its economy growing at an annual rate of 7.9% between 2000 and 2016. The agricultural sector has been a major contributor, expanding over 5% annually since the early 2000s. However, growth still needs major efforts to sustain crop yield improvements, and food security and nutrition. Childhood stunting is still high at 32.4% (PSTA5), and despite increased production, this issue continues to worry female farmers.

Women represent about 70% of the farming workforce, and agriculture contributes a third of Rwanda's GDP and nearly half of its export revenues. However, challenges like land fragmentation, soil erosion, and climate change threaten food security and livelihoods. Rapid population growth increases food demand while putting pressure on limited land resources. Addressing these challenges requires significant investment, with a focus on private sector engagement and fostering a supportive business environment. Bridging the technology and skills gap in agriculture will boost productivity, especially for farmers, youth, and women, while contributing to poverty alleviation.

To promote sustained agricultural growth, Rwanda must counter land degradation and climate change through climate-smart practices, increased inputs, and land protection measures. Resilience-building mechanisms, risk response strategies, and social protection programs are essential to mitigate vulnerabilities. A well-functioning market system, with improved post-harvest handling, stronger market linkages, and investments in infrastructure, is vital to supporting a competitive agricultural sector.

The Fifth Strategic Plan for Agriculture Transformation (PSTA 5) prioritizes two areas such as the modernization of agriculture for climate-resilient agri-food systems and inclusive markets and post-harvest management. The plan focuses on improving land and water management, promoting climate-smart crop production, and strengthening farmers' organizations. However, challenges such as the low adoption of agricultural technologies and the sector's vulnerability to climate change remain.

A critical issue in Rwanda's agricultural sector is the low level of investment, which limits productivity and income growth for smallholder farmers. This issue is further aggravated by climate change and limited market access, leading to food insecurity. Commercialization is lacking, resulting in sub-optimal production models and low agricultural incomes. Increased investment, particularly in light of climate change and socio-economic pressures, is necessary to address these challenges.

EXECUTIVE SUMMARY

Women farmers in Rwanda, particularly those engaged in small-scale subsistence agriculture, are vital to local economies. In the KOABIGA cooperatives, women primarily cultivate vegetables, corn, and soybeans in Kigali's wetlands, with key crops including tomatoes, beetroots, carrots, cabbages, and peppers. Their produce is marketed locally, contributing to food security and income generation.

Despite their important contributions, women farmers face challenges such as post-harvest losses, soil degradation, and prolonged droughts, which exacerbate poverty and food insecurity. To address these issues, Prime Biodiversity Conservation (PBC) and The High Commission of Canada in Rwanda through Canada Fund for Local Initiatives (CFLI) have launched the "Supporting Women Farmers' Climate Resilience in Kigali, Rwanda" project. The initiative aims to enhance climate resilience and help women farmers adapt to climate change while improving their livelihoods.

The project supports 580 smallholder farmers, 80% of whom are women heading households, as members of the KOABIGA Farmers' Cooperative. It provides capacity building in climate adaptation, market linkages, advocacy, and research, helping farmers align their production with market demands. KOABIGA farmers cultivate 140 hectares in the Kinyinya Sector wetland, land allocated by the Government of Rwanda. However, climate change poses a significant threat, with frequent flooding and poor crop planning resulting in annual losses of approximately 150 tons of produce.

Strengthening the resilience of these farmers is crucial for ensuring sustainable agricultural development and economic empowerment. This project is a vital step toward enhancing Rwanda's agricultural sector and improving the livelihoods of women farmers.



POLICY RECOMMENDATIONS

I. Enhancing Agricultural Productivity for Women in KOABIGA Cooperatives

Women farmers in the KOABIGA cooperative play a vital role in the agricultural sector but face numerous challenges that hinder their productivity and economic success. Addressing these key challenges through targeted interventions will significantly improve their resilience to climate change and enhance their overall livelihoods.

1.1. Lack of Agricultural Infrastructure

Challenge: Inadequate infrastructure, such as poor handling and storage facilities, leads to post-harvest losses, reducing the quality and economic value of the produce. Despite efforts by the government to improve infrastructure, the lack of cold storage, dryers, and proper handling systems continues to be a significant bottleneck.

Recommendation: Investing in storage facilities, cold chain infrastructure, and drying equipment is critical to preserving produce and reducing losses. This will also enable farmers to store perishable goods for longer periods, allowing them to access better markets. Moreover, providing greenhouses and modern farming systems will help farmers increase their yield with the same inputs, making their farming systems more efficient and competitive.

1.2. High Reliance on Chemical Inputs

Challenge: The increasing cost of chemical pesticides and fertilizers poses a significant financial burden on women farmers, leaving them with higher production costs and reduced profitability. The heavy reliance on these inputs also poses environmental concerns and risks to soil fertility.

Recommendation: Women farmers should be empowered to use natural pesticides, adopt pest-repellent plant species, and produce organic fertilizers locally. This can be achieved through training programs and field trips to successful cooperatives that have adopted more sustainable farming practices. By promoting agroecology and organic farming, women can reduce costs, improve soil health, and become more resilient to market fluctuations and environmental changes.

1.3. Limited Advocacy & Access to Agricultural Opportunities

Challenge: Women farmers in KOABIGA often struggle to fully capitalize on agricultural opportunities provided by government programs, the Rwanda Development Bank, and local districts. Lack of preparation, weak proposal writing skills, and delayed responses to available funding opportunities limit their ability to access critical resources.

Recommendation: Establishing a dedicated advocacy committee within the cooperative will enhance their ability to respond promptly to opportunities. This committee should focus on improving internal capacity, such as proposal writing, negotiation skills, and engagement with relevant stakeholders. Additionally, decentralizing agricultural information from national ministries to sector offices will facilitate faster dissemination of opportunities, allowing women farmers to act swiftly and secure critical resources.



II: Market Access

Market access remains a key challenge for women farmers in the KOABIGA cooperative. This issue, combined with limited business knowledge, results in financial losses, low income, and food waste.

2.1. Poor Market Linkages and Low Bargaining Power

Challenge: Women farmers in KOABIGA lack direct access to buyers and consumers, reducing their ability to set competitive prices. Middlemen often take advantage of this situation, driving prices down during peak harvest periods, thus reducing farmers' profits.

Recommendation: To address this, business capacity building is essential. Training women farmers on cooperative management, marketing strategies, and financial management will empower them to make informed decisions and improve their profitability. Additionally, district officials should support women in setting up their own selling points at local business centers, giving them more control over transactions and improving market access. The Rwanda Cooperative Agency should also provide specialized training on managing cooperatives.

2.2. Lack of a One-Stop Center

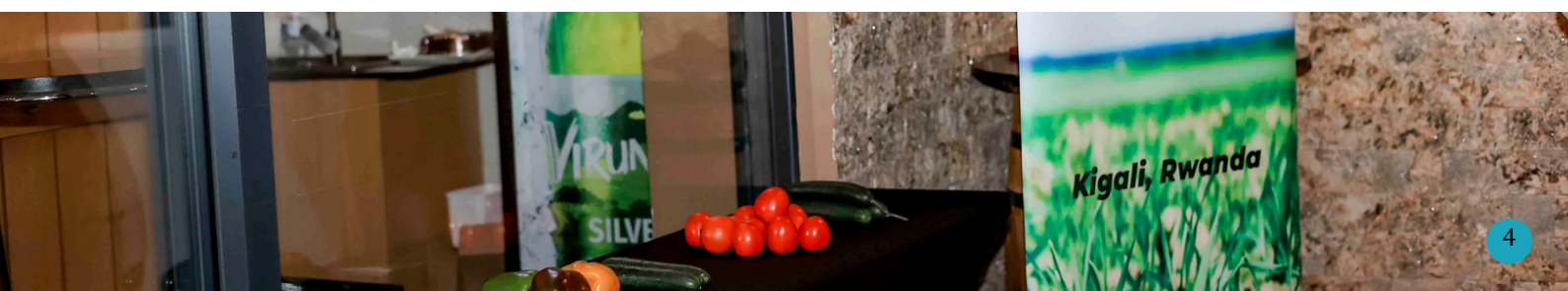
Challenge: During peak harvest seasons, an oversupply of perishable produce leads to reduced prices and food waste. The lack of preservation options exacerbates this issue, impacting both farmers' income and food security. Women farmers have pointed out the absence of a convenient, centralized space for farming activities and commercialization. The lack of drying facilities and proper storage means they struggle with crop handling and storage, hindering their ability to sell effectively.

Recommendation: Establishing a one-stop center with essential infrastructure such as drying rooms and storage facilities would greatly improve the commercialization of their produce. Financial support is necessary to build this infrastructure, as the cooperative currently lacks the funds for such an investment. The Rwanda Agriculture Board (RAB) should provide training for women farmers on proper handling, preservation, and storage methods to prolong the shelf life of their crops. Furthermore, adopting strategic crop planning and aligning production with market demand through crop rotation can help prevent surplus. As local and global markets continue to expand, the Ministry of Trade should work to eliminate trade barriers and facilitate market access, creating more opportunities for women farmers.

2.3. Financial Barriers & Limited Access to Credit

Challenge: Women farmers face significant challenges in accessing formal financial services due to their irregular income streams and high-interest rates on loans. This makes it difficult for them to obtain the working capital necessary for expanding or improving their agricultural activities.

Recommendation: To reduce financial barriers, it is essential to de-risk the agricultural sector by providing low-interest loans tailored for small-scale farmers. Strengthening partnerships with Rwanda Development Bank, SACCOs, and other financial institutions will help provide farmers with access to affordable credit and insurance products. Financial literacy programs will also empower women to manage their finances more effectively, while savings schemes will provide a safety net for future investments, helping farmers overcome the challenges of irregular income and production cycles.



III: Climate Change and Environmental Challenges

3.1. Lack of Knowledge in Climate-Adaptive Farming

Challenge: Many women farmers in KOABIGA struggle with limited knowledge of climate-adaptive farming, which is vital for maintaining productivity in fluctuating environmental conditions. Access to high-quality seeds is also an issue, as most seeds are imported, and there is insufficient research on the suitability of crops for Rwanda's agro-climatic zones.

Recommendation: Organizing regular training sessions on climate-resilient agricultural techniques and facilitating learning visits to successful farming communities will help bridge this knowledge gap. Establishing a community learning center and decentralizing climate-resilient knowledge at the sector level will empower women to adopt sustainable farming practices, better adapting to climate change.

3.2. Low Adoption of Smart Climate Agriculture Practices

Challenge: Subsistence farmers in KOABIGA are significantly impacted by climate variability, facing challenges in irrigation during extended dry seasons, which reduces both production and affects livelihoods. There is a lack of access to smart agriculture technologies that could enhance sustainability and efficiency.

Recommendation: Women farmers need training in smart agriculture techniques such as smart greenhouses, crop rotation, intercropping, bio-fertilizers, and organic farming. The Ministry of Agriculture should help facilitate access to greenhouses and irrigation systems through subsidies and local partnerships. Furthermore, regular training on disease management and pest control will support farmers in maintaining healthy crops.

3.3. Environmental Hazards and Soil Degradation

Challenge: Soil degradation, including erosion, soil acidity, and low organic matter, is severely affecting productivity, particularly in marshlands. Heavy rainfall and improper water canalization exacerbate soil erosion, while dumping waste in wetlands further damages the environment.

Recommendation: Local governments should enforce stricter regulations to ensure proper water canalization systems are built and adhered to urban planning standards. Additionally, penalties should be imposed on those who dump construction waste in wetlands to protect the environment and maintain agricultural productivity.

Conclusion:

Women farmers in KOABIGA Cooperatives face significant challenges, including low agricultural investment, limited market access, and the effects of climate crises. Stakeholder support is crucial for enhancing their farming practices and livelihoods. This policy brief emphasizes the importance of advocacy, raising awareness, amplifying women's voices, and integrating them into smart agriculture and climate adaptation initiatives at national and local levels. Empowering women in agriculture is essential for building climate-resilient communities, ensuring food security, and promoting sustainable development. By addressing these challenges and implementing key interventions, stakeholders can drive women's economic empowerment, reduce gender disparities, and foster inclusive growth, ultimately strengthening the resilience and prosperity of farming communities across Kigali.



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