

EMPOWERING WOMEN THROUGH CLIMATE-RESILIENT AGRICULTURE IN WEST AND CENTRAL AFRICA

KEY RESULTS OF UN WOMEN'S FLAGSHIP PROGRAMME





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EXECUTIVE SUMMARY



Strengthening women's rights to land and bridging the gap between law and practice

- Women's land rights recognized in laws in 4 countries
- 13500 women accessing land for agricultural investment
- Gender responsive land governance processes in 4 countries with involvement of more than 300 traditional leaders
- More than 4800 women understand their rights to land



Women's Access to Finance

Closing the gap to access finance for women agri-entrepreneurs

- More than 3,700 women farmers accessing finance for value chain investments
- A US\$300,000 guarantee signed with the Development Bank of Mali for women agri-entrepreneurs, a US\$100,000 Guarantee Fund for women established in Central African Republic and a credit line for women rice producers of EUR 500,000 signed with BICIS bank in Senegal
- Digital micro-insurance services to reduce Disaster Risk Reduction under development in Liberia, Mali and Senegal







Climate Resilience

Reducing the carbon footprint of the agriculture sector and improving communities' ability to adapt to climate change

- More than 17,000 women applying climate resilient agricultural production techniques across the region
- Energy-efficient technologies introduced by women in a range of agriculture value chains, from solar-powered irrigation systems, processing machines or drip irrigation



\$

Women's Access to Markets

Getting women ready and connecting them to markets

- Stronger ecosystem for women entrepreneurship through the institutional strengthening of more than 200 women cooperatives and women-led SMEs and national networks and sectoral federations
- More than 1900 women certified in organic shea-nut production and transformation ready to access export markets in Cote D'Ivoire
- More than 200 new agricultural products developed by women along more than 10 value chains
- Women's products' value increasing by between 3 and 10 times as a result of investments in transformation, packaging and branding



INTRODUCTION

Agriculture plays a key role in promoting women's economic empowerment and managing the impacts of climate change in West and Central Africa.

As a sector, it is a key contributor to gross domestic product (GDP) and employment generation for the countries in the region, despite being increasingly challenged by recurring stresses and shocks as a result of climate change. Scaling up adaptation and mitigation measures in the agriculture sector is essential to manage the impact of climate change in the region. Agriculture is also the main employer of women across the region. Women represent more than 70 per cent of the agricultural workforce in many parts of West and Central Africa, despite persistent problems compared to men in participating as equal economic agents in agribusiness value chains. Despite women's leadership in many areas of profitable agribusiness, the majority of women continue to find themselves in low valueadded crops, concentrated in basic production and low productivity activities, and unable to move up to the higher and more lucrative steps of the value chain.

UN Women has worked with its partners since 2017 to promote women's economic empowerment and improve climate resilience in West and Central Africa through its flagship program 'Women's Empowerment through Climate-Resilient Agriculture Value Chains'. The programme combines programmatic action and policy advocacy and reform to address the structural

barriers limiting women's participation in agriculture value chains, with a focus on improving women's access to land, finance, skills and technology for climate resilience, as well as women's access to markets. The Women in Climate-Resilient Agriculture Value Chains programme (the 'programme') is currently operational in six countries in West and Central Africa, implemented in collaboration with UN agencies such as the Food and Agricultural Organization (FAO), World Food Programme (WFP), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and United Nations Capital Development Fund (UNCDF), government partners at the national and regional level, financial institutions, civil society organizations, and women producer associations and cooperatives as the cornerstone of the programme. This flagship initiative is financially supported by a variety of institutional and private sector donors.

This note presents results of the UN Women flagship programme *Women's Empowerment through Climate-Resilient Agriculture* in West and Central Africa for the period 2017 to 2021. The note is based on a desk review of project reports and interviews with beneficiaries, implementing partners and programme officers.

Women in Climate-Resilient Agriculture Value Chains Programme: Value proposition

- Improve economic opportunities for more than 500,000 women in over 15 countries in West and Central Africa.
- **Build communities' resilience** to cope with and adapt to climate change and strengthen economic stability in critical regions, such as the Sahel, affected by environmental degradation, conflict and migration.
- Unlock bottlenecks for women's participation in rural value chains, through policy reform and implementation of measures to improve women's land rights, promote institutional strengthening of women cooperatives and micro, small and medium-sized enterprises (MSMEs), and provide access to finance and markets through technology-enabled solutions including for export.
- Maximize development impact by targeting high-value and/or value chains that are critical for food security.
- Minimize risk and guarantee impact through interventions focused on achieving the Sustainable Development Goals (SDGs), with UN Women's technical expertise for design and quality assurance, in partnership with UN agencies to leverage implementing capacity, and with the backup of the UN system at the country level.

IMPROVING WOMEN'S ACCESS TO LAND

Women's land rights are essential for women's empowerment, poverty reduction and climate resilience.

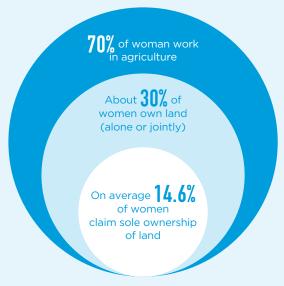
Access to land can be used as collateral to access finance for agriculture or business development and can help expand women's economic opportunities. In the past years, there has been significant progress in legislation to improve women's access to land across West and Central Africa. In practice though, most women have no control over land management, which is often governed by customary land tenure systems, and affected by discriminatory social dynamics and a lack of women's participation in land governance. Increasing women's land ownership and tenure security can further increase their productive capacity and enable them to access finance to absorb climate-smart agriculture innovations.

UN Women has supported a number of countries in the region in improving legislation to recognize women's property rights. In Liberia, UN Women

supported the drafting and passing of the Land Rights Act (2018), one of the most advanced laws on land rights in Africa. As a result, women can participate in land management and own land privately, jointly, and/or collectively, irrespective of whether they are married or not. Women in Mali often have temporary land use rights, which are easily taken away from them. To address this, women often form associations and are allocated land for their collective use. Building on this practice, UN Women contributed to the passing of Mali's Agricultural Land Law (2017), which requires 15 per cent of public land to be allocated to women's associations. Access to land is also the gateway to access other key productive assets for agricultural production. In Senegal, the programme has supported the implementation of key legislation, such as the circular of the Ministry

Women's land rights in West and Central Africa

Gender gaps in women's access to and ownership of land remain, in spite of significant progress in legislation



Source: IFAD (2015); World Bank (2018)



Source: Women Business and the Law (2020)

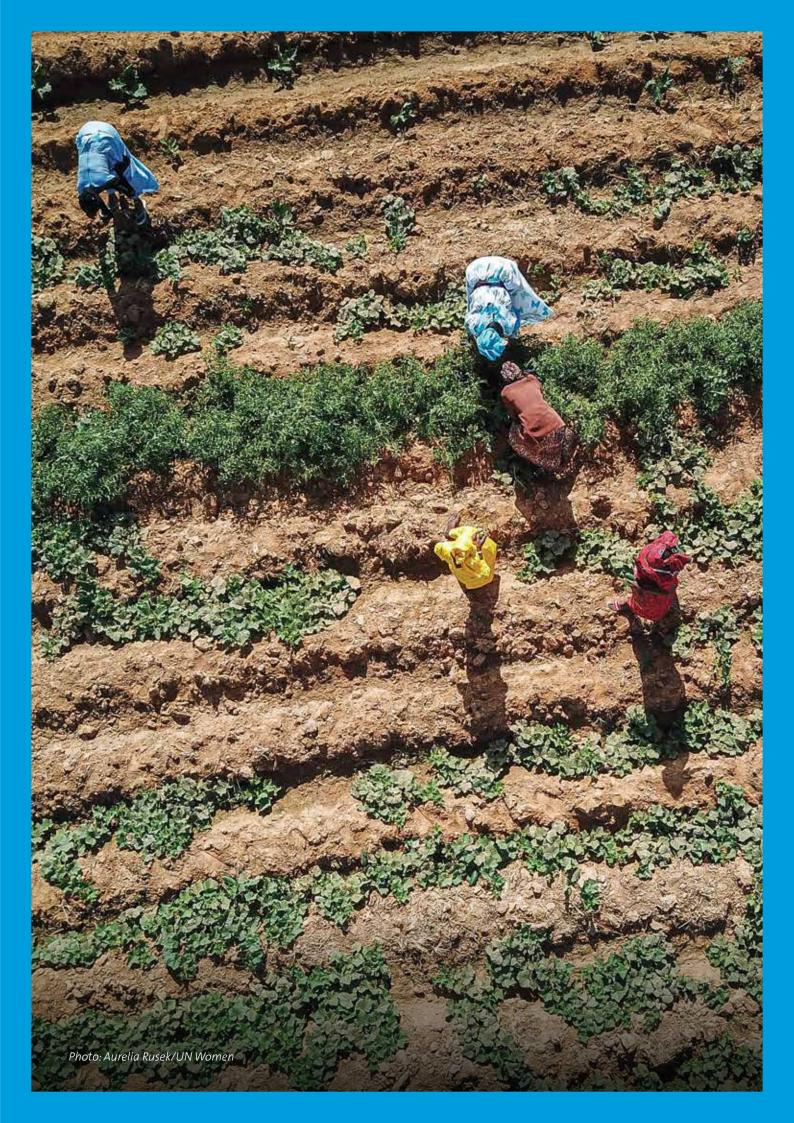
of Agriculture and Rural Development (MAER) to reduce gender inequalities in agricultural activities. The circular establishes quotas for women's access to technology (for instance, 20 per cent of subsidized fertilizers; 10 per cent of subsidized tractors, 40 per cent of funding and 20 per cent of agricultural research projects) and water (15 per cent for surface water and 20 per cent for groundwater allocation to women). In Nigeria, UN Women supported the review of the agricultural policy of two states, Niger and Ebonyi. As a result, in Ebonyi State, the revised policy guarantees women the same rights as men to access and own land, and make decisions in terms of acquisitions, use and disposal of land. The policy also promotes women farmer's access to state-developed irrigated land and post-harvest infrastructure, as well as credit and extension services. In Central African Republic (CAR), there is no land management legislation and women often farm on family plots and have no control over land utilization. In the event of a relationship separation, all production remains in the husband's hand. UN Women has advocated with customary leaders, administrative authorities and men to change customs that regulate access to land. As part of the programme in CAR, traditional leaders and local authorities have allocated over 500 hectares of land for women farm associations in 2 prefectures.

In parallel to improving legislation, UN Women is contributing to **closing the gap between land law and practice in West and Central Africa** and enhancing women's understanding of their land, inheritance and marital property rights. As a result, almost 13,500 women have been allocated land in the context of the programme (4,424 women farmers in the shea and cassava value chains in Côte d'Ivoire, 1,250 women members of agricultural cooperatives in CAR and 7,662 women members of agricultural cooperatives in Mali).

An important part of this process is community engagement to improve land governance systems so that more equitable allocations last over time through gender-responsive land practices. Fourteen communities in Senegal, CAR and Mali have implemented gender-responsive land governance processes (see Box 1). This was accompanied by advocacy and legal literacy activities on women's land rights targeting women farmers, traditional leaders and local authorities. In Senegal, Mali, CAR and Nigeria, more than 300 traditional leaders and local and national government officials, including members of land commissions, were trained in gender-responsive land governance. Since the programme started, more than 4,800 women have been reached through communications campaigns across the region on women's land rights, including community meetings, radio programmes and the distribution of flyers.

Gender-responsive land governance charters in Senegal, Mali and Central African Republic

The Women in Climate-Resilient Agriculture programme supported the development of Gender-Responsive Land Governance Charters in Senegal, Central African Republic and Mali. In close collaboration with local authorities, women and community leaders, the charters are a participatory land governance instrument by which communities identify problems and opportunities to access land and identify mechanisms to unlock bottlenecks and include them in a Land Action Plan. The charters address barriers that women face in securing access to land and introduce mediation processes, with women's participation, for the settlement of land disputes. Gender-responsive land charters have been developed in seven communes in Senegal and five communes in Mali, and two processes are ongoing in Central African Republic. Examples of some of the actions included in land action plans include: the exemption/reduction of demarcation fees for women; the introduction of quotas for women's representation in the municipal council land commission; and financing of market gardening areas to enable women farmers to farm throughout the year instead of farming only during the rainy season. Engagement with traditional leaders has been essential in the process. Following dialogue between women and traditional leaders on the problems and consequences of limited access to land, local leaders now insist that women participate in municipal council meetings discussing land rights redistribution as part of inheritance processes, in an effort to ensure that women's land rights are duly respected.



IMPROVING WOMEN'S ACCESS TO FINANCE

Women farmers' access to finance is critical for expanding their businesses and making investments in value chains that offer higher value opportunities and improve their economic independence. It is also key to improving women's agricultural productivity and investing in technologies that enhance their resilience to climate change.

In the past, women were unable to access finance because of their limited collateral and the low availability of financial products adapted to their needs. Under the programme, UN Women has played the role of intermediary between financial institutions and women's cooperatives to facilitate the development of financial solutions that work for women farmers. Since 2017, more than 3,700 women farmers have accessed finance for value chain investments as part of this programme.

- In **Mali**, a US\$300,000 guarantee fund was set up with the Development Bank of Mali (BDM) to finance women farmers and women-led agribusinesses. In addition, 19 women's groups accessed a credit line from the National Bank for Agriculture Development to cover production costs, and one of the cooperatives (Sébougou women's cooperative) obtained US\$130,000 for a 3-year investment.
- In **Nigeria**, more than 30 cooperatives supported by the programme in the Borno and Ebonyi states have been able to directly engage with financial institutions and secure facilitated access to financial services for their members.

- In CAR, the programme has developed a partnership AFPEC (Women's Association for the Promotion of Savings and Credit), a micro-credit institution that works in collaboration with the company Express Union. Through the partnership, the programme has created a US\$100,000 Guarantee Fund for women, and 1,250 women farmers were able to access this fund to engage in income-generating activities or to increase their productivity.
- In **Senegal**, through a partnership with BICIS, a commercial bank, a credit line of EUR 500,000 was approved in 2019 to support the transformation and marketing rice production activities of the Women's Rice Producers Network of the North (REFAN). Over some months, UN Women, BICIS and REFAN worked together to arrive at the right combination of financial offer and de-risking mechanisms that could meet REFAN needs and BICIS procedures. The loan has allowed REFAN to overhaul its transformation unit and get better conditions for acquiring inputs by buying in bulk. Investments in women's financial literacy and the provision of training and information on agricultural insurance and business development were also part of the programme.



"Previously, women depended on male family members who accessed finance and could potentially share a small amount with them. Now, thanks to the programme, women farmers are the ones to approach the bank to open a bank account and apply for a loan. It is also women who purchase their own inputs (seeds, fertilizers). All thanks to funding from UN Women, which covers all stages, from production to post-production."

Woman farmer, Senegal

"Women farmers in Senegal were afraid of borrowing from banks. As part of the programme, women now attend information sessions, familiarize themselves with credit procedures and access credit, once they decide to do so."

Woman farmer, Senegal

"UN Women provided us with a set of technologies and inputs for the cultivation of our gardens. For instance, we now have a solar system that reduces our manual efforts to secure water. I was also able to get a loan of 1,700,000 FCFA that allowed us to purchase quality seeds. The small income generated allowed me to cover my personal expenses, as well as those of my children."

Woman farmer, Mali

"The credit guarantee has been essential for us to access loans. In CAR, the land system is patriarchal: even if the wife contributed to the construction of the family home, the title will be in the husband's name. Therefore, she cannot have a land title to present as a mortgage. This support from UN Women has enabled us, as farmers, to access funding. It's unheard of here. Today, I have a source of income that allows me to provide for my family's daily needs so that I can secure my production."

Woman farmer, CAR

IMPROVING WOMEN'S ACCESS TO SKILLS AND TECHNOLOGY FOR CLIMATE RESILIENCE

The programme has supported women's cooperatives in shifting from traditional towards conservation agriculture through the systematic introduction of climate resilient agro-ecological techniques and the incorporation of renewable and energy-efficient technologies along the value chains. This is allowing them to better adapt and mitigate the impact of climate change, building communities' resilience.

- In **Mali**, more than 11,000 women were trained on soil restoration techniques, the introduction of potato and winter onion production, water management, the introduction of alternating crop systems, and the use of organic fertilizers and natural pesticides. A more efficient use of water has also been facilitated through market garden areas (the establishment of basins and the Californian system) and the rehabilitation of drainage systems (e.g. fountains, water towers, solar panels and well-deepening).
- In **Senegal**, 1,194 women adopted practices and technologies as a result of the training received, including developing and marketing climate-adapted rice seeds.
- In **Côte d'Ivoire**, the programme supported 1,927 women's access to knowledge on organic and resilient practices and technologies in the shea sector.
- In **Nigeria**, UN Women, in collaboration with partners, established 12 demonstration plots which were used to train 2,500 women smallholder rice farmers (from 12 women's cooperatives in Ebonyi state) on improved rice production technology using the FAO's Farmer Field School Approach. The improved production package included the use of high yielding, short-cycled seeds, along with motorized irrigation systems, mechanical land tillage, and improved crop management practices. The improved technology also saved labour by 37 per cent and required a lesser quantity of water (by at least 10 per cent) relative to the farmers' existing practices.
- In Niger, 690 women farmers have developed and adopted bio-pesticides based on local products such as pepper, tobacco, Marseille soap and water. The use of composting techniques is now common practice and 168 composting pits have been developed. In addition, 430 people have replicated the assisted regeneration technique in their crop fields.

"Previously, women did not take climate change into account and the ways in which it could impact their production. The UN Women programme indicated the need to adapt our existing cultivation methods and trained women farmers on the appropriate temperature for rice cultivation (a longer cycle, beyond the crop calendar)."

Woman farmer, Senegal

Women's production and distribution of climate-adapted seeds in Senegal and Nigeria

High-quality seeds constitute a prerequisite for high yields; yet, as climate patterns change in **Senegal**, the lack of quality seeds that are adapted to the new climatic conditions has been a major limiting factor in women farmers' productivity. Before the introduction of farmer field schools, women were unable to find quality seeds. Sometimes, they would use leftover seeds from men farmers. Under the programme, and in collaboration with FAO, 5 farmer fields schools using a total of 10 hectares enabled 588 women farmers to produce 40 tons of seeds adapted to climate change. As a result of using the new, improved seeds, women farmers no longer face delays in their production cycle. Women participants in the field schools can either use the improved seeds in their fields or sell them to other farmers, thus generating additional income and enhancing climate adaptation beyond their own crops.

In **Nigeria**, UN Women, in collaboration with FAO and the United Nations Industrial Development Organization (UNIDO), supported six women smallholder rice farmer cooperatives to establish seed multiplication plots, which also serve as technology demonstration and training sites. As a result of the initiative, all the cooperatives produced a total of 30 metric tons of high-yielding short-cycled rice seeds at the end of the 2020 cropping season. The improved seeds harvested will be distributed to individual members of the respective cooperatives to use as planting materials for the 2021 season.

The programme is contributing to enable the transition towards sustainable energy in the agricultural sector in the region by empowering women and making them active beneficiaries, enablers and promoters of sustainable energy. Many countries in West and Central Africa are immersed in a transition towards more efficient agricultural production systems and value chains, which will necessarily come with increased energy needs and, consequently, an increased carbon footprint of the sector. Integration of resources and energy efficient (EE) and renewable energy (RE) technologies into the agricultural value chain could make a significant contribution to agricultural productivity, and strengthen female farmers' resilience, while at the same time reducing the carbon

footprint of the rice value chain thus setting the agricultural sector along a low-carbon and climate-resilient pathway. UN Women's programme is supporting such a transition by facilitating women's access to knowledge, technologies and financing, for the adoption of sustainable energy. In Mali, for example, women have introduced 11 new energy-efficient technologies to their value chains, from solar-powered irrigation systems to processing machines for onions, fonio and fish. In Senegal, women have introduced solar water pumps, solar streetlamps and renewable energies to power their rice transformation units, and actions are underway to develop a financing mechanism to dramatically reduce the reliance of the rice value chain on fossil fuels (see the box below).

"My house is not connected to the grid and I had to look for wood or charcoal. Since UN Women installed the lamps, I no longer search for fuelwood and I can watch my children playing from afar with a sense of security."

Woman farmer, Senegal



Reducing the carbon footprint of rice cultivation in Senegal

The Senegalese agricultural sector, relying largely on human and animal energy, is gradually transforming with higher levels of mechanization and energy inputs and consequently higher greenhouse gas (GHG) emissions. UNEP analysis of the energy and climate profile of the rice value chain in the Senegal River Valley, where the Women in Climate-Resilient Agriculture Value Chain programme operates, shows that electricity consumption represents up to 60 per cent of the total direct energy inputs for farms relying on central electrical irrigation systems, and diesel oil accounts for over 95 per cent of the total energy needs, for the rest. Energy intensity (EI) of rice production in Senegal is still low compared to other countries (e.g. 9 to 12 gigajoules/hectare (GJ/ha) for Senegal compared to 39 to 64 GJ/ha in Japan). However, this indicates significant potential to increase mechanization and productivity in the coming years which will come at a high 'climate' cost and increase in GHG emissions in the agricultural sector. In this context, introduction of renewable energy and energy efficiency options at a strategic time in the development of the sector could significantly reduce diesel and electricity use and GHG emissions.

UN Women works with REFAN, the Network of Female Rice Producers of the North in the context of its Climate-Resilient Agriculture Value Chains Programme. The Network, comprised of 25,000 members, is a critical agent in the rice value chain in Senegal. Facilitating REFAN's access to information, knowledge and finance for the adoption of sustainable energy options, can have a large effect on the rice value chain, a strategic sector for food security in Senegal, as well as have an important demonstration effect for other value chains. Realizing this potential, UN Women, together with UNEP, and the Government of Senegal (through the Ministry of Environment, Agriculture and the Department of Rapid Entrepreneurship) are supporting REFAN in improving skills and governance as well as accessing private finance, in collaboration with the Green Climate Fund, to 'green' the rice value chain and reduce reliance on fossil fuels.



Photo: Yulia Panevina/UN Women

EXPANDING MARKETS FOR WOMEN'S AGRICULTURAL PRODUCTS

Access to markets is a critical step of agricultural value chains to transform investment into income and well-being for women.

The programme has supported women in the process of value addition through training in transformation, standards and marketing, as well as branding and packaging. The training and technical support has led to the development of new, higher margin products across all value chains. In **Liberia**, women farmers have developed cassava flour, farina and pasta. In **Senegal**, women farmers have developed fortified rice, soap and instant flour. In **DRC**, 110 women's cooperatives and women-led agri-MSMEs have produced a number of new cassava-based products such as soap, bread,

waffles, donuts, flour, pasta and biscuits. **In Mali**, 8 women's cooperatives and 12 women's agri-MSMEs have developed a number of new products such as rice noodles, corn and fonio spaghetti, puffed rice, infant flours, fonio cookies, corn cookies, brioches and bread, which has allowed them to increase their product value between 3 and 10 times. In **Côte d'Ivoire and Nigeria**, women have developed a number of cosmetic products from the transformation of shea nuts (see box below), incorporating new shea butter processing and standards for both local and international markets.

Women's access to markets in the shea butter value chain in Nigeria

More than 300 women have been trained in agricultural transformation, quality standards and marketing, and more than 180 new shea products have been developed. The next step is bio-certification to access export markets.



20 established women-led SMEs supported and

100 new products developed

Examples of products:

- Natural protective shea butter hair pomade
- Formula shea butter anti-dandruff shampoo
- Shea butter and moringa healing body lotion
- Shea butter skin-soothing face and body cream
- Shea butter thick and creamy shower castile soap gel

20 early stage women-led SMEs supported and new products developed



Examples of products:

- Shea olein hair growth oil
- Velvet moisture body butter cream
- Shea butter massage candles



women cooperatives supported and

7 new products developed

Examples of products:

- Insect-repellent shea butter and eucalyptus soap
- Anti-ageing shea butter and carotene
- Radiant skin shea butter and ginger soap
- Antiseptic shea butter and eucalyptus and neem soap
- Firming-up shea butter and mint and lime soap

Women farmers can now access new domestic markets and more than 2,500 women farmers can access higher value markets through exports as a result of trainings in organic standards and access to the relevant certification schemes. In Mali and DRC, a total of 465 women cooperative members and women-led agribusinesses were trained on food quality traceability and food safety, international packaging standards, disinfection, food safety and food preservation techniques. In Côte d'Ivoire, 1,927 women shea butter producers obtained the **ECOCERT organic certification** and are now able to access the European Union and US markets by meeting this requirement, increasing the price from EUR 1.50 to EUR 3.95 per kilo. About 300 contracts have been signed between women farmers and (some

major) wholesale buyers in Mali and Senegal, and in the context of the Government of Senegal response to COVID-19 in 2020, women-led agricultural cooperatives, members of the Climate-Resilient Agriculture programme, accessed an affirmative procurement agreement with the government to supply cereals for food transfers to vulnerable households. In Nigeria, 40 women entrepreneurs (20 early stage and 20 advanced stage entrepreneurs) were trained and are currently in the process of obtaining certification to access international markets for their products. In **CAR**, the programme is facilitating market links by connecting women producers with large agri-business companies. Discussions are underway with New HUSSACA, a producer of soap and oils, to place women-produced maize.

"Initially, I sold my products in simple packaging but, after the training, UN Women supported me to rebrand my label with colourful design. The new packaging included a list of nutritional facts. Since then, there has been a 25 per cent increase in sales in the past month because my product is now displayed in big stores."

Woman farmer, Mali



Photo: UN Women

Access to markets through the digital platform Buy from Women in Mali

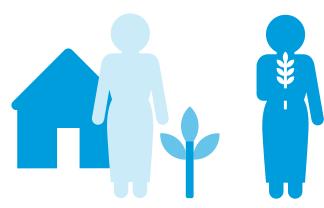
The *Buy from* Women platform is a digital platform, developed both as a web portal and a mobile phone application, that facilitates women's access to markets, key information and learning material, digital technologies and digital financial services. The platform also facilitates the management of women's businesses and assets, thus providing a one-stop shop, supporting women smallholder farmers throughout the business cycle. Currently, 1,335 women farmers from 24 women's cooperatives are registered and actively use the platform in **Mali**. In 2020, as part of the response to the COVID-19 pandemic, the platform was expanded to non-agricultural commodities. The platform is under development in **Liberia**, **Senegal**, **Côte d'Ivoire** and **DRC**.

"This is the first time that we, women, use smartphones for agricultural purposes and do market research on the internet to identify where we can sell our products. This is a way for us to use ICT [information and communications technology] to trade our agricultural products and to better communicate our activities."

Woman farmer, Mali

Improving women's access to niche markets: shea butter

Shea butter provides employment and income to more than 3 million women in **West Africa** and generates between US\$90 and US\$200 million per year in sales. Shea butter has large markets in Europe, the United States and Asia. About 45 per cent of African production is exported, primarily to the European Union. In order for women to access this high-value-added market, investing in transformation and upgrading quality standards along the value chain is essential. Bio-certification is also essential as the final requirement to export shea products and access the most profitable market segments. Institutional support to create federations and aggregators in this female-dominated sector is also key. In **Nigeria**, UN Women has supported more than 300 women from cooperatives and small and medium-sized enterprises (SMEs) working in the shea butter value chain in the development of more than 100 products. **In Côte d'Ivoire**, through the programme, 1,900 women shea butter producers have obtained the ECOCERT organic certification, and as a result, are now able to access the EU and US markets by meeting this requirement, increasing the price from EUR 1.50 to EUR 3.95 per kilogram. The programme has also supported the creation of the National Federation of Shea.



IMPROVED PRODUCTIVITY AND INCOME

The application of new, climate-smart agricultural knowledge and skills, the introduction of new technologies and the focus on product development and value addition, as well as access to new markets, have helped women farmers increase their productivity, sales and income.

- In **Senegal**, more than 1,000 women farmers were able to diversify their income and think of themselves as better off, as a result of the programme. Following the application of new production techniques and technology, women's productivity has increased by 2 to 3 tons/ha or between 25 and 35 per cent. Before the programme, women farmers in some communities would produce on average of between 4.5 to 5 tons/ha of rice during the winter season, partly due to poor knowledge of climate change impacts. Now, they produce 7 to 8 tons/ha.
- In Mali, the improved productivity of horticultural products (onion, potatoes and shallots) has motivated women farmers to increase and diversify their production, thus applying what they had learned

from the trainings in order to enter new agricultural value chains.

- In **Liberia**, women farmers saw a 36 per cent increase in the sale of cassava flour and a 42 per cent increase in farina sales, as a result of the transformation and value addition training provided by the programme.
- In **Nigeria**, the programme introduced new varieties of rice and trained women farmers on improved rice post-harvest processing skills involving the use of improved rice parboiling technology. This increased yields by 38 per cent, increased the milling recovery rate of rice by 20 to 30 per cent, improved the grain quality, and enabled the beneficiaries to derive a higher market price (by 10 to 15 per cent) per unit of the grain sold to consumers in the local market.

"Thanks to the programme, I had two onion harvests in one season. The first harvest was 445 kilograms of onions which was sold at 350 FCFA [Central African francs]/kg. The second harvest will be stored so that it can be sold at a later stage. This is extraordinary: I have been producing onions for more than seven years and this is the first time I had two harvests in one season."

Woman farmer, Mali

"Before the technical support, I did not earn more than 50,000 FCFA in profit from the sales of my onion production. Now, thanks to the programme's support for innovative inputs and technologies, as well as training, I earned an average of 150,000 FCFA in profit per year, for the past two years."

Woman farmer, Mali

Skills training for GBV survivors in cassava-based products in DRC

UN Women, in partnership with the University of Kinshasa and the Congolese Network of Innovation Actors (RCAI), has established the Agrifed Centre (Agriculture, Women and Sustainable Development) in Kinshasa, DRC. The purpose of the Agrifed Centre is to train rural women on sustainable methods of cassava production and transformation. It also trains survivors of violence or vulnerable women on how to start a sustained, income-generating activity for their families. As part of the UN 16 days of activism against violence against women and girls in December 2020, 90 women farmers and agri-entrepreneurs were trained over 5 days at the Agrifed Centre on cassava production and processing. They were able to acquire new skills for soil selection, disease prevention, transformation techniques and the production of innovative and nutritious cassava-based products such as bread, spaghetti, donuts and cakes.



Photo: Aurelia Rusek/UN Women

STRONGER, MORE RESILIENT COMMUNITIES

In addition to improvements in climate resilience, the programme has also contributed to strengthening the institutional capacity of women's cooperatives in the region.

In **Côte d'Ivoire**, the programme has supported the creation of 19 rural women's groups which produce shea kernels and an economic interest group (GIE FIKACI), made up of 8 MSMEs and 7 cooperative societies, bringing together nearly 1,500 women in the sector across 9 regions. **In Mali**, 117 women's groups have been supported: 105 in horticultural production, 10 in shea production and 2 in rice production. **In Senegal**, the institutional strengthening of the Network of Rice Producers of the North (REFAN) included training on contract development and partnering with financial institutions to promote women's access to credit for 36 women members of the REFAN Executive Committee. In **Mali**, a tool was

created to help track land acquisitions by women in flooded and exposed areas through data collection. In **DRC**, the programme supported the creation of the National Network of Rural Women's Associations (RENAFER), which brings together 4,700 women's associations in the agricultural sector in 15 provinces. In **Nigeria**, UN Women and its partners facilitated the creation and registration of women farmers' cooperatives in three states. A total of 49 cooperatives, with an average of 250 members each, were registered in the Borno, Ebonyi and Niger states. As part of the programme, UN Women also provided training to cooperatives on financial literacy, cooperative principles, governance, management and marketing.

"We had a lot of difficulties in marketing rice: sales, and packaging in particular. UN Women has supported us in establishing financial and technical partnerships across the country, who trusted us and wanted to collaborate with us ... REFAN has 16,000 women. This is a large number of women farmers and we are not easy to manage. But UN women has strengthened our management and organizational capacities."

President of REFAN, Senegal

"During the training, women farmers had the chance to develop their business idea with UN Women support. Women farmers were used to operating informally and needed more support in terms of organizing their business. They understood that it was necessary to organize themselves, to properly plan their business activities and, most importantly, do the financial planning for all their activities."

Officer of the Regional Agriculture Agency, Senegal

Enhanced resilience in times of crisis: Women as part of the solution in the COVID-19 response

Partly as a result of this enhanced organizational capacity and previous training in agricultural transformation in the context of the programme, many women cooperatives were able to apply their skills to new products and 'reinvent' themselves as part of the solution during the COVID-19 response. Overall, more than 7,000 women throughout the region were trained or retrained online and through video tutorials on how to produce hydroalcoholic gel and antiseptic soap between April and July 2020. Organizations such as REFAN (Women Rice Producers of the North) in Senegal were also able to enter into large public contracts to supply cereals for food transfer programmes during the crisis response. While the impact of the crisis on women farmers in the region was large, the technical, marketing and organizational skills acquired during the programme helped women cushion the impact to some extent and allowed them to bounce back faster, contributing to the resilience of their communities.

Leaving no one behind: diversifying economic opportunities for women and youth in rural areas contributes to stronger, more resilient communities. The programme operates in fragile areas in many of the countries. Supporting and diversifying livelihoods of groups of women which are particularly vulnerable is also strengthening the resilience of communities. In DRC, UN Women has targeted internally displaced women as well as survivors of gender-based violence in transformation and value addition activities (see box above). In Niger, the programme has targeted not only women farmers but also young males in the region of Zinder, one

of the regions most harmed by environmental degradation and out-migration. The programme has facilitated access to inputs, training and technology to support women's transformation and marketing activities to enable them to move up the value chain ladder. It has created service centres in four communes, establishing the necessary infrastructure for food processing, agricultural transformation and marketing activities. By supporting women and youth participation in agricultural value chains, and creating economic opportunities in rural areas, the programme is also contributing to slowing down out-migration in fragile regions.

"Thanks to the programme, I created my own plot of 300 metres. As a result, my two children decided not to migrate and, instead, stay to work alongside me."

Woman farmer, Niger



Photo: Aurelia Rusek/UN Women

CONCLUSIONS AND WAYS FORWARD

"Last year, I had a very difficult time. I fell seriously ill for three months because of the physical work I was doing in order to be able to water my beds of vegetable crops. I could neither do the household chores nor run my small business, which allowed me to cover the needs of my family members. This year, the physical effort required is much less, thanks to the solar water system provided by UN Women. Also, thanks to the training and the security system that UN Women has installed in our garden, I sold 179 kilograms of shallots at a rate of FCFA 200 per kg (USD 0.40), which is an income of FCFA 35,800 (US\$67) during my first harvest. On the boards that I have left, I foresee around 300 kilograms of shallots and a good potato harvest."

Woman farmer, Mali

This note has shown some of the ways in which UN Women and its partners are supporting women's participation in climate-resilient rural value chains in West and Central Africa. While, as a result of the programme, formalization and transition to agri-business is underway for some women, particularly those working in niche markets such as organic shea production for export, the majority of women still work in small cooperatives and continue to need sustained support to make the transition to more profitable, formal jobs as agri-entrepreneurs.

The evidence emerging from the programme, after four years of implementation shows a positive impact on women's lives and empowerment. The women interviewed acknowledge being better off and having the means (through new skills and supporting structures such as cooperatives) to derive a sustainable income from agriculture. The programme support in facilitating access to finance and markets has been essential in securing a path towards financial autonomy, which is underway for many women. This is expected to have multiplying effects in many aspects of their lives, from household bargaining power to prevention of gender-based violence, as well

as other positive spillover effects for their families and communities.

The evidence also points to the programme's contribution towards building stronger, more resilient communities. In addition to improving environmental resilience and communities' ability to manage the effects of climate change, stronger associations and cooperatives are an important outcome following continued investment in institutional strengthening over the last four years. As a result of the programme, there are more women cooperatives, economic interest groups and SMEs, and most important, they are more capable in responding to crises and/or supporting their members in different aspects of their day-to-day economic activities. Women's groups have been the first to respond to the COVID-19 pandemic, and they have been able to bounce back faster, partly as a result of the skills already acquired and the organizational structures in place as a result of the programme. Cooperatives have indeed played a critical role in the process of articulating interventions to support women's economic empowerment, a major lesson after four years of implementation.

Overall, the review concludes that it is essential to continue investing in women's economic empowerment and resilience building in the face of the changing climate in the region. This is even more important in the wake of the COVID-19 pandemic, where resilience building on all fronts has become critical. UN Women, together with the coalition of actors and partners behind the flagship programme, Women in Climate-Resilient Agriculture Value Chains, will continue to look into strategies to scale up results and expand activities to other countries and value chains within countries where the programme is already working. Work is, for example, already underway to allow women to scale up impact significantly through access to green climate finance in Senegal.

In this process, the programme will continue building on good practices and innovative approaches such as working alongside men and traditional leaders to change systems and social norms at the root of women's economic discrimination, and promoting policy change in pivotal areas for women's participation in the economy. The programme will also incorporate new strategies to strengthen impact in key areas for women's empowerment by reducing vulnerability and improving autonomy and agency. Work is already underway in Liberia, Mali and Senegal to pilot social protection mechanisms adapted to women farmers in the form of digital micro-insurance. A stronger integration of women farmers' reproductive needs and solutions to recognize, reduce and redistribute women's **unpaid care** burden along agricultural value chains is also an important area to continue developing in the future.



Photo: Aurelia Rusek/UN Women

UN WOMEN IS THE UN ORGANIZATION DEDICATED TO GENDER EQUALITY AND THE EMPOWERMENT OF WOMEN. A GLOBAL CHAMPION FOR WOMEN AND GIRLS, UN WOMEN WAS ESTABLISHED TO ACCELERATE PROGRESS ON MEETING THEIR NEEDS WORLDWIDE.

UN Women supports UN Member States as they set global standards for achieving gender equality, and works with governments and civil society to design laws, policies, programmes and services needed to ensure that the standards are effectively implemented and truly benefit women and girls worldwide. It works globally to make the vision of the Sustainable Development Goals a reality for women and girls and stands behind women's equal participation in all aspects of life, focusing on four strategic priorities: Women lead, participate in and benefit equally from governance systems; Women have income security, decent work and economic autonomy; All women and girls live a life free from all forms of violence; Women and girls contribute to and have greater influence in building sustainable peace and resilience, and benefit equally from the prevention of natural disasters and conflicts and humanitarian action. UN Women also coordinates and promotes the UN system's work in advancing gender equality.



Elena Ruiz Abril Regional Policy Advisor, Women's Economic Empowerment West and Central Africa Regional Office Immeuble 3 SCI6 Diama-Ngor Virage B.P. 154 – Dakar, Senegal Tel: +221 338699942 Mob: +221 767407660 Email: elena.ruizabril@unwomen.org

