Food and Agriculture Organization of the United Nations

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PROMOTING LIVELIHOODS RECOVERY AND RESILIENCE THROUGH YOUTH AND WOMEN-LED RESILIENT VALUE CHAIN DEVELOPMENT AND ENTREPRENEURSHIP IN SAINT VINCENT AND THE GRENADINES

June 2024

SDGs:

Countries:	Saint Vincent and the Grenadines
Project Code:	TCP/STV/3803
FAO Contribution:	USD 160 000
Duration:	1 April 2022–30 November 2023
Contact Info:	FAO Representation in Saint Vincent and the Grenadines FAO-VC@fao.org

Implementing Partners

Ministry of Agriculture, Forestry, Fisheries,
Rural Transformation, Industry and Labour.

Beneficiaries

Farmers and local communities in critical areas (red and orange zones) affected by the La Soufrière volcano in Saint Vincent and the Grenadines, with a particular focus on young and women farmers.

Country Programming Framework (CPF) Outputs

United Nations Multi-Country Sustainable Development Cooperation Framework (UNMSDF).

Priority 1: Sustainable and inclusive food systems and agricultural value chains.

Outcome 1.1: Caribbean countries manage natural resources and ecosystems, strengthening resilience and enhancing the prosperity of the people and communities that depend on them (MSDCF, Outcome 6).

Output 1.1.1: Governmental institutions are resourced with digital tools and implement/ manage resilient tech innovations (including renewable energy) to improve water efficiency and land use planning.

Output 1.1.2: Government institutions are strengthened for better collection, analysis and management of fisheries data and info systems; implement marine resource conservation and management measures; and effectively participating in regional and global fisheries bodies (including IUU fishing).

Priority 2: Resilience to climate and economic shocks, sustainable natural resources management and disaster risk management.

Outcome 2.1: More productive and competitive business ecosystems designed to improve people's standards of living (Multi-Country Sustainable Development Cooperation Framework Outcome 1).

Output 2.1.1: The Ministry of Agriculture has strengthened (nutrition-sensitive, climate-resilient and gender-responsive) policies and mechanisms supporting youth agri-business development, improve priority value chain performance and contribute to COVID-19 livelihood recovery.

Output 2.1.2: Extension officers, financial/credit agents, farmers and fisherfolk have improved skills on innovative technologies, business management and basic market standards.


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BACKGROUND

On 9 April 2021, the La Soufrière volcano in Saint Vincent and the Grenadines erupted with several explosions over a period of several weeks, affecting most of the island's population. Farmers and local communities in the critical areas (red and orange zones) were severely affected by the heavy ash fall and pyroclastic flows, particularly in the areas closest to the volcano in the northern part of the island.

In addition to major losses of tools and productive assets, reports showed extensive environmental damage and losses in critical areas, where forests and farms were wiped out, along with the destruction of large areas of staple crops such as vegetables, bananas and plantains. In addition, the eruptions were followed by heavy rains that caused flooding and lahar flows in various parts of the country. As a result, the livelihoods of vulnerable populations dependent on agriculture, livestock, fisheries and forestry were affected. The heavy deposits of volcanic ash throughout the country highlighted the need for soil and ash analysis to determine changes in nutrient composition, organic matter content, macro and micro fauna and pathogen profile, and to assess agro-edaphic and climatic suitability for existing and alternative crops.

In response to the recovery and rehabilitation needs, the government prepared a priority list of immediate, medium and long-term responses. Within the priority list, two areas were identified: i) soil analysis, to determine soil rehabilitation, management requirements and value chain suitability determination by agroecological zone; ii) building a cadre of new entrepreneurs in the agricultural sector, including youth and women, and developing resilient value chains.

In this context, this TCP aimed to facilitate the recovery of livelihoods and increase the resilience of food systems through the involvement of youth and women in the development of resilient value chains and entrepreneurship, by strengthening the capacity of the Ministry of Agriculture to conduct soil analysis and developing a programme to support new agricultural entrepreneurs.

IMPACT

The project provided significant support to the Ministry of Agriculture in the application of soil analysis and the development of crop recommendation methodologies. It also strengthened capacity building to develop a programme for new agricultural entrepreneurs. Beneficiaries of this project improved their livelihoods by engaging in resilient value chain development and entrepreneurship plans to embark on a path towards improved food and nutrition security and self-reliance.

Achievement of results

The project made a significant contribution to improving livelihoods and increasing the resilience of food systems through a workplan that was directly aligned with the needs of the Government of Saint Vincent and the Grenadines in response to the volcanic eruptions and their impact on the agricultural sector. By addressing the urgent need for comprehensive agricultural data and prioritising recovery efforts, the project ensured relevance and responsiveness to national priorities.

The project was supported by experts from the Faculty of Food and Agriculture (FFA) at the University of the West Indies (UWI) St Augustine, who effectively analysed 120 soil samples across Saint Vincent and the Grenadines. They developed a soil sampling methodology that was shared with the Ministry of Agriculture and conducted a workshop to discuss the sampling results and further develop comprehensive evidence for soil fertility recommendations, soil property and crop suitability maps, soil property distribution, crop suitability and the commodity value chain linked to agroecological zones.

In addition, the UWI team played a key role in training 100 youth farmers in climate-smart agriculture (CSA) techniques specifically tailored for dryland farming. This initiative aimed to equip participants with the necessary skills and knowledge to improve agricultural practices in the face of climate challenges, contributing to sustainable practices and promoting resilience among local farmers. The training focused on specific CSA and disaster risk management activities and practices, including climate-smart dryland agriculture, water conservation, harvesting methods and optimised cropping systems. Participants actively engaged in identifying innovative tools and technologies to complement these practices, enriching the discussions with diverse perspectives and experiences.

One of the key outcomes of the project was the strengthening of the Ministry of Agriculture's capacity to conduct soil analysis. A technical report focusing on soil fertility recommendations, maps of soil properties and crop suitability and commodity value chains was developed with the aim of building the necessary expertise within the Ministry of Agriculture to continue applying the soil analysis and crop recommendations methodology.

Implementation of work plan and budget

The project took the necessary measures to address the challenges identified at each stage and adjusted the work plan accordingly. While the overall success is noteworthy, and most activities were carried out on time according to the work plan, some obstacles were encountered during the project, including logistical challenges in sample collection and delays in data processing.

Follow-up for government attention

The project emphasized that one of the government's priorities was the need for agricultural resilience and sustainability in Saint Vincent and the Grenadines through soil analysis and training in CSA techniques, which would ultimately improve soil fertility and crop productivity. Collaboration between academic institutions and government agencies was instrumental in achieving these outcomes.

While the project achieved its overall objective, there is still work to be done to fully achieve the longer-term impacts expected. Continued collaboration and concerted efforts between FAO, the Government of Saint Vincent and the Grenadines and relevant stakeholders, will be essential to ensure successful completion and the achievement of restored livelihoods, resilient food systems and well-established new agricultural entrepreneurs.

Sustainability

1. Capacity development

The project successfully developed training to improve beneficiaries' food security and nutrition, and to reduce the impact of climate change and environmental disasters on their farms. The project's activities aimed to increase the resilience and sustainability of agriculture in Saint Vincent and the Grenadines through soil analysis and training in CSA techniques, providing 100 young farmers with valuable skills to adapt their activities to climate challenges. The project successfully carried out comprehensive soil analysis and mapping, providing valuable insights into soil fertility and crop suitability. Collaboration between academic institutions and government agencies was instrumental in achieving these results.

2. Gender equality

Statistics showed that approximately 43 percent of farmers in Saint Vincent and the Grenadines are women. In this context, gender equality was a specific action to be addressed by the project and was mainstreamed in all activities undertaken during its implementation, with the main objective of promoting livelihood recovery and resilience through youth and women-led resilient value chain development and entrepreneurship.

3. Environmental sustainability

The project's focus on climate-smart agriculture techniques, and its emphasis on building resilience in the context of climate change, was directly aligned with SDG 13. By training young farmers in CSA techniques, best agricultural practices and risk management, the project promoted sustainable agricultural practices that mitigate the impacts of climate change and build resilience to climate-related shocks and disasters.

The project's soil analysis and mapping activities contributed to the sustainable management of land resources, promoting soil health and biodiversity conservation. By providing insight into crop suitability and agroecological zones, the project supported responsible land use practices that enhance ecosystem health and protect terrestrial habitats.

4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project contributed to human rights by promoting the participation of men and women without discrimination, respecting human dignity, and supporting the most affected and vulnerable people in food and agricultural production.

By analysing soil samples and providing comprehensive information on soil fertility, crop suitability and commodity value chains, the project contributed to improving agricultural productivity and food security. In addition, training in CSA techniques equipped local farmers with the skills needed to adapt to climate challenges, ultimately supporting efforts to eradicate hunger and ensure food security.

5. Technological sustainability

Trainings developed during the project implementation introduced participants to CSA and disaster risk management, covering a subset of identified priority CSA activities and practices, such as climate-smart dryland farming, water conservation, harvesting and cropping systems. The trainings included interactive sessions and breakout groups that facilitated the identification of CSA practices and innovative complementary tools and technologies that could be piloted or implemented as part of a climate-smart dryland agriculture model. The results of the training were used to inform the design of in-depth field-level training and the implementation process of climate-smart dryland farming models.

6. Economic sustainability

The implementation of the project will directly help farming and rural communities to improve their livelihoods and food security by increasing their food supply through the adoption of agricultural practices that improve soil fertility and increase the growth and productivity of key crops such as bananas, plantains, root crops, vegetables and fruit trees.

ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	**Livelihoods are recovered and resilience of food systems is increased through the involvement of youth and women in resilient value chain development and entrepreneurship (SDG 1 and 2)**	
Outcome	The Ministry of Agriculture continues to apply the soil analysis crop recommendations methodology, as well as the capacity building program for new agricultural entrepreneurs, after project end	
	Indicator	- Percentage of cultivated areas in red and orange zones that apply the soil analysis and crop recommendation, in 2023. - Number of young and/or female entrepreneurs who are trained by the ministry and other stakeholders in 2023, 1 year after project end. - New value chain businesses supported by the project that are still active by the end of 2023.
	Baseline	- 0 - 0 - 0
	End Target	- 40 percent - 100 - 15 out of 20
	Comments and follow-up action to be taken	The project was executed successfully, and the teams from UWI-FFA, effectively analysed 120 samples across Saint Vincent and the Grenadines. They first developed a methodology for soil sampling, which was then shared with the Ministry of Agriculture. In addition, a validation workshop was conducted on the sampling results to further develop comprehensive insights into soil fertility recommendations, soil property and crop suitability maps, soil property distribution, crop suitability and the commodity value chain linked to agroecological zones. In addition, the UWI team played a key role in training 100 youth farmers on CSA techniques specifically tailored for dryland farming. This initiative aimed to equip participants with the necessary skills and knowledge to improve agricultural practices in the face of climate challenges. The successful implementation of these activities has far-reaching implications for agriculture in the region, contributing to sustainable practices and promoting resilience among local farmers. The collaborative efforts of the FFA teams have not only advanced scientific methodologies but have also provided the local farming community with valuable insights and skills for the future.

Output 1	The capacity of the Ministry of Agriculture is increased to conduct soil analysis to determine soil rehabilitation and/or management requirements and commodity value chain suitability by agro-ecological zone (red, orange, yellow, green)		
	Indicators	Target	Achieved
	- Soil samples collected and tested from across the country. - Number of staff and officers of the ministry trained in the methodology. - Recommendations per zone on fertilizer regimes, crop mixes and soil management techniques made available.	- 150 - 40 - 2	Partially
Baseline	- 0 - 0 - 0		
Comments	**Achievements** The project has achieved a commendable level of success in strengthening the capacity of the Ministry of Agriculture. The successful completion of activities, including the collection and analysis of 120 soil samples, demonstrates a significant step forward in strengthening the ministry's capacity to conduct soil analysis. After developing the methodology, 120 samples were collected. Based on the University's analysis, these samples were deemed representative and statistically sufficient to reflect the entire country, thus no further samples needed to be collected and analysed. The production of a technical report focusing on soil fertility recommendations, soil property and crop suitability maps, and commodity value chains represents a solid achievement in building the necessary expertise within the ministry. While the overall success is notable, certain impediments were encountered during the project. These include logistical challenges in sample collection and data processing delays.		

<table>
<tr><td rowspan="4">Activity 1.1</td><td colspan="2">Development of soil sampling and analysis methodology</td></tr>
<tr><td>Achieved</td><td>Yes</td></tr>
<tr><td>Comments</td><td colspan="2">The activity was effectively completed with the invaluable assistance of UWI-FFA. A total of 120 undisturbed samples were carefully collected from various locations and subsequently processed for bulk density analysis using the core method. Cores were carefully collected from georeferenced locations using a core sampler, ensuring precision and accuracy in the data collection process.</td></tr>
<tr><td rowspan="4">Activity 1.2</td><td colspan="2">Transfer of the soil sampling and analysis methodology to the national counterpart</td></tr>
<tr><td>Achieved</td><td>Yes</td></tr>
<tr><td>Comments</td><td colspan="2">The methodology employed in the project was shared with the Ministry of Agriculture, and a training session was conducted to comprehensively review the collected data.</td></tr>
<tr><td rowspan="4">Activity 1.3</td><td colspan="2">Support to the ministry and other stakeholders in the preparation of a technical report</td></tr>
<tr><td>Achieved</td><td>Yes</td></tr>
<tr><td>Comments</td><td colspan="2">With the help of UWI-FFA, a technical report was meticulously prepared to provide a comprehensive insight into the various aspects. The report looked at soil fertility recommendations, soil property and crop suitability maps, soil property distribution, crop suitability and the commodity value chain, all of which are closely linked to agroecological zones. In particular, the report focused on key value chains for major crops in Saint Vincent and the Grenadines such as bananas, peanuts (groundnuts), arrowroot and root crops including dasheen, tannia and sweet potatoes.</td></tr>
<tr><td rowspan="3">Output 2</td><td colspan="2">The capacity of the Ministry of Agriculture is increased to build a cadre of new entrepreneurs in the agriculture sector including youth and women and development of resilient value chains</td></tr>
<tr><td>Indicators</td><td>Target</td><td>Achieved</td></tr>
<tr><td>- Number of ministry, NGO staff and development partners trained on entrepreneurship and resilient value chains.
- Number of entrepreneurs trained and provided with business start-up support through inputs and supplies.
- Best practices documented and disseminated.</td><td>- 60
- 20
- 1</td><td>Yes</td></tr>
<tr><td>Baseline</td><td colspan="2">- 0
- 0
- 0</td></tr>
<tr><td>Comments</td><td colspan="2">The ministry prioritised a transformative approach aimed at building the capacity of youth to transform agricultural production systems and food value chains, ensure alignment with the SDGs, and effectively address the challenges of climate change. This focus led to a reorientation of efforts towards CSA. During the training, special attention was given to specific CSA activities and practices, including climate - smart dryland agriculture, water conservation and harvesting methods and optimised cropping systems. Participants actively engaged in identifying innovative tools and technologies to complement these practices, enriching the discussions with diverse perspectives and experiences.
The results of this training provide invaluable insights for future endeavours. They will guide the design of in-depth field level trainings and inform the implementation process of climate - smart dryland agriculture models. Ultimately, these insights will play a critical role in promoting sustainable agricultural practices at the grassroots level.</td></tr>
<tr><td rowspan="4">Activity 2.1</td><td colspan="2">Support the ministry to conduct stakeholder identification/analysis and gender analysis on target beneficiaries</td></tr>
<tr><td>Achieved</td><td>Yes</td></tr>
<tr><td>Comments</td><td colspan="2">The support to the ministry included a structured approach to stakeholder identification and analysis and gender assessment of CSA initiatives. Consultative meetings aligned objectives, while workshops facilitated stakeholder analysis using tools, such as matrices and interviews. This training introduced participants to climate-smart agriculture and disaster risk management, covering a subset of identified priority CSA activities and practices, such as climate-smart dryland farming, water conservation, and harvesting and cropping systems (selection, rotation and suitability). It included interactive sessions and breakout groups that facilitated the identification of CSA practices and innovative complementary tools and technologies that could be piloted or implemented as part of a climate-smart dryland agriculture model. The outputs of the training were used to inform the design of in-depth field-level training and the implementation process of climate-smart dryland farming models. Comprehensive reports and guidelines were produced summarising the findings and strategies, with ongoing support, to ensure objectives alignments and effective implementation.</td></tr>
</table>

Activity 2.2	Support the ministry in the research and analysis needed to identify potential resilient value chains	
	Achieved	Yes
	Comments	The assessment of soil samples was crucial in identifying key value chains suitable for growth based on tested parameters. Training sessions with the University of the West Indies (UWI) focused on climate-smart agriculture and dryland techniques, specifically targeting these value chains to enhance resilience.
Activity 2.3	Support to the ministry in the trainings on entrepreneurship and resilient value chains	
	Achieved	Yes
	Comments	The training provided participants with insights into the principles and practices of CSA, including the identification of potential resilient value chains. Through interactive sessions and case studies, participants gained a deeper understanding of the research and analysis needed to identify these value chains.
Activity 2.4	Capacity building/mentoring of ministry, NGO staff and selected entrepreneurs on the development and implementation of resilient value chain business plans	
	Achieved	Partially
	Comments	The training activities built the capacity of ministry by providing practical guidance on the development and implementation of resilient value chain business plans. However, due to constraints and the restructuring of some of the output activities, the project was not able to extend this mentoring to NGOs and selected entrepreneurs as originally planned. Instead, the focus remained on strengthening capacity within the ministry, in line with the project's objectives. Despite this adjustment, the training sessions provided valuable insights and skills that can be applied across different departments within the ministry, contributing to a more robust understanding and implementation of resilient value chain strategies.
Activity 2.5	Hosting of entrepreneurship development clinics with financiers and other development assistance partners' staff	
	Achieved	No
	Comments	As the direction of the project activities was adjusted to focus on training for youth in agriculture and dryland farming, this activity was not undertaken.
Activity 2.6	Monitoring, evaluation and learning and documentation/ dissemination of best practices	
	Achieved	Yes
	Comments	Best practices were documented and shared with ministry staff and participants. The comprehensive soil sampling methodology was created and shared with the Ministry of Agriculture. This included a validation workshop to provide insights into soil fertility recommendations, crop suitability maps and commodity value chains linked to agroecological zones. Training material and notes on CSA were provided, and techniques tailored for dryland farming, focusing on water conservation, optimized cropping systems and innovative tools and technologies. The guidelines are being drafted to be facilitated in other Caribbean countries.

Partnerships and Outreach
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