

COUNTRY PROFILE



St. Vincent & The Grenadines

2017

Climate Change and Agriculture

Policies, strategies, and actions



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List of acronyms

ACDI-VOCA	Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance
ALBA Fund	Bolivarian Alliance for Latin America
AUSAID	Australian Aid
CARDI	Caribbean Agricultural Research & Development Institute
CARICOM	Caribbean Community
CCCCC	Caribbean Community Climate Change Centre
CCSAF	Caribbean Climate Smart Agriculture Forum
CDB	Caribbean Development Bank
CSA	Climate Smart Agriculture
EU	European Union
FAO	United Nations Food and Agriculture Organization
GCCA	Global Climate Change Alliance
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoC	Government of Cuba
GoV	Government of Venezuela
IDA	International Development Association (World Bank)
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IICA	Inter-American Institute for Cooperation on Agriculture
INDC	Intended Nationally Determined Contribution
IPCC	Inter-governmental Panel on Climate Change
J-CCCP	Japan Caribbean Climate Change Partnership
JICA	Japan International Cooperation Agency
KFW	German Development Bank
MAFFRIL	Ministry of Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour
MFEPDIT	Ministry of Finance, Economic Planning, Sustainable Development, and Information Technology
MHIHSLSP	Ministry of Housing, Informal Human Settlements, Lands, Surveys and Physical Planning
TTM	Taiwan Technical Mission
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UWI	University of West Indies
WHO	World Health Organization





Different varieties of lettuce.

Photo credit >> Ministry of Agriculture

>> Foreword

This document was produced as part of the activities of the Caribbean Climate Smart Agriculture Forum. The stocktaking initiative stemmed from a recognition of the importance of understanding context, and the need for coordination amongst existing efforts to reduce duplication and ensure the lessons learned help to improve the efficacy of future actions. Promoting articulation and coherence amongst the multiple public policy instruments guiding action on climate change is critical, especially in small countries.

Given the urgency of addressing climate change in agriculture, IICA and its partners established the Caribbean Climate Smart Agriculture Forum (CCSAF) in 2015 as a platform through which agricultural sector stakeholders, as well as other relevant actors, can coordinate and exchange experiences and knowledge. The Forum, which involves 13 English-speaking countries in the region, acts as a neutral space where all can share, learn, plan and promote policies, strategies and actions towards more productive, low emission, sustainable agricultural systems that are well adapted to the changing climate of the Caribbean.

To date, actors from the public and private sectors, civil society, farmers' groups and researchers, working in the agricultural and other related sectors (health, planning, environment, etc.) have gathered every two to three months since mid-2015 in IICA-organised fora to participate in regional webinars, followed by national discussions on priority topics related to climate change and agriculture. In addition, a series of training sessions, workshops and other activities, are organized through the Forum.

>> About this brief

This national baseline outlines the institutional framework for addressing climate change in St. Vincent and the Grenadines' agriculture sector. After a brief description of the agriculture sector and potential climate change impacts, this inventory summarizes the main public policy instruments existing at the national level that are relevant for addressing climate change in SVG's agricultural sector. In addition, it includes an inventory of the programmes or projects currently or recently executed by institutions and coordination mechanisms through which the agriculture-focused organizations interact with other sectors and stakeholders to promote a low carbon, climate resilient agriculture. Lessons learned and opportunities to develop climate smart agricultural interventions aligned with the country's identified priorities and targets are found at the end.

Developed using a participatory approach, the majority of the information presented was collected during a Forum workshop held in early April of 2016. A wide variety of stakeholders contributed their knowledge during the workshop (see Annex 1). The event was facilitated by IICA staff and the information was collected using a standardized questionnaire, followed by an open discussion facilitated by guiding questions. This effort was then complemented by additional inquiries and a final validation workshop held in late 2017.

The information is intended to provide a starting point for those looking to act or invest in addressing climate change in agriculture, as well as to help stakeholders identify areas in which greater coordination and collaboration can be achieved. The information presented may not be exhaustive, but it is intended to serve as a dynamic baseline that stakeholders can periodically update, adding information and insights based on the evolving experiences and context in country.



St. Vincent and the Grenadines' agricultural sector

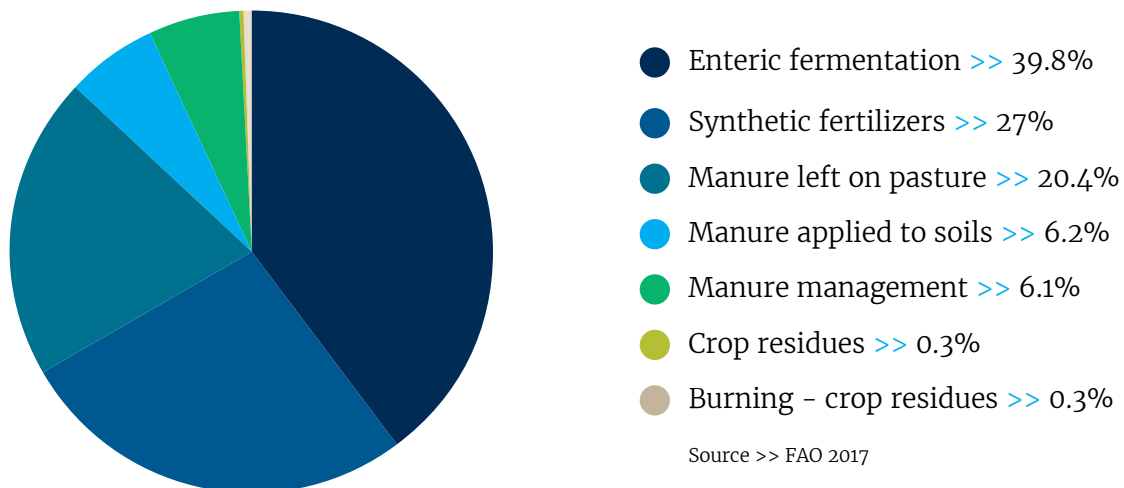


St. Vincent and the Grenadines (SVG) is a small multi-island state, highly vulnerable to adverse climate impacts (Gonsalves, 2017). Agriculture is a primary pillar in the economy, playing an important role as a foreign exchange earner and employer, especially in rural communities where primary agriculture remains the dominant economic activity. The importance of agriculture is reflected in its ~6.1% (Eastern Caribbean Central Bank 2017) average contribution to GDP over the last five years and the approximately ~11.4% of the employed labour force that is engaged in the sector (Statistical Office Ministry of Finance Government of St Vincent & the Grenadines 2017). Small-scale primary agriculture on farms between 0.2 to 2.0 hectares predominate as the main form of economic activity in the sector (Simpson et al. 2012).

Agriculture is heavily export driven, with an admix of several commodities produced for the regional and international markets. Important among these commodities are banana and root and tuber crops which dominate domestic, regional and extra-regional market activity (FAO 2017). Small ruminants and fisheries also make significant contributions (Simpson et al. 2012). The sector has, however, declined in overall importance to the economy due to the loss of preferential trading arrangements for bananas, entry of exotic diseases, and a series of damaging weather events over the last fifteen years, which have all impacted output (Simpson et al. 2012).

Regarding greenhouse gas emissions, in 2014 the agriculture sector emitted 13.5 kilotonnes of CO₂e contributing approximately 4.9% of SVG's total greenhouse gas emissions of 275 kilotonnes of CO₂e (World Resources Institute 2017). Information on emissions by sub-sector from 1990-2014 is presented below in Figure 1.

Figure 1 >> Average agricultural greenhouse gas emissions by subsector, 1990-2014



Source >> FAO 2017





Cabbage seedlings in a nursery.

Photo credit >> Ministry of Agriculture

Historically, St. Vincent and the Grenadines has been frequently affected by floods and storms especially since the turn of the century (The World Bank 2016). Over that period, there has also been at least one severe drought in 2009/2010 (National Emergency Management Office St. Vincent and the Grenadines 2016). These events have adversely affected the entire nation, including the agricultural sector, resulting in severe losses particularly impacting the most vulnerable segment, small farmers. The negative impacts of these events have convinced many Vincentians that: (1) climate change is occurring, and (2) we need to adapt. Knowledge, however, must be a precursor to action.



Potential climate change impacts



The Caribbean region, with its many small-island developing states, is identified as one of the most vulnerable regions in the world to the adverse impacts of climate change (Nurse et al. 2014). Projections for the country show an increase in both atmospheric and sea surface temperatures, an overall decrease in precipitation, sea level rise, and the potential for tropical storms to be more intense (Simpson et al. 2012). These projections are concerning, particularly as extreme weather events have already resulted in extensive damage in the country; for instance, Hurricane Tomas in 2010 resulted in damages of XCD 35 million, mainly to banana and plantain production (Government of St. Vincent and the Grenadines 2015). Irrigation infrastructure, feeder roads, and farms, are repeatedly damaged or destroyed by floodwaters, siltation, and high winds caused by storms. This negatively impacts small farmers already constrained by limited resources (Simpson et al. 2012, FAO and Government of St. Vincent and the Grenadines 2015). The agriculture sector is highly vulnerable to both hurricanes and droughts, and changes in precipitation patterns as well as extended droughts would greatly affect the sector given its heavy reliance on rainfall for production (Simpson et al. 2012, John 2016). Other challenges including inappropriate land use and unsustainable agricultural practices such as mono-cropping have led to land degradation and soil erosion, increasing the sector’s vulnerability to climate change (Simpson et al. 2012, John 2016, Government of St. Vincent and the Grenadines 2015).

>> Climate change vulnerability and impact analyses for agriculture

Table 1 provides more information regarding climate change impacts on St. Vincent and the Grenadines’ agricultural sector.

Table 1 >> List of vulnerability and impact assessments for agriculture

Title	Lead organization	Year published
Smallholder Rural Producers and Climate Smart Agricultural Production and Marketing*	IICA and IFAD	2015
Vulnerability Assessment of the Agricultural Sector of St. Vincent and the Grenadines*	IICA	2014
Climate Change Risk Profile for St. Vincent and the Grenadines	CARIBSAVE	2012
The Economics of Climate Change in the Caribbean	ECLAC	2011
Quantification and Magnitude of Losses and Damages Resulting from the Impacts of Climate Change: Modelling the Transformational Impacts and Costs of Sea Level Rise in the Caribbean	CARIBSAVE, UNDP	2010
Pilot Vulnerability and Capacity Assessment Study Final Report St. Vincent and the Grenadines	Ministry of Health, Wellness & the Environment	2008

*Working documents that have not been formally published



How is St. Vincent and the Grenadines' agricultural sector responding to the climate change challenge?

The following section summarizes the information gathered during the national workshop, additional consultations and a final validation session held in late 2017. The information is structured in five main sections: planning instruments, programs and projects, institutions, coordination bodies and stakeholders.

>> Policies, strategies, and plans

>> International

SVG ratified the Paris Climate Agreement on June 29, 2016. It has also ratified the United Nations Convention to Combat Desertification (1998) and the Convention on Biological Diversity (1996).

>> Regional

The *Liliendaal Declaration on Climate Change* was proffered by the heads of State and Government of the Caribbean Community at the Thirtieth Meeting of the Conference in Liliendaal, Guyana in 2009. The declaration states that, "Adaptation and capacity building must be prioritized and a formal and well financed framework established within and outside of the Convention, including the multi-window insurance facility, to address the immediate and urgent, as well as long term, adaptation needs of vulnerable countries" (Liliendaal Declaration on Climate Change 2009: 2). This sets the overarching framework for CARICOM countries under which climate change response initiatives should be undertaken in the region. In addition, CARICOM's *Strategic Plan for the Caribbean Community 2015 – 2019: Repositioning CARICOM*, establishes the building of environmental resilience as a strategic priority of the community. Within this framework, one of the stated strategic initiatives for members to pursue is to advance climate adaptation and mitigation (CARICOM 2007).

The Caribbean Community Secretariat also, through its organ, the Caribbean Community Climate Change Centre, established a detailed framework for action in the region to build resilience. This document titled *Climate Change in the Caribbean: Regional Framework for Achieving Development Resilient to Climate Change*, together with its *implementation plan* sets out in Strategic Element 4 an intention to promote actions to reduce the vulnerability of natural and human systems in CARICOM countries to the impacts of a changing climate (CCCCC 2014).

>> Sub-regional

At the sub-regional level, the *Organisation of Eastern Caribbean States' Agriculture Plan of Action (APOA)*, has six stated priority areas for intervention, one of which is Climate Change Mitigation and Adaptation and Securing Water Resources for Sustainable Development. The objectives of this priority are to:



1. “Promote and support climate change mitigation and adaptation strategies including early warning systems, and mainstream in agriculture programmes to protect food production systems and build resilience against tropical storms, heavy rains and droughts in rural/farming communities;

2. Secure long term access to water for irrigation and value chain activities” (OECS, 2012: 61).

In addition to policy, legal and institutional interventions to strengthen strategies, legislation, incentives and coordination, there is also a specific intervention in the APOA for the reduction of vulnerability. Among the actions proposed are improving land management, implementing new and innovative technologies and methods for crop, livestock and fisheries production, promoting and supporting small irrigation systems, water harvesting and storage, and other water adaptation measures, training for farmers and farmer households, and others (OECS 2012).

>> National

St. Vincent and the Grenadines National Economic and Social Development Plan 2013–2025 is the main planning instrument at the national level¹. The plan contains five strategic goals with climate change considerations falling mainly within the rubric of [Goal #4: Improving Physical Infrastructure, Preserving the Environment and Building Resilience to Climate Change](#) (Government of St. Vincent and the Grenadines, 2013). The plan then elaborates sector specific objectives.

The relevant specific objectives for agriculture include:

Objective #2: to increase productivity, efficiency and competitiveness in the agricultural sector;

Objective #6: to strengthen risk reduction and risk mitigation measures; and

Objective # 7: to promote the sustainable use of land, forestry and marine resources.

Relevant sector specific objectives are also found under the rubric of environmental sustainability and solid waste management, including:

Objective #1: to conserve the natural resources of the country;

Objective #2: to effectively manage biological resources; and

Objective #3: to ensure a clean, safe and healthy environment.

The broad framework for climate change actions in the plan is further elaborated in the [Intended Nationally Determined Contribution \(INDC\)](#), which details the courses of action that the country intends to pursue in the post-2020 period to address climate change (Government of St. Vincent and the Grenadines 2015). The INDC presents a comprehensive plan to not only mitigate climate change by reducing GHG emissions from the islands of SVG, but also to take significant adaptation measures specifically in the agricultural sector. As agriculture is an integral part of many livelihoods in SVG, the country has already taken many steps towards adaptation and reduction of vulnerabilities. These are summarised in the Table 2.

>> 1. Note that links for all national level documents are in the table below.



Table 2 >> Summary of planning instruments and their relevance in supporting CSA

Public Policy Instrument	Time Period Covered	Specific goals that could be achieved through CSA interventions	Explicit mention of climate change targets (including adaptation (A), mitigation (M) or risk management (R))
St Vincent and the Grenadines National Economic and Social Development Plan	2013 -2025	<ul style="list-style-type: none"> >> Development of a proactive approach to climate change issues complementary to national economic policies and plans, land-use plans, and sustainable use of natural resources. >> Conservation of natural resources. >> Improvement of physical infrastructure, preservation of the environment and resilience to climate change. >> Incorporation of climate change planning in national disaster management. 	R – Strengthen the institutional systems that respond to natural disasters.
St. Vincent and the Grenadines Intended National Determined Contribution	2015 -2025	<ul style="list-style-type: none"> >> Reduction of emissions and GHG through reforestation, afforestation and reduced deforestation >> Minimize negative impacts of climate change on agriculture and human health >> Protection of livelihoods that are linked to tourism, agricultural, and fisheries >> Implementation of the PPCR 	<p>A-Increased resilience of SVG to extreme climatic events such as drought and hurricanes</p> <p>A-Enhancing the adaptive capacity of rural economies and natural resources to climate change through the management and protection of land based natural resources and agricultural production systems.</p>
Second National Communication on Climate Change, St Vincent and the Grenadines	2015	<ul style="list-style-type: none"> >> Close knowledge gaps, build up lagging technical capacity, and strengthen institutional ability to facilitate climate resilience measures. >> Implement programmes of reforestation and agro-forestry >> Implement programmes for the reduction of deforestation 	<p>M – Reduction in GHG emissions of 22% compared to its business as usual (BAU) scenario by 2025.</p> <p>M- Develop GHG sinks through reforestation, afforestation, reduced deforestation and reduced forest degradation.</p>
Agriculture Disaster Risk Management Plan [not yet formally launched]	2016 -2026	<ul style="list-style-type: none"> >> Improving understanding of disaster and climatic risks in the agriculture, forestry and fisheries sectors. >> Strengthening the governance structures to enable disaster risk reduction and climate change adaptation. >> Investing in DRR and CCA for resilient livelihoods and ecosystem health, with particular focus on smallholder and rural producers. >> Creating an enabling environment to facilitate the integration of disaster preparedness, response, recovery and rehabilitation in the agriculture, forestry and fisheries sectors. 	<p>R/A – Enhancing risk identification and early warning systems especially at the community level.</p> <p>R/A – Enhancing knowledge for adoption of DRM and CCA practices.</p> <p>R/A – Adoption of governance arrangements that promote participation, coordination and implementation of DRM and CCA policies and programmes.</p> <p>R/A – Improved partnership arrangements for DRR and climate proofing in agriculture, forestry and fisheries.</p> <p>R/A – Improve land use for climate and disaster risks.</p> <p>R/A – Investing in DRM and CCA for resilient livelihoods and ecosystem health.</p> <p>R/A – Improved capabilities for community led protection and conservation of genetic material in agriculture.</p> <p>R/A – Strengthening early warning systems for enhanced risk reduction preparedness.</p> <p>R/A – Risk transfer and risk sharing instruments developed to improve livelihoods.</p>



>> Programmes and projects

Workshop participants compiled a list of the most significant projects and programmes that include climate change interventions in the agricultural sector or from which the agricultural sector could benefit. Table 3 describes the general aspects of the projects and programmes.

In addition, the NDC mentions other efforts on adaptation taking place in the country including:

>> “Support for small scale farmers from the government, in production technologies, agri-business management, good agricultural practices and pest and disease control; policy initiatives to address climate change issues, environmental protection, risk mitigation and fisheries development; and a national plan for dealing with food security.

>> Enhancing the adaptive capacity of rural economies and natural resources to climate change through the management and protection of land based natural resources and agricultural production systems” (Government of St. Vincent and the Grenadines, 2015:10-11).



Table 3 >> Summary of climate change and agriculture projects and programs

Project or program	Implementation period	Main objective (s)	Budget (USD)	Source of financing	Implementing organization (s)
Government of Saint Vincent and the Grenadines Regional Disaster Vulnerability Reduction Project (RDVRP)	2011 -2018	>> To measurably reduce vulnerability to natural hazards and climate change impacts.	61.52 million	Strategic Climate Fund European Union World Bank Credits	Ministry of Economic Planning, Sustainable Development, Industry, Information and Labour
Coastal Protection and Climate Change Adaptation in the Small Island States in the Caribbean	2014 -2018	>> To contribute to the reduction of climate change induced risks for the population of Small Island States of the Caribbean.	NA (involving 4 countries)	KFW (the German Development Bank)	CCCCC
Japan-Caribbean Climate Change Partnership, United Nations Development Programme	2015 -2018	>>To support countries in advancing the process of inclusive low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change within, or aligned with, improved development planning and budgeting processes.	15,000,000 Involving 8 countries	Government of Japan	UNDP Ministry of Economic Planning, Sustainable Development, Industry, Information and Labour
Climate Change Adaptation and Sustainable Land Management in the Eastern Caribbean	2015 -2017	>>To contribute to the achievement of the provisions of Art. 24 of the Revised Treaty of Basseterre, so that each Member State implements the St George's Declaration of Principles for Environmental Sustainability which seeks to achieve the long-term protection and sustained productivity of the region's natural resource base and the ecosystem services it provides.	€400,000 (SVG component)	European Union	MEPSDIIIL, MHIHLSLSP, MAFFRT, OECS



Table 3 >> Summary of climate change and agriculture projects and programs

Project or program	Implementation period	Main objective (s)	Budget (USD)	Source of financing	Implementing organization (s)
<u>Country Programme Framework</u>	2012 -2015	>> Foster agricultural entrepreneurship >> Boost production crops, forestry and fisheries >> Conserve natural environment and increase biodiversity	4.1 million	FAO	FAO
<u>Country Programme Strategy for St. Vincent and the Grenadines</u>	2011 -2014	>> Biodiversity Conservation >> Climate Change Mitigation >> Protection of International Water >> Prevention of Land Degradation >> Elimination of Organic Pollutants	1.5 million	GEF Small Grants Programme	GEF UNDP
<u>Reducing the Impact of Climate Change on Agriculture: Enhancing Institutional Capacity to Promote and Support Climate Smart Agriculture in the Caribbean Region</u>	2012 -2014	>> Strengthening the institutional capacities of public and private organizations in selected Caribbean countries to design, formulate and implement agriculture policies and strategies for the adaptation of the agriculture sector to climate change.	131 000 (6 countries)	IICA	IICA
<u>Forest environmental and sustainable Livelihoods Project</u>	2009 -2011	>> Using forest products to create livelihood opportunities in rural communities	400,000	European Union (Special Framework of Assistance)	FAO/MAFFRT
<u>Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4Fish)</u>	2015 -2019	>> To increase resilience and reduce vulnerability to climate change impacts in the Eastern Caribbean Fisheries Sector, through introduction of adaptation measures in fisheries management and capacity building of fisher folk and aquaculturists.	40,310,000	GEF/Special Climate Change Fund	FAO



>> Institutions

The following table describes the national public institutions that focus on topics related to climate change and the coordination of projects or initiatives that directly or indirectly relate to the agricultural sector.

Table 4 >> List of public institutions working on climate change





Institution	Specific units or coordinating agencies	Roles or topics covered
Ministry of Agriculture, Forestry, Fisheries and Rural Transformation	Agriculture, Forestry, Fisheries, CITU	Broadly addresses issues related to mitigation, adaptation and generally improving resilience among stakeholders in the sector.
Ministry of Economic Planning Sustainable Development, Industry, Information and Labour	Sustainable Development Unit	Direct responsibility for coordinating climate change issues.
Office of the Prime Minister	Energy Unit	Providing guidance and leadership on sustainable energy initiatives.
Ministry of Transport, Works and Urban Development		Overarching responsibility for roads, bridges and coastal and river defences, including feeder roads servicing farms. Construction of infrastructure with adaptation for adverse climatic events. They also provide response for road clearing etc. following disasters.
Ministry of Housing, Informal Human Settlements, Lands, Surveys and Physical Planning		Responsibility for all issues related to land including agricultural lands, building codes and for housing rehabilitation following disaster events.
Ministry of National Mobilisation, Social Development, Family, Gender Affairs	Community Development Division	Community development support to improve resilience of communities.
Ministry of Health, Wellness and the Environment	Public Health Department	Environmental protection. They are responsible for clearing of drains etc. to minimise impact of weather events.
Ministry of National Security	Police Department	Security



>> Stakeholders

The following figure describes the main stakeholders that actively participate in the implementation or development of climate change and agriculture interventions.

Figure 2 >> Stakeholder map

	ORGANIZATION	STRENGTH
FARMER GROUPS 	South Rivers High Quality Cooperative Society Ltd.	Significant membership and ability to influence the actions of farmers.
	Fancy Vegetable Farmers Cooperative	
	RASFARCO	
	Women in Agriculture Langley Park Cooperative	
	SVG Small Ruminants Society Inc.	
	WINFA	
	Sustainable Grenadines Inc. (SusGren)	
	Women in Agriculture and Rural Development	
	SVG Network of Rural Women Producers	
	South Central Windward Producers Cooperative Society	
Pineapple Growers Cooperative Society		
Rabacca Vegetable Farmers Cooperative		
RESEARCH AND ACADEMIA 	University of the West Indies	
COOPERATION AGENCY 	Caribbean Agricultural Research and Development Institute	Regional responsibility for CC issues pertaining to agriculture
	Inter-American Institute for Cooperation on Agriculture	Policy support
	European Union	
	Food and Agriculture Organization of the United Nations	Disaster risk management
	International Fund for Agricultural Development	
	United Nations Development Program	
	NGO/CIVIL SOCIETY 	Richmond Vale Academy
Greggs Rasta Progressive Cooperation		Community based
Union Island Environmental Attackers		Finds practical solutions to addressing environmental issues in the southern part of the state
Northern Grenadines Community Development Inc.		Addresses community environmental issues





A greenhouse with vegetables and flowers.

Photo credit >> Ministry of Agriculture

>> Coordination bodies

At the national level, there are currently no coordinating body in which multiple institutions and organizations collaborate and integrate efforts that contribute to the development of climate change related activities. There is, however, the Caribbean Climate Smart Forum, spearheaded by IICA, which creates the space for dialogue among stakeholder groups on climate change and agriculture. Table 5 summarizes information about this articulation mechanism.

Table 5 >> List of coordination bodies

Articulation mechanism	Main participants	Topics covered
Caribbean Climate Smart Agricultural Forum	Stakeholders from agriculture and related sectors from SVG and 12 other Caribbean nations	Technologies, practices, policies and funding for CSA in the Caribbean



Lessons learned and opportunities



After the compilation of the information presented above, the workshop participants discussed the information they had gathered and exchanged ideas regarding five guiding questions. The questions were designed to provide a better understanding of which have been the most successful initiatives thus far and in which areas there are still opportunities for improvement.

What initiatives have been the most successful so far and why?

>> The soil conservation programme, undertaken by the Ministry of Agriculture over the years, has been very successful. This action has provided physical structures – Contour and run-off drains, grass barriers, bench terraces on many farms, at minimal cost to farmers. This represents an important adaptation programme, which has built resilience in the farming sector. This programme was successful over the years through the provision of human, financial and material resources to undertake the activities and general belief by many farmers, in the benefits provided by the infrastructure.

>> The Canadian International Development Agency Watershed Management Programme undertaken years ago was a key intervention and a model for such programmes.

>> The Zion Hill Programme as a model for conservation and afforestation in the community of Barrouallie is a model for such initiatives.

In which areas can greater coordination and synergies be achieved?

There is room for greater formal collaboration among the various agencies in the public sector that have responsibility for addressing environmental issues. There is also a need for greater coordination among farmers' associations regarding how they can bring the message of building resilience to climate change to the farming community.

What is missing in the current efforts and what are the major gaps?

>> A coordinated communication strategy, using existing technologies and platforms to share information with stakeholders especially at the community level.

>> Formal arrangements between key institutions to allow for greater coordination among stakeholders and synergies in interventions to bring climate information to stakeholders.

>> Flexible institutional structures that allow for coordination among agencies.

>> A functioning coordination committee for the sharing of information on climate change across the various sectors of the economy.





A meeting of the Caribbean CSA Forum.

Photo credit >> IICA

>> Documentation on climate impacts at the local level and on important climate change intervention is oftentimes absent leading to loss of institutional memory.

What types of information needs are a priority?

>> Information on financing for climate change adaptation.

>> Information on adaptation initiatives (knowledge) across the region/hemisphere and across the globe.

>> Database of Climate Change interventions/information at the national level.

>> Information on specific, low-cost technologies that can be adapted to small-scale farming operations.

What concrete steps can be taken to move forward more effectively?

>> Coordination and networking are keys to progress. This must first begin at the national level and then at the regional level. At the national level, there is need for a mechanism to be developed at the sectoral level where broad strategies can be developed for climate change interventions in support of agriculture. This should feed into a wider inter-sectoral collaboration.



Annex 1: Participants in the elaboration of the inventory

ALuka Browne	MAFFRT – Forestry Division
Ashley Caine	MAFFRT – Chief Agricultural Officer
Audrey Walters-Butler	WARD
Barry Williams	MAFFRT – Forestry Division
Billidorn Haywood	CaFAN
Bradford Latham	MAFFRT – Forestry Division
Catherine John	MAFFRT – Extension and Advisory Division
Dauphine Cato	SVGNRWP
Deborah Daniel	MAFFRT – Planning Unit
Deniston Douglas	Diamond Heritage Group
Desrie Lewis	MAFFRT – Planning Unit
Donawa Jackson	MAFFRT – Extension and Advisory Division
Elke James	Ministry of Economic Planning
Frauvaun Campbell	SVGBKAI
Gregory Linton	CARDI
Hayden Billingy	Global Environmental Facility Small Grants Programme (implemented by UNDP)
Janeel Miller-Findley	MEPSDIIL – Sustainable Development Division
Jeffrey Trotman	CaFAN
Joel Poyer	MAFFRT – Forestry Division
Kathian Herbert-Hackshaw	MAFFRT – Animal Health and Production Division
Kris Isaacs	MAFFRT – Fisheries Division
Lynette Thomas	MAFFRT – Extension and Advisory Division
Marcus Richards	MAFFRT – Extension and Advisory Division
Markneil Lewis	MAFFRT – Extension and Advisory Division
Nyasha Antrobus	MAFFRT – Fisheries Division
Nyasha Hamilton	MEPSDIIL – Sustainable Development Division
Osa Samuel	MAFFRT – Forestry Division
Racquel Sutherland	MAFFRT – Extension and Advisory Division
Rafique Bailey	MAFFRT – Research and Development Division
Reshevski Jack	MAFFRT – Fisheries Division
Ruthvin Harper	Japan Caribbean Climate Change Partnership
Samuel Harry	MAFFRT – Forestry Division
Simone Jacobs	MAFFRT – Extension and Advisory Division
Michael Dalton	Inter-American Institute for Cooperation on Agriculture
Daniela Medina	Inter-American Institute for Cooperation on Agriculture
Kelly Witkowski	Inter-American Institute for Cooperation on Agriculture
Erin Raser	Inter-American Institute for Cooperation on Agriculture



References



CARICOM. 2007. Strategic plan for the Caribbean Community 2015–2019: Repositioning CARICOM. Turkeyen, Guyana, CARICOM Secretariat. 75 p.

CCCC. 2014. Climate change and the Caribbean: a regional framework for achieving development resilient to climate change (2009–2015). Belmopan, Caribbean Community Climate Change Centre. 30

Eastern Caribbean Central Bank. 2017. Statistics. (Online, website). Consulted 10 November 2017. Disponible en <https://www.eccb-centralbank.org/p/gdp-annual>

FAO. 2017. FAOSTAT. (Online, website). Consulted 1 January 2016. Available at <http://www.fao.org/faostat/en/#home>

FAO; Government of St. Vincent and the Grenadines. 2015. Country Programme Framework (CPF) For St. Vincent and the Grenadines Agricultural Sector 2012–2015. s.l., 2012–2015 p.

Government of St. Vincent and the Grenadines. 2013. National Economic and Social Development Plan 2013–2025. s.l., 146 p.

_____. 2015. St. Vincent and the Grenadines Intended Nationally Determined Contribution. (en línea). s.l., Consultado 10 mar. 2017. Disponible en http://www4.unfccc.int/submissions/INDC/Published Documents/Saint Vincent and Grenadines/1/SVG_INDC_Final.pdf

John, N. 2016. Second National Communication on Climate Change Saint Vincent and the Grenadines. (Online). s.l., Consultado 10 March 2017. Available at <http://unfccc.int/resource/docs/natc/vctnc2.pdf>

Liliendaal Declaration on Climate Change. 2009. Georgetown, Guyana, 30th Meeting of the Conference of Heads of Government of the Caribbean Community. 3

National Emergency Management Office St. Vincent and the Grenadines. 2016. Saint Vincent – Country Document for Disaster Risk Reduction SAINT VINCENT. (Online). Consultado 10 nov. 2017. Available at <http://dipecholactools.org/saintvincent/>

Nurse, LA; McLean, RF; Agard, J; Briguglio, LP; Duvat-Magnan, V; Pelesikoti, N; Tompkins, E. 2014. Small Islands. In K.L. Ebi Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, and L.L. White Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea (ed.). Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, United Kingdom, Cambridge University Press. p. 1613–1654.

OECS. 2012. Revised OECS Regional Plan of Action for Agriculture (2012–2022). (online). s.l., 68 p. Consultado 13 November 2017. Available at http://www.caribbeanelections.com/eDocs/strategy/oecs_strategy/OECS_Regional_Plan_Action_Agriculture_2012.pdf

Simpson, MC; Clarke, JF; Scott, DJ; New, M; Karmalkar, A; Day, OJ; Taylor, M; Gossling, S; Wilson, M; Chadee, D; Fields, N; Stager, H; Waithe, R; Stewart, A; Georges, J; Sim, R; Hutchinson, N; Ruddy, M; Matthews, L; Charles, S. 2012. CARIBSAVE Climate Change Risk Atlas (CCCRA) – St. Vincent and the Grenadines. (online). Barbados, West Indies, Available at <http://www.caribbeanclimate.bz/closed-projects/2009-2011-the-caribsave-climate-change-risk-atlas-cccra.html>

Statistical Office Ministry of Finance Governemnt of St Vincent & the Grenadines. 2017. Labour Market Statistics. (Online, website). Consulted 10 November 2017. Available at <http://stats.gov.vc/Default.aspx?tabid=136>

The World Bank. 2016. Climate Change Knowledge Portal. (Online, website). Consulted 10 November 2017. Available at http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=VCT&ThisTab=-naturalhazards

World Resources Institute. 2017. CAIT emissions data Climate Watch. (Online, website). Consultado 13 nov. 2017. Available at <https://www.climatewatchdata.org>





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