



Cocoa on the island of Grenada. Credit: UKstudios, Adobe Stock.

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Agriculture development, agricultural extension and international cooperation in Small Island Developing States (SIDS): The case of Grenada

ABSTRACT

The problem of food and nutrition insecurity is a global one, as such the Sustainable Development Goals recognize the



TESSA BARRY
JRI CONSULTANCY GRENADA;
THE UNIVERSITY OF THE WEST
INDIES



JEANELLE JOSEPH
THE UNIVERSITY OF THE WEST
INDIES

importance of sustainable agriculture development in targeting existing and emerging issues affecting food security (Perez-Escamilla, 2017). Small Island Developing States (SIDS) such as Grenada, are faced with high rates of unemployment and poverty, climate change and its variabilities, and the impact of other external shocks such as war and price volatility. These, along with a high dependency on imported foods and a lack of significant investment in the development of the agriculture sector, exacerbate the vulnerability of SIDS with regard to securing and maintaining food security (Food and Agriculture Organization [FAO], 2015). With agriculture being positioned as instrumental in contributing to improving food security, there is a need to focus on measures that can help develop the sector. International concerns about food insecurity in developing countries have seen a renewed interest in international cooperation to help drive the sector. Agricultural Extension provides the crucial role of technology transfer that contributes to leveraging the benefits of international cooperation (Pandey et al., 2021). However, of significant concern is the inadequacy of Rural Advisory Services/Agricultural Extension in SIDS. Extension systems have experienced problems such as inadequate staffing, lack of funding, poor leadership and inadequate tools and capacity to perform their role (FAO, 2015). Through a review of the literature and a key stakeholders' survey, this paper took a closer look at collaborative efforts in Grenada in developing the agriculture sector and the role of these efforts in enhancing agricultural extension. The paper focused on three international collaborative efforts towards agricultural development in Grenada—efforts that recognized the need to build the capacity of advisory services to ensure its implementation. The organizations under review are the International Fund for Agricultural Development (IFAD), through its Climate Smart Agriculture and Rural Enterprise Programme (SAEP); the Food and Agriculture Organization (FAO); and the Global Forum for Rural Advisory Services (GFRAS), through its Last Mile Project (LMP).

INTRODUCTION

The United Nations (UN) classified 38 of its members as Small Island Developing States (SIDS). Countries identified as SIDS fit the characteristics of being small in size, having limited natural resources, and being vulnerable to external natural shocks. Their agricultural exports are predominantly from primary production. These SIDS face many challenges associated with size and location (FAO, 2005). SIDS are described by international organizations such as the International Fund for Agricultural Development (IFAD) as countries with distinct vulnerabilities regarding food and nutrition security and the environment due to their geographic location (IFAD, 2014). These vulnerabilities pose serious challenges to agricultural development in SIDS, hence the impact on food and nutrition security. A high number of SIDS depend heavily on the agricultural sector for export earnings, a sector that is of paramount importance for their food security (IFAD, 2014). The Food and Agriculture Organization (FAO), high-

lighted some of the challenges experienced by SIDS; they include climate change and natural disasters, external shocks, the dependence on imported food resulting in a high food importation bill, and limited natural resources (FAO, 2005).

Henderson and Patton (1985) wrote that agricultural extension is a catalyst for the development of the agriculture sector. It is considered a public good, and hence the responsibility is on governments to ensure a functioning extension unit (Campbell and Henderson, 1996). While extension is considered critical to agriculture development, the Global Forum for Rural Advisory Services (GFRAS) stated that extension facilitated by the public sector is marred with difficulties, including “insufficient staffing, training, funding, and transport services” (GFRAS 2013, p. 3). Other factors identified by the organization as contributing to the difficulties experienced by a sector so vital to agriculture development are low budgetary support, a weak policy framework, low staff morale, a high farmer-to-officer ratio, inadequate research support, inadequate extension education at the tertiary level, competition from other information providers, a low perception of extension held by decision-makers and political interference (GFRAS, 2013). Development organizations have identified these inadequacies and have for decades supported varied efforts in SIDS toward the development of the agriculture sector. Grenada, as a Small Island Developing State has benefited and continues to benefit from the efforts made by international organizations in collaborating with the government and institutions to help build and sustain this vital sector.

WHILE EXTENSION IS considered critical to agriculture development, the Global Forum for Rural Advisory Services (GFRAS) stated that extension facilitated by the public sector is marred with difficulties, including “insufficient staffing, training, funding, and transport services” (GFRAS 2013, p. 3).

This paper presents some of the contributions made by three international organizations in addressing some of the deficiencies in extension delivery services. Information was gleaned from a review of the literature and from a survey done with key stakeholders who benefited from one or more training with international organizations. The organizations under review are the Food and Agriculture Organization (FAO), the International Fund for Agriculture Development (IFAD), and the Global Forum for Rural Advisory Services (GFRAS).

METHODOLOGY

This research sought to take a closer look at the collaborative efforts between Grenada and international organizations in developing the Grenadian agricultural sector. More specifically, the role these collaborative efforts played in enhancing Grenadian extension and advisory service provision.

A total of 31 extension and advisory service (EAS) providers, with varying levels of expertise and who were in receipt of training from an international organization, participated in this research. A questionnaire consisting of 11 open-ended questions was administered to the sample population. The questions sought to gather responses pertaining to (i) the type of organization training was received from, (ii) perceptions as to the benefits of participating in such training, (iii) the importance of international cooperation in terms of helping develop the agricultural sector in Grenada; and (iv) perspectives on the usefulness of training opportunities by international organizations. The development of the questionnaire followed the tailored design method

(Dillman et al., 2014) and was administered via Google Forms. It took approximately 10 minutes for participants to complete the questionnaire.

LIKE MOST CARIBBEAN countries, Grenada is a net food importer, importing approximately 80% of its food. This factor contributes to the island's challenges with food insecurity. Apart from being a net food importer, by way of its geographical location and the characteristics of the island as a SIDS, there are also vulnerabilities from the impact of climate change.

The benefits of international cooperation on agricultural development in Grenada were assessed through a literature review. Publications were selected from the relevant official websites, namely the International Fund for Agricultural Development (IFAD), the Food and Agriculture Organization (FAO), and the Global Forum for Rural Advisory Services (GFRAS). Local project documents were also obtained from the Climate Smart Agriculture and Rural Enterprise Programme (SAEP) and the Last Mile Program (LMP) in Grenada. All documents were thoroughly reviewed based on the criteria relating to “collaborative programmes and projects” and “training of Extension Ad-

visory Service (EAS) providers.”

Interpretative research served as the foundation for this investigation. According to Kaplan and Maxwell (1994), interpretative research concentrates on human sense-making without using predetermined dependent and independent variables. For this study, the coordinated activities of international organizations focused on agricultural growth which targeted extension training was the center of attention for human sense-making.

The answers to the open-ended questions were analyzed using a qualitative analysis technique. This involved categorizing and summarizing participant feedback, creating codes and categories, and gathering data to create themes. The data were coded in-vivo, in accordance with Saldana's instructions (2011, pp. 99–101). According to Saldana (2013, p. 61), in-vivo coding enables the researcher to code using the participants' actual language rather than researcher-generated words or phrases. To find commonalities and differences among the participants' remarks, the established themes were compared across the responses. As supporting evidence while reporting

the findings, participant quotes were combined with the pertinent topics. Peer evaluation of the participants' responses and in-vivo coding were used to determine the reliability and validity of the data.

LITERATURE REVIEW

Background

Grenada's population is approximately 112,003 (2019 statistics), occupying mainland Grenada and two minor islands, Carriacou and Petit Martinique. Together, the islands are approximately 344 km². Grenada is considered to be mainly a service-based economy, mostly dependent on the tourism sector. Agriculture constitutes about 10% of the labour force and is deemed the backbone of the rural economy (IFAD, 2021). The main export crops include "nutmeg, cocoa, mace, soursop, and other spices" (IFAD, 2021). Fish is also ranked among the top export commodities. Approximately 80% of the farming population is represented by smallholder farmers, operating on less than 0.2 ha of land. Further to this, the farming population is characterized as an aging population.

Like most Caribbean countries, Grenada is a net food importer, importing approximately 80% of its food. This factor contributes to the island's challenges with food insecurity. Apart from being a net food importer, by way of its geographical location and the characteristics of the island as a SIDS, there are also vulnerabilities from the impact of climate change. The Ministry of Agriculture, Land, Fisheries, and Cooperatives is mandated to develop the island's agriculture sector toward a more food-secure nation. As an island economy, threatened by numerous anomalies, the tourism sector is also highly vulnerable to the impact of climate change and its variabilities. Additionally, according to the 2018–2019 poverty assessment report, approximately 38.4% of Grenada's population lives below the poverty line. Compounding this, the country has a high unemployment rate, centred mainly among the youth (World Bank, 2021).

Though the country has made significant strides in attempting to meet the Sustainable Development Goals, many factors have contributed to slowing down the process. Agricultural development is considered key to enhancing the country's food security, and the agricultural extension division is vital to this goal.

Agricultural extension

"Agricultural extension is a system that facilitates access to farmers or their organizations to new knowledge, information, and technologies and promotes interaction with research, education, agri-business and other relevant institutions to assist them in developing their own technical, organizational, and management skills and practices" (Suvedi & Kaplowitz, 2016, p. 10). The technical information provided is ultimately



Nutmeg drying at a Grenada Co-op. Source: Paul Harrison, Wikimedia Commons.

intended to improve the income and welfare of farmers and other agriculture practitioners and entrepreneurs.

Extension services play a pivotal role in the development of the agriculture sector and, by extension, rural economies (CARICOM, 2021). It is the link between research and development and applied agriculture and “serves as a conduit through which knowledge and information generated may be disseminated to producers” (CARICOM, 2021). The ultimate aim of agricultural extension is to bring about changes in the producers’ behaviour by stimulating and encouraging them to apply the information received to address problems faced and improve agricultural practices (Barker, 1997). Further, extension motivates change through the conditions and assistance necessary for agricultural development and facilitates opportunities for the adoption of the technologies needed to help grow the sector. Additionally, extension is promoted as having an important function in assisting the rural poor to enhance their livelihoods due to its role in agriculture and rural development (Rivera & Qamar, 2003). Extension delivery services continue to evolve as countries seek ways to address the varying issues confronting the agriculture sector.

In the Caribbean region, agricultural extension delivery is largely provided through the public service via the extension division of various agricultural ministries. This method of delivery is supported by Swanson and Rajalahti (2010), and Zhou (2008), who posit that the service is largely associated with the characteristics of a public good. Extension agents or extension officers are the ones responsible for implementing

the plans and programs of the ministry. Their roles are similar across the region, working closely with farmers and disseminating both educational and non-educational knowledge and activities directed toward improving farmers' abilities and by extension, food security (Roberts et al., 2015). The Agriculture Extension Service, delivered through the public service is faced with a number of issues. They generally lack adequate funds, have limited human resources necessary to meet the needs of farmers amounting to a high farmer-to-officer ratio, insufficient training in extension delivery methods and approaches, and have limited capacity in the necessary communication tools required to get the job done effectively (IFAD, 2022). Further to these, there are problems associated with policy decisions such as inadequate budgetary allocation, infrastructure, transportation and other working conditions of extension officers. Given these numerous issues, many international organizations over the years have been collaborating with SIDS, helping them to build capacity within their extension division towards the development of agriculture in these countries (IFAD, 2022).

THE ULTIMATE AIM OF agricultural extension is to bring about changes in the producers' behaviour by stimulating and encouraging them to apply the information received to address problems faced and improve agricultural practices (Barker, 1997).

Extension has over the years been evolving to include providers outside of the public sector. According to Swanson (2008), the private sector is playing an increasing role, and some international organizations are advocating for a more pluralistic approach to service delivery.

Agricultural extension in Grenada

In Grenada, while extension delivery is mainly through the public sector, other organizations also provide some aspects of extension services. Commodity boards such as the Grenada Cooperative Nutmeg Association (GCNA) and the Grenada Cocoa Association (GCA), provide extension services to specific crop farmers under their organizations. Statutory bodies, such as the Marketing and National Importing Board (MNIB) and the Climate Smart Agriculture and Rural Enterprise Programme (SAEP), also provide agriculture extension services. These organizations often work collaboratively with the extension division of the Ministry of Agriculture on projects and programs aimed at strengthening the island's food security. Limited services are also provided by some input suppliers of pesticides and fertilizers.

Challenges in extension: Grenada

The challenges experienced by the extension division in Grenada reflect those experienced by other countries in the Caribbean. Some of these challenges include

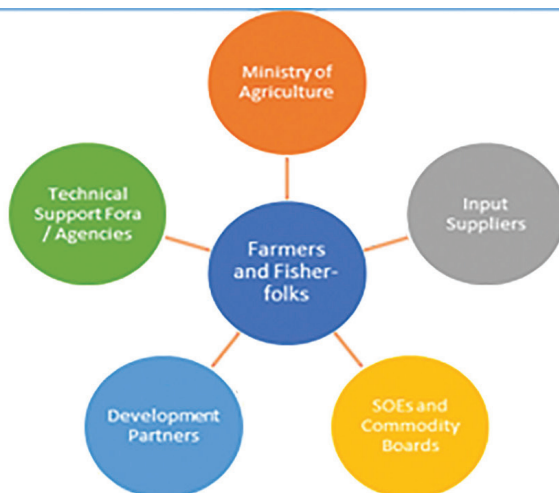


Figure 1: Extension Service Providers in Grenada. Source: CAEPNet – Grenada CF: Strategic Plan 2020–2025.

inadequate support resources, inadequate staffing, limited transportation, low perception of extension held by decision-makers, low extension staff morale, inadequate education in extension methodologies, and a high farmer-to-extension officer ratio (GFRAS, 2013; Campbell and Henderson, 1996). The authors Campbell and Henderson (1996), indicated that limited budgetary allocation for extension development in the OECS (of which Grenada is a part) has been a challenge since the 1990s. Ganpat et al. (2014) emphasized that these issues need to be addressed and, by extension, modernized to adequately support food security.

International cooperation in agriculture

Caribbean countries are characterized by their limited land area, the extreme openness of their small economies, and their high sensitivity to external shocks. These vulnerabilities have serious impacts on the growth of these economies. As such, the development of the agricultural sector within the Caribbean should be a priority activity to ensure food security. Historically, agriculture has played a central role in Caribbean economies, albeit its contribution accounts for between 7% and 17% of GDP in countries such as Haiti, Dominica, Guyana, and Grenada. Today’s Caribbean agriculture is increasingly diversified, making it an important sector of the island economy (FAO, 2019). International cooperation in agriculture has played and continues to play a decisive role in guaranteeing food security in Caribbean countries (IICA, 2021). There have been several calls for strengthening technical cooperation among countries to help build resilience against external shocks and to develop agriculture and agri-business economies, fisheries, and adequate supporting policies. This level of collaboration is deemed as not only helping to enable food distribution, but it also stands to encourage home and community farming—actions enabling the transformation of food systems

through its ability to build resilience, nourish people and improve livelihoods. Lebrun (2004) posits that international collaboration is pivotal in the transfer of technology in agriculture.

Developments in agricultural research and the dissemination of such research provide a strong basis for establishing cooperation and team-based initiatives geared toward strengthening agricultural development. International cooperation also fosters the exchange of best practices with potentially increasing productivity, food security, and resilience. Notable international cooperation initiatives in agricultural development in the Caribbean can be seen in the collaborative efforts with the Inter-American Institute for Cooperation on Agriculture (IICA), the Food and Agricultural Organization (FAO), the International Fund for Agricultural Development (IFAD), and the World Bank among others which have all vested in the development of the sector through knowledge sharing, innovations, and exchange of best practices. Partnerships directed towards improving agriculture in developing states were also fostered with countries, one example being China. In 2020, the United Nations Development Organization (UNIDO), pledged support for 16 SIDS in the amount of 45 million USD. Some of the critical areas identified for support were sustainable use of natural resources, climate change, fisheries management and sustainable energy areas that support agriculture.

- Food and Agriculture Organization (FAO)
- International Fund for Agricultural Development (IFAD)
- Global Forum for Rural Advisory Services (GFRAS)
- Inter-American Institute for Cooperation on Agriculture (IICA)
- Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)
- United Nations Development Organization (UNIDO)
- World Bank
- Caribbean Agriculture Research and Development Institute (CARDI)
- United States Department of Agriculture (USDA)
- Caribbean Development Bank (CDB)

Figure 2: Sample of organizations and institutions that contributed to agricultural development in Grenada. Source: Compiled by author.

With the importance of international cooperation in agriculture and cooperative ventures emphasized as critical towards sustainable development, international organizations such as UNIDO, reviewed the support provided within the Caribbean and concluded that special emphasis must be granted to SIDS given the fact that they are among the lowest contributors to factors affecting climate change despite being the most impacted.

Some critiques have pointed out that while international collaboration has its

benefits there are times when researchers use a top-down approach that sometimes fails to capture the needs of the farmers or users (Lebrun, 2004). In other instances, the nature of the collaborative effort is often characterized by the goals and objectives of the funding organizations (Cakir & McHenry, 2013).

International cooperation in Grenada

Grenada has benefited and continues to benefit from the contributions of both regional and international organizations as well as from partnerships with developed countries in programs, projects, grants and loans aimed at enhancing the food and nutritional security of the country. Some of these organizations include the Global Forum for Rural Advisory Services (GFRAS), the Inter-American Institute for Cooperation on Agriculture (IICA), the International Fund for Agricultural Development (IFAD) and the Food and Agriculture Organization (FAO). Through efforts in agri-business development, these organizations have supported, increasing agriculture production, strengthening capacity against the negative impact of climate change, increasing market access for farmers and fisher folks, building supporting infrastructure, and developing human resource capacity and research. Most of these programs and projects were directed at developing rural communities in an effort to reduce unemployment and poverty through sustainable rural livelihoods.

International Fund for Agricultural Development (IFAD)

The International Fund for Agricultural Development (IFAD) is an international financial institution and specialized agency under the United Nations (UN). The institution came into existence in the 1970s as a direct response to the global food crisis at the time. It was established as a financial institution by the General Assembly Resolutions of the UN in December 1977. The response led to the establishment of an international fund for development that focuses on agricultural production in developing countries by supporting programs that are directed toward increasing food production and enhancing rural livelihoods. The organization has contributed in excess of \$23 billion USD in the form of grants and loans with low-interest rates globally, supporting rural communities. IFAD believes that investing in agriculture is one of the most effective ways to reduce poverty, especially in rural communities. IFAD has been operating with three main foci, one of which is “supporting agriculture as the backbone of rural economy and a pillar for reactivation, focusing on increasing resilience to climate change as it seems a major source of vulnerability for rural livelihoods.” Through this focus, the organization not only assists farmers directly but also contributes significantly to the training of extension officers endeavouring to build capacity and support systems for the development of the sector. The organization’s objectives are closely aligned with the strategic frameworks and policies of the collaborating partners, hence their

programs and projects are channelled through the governments of developing countries (IFAD, 2023).

As the first international institution established primarily as a source for additional assistance towards agriculture and rural development in developing countries for the most impoverished in their population, the work of IFAD spans numerous developing countries in Asia and the Pacific, East, North, West, Central and Southern Africa, Latin America and the Caribbean as well as Europe. Approximately 164 countries are members of IFAD including Grenada (IFAD, 2023).

IFAD in Grenada

IFAD started supporting Grenada as far back as 1980. IFAD's work in Grenada targets rural communities, in keeping with the vision of the organization. Some of the projects funded by the organization include the Artisanal Fisheries Development Programme (AFDP), the Grenada Rural Enterprise Project (G-REP), the Market Access and Rural Enterprise Programme (MAREP), and in most recent times the Climate Smart and Rural Enterprise Programme (SAEP). In 2018, the IFAD support programme in Grenada MAREP was changed to SAEP. Given the vulnerability of the country due to the impact of climate change on agriculture production, one of the major aims of SAEP was directed at the promotion of climate-smart agricultural practices, particularly in rural communities (IFAD, 2021). The new programme has three main components: Enterprise Business Development (EBD), Climate Smart Agriculture (CSA), and Project Management. These three components combined target women and youth in rural communities and smallholder farmers in climate-vulnerable areas. The foci include business startup and development, climate smart agricultural practices, and infrastructural development inter alia. It is important to note that to achieve this the SAEP programme has also targeted extension officers from the Ministry of Agriculture for training and capacity building as a support mechanism. The development of extension officers is targeted in component two, the CSA component, endeavouring to "sustain the public extension services" (IFAD, 2017). The programme is also designed to support a cadre of extension assistants through training opportunities and the necessary technical assistance to develop extension delivery services in rural areas and is expected to ensure project implementation.

From its entry to the present, the organization has supported a total of four projects in Grenada amounting to a cumulative cost of \$18 million USD and co-financed by the Caribbean Development Bank (CDB). The first IFAD project financed in Grenada was the Artisanal Fisheries Development Programme (AFDP) in the form of an approved government loan in the amount of \$1.5 million USD. This project supported the blue economy by targeting the fisher folks. The second project was aimed at cushioning the impact of hurricanes Ivan and Emily in 2004 and 2005. This was the

Rural Enterprise Project (REP). Following this, Marketing Access and Rural Enterprise Programme (MAREP) came onstream and focused heavily on training (IFAD, 2017). The current project is the Climate Smart Agriculture and Rural Enterprise Programme (SAEP) which followed on the heels of a name change from MAREP. According to the 2017 project report on Grenada, IFAD capitalized on the weaknesses of each previous project to develop and structure the next (IFAD, 2017). The projects targeted rural communities and included fisher folks, the unemployed, small-scale commercial farmers, women and youth (Table 1).

TABLE 1: Overview of IFAD’s projects and their contributions towards Grenada’s agricultural development

PROJECT	YEAR	PROJECT COST	TARGET AUDIENCE	PROJECT ACHIEVEMENT
Artisanal Fisheries Development Programme (AFDP)	1981	US\$1.5 million	Fisher folks	Increase production and income levels of fishermen
Rural Enterprise Project (REP)	2001–2009	US\$4.2 million	Rural communities	Rebuilding rural communities and providing public goods, especially post hurricanes Ivan and Emily
Market Access and Rural Enterprise Development Programme (MAREP)	2010	US\$3.0	Unemployed in rural communities	Community strengthening and vocational training activities
Climate Smart Agriculture and Rural Enterprise Programme (SAEP)	2018	US\$13 million	Rural poor households	Small scale commercial farmers, women and youth in rural communities

Through SAEP, extension officers were specifically targeted for training and capacity building given the critical role of extension in ensuring project implementation. According to IFAD (2017), this was facilitated through a *Memorandum of Understanding* with the Ministry of Agriculture (MOA). The ultimate aim was to enhance the efficiency of extension services through on-the-job training for extension assistants. Extension assistants were trained during the period from 1 August 2020 to 31 December 2020. The extension assistants received training in a number of areas including extension methodologies, soil conservation techniques, integrated pest management, watershed management, safety and sea-protective gears and equipment, and nutrition/feeding inter alia (IFAD, 2021). According to Edwards, Marketing Manager of SAEP, a total of nine extension assistants were trained to support the implementation of the programme. The previous programs supported by IFAD did not include an extension



Banana plants, flower, and fruit, Grenada. Credit: Richard Marx, Adobe Stock.

component. Emphasis is now placed on ensuring that the necessary capacity is developed through extension advisory services to support the success of SAEP. IFAD believed that this approach will contribute to enhancing public extension delivery services as well as ensuring sustenance by building the capacity of extension assistants to replace the number of officers carded for retirement from the service (IFAD, 2017).

The intended outcome of building the capacity of extension assistants according to IFAD (2017) centers on improving the methods of delivery of the extension assistants in transferring knowledge and skills or climate-smart agricultural practices. This will in turn lead to an increase in farmers' capacity and ability to understand the effects of climate change and hence be able to identify and implement best practices on their farms.

The Global Forum for Rural Advisory Services (GFRAS)

The Global Forum for Rural Advisory Services (GFRAS) is about enhancing the performance of advisory services so that they can better serve farm families and rural producers, thus contributing to improved livelihoods in rural areas and the sustainable reduction of hunger and poverty (GFRAS, 2023). GFRAS evolved out of a series of discussions at international meetings (primarily the annual meetings of the Neuchâtel Initiative). Over the years at these meetings, the need for a more formal structure to

proactively promote rural advisory services (RAS) development was recognized and various options were considered. Enhancing the performance of advisory services to better serve farm families and rural producers who are seen as contributing factors towards improved livelihoods in rural areas and the sustainable reduction of hunger and poverty were considered the best option. Based on these factors, formalizing the structure of RAS was enveloped under the ambit of GFRAS. GFRAS, therefore, focuses on four key strategic areas (i) advocacy and support for an enabling policy environment and appropriate investment in rural advisory services, (ii) the professionalization of rural advisory services, (iii) facilitation and enhancement of effective and continuous knowledge generation and exchange, and (iv) network strengthening as part of the organizations attempt to formalize the structure of rural and advisory services. Currently, GFRAS partners with 18 regional and sub-regional networks (Figure 2) all mandated to assist GFRAS in accomplishing its strategic endeavours. GFRAS' presence in the Caribbean is present through the Red Latino Americana para Servicios de Extensión Rural (RELASER) and the Caribbean Agricultural Extension Providers' Network (CAEPNet) and more specifically in Grenada through its *Last Mile Program* (LMP), with Grenada serving as a country forum.

The IFAD-supported Last Mile Programme is one of the recent projects of the more recent international programmes undertaken by the Global Forum for Rural Advisory Services (GFRAS). Through this program, GFRAS' aim is to improve access to more innovative extension services for smallholder farmers (GFRAS, 2019). A key component of this programme is building the capacity of extension providers by strengthening public/private partnerships (GFRAS, 2019).

GFRAS in Grenada: Last Mile Project (LMP)

The LMP was designed and launched in 2019 and is geared towards delivering extension services to the Last Mile. It was recognized that a “one-size fits all” approach towards improving agricultural stakeholders' access to innovation and pluralistic, demand-driven extension services can no longer be considered. The LMP comprises two key components (i) building capacity of RAS providers through strengthened public/private partnership arrangements and (ii) knowledge generation, management, and communication to develop knowledge products based on lessons learned and good practices, and the promotion of South-South Cooperation for scaling-up. In order to implement the associated activities of the LMP, the Grenada Country Forum (CF) plays a crucial role at the national level, serving as a focal point for policy dialogue and as a one-stop shop for RAS. The establishment of public-private partnerships for RAS delivery is actively promoted where relevant and feasible. The CF deals with four key aspects of agriculture extension (i) demand-driven RAS, (ii) targeting women and youth in RAS, (iii) climate change responses and (iv) digitalization of RAS (GFRAS, 2022).

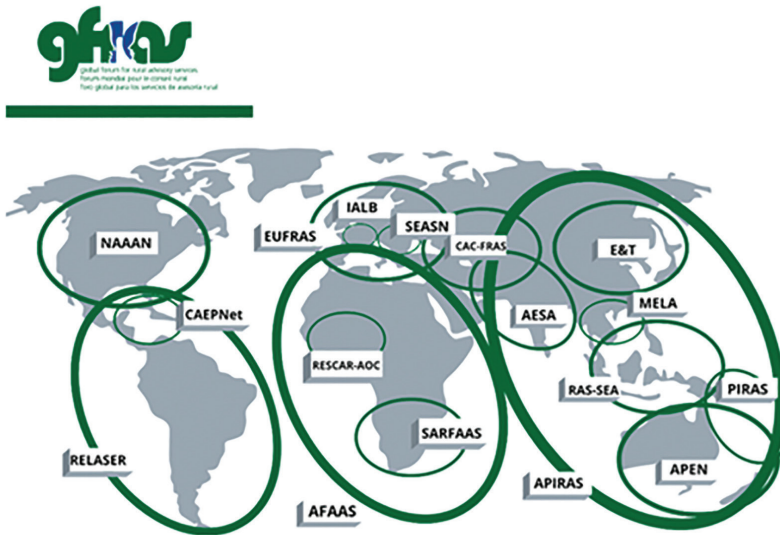


Figure 3: Global Forum for Rural Advisory Services (GFRAS) affiliate networks. Source: <https://www.g-fras.org/en/>

The Grenada Country Forum was launched on 18 August 2018 and on 15 June 2020, “took its first steps towards the Last Mile.” This was done through a virtual launch in the form of a regional webinar (IICA 2020). The Last Mile project is funded in the first phase by IFAD and facilitated through GFRAS. Other funders include the Inter-American Institute for Cooperation on Agriculture (IICA), the Caribbean Development Bank (CDB) and Community Development Fund (CDF). The overall objective is “Delivering Extension Services to the Last Mile: Improving smallholders’ access through innovation and pluralistic demand-driven extension services” (GFRAS, 2019). The LMP is guided by the theory that Pluralistic Extension Advisory Services through a Public-Private Partnership are critical for effective extension delivery services. In this regard, GFRAS seeks to strengthen the capacity of both public and private service providers of agriculture extension and rural advisory services (GFRAS, 2019). In the strategic plan 2020–2025, one of the main objectives of the CF is to scale up modern training for agricultural officers, extension officers, farmers and farm workers. The forum also seeks to facilitate the widespread application of climate-smart agricultural practices through its training opportunities supported through collaborative efforts with international organizations.

The LMP according to GFRAS (2019) is designed as a multi-donor programme with a duration of two phases, the first phase from 2019–2021 and the second phase from 2021–2024. The International Fund for Agricultural Development (IFAD) is the donor for the first phase of the programme (GFRAS, 2019).

This particular effort at collaboration through GFRAS is one of the newest efforts

in international cooperation for Grenada and is the first organization to channel its efforts primarily through an extension approach to reach the last mile. Through this international collaborative effort, the first disbursement of funds was directed towards strengthening a public-private partnership approach to extension delivery services in Grenada. This led to the establishment of a secretariat and capacity building of country forum executives and members in areas such as monitoring and evaluation, report and proposal writing, as well as financial management. Although collaborative efforts with GFRAS are new to Grenada, in a direct way the programme has already held training with extension assistants in animal husbandry. Twenty-two officers participated in the first training and fifteen in the second. These officers work with farmers throughout Grenada and are affiliated with the Ministry of Agriculture and the SAEP project. This first phase included a disbursement in the amount of approximately \$61, 000 USD over a two-year period 2020–2022.

The Food and Agriculture Organization (FAO)

The Food and Agriculture Organization (FAO) is one of the first specialized agencies of the United Nations and has been in existence for over 70 years. As of 2016, FAO constituted 194 member countries, one member organization and two associate members (OECD/FAO 2016), and currently works in 130 countries worldwide. The main focus of the organization encompasses “nutrition, food and agriculture which also include fisheries, marine products, forestry and primary forestry products.” Its work addresses issues along the entire food system from production to consumption and embraces almost every country in the world (OECD/FAO 2016). Similar to IFAD and GFRAS, FAO targets rural populations through its programs and projects. The FAO was established as early as 1945, a period when the need for emphasis on nutrition as a solution to health issues and the impetus to find solutions to the myriad of



Figure 4: RAS Community Linkages. Source: CAEPNet – Grenada CF: Strategic Plan 2020–2025.

issues in agriculture was at a critical juncture.

As the circumstances surrounding rural communities continue to evolve, the FAO has revised its goals and objectives on numerous occasions during its existence. The most recent review took place in 2013 and highlighted the following as global priority:

- Eradication of hunger, food insecurity and malnutrition, pro progressively ensuring a world in which all people at all times have sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life;
- Elimination of poverty and the driving forward of economic and social progress for all, with increased food production, enhanced rural development and sustainable livelihoods;
- Sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations.

FAO is mandated to provide institutional support that would guide policies and build capacities toward the implementation of these goals. Efforts made in achieving its goals are done in tandem with the Sustainable Development Goals. Like many other international organizations, the FAO often collaborates with other institutions and organizations to assist member countries.

To implement its programs effectively, the FAO depends heavily on collaboration with voluntary funding from other institutions and organizations. This according to the Center for Global Development (CGD) is a restriction on the organization's ability to make budgetary choices. The reliance also often features short-term programs and activities that bear heavy reflection on the goals and objectives of the donors rather than the needs of the countries (CGD, 2013).

FAO in Grenada

Grenada has benefited from numerous projects from FAO over the years. Projects focused on areas such as policy review and formulation, agriculture development and planning, research and capacity building. The organization's programs and projects are shaped by the strategic plans of the recipient countries. During the period 2011–2016, the priority areas for Grenada were risk management aimed at preserving agricultural lands and improving on-farm risks; food and nutrition security aimed to improve access to land and market; the establishment of safe and reliable sources of planting material; health and safety, focusing on better capacities to implement health and safety standards in the agricultural and fisheries sectors; climate change support, through the protection of coastal assets; and improved biodiversity and en-



Small ruminant herd, Bathway, Grenada. Source: dpursoo, Wikimedia Commons.

vironmental conservation and transboundary diseases support by upgrading the existing quarantine system (FAO, 2016).

Many of the projects and programs implemented by FAO are often collaborative efforts with other institutions and organizations. Some of the organizations include the Global Environmental Facility (GEF), the World Bank, GIZ, and IICA. As part of its presence in contributing to Grenada, the FAO has conducted and funded numerous research projects where the findings were used to develop agricultural policies and building capacities. Some of the programs funded by the FAO as presented in Table 2 include battling Black Sigatoka disease in the banana industry implemented in 2011 and strengthening the small ruminant sector. Another project specifically directed at capacity building of extension officers was a collaborative effort between FAO and the T. A. Marryshow Community College (TAMCC). This effort involved the roll-out of an agriculture extension associate degree programme directed towards training extension staff of the Ministry of Agriculture in an effort to build capacity in extension. An amount of \$34,600 Eastern Caribbean dollars was contributed by the FAO. This collaborative effort emanated from an assessment conducted by the Ministry of Agriculture to determine the basic needs of extension officers. Out of that needs assessment it was suggested that an extension education module must be included in the general agriculture programme. A total of 20 extension assistants were enrolled in the programme.

TABLE 2: Sample of FAO's projects and their contributions towards Grenada's agricultural development

PROJECT	YEAR	TARGET AUDIENCE	PROJECT FOCUS
Battling Black Sigatoka disease in the Banana Industry	2011	Banana farmers, extension officers, ministry officials	Development of a national management plan, production of a draft technical manual
Developing the Cassava Industry	2015	Cassava farmers, rural communities, farmer organizations, small-scale cassava enterprises and those engaged in processing and trade	Commercialization and marketing of value-added products in Cassava
Extension Associate Degree Programme for the Training of Extension Staff of the Ministry of Agriculture	2018	Extension Assistants from the Ministry of Agriculture	Developing the capacity of to extension assistants from the Ministry of Agriculture
Climate Change for Fish (CC4Fish)	2020	Fisher folks	Training in the use of ICTs (GPS, Cellphones, VHF) for safety at sea
Sustaining the Tuna Value Chain	2021	Fisher folks, fishers associations	Financial and conservation strategy, sustainable fishing techniques
Strengthening of Small Ruminant Sector	2022	Lecturers, extension officers, livestock officers, livestock farmers, agro processors	Technical training

SUMMARY OF SURVEY FINDINGS

To capture additional information on these three organizations' collaborative efforts in Grenada, a survey was administered with key stakeholders. These included extension assistants, extension trainees, and ministry of agriculture officials in extension supervisory roles. Twelve of the twenty extension assistants who were beneficiaries of the extension associate degree training programme also participated in the survey.

Demographic profile of training recipients

A demographic profile (Table 3) of training recipients shows that the majority were female (63.3%) assistant extension officers (40%), with more than fifteen years of service (63.3%). The majority of training participants (83.3%) also indicated that they have received training from the Food and Agriculture Organization (63.3%); from the International Fund for Agricultural Development (34.5%); and (26.7%) from the Global Fund for Rural Advisory Services.

TABLE 3: Demographic profile of participants

VARIABLES		FREQUENCY	PERCENTAGE (%)
Sex	Male	11	36.7
	Female	19	63.3
EAS Provider Category	Front Line Extension Officer	4	13.3
	Assistant Extension Officer	12	40
	Extension Trainee	1	3.3
	Subject Matter Specialist	3	10
	Extension Supervisor	2	6.7
	Ministry Official	2	6.7
	Retiree	4	13.3
	Other	2	6.7
Organization Training Received From*	Food and Agriculture Organization (FAO)	25	63.3
	Global Forum for Rural Advisory Services (GFRAS)	8	26.7
	International Fund for Agricultural Development (IFAD)	10	34.5
	Other	4	13.8
Years of Service	< 5 Years	4	13.3
	5–10 Years	1	3.3
	10–15 Years	6	20
	>15 Years	19	63.3

*Participants would have indicated that they received training from more than one of the listed organizations, hence the reason the total number of responses (n=47) was more than the total number of participants (n=30) for this particular question.

Perceptions relating to the benefits of participating in such training

The literature highlighted that the training provided by these international organizations contributes to agricultural development. This was corroborated by most of the participants who indicated that international cooperation to build agriculture in Grenada was perceived as being helpful or extremely helpful and important to the development of agriculture (63.3%, n = 19). Participants gave their perspectives on the usefulness of the training opportunities. They identified some of the benefits to include (i) adaptive training outcomes geared toward transformative agricultural development, (ii) building personal capacity, and (iii) contributing to the development of farmers' capacity emerged as the key reasons why training participants perceived the training opportunities offered to them by international organizations as being useful.

Theme 1: Adaptive training outcomes geared toward transformative agricultural development

Actions needed to address environmental and social sustainability are key activities intertwined in agricultural development. Extension Advisory Service (EAS) providers are key personnel tasked with this responsibility. Furthering knowledge and training in agricultural extension, understanding the holistic development and delivery of service to stakeholders, effectively disseminating knowledge gained and value chain addition featured as being useful training outcomes. One training recipient indicated, "One reason why this training was useful to me was that I was able to be gainfully employed and still achieve an associate degree in furthering my education and knowledge about Agriculture Extension, enabling me to deliver better service as I learn." Another participant stated, "The trainings increased my capacity and my knowledge which allows me to better understand climate resilience and which gender is more vulnerable to climate change. Food safety allowed me to better understand food safety practices that should be applied on the farm, and I will be more skillful to disseminate what I have learnt to my clients the farmers!" Another recipient felt that the trainings "focused on the linkages between pre-production, production and value-added products and this was useful because it helps improve production in small farming."

Theme 2: Building personal capacity

Another useful outcome of the training opportunities was the opportunity of training recipients to build their personal capacity. Capacity building is an important part of any EAS provider's development. It involves identifying, developing, and enhancing the skills, knowledge, and abilities so that they can better perform in their roles and contribute to agricultural development. Feedback such as "I was privileged to practice what I have learnt and also share knowledge with farmers and stakeholders" and

“increasing my capacity to design, implement, and monitor projects” featured as the main responses supporting capacity personal capacity building.

Theme 3: Contributing to the development of farmers’ capacity

Sharing knowledge with farmers, coupled with relevant experience in agricultural practices and being able to connect farmers with suitable resources assists farmers in their capacity development which is an important part of agricultural development. Training with international organizations afforded this useful opportunity to participants. One participant shared that “through learning community mobilization, I was able to help farmers by using what I learnt, which is important for a successful extension service.” Another participant also shared that “the training empowered me to work with livestock farmers, to help them to support the industry,” additionally another participant shared that participating in the trainings allowed them to be better equipped “to identify the felt needs of the rural community and to get suggestions from them to solve the challenges.”

CONCLUSION

While some have argued that international collaborations sometimes focus on the goals and objectives of the donor agencies, rather than the needs of the recipients, it is without debate that these contributions provide benefits that enable SIDS to strengthen capacities towards agriculture development. Small Island Developing States are vulnerable to external shocks both economically and environmentally, and the coastal characteristics of SIDS pose added challenges. Some of the economic constraints include limited access to markets and restricted capital. The environmental impact includes the high level of activities related to climate change variabilities such as increased intensity of tropical storms and hurricanes, sea level rise, ocean warming and acidification as well as depletion of already limited natural resources. Given the vulnerable nature of SIDS, they are viewed as special cases for sustainable development which are highly dependent upon international cooperation to overcome the challenges. SIDS’ progress towards sustainable development and meeting the Sustainable Development Goal targets remains fragile given their vulnerability to external shocks. Evidence from recent assessments on the impact of COVID-19 revealed that progress made by these countries in meeting sustainable development goals have reversed or significantly slowed down.

SIDS have recognized and acknowledged the difficulties of addressing these challenges on their own and as such have looked to inter-regional and international cooperation with countries and organizations. The global context is now directed at sustainable development for SIDS, especially in the context of the impact of climate change and the global pandemic. The Government of Grenada is dedicated to fight-

ing climate change and is placing tremendous emphasis on addressing current and future risks. Significant support has been given by FAO, IFAD, and, in more recent times, GFRAS, on projects and programs geared towards building the capacity of those who are strategically poised to help implement efforts in agriculture development. The focus and assistance provided to SIDS has evolved as levels of vulnerabilities shifted and increased over decades. More emphasis is now directed towards the impact of climate change on food insecurity, hence the grants, loans and other sustainable development projects for SIDS are focused in that direction (CGD, 2013). While this is a global objective of international organizations to alleviate the impact of climate change, it is relevant to Grenada and other SIDS given their level of vulnerabilities and continued emphasis on developing strategies to build resilience. International cooperation therefore continues to be and is now even more paramount to Grenada and other SIDS achieving sustainable development. Given the nature and scope of advisory services, and the role it plays in ensuring the implementation of programs and projects, the trust towards building capacity in extension is even more important. The Center for Global Development emphasized that there is a “fairly strong consensus for global action on food and agriculture issues as the challenges the sector now faces like climate change and its variabilities exceed the capacity of national governments to address” (CGD, 2013).

GIVEN THE VULNERABLE nature of SIDS, they are viewed as special cases for sustainable development which are highly dependent upon international cooperation to overcome the challenges.

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