Stocktaking of Farmer Field Schools in the Caribbean

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C O N T E N T S

LIST OF APPENDICES

ACRONYMS

ACDI	Agricultural Cooperative Development International
ACV	Association Communautaire Voldrogue
AFTJ	Association des Femmes travailleuses de Jérémie
AJL	Associations des Jeunes de Lemaire
APAV	Association des Producteurs Agricoles de Voldrogue
APED	Association des planteurs et éleveurs Dame-Marie
ASFAP	Assosyasyon Fanm Previlé
ASSP	Agriculture Support Services Programme
BAC	Bureau Agricole Communal
CABI	Centre for Agriculture and Bioscience International
CARDI	Caribbean Agricultural Research and Development Institute
CARILED	Caribbean Local Economic Development Project
CARE	Cooperative For Assistance and Relief Everywhere
CDE	Centre for Development of Enterprise
CFC	Common Fund for Commodities
CTM	Chinese Technical Mission
CNSA	Coordination Nationale de Sécurité Alimentaire
CODEDAM	Combit Developman ak Embelisman Dame-Marie
CRSP	Collaborative Research Support Program
CRU	Cocoa Research Unit
CSA	Climate Smart Agriculture
DDA	Direction Départementale Agricole
DFID	Department For International Development
DOA	Department of Agriculture
EDF	European Development Fund
EU	European Union
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practices
GRDB	Guyana Rice Development Board
GREDGA	Groupe de Recherche pour le Développement de la Grand ‘Anse

GIZ	German Corporation for International Cooperation
IAS	Invasive Alien Species
IICA	Inter-American Institute for Co-operation on Agriculture
IPM	Integrated Pest Management
Ja REEACH	Jamaica Rural Economy and Ecosystems Adapting to Climate Change
KNFP	Konsèy Nasyonal Finansman Popilè
MARNDR	Ministère de l'Agriculture des Ressources Naturelles et du Développement Rural
MOA	Ministry of Agriculture
MOSOL	Mouvman Solèy
NAREI	National Agricultural Research and Extension Institute
NGO	Non-governmental Organization
ODBTM	Organisation pour le Développement Bas-Tapion Moron
ODFB	Organisation des Femmes pour le Développement de Buvette
OECS	Organization of Eastern Caribbean States
OFADEM	Assosyasyon Fanm Devye Mon ATIF
OFVC	Organisation des Femmes Vigilantes de Canon
OFVM	Oganizasyon Fanm Vanyan Moron
OPBM	Oganizasyon Peyizan Boukan Melye
OPDB	Organisation pour le Développement de Bayard
OPDPD	Organisation pour le Développement de Plaine Danger
OPLM	Oganizasyon Peyizan Lemaire
PAHO	Pan-American Health Organization
PPQ	Plant Protection and Quarantine
RACCOGA	Rassemblement des Citoyens Organisés pour le Développement de la Grand 'Anse
RPA	Rice Producers Association
SIRDI	Sugar Industry Research and Development Institute
TOT	Training of Trainers
UJDL	Union des Jeunes pour le Développement de Limaire
USAID	United States Agency for International Development
VOCA	Volunteers in Overseas Cooperative Assistance

ACKNOWLEDGMENTS

The Stocktaking of Farmer Field Schools (FFSs) in the Caribbean was designed to assess progress as regards the implementation of FFS to empower farmers and other key actors along the agriculture value chain; as well as determine their impact on the national and regional level. This desk research would not have been successful without the co-operation of officials in Ministries of Agriculture in Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, in Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago. The information from regional agencies, in particular the Centre for Agriculture and Bioscience International (CABI) and the Caribbean Research and Development Institute (CARDI), was also invaluable to this stocktaking exercise.

All of the photographic illustrations have been obtained from documents contained in the virtual library created during this stocktaking assignment. The information from the countries and the collaborating regional institutions allowed for the compilation of the document which speaks to the reach of FFSs in the Caribbean. Notably, a database of FFSs in the Caribbean is contained in the virtual library that will be shared with the global FFS community.

The consultant wishes to thank FAO for the opportunity to undertake this stocktaking exercise and acknowledges the input of the FAO Sub-regional Office in Barbados and the FAO Representations based in Jamaica and Trinidad for their facilitation of responses from the Ministries of Agriculture. Special thanks to Vyjayanthi Lopez and Manuela Allara for their guidance, as well as Marjon Fredrix and Makiko Taguchi for review of the draft document.

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FOREWORD

The introduction of Farmers Field Schools (FFS) in the Caribbean was triggered by the indiscriminate use of toxic pesticides and the consequent negative impact on the environment as well as human health and agricultural economies. In the thrust towards sustainable agro-ecological farming systems, there must be emphasis on empowering farmers to become agro-ecosystem managers.

Over the years, FAO has been the main facilitator of interventions that are geared towards the strengthening of national capacity for knowledge-sharing and the transfer of improved technology to farmers. Beginning in 2002, a myriad of thematic areas related to crop and livestock production systems in the region have been explored. The approach to the application of FFS methodology has varied from country to country and in order to enhance the coordination and monitoring of the FFS in the Caribbean, it was necessary to conduct a review of FFS experiences in the Caribbean, in order to quantify the reach of FFSs based on information from institutions, crops, processes and geographic locations.

FAO contracted Rufina Paul as the Consultant to take stock of FFSs in the Caribbean, with due consideration to FAO's gender mainstreaming policy. A critical component of this assignment was the development of a database of projects and institution contacts linked to the application of the FFS approach in agricultural production and marketing in each country in the region.

Many thanks to Rufina Paul for her dedication to the challenging task of preparing this document; which has established a template to guide future assessment of the quantitative benefits, in relation to technology adoption and diffusion rates as well as the determination of the extent to which countries in the region are applying FFS/participatory approaches as sustainable agricultural methodologies.

Vyjayanthi Lopez

Plant Production and Protection Officer
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EXECUTIVE SUMMARY

The low productivity of the agricultural sector in the Caribbean region continues to threaten food sovereignty and the sustainability of rural livelihoods systems. The adoption of improved technology, and adaptation to a specific local context, informed by robust agricultural research, is critical to the process of productivity enhancement and the realization of competitive advantage in Caribbean Agriculture. In pursuance of the vision of sustainable value creation along the production to market continuum and within the context of a bio-economic approach to the development of Caribbean Agriculture, the mission must speak to eco-efficiency among all stakeholders and the reduction of eco-footprint

In seeking to engineer the ecological modernization of Caribbean Agriculture, there must be a paradigm shift away from ad hoc and siloed approaches, especially at the farm level. Traditional approaches to agricultural development are fraught with diseconomies of scale; as well as environmental degradation and social dislocation. In the thrust towards sustainable agro-ecological farming systems, there must be emphasis on empowering farmers to become agro-ecosystem managers; by equipping them with the skills sets and establishing the knowledge management systems that are conducive to the adaptation and adoption of technologies that suit their socio-economic and environmental context.

Globally, Farmer Field Schools (FFSs) use participatory approaches for field testing and local adaptation of innovative practices and knowledge in different technical areas. The introduction of Farmers Field Schools (FFS) in the Carribean was triggered by the indiscriminate use of toxic pesticides and the consequent negative impact on the environment as well as human health. Also, the economics of production of particularly short-term and high value crops are negatively affected by the overuse of costly imported pesticides. Ultimately, this harmful practice triggers the leakage of foreign exchange from the economy of Caribbean countries that do not produce most of the farm production inputs. Generally, FFS provides scope for the exploration of the potential of tropical biological resources for innovation through the application of integrated pest management (IPM). FFS is expected to facilitate an improvement in production efficiency, as a result of more effective functional mechanisms for technology generation, validation and transfer.

The pilot FFS was mounted in Trinidad and Tobago in 2002. The FFS approach is based upon four (4) principles which form the working definition of IPM for the FAO community IPM programme. They are:

- *Grow a healthy crop or livestock*
- *Conserve natural enemies*
- *Conduct regular field observations; and*
- *Farmers become IPM experts.*

Through the application of the first principle, FFS participants were able to apply good agronomic practices and understand plant / animal biology; in order to facilitate optimal yields / output as well as produce commodities that are healthier and therefore resistant or less susceptible to pest and diseases. The second principle of conserving natural enemies focused on a reduction in the use of

toxic chemical and in this regard FFS participants needed to understand pest population dynamics and the field ecology of commodities. The third principle asserts conducting regular field observations and provides scope for the FFS participants to develop their ability to regularly observe, analyse and make eco-efficient decisions. The fourth principle posits that because of local specificity, FFS participants have become better equipped with the knowledge and skills to take decisions informed by participatory discovery learning.

In February 2016, the stocktaking of FFSs in the Caribbean was undertaken to review progress as well as to determine their impact on the national and regional level. Towards this a desk research was conducted to secure required information from the countries and collaborating regional institutions; in order to quantify the reach of FFSs as well as create a virtual library of documents generated during the process. This report speaks to the implementation of FFSs in 11 Caribbean countries, namely: Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago; as well as the Centre for Agriculture and Bioscience International (CABI) and the Caribbean Research and Development Institute (CARDI). The report will be shared with the global FFS community.

FFSs in the Caribbean have demonstrated the capacity to transition from low productivity and inefficient systems of agricultural production; through the application of knowledge and learning routes in respect of participatory field experiments and a learning approach that emphasizes participatory discovery learning. The FFS approach varied from country to country and the reach of the FFS experience was conditioned by inter alia the institutional capacity of the implementing entity, the commodity being researched, funding and the eco-region.

The outcomes of the stocktaking exercise are:

- *A virtual library of FFS experiences in the Caribbean as well as documents generated and related to the experiences of FFS.*
- *Data base of related projects, organizations and institutions that focus on FFS in the Caribbean countries*
- *Systematization of relevant experiences, including list of actors, geographic location and available thematic bibliography, and initial ideas on FFS quality*

Conclusively, the FFS methodology has been embraced by all of the Caribbean countries reviewed. Through the implementation of the FFS methodology, agricultural producers have been empowered to make informed decisions and to undertake actions that will result in eco-efficiency in agriculture. In some of the countries, FFS participants have established Associations of FFS producers, thus establishing a producer-driven framework for knowledge intensification and eco-effficient actions, in partnership with key actors along the agriculture value chain. In this scenario, FFS provides scope for the interface of agronomy and crop protection science with economics and sociology to nurture a mentality of self-determination among stakeholders in Caribbean Agriculture.

1. INTRODUCTION

The low productivity of the agricultural sector in the Caribbean region continues to threaten food sovereignty and the sustainability of rural livelihoods systems. The adoption of improved technology, informed by robust agricultural research, is critical to the process of productivity enhancement and the realization of competitive advantage in Caribbean Agriculture. In pursuance of the vision of sustainable value creation along the production to market continuum and within the context of a bio-economic approach to the development of Caribbean Agriculture, the mission must speak to eco-efficiency among all stakeholders and the reduction of eco-footprints.

In seeking to engineer the ecological modernization of Caribbean Agriculture, there must be a paradigm shift away from ad hoc and siloed approaches, especially at the farm level. Traditional approaches to agricultural development are fraught with diseconomies of scale as well as environmental degradation and social dislocation. The call goes out for a collective approach that serves to improve productivity; while at the same time strengthening their overall capacity of farms to transition from subsistence agricultural production to competitive and sustainable agricultural enterprises. In this regard, there must be emphasis on empowering farmers to become agro-ecosystem managers by equipping them with the skills sets and establishing the knowledge management systems that are conducive to the adaptation and adoption of technologies that suit their socio-economic and environmental context.

The Farmer Field School (FFS) concept has been an attempt to develop this empowering farmer education model based on practical, field-based learning method with emphasis on group-based learning by doing. This approach involves the farmers in participatory action research, regular field observations and group analysis that contribute to a better understanding/appreciation of ecological as well as social and economic realities. In this cyclical learning process, farmers develop the expertise that enables them to make their own crop management decisions. Special group activities encourage learning from peers and experts, and strengthen communicative skills and group building.

The introduction of Farmers Field Schools (FFS) in the Carribean was triggered by the indiscriminate use of toxic pesticides and the consequent negative impact on the environment as well as human health. One of the biggest carbon foot prints in agriculture can be ascribed to input supply, in light of the heavy dependence on the importation of chemical inputs such as fertilizer and pesticides. The engagement of the farmers in local experimentation will help to further improve their understanding of functional relationships (e.g. pests-natural enemy population dynamics and crop damage-yield relationships).

FFS provides scope for the exploration of the potential of tropical biological resources for innovation through the application of integrated pest management (IPM). Globally, Farmer Field Schools (FFSs) use participatory approaches for field testing and local adaptation of innovative practices and knowledge in different technical areas. This participatory approach helps to concretize the farm's critical business / operational procedures in a language that all the members of the group can understand. The knowledge gained from these activities enables participants to make their own locally-specific decisions about all aspect of crop management; from crop/varietal selection, land preparation, planting, pest management, to harvesting, packaging and marketing.

2. BACKGROUND AND CONTEXT

FFS in the Caribbean region began with the implementation of the FFS component of the EC-CARIFORUM Caribbean Agriculture and Fisheries Programme IPM Project in 2000. The expert consultant proposed the following three (3) stages for the implementation of the FFS component:

- Phase I – Training of Master Trainers
- Phase II – Training of Trainers
- Phase III – Planning and Implementation of Farmer Field Schools

According to the Report of the Training of Master Trainers (Lopez, Palengleng, Vos and Kairo, 2002), the IPM Project Management Unit (PMU) based at CABI provided technical support to the Project Management and Co-ordination Unit (PMCU) withi The aim is to strengthen the capacity of Extension Officers to engage farmers in season-long FFSs. n the Caribbean Agriculture and Fisheries Programme (CAFP).

Since then, FFS in the Caribbean has come a long way and has undoubtedly impacted the lives of many farmers throughout the region. During the last 13 years, FFSs and /or activities using farmer participatory methods have been implemented in 14 Caribbean countries namely: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. Collaborative regional agencies are CABI, FAO, CARDI, IICA and CAFAN.

The pilot FFS was mounted in Trinidad and Tobago in 2002, funded by the European union (EU) under the 7th European Development Fund (EDF) and executed by CABI in collaboration with FAO and the MOA. The FFS approach is based upon four (4) principles which form the working definition of IPM for the FAO community IPM programme.

They are:

- Grow a healthy crop or livestock
- Conserve natural enemies
- Conduct regular field observations; and
- Farmers become IPM experts.

Through the application of the first principle, FFS participants were able to apply good agronomic practices and understand plant / animal biology; in order to facilitate optimal yields / output as well as produce commodities that are resistant to pest and diseases.

The second principle of conserving natural enemies focused on a reduction in the use of toxic chemical and in this regard FFS participants needed to understand pest population dynamics and the field ecology of commodities. The third principle asserts conducting regular field observations and provides scope for the FFS participants to develop their ability to regularly observe, analyse and make eco-efficient decisions. The fourth principle posits that because of local specificity, FFS participants have become better equipped with the knowledge and skills to take decisions informed by participatory discovery learning.

Given the importance of FFSs for the development of skills and the sharing of experiences, it is necessary to organize available information on FFS and its different applications, with the aim of improving the coordination and monitoring at the sub-regional level, and to better focus technical support to FFS development. As a first step in the analytical process, the

stocktaking of FFSs in the Caribbean was undertaken to review progress; as well as to determine their impact on the national and regional levels.

Towards this end, a desk research was conducted to secure required information from the countries and collaborating regional institutions; in order to quantify the reach of FFSs; as well as create a virtual library of documents generated during the process thus far. The ultimate objective is the establishment of a template to guide future assessment of the quantitative benefits; in relation to technology adoption and diffusion rates, as well as to determine the extent to which countries in the region are applying FFS/participatory approaches as sustainable agricultural methodologies.

In analyzing the information provided by the countries, due consideration was given to the issue of FFS quality, as well as the verification of areas of strengths and weaknesses in FFS and FFS programs. In April 2016, FAO published the *Farmer Field School Guidance Document – Planning for Quality Programmes*, that provides more information on how to set up and implement FFS programmes. The Guidance Document can be accessed at: http://www.fao.org/3/a-i5296e.pdf.

3. DEVELOPMENT OF FFS IN THE CARIBBEAN

FFS in the Caribbean region began with the implementation of the FFS component of the EC-CARIFORUM Caribbean Agriculture and Fisheries Programme IPM Project in 2000. The expert consultant proposed the following three (3) stages for the implementation of the FFS component:

- Phase I – Training of Master Trainers
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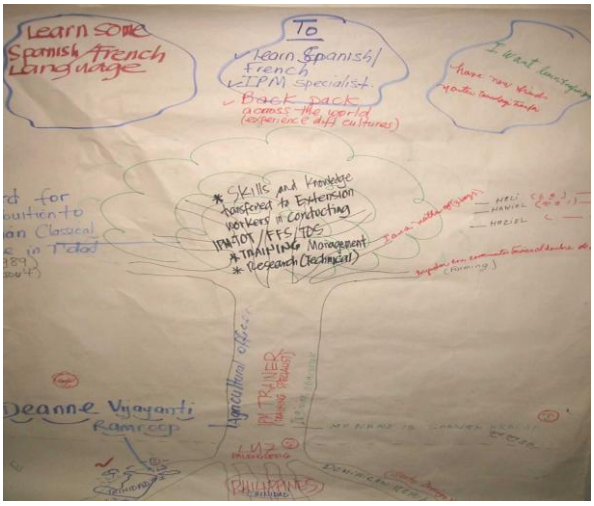
According to the Final Report of the Training of Master Trainers (Lopez, Palengleng, Vos and Kairo, 2002), the IPM Project Management Unit (PMU) based at CABI provided technical support to the Project Management and Co-ordination Unit (PMCU) within the Caribbean Agriculture and Fisheries Programme (CAFP).

The regional pilot FFS was undertaken in Trinidad by CABI in conjunction with the FAO. The Training of Master Trainers (TMT) was implemented during the period August - December 2002. "The purpose of the training was to promote the development of ecologically sound agriculture in the Caribbean through the use of sustainable approaches in Integrated Production and Pest Management. Using participatory approaches, TMT participants were trained in ecologically sound management of two crops, cabbage and tomato. The training comprised of practical field and laboratory sessions and exercises complemented with interactive lectures and group discussions. The participants were also trained in the use of Non-Formal Education (NFE) and Participatory methods. Throughout the training, participatory approaches were used to ensure that maximum benefits were realised from the training" (Lopez, Palengleng, Vos and Kairo, 2002).

Participants for the training were drawn from six countries: two participants each from Dominica, Dominican Republic, Haiti, Suriname and Trinidad & Tobago, and one from Jamaica. Twelve participants graduated as FFS facilitators at the end of the TMT: four (4) females and eight (8) males, including one participant from Guyana who joined the group on a voluntary basis and was later incorporated into the group.

The following pictures[1] illustrate some of the activities undertaken during the FFS masters training programme.



Introduction of participants

Ballot box pre-test in the field

[1] Source: Final Report of the Training of Master Trainers (Lopez, Palengleng, Vos and Kairo, 2002)


NFE Methods: Role play (left) and group dynamics (right)


Soil management exercises: digging soil pit (left) and making a compost heap (right)


Weekly AESA observations in tomato (left) and cabbage (right)

"The daily activities, guided by a planned weekly schedule, followed standard times: for instance, all field activities like crop observation, data collection and monitoring / AESA and other field work were always undertaken in the morning. The field work requirements were dictated by the results of the AESA. The AESA, aimed at developing skills in making wise decisions by interpreting field data and other observations, was a continuing activity undertaken each week until the crop was harvested. AESAs were done in the crop protection plots and decisions made were also implemented in the fertiliser and varietal plots, as discussed above. Other continuing activities included setting up of insect zoos, disease zoos and studies on crop morphology. Most of the special topics were presented in the afternoon sessions at the CABI training centre. However, resource persons for the various topics were encouraged to visit the study field before the delivery of topics so that they could relate the subject to what they saw in the field" (Lopez, Palengleng, Vos and Kairo, 2002).

Training room activities: Insect zoos (left) and observations on diseases (right)

Tomato (left) and cabbage (right) groups at work

"At the outset, two permanent main groups were established among the participants, one group (6 participants, one from each country) assigned to tomato and the other (5 participants, plus the volunteer from Guyana) to cabbage. Each group was responsible not only for data collection, data processing and implementation of all the necessary fieldwork, but also in the preparation of reports for the various studies" (Lopez, Palengleng, Vos and Kairo, 2002). A total of 31 females and 54 male trainers participated in the TOTs in the six (6) countries along with 31 female and 79 male farmers.

In 2003, Phase II of the regional pilot project was launched with the implementation of Training of Trainers (TOT) in each of the six (6) participating countries. In Phase 1, a component of the training was the development of Action Plans by the master trainers for the implementation of TOTs upon their return home. The thematic areas among other particulars are detailed in Annex 1.

The EU sponsored regional project came to an end in December 2003 with the completion of Phase II. Phase III – the planning and implementation of FFS – continued in several (but not all) countries with funding and technical support from FAO, the Ministries of Agriculture and various other collaborating institutions.

As already indicated, during the last 13 years, FFSs and /or activities using farmer participatory methods have been implemented in 14 Caribbean countries namely: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago.

The FFS experiences in 11 of the countries and CARDI are as follows:

3.1 **Antigua & Barbuda** [reference Annex 2]

The FFSs in Antigua and Barbuda began in April 2013 with the Zero Hunger Challenge Initiative (ZHCI) – Home Food Production / Backyard Gardening Project implemented by the Ministry of Agriculture with support from FAO. Through this project, three (3) Backyard Garden Facilitators went through intensive training in the use of participatory

approaches and their functions were subsequently integrated with the work programme of the Extension Division in the Ministry of Agriculture. From 2013 to date, these Facilitators have trained >500 householders / backyard gardeners in ***seedling production, composting in the backyard, vermiculture, recycling of wooden pallets for household planting, companion planting in the backyard as a Climate Smart Agriculture (CSA) measure.***

FAO funded and implemented two (2) other ZHCI related activities. These were ***water recycling from the kitchen for use in the backyard as climate change agriculture (CSA) in ZHCI*** – a one year initiative launched in 2013 and in January 2015, ***the budding and grafting of fruit trees***. The ***Formation of a non-profit organization for farmers*** was a FFS initiative launched by the Agricultural Extension Division in September 2015 which is ongoing. Seven other participatory training activities were undertaken by the Agricultural Extension Division in 2014 and 2015. These varied initiatives are titled: ***sustainable agriculture and waste management, control of the giant African snail, control of the sweet potato weevil, soil fertility, plan nutrition, soil testing and herbicide selection, use and safety.***

Of the 19 farmer participatory / FFS related activities reported for Antigua and Barbuda, three (3) were implemented by Gilbert Agricultural and Rural Development Centre (GARDC), which is a non-governmental organization (NGO). These were: an EU funded, three (3) month ***Agricultural Enterprise*** school in 2014; a one (1) week ***Sustainable Agriculture*** training funded by the University of Delaware in 2014 and a six (6) month Antigua and Barbuda Short-Term Employment Program (***ABSTEP***) during the period September 2015 – February 2016.

Gender

In Antigua and Barbuda, 513 female farmers and 393 male farmers have participated since the introduction of field schools in 2013 and the count of FFS trainers indicate 42 female and 43 male trainers. There is thus a near gender parity in relation to FFS trainers. As regards the gender dimensions of the participants and the data reveals a ratio of 1.3 female per male FFS participant. The greater participation of females relates to the fact that many of the schools focused on home-based / backyard garden activities.

Sustainability

The Extension Division with the Ministry of Agriculture is reported to be engaged in all of the FFSs undertaken in Antigua and Barbuda to date. As well there is collaboration with the ZHCI being implemented in six (6) vulnerable communities in St. John's, St. Georges, St. Mary's and Barbuda. Further, it is reported that the ZHCI is being integrated with the programme of the Agricultural Extension Division and three (3) positions of Backyard Garden Facilitators have been established in the Ministry of Agriculture.

3.2 Belize [reference Annex 3]

The first FFS, related to ***sugarcane production,*** started in June 2011 and was implemented by the Sugar Industry Research and Development Institute (SIRDI). More than 10% (702) of the farmers in the sugar industry participated in this FFS; however the 5400 farmers in the sugar industry were ultimately impacted.

In keeping with the drive towards greener agriculture and food systems, a FFS focused on the ***agro-ecological farming of fruits and vegetables*** began in March 2014. This FFS was funded by the German Corporation for International Cooperation (GIZ) and implemented by the Extension Department in the Ministry of Agriculture. It is reported that there are no prospects for the sustainability of the FFS methodology since no expert support was available.

An ***onion production*** FFS, under the auspices of FAO was started in January 2015 and is being implemented over a period of 30 months. This initiative is part of an EU funded project known as "Promoting Agro Business in Northern Belize". A value chain approach was adopted and the FFS started with the planting of the crop in open field, through to harvesting and postharvest activities. This FFS provided scope for the farmers to deliberate and take joint decisions with respect to overcoming challenges and safeguarding the prospects for value addition and income from non-traditional agriculture pursuits.

According to the Cocoa Research Unit (CRU) Facebook page[2]

[2] https://www.facebook.com/cocoacentre/photos/a.411760208853880.107132.284056564957579/411760688853832/

"Four cocoa farmer field schools were conducted in Toledo on recommended post-harvest practices from March 23 to April 13. Each school involved roughly 6 farmers who enjoyed almost individual attention from the local co-ordinator, expert farmer and an extension officer from the Cacao Growers Association. These sessions were very effective and vibrant. Active participation of the farmers was facilitated by the use of Kek'chi, the native language of the Mayan people in Belize, to conduct the sessions".

Cocoa Farmer Field School in Belize on March 23- 24, April 12-13, 2012 were funded by the Centre for Development of Enterprise (CDE[3]).

Gender

Three (3) female and 23 male FFS trainers were engaged in the implementation of the FFSs; a ratio of 7.7 males to one female trainer. Notably the onion production FFS engaged 10 male trainers and no female trainers.

Less than 10% of the farmers who participated in the FFSs were females based on the tally of 69 female farmers and 685 male farmers trained. The majority of the farmers – 642 males and 60 females – participated in the sugar production FFS.

Sustainability

[3] CDE is a joint institution of the ACP Group and the EU, headquartered in Brussels and operating through six (6) regional offices. The office for the 15 CARIFORUM countries is located in Santo Domingo. The Cocoa FFSs in Belize were part Component I: Improvement of Productivity and Raw Material Quality in the Caribbean Area of CDE's Programme of Support: CAR/0808/R03/FO - Caribbean Fine Flavour Cocoa Industry Commercialisation. The other countries involved were Dominica, Dominican Republic, Grenada, Jamaica and Trinidad and Tobago.

Prospects of sustainability are influenced by the availability of expert support and funding. The ongoing EU funded project provides scope for a value chain approach and the safeguarding of rural livelihood systems. According to the Project Manager – Gabino Canto – on the CTV3 Belize News[4]:

> "Right now we have fourteen farmers in Corozal and fourteen farmers in Orange Walk and the purpose of it is actually to look at the productivity of the Onion fields in Corozal and Orange Walk and assist the farmers to look at the loop holes that is keeping them back from producing good quality Onions and more efficiently because we are implementing a value chain project that they can generate an income for themselves and probably expand in the end and I think our contribution to the diversification here in Crozal and Orange Walk will be very positive."

3.3 CARDI [reference Annex 4]

The Caribbean Agricultural Research and Development Institute (CARDI) implemented an ***Integrated Pest Management Collaborative Research Support Program*** over a period of 13 years (1994- 2006). This regional project, which included Jamaica, Trinidad and Tobago, St. Vincent and the Grenadines and St. Kitts and Nevis, served to introduce Farmer Participatory Methodology to the Caribbean. It is reported that a total of 1500 farmers in Jamaica received training during that period. As well, seven (7) females and five (5) males were trained as FFS facilitators.

In October 2008, CARDI implemented a Callaloo Cage Commercialization FFS in St. Thomas, Jamaica with funding from Citizens Development Corporation. The St. Thomas Women's Agricultural Initiative (producer group) and a private sector processing entity – Ecowells collaborated in participatory experiential learning process which ended in July 2009. One female trainer was engaged in the empowering of 10 female and 15 male callaloo producers.

[4] http://www.ctv3belizenews.com/index.php?option=com_content&view=article&id=7082:onion-producers-graduate-from-farmers-field-school-program&catid=43:economy&Itemid=111

During the period March 2010 – June 2013, CARDI facilitated FFSs in six (6) sites in Jamaica, Haiti, Trinidad and Tobago, Dominica and St. Vincent and the Grenadines. A total of 774 root crop producers in Jamaica participated in a CFC-EU funded project titled: ***Increased Production of Root and Tuber Crops in the Caribbean through the Introduction of Improved Marketing and Production Technologies.*** A similar project geared towards ***Increased Production of Vegetables and Herbs through the Use of Protected Agriculture in the Caribbean,*** trained 273 farmers in Jamaica. FFSs were also implemented in Haiti and Trinidad and Tobago.

Twenty-seven cassava producers in Jamaica, Guyana and Grenada participated in FFSs on good agricultural practices (GAP) along the production-processing to market value chain through a FAO funded project titled: ***Integrated Development of Cassava in the Caribbean.*** In Jamaica, three (3) female and 24 male farmers are reportedly participating in FFS which began in December 2013 and is scheduled for completion in May 2016. It is reported that the Bright River Farmers' Cooperative in Jamaica is producing cassava for processing and is directly linked to markets. They also have access to mechanized planting and harvesting which will make them more inclined to adopt GAP and other practices taught during the FFS sessions.

In Grenada, CARDI implemented three (3) FFSs in ***Cassava Production for Farmers and Extension Officers*** during the period July – October 2015. One female facilitator was engaged in each of the FFSs and a total of 19 female and 53 male cassava producers participated in the two (2) FFSs held in St. Andrew's and the one in St. Patrick's Grenada.

3.4 <u>Dominica</u> [reference Annex 5]

The Dominica experience began with the training of two (2) male master trainers in Trinidad and Tobago during the period August – December 2002. This was followed by the ***Training of Trainers*** (TOT) in Dominica from April to August 2003 and two (2) FFSs during 2003-2004, undertaken by the Department of Agriculture in partnership with CABI and funded by the EU. In 2005, one of the two FFSs undertaken in 2004 was repeated with funding from FAO. These initiatives resulted in farmers being trained in IPM with emphasis on greening methods and reduced use of inorganic pesticides. Cabbage and tomato were the principal

trial crops. There was one IPM/FFS with onions and another with sweet corn. During the period September – December 2007, the organic FFS with cabbages and tomatoes was repeated with funding and leadership from the Department of Agriculture.

During September 2013 – December 2014, a FFS on Small Ruminants and Pasture Management was initiated by the DOA with support from CARILED and in collaboration with the Youth Division in Dominica; three (3) FFSs were undertaken by the DOA. In 2014, apart from the ongoing FFS that focused on empowering youth in a rural poor community in the north-east region, a backyard gardening FFS was undertaken during the period May – August 2014 with funding and leadership from PAHO and DOA. In furtherance of the effort to diversify away from bananas, an IPM with Irish potato was undertaken during the period December 2014 – March 2015.

The principal collaborants in the implementation of the FFSs were CARDI and the Plant Protection and Quarantine (PPQ) officers. There were no farmers organizations engaged in the FFS experience.

Gender

Ten (10) female farmers and five (5) male farmers, along with four (4) females and nine (9) male trainers from the Extension Division in the DOA and CARDI participated in the TOT. A near equal number of female and male farmers, totaling 85 and 83 respectively, received training in FFS, from the inception in October 2003 to the end of the last FFS in March 2015.

Overall there was dominance of male FFS trainers, even in the FFS that was biased towards female participation where there were two (2) male and one (1) female trainer engaged; although there were only two (2) male farmers among the 15 farmers that participated in the backyard gardening FFS. Overall 12 female and 28 male trainers, inclusive of the two (2) male master trainers, were engaged in FFSs.

Sustainability

The master trainers that were trained in Trinidad and Tobago facilitated the TOT in FFS methodology for the trainers that were deployed in Dominica to carry out FFSs in the north,

north-east, central, east, and south regions of the island. Of the 11 FFSs reported to have been undertaken in Dominica, six (6) of these dealt with IPM methodology and short-term crops; another two (2) were focused on organic farming principles in the cultivation of vegetables. There was one FFS on youth involvement in livestock production and another was designed to empower housewives and single mothers in backyard gardening. Overall, these FFS initiatives were oriented towards climate smart agriculture, agricultural diversification and the increased involvement of women and youth.

3.5 <u>Grenada</u> [reference Annex 6]

The ***Construction of Model Goat Houses in Grenada to improve Small Ruminants Production*** is the only FFS Topic elaborated through the implementation of seven (7) FFSs commencing May 2009; with the initial FFS in the parish of St. David's. Thereafter, this initiative was replicated in the parishes of St. John's, St. George's by the Veterinary and Livestock Division of the Ministry of Agriculture. In September 2010, CARDI in partnership with IICA funded the implementation of the fourth FFS in St. Andrew's. The fifth FFS was sited in Carriacou, in October 2010 – funded and implemented by CARDI. In April 2011, FAO funded another FFS that was undertaken in St. Patrick's and the Ministry of Agriculture undertook the seventh FFS in respect of the model goat houses to facilitate the improvement in small ruminant production.

<u>Gender</u>

In St. Andrew's, 15 female and 30 male livestock farmers participated in FFS which commenced in September. In St. Patrick's, eight (8) farmers were engaged in the FFS of April 2011 – five (5) were females. Participation levels for the other three (3) FFSs conducted on the mainland were not reported.

In Carriacou, the ratio of females : male was 1:3 among the 20 livestock farmers that were trained in the CARDI funded and implemented session of October 2010; and the session funded and conducted by the Ministry of Agriculture registered a 1:4 ratio of females to males among the 15 participants in the April 2011 session.

<u>Sustainability</u>

In Carriacou, the prospects for sustainability were reported to be not very good; due primarily to the lack of monitoring / follow-up and support from the Agriculture Division in the Ministry of Carriacou Affairs, coupled with the fact that no FFS facilitators were reported to have participated in any of the seven (7) FFSs undertaken during the two (2) year period from May 2009 – April 2011.

3.6 <u>Guyana</u> [reference Annex 7]

The Guyana Rice Development Board (GRDB) Extension Division commenced FFSs in the Autumn Crop of 2003. With respect to ***Best Practices in Rice Cultivation***, 27 male facilitators / trainers were engaged during the period June 2003 – April 2006. According to the GRDB Extension Division, "approximately 60 FFSs are established per year with an average of 15-20 farmers participating in each session". Farmers repeat their attendance and 11,344 attendance of males are reported vis a vis participation by eight (8) female farmers.

During the period May 2006 – March 2011, the ***ASSP / Six Points to improve rice yield and vegetable crop production*** was undertaken in Regions 3, 4 and 6. Twenty-seven (27) male trainers facilitated the training of 13,085 male attendees[5] and 24 female farmers participated. In June 2007, FFSs in relation to the ***Six Points to improve rice yield*** were implemented in Regions 2 and 5 with facilitation by two (2) female trainers and 29 male trainers. A total of 1212 farmers were trained, only three (3) were females.

One hundred and eighty farmers (five of them females) in Region 6 participated in a FFS on ***Integrated Rice / Fish[6]*;** which was facilitated by two (2) female and 11 male trainers during the period December 2004 – March 2005. This initiative was replicated in Regions 2,3 and 5 during the period June 2005 – May 2006 with seven (7) facilitators in total – two (2) of them were females. Of the 287 farmers who participated from four (4) regions; seven (7) were females, with five (5) of them being from Region 6. Due to the larceny of the fishes, this FFS topic was not sustained. It is reported[7] that some farmers realized significant results[8] –

[5] Farmers repeated their attendance in the various FFSs

[6] This FFS activity was a component of a FAO TCP implemented in Guyana and Suriname, within the context of a joint regional project linked to the diversification component of the Special Programme for Food Security (SPFS).

[7] https://www.worldfoodprize.org/documents/filelibrary/images/youth_programs/research_papers/2009_papers/LifewalkChristianHS_LLastufka_B52602E23B73E.pdf

synthetic pesticide use decreased and rice production increased significantly resulting in environmental, nutritional and financial benefits.

However, according to the GRDB, the FFS[9] programme in Guyana continues to grow with more schools being established each season. This was the case in respect of the FFS thematic areas geared towards improving rice yield and in June 2011 FFSs were replicated in Regions 2, 3, 4, 5, and 6 with 31 facilitators as previously obtained. In comparison to the level of attendance when the FFS programme was initiated in 2003, farmer participation has dwindled, particularly among the male farmers to 4,500 attendees from June 2011 to present.

As reported on the GRDB website[10], "the goal of the FFS was to ensure that farmers achieve maximum yield from their crop by using agro ecosystem analysis as a basis for action. The FFS commenced using the four guiding principles of IPM…… It later evolved to be more technology based and consisted of comparative demonstrations which were intended to validate research practices alongside farmer conventional practices …… It is making a significant impact on farmers' yields for a study has shown that farmers who are part of the programme obtain an average of ten bags of paddy more per acre than those who are not. The content has been modified to accommodate other areas of training, e.g., HIV/AIDS and this will be continued as the need arise".

The National Agricultural Research and Extension Institute (NAREI) also undertook FFSs as follows:

[8] As the fish ate insects that usually plague rice plants, the fish grew and fertilized the rice in turn.
[9] http://grdb.gy/index.php?option=com_content&task=view&id=6
[10] http://grdb.gy/index.php?option=com_content&task=view&id=6

FFS Topic	Number of Units / Plots	Start date and Duration	Total[11] Number of Farmers Trained
Plantain Management	18 units	Feb –May 2015 and continuous for 3 cycles	423
Sweet Potato weevil traps with male attractant lures	79 units	Jan 2015 12/16 weeks per unit	872
Introduction of Amjad sweet potato variety	37 plots	Jan 2016 16 wks/ session	183
Diamond back moth male attractant lures	34 plots	January 2015 ongoing	78

The farmers who attended these FFSs to be trained in IPM methods and crop management benefited through productivity enhancement coupled with improved observation and management skills. All of the 20 trainers who facilitated the implementation of the FFSs tabulated above were males.

In 2015, the GLDA provided the funding necessary to facilitate group-based learning and informed decision making among livestock farmers in the area of (1) ***Small ruminants – record keeping,*** (2) ***Management of Broilers with Emphasis on Nutrition,*** (3) ***Dairy Breeds of Cattle, Milking Procedures, Housing of Dairy Animals, Weighing of Animals*** and (4) ***Farrowing Pen Designs and Management in Swine.*** The prospects for the sustainability of the FFS methodology among farmers in the livestock sector are reported to be good. The start date and duration as well as the participation levels in respect of these four (4) livestock FFS thematic areas are as follows:

FFS Topic	Start date and Duration	Number of Facilitators /Trainers		Number of Farmers Trained	
		Female	Male	Female	Male
Small ruminants – record keeping	August 6 2015, three weeks	2	2	40	15
Management of Broilers with Emphasis on Nutrition	October 29, 2015	1	2	10	12
Dairy Breeds of Cattle, Milking Procedures, Housing of Dairy Animals, Weighing of Animals	October 23, 2015		2	2	14
Farrowing Pen Designs and Management in Swine.	October 15, 2015		2	3	15

[11] M:F ratio not recorded

3.7 <u>Haiti</u> [reference Annex 8]

From November 2012 to date, 152 FFSs spanning 14 FFS topics /thematic areas and linked with the implementation of four (4) projects had been undertaken in Haiti. The projects and FFS topics/ thematic areas are as follows:

Project	FFS Topic	Number of FFSs	Start date and duration
1. Food Security Project in the North East GCP/HAI/03/EC [EU funded]	***Agricultural Production***	38	November 2012 until now
	Storage	17	
	Beef Breeding	7	
	Fish Farming	8	
2. Strengthening climate resilience and reducing disaster risk in agriculture to improve food security in Haiti post earthquake GCP/HAI/027/LDF [GEF funded]	***Agricultural Product and Variety Comparison***	2	January 2015 until now
	Introduction resilient crop varieties (sweet potato; CMS-40 short cycle cassava strain peas); conservation farming techniques application (mulching)	6	
	Improved farming practices, application of best environmental and agricultural practices Intensive Organic Production System : vegetables	9	
	Treatment of rotting banana	1	
3. Resilience of Family Farmer in Grande-Anse Department OSRO/HAI/403/UK	***Agricultural Product Processing and technology***	11	April 2014 until now
	Conservation Farming: Maize, beans, lima beans	16	
	Best Practices on Vegetable Crops Production	14	
	Soil Conservation Techniques on Steep Slopes	12	
	Management of Cocoa Agroforestry Systems	3	
4. Support to the implementation of the three-year program to revive agriculture TCP/HAI/3403 [FAO funded]	***Conservation Agriculture practices in rainfed cropping systems***	8	June 2015 until now

All of the FFS implemented in Haiti were undertaken by numerous Associations of Farmers Field School Producers throughout the country; with technical support from the Ministry of

Agriculture Natural Resources and Rural Development (MARNDR) and other institutions such as the National Food Security Coordination Office (CNSA). The many collaborants include women and youth organization; as well as agencies such as Cooperative for Assistance and Relief Everywhere – CARE International.

Gender

A total of 2126 farmers had been trained, with a ratio of 1.07 female to each male farmer, based on a count of 1101 female farmers and 1025 male farmers participating since the introduction of FFS in November 2012. With respect to FFS facilitators, 62 females and 72 males had been trained. Female participation as trainers and farmers outweighed the males in the project titled: "Resilience of family farmer in Grande Anse Department". Except for the aforementioned project, there were more male FFS trainers engaged in all instances. Female farmer participation was most dominant in FFSs related to family farming and food security.

3.8 Jamaica [reference Annex 9]

Traditional approaches to agricultural production in St. Elizabeth has, over the years, created highly favourable conditions for the "nesting" of the beet armyworm (*Spodoptera exigua*) and since the 1990s there has been several major outbreaks of this pest. In a bid to enhance farmer knowledge and best practice adoption in Jamaica, with emphasis on demonstrations in solving problems with the growing cycle of field crops; an FFS was launched in March 2009 for a six (6) month period.

This initiative was implemented by ACDI/VOCA with technical support under the USAID funded, *Jamaica Rural Economy and Ecosystem Adapting to Climate Change* (JaREEACH) project. Two (2) female and six (6) male trainers facilitated training sessions which included field activities and the sharing of new knowledge and skills with 150 farmers – 50 of these were women farmers.

One element of a FAO TCP project titled: "Strengthening a National Beet Armyworm Programme, was to utilize FFS methodology to enhance farmers' knowledge base, skills and attitudes regarding the beet armyworm (BAW). According to a RADA report (December

2013), two (2) FFSs were delivered during the period: April – June 2013 in Comma Pen and Gillards/Little Park in St. Elizabeth. A summary of the FFS sessions conducted under the FAO/RADA LOA and the training modules are contained in Annex 9.

FFS Sessions in Gillard/Little Park (left) and Comma Pen (right)[12]

In the Jamaican Experience, agroforestry was selected by the JaREEACH project[13] as the land use alternative of choice to reduce vulnerability and improve both the livelihoods and the adaptive capacity of rural families to climate change. To achieve this, JaREEACH designed the agroforestry FFS and agroforestry as a business training program that transferred agroforestry technologies based on local assessment. In March 2012, ***Cocoa Farmer Field Schools*** were undertaken in Clarendon and St. Mary by ACDI/VOCA in collaboration with the MoAF and RADA. It is reported that 25 female and 100 male farmers participated.

ACDI/VOCA's Marketing and Agriculture for Jamaican Improved Competitiveness (MAJIC) has provided scope for the ToT; and in this regard the training has served to build extension agents' abilities to communicate effectively with farmers and to effectively utilize the FFS methodology as a vehicle for technology adaptation and transfer in the thrust towards climate smart agriculture.

[12] Extracted from RADA Report (December 2013)

In February 2014, FFSs aimed at ***Protecting Lives and Livelihoods from the Impacts of Climate*** were implemented in St**.** Mary, Clarendon, St. Andrew and St. Elizabeth by ACDI/VOCA in collaboration with the MoAF and RADA. According to a February 2015 news release from ACDI/VOCA[14] "more than 230 farmers will attend a graduation ceremony at the Bridge Palm Hotel in Clarendon marking the successful completion of their participation in a CSA farmer field school. The event is a milestone for the 11 farmers' groups from the southern and central parishes of Jamaica. This graduation, the second of two held this month, expands the total number of trained climate-smart agriculture graduates to more than 400".

The youth were also engaged in the learning of climate-smart approaches by way of a comprehensive training program which included field activities, community consultations and group engagement sessions towards the design and implementation of a community action project for each participating community.

Youths at FFS Graduation Ceremony

[13] http://www.slideshare.net/acdivoca/45-mr-clifton-wilson

[14] http://acdivoca.org/resources/newsroom/news/news-release-ja-reeach-produces-more-usaid-trained climate-smart-farmers

Ninety-eight (98) young people are reported to have graduated from the Climate Change Action Training program, organized by Jamaica 4-H Clubs in collaboration with ACDI/VOCA's Ja REEACH project.

Another success story on the application of FFS methodology related to training in disaster risk mitigation; which was undertaken in order to foster informed, skilled and dedicated climate change action agents at local levels to provide immediate and ongoing leadership. Extensive community and agency discussions shaped the program content and identified the importance of targeting youth. Local communities and partners agreed that engaging with young people is critical to effective climate change action as well as community development.

Through the JaREEACH project, 300 farmers graduated from 17 climate-smart agriculture FFSs in agroforestry and horticulture. As well, it is reported on the website[15] that more than 57 farmer groups (over 1000 farmers) completed farmer field school sessions that built up their adaptive capacity.

3.9 St. Kitts and Nevis [reference Annex 10]

A significant component of the FAO/TCP/STK/3501 - *Technical assistance to promote agricultural diversification towards the reduction of the importation/import bill of selected crops – onions and Cole crops* is the use of FFS methodology to facilitate national capacity building for knowledge-sharing and transfer of improved technology to the farmers.

The project provides scope for two (2) FFSs, one located in St. Kitts and another in Nevis, to be implemented. The aim is to strengthen the capacity of Extension Officers to engage farmers in season-long FFSs. This 18-month project was launched in May 2015 and is being implemented by the Department of Agriculture in St. Kitts and Nevis.

[15] http://webcache.googleusercontent.com/search?q=cache:http://acdivoca.org/our-programs/project-profiles/jamaica-jamaica-rural-economy-and-ecosystems-adapting-climate-change


Farmers and FFS Facilitators discussing field observations and learning how to take soil samples in the FFS Field at Mansion, St. Kitts

An initial segment of this intervention was a training of trainers (TOT) for extension officers from the Department of Agriculture (DOA) to become facilitators of routine / weekly dialogue / consultation with farmers in all stages along the production to market value chain.


Farmers and FFS Facilitators discussing group recommendations having made observations in the FFS Field at New River, Nevis

Field discussion of participants observations

Presentation of observations and recommendations

Actual plant growth measurements

Information sharing and collective decision making

In St. Kitts, 11 male and 3 female facilitators were trained and to date 10 male and five (5) female farmers are engaged in a season-long FFS. In Nevis, two (2) male facilitators along with three (3) female and four (4) male farmers are similarly engaged. Another component of the project promotes farmer-buyer linkage to existing local markets – hotels, restaurants and supermarkets, particularly for the cole crops (cabbage, cauliflower and broccoli).

3.10 St. Lucia [reference Annex 11]

The Ministry of Agriculture, Land, Forestry and Fisheries (MALFF) in partnership with FAO implemented a FFS programme during the period June – November 2009, with funding from two (2) EU/SFA2006 funded projects, namely:

- "Assistance to improve agricultural production and productivity by promoting technology adaptation"
- Strengthening of Plant Health Services

Phase I of the FFS programme was a TOT involving 18 Extension Officers from the MALFF; as well twelve (12) farmers underwent a pilot FFS. Following the graduation, in September 2009, a workshop entitled: *The Way Forward* was held to plan the implementation of Phase 2 . As well, a FFS Manual was compiled for the MALFF, with the assistance of FAO and EU/SFA2006 funding, to guide the FFS facilitators in the planning and implementation of Phase 2 and beyond (http://www.fao.org/3/contents/76119e7e-7e55-5a49-9d9e-29995aae759d/ap094e.pdf.

As evident in Annex 11, the Taiwanese Technical Mission (TTM) and the Global Environmental Facility (GEF) provided the funding for the seven (7) FFS implemented in Phase 3. The following is a summary of the crops investigated and the number of participating female and male farmers, in each year, over the near five (5) year period (June 2009 – February 2015).

FFS Program Phase	Year	Location	FFS Thematic Area / Crop	Number of Participating Farmers	
				Female	Male
1	2009	Region 2	Cucumber	12	10
		Region 6	IPM Tomato	12	18
2	2010	Region 1	Cantaloupe	3	22
		Region 5		2	17
		Region 4	Tomato	8	17
3		Region 6	Pruning Water melon to enhance fruit size	8	23
	2011	Region 5	Sweet Pepper / Tomato / Honey Dew	5	11
	2011/12	Region 4	Water melon	5	18
	2012	Region 6	Growing Honey Dew on the isles under Green House	11	17
	2014	Region 4	Water melon	8	19
	2014 /15			15	14
		Region 6	Organic Production of Vegetables	5	16

It is reported that a total of 53 FFS trainers – 13 females and 40 males – facilitated the implementation of the FFS programme in five (3) of the eight (8) agricultural regions[16] in the country. Compared with a female to male ratio of 3:1 with respect to FFS trainers, the ratio of female to male farmers trained was 2:1. As evident in the summary table above, female farmers participation dwindled significantly in Phase 2 and seemed to have improved in the latter part of Phase 3. As regards sustainability, the FFS manual provides a useful reference in the continued application of the FFS methodology; particularly in relation to adaptation and transfer of greening technologies.

3.11 St. Vincent and the Grenadines [reference Annex 12]

FSS got underway in St. Vincent and the Grenadines through a project implemented by the Government in collaboration with FAO. According to FAO[17], this project was the first of its kind aimed specifically at livestock farmers in the Caribbean. Capacity building in the production of small ruminants was the focus of the FFSs implemented during the period June 2013 – July 2014 in St. George, St. David, Charlotte, St. Andrew and St. Patrick.

According to the Government of St. Vincent and the Grenadines website[18], the one year program focused on:

1. Improvement in the feeding systems, establishment and maintenance of pasture and forage banks;
2. Improved livestock management systems and management skills;
3. Improved productivity of the animals;
4. Production of quality meat and value added products such as cheese, milk and leather;
5. Improved slaughtering techniques and hygiene

In Phase 1 extension officers, veterinarians and animal health assistants from the Ministry of Agriculture as well as volunteer farmers were trained as FFS facilitators to oversee the training of farmers in Phase II of the project. Special emphasis was placed on women and youth. Twelve (12) female and nine (9) male FFS facilitators were trained in Phase I and in Phase II, a total of 84 small ruminant farmers were trained. The majority of the farmers trained were female (48) and reflects the predisposition for women to tend to small

[16] Region 1 in the north, Region 2 in the north-east, Region 4 in the east, Region 5 in the south and Region 6 in the south-west.
[17] http://www.fao.org/americas/noticias/ver/en/c/230145/

ruminants. As regards sustainability, the FFS modules could be adapted to facilitate technology transfer in respect of other livestock, such as poultry and pigs.

A press release[19] from the Embassy of China (Taiwan) in St. Vincent and the Grenadines dated May 22, 2012 reported of an FFS at the Orange Hill Farm jointly held by the Taiwan Technical Mission (TTM) and the Ministry of Agriculture in St. Vincent and the Grenadines. This FFS was geared towards support for farmers in vegetable production, in an effort to enhance productivity and increase the domestic supply of vegetables and consequently reduce the imports of vegetables.

It is reported that 25 farmers participated in the inaugural FFS for vegetable farmers at the Orange Hill Farm, which served at the incubation and demonstration centre in conjunction with the Agricultural Training Institute (ATI). These FFS activities related to the Agricultural and Horticultural Development project implemented the TTM and focused on "the production of healthy vegetable seedlings, the production of vegetables for import substitution and the establishment of a sustainable agricultural marketing system" (http://www.taiwanembassy.org/VC/ct.asp?xItem=281399&ctNode=10047&mp=727).

3.12 **Trinidad and Tobago** [reference Annex 13]

One of the recommendations of a socio-economic survey[20] conducted in 1995 was the initiation of an FFS programme. In August 2000, a Regional Training Workshop on Farmer Participatory Methods for Ecological Crop Management was held in Trinidad. Following this initial workshop, the Ministry of Agriculture, Lands and Marine Resources (MALMR) in Trinidad and Tobago initiated a national participatory IPM project; in keeping with the MALMR commitment to curbing indiscriminate and inefficient pesticide use.

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[18] http://www.agriculture.gov.vc/agriculture/index.php?option=com_content&view=article&id=248:farmer-field-school-

[19] http://www.taiwanembassy.org/VC/ct.asp?xItem=281399&ctNode=10047&mp=727

[20] A socioeconomic survey of vegetable farmers' practices in Trinidad carried out by CAB International and the Ministry of Agriculture, Land and Marine Resources (MALMR) in 1995 on three short-term vegetable crops (cabbage, tomato, eggplant) documented excessive and unwarranted pesticide applications. There was scant regard for operator safety, even though farmers recognized that pesticides are hazardous to humans and animals. The survey also highlighted health and environmental risks and the high proportion of production costs, up to 30%, spent on chemical control. Presently, the situation remains unchanged. Pesticide run-off can have negative effects on sources of freshwater and coastal environment. This can impact negatively on tourism, the region's key income generation in tourism (Lopez et al, 1996).

This initiative by the MALMR coincided with the implementation of the FFS regional pilot project by CABI in collaboration with FAO, with funding from the EU, during the period August – December 2002. This FFS for master trainers was sited in Aranguez, a major vegetable-growing community located in north western Trinidad. Afterwards, a season-long TOT was implemented with participation by 14 Extension Officers / potential FFS facilitators from various agricultural counties in Trinidad and Tobago The TOT and the two (2) pilot FFSs were sited in Las Lomas and Caura Valley respectively.

The TOT marked the beginning of the implementation phase of the FFS programmes during the period 2004 -2008. During this five (5) year period, 34 FFSs were conducted with participation by 375 farmers and in collaboration with FAO, CARDI, IICA, UWI, input suppliers and other stakeholders along the agriculture value chain. None of these FFSs was undertaken in Tobago. Annex 13 details the thematic area, the year of implementation and location of 22 FFSs, along with the total number of participating farmers.

Farmers in Caura measuring crop growth in cabbage (left) and tomato (right) FFSs

It is reported that the FFS provided the participants with the skills, knowledge and confidence to make ecologically sound and cost effective decisions on crop production, health and safety.

FFS: Tomato AESA presentation (left); Group dynamic 'longest line'

The following is a summary of the crops investigated and the number of participating farmers in each year over the five (5) year period.

Year	Number of FFSs	FFS Crop	Number of Participating Farmers
2004	3	Tomato	41
	1	Hot pepper	
2005	4	Tomato	79 (+)
	2	Cabbage	
	1	Cauliflower	
2006	6	Tomato	86
	3	Cabbage	
	1	Cauliflower / Broccoli	
2007	4	Tomato	123
	1	Cabbage	
	2	Watermelon	
	1	Sweet pepper	
	1	Hot pepper	
2008	1	Cassava	46
	1	Sweet Potato	
	1	Tomato	
	1	Hot pepper	

With respect to sustainability, participatory IPM methods are still widely implemented by the MALMR in the drive to reducing the indiscriminate use of synthetic pesticides and

empowering the farmers. FFS trainers of the MALMR had formed a committee for the promotion of FP approaches in Trinidad and Tobago and as at January 2006, this committee had presided over 14 FFSs in Trinidad.

4. CONCLUSION

The indiscriminate use of pesticides in the production of traditional export crops, such as rice, as well as short-term crops for domestic consumption has over the years been detrimental to the environment; as well as human health and rural livelihood systems. Due to the high dependence on costly petroleum-based inputs, the resultant effect has been a decline in the returns from agriculture, due to non-competitive agriculture commodity systems; coupled with the over-exploitation of the fragile agro-ecosystems in the Caribbean region.

Against the background of a finite natural resource base and the inadvertent transitioning from agriculture to tourism, as the premier economic sector in the Caribbean region, there must be a lowering of eco-footprints; through the adoption of green technologies. In this regard, agricultural commodity systems must offer opportunities for resource efficiency, social inclusiveness and reduced eco footprints. The Farmer Field School (FFS) approach provides the platform for the staging of a greening process which gives equal weighting to environmental and social dimensions of the economic ecosystem in Caribbean Agriculture.

FFS has become a widely used concept in agricultural development in the Caribbean. In 2002, Trinidad and Tobago was the first country to be introduced with the implementation of Phase I of the EU funded Regional Pilot Project. In 2003, the other pilot countries namely: Dominica, Dominican Republic[21], Haiti, Jamaica, and Suriname[22] began their FFS experience with the launch of Phase II of the Regional Pilot project. Guyana joined the regional pilot on a volunteer basis and successfully mobilized funding from the GRDB to launch f a commodity (rice) FSS in June 2003.

[21] There was no report of follow-up in the Dominican Republic following the completion of the TOT.

[22] In Suriname, following the completion of the TOT, FFS implementation in 2004 entailed rice and aquaculture, through a FAO TCP project linked to the Regional SPFS.

Except for Guyana, countries that were not enlisted in the regional pilot project (2002 – 2008) namely: Antigua and Barbuda, Belize, Grenada, St. Kitts and Nevis, St. Lucia and St. Vincent and the Grenadines were not introduced to FFS before 2009. St. Lucia launched a TOT as part of EU/SFA2006 funded and FAO support project in 2009. Antigua did likewise in 2013 with the launch of the Zero Hunger Challenge Initiative and St. Kitts and Nevis became engaged in May 2015, through FAO TCP/STK/3501.

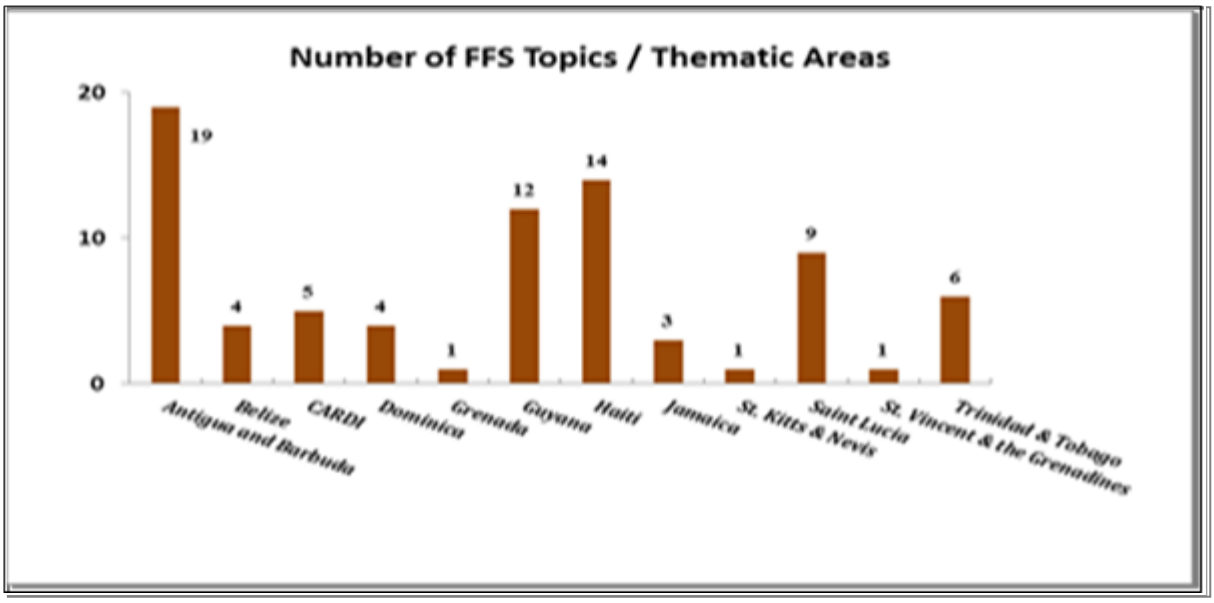
The following table summarizes the history of FFS implementation in the region:

COUNTRY / AGENCY	Start of FFS Experience	End of most recent FFS
Trinidad & Tobago	2002	2008
Guyana	2003	ongoing
Dominica		2014
Haiti[23]		ongoing
Jamaica[24]		2014
CARDI	2008	2016
Grenada	2009	2011
Saint Lucia	2009	2015
Belize	2011	ongoing
Antigua and Barbuda	2013	ongoing
St. Vincent & the Grenadines	2013	2014
St. Kitts & Nevis	2015	ongoing

Annex 14 contains a summary of commodity FFS undertaken by the respective countries under review and Annex 15 presents a summary of FSS topics / thematic areas explored. The following graph illustrates the number of FFS topics / thematic areas per country.

[23] The report from Haiti speaks to FFS activity which commenced in November 2012 – nine (9) years after the completion of the TOT.

[24] The report from Jamaica speaks to FFS activity which commenced in March 2009 – approximately six (6) years after the completion of the TOT.



While the FFS methodology has been embraced by Caribbean countries, its application seems to differ widely. In some instances the duration of the interventions were insufficient to allow for experiential learning and an understanding of the dynamics of key agro-ecological, socio-ecological and socio-economic relationships. As well some interventions bore the features of other participatory approaches that are learner-centered, field-based and designed to catalyse the transfer of technology; and many of these seemed vulnerable to loss of quality due to the short length of these FFSs.

Generally, FFS implementation targeted farmers with shared interest and willingness to take risks. The following table indicates the reported total number of farmers trained in each country and through CARDI:

COUNTRY / AGENCY	Total Number of Farmers Trained
Antigua and Barbuda	906
Belize	754
CARDI	124
Dominica	178
Grenada	94

Guyana	> *30,000*[25] (attendances)
Haiti	2,126
Jamaica	415
St. Kitts & Nevis	22
Saint Lucia	296
St. Vincent and the Grenadines	84
Trinidad & Tobago	not reported

Based on available data, Guyana and Haiti are the only countries with thousands of farmers trained. In all of the other the countries[26] less than 1000 farmers are reported to have been trained. Notably, the number of farmers trained is not reflective of the quality of the FFS experience and the degree of diffusion. The sustainability of FFS approach is dependent on the establishment of institutional support for the efficient and effective functioning of a cadre of trained FFS trainers/facilitators. The TOTs undertaken have graduated a significant number of FFS trainers throughout the region. The following table indicates the reported total number of FFS trainers in each country and through CARDI:

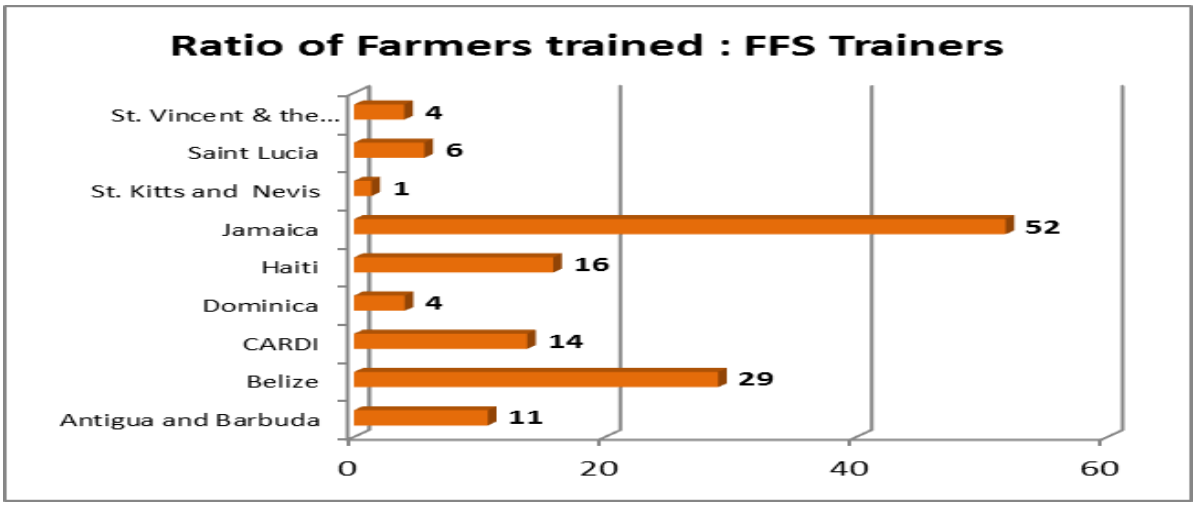
COUNTRY / AGENCY	**FFS Trainers**
Antigua and Barbuda	85
Belize	26
CARDI	9
Dominica	44
Grenada	not reported
Guyana	167
Haiti	134
Jamaica	8
St. Kitts & Nevis	16
Saint Lucia	53
St. Vincent and the Grenadines	21
Trinidad & Tobago	not reported

[25] Guyana reported over 30,000 attendances, some individual farmers attended more than one session.
[26] The numbers for Trinidad and Tobago are not reported

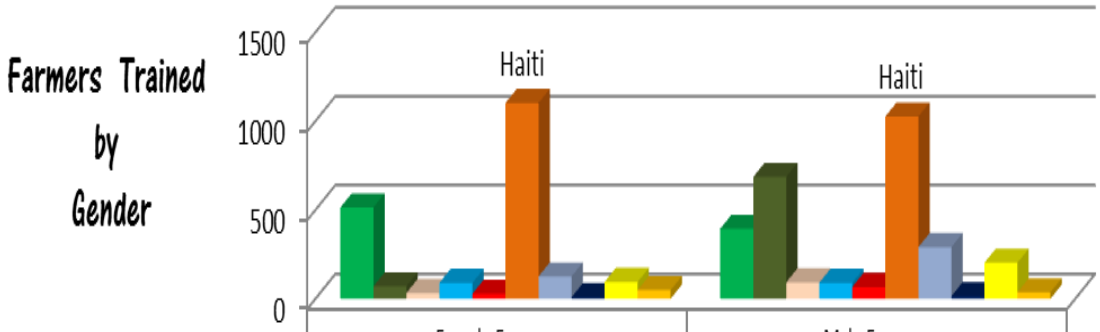
As evident in Annex 16, the FFS approach has been institutionalized within the Extension Division of the GRDB. In Haiti, all of the FFS were undertaken by numerous Associations of Farmers Field School Producers throughout the country; with technical support from the Ministry of Agriculture Natural Resources and Rural Development (MARNDR) and other institutions such as the National Food Security Coordination Office (CNSA). Apart from the institutional support in Guyana and the FFS networks in Haiti, there is no other evidence of initiatives that are geared towards the expansion and continuity of FFS in the Caribbean.

The over-reliance on donor funding and seemingly limited institutional support brings into question the capacity to sustain FFSs as "cutting-edge agricultural development" in the Caribbean region. Paradoxically, the FFS methodology challenges the traditional extension model in the Caribbean region; yet in the absence of adjustments in national extension policy and practice extensions officers are often tasked with the responsibility to introduce farmers to "projectised" FFS programmes.

The longevity of the FFS undertaking per country seems to bear no resemblance to the ratio of farmers trained vis a vis the number of FFS trainers / facilitators in the respective countries. As illustrated in the chart below, the ratio of one is currently realized in St. Kitts and Nevis, where the FFS initiative started in 2015 and is currently ongoing. In Jamaica the ratio is estimated to be 52 trained farmers per FFS trainer.



The following graph[27] presents a visual comparison of the reported number of female and male farmers trained as well as the gender disaggregated data supplied.



	Female Farmers	Male Farmers
Antigua and Barbuda	513	393
Belize	69	685
CARDI	32	92
Dominica	89	89
Grenada	28	66
Haiti	1101	1025
Jamaica	125	290
St. Kitts & Nevis	8	14
Saint Lucia	94	202
St. Vincent & the Grenadines	48	36

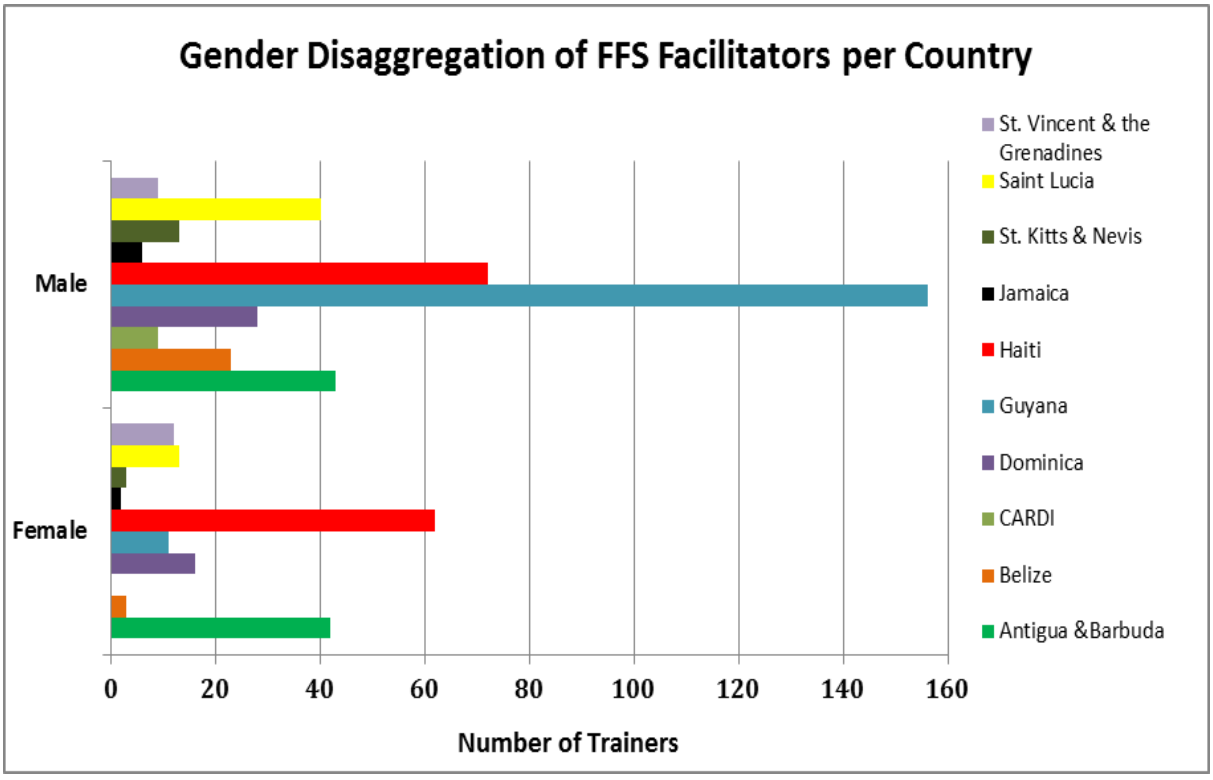
Advocacy, policy adjustments and institutional reforms are critical to the process of developing the national capacity necessary for the mainstreaming of FFS methodology in extension service systems in Caribbean Agriculture. Globally FFS has proven to be an ideal platform for the management of knowledge in relation to, not only farming practices, but more importantly the dynamics of farm household livelihood system. In the Caribbean FFS curricula have covered not only crop and pest management but a myriad of other topics / thematic areas such as livestock nutrition and housing, land management, CSA, backyard

[27] Data for Guyana not disaggregated by gender and could not be included in the chart.

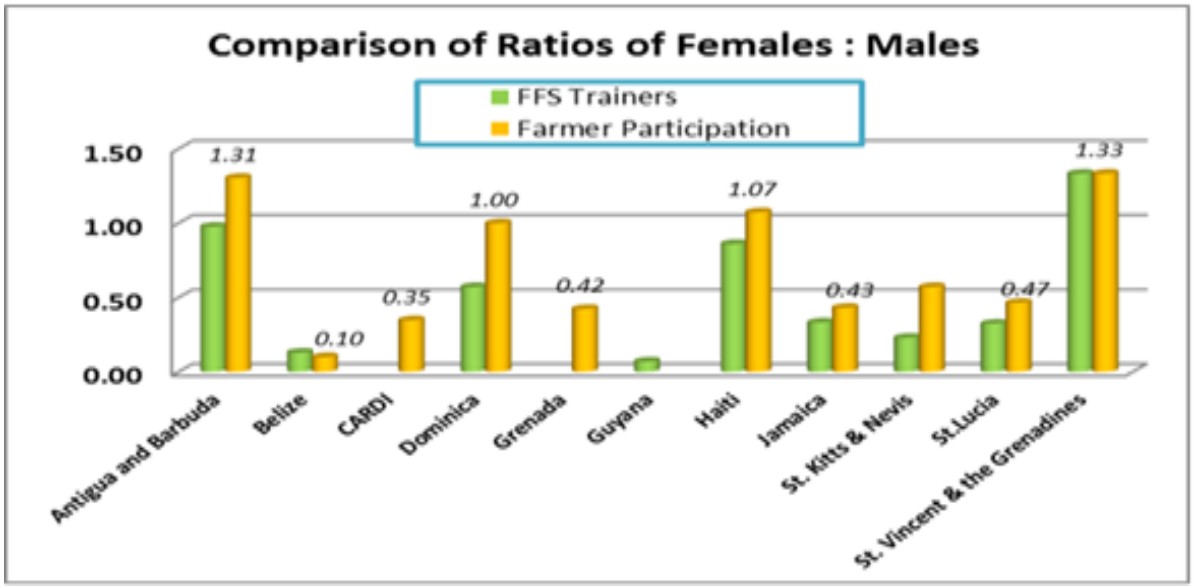
gardening, business skills and enterprise development; as well as special subjects such as HIV/AIDS (in the case of Guyana).

Notably these FFS intervention pay little attention to the women's informal systems and survival strategies which can significantly impact FFS processes and outcomes. However, participation wise both women and men are involved not only as farmer trainees but also as FFS trainers/ facilitators.

The following chart illustrates the relative distribution of male and female FFS facilitators per country:



However as illustrated in the chart[28] below, the ratio of female: male FFS trainers vary from country to country. St. Vincent and the Grenadines is the only country with more female than male FSS trainers. Antigua and Barbuda has the second highest ratio of 0.98, followed by Haiti (0.86). Similarly all the other countries have more male FFS trainers, with Guyana having the least number of female in proportion to male FFS trainers (lowest ratio of 0.07).



By comparison of the ratios of females to males in respect of FFS trainers and farmer participation (farmers trained), it is apparent that in all countries – except Belize – the proportion of female trainers was more than or equal to the proportion of female farmers in the respective countries. As evident in the chart above, the ratio of female to male trainers and farmers was the same (1.33) in St. Vincent and the Grenadines.

The preceding analyses are informed by available data, but are insufficient for an assessment of the quality of participation by women and men; as well as the extent of transformative learning experiences on the individual and collective levels. In the final analysis, participation in FFS should have enhanced social and communication skills as well as the appreciation of the benefits of working in groups rather than individually in the search for solutions to the many challenges along the agriculture value chain. Except in the case of Haiti and the ongoing initiative in Antigua and Barbuda to form a non-profit farmers' organization, none of the other countries have reported the secondary or ripple effect, at the level of the farming community, following FFS interventions.

Most documented evidence of the FFS approach, in the countries reviewed, relate to impacts at the farm(er) level. However FFS impacts transcend the individual level. Collaboration

[28] The number of female FFS trainers from CARDI was not reported and farmer participation in Guyana was not gender disaggregated.

among farmers, facilitators and experts serves to build social capital which is a prerequisite for collective action. But in the majority of instances the scope of the FFSs did not include an exit strategy to facilitate next step actions among farmers; in relation to networking and knowledge management designed to reduce transaction cost along the value chain.

The majority of the FFS programmes did not have sustainable funding and suffered post-project collapse; particularly where national institutional support was limited due to fiscal challenges and deficient public-private partnerships. In moving the process forward, in respect of FFS programming in Caribbean Agriculture, due attention must be paid to the collective level and the establishment of mechanisms that can foster equity of gender relations through genuine participation.

ANNEX 1

REGIONAL PILOT PROJECT - Dominica, Dominican Republic, Haiti, Jamaica, Suriname and Trinidad and Tobago

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
Phase 1: Training of Master Trainers. A Regional Training Programme for 11 persons from 6 countries (2 each from Dom. Republic, Dominica, Haiti, Suriname, Trinidad and Tobago and 1 from Jamaica) to promote the development of ecologically sound agriculture in the Caribbean through use of farmer participatory approaches in IPM, Field trial: farmer practice (FP) vs IPM Crop: Cabbage and Tomato	EU / FAO	Trinidad	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	FAO, EU	August-December 2002	8	4	24 individuals (sex disaggregated data not available)		Action Plans were prepared for a Training of Trainers and implemented during 2003 in a Training of Trainers in each of the six participating countries	Donny Dominique Keian Stephenson Samira de la Cruz Sandra Araujo Deanne Ramroop Allan Balfour Joseph Bastien Jeudy Rodnez Pierre Tim Mingoen Krish Donald Robinson Vyjayanthi Lopez (Regional Coordinator / Master Trainer)

ANNEX 1

REGIONAL PILOT PROJECT - Dominica, Dominican Republic, Haiti, Jamaica, Suriname and Trinidad and Tobago

2.Training of trainers –Phase I-validation trial with cabbage and tomato, FP vs IPM Crop: Tomato and Cabbages	EU	Dominica	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	EU	April - August 2003	5	5	5	3	Action Plans prepared for Phase II	Donny Dominique Keian Stephenson

ANNEX 1

REGIONAL PILOT PROJECT - Dominica, Dominican Republic, Haiti, Jamaica, Suriname and Trinidad and Tobago

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
3. Training of trainers –Phase II : FFS in two locations (i) FP vs organic and (ii) FP vs IPM Crop: Tomato and Cabbage	EU	Dominica	CABI	Not for profit	Gordon Street, Curepe	EU	October 2003-March 2004	5	5	5	3		
4.Training of trainers and FFS Field study: IPM and FP in Tomato	EU	Dominican Republic	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	EU		1	5	0	10		Samira de la Cruz
5.Training of Trainers and FFS. TOT: Crop protection, Fertilizer and Varietal trials in cabbage FFS- FP vs IPM	EU	Haiti	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	EU	September - December 2003	2	8	8	27		Joseph Bastien Jeudy Rodnez Pierre

ANNEX 1

REGIONAL PILOT PROJECT - Dominica, Dominican Republic, Haiti, Jamaica, Suriname and Trinidad and Tobago

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number Of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
6.Training of trainers and FFS FP vs IPM Crop: Cabbage, Hot pepper	EU	Jamaica	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	EU		1	9	9	16		Donald Robinson
7.Training of trainers and FFS FP vs IPM Crop: Yard long beans *(Vigna sesquipedalis)*	EU	Surina me	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	EU	16 June-5 Septembe r 2003	3	10	0	5	To conduct FFS in the following crops, yard long beans (Vigna sesquipedalis) and bitter gourd (Momordica charantia)	Tim Mingoen
8.Training of trainers and FFS TOT: IPM vs FP; Moulding vs. Non-moulding, Trellising Vs. Staking, Land Preparation and Biooxyfert Trial FFS: FP vs IPM Crop: Tomato and cabbage	EU	Trinidad and Tobago	CABI	Not for profit	Gordon Street, Curepe Trinidad and Tobago	EU		6	8	4	15		Deanne V. Ramroop

ANNEX 2

ANTIGUA AND BARBUDA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
Zero Hunger Challenge Initiative – Home Food Production Backyard Gardening Project	FAO	Six Vulnerable Communities in St. John's; St. Georges; St. Mary's; Barbuda	Ministry of Agriculture	Public	Independence Drive P.O. Box 1282 St. John's, Antigua			April 2013 – December 2014	3	3	284	198	Project being integrated into programme of the Agricultural Extension Division. Position of 3 Backyard Garden Facilitators created in the Ministry of Agriculture	Mr. Owolabi Elabanjo Agricultural Extension Officer, Technical 1-268-764-1268
Seedling Production ZHCI	FAO	St. John`s , Gray`s Farm Otto`s Town Villa	FAO	International/Regional	Barbados	Ministry of Agriculture , Extension Division		2013 - 2014	3	2	20	15	Continuous monitoring and weekly meeting	Stuart Williams
Composting in the backyard	FAO	St. John`s , Gray`s Farm Otto`s Town Villa	FAO	International/Regional	Barbados	Ministry of Agriculture , Extension Division		2013 - 2014	3	2	25	10	Household composting development	Stuart Williams Efuru Elihu

ANNEX 2

ANTIGUA AND BARBUDA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
Vermiculture	FAO	St. John`s , Gray`s Farm Otto`s Town Villa	FAO	International /Regional	Barbados	Ministry of Agriculture, Extension Division and Mr. Derrick		2013 -2014	3	3	30	15	Vermiculture development at the backyard	Tobi Derrick Owolabi Elabanjo
Recycling of wooden pallet for household planting	FAO	St. John`s , Gray`s Farm Otto`s Town Villa	FAO	International /Regional	Barbados	Ministry of Agriculture , Extension Division		2013 - 2014	3	2	31	20	Demonstration usage at the backyard	Efuru Elihu Owolabi Elabanjo Stuart Williams
Companion planting as a measure of CSA in the backyard	FAO	St. John`s , Gray`s Farm Otto`s Town Villa	FAO	International /Regional	Barbados	Ministry of Agriculture , Extension Division		2013 - 2014	3	2	25	15	Demonstration at the home garden	Owolabi Elabanjo
Water recycling from the kitchen for use in the backyard as CSA in ZHCI	FAO	St. John`s , Gray`s Farm Otto`s Town Villa	FAO	International /Regional	Barbados	Ministry of Agriculture , Extension Division		2013 - 2014	3	2	35	10	Demonstration done at the TDC	Owolabi Elabanjo
Budding and grafting of fruit trees ZHCI	FAO	Ottos Town	FAO	International /Regional	Barbados	Ministry of Agriculture Extension Division and Environment Division	January 2015		1	1	10	5	Continuous practice	Efuru Elihu

ANNEX 2

ANTIGUA AND BARBUDA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
Formation of a non-profit organization for farmers	Agricultural Extension Division	St. Mary	Agricultural Extension Division	Government	Kentish Rd , St. John`s	Intellectual Property	September 2015	Ongoing	2	1	2	14	Subscription by farmers / purchase of shares	
ABSTEP program	GARDC (Gilbert Agricultural and Rural Developmen t Centre	Mercy Creek / Glansville	GARDC	NGO	Mercers Creek	Ministry of Agriculture , Extension Division		Sept 2015 - February 2016	3	3	10	5		
Control of sweet potato weevil	Agricultural Extension Division	St. Mary	Agricultural Extension Division	Government	Kentish Rd , St. John`s	Extension Division and Research Station		Sept 2015- March 2016		3		14		
Water Conservation	Agricultural Extension Division	St. Mary	Agricultural Extension Division	Government	Kentish Rd , St. John`s	Extension Division and Research Station	January 2016			1		6		Joel Matthew
Control of Giant African Snail	Extension Division	St. Mary	Agricultural Extension	Government	Kentish Rd , St. John`s	Extension Division	April 2015		3	4	3	26	Demonstration is ongoing in the area	
IPM on the Giant African Snail	Extension Division	Jennings	Ministry of Agriculture, Extension Division	Government	Kentish Rd , St. John`s	University of Florida	May 2015		5	2	5	15	Ongoing Demonstration	Judith Richards Onicia Anthony

ANNEX 2

ANTIGUA AND BARBUDA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability	Contact Person
Sustainable Agriculture and Waste Management	Extension Division	Old Rd	Extension Division	Government	Kentish Rd , St. John`s	Board of Education	December 2015		2	3	10	5		
Sustainable Agriculture	University of Delaware	St. John`s St. Peters	Gilbert Agricultural and Rural Development Centre	NGO	Mercer Creek	Extension Division	2014	1 week		1	6	9	Continuous approach to sustainable production	Andy Wetherill
Agriculture Enterprise	EU	St. Phillips, St. Peters, St. Mary, St. Georges	GARDC	NGO	Mercer Creek	Ministry of Agriculture , Extension	September 2014	3 months	3	5	11		Ability to start their own business	Anika Aska Robatar Williams Sereno Benjamin
Soil Fertility , Plant nutrition, Soil testing	Extension Division	St. Peters	Extension Division	Government	Kentish Rd , St. John`s	GARDC	April 2014	2 months	1	1	3	6	Change in farmers yield resulting to farmers making more money	
Herbicide selection, use and safety	Extension Division	St. Peters	Extension Division	Government	Kentish Rd , St. John`s	GARDC	December 2014	2 months	1	2	3	5	Farmers practice of using PPEs and making informed decision	

ANNEX 3

BELIZE

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Sugarcane Production	Industry and European Union	Northern Districts (Orange Walk and Corozal), Belize	Sugar Industry Research and Development Institute (SIRDI)	Quasi-Government, Funded by Industry Stakeholders	Mile 66.5, Phillip Goldson Highway, Buena Vista Village, Corozal, Belize	Banana Enterprise Ltd., ASR-BSI (Belize Sugar Industry Ltd.)	June 2011	1	7	5400 farmers in sugar industry	60	642	Farmers direct contributions, industry and funding agencies
Agroecological Farming of Fruits and Vegetables	GIZ - Selva Maya (German Cooperation)	Cayo district	Agriculture Extension Department	Public	Central Farm	None	March 2014	2	6		6	18	No prospects as this was done only using "some" of the FFS methodology and principles. No expert support was available.
Onion Production	European Union & Food and Agriculture Organization	Corozal and Orange Walk Districts	Food and Agriculture Organization of the United Nations	UN Agency	#8 5th Avenue, Corozal Town, Corozal District, Belize	Ministry of Agriculture, Fisheries, Environment and Sustainable Development	January 1, 2015 30 months		10		3	25	

ANNEX 4

CARDI

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Total Number of Farmers Trained	Number of FEMALE Trainers	Number of MALE Trainers	Sustainability
Integrated Pest Management Collaborative Research Support Program (IPM CRSP) Hot Pepper	USAID	Jamaica , Trinidad and Tobago, St Vincent , St Kitts and Nevis	CARDI	Research and Development (R & D)	2 Belmopan Close University of the West Indies (Mona Campus) Kingston 7, Jamaica W. I.	Virginia Polytechnic Institute and State University (VPI), Ministry of Agriculture and Fisheries(MOAF), Rural Agricultural Development Authority (RADA), Penn State University, Ohio State University, USDA Vegetable Laboratory, Farmers	1994-2006 (13 years)	>1500	7	5	This was major Regional project which served to introduce Farmer Participatory Methodology to the Region. CARDI was the implementing Agency for the Caribbean Site. Other farmer participatory initiatives in Jamaica have built on this foundation.

ANNEX 4

CARDI

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Callaloo Cage Commercialization	Citizens Development Corp	St Thomas Jamaica	CARDI	R&D	St Thomas Women's Agricultural Initiative (Producer Group) Ecowells (Private Sector processing)	October 2008- July 2009 (1 year)	1			10	15	Farmer participation in a experiential learning about a technology that works is empowering but adoption is limited to how economically feasible/accessible the farmers see the technology
Increased Production of Roots and Tuber Crops in the Caribbean through the Introduction of Improved Marketing and Production Technologies (sweet potato, cassava and yam)	CFC EU	Jamaica (as well as Haiti, Trinidad and Tobago, Dominica and St Vincent)	CARDI	R & D	RADA, MOAF, Producer groups (St Thomas Women's Agricultural Initiative, Bernard Lodge United Progressive Farmers Group, Ninety-acres Sweet potato Group, Tate Group and Warsop Group)	March 2010 - June 2013			744 (total producers)			Under these two CFC EU- funded projects FFS activities were facilitated in six sites and all producers participating throughout the process were positively impacted as indicated by pre and post session evaluations. The sustained impact of the training is still visible especially in the Cassava industry

ANNEX 4

CARDI

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Increased Production of Vegetables and Herbs through the use of Protected Agriculture in the Caribbean	CFC EU	Jamaica (as well as Haiti, Trinidad and Tobago)	CARDI	R & D		Jamaica Greenhouse Growers Association (JGGA), United Greenhouse Growers Cooperative, MOAF, RADA	March 2010- June 2013			273 (total producers)			
Integrated Development of Cassava in the Caribbean	FAO	Jamaica (as well as Guyana and Grenada)	CARDI	R&D		RADA, MOAF, Bright River Farmers Coop	December 2013-May 2016				3	24	Farmers Coop is producing crop for processing and is directly linked to markets. They also have access to mechanized planting and harvesting which will make them more inclined to adopt GAP and other practices taught during FFS sessions.
		St. Andrew's Grenada	CARDI	R&D	CARDI, Westerhall, St. David's	FAO Min of Agriculture	July 2015	1			5	17	Prospects for sustainability are good.
		St. Andrew's Grenada					August 2015	1			8	16	
		St. Patrick's Grenada					October 2015	1			6	20	

ANNEX 5

DOMINICA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Training of Master Trainers	EU	Trinidad	CABI	Not for Profit		FAO MOA	August - December 2002		2			Master trainers trained trainers in FFS methodology to carry out FFS in their regions.
Training of Trainers in Dominica	EU	Dominica, South Agriculture Region; Village Giruadel	CABI / DOA	Not for Profit / Government (Gov't)	Division Of Agriculture, Botanical Gardens, Dominica	CARDI, Plant Protection and Quarantine (PPQ)	April – August 2003	4	9	10	5	Extension officers and CARDI staff Trained as Trainers of Trainers (TOT's) and farmers
IPM/FFS-Cabbage and Tomatoes	EU	Dominica, North East (N.E) Agriculture Region; Village Melvillehall	CABI / DOA	Not for Profit / Government (Gov't)		CARDI, PPQ	January - March, 2004		2	9	10	Farmers empowered in growing vegetables a crop traditionally not grown in that area.

ANNEX 5

DOMINICA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
IPM/FFS-Sweet Corn	EU	Dominica East Agricultural Region; Village-(Crayfish River) Kalinago Territory	CABI / DOA	Not for Profit / Government (Gov't))		CARDI, PPQ	May - July, 2004	1	1	2	15	Farmers trained in IPM to reduce the level of pesticides used in growing the crop.
IPM/FFS Cabbage and Tomatoes	EU	Dominica Central Agricultural Region; Village-Cochrane	DOA/FAO	Gov't/NGO		CARDI, PPQ	October - December 2004	2	2	9	10	Farmers trained in IPM principles to reduce the level of pesticides used
IPM/FFS Cabbage and Tomatoes #2	FAO	Dominica, South Region; Village-Morne Prosper	DOA/FAO	Gov't/NGO		PPQ	May - July 2005	1	2	10	3	Same as above
IPM/FFS-Onions	DOA	Dominica, North East (N.E) Agriculture Region; Village Melville Hall	DOA	Government (Gov't)	Division Of Agriculture, Botanical Gardens, Dominica	PPQ	September - December, 2006	1	2	11	10	Farmers empowered in growing vegetables a crop traditionally not grown in that area.

ANNEX 5

DOMINICA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Organic/FFS-Cabbage and Tomatoes	EU/FAO	Dominica South Agricultural Region; Village-BelleVue Chopin	DOA/FAO	Gov't/NGO		CARDI, PPQ	May - July,2004	2	2	6	5	Farmers trained in organic farming principles in growing vegetables
Organic/FFS Cabbage and Tomatoes #2	DOA	Dominica, N.E Agricultural Region; Village-Londonderry	DOA	Gov't			September - December 2007		2	3	5	
FFS- Back Yard Gardening	PAHO/ DOA	Dominica, Southeast Agricultural Region; Village-Laplaine	DOA/PAHO	Gov't/NGO		Chinese Technical Mission (CTM), PPQ	May- August 2014	1	2	13	2	House wives and single mothers empowered in Backyard gardening
IPM/FFS-Irish Potatoes	DOA	Dominica, N.E Agricultural Region; Village-Bense	DOA	Gov't		PPQ,IICA	December 2014 - March 2015		1	9	10	Farmers diversifying from banana production empowered to growing a new crop
Small Ruminant & Pasture management /FFS	CARILED /DOA	Dominica, N.E Region, Londonderry Livestock Farm	CARILED/DOA	NGO/Gov't		Youth Division	September 2013 -December 2014		1	3	8	Youth in a rural poor community empowered to manage small ruminants for starting a group business

ANNEX 6

GRENADA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Construction of Model Goat Houses in Grenada to improve small ruminant production	CARDI / IICA	St. Andrews	Ministry of Agriculture – Vet & Livestock Division	Public	Ministerial Complex, Botanical Gardens, Tanteen, St. George's, Grenada	IICA,CARDI, Min. of Agriculture (MoA)	September 2010				15	30	Prospects for sustainability are good
	.	St. John's	Ministry of Agriculture – Vet & Livestock Division	Public	Ministerial Complex, Botanical Gardens, Tanteen, St. George's, Grenada	IICA,CARDI							
		St. George's	Ministry of Agriculture – Vet & Livestock Division	Public	Ministerial Complex, Botanical Gardens, Tanteen, St. George's, Grenada	IICA,CARDI							

ANNEX 6

GRENADA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Construction of Model Goat Houses in Grenada to improve small ruminant production	MoA	Carriacou	Ministry of Agriculture – Vet & Livestock Division	Public	Ministerial Complex, Botanical Gardens, Tanteen, St. George's, Grenada						3	12	Prospects for sustainability are not good. Lack of follow up and support from the Agriculture Division in the Ministry of Carriacou Affairs
		St. David's	Ministry of Agriculture – Vet & Livestock Division	Public	Ministerial Complex, Botanical Gardens, Tanteen, St. George's, Grenada	IICA,CARDI	May 2009						
	CARDI	Carriacou	CARDI	R & D	CARDI, Westerhall, St. David's	IICA, Min. of Agriculture (MoA)	October 2010				5	15	Prospects of Sustainability are not very good. M&E has been weak
	FAO	St. Patrick's	Ministry of Agriculture – Vet & Livestock Division	Public	Ministerial Complex, Botanical Gardens, Tanteen, St. George's, Grenada	IICA,CARDI, MoA	April 2011				5	9	Prospects for sustainability are good

ANNEX 7

GUYANA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Best Practices in Rice cultivation	Guyana Rice Development Board (GRDB)	Essequibo, Demerara, Berbice (Regions 2,3,4,5,6)	GRDB	Public	116-117 Cowan Street, Kingston, Georgetown	Rice Producers Association (RPA) Ministry of Agriculture (MOA)		June 2003 April 2006	0	27	Repeated attendance for male farmers	8	11344	Good
Integrated rice/ Fish	FAO	Region 6	GRDB	Public	116-117 Cowan Street, Kingston, Georgetown	RPA, MOA		Dec 2004 March 2005	2	11		5	175	Wasn't sustained due to the larceny of fishes.
Integrated rice/ Fish	GRDB/FAO	Regions 2,3,5	GRDB	Public	116-117 Cowan Street, Kingston, Georgetown	RPA, MOA		June 2005 May 2006	2	5		2	105	Wasn't sustained due to the larceny of fishes.
Introduction of Amjad sweet potato variety (37 plots)	NAREI	Regions 3,4 and 6	Extension-NAREI	Public	Mon Repose ECD, Guyana.	None		Jan 2016 16 wks/ session		4	183 Farmers trained. M:F ratio unknown			

ANNEX 7

GUYANA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Six Points to improve rice yield	GRDB	Regions 2,5	GRDB	Public	116-117 Cowan Street, Kingston, Georgetown	RPA, MOA		June 2007 May 2011	2	29		3	1209	Good
Agriculture Support Services Programme (ASSP)/ Six Points to improve rice yield, Vegetable crop production	GRDB	Regions 3,4,6	GRDB	Public	116-117 Cowan Street, Kingston, Georgetown	RPA, MOA, NAREI		May 2006 March 2011	0	27	Repeated attendance by male farmers	24	13085	Good
Six points to improve rice yield.	GRDB	Regions 2,3,4,5,6	GRDB	Public	116-117 Cowan Street, Kingston, Georgetown	RPA, MOA		June 2011 to present	2	29		18	4500	Attendance reducing. Need for other approaches
Dairy Breeds of Cattle, Milking Procedures, Housing of Dairy Animals, Weighing of Animals	GLDA	St. Stanilaus College Dairy Farm	Farmers of Region 3			SSDF	October 2015			2		2	14	Good

ANNEX 7

GUYANA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Diamond back moth male attractant lures –34 plots	NAREI	Regions 3,4,5,and 6	Extension-NAREI	Public	Mon Repose ECD, Guyana.	none		March 2015		5	78 farmers trained. MF ratio unknown			
Farrowing Pen designs and management in Swine	GLDA	GLDA and GSA Farms	Farmers from Region 3			GSA	October 2015			2		3	15	Good
Management of Broilers with Emphasis on Nutrition	Guyana	Canal #2	Farmers in Region 3				October 2015		1	2		10	12	Good
Plantain Management	National Agricultural Research and Extension Institute (NAREI)	All coastal regions. Regions, 2,3,4,5,6 and 10	Extension-NAREI	Public institution	Mon Repose ECD, Guyana.	none		Feb –May 2015 and continuous for 3 cycles		7	423 farmers trained. M:F ratio not recorded			Improving plantain production and yield through improved management techniques.
Small Ruminants Record Keep	GLDA	West Berbice	Farmers from WBS & GFA				August 2015	3 weeks	2	2		40	15	Good
Sweet Potato weevil traps with male attractant lures. (79 units)	NAREI	Regions 3,4,and 6	Extension-NAREI	Public	Mon Repose ECD, Guyana.	none	January 2015	12/16 weeks per unit		4	872 farmers. M:F ratio not known			Improving potato quality and production through sustainable weevil management

ANNEX 8

HAITI

Project	FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Support to the implementation of the three-year program to revive agriculture TCP/HAI/3403	8 FFS for integration Pilot Program Conservation Agriculture practices in rainfed cropping systems in the municipalities of Thomassique and Capotille "	FAO	Thomassique et Capotille	Association of FFS producers: Tèt Ansanm Bienvini Delivrans Avanse Avenir Reyalite	Association of FSS producers	Two Municipalities: Thomassique et Capotille	Ministry of Agriculture (MARNDR)	June 2015 until now	3	6	76	84	Consolidate Conservation Agriculture activities in cropping systems
Strengthening climate resilience and reducing disaster risk in agriculture to improve food security in Haiti post earthquake	Topic 1: 2 FFS groups on agricultural product and variety comparison Topic 2: 6 FFS groups Introduction resilient crop varieties (sweet potato; CMS-40 short cycle cassava strain peas); conservation farming techniques application (mulching)	GEF (Global Environment Facility	Southeast and West in Haiti	Farmers Field School (FFS)	Association of FFS producers	Anse-à-Pitres Belle-Anse , Bainet, Grand Goave	BAC, CASEC ASCOOB, ASAELKAB ; SNL ; OFKM, UFABG, OJENO, OJDB, MTAPB, AJMB, AUPL7B, BELA ; APTDG, AIFO	January 2015 until now	10	18	140	258	

ANNEX 8

HAITI

Project	FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Strengthening climate resilience and reducing disaster risk in agriculture to improve food security in Haiti post earthquake	Topic 3: 9 FFS Improved farming practices, Application best environmental and agricultural practices Intensive Organic Production System vegetables Topic 5: 1 FFS Studies on treatment of rotting banana.												
Resilience of family farmer in Grande-Anse Department OSRO/HAI/403/UK	Topic 1: 11 FFS groups on agricultural product processing and technology Topic 2: 16 FFS on Conservation farming - Mulching; minimum tillage; rotation and intercropping; - crop targeted: maize, beans, lima beans	UKAID (DFID)	Grand'Anse/ Jérémie Dame-Marie Moron	Association of FFS producers: CODEDAM ODG ASFAD ACV OFDB OFADEM AFTJ ODFB ODBTM OFVM MJADL Association of FFS producers: Tèt ansam nan Viel APASD OFADEM OREFVC IPTDM OFADEM	Association of FFS producers	Three Municipalities : Jérémie Moron Dame-Marie	Ministry of Agriculture (MARNDR), CARE International	April 2014 until now	47	41	785	615	FFS methodology is used to train farmers in agricultural product processing technics and packaging techniques as well as in marketing of products Besides FFS training, CARE is giving support to those FFS groups to develop savings and credit activities that will lead to their autonomy. Also there is networking of FFS groups working in the same domain, and recently there was the development of goat breeding activities to raise the income of farmers.

ANNEX 8

HAITI

Project	FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Resilience of family farmer in Grande-Anse Department (cont'd)	Topic 3: 14 FFS on Best practices on vegetable crops production including: - The management of soil fertility / fertilizer management for vegetable crops; - Biological - Crop protection. Techniques			APDHC APGM OPDB MJPM KORESFAJE MOZAP ASFAP RAPPDHA ACV APAV									FFS methodology is used to train farmers in Conservation farming techniques which are tested and compared to indigenous practices of crop production adopted and replicated in farmer's plots. Results show that conservation farming gives more yield than indigenous practices. It is very encouraging to see the growing interests and motivation of family farmers in adopting this new technology.
Resilience of family farmer in Grande-Anse Department	Topic 4: 12 FFS topic on Soil conservation techniques on steep slopes: - Slope agricultural land technology (SALT); - Improved mulching ramp; - Agro-sylvo-pastoral system.			Association of FFS producers: Tèt ansanm Simon OFADEM Tèt ansanm Doudouche Tèt ansanm Viel ODFB IFC APDD ODG CODEMO AFDPK OPDPD AJIL Dye pa nou FBM	Association of FFS producers								Family farmers have adopted best practices of soil fertility management in vegetable production. This activity also generates income to farmer and that's why family farmer are motivated to adopt these best practices. Methodology of FFS is very useful to train farmers on crop protection with natural product. FFS methodology is used to train farmers in Slope agricultural land technology (SALT), Improved mulching ramp, and Agro-sylvo-pastoral system. Family farmers have adopted and replicated these technologies in their plots.

ANNEX 8

HAITI

Project	FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Resilience of family farmer (cont'd)	Topic 5: 3 FFS on Cocoa regeneration techniques (Management of cacao agroforestry systems) - Regeneration plots and control of the tree cover; - cocoa.post harvest preparation of			Association of FFS producers: CODEMO APDD ACV 1 ACV 2 APAV RAPPDHA 1 RAPDHA 2 ASFAP APGM AJL MOSOL OPDPD Association of FFS producers: OPLM OPBM RACCOGA APED ATDJ	Association of FFS producers								FFS methodology is used to train farmers in FFS methodology is used to train farmers in Cocoa farm regeneration techniques The impact of cocoa regeneration on cocoa production: the production can double after four month in the next harvest period immediately after regeneration
Food Security Project in the North East (GCP/HAI/03 /EC)	Topic 1: 38 FFS in agricultural production Topic 2: 17 FFS in the storage Topic 3: 7 FFS in the beef breeding Topic 4: 8 FFS in the fish farming	European Union (EU)	North East in Haiti	Farmers Field School (FFS)	Association of FFS producers	Commune of Capotille, Ferrier, Ouanaminthe et Fort Liberté	Ministry of Agriculture Natural Resources and Rural Development (MARNDR), National Food Security Coordination Office (CNSA) and KNFP	November 2012 until now	2	7	100	68	Networking of FFS Getting progressive charge of FFS by Territorial Ministry of Agriculture at departmental and adaptation of the CEP approach to the local context

ANNEX 9

JAMAICA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Ja REEACH Protecting Lives & Livelihoods From the Impacts of Climate Change	USAID	St. Mary, Clarendon, St. Andrew & St. Elizabeth	ACDI/VOCA	NGO	33 Lady Musgrave Road, Kingston 5	Meteorological Department	February 2014 6 months				50	150	
Ja REEACH Cocoa Farmer Field School (FFS)	USAID	Clarendon & St. Mary	ACDI/VOCA	NGO	33 Lady Musgrave Road, Kingston 5	MoAF & RADA	March 2012 6 months				25	40	
Integrated Pest Management (IPM) FFS Facilitators – Beet Armyworm	USAID	St. Elizabeth	MoAF ACDI/VOCA	Public NGO	Old Hope Road, Kingston 6	MoAF & USAID	March 2009 6 months	2	6		50	100	

ANNEX 9

JAMAICA

Summary of FFS Sessions Conducted under FAO / RADA LOA (Period: April – June 2013)

LOCATION	NAME OF FARMER	TOTAL NUMBER OF FARMERS PER SCHOOL	FFS DATES	TOTAL WEEKS	FFS FACILITATORS
Comma Pen, St. Elizabeth	Derrick Lee	10	30.04.2013 07.05.2013 11.05.2013 21.05.2013 28.05.2013 08.05.2013 04.06.2013 11.06.2013 25.06.2013	**9**	**Odein Bradshaw (lead facilitator)** Oneil Aiken, Raymond Vassel Rickey Bellanfante
Gillards/ Little Park, St. Elizabeth	Aubry Buchannan	10	07.05.2013 13.05.2013 20.05.2013 27.05.2013 03.06.2013 10.06.2013 17.06.2013 24.06.2013	8	**Lawrence Rowe (lead facilitator)** Carl Myers Jermaine Wilson Christopher Blake

FFS Training Modules developed by Dean Passard (JaREEACH Project Consultant)

Module 1: Beet armyworm IPM FFS Sensitization session

Module 2: Agro-ecosystem analysis (AESA) and BAW monitoring with emphasis on impacts of climate change on pest outbreaks and role of natural enemies

Module 3: Identification of the BAW across its developmental stages and available management options for each stage

Module 4: Damage symptoms in onion and escallion

Module 5: Life cycle study of BAW in onion and escallion

Module 6 BAW damage assessment and traditional crop production practices contributing to residual BAW population throughout the year.

Module 7: IPM - cultural practices/ mechanical control (hand picking, leaf clipping)

Module 8: IPM - biological control of BAW

Module 9: IPM - Safe use and storage of chemicals

Module 10: Equipment calibration, pesticide mixing and spraying technique

Module 11: Knowledge and skill development evaluation exercise.

ANNEX 10

ST. KITTS AND NEVIS

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Technical assistance to promote agricultural diversification towards the reduction of the importation/import bill of selected crops- onions and cole crops	FAO / Ministry of Agriculture	New River, Nevis/St. James	Department of Agriculture	Public Institution	Prospect Estate, Nevis		May 2015 and 18 months duration		2	3	4	Resource constraints and maybe mitigated by resource sharing arrangements
Technical assistance to promote agricultural diversification towards the reduction of the importation/import bill of selected crops- onions and cole crops -	FAO / Ministry of Agriculture	Mansion, St. Kitts/Christ Church	Department of Agriculture	Public Institution	La. Guerite, Basseterre, St. Kitts	Clearance Fitzroy Bryant College / Republic of China on Taiwan	May 2015 and 18 months duration	3	11	5	10	Resource constraints and maybe mitigated by resource sharing arrangements

ANNEX 11

ST. LUCIA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Cucumber	European Union	Marquis/Babonneau	Ministry of Agriculture	Public	Region 2, Extension Office, Babonneau Castries	FAO/Ministry of Agriculture		2	4	12	10	
Cantaloupe	European Union	Beausejour, Gros Islet	Ministry of Agriculture	Public	Region 1, Extension Office Babonneau Castries	FAO/Ministry of Agriculture	February 10th, 2010 13 weeks	2	2	3	22	
Cantaloupe	FAO	Black Bay, Laborie	Abel Barley	Private	c/o Region 5 Extension Office Vieux Fort	Ministry of Agriculture, Extension Division	April-July 2010		2	2	17	
Sweet Pepper, Tomatoes, Honey Dew	Taiwanese Mission	Black Bay, Laborie	Black Bay Small Farmers Co-operative	Cooperative		Ministry of Agriculture, Taiwanese Mission	July-September 2011		2	5	11	
Integrated Post Management in Tomatoes	FAO	Delcer, Choiseul	Ministry of Agriculture	Public Institution	Region 6, Extension Office, Myers Bridge Choiseul	Belle Vue Farmers Co-operative	June 2009 - September 2009	1	3	12	18	Limited due to finance availability
Pruning Watermelon to enhance fruit size	Taiwanese Technical Mission	River Doree Choiseul	Ministry of Agriculture, Taiwanese Technical Mission	Public/NGO			October 2010-December 2010	1	6	8	23	Quite sustainable due to financial support
Growing Honey Dew on the isles under green house	Taiwanese Technical Mission	Belle Vue Farmers Co-operatives	Ministry of Agriculture, Taiwanese Technical Mission	Public/Foreign Assistance			September 2012 - December 2012	1	4	11	17	Sustainable due to financial ability
Organic Production of Vegetables	GEF	Tier Blane, Soufriere	Ministry of Agriculture and Seed foundation	Public/NGO		Rise Foundation	April 2014 - May 2015	3	8	5	16	Very sustainable finance available

ANNEX 11

ST. LUCIA

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Tomato Production	EU & FAO	Desruisseaux	Ministry of Agriculture	Public Institution	Region 4, Extension Office, Micoud	Ministry of Agriculture	May 2010 to August 2010	1	3	8	17	Growth or enhancement of IPM in crop management
Water melon Production	Taiwanese	Lombard, Mon Repos					October 2011 to January 2012	1	2	5	18	Encourage the consumption of wholesome food
Water melon Production	Taiwanese						May 2014 to September 2014	1	2	8	19	Enhance farmers knowledge base
Water melon Production	Global Environmental facility (GEF)	La Pointe					November 2014 to February 2015	0	2	15	14	Better chance of increasing life expectancy

ANNEX 12

ST. VINCENT AND THE GRENADINES

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date and Duration	Number of FEMALE Trainers	Number of MALE Trainers	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Small Ruminant	FAO	St. George St. David Charlotte St. Andrew St. Patrick	Animal Health and Production Division	Government	Richmond Hill Kingstown St. Vincent and the Grenadines	Small Ruminant Society	June 2013 to July 15, 2014	12	9	48	36	Would be applied to Poultry and Pigs to use the methodology for technology transfer

ANNEX 13

TRINIDAD AND TOBAGO

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Hot Pepper		Ramsabad Trace, St. Patrick East					2004				21			
Cabbage		Puzzle Island, St. Patrick East					2006				13			
Cabbages		Transfer Village, Victoria					2007				15			
Cauliflower / Broccoli		Ramsabad Trace, St. Patrick East					2006				27			
Watermelon		Cememtery Trace & Rodney Road, Freeport (Val. Plot), CARONI					2007				20			
Water melon		Col #2, Victoria									8			
Cassava / Sweet Potato		Freeport, CARONI					2008				38			

ANNEX 13

TRINIDAD AND TOBAGO

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Tomato		Puzzle Island, St. Patrick East					2004				8			
Tomato		Bueno Intento, Victoria									12			
Tomato		Railway Road, Rio Claro					2005				10			
Tomato		Ramsabad Trace, St. Patrick East									24			
Tomato		Caura, St. George West												
Tomato		Rodney Road Freeport CARONI									22			
Tomato		Corial #2, Victoria									10			

ANNEX 13

TRINIDAD AND TOBAGO

Project or FFS Topic / Thematic Area	Funding Source	Location	Implementing Agency	Agency Type	Agency Address	Co-operants	Start Date	Duration	Number of FEMALE Trainers	Number of MALE Trainers	Total Number of Farmers Trained	Number of FEMALE Farmer trained	Number of MALE Farmer trained	Sustainability
Tomato		Corial #2, Victoria					2006				10			
Tomato		La Compensatio, St. George West (SGW)									8			
Tomato		Nariva, Road, Manzanilla, St. Andrews									10			
Tomato		Inner Cedar Grove Village Cedar Grove Road, Mayaro									8			
Tomato		Maracas Bay, Maracas, St. George West					2007							
Tomato		Platanite Food Crop Project No. 2, St. Patrick East									21			
Tomato		Anglais Road, Cumana, St. Andrews									10			
Tomato		Fishing Pond, Gainda Road, St. Andrews					2008				8			
Tomato		Bamboo - Guayabal, St. George West									15			

ANNEX 14

SUMMARY OF COMMODITY FARMER FIELD SCHOOLS

COUNTRY	Cabbage	Tomato	Sweet Corn	Irish Potato	Water Melon	Sugarcane	Onion	Small Ruminants	Pasture Management		Total Number of Commodity FFSs
Antigua and Barbuda			Sept 2015 – Mar 2016		January 2016						4
Belize						January 2011	January 2015 (30 months)				2
Dominica	Jan - Mar 2004		May - July 2004	Dec 2014 - Mar 2015			Sept - Dec 2006	Sept 2013 - Dec 2014			9
	May - July 2004 (organic)										
	Oct - Dec 2004										
	May - July 2005										
	Sept - Dec 2007 (organic)										
Grenada								May 2009			5 + 2 (CARDI)
								April 2011			

COUNTRY	Cole	Yam	Vegetables	Rice	Aquaculture (Fish)	Plantain	Broilers	Dairy	Swine	Small Ruminants	Total Number of Commodity FFS Topics
Guyana	Diamond back moth male attractant lures 34 plots March 2015	Jan. 2015 12/16 weeks per unit		June 2003 - April 2006		Feb –May 2015	Management of Broilers with Emphasis on Nutrition	October 2015	Farrowing Pen designs and management in Swine	Record Keeping	14
				Dec 2004 - Mar 2005						3 weeks	
				June 2005 - May 2006							
		Jan. 2016 16 weeks session		June 2007 - May 2011		Continuous for 3 cycles	October 2015				
			May 2006 – Mar. 2011						October 2015	August 2015	
				June 2011 to present							

ANNEX 14

SUMMARY OF COMMODITY FARMER FIELD SCHOOLS

COUNTRY	Sweet Potato	Cassava	String Beans	Vegetables	Banana	Maize	Beans	Lima Beans	Cocoa	Cole	Onion	Beef	Fish	Total Number of Commodity FFSs
Haiti	January 2015 to date					April 2014 to date						November 2012 to date		152
Jamaica									March 2012 6 months					7
St. Kitts										May 2015 18 months				2

COUNTRY	Tomato	Sweet Pepper	Honey Dew	Cucumber	Cantaloupe	Vegetables	Watermelon	Small Ruminants (Goats)	Total Number of Commodity FFSs
St. Lucia	June 2009 – Sept 2009		Sept. 2012 - Dec. 2012	*Date(s) not reported*	February 2010 for 13 weeks	April 2014 - May 2015	Oct – Dec 2010		12
	July – September 2011						October 2011 – January. 2012		
							October 2011 – January 2012		
	May – August 2010				April – July 2010		Nov. 2014 – Feb. 2015		
St. Vincent and the Grenadines								June 2013 – July 2014	1

ANNEX 14

SUMMARY OF COMMODITY FARMER FIELD SCHOOLS

COUNTRY	Cabbage	Tomato	Broccoli	Cauliflower	Cassava	Sweet Potato	Water Melon	Hot Peppers	Total Number of Commodity FFSs
Trinidad & Tobago	**2006**	**2004** *2 sites*	**2006**		**2008**		**2007** *2 sites*	**2004**	23
		2005 *5 sites*							
	2007	**2006** *4 sites*							
		2007 *3 sites*							
		2008 *2 sites*							

REGIONAL AGENCY	Hot Peppers	Cassava	Sweet Potato	Yam	Herbs	Vegetables	Callaloo	Small Ruminants	Total Number of Commodity FFSs
CARDI	1994 - 2006 13 years	March 2010 - June 2013					Oct 2008 - July 2009		
CARDI Jamaica		Dec 2013 - May 2016							
CARDI Grenada		Jul-15						October. 2010	5
		Aug-15						September 2010	
		Oct-15							
IICA									

ANNEX 15

SUMMARY

FFS TOPICS / THEMATIC AREAS

COUNTRY	Backyard Gardening	Seedling Production	Composting	Vermiculture	Recycling - Wooden Pallets	Water Recycling	Companion Planting / Climate Change	Budding and Grafting	Sustainable Agriculture	Sustainable Agriculture and Waste Management	Agriculture Enterprise	Soil Fertility Plant Nutrition Soil Testing	Herbicide Selection, Use and Safety	Formation of Farmers' Organization	Short Term Employment Program	Giant African Snail	Training of (Master) Trainers
Antigua & Barbuda	April 2013 - Dec 2014	2013 - 2014	2013 - 2014	2013 - 2014	2013 - 2014	2012 - 2014	2013 - 2014	2013 - 2014	2014 1 week	Dec-15	Sept 2014 - 3 months duration	April 2014 2 months	December 2014 2 months	September 2015 - ongoing	September 2015 - February 2016	April 2015 & May 2015	
Dominica	May - Aug 2014																Oct - Dec 2003

COUNTRY	Agriculture Revitalization	Organic Production	Food Security	Resilience of Family farms	Livelihoods & Climate Change	Pruning	Climate Resilience/ Disaster Risk Mitigation	Commercialization	IPM / CRSP	Improved Marketing & Production	Protected Agriculture	Agro-ecological Farming	ASSP	Diamond back moth male attractant lures	IPM / Beet Armyworm	*TA to promote agricultural diversification* Import Substitution
Belize												March 2014				
Guyana													May 2006 – March 2011	March 2015		
Haiti	June 2015 to date		November 2012 to date	April 2014 to date			January 2015 to date									
Jamaica					February 2014 6 months										March 2009 6 months	
St. Kitts & Nevis																*Cole & Onion*
St. Lucia		*Organic Production of Vegetables*				*Pruning Watermelon to enhance fruit size*					*Growing Honey Dew on the isles under green house*					
CARDI								Callaloo	Hot Pepper	March 2010 - June 2013						

ANNEX 16

Guyana Rice Development Board
Extension Division
Seasonal Programme
Farmers Field School Training

Week	*Activity*	*Special Topic*
1	Launching of Field School [Outline of Field School Programmed]	Land Preparation, Germination, Sowing
2	AESA [% establishment of seedling]	Early season pest control, seedling stage
3	AESA [Plant height, water depth, root length, etc.]	Water Management, Crop Nutrition
4	AESA, Schoonard Grass Control Demonstration	Weeds
5	AESA [Pest, beneficial insect, etc.] Farm Walk	Tillering
6	Pesticide – Legal responsibilities. Understanding & Managing pesticides.	Safe handling of pesticides. Disposal of pesticides & pesticide containers.
7	HIV- AIDS Discussion Health and Wellness	Occupational Health & Safety.
8	Demonstration on Identification of Panicle Initiation, AESA, Farm Walk.	Booting and Heading
9	Calibration of Spray Equipment and Demonstration on Paddy Bug Control	Flowering
10	Insect Zoo Study	Paddy Bug Management
11	AESA, Techniques of Rouging Demonstration Farm Walk	Disease Management
12	Cost of Production Compilation	Rice Production/Exports
13	Grading Procedures	Rice Regulations
14	Techniques of Seed Certification	Seed Legislation

ANNEX 16

Farmers Field School Schedule – Spring Crop, 2016

Reg.	Name of Officer	Name of Farmer	Day Session Conducted	Location of Plot	Time
2	G. Ramnauth	Ravi Dindyal	Saturday	Hibernia	8:00 hrs.
	T. Ramnauth	Abdool Sattur	Thursday	Adventure	15:30 hrs.
	D. Singh	Twahid Baksh	Wednesday	Zorg-En-Vlygt	13:00 hrs.
	C. Cooblall	V. Persaud	Tuesday	Affiance	13:00 hrs.
	N. Bahadur	James Bryne	Tuesday	Richmond	15:00 hrs.
	S. Boston	Roy Griffit	Thursday	West Bury	14:00 hrs.
3	Zakir Khan	Y. Sahadeo	Monday	Meerzorg	9:00 hrs.
	H. P. Sharma	S. Mohammed	Tuesday	Blenheim	10:00 hrs.
	Deoram Garbaran	C. Harrichand	Thursday	Ruby	9:00 hrs.
	Ramsaran	K. G. Dass	Wednesday	Ruimzeight	9:30 hrs.
	Premraj Persaud	D. Sammy	Wednesday	Pouderoyen	9:00 hrs.
4	R. Ramsarran	I. Bishnudatt	Saturday	Lee Street	17:00 hrs.
5	S. Sookram	M. Chainsukh	Wednesday	Little Biaboo	15:00 hrs.
	Q. Wilson	R. Gopichand	Wednesday	Mora Point	9:00 hrs.
	Kevil Chester	K. Mingo	Tuesday	Second Point	8:30 hrs.
	A. Basil	Standoff Richmond	Sunday	Weldaad	9:30 hrs.
	D. McKenzie	R. Ramgobin	Wednesday	#9 Village	16:00 hrs.
	S. Bhajan	S. Mattadin	Thursday	Bath Savannah	16: 30 hrs.
	G. Khaderu	Deonarine Persaud	Tuesday	Sec 'C' Onverwagt	16:30 hrs.
	T.Ganesh	N. Doobay	Tuesday	Abary Creek	13: 00 hrs.
6	N. Jainarine	L. Rootheran	Tuesday	CWC	16:00 hrs.
	M. Harvey	L. Rahaman	Thursday	#52 Village	8:00 hrs.
	R. Singh	T. Ramnarine	Thursday	Kildonan Village	8:00 hrs.
	P. Jainarine	J. Tyndil	Thursday	Ulverston	14:30 hrs.
	K. Chinapa	M. Rupert	Monday	Borlum	8:00 hrs.
	S. Nagesar	C. Toolsie	Wednesday	Joanna	15:00 hrs.
	P. Ramcharitar	A. Duncan	Wednesday	Lesbeholden	13:00 hrs.