



PAGE 3: B. ABOUT YOU

Q1: Respondent details

Name	Ethan C.H. Liao
Organization	Taipei, Chinese
Email Address	chliao01@mofa.gov.tw
Phone Number	886-2-2348-2611

Q2: Country or Customs territory

TAIPEI, CHINESE

Q3: Organization

Public sector

PAGE 4: C. ABOUT YOUR CASE STORY

Q4: Title of case story

Project for Strengthening Farmers' Organizations and Improving Fruit and Vegetable Production Technology in Saint Vincent and the Grenadines

Q5: Case story focus

Trade Facilitation.

Q6: Case story abstract

Because of the unsteady quality and production volume of domestic agricultural products in Saint Vincent and the Grenadines, there are limited organized distribution channels. Under such circumstances, farmers lack the motivation to join in farmers' organizations to overcome the constraint of small production size and volumes, which hampers the agricultural development. It is expected that the integration of international resources made possible under the TaiwanICDF program and the EU BAM (Banana Accompanying Measures) program will assist the country in successfully strengthening farmers' organizations and accomplishing agricultural modernization in the production technology of vegetables and fruits.

In order to assist the Saint Vincent and the Grenadines government in empowering its farmers' organizations and enhancing their production techniques, the project will:

1. Enhance the capabilities of the extension division of the Ministry of Agriculture, and improve the effectiveness of its technical support.
2. Establish the facilities, cultivation models and regulations for the target crops, and provide trainings for the extension officials and farmers.
3. Strengthen the management system of the farmers' organizations, so as to improve the quality and quantity of the produce.

Q7: Who provided funding?

Bilateral donor

Q8: Project/Programme type

Single country

Q9: Your text case story**I. Project Brief**

- (i) Project Name: Project for Strengthening Farmers' Organizations and Improving Fruit and Vegetable Production Technology in Saint Vincent and the Grenadines.
- (ii) Project Sector : Agriculture
- (iii) Implementation Location: Caribbean / Saint Vincent and the Grenadines
- (iv) Implementation Period: September 01, 2015 to December 31, 2018
- (v) Cooperation Country/Customs Territory: The government of Chinese Taipei, the government of Saint Vincent and the Grenadines
- (vi) Executing Agency: Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry of Saint Vincent and the Grenadines
- (vii) Project Amount: US\$3,073,803
- (viii) Project Description:

The Program complements the European Union (EU) Banana Accompanying Measures (BAM) adopted by the Saint Vincent and the Grenadines Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry in order to help Saint Vincent and the Grenadines empower its farmers' organizations and enhance their techniques in producing vegetables and fruits. **The Program primarily aims at:**

1. **Empowered support system for techniques to be promoted at the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry** : Strengthening technical extension division in terms of operation technology and supplementary software and hardware equipment in the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry - such as soil analysis Laboratory, pro-biotic incubation room, fertility management laboratory and laboratory of Pesticide diagnosis and field administration safety management, to improve effectiveness of technique extension and to enhance capability of technical divisions in the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry.
2. **Established target crop facilities or field cultivation models and regulations:** establish targeted crops such as tomato, sweet pepper, carrot, watermelon and pineapples in terms of facilities or field cultivation models and regulations. The cultivation demonstration will be established in the Orange Hill Farm of the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry and farmers' farms to train extension staff of the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry, and farmers in the field of cultivation and production technology to improve the quality and quantity of the produce.
3. **Reinforced farmers' organizations management system:** establish administration, information, production and marketing management system. To set up office and depot station for the co-operatives; to organize training for executive members in different job function; to empower farmer organization, to improve fruit and vegetable quality with reliable quantity.

II. Project Background**(i) Project Rationale**

The export of bananas significantly dropped in 2010 onwards for Saint Vincent and the Grenadines. To help farmers achieve competitiveness in the banana industry and diversify into other agricultural enterprises, including vegetables and fruits the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry with the assistance of the EU's "Banana Accompanying Measures (BAM)", determined that it would focus agricultural development on promoting overall agricultural development and modernization for the 2013 to 2018 period. Emphasis was placed on the production and marketing of vegetables and fruits, and strengthening the development of farmers' organizations and cooperatives. The Chinese Taipei Technical Mission in Saint Vincent and the Grenadines has successfully assisted local farmers in growing and marketing crops and establishing farmers' organizations in the past. To empower farmers' organizations further in Saint Vincent and the Grenadines, the government requested the Mission's further assistance in developing production and distribution cooperatives, which hopefully will expedite agricultural modernization in line with the EU funded BAM project.

(ii) Assessment of Problems and Opportunities

Consumer preferences for vegetables and fruits in Saint Vincent and the Grenadines are similar to those in European and American countries and primarily include tomatoes, bell peppers, squashes, and cabbages. Although the said vegetables are already produced in the country, their quality and production volume are insufficient to satisfy the needs of consumers on the domestic market. As such, significant quantity is still imported. Because of the unsteady quality and production volume of domestic agricultural products in Saint Vincent and the Grenadines, there are limited organized distribution channels. Notwithstanding this situation, farmers, lack the motivation and incentives to join in farmers' organizations to overcome the constraint of small production size and volumes. Additionally, the policies that offer assistance to farmers' organizations are weak. Groups have little auxiliary software and hardware resources. Consequently, production planning is insufficient. These factors have resulted in ineffective operations. The Chinese Taipei Technical Mission in Saint Vincent and the Grenadines has assisted local farmers for the past five years to form groups devoted to the distribution and production of crops such as tomatoes, bell peppers, pineapples, and watermelons and it has successfully assisted two(2) such groups by increasing their cultivation area and productivity. As such, the government of Saint Vincent and the Grenadines hopes to maximize the experience and lesson learned from the

government of Saint Vincent and the Grenadines hopes to maximize the experience and lesson learned from the programme and extends them to other localities on the mainland to increase the income from the production and distribution of vegetables and fruits. It is expected that the integration of international resources made possible under ICDF programme and EU BAM programme will assist the country in successfully transforming and accomplishing agricultural modernization in the production of vegetables and fruits.

III. Expected Results

(i) Impact

Increase in farmers' income from produce sales in Saint Vincent and the Grenadines by over 15%

(ii) Outcome

Increase in the production volume of targeted commodities by farmers' organizations in Saint Vincent and the Grenadines by over 20%

(iii) Outputs

1. Empowered support system for techniques to be promoted at the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry

(1) Soil Analysis Laboratory will test three hundred (300) samples from farmers' organizations.

(2) Probiotics Incubation Room will produce one hundred (100) tons of probiotics-contained fertilizers.

(3) Fertility management:

a. Recommended fertilizer formulations for tomatoes, sweet peppers, carrots, watermelons, and pineapples will develop and be transferred.

b. Five (5) user manuals on fertilizers for individual crops will be completed.

(4) Pesticide diagnosis and field administration safety management: five (5) manuals on the introduction and management of pesticides completed.

(5) At least five (5) technicians trained in various aspects of laboratory operation and management.

2. Established target crop facilities or field cultivation models and regulations

(1) Five (5) sets of cultivation models and practices of target crops compiled.

(2) Three (3) technicians are trained.

(3) Four hundred (400) farmers are trained.

3. Reinforced farmers' organizations management system

(1) One (1) set of the farmers' organizations operation and management regulations established.

(2) One (1) set of management manual for operation of distribution centers prepared.

(3) Assistance to production and distribution groups provides to jointly distribute 1,000 tons of vegetables and fruits, worth US\$2 million in value.

(4) Six (6) technicians are trained.

IV. Implementation Arrangements

(i) Empowered support system for techniques to be promoted at the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry :

1. Soil Analysis Laboratory will purchase related devices to be better equipped as a laboratory and train two (2) technicians to analyze field samples and provide fertility managers with the analysis data in order for the latter to develop adequate fertilizer formulas and help farmers purchase related fertilizers and apply them to target crops according to the formulas they receive.

(1) Portable pH and EC meters will be purchased in order for first-line promoters to perform quick tests on field soil, provide preliminary information on soil modification, and teach farmers how to sample their soil and submit the samples for tests.

(2) Short-term experts will be sent to organize two (2) training sessions.

2. Probiotics Incubation Room

(1) The incubation room and related devices will be configured. One technician will be trained to operate and run the incubation room, preserve the strains of probiotics, produce biological preparations, develop compost, and apply it in cultivation.

(2) Short-term experts will be sent to organize three (3) training sessions.

3. Fertility management

(1) The fertilizer reconstitution room will be established. One technician will be trained to develop fertilizer formulas recommended for tomatoes, sweet peppers, carrots, watermelons, and pineapples in accordance with the soil sample analysis report and provide farmers with suggestions on their administration on target crops. 5 user manuals on fertilizers for individual crops will be completed.

(2) Short-term experts will be sent to organize two (2) training sessions.

4. Pests diagnosis and field administration safety management

(1) One (1) technician will be trained to compile the pest prevention and control calendar for target crops in accordance with local laws and regulations and recommend safe administration, prevention, and control methods to be adopted by farmers. A total of five (5) user manuals on the prevention and control of crop pests will be completed.

(2) Short-term experts will be sent to organize two (2) training sessions.

(ii) Established facilities or field cultivation models and regulations of Tomato, Sweet pepper, Carrot, Watermelon and

Pineapple

1. Cultivation model and regulations for facilities on the Orange Hill Agricultural Cooperation Farm

(1) Based on market preferences and farmers' willingness, tomatoes, sweet peppers, and carrots are chosen to be the main crops. ICDF specialists introduce suitable breeds and production techniques and establish cultivation models with one(1) technician, such as the agricultural practice, materials, agricultural chemicals and fertilizers, and cultivation regulations.

(2) Two (2) extension officers will be trained. Three (3) manuals on crop cultivation models and regulations will be compiled. The extension officers will periodically hold field observation trips and workshops, eight (8) in totals, and direct the farmers to follow the standard production procedure.

2. Cultivation and field production models and regulations for demonstrative facilities at the farmers' fields

(1) On the basis of existing production and distribution of pineapples and watermelons by cooperatives, cultivation regulations are established for farmers' fields. The ICDF specialist will help introduce suitable breeds and techniques and establish the cultivation regulations (x 2) with one extension officer.

(2) Two (2) extension officers will be trained to compile two (2) manuals on crop cultivation models and regulations. The extension officers will periodically hold field observation trips and workshops, eight (8) in totals, and direct the farmers to follow the standard production procedure.

(iii) Reinforced farmers' organizations management system

1. Produce cooperative administrative information management system (Cooperation Office): The Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry will choose produce cooperatives registered in accordance with Saint Vincent and the Grenadines's Cooperative Act to be the subjects of assistance, eight (8) of them in total.

(1) Four (4) collaborators will complete the seed teacher training.

(2) One (1) Produce Cooperative Training Organization and Management Manual will be prepared.

(3) Administrative information management: Training and assistance will be provided on a daily basis with regard to cooperative affairs in accordance with the cooperative regulations approved under the Cooperative Act of Saint Vincent and the Grenadines and the Produce Training Organization and Management Manual compiled under the Programme. External experts will provide the English version of the "production and distribution group stock, sale, and storage management software" currently adopted in Chinese Taipei and provide necessary devices at cooperative premises to generate statements and related statistical information in compliance with the Cooperative Law.

(4) Ability building practical training will be organized for leaders, that is, president, vice president, accountant, secretary, production manager, and distributor, six (6) in total in accordance with the functions established in the Produce Cooperative Training Organization and Management Manual. There will be sixteen (16) workshops and educational training sessions organized.

(5) Short-term experts will be sent to organize one (1) training sessions.

2. Produce Cooperative Production and Distribution Management (Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry)

(1) Two (2) collaborators will complete the seed teacher training.

(2) One (1) Produce Cooperative Distribution Management Manual will be prepared.

(3) Distribution management: The ICDF specialist and two (2) collaborators will help provide training on how to design distribution management statements, establish the procedures, and collect agricultural products distribution data for creation of the agricultural information database.

(4) In accordance with the organization framework of produce cooperatives, leaders and members will be trained on post-harvest processing, warehousing, distribution, finance, procurement, and preliminary processing, among other skills. There will be sixteen (16) workshops and educational training sessions organized.

(5) Short-term experts will be sent to organize one (1) training sessions.

Q10: Lessons learnt

This project commenced in September 2015 and is under implementation until the end of 2018. Information on what went well, what did not, sustainability of results, and follow-up is yet to be collected.