

Country Name	Horticultural Farmers' Profitability Improvement Project in the Eastern Region of the Republic of El Salvador
Republic of El Salvador	of El Salvador

**I. Project Outline**

Background	<p>In El Salvador, the agriculture sector accounted for about 6.5% of gross domestic products (GDP) and about 22% of the working population was engaged in the sector (2012). 80% of the farmers were small scale farmers (agricultural land area of 3ha or less, and the farmers were mainly engaged in subsistence agricultural production). In particular, the Eastern Region (Usulután, San Miguel, Morazán, La Unión) was the poorest region with a high proportion of small scale farmers. The National Agriculture, Livestock and Forestry Technology Center (CENTA), which is responsible for technological research and development and dissemination, has provided support to these small scale farmers. On the other hand, in the Eastern Region, the access to markets and technology by small scale farmers was limited. As a result, many small scale farmers and agricultural cooperatives sold their products to middlemen but did not have sales channels to supermarkets through sales to major distributors. In order to improve that situation, one of the challenges was to organize groups of small scale farmers and strengthen their ability to negotiate prices by producing good quality and quantity of agricultural products that meet the needs of the market, as well as to develop and strengthen sales channels from upstream to downstream (wholesale, retail, etc.) in the value chain of the agricultural products.</p>												
Objectives of the Project	<p>Through development of the market-oriented agricultural extension package, training of farmers on the response to the market and business management, and training of extension officers of CENTA on the appropriate production methods, the project aims at increasing the agricultural profitability of the target horticultural farmers groups, thereby contributing to the continuous support of the Ministry of Agriculture and Livestock (MAG) and CENTA to farmers utilizing the knowledge of Horti Oriente<sup>1</sup>.</p> <ol style="list-style-type: none"> <li>Overall Goal: Strengthened MAG/CENTA continuously support farmers utilizing the knowledge of Horti Oriente.</li> <li>Project Purpose: The agricultural profitability of the target horticultural farmers groups is increased.</li> </ol>												
Activities of the project	<ol style="list-style-type: none"> <li>Project site: 4 departments in the Eastern Region (Usulután, San Miguel, Morazán, and La Unión)</li> <li>Main activities: development of the market-oriented agricultural extension package, training of farmers on the response to the market and business management, development of the guidelines, training of extension officers of CENTA on the appropriate production methods, etc.</li> <li>Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">El Salvador Side</td> </tr> <tr> <td>1) Experts: 6 persons</td> <td>1) Staff allocated: 34 persons</td> </tr> <tr> <td>2) Trainees received: 25 persons</td> <td>2) Facility: Office space.</td> </tr> <tr> <td>3) Equipment: Copy machines, projector, air-conditioner, etc.</td> <td>3) Local cost: Electricity fee, internet connection, etc.</td> </tr> <tr> <td>4) Local cost: Hiring local consultants, car rental, communication, equipment, etc.</td> <td></td> </tr> </table> </li> </ol>			Japanese Side	El Salvador Side	1) Experts: 6 persons	1) Staff allocated: 34 persons	2) Trainees received: 25 persons	2) Facility: Office space.	3) Equipment: Copy machines, projector, air-conditioner, etc.	3) Local cost: Electricity fee, internet connection, etc.	4) Local cost: Hiring local consultants, car rental, communication, equipment, etc.	
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Project Period	(ex-ante) April 2014 to March 2018 (actual) May 2014 to May 2018	Project Cost	(ex-ante) 486 million yen, (actual) 400 million yen										
Implementing Agency	Ministry of Agriculture and Livestock												
Cooperation Agency in Japan	Kaihatsu Management Consulting, Inc., CDC International Corporation.												

**II. Result of the Evaluation**

1 Relevance/Coherence
<p>[Relevance]</p> <p>&lt;Consistency with the Development Policy of El Salvador the time of Ex-ante Evaluation&gt;</p> <p>The "Family Farming Program" (2011-2014) as the national policy for the agricultural sector had four programs, and one of them was the "Family Farming Program for Production Chain Construction." The project was consistent with the development policy of El Salvador at the time of ex-ante evaluation.</p> <p>&lt;Consistency with the Development Needs of El Salvador at the time of Ex-ante Evaluation&gt;</p> <p>In the Eastern Region in El Salvador, small farmers did not have access to markets or sales channels to supermarkets. There were needs for organizing small farmers and strengthening their capacity to negotiate prices and strengthening sales channels from upstream to downstream. Thus, the project was consistent with such development needs of El Salvador at the time of ex-ante evaluation.</p> <p>&lt;Appropriateness of Project Design/Approach&gt;</p> <p>During the project period, it was found that some farmers were vulnerable in terms of production and marketing capacity and access to formal markets, intermediary wholesale buyers and restaurants, and so on. The eligibility criteria for joining target farmer groups were revised to encourage such farmers' participation in the project activities. No problem attributed to the project design/approach was confirmed.</p>

<sup>1</sup> The nickname for the project combining "horticultura" and "oriente."

<Evaluation Result>

In light of the above, the relevance of the project is ③. (④ : very high, ③ : high, ② : moderately low, ① : low. \*To be the same afterwards.)

[Coherence]

<Consistency with Japan’s ODA Policy at the time of Ex-ante Evaluation>

In the “Country Assistance Policy for the Republic of El Salvador” (2012) which set "economic revitalization and employment expansion" as a priority area, agricultural development was placed in the development issue "development of industrial infrastructure and productivity improvement for regional development. Thus, the project was consistent with Japan’s ODA policy at the time of ex-ante evaluation.

<Interlinkage with other JICA’s Interventions>

Any synergy effect by the interlinkage between the project and other JICA’s intervention was not clearly planned at the time of ex-ante evaluation.

< Cooperation with Other Institutions/Coordination with International Frameworks>

Any cooperation/coordination with donors or international frameworks was not clearly planned at the time of ex-ante evaluation.

<Evaluation Result>

In light of the above, the coherence of the project is ②.

[Evaluation Result of Relevance/Coherence]

In the light above, the relevance/coherence of the project is ③.

2 Effectiveness/Impact

<Status of Achievement for the Project Purpose at the time of Project Completion>

At the time of project completion, the Project Purpose was almost achieved as planned. 58% of the farmers’ groups increased the horticulture profits (Indicator 1). Considering that 49% of the surveyed individual farmers increased the profits, it can be said that group production was effective. 30 officers of MAG and CENTA learned the methodology for diffusing the model developed by the project (Indicator 2). The Agribusiness Division of MAG developed the guidebook “Methodology for the Delivery of Technical Assistance Services and Performance Evaluation of Rural Businesses” based on the project experience incorporating the SHEP approach. Two workshops on the orientation to the methodology were conducted in 2017, where not only CENTA del Oriente technicians but also 36 technicians collaborating in the Agribusiness Division's pilot activities at the national level participated.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

By the time of ex-post evaluation, the project effects have been partially continued. The profitability of the horticulture sales of the target farmers’ groups could not be confirmed in the ex-post evaluation (Indicator 1). Since the time of project completion, the data has not been monitored because of the personnel turnover caused by the administrative change in 2019 and quarantine mobilization restrictions during the pandemic of COVID-19 since 2020. Another reason is that the personnel of MAG and CENTA has not had sufficient knowledge on monitoring activities for this indicator. Regarding the knowledge for diffusing the Horti Oriente model developed by the project, 15 personnel of MAG and CENTA learned the methodology in 2021. Based on the experience of the project, MAG has conducted diagnosis of the farmers’ groups, developed the support plan and provided them with technical advises on agribusiness development. As well, CENTA has provided support to farmers in vegetable growing and agribusiness. Besides, MAG and CENTA has implemented the program “Rural Adelante” (2019-2024) in the same target municipalities. In particular, the project experiences in capacity building of organizations for improving business planning skills and access to market in a competitive and sustainable way have been sustained and same extension workers have been working in the program. In addition, the National Commission of Small and Medium Enterprise (CONAMYPE) has been collaborating with MAG to promote entrepreneurship of farmers by financing small business and processes.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

At the time of ex-post evaluation, the Overall Goal has been partially achieved. 24 farmers’ groups were supported with the knowledge of Horti Oriente since by 2021 (Indicator 1). In 2019 and 2021, 12 groups were supported as planned, but not in 2020 when there were frequent mobilization restrictions. In addition, 21 horticulture farmers’ groups were supported by MAG’s project “Rural Adelante.” Regarding the profitability from sales of agricultural products (Indicator 2), no data was available from the same reasons explained above. According to some interviewed small farmers, they have still struggled to sell products in the formal markets, as there are only two supermarkets in the oriental zone and they have required hard conditions to buy products from farmers. Also, there have been limited transportation means to these markets.

<Other Impacts at the time of Ex-post Evaluation>

During the ex-post evaluation, the following cases were confirmed at some sites, First, social inclusion has been enforced in the productive activities. Before the working environment had not been very favorable for women and youth, but the project promoted their participation, by providing them with the market information and training opportunities, encouraging them to participate in agribusiness meetings and market surveys. MAG, in collaboration with CONAMYPE has sustained these efforts, and the female and young farmers have got motivated and worked in a good relationship with other farmers, according to MAG. Second, female active participation has improved the productivity. As an example, in the cooperative “Los Manunes” (ACPALMA, de R.L) in Usulután, female participation has brought a new business for processing and selling *platano* (green banana) chips. Third, the synergy effect of the project and the preceding project, “Project for Supporting the Small Scale Farmers in the Easter Region (PROPA)” (2008-2012) was confirmed. In the cooperative “Arbol de Cortez” in San Miguel, the mesh house built during the period of PROPA has been continuously utilized and the learned techniques have been applied for the horticulture production. On the other hand, no negative impact has been reported in the ex-post evaluation.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is ②.

Achievement of the Project Purpose and Overall Goal

Aim	Indicators	Results	Source
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(Project Purpose) The agricultural profitability of the target horticultural farmers groups is increased.	1. The profitability (sales-cost*) of the horticulture sales of at least 60% of the target farmers' groups is increased.	<u>Status of the achievement (Status of the continuation): Almost achieved as planned (Not verifiable).</u> (Project Completion) ● 15 of the 26 surveyed farmers' groups (58%) increased the profits from the baseline year to end-line year: (Ex-post Evaluation) ● No data was available, because the monitoring has not been carried out due to the quarantine mobilization restrictions under the pandemic of COVID-19. Lack of staff members with the knowledge for monitoring due to change of administration and rotation of the staff. has been the other reason.	Project Completion Report.  MAG.															
	2. The number of the officers of MAG and CENTA who learned the methodology for diffusing Horti Oriente reach at least 26.	<u>Status of the achievement (Status of the continuation): Achieved beyond the plan (Partially continued).</u> (Project Completion) ● MAG and CENTA staff members who learned the methodology for diffusing the Horti Oriente were 9 and 21 (30 in total), respectively. (Ex-post Evaluation) ● In 2021, 4 members of MAG and 11 members of CENTA learned the methodology for diffusing the Horti Oriente.	Project Completion Report.  MAG, CENTA.															
(Overall goal) Strengthened MAG/CENTA continuously support farmers utilizing the knowledge of Horti Oriente.	1. The number of the farmers' groups which were supported with the knowledge of Horti Oriente is increased to at least 36, after the project completion.	<u>Status of the achievement: Partially achieved.</u> (Ex-post Evaluation) ● The total number of farmers' groups with the knowledge of Horti Oriente increased to 24. Table: No of farmers' groups which were supported with the knowledge of Horti Oriente. <table border="1"> <thead> <tr> <th></th> <th>2019</th> <th>2020</th> <th>2021</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Plan</td> <td>12</td> <td>12</td> <td>12</td> <td>36</td> </tr> <tr> <td>Actual</td> <td>12</td> <td>0</td> <td>12</td> <td>24</td> </tr> </tbody> </table> ● In addition, 63 farmers' groups in 49 municipalities of the four target departments have been supported by MAG's project "Rural Adelante" since 2020, among whom 21 groups were horticulture farmers.		2019	2020	2021	Total	Plan	12	12	12	36	Actual	12	0	12	24	MAG.
		2019	2020	2021	Total													
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2. At least 60% of the farmers' groups which receive the support increase their profitability from sales of agricultural products.	<u>Status of the achievement: Not verifiable.</u> (Ex-post Evaluation) ● No data was available, because the monitoring has not been carried out due to the quarantine mobilization restrictions under the pandemic of COVID-19. Lack of staff members with the knowledge for monitoring has been the other reason.	MAG																

Note: "Cost" in the Indicator 1 of the Project Purpose includes that for the purchase of seeds, fertilizers and pesticides, and cost for production, sales and management cost such as the transportation of products. It also includes labor cost.

### 3 Efficiency

Both the project cost and the project period were within the plan (ratio against the plan: 82% and 100%, respectively). Outputs were produced as planned. Therefore, the efficiency of the project is ④.

### 4 Sustainability

#### <Policy Aspect>

MAG has established the "Agricultural Rescue Master Plan" (2019-2024) for promoting comprehensive agricultural transformation with an agro-industrial approach and, as mentioned earlier, implemented the program "Rural Adelante" (2019-2024) based on the project experience.

#### <Institutional/Organizational Aspect>

The organizations setting for supporting small farmers been sustained by MAG which is responsible for improvement of agricultural business management methods and market matching and CENTA which is responsible for extension of the cultivation methods. The Horti Oriente model developed by the project been utilized in MAG's program, "Amanecer Rural" (2013-2018) and "Rural Adelante" (2019-2024). The Agribusiness Division of MAG has not sustained the sufficient number of staff to cover all necessary activities due to the budget shortage, but it has expected to increase the number of staff with donors' support and a strong commitment of the central government for the development in the eastern zone. As well, the number of extension workers in the oriental zone (39 in 2020, 39 in 2021, and 34 in 2022) has not been sufficient to timely respond to all farmers' needs, either. However, CENTA secured external human resources (25 consultants for 2019-2021) for extension activities in the zone with funds from donors including the European Union.

#### <Technical Aspect>

MAG answered that the Agribusiness Division has sustained necessary skills and knowledge to improve agri-business management methods and market matching, as they have supported farmers through participatory diagnoses and defined the support plan. Also CENTA has sustained necessary skills and knowledge to extend cultivation methods to farmers, according to their self-evaluation, as the extension workers have conducted training at the national level in vegetable cultivation (tomato, chili and cucumber) and the indoor modality cultivation (greenhouses, mesh house, and macro tunnels). Also, they have provided technical assistance in business and financial training and organizational management, post-harvest management of vegetables and others. The materials developed by the project have been used by MAG and CENTA. For example, the document "Methodology for the Provision of Technical Advisory Services and Performance Evaluation of Rural Businesses" has been used by the Agribusiness Division for capacity assessment, intervention planning, market survey, etc. Also CENTA has used manuals and flipcharts for training purposes, as they have been helpful for extension workers to make a clearer and more understandable presentation, according to CENTA.

<Financial Aspect>

At both MAG and CENTA, the budget for supporting small farmers' business management and market matching has been on a decreasing trend, because the government has put much priority on the health (under the pandemic of COVID-19) and public safety sectors (as the new administration's policy since the elections of 2019) .x.

Budget of MAG for development of business management methods and market matching (US\$)

	2019	2020	2021	2022 (plan)
Revenue	74,128	44,578	50,756	47,050
Expenditure	74,128	44,578	50,756	--

Source: MAG

<Environmental and Social Aspect>

In recent years, droughts and insecurity have been identified as environmental and social risks, respectively. Countermeasures have been taken, as the budget for risk mitigation has been assigned by MAG and CENTA, and also, the project "Upscaling Climate Resilience Measures in the Dry Corridor Agroecosystems of El Salvador" (RECLIMA) has been implemented with support of FAO.

Budget of CENTA for support of small farmers (US\$)

	2019	2020	2021	2022 (plan)
Revenue	10,155,947	9,855,947	9,806,588	9,322,297
Expenditure	4,249,440	4,281,385	4,156,580	--

Note: Revenues are allocation to CENTA. Expenditures are those for technology transfer.

Source: CENTA

<Evaluation Result>

In light of the above, slight problems have been observed in terms of the institutional/organizational and financial aspects of the implementing agency. Therefore, the sustainability of the project effects is ③.

5 Summary of the Evaluation

The project almost achieved the Project Purpose which as to increase the agricultural profitability of the farmers' groups. They have continued the horticulture production based on the model developed by the project, but since the profitability could not be confirmed with data, it was judged that the Overall Goal was partially achieved. MAG has sustained the model in its own programs since the project completion. Regarding sustainability, although human and financial resources have not been sufficient to cover all farmers' needs on time, MAG and CENTA have sustained relevant policies and necessary skills for supporting small farmers.

Considering all of the above points, this project is evaluated to be satisfactory.

**III. Recommendations & Lessons Learned**

Recommendations for Implementing agency:

- It is recommended to MAG to seek for support from donors or non-profit organizations for further diffusion of the model, by explaining its advantages and applicability in their projects.
- It is recommended to MAG to strengthen the value chain platform of agriculture products by involving other institutions including CONAMYPE and the Development Bank of El Salvador and supermarkets that have experience in conducting market research and promoting food value chain, so that farmers' groups could have more access to the formal markets.
- It is recommended to MAG and CENTA to analyze good practices and factors of some cooperatives such as ACPLAMA de R.L which have successfully expanded the business and got profits and share the lessons with their staff and other farmers' groups.

Lessons Learned for JICA:

- In the ex-post evaluation, the horticulture production data were not available, but in the interview with some farmers it was found that they have struggled to grow some varieties such as tomatoes, cucumbers and green peppers in the dry and windy environments to gain profits even though they have applied the techniques introduced by the past project and supported by CENTA. In projects which support farmer groups' agricultural business management, the appropriate selection of target varieties is a pre-condition. It is necessary to carefully conduct the market research and the environmental conditions at the formulation stage.
- In the ex-post evaluation, data of the two indicators (Project Purpose and Overall Goal) of the profitability from sales of the products could not be available, and one of the reason was the lack of the personnel who had sufficient knowledge for monitoring. When an indicator is used which is not familiar for the counterpart agency, it is necessary to include activities to establish the monitoring system by clarifying the person-in-charge and the data collection method and frequency and conduct training for the person-in-charge. Data monitoring during the project period should not be done by only JICA experts, but the person-in-charge of the counterpart agency should be involved.
- The materials developed by the project have been continuously used by the extension workers as a handbook and also training materials as they have been helpful for them to make a clearer and more understandable presentation. In projects in which training is an important part of the project activities, it is essential that the materials be developed with sufficient but clear and easy contents and in a simple language so that they could be adopted to various situations and users. Also, it is important to develop together with the users to reflect their needs and opinions and then update them to further improve their usability.



Female members in the cooperative “Los Manunes” (ACPALMA, de R.L) in Usulután working on the new business for processing and selling *platano* (green banana) chips.



Tomato cultivation of the cooperative AEPAN in Morazán, using the techniques learned by the project, for wholesales in large supermarkets.