

Country Name	Supporting the small-scale farmeres in the Eastern Region
Republic of El Salvador	

### I. Project Outline

Background	<p>El Salvador is the most densely populated of the Latin American countries and lacks natural resources. 34.6% of the total population and 43.7% of the rural population lived in poverty (2004), and the country's economy was heavily dependent on family remittances from overseas migrant workers. In rural areas, small farmers without any production technology were composed of poverty. In the Eastern Region with severe damages by the civil war, most farmers with subsistence farming made this region one of the poorest regions in the country. JICA implemented the "Project for Strengthening of Agricultural Technology Development and Transfer" (1999-2004) to support the National Center of Agricultural and Forestry Technology (CENTA), an organization responsible for agricultural technology services for small- and medium-scale farmers, to improve the sustainable farming system and extension activities, and strengthen the training implementation system. Based on this achievement, a project to support small farmers in the Eastern Region was requested from the Government of El Salvador.</p>														
Objectives of the Project	<p>Through the systems for identifying and transferring vegetable production techniques applicable for small farmers and management improvement techniques for small farmers and vegetable production associations, the project aimed at strengthening the support system for vegetable cultivation services for small farmers in the Eastern Region, thereby contributing to the increase in their income through vegetable cultivation.</p>														
	<p>1. Overall Goal: Small farmers' income through vegetable cultivation is increased in the Eastern Region. 2. Project Purpose: The support system for vegetables cultivation services for small farmers is strengthened.</p>														
Activities of the project	<p>1. Project site: 4 departments in the Eastern Region (San Miguel, Usulután, Morazán, and La Unión) 2. Main activities: Identification of vegetable cultivation techniques and management improvement techniques applicable for small farmers, development of materials for farmers and extension workers, introduction of the selected techniques to farmers, etc. 3. Inputs (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Salvadorian Side</td> </tr> <tr> <td>1) Experts from Japan: 4 persons</td> <td>1) Staff allocated: 16 persons</td> </tr> <tr> <td>2) Training in Japan: 7 persons</td> <td>2) Land and facilities: Office space, etc.</td> </tr> <tr> <td>3) Training in the third country: 36 (Panama and Costa Rica)</td> <td>3) Local cost: Electricity, fuel, office construction, motorbikes, hiring secretaries and guards, etc.</td> </tr> <tr> <td>4) Equipment: Vehicles, motorbikes, production materials, PC, promotion materials, etc.</td> <td></td> </tr> <tr> <td>5) Local cost: Travel expenses, activity operation, etc.</td> <td></td> </tr> </table>			Japanese Side	Salvadorian Side	1) Experts from Japan: 4 persons	1) Staff allocated: 16 persons	2) Training in Japan: 7 persons	2) Land and facilities: Office space, etc.	3) Training in the third country: 36 (Panama and Costa Rica)	3) Local cost: Electricity, fuel, office construction, motorbikes, hiring secretaries and guards, etc.	4) Equipment: Vehicles, motorbikes, production materials, PC, promotion materials, etc.		5) Local cost: Travel expenses, activity operation, etc.	
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Project Period	March 2008 to March 2012	Project Cost	(ex-ante) 194 million yen, (actual) 211 million yen												
Implementing Agency	National Center of Agricultural and Forestry Technology (CENTA), Ministry of Agriculture and Livestock (MAG)														
Cooperation Agency in Japan	None.														

### II. Result of the Evaluation

<Special Perspectives Considered in the Ex-Post Evaluation>

- Because of the outbreak of COVID-19, information was collected through a questionnaire survey and phone interviews to make evaluation judgement in the ex-post evaluation. Site visits were not conducted.

- Although the ex-post evaluation is usually conducted at least three years after the project completion, the ex-post evaluation of this project was conducted eight years after the project completion, in order not to interfere activities of the succeeding project, "Horticultural farmers' Profitability Improvement Project in the Eastern Region of the Republic of El Salvador" (2014-2018).

#### 1 Relevance

<Consistency with the Development Policy of El Salvador at the time of Ex-ante Evaluation>

The Saca Administration mentioned the support for the rural areas through the regional development and the revitalized agricultural and livestock sectors so as to reduce disparities between urban and rural areas in its policy plan "Safe Nation" (2004). Thus, the project was consistent with the development policy of El Salvador at the time of ex-ante evaluation.

<Consistency with the Development Needs of El Salvador at the time of Ex-ante Evaluation>

Compared to the metropolitan area of San Salvador and the Western Region, industries in the Eastern Region were less developed to ensure a stable income, and many farmers were small-scale subsistence farmers. For them, chemicals such as fertilizers, pesticides, and fungicides were putting pressure on profits because of their high prices. Thus, the project was consistent with the development needs of El Salvador.

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

Based on the policy consultation held in 2004, one of the priority areas was set as revitalizing the economy and expanding employment, which includes rural development<sup>1</sup>. Also, one of the intersectoral themes was regional development with priority in the Eastern Region. Thus, the project was consistent with Japan's ODA policy at the time of ex-ante evaluation.

<Evaluation Result>

In light of the above, the relevance of the project is high.

<sup>1</sup> Ministry of Foreign Affairs. "ODA Databook 2008."

2 Effectiveness/Impact

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

The Project Purpose was achieved by the time of project completion. 16 vegetable production techniques were selected as applicable techniques for small farmers in the Eastern Region (Indicator 1). 227 direct beneficiary farmers organized 20 groups of agricultural associations, and the number of farmers cultivating vegetables in the Eastern Region increased from 437 (before the project) to 926 in 2011. Also, seven management improvement topics were selected as applicable means for small farmers in the Eastern Region (Indicator 2). More than 1,000 farmers were trained on the topics. Three of the farmers' associations became agricultural associations authorized by the Ministry of Agriculture.

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

The project effects have continued. Beneficiary farmers have continuously used applicable techniques for small farmers, such as organic material using local microorganisms and tunnel houses, and also agricultural management techniques including the organization of the agricultural association. These techniques, even though they are not all of the techniques introduced by the project, have been effective for cultivating vegetables for sale. According to CENTA, farmers have got motivated by being organized or developing personal cultivation projects. The succeeding project, "Horticultural Farmers' Profitability Improvement Project in the Eastern Region of the Republic of El Salvador" (2014-2018) was one of the promoting factors for the effect's continuity, in which farmers' organizations were supported for improving the profitability of vegetable sales through practical cultivation techniques and management improvement techniques in the same target departments.

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

It is judged that the Overall Goal has been partially achieved from the following reasons. At the time of ex-post evaluation, data on the farmers' income were not available. However, it was reported by the succeeding project that after the project completion, 15 of 26 the surveyed supported farmers' groups (150 households) (58%) improved the profits of vegetable sales from 2014 to 2018. According to CENTA, even since the succeeding project was completed, it was considered that the beneficiary farmers have increased the income, as more than 60 tunnel-houses for vegetables have been constructed by farmers with their income from vegetable sales.

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

Women have got empowered with acquired knowledge on agricultural management and follow-up of the extension workers and came to organize women's associations for vegetable sales. The associations have got a legal figure so that they could have legal businesses like giving invoices to customers. Some have built greenhouses with support from UN Women. On the other hand, it has not been easy for many farmers to get organized with a legal figure as there are many requirements and they have to follow a long and complicated process.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of the Project Purpose and Overall Goal

Aim	Indicators	Results										
<p>(Project Purpose) The support system for vegetables cultivation services for small farmers is strengthened.</p>	<p>1. Applicable techniques for small farmers in the Eastern Region are identified and established as diffusion techniques in the small farmer support organizations such as CENTA.</p>	<p><u>Status of achievement: Achieved (Continued).</u> (Project Completion) - 16 vegetable production techniques were selected, and they were established as diffusion techniques among CENTA Agencies in the region.</p> <table border="1" data-bbox="759 1218 1517 1783"> <thead> <tr> <th colspan="2" data-bbox="759 1218 1517 1247">Techniques identified by the project</th> </tr> </thead> <tbody> <tr> <td data-bbox="759 1247 951 1397">Soil improvement</td> <td data-bbox="951 1247 1517 1397">1. Organic material using local microorganisms (bokashi, liquid fertilizers, etc.) 2. Green fertilizer 3. Crop rotation 4. Management of soil pH levels</td> </tr> <tr> <td data-bbox="759 1397 951 1574">Production of high-quality waiting-bed plants</td> <td data-bbox="951 1397 1517 1574">5. Simple waiting-bed plant nurseries 6. Homemade substrate 7. Double transplanting 8. Drip irrigation method 9. Water saving techniques 10. Water saving tank</td> </tr> <tr> <td data-bbox="759 1574 951 1720">Cultivation</td> <td data-bbox="951 1574 1517 1720">11. Trimming and pruning techniques 12. Tunnel houses 13. House farming 14. Soil cover technique using crop residue 15. Vegetative barriers</td> </tr> <tr> <td data-bbox="759 1720 951 1783">Introduction of new crops</td> <td data-bbox="951 1720 1517 1783">16. Introduction of new crops such as ayote (pumpkin), radish, onion, coriander, chipilin (leafy green), etc.</td> </tr> </tbody> </table> <p>(Ex-post Evaluation) - Applicable techniques for small farmers in the Eastern Region identified by the project have been used, particularly including: 1. Organic material using local microorganisms (<i>bokashi</i>, liquid fertilizers, etc.) 2. Green fertilizer 3. Double transplanting 4. Tunnel houses</p>	Techniques identified by the project		Soil improvement	1. Organic material using local microorganisms (bokashi, liquid fertilizers, etc.) 2. Green fertilizer 3. Crop rotation 4. Management of soil pH levels	Production of high-quality waiting-bed plants	5. Simple waiting-bed plant nurseries 6. Homemade substrate 7. Double transplanting 8. Drip irrigation method 9. Water saving techniques 10. Water saving tank	Cultivation	11. Trimming and pruning techniques 12. Tunnel houses 13. House farming 14. Soil cover technique using crop residue 15. Vegetative barriers	Introduction of new crops	16. Introduction of new crops such as ayote (pumpkin), radish, onion, coriander, chipilin (leafy green), etc.
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	<p>2. Applicable means for small farmers to improve management in the Eastern Region are identified and established as diffusion</p>	<p><u>Status of achievement: Achieved (Continued).</u> (Project Completion) - Seven management improvement topics were selected, and they were established as diffusion techniques among CENTA Agencies in the region.</p>										

	techniques in the small farmer support organizations such as CENTA.	<ol style="list-style-type: none"> <li>1. Organization of Agricultural Association</li> <li>2. Establishment of Farmers' Market</li> <li>3. Basic Accounting</li> <li>4. Direct Sale Method</li> <li>5. Associative Cooperation Activities</li> <li>6. Production Planning</li> <li>7. Cost and Benefit Analysis</li> </ol> (Ex-post Evaluation) - Agricultural management techniques developed by the project have been used, particularly including: <ol style="list-style-type: none"> <li>1. Organization of Agricultural Association</li> <li>2. Associative Cooperation Activities</li> <li>3. Production Planning</li> </ol>
(Overall goal) Small farmers' income through vegetable cultivation is increased in the Eastern Region.	1. Income of the beneficiary farmers of the project shows an increasing tendency after 2013.	<u>Status of achievement: Partially achieved.</u> (Ex-post Evaluation) - Data of the farmers' income was not available - According to CENTA, it was considered that the beneficiary farmers increased the income, from the fact that as some farmers constructed tunnel-houses for vegetables with their income from vegetable cultivation.

Source: Terminal Evaluation Report and information provided by MAG and CENTA.

### 3 Efficiency

Although the project period was as planned (ratio against the plan: 100%), the project cost slightly exceeded the plan (ratio against the plan: 109%). Outputs were produced as planned. Therefore, the project efficiency is fair.

### 4 Sustainability

#### <Policy Aspect>

Promotion of the support for vegetable cultivation for small farmers in the Eastern Region has been prioritized in MAG's policies, "Promotion for the competitiveness and productivity of agro-productive chains" (2019-2024) and "Environmental Management and Climate Change" (2019-2024).

#### <Institutional/Organizational Aspect>

The organizational setting of MAG and CENTA for supporting farmers has not been changed. Each of the extension workers of CENTA has been given a designated area. However, the number of extension workers has not been sufficient to respond to all farmers' needs in a large area. When support has been needed outside the designated area, such farmers have been attended on demand. The Agricultural Information Center developed by the project has not been utilized, because many farmers did not know how to use the computer and the computer got broken and unrepaired. Although the Agricultural Information Diffusion System in the Eastern Region developed by the project has been suspended, farmers have not needed the information from the system because they have got experience more than before and got the necessary market information by themselves. <Technical Aspect>

The staff of the CENTA Eastern Region office has sustained the necessary skills and knowledge to support small farmers. Technical training was carried out to 50 extension workers from San Miguel and La Unión, and the knowledge has been transmitted among the workers through field visits and practical demonstrations held at CENTA offices, municipal offices, and communities. Manuals and guidelines developed by the project have been utilized at CENTA Eastern Region office and all other offices, especially, manuals on seedling production, elaboration of *bokashi* manure, and elaboration of calcium sulfate liquid manure, among others.

#### <Financial Aspect>

The financial data was not available in the ex-post evaluation, but according to CENTA, the budget of CENTA including regional offices has been secured stably so far, with the Nation General Fund for staff salaries and operational expenses and some national funds and external support from the European Union and the Green Climate Fund, among others to complement activities of the technical cooperation and also goods and services for farmers as incentives for production. Future budgets cannot be guaranteed, but according to the original forecast (before COVID-19) planned in the Strategic Plan of MAG/CENTA for 2019-2024, it was expected at the time of ex-post evaluation that, at least, the Nation General Fund would remain the same and there would be a continuation of the technical cooperation (and donations), considering the high importance of the vegetable cultivation in El Salvador from the viewpoint of food security and product diversification.

#### <Evaluation Result>

In the light above, there have been issues in the institutional/organizational aspect. Therefore, the sustainability of the effects is fair.

### 5 Summary of the Evaluation

The Project Purpose was achieved and the project effects have continued. As the support system for vegetable cultivation services for small farmers, vegetable production techniques and management improvement topics were established, and CENTA's support system for small farmers have been strengthened. Farmers have been utilized some of the techniques and increased their income from vegetable sales. Continuity of these effects has been attributed to the succeeding project's efforts, too. Regarding sustainability, although there has been a lack of extension workers, CENTA has sustained the necessary knowledge and skills and secured budgets. As for efficiency, the project cost exceeded the plan.

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 and CENTA to form a platform where actors in the value chain of agricultural products for the public, industry, and academic sectors can work together for facilitating small-scale farmers' sales. This can supplement the support system which lacks a sufficient number of extension workers of the public sector.
- It is recommended to MAG and CENTA to let the staff trained by the project remain and utilize the learned skills or transfer the skills to

the newly assigned staff via training or documents, in order to fully diffuse the techniques introduced by the project within the Eastern Region and even to other regions.

**Lessons Learned:**

- In the project, farmers got agricultural techniques and learned management and organization for vegetable sales. The project effects have continued since the project was completed eight years before. One of the factors is the transferred techniques have been basic but matching small-scale farmers' needs who were exposed to competition from imported agricultural products and lack financial resources. In agricultural projects targeting small-scale farmers, it is important to choose techniques and products to be introduced, by making sure that the techniques can be at a level suitable for the farmers and that organized cultivation and sales can compensate the disadvantage of small-scale agriculture.

- When developing systems that have to be used at a computer or require some kind of technological skills, it is very important to assure that both the counterpart personnel and beneficiaries got the necessary knowledge to use these systems, otherwise they will not be properly used and maintained by them and expected effects will not be achieved. It is necessary to include training activities for beneficiaries on the use of the computer and also make clear how the equipment would be maintained technically and financially after the project completion. If technical and financial sustainability cannot be expected, other means should be taken for sustaining and strengthening knowledge and information of the counterpart personnel and beneficiaries, such as printed instructions of the equipment and contact list for maintenance of the equipment.



A female farmer in her greenhouse (women's association "Casa Mota")



Farmers' group making organic fertilizer *bokashi*.