Summary Results of the Terminal Evaluation

<table>
<tr><td colspan="3">1. Outline of the Project</td></tr>
<tr><td colspan="2">Country: The Republic of Indonesia</td><td>Project Title: The Public-Private-Partnership Project for the Improvement of the Agriculture Product Marketing and Distribution System</td></tr>
<tr><td colspan="2">Issue/Sector: Agricultural Development, Public Private Partnership</td><td>Cooperation Scheme: Technical Cooperation</td></tr>
<tr><td colspan="2">Division in Charge: Economic Development Department</td><td>Total Cost (at the time of the Terminal Evaluation): JPY410 million</td></tr>
<tr><td rowspan="3">Period of Cooperation</td><td rowspan="3">February 2016 -March 2021</td><td>Partner Country’s Implementing Organizations: DGH, DINAS</td></tr>
<tr><td>Supporting Organizations in Japan: IMG Inc., Task Co., Ltd.</td></tr>
<tr><td>Related Cooperation: None</td></tr>
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1-1 Background of the Project

Modern retail and food service industries, such as hypermarkets, convenience stores, restaurants and fast food shops, are expanding rapidly in the urban areas in Indonesia where most of the middle-income groups reside. The use of modern shops is becoming common mainly among younger generation, those under thirty years old, who comprise more than 50% of the total population and the middle-income segment.

Another factor that influenced the changes in modern market preference is the increasing of income. Personal disposable income in Indonesia has been increasing recently in line with the macro-economic growth. The share of middle and high-income groups (those with annual disposable income per household more than USD 5,000 and less than USD 35,000), who have strong consumption rates, increased from 5.8% of the population in 1990 to 57.7% in 2010 and is expected to reach 73.5% by 2020 . Due to these changes in the income structure and an increasing diversity of food preferences, the food market (both processed and fresh food) in Indonesia has been expanding rapidly. Such diversification includes a tendency to prefer healthy, environmental-friendly, safe and high quality food; an interest in new types of food as seen in a boom in western and Japanese food; and the use of fast food and processed food that shortens cooking times. The rapid increase in vegetable and fruit imports indicates the increasing number of consumers seeking high-quality vegetables and fruits. Food expenditures in Indonesia increased by 48% in the four years from 2005 to 2009. Should this trend continue, the size of the food market will reach IDR 1,925 trillion by 2020.

However, the modernization of the agriculture distribution system and food market in Indonesia is not advancing as fast as in other major ASEAN countries. The share of modern retail of total food sales remains low and traditional retail such as public markets (pasar) and family-owned small shops and vendors still account for the majority of sales. The distribution problem for traditional markets is characterized by complexity and high costs, which are mostly attributable to the involvement of many middlemen. Lack of sanitation is also a problem with traditional wholesale and retail markets. Modern retailers who intend to continuously procure products of a certain level of quality and safety have to independently identify trusted business partners. Furthermore, underdeveloped cold chains and transport infrastructure make quality control of the fresh food difficult. As a result, retailers prefer to import

high-quality horticultural products from overseas despite the fact that domestic agriculture producers have the ability to produce such products.

Difficulties in accessing modern markets demotivate farmers from producing safe and high-quality horticultural products as they are not able to sell their products with the price that compensate for the extra production costs and labor. In this regards, establishing distribution channels between farmers and modern markets specifically for safe and high-quality horticultural products will lead to positive outcomes including the enhancement of farmers' incomes and motivations, stable supply of safe and high-quality horticultural products to the food industry, meeting the needs of high and middle-income consumers, and resulting in increased direct investments and overall business activities in the sector.

Against this backdrop, in August 2013 the Government of Indonesia requested the Government of Japan to implement a technical cooperation project to support the establishment of supply chains of safe and high-quality horticultural products. Based on the Record of Discussions signed between the Indonesian Ministry of Agriculture (MOA) and JICA on the 25th of September 2015, JICA contracted the implementation of the Project to joint venture of IMG Inc. and Task Co., Ltd.

This terminal evaluation was conducted to evaluate and confirm the achievement of project activities, output, and project purpose based on the Project Design Matrix, as well as to make suggestions towards the remaining period of the project implementation.

1-2 Outline of the project

- Super Goal: Modernized production & distribution systems of safe & high-quality agricultural products that lead to an increase of farmers' incomes are developed for the farmers' groups in West Java Province.
- Overall Goal: Modernized production & distribution systems of safe & high-quality agricultural products that lead to an increase of farmers' incomes are developed for the farmers' groups at the model sites in West Java Province.
- Project Purpose: Modernized production & distribution systems of safe & high-quality agricultural products that lead to an increase of farmers' incomes are developed for the target farmers' groups at the model sites in West Java Province.
- Output
- Output 1-1: Technique to produce and cultivate safe and high-quality agricultural products is acquired by the target farmers.
- Output 1-2: Capacity to plan and carry out cultivation according to market needs is attained by the target farmers.
- Output 1-3: Target farmers' groups' marketing channels are developed.
- Output 1-4: Target farmers' groups' access to finance is improved.
- Output 2: Managerial capacity of government officials who promote modernized production & distribution systems is strengthened.
- Input
  - Japan side: Total cost of input: JPY410 million
    - Dispatch of experts: 12
    - Budget for operational cost: JPY96.9 million

- Trainees in Japan: 41 (including 9 representatives of farmer groups)
- Provision of equipment

➢ Indonesia side

- Assigned counterpart personnel: 59
- Budget for operational cost in Indonesia: JPY5.6million
- Provision of project office

2. Composition of the Terminal Evaluation Team

Members	Name	Position	Organization
	Ms. Keiko MIZOE	Team Leader	Director, Agricultural and Rural Development Group 1, Economic Development Department, JICA
	Dr. Keishiro ITAGAKI	Food Value Chain	Counsellor, Nippon Foundation
	Dr. Akira KAMIDOHZONO	Commercial agriculture	Senior Advisor, Economic Development Department, JICA
	Ms. Mihoko SAITO	Cooperation Planning 1	Deputy Director, Agricultural and Rural Development Group 1, Economic Development Department, JICA
	Mr. Atsumu YAMAGUCHI	Cooperation Planning 2	Agricultural and Rural Development Group 1, Economic Development Department, JICA
	Ms. Wakako MATSUURA	Evaluation Analysis	ACCESS Advisory Japan
	Mr. Ahmad Widodo Heru		Division of Planning, Secretariat of Directorate, General of Horticulture, Ministry of Agriculture
	Ms. Novida Siti Jubaedah		Division of Planning Secretariat of Directorate General of Horticulture, Ministry of Agriculture
Evaluation period	August 31, 2020 to September 18, 2020		Evaluation scheme: Terminal evaluation

3. Summary of the Terminal Evaluation Results

3-1 Achievement of the project

(1) Summary of Inputs

Japan side

1) Dispatch of Experts

In total, twelve(12) Japanese experts have been dispatched in the following two (2) managerial positions and ten (10) areas of expertise in the Project.

➢ Management positions (2): Team leader/ Sub-Team Leader

➢ Areas of expertise (10): Marketing/Product Development/Faming Technology/Promotion of Farmers' Groups/Public Private partnership/Access to Finance/Post-harvest Management/Product Marketing and Distribution/Capacity Building/Impact Analysis

Total inputs of the human resources of the experts as of 31 August 2020 amounted to 60.78 man-months (M/M)[1] since the beginning of the Project. The list of Japanese experts is as below.

Experts Assigned to the Project (2016, Start-up Phase)

Responsibilities	Name
Team Leader / Marketing / Product Development	MORI Shinichi
Sub-Team Leader / Marketing	NISHIMURA Tsutomu
Farming Technology	MORITA Tateo
Promotion of Farmers' Groups	MATSUMI Yasuko, KAJITA Mio
Promotion of Farmers' Groups / Public Private Partnership	SHIMIZU Toshihiro
Access to Finance	YONEYAMA Akiko
Post-harvest Management	TANAKA Shunsuke

Experts Assigned to the Project (2017-2020)

Responsibilities	Name
Team Leader / Product Marketing and Distribution / Capacity Building	NISHIMURA Tsutomu
Public Private Partnership	MORI Shinichi
Farming Technology / Post-harvest Management	MORITA Tateo
Farming Technology	YAMAZAKI Masaru
Promotion of Farmers' Groups / Public Private Partnership	SHIMIZU Toshihiro
Access to Finance	YONEYAMA Akiko
Impact Analysis / Product Marketing and Distribution	SUENAGA Jumpei
ICT	TAKEUCHI Tomonari
E-Commerce	KITANO Masato

2) Training in Japan

Trainings in Japan was held three times in 2016, 2017, and 2018. In total, 32 counterpart (C/P) personnel and 9 representatives of the target farmer groups were trained for two weeks in Japan on the modernized production, marketing, and distribution of high-quality agriculture products.

3) Equipment

Equipment necessary to enhance the function of the Sub-Terminal of Agribusiness (STA) in the first year and to improve the effectiveness of the trial projects were procured for STA and several farmer groups. Major pieces of equipment include fruit and vegetable washer, and brush roller root fruit washer/peeler. As of the Joint Terminal Evaluation, all equipment is being used.

4) Budget for Operational Cost for the Project Implementation

As of the Joint Terminal Evaluation, about 96.9 million yen has been spent for local cost including renovation of building and procurement of equipment, recruitment of local staff, and organization of

1 1 M/M is equal to 30 working days of one project personnel.

seminars. A total of 10 field staff were recruited in the course of the Project implementation, including one project coordinator, one secretary, two field coordinators, and six field staff.

Indonesia side

1) Assignment of Counterpart Personnel

A total 59 personnel were assigned to the Project including from DG Horticulture, Secretariat of DG Horticulture, DG Fruits and Floriculture, DG Horticulture Protection, DG Horticulture Seedling, DG Processing and Marketing of Horticulture Product, DG Vegetables and Medicinal Plants, DINAS of West Java Province, Bogor District and City, Sukabumi District and City, Bandung District, West Bandung District, Cianjur District, and Garut District.

2) Budget for Operational Cost for the Project Implementation

As of the Joint Terminal Evaluation, about 5.6 million yen (787 million IDR) has been spent for local cost including the expenses for JCC and travel cost for the counterpart personnel to go monitoring or attend meeting.

(1) Achievement of the output

Output 1-1: Technique to produce and cultivate safe and high-quality agricultural products is acquired by the target farmers.

For Output 1-1, the Project conducted two rounds of trial projects annually (one in the dry season and the other in the rainy season), during which time farmers learned and practiced improved cultivation techniques for the selected commodities introduced by the Project. The Project introduced improved cultivation techniques for selected fruits and vegetables to participating farmer groups, which contributed to increase quality and quantity of the target farmer groups yields. Furthermore, with a view to supporting farmers who intended to cultivate new marketable varieties, and considering modern markets' high demand for Japanese vegetables, the Project imported Japanese vegetables' seeds from Japan and registered four varieties of Japanese vegetables (mizuna, Momotaro tomato, nasu, and piman) in Indonesia. The Project also built partnership with a number of private companies, especially Japanese companies, including PT. Calbee Wings Food (CWF), UNITIKA LTD., Asahi Biocycle Co., Ltd., PT. Takiron Indonesia and Shimota Nougei Co., Ltd., introducing new and advanced agricultural techniques and inputs from Japan. Hence, the Project achieved the target set out for Output 1-1.

Output 1-2. Capacity to plan and carry out cultivation according to market needs is attained by the target

The Project introduced the planting calendar to improve the field management of the target farmer groups. The planting calendar indicates the detailed procedures for the cultivation (i.e. seed sowing, seedling sterilization, land preparation, pesticide application, fungicide application) and the timing for each process. This practice was new to most of the farmer groups and they introduced the planting calendar for the first time. The planting calendar contributed to the effective field management by the farmer groups and contributed to improve quality and quantity of the production.

Although the target stipulated in the indicator was met, there are also some challenges in fully achieving

the objectives set out in output 1-2. The indicator "*1-2-1. planting calendar is recorded by 60% of the target farmers who have completed the trial project on cultivation technique*" may not necessarily reflect the level of capacities to plan and carry out cultivation according to market needs, as set out in Output 1-2. In order for farmers to be able to plan and carry out cultivation according to the market needs, it is essential for farmers to have capacities to fully understand the market demands and plan the harvest times and the expected production volumes accordingly. Therefore, it is indicated that the Project partially achieved the target set out for Output 1-2.

Output 1-3. Target farmers' groups' marketing channels are developed

The Project, together with the DGH, held four business forums inviting private companies (supermarket chains, food service industries, and major exporters and traders, etc.), farmer groups and financial institutions in order to promote dialogues and exchange of information on market channels. The activities to connect farmer groups to the market was intensified in the second half of the Project, as the Project focused on improving agricultural techniques in the first half of the Project.

While the indicators suggest that the market channels have been developed, many farmer groups still face challenges in creating long-term business relationships with the market. The main reasons for this are the difficulties in supplying quality vegetables in a steady manner. To address these challenges, it is important to further enhance farmer groups capacities in producing vegetables following the market demand. Marketing skills, including business negotiation and quality control, are also required to establish long-term business relationships. Hence, it was evaluated that the Project partially achieved the target set out for Output 1-3.

Output 1-4. Target farmers' groups' access to finance is improved.

To improve farmers' independence by facilitating the access to finance, the project targeted Kredit Usaha Rakyat (KUR), a small scale finance scheme provided by the Government, and facilitated the financial service providers and farmers groups to access KUR. The Project collaborated with Bank BTPN and supported farmer groups to have KUR from BTPN, and a total of 50 farmers received a total amount of IDR 853 million through two rounds of applications. However, BTPN could not move on to the third round due to the management decision to stop additional disbursement of KUR as part of its corporate restructuring process. As the disbursement was limited to 50 farmers only, the Project did not achieve the target set out for Output 1-4.

Output 2. Managerial capacity of government officials who promote modernized production & distribution systems is strengthened.

From 2016 to 2018, the Project implemented three trainings in Japan on modernized production, marketing, and distribution of high-quality agriculture products, including cooperative system of Japan Agriculture (JA), by inviting Indonesian government officials and representatives of the target farmer groups. A total of 32 government officials and nine representatives of selected farmer groups participated in the training in Japan for two weeks. Farmers who attended the trainings in Japan were strongly motivated and became active participants of the Project. They still remain as the Project's core

members.

Also, a total of 45 events related to agricultural distribution and marketing have been organized by the DGH and DINAS during the course of the Project period and 32 projects that can contribute to the modernization of production and distribution systems were proposed or implemented by DGH and DINAS. It was observed that some participants from the government officials also showed their higher motivation and stronger engagement in the Project activities after participating in the training in Japan.

While the Project contributed to increase capacities of the government officials, the Joint Terminal Evaluation Team assessed that Output 2 is partially achieved because managerial capacities in promoting modernized production and distribution systems require not only capacities to support farmers with agricultural techniques, but also capacities for disseminating market information or facilitating linkages between farmer groups and markets. Though officers of DGH, International Cooperation Bureau, General Secretariat of Ministry of Agriculture, and DINAS attended several key activities in project implementation, it is difficult to conclude that they have already attained these capacities and institutionalized the mechanism to develop their own activities.

(2) Achievement of Project Purpose

Project Purpose: Modernized production & distribution systems of safe & high-quality agricultural products that lead to an increase of farmers' incomes are developed for the target farmers' groups at the model sites in West Java Province.

The target indicators of the project purpose in PDM, “Improved production and management techniques are applied by 70% of the target farmers at their own field(s).” and “Distribution and marketing channels that allow agricultural products to be sold to modern markets is developed at 70% of the target farmers' groups.” were sufficiently met. Nonetheless, it is still difficult to say that the project purpose will be fully achieved by the end of the Project. While a certain level of improvement in production techniques was observed, the marketing capacities of the target farmers still need to be strengthened to realize stable and continuous business relationships with modern markets and achieve the project purpose.

3-2 Summary of the Evaluation Results

1) Relevance: High

Indonesia’s Long-Term Development Plan (RPJPN 2005-2025) aims to establish a solid economic structure in which the agricultural sector will become the base of the economy to produce efficient and modern products. Based on the Long-Term Development Plan, the National Medium-Term Development Plans (RPJMN) of 2015-2019 and 2020-2024 were developed as the third and fourth medium-term plans during the Project period. RPJMN 2015-2019 specifically indicates the importance of developing agribusiness, strengthening village-level organizations for commodity production, and strengthening logistics. The Project's basic policies were aligned with RPJMN. Based on RPJMN 2015-2019, the Agriculture Strategic Policy 2015-2019, was formulated by the Ministry of Agriculture, included 5 main target areas:

- Maintenance of national food security
- Increase in competitiveness

- Maintain agro-resources and availability of agriculture facilities and infrastructure
- Increase agro-human resources and improve quality/capacity of resource persons
- Realize efficient, effective, and primary service-oriented bureaucracy

The Project mainly addressed to increase competitiveness of the farmer groups in target areas by introducing cultivation techniques and supporting production of quality vegetables. Hence, the Project is relevant to the priorities set out in the Agriculture Strategic Policy 2015-2019. Also, the current RPJMN 2020-2024 makes "strengthening of economic resilience for high quality growth" as the national priority. The Agriculture Strategic Policy 2020-2024 prioritizes "increased availability, access and quality of food consumption". The main target areas are as follows:

- Improved consumption quality through safety, fortification, and bio-fortification of food
- Increased availability of agro-product food
- Increased productivity and welfare of agricultural human resources
- Increased productivity and continuity of agricultural human resources
- Improved management of national food system

Furthermore, in Japan's Country Assistance Policy (September 2017), one of the priority areas (medium goals) is to provide "support for safe and fair society though the balanced development", which encourages improvement of quality of life by supporting not only major cities but also rural development. As the Project targets the establishment of agriculture product marketing and distribution systems by linking the farmers in West Java Province to the modern market in Jakarta and other large cities, it is relevant to the Japan's Country Assistance Policy.

In terms of the relevance to the needs of the target regions and groups, many farmer groups in the target region face difficulties in producing agricultural products which meet the increased demands of the market. The food market, including fresh and processed foods, continues to expand along with the rapid growth in imports as consumers diversify their diets and change their food preferences due to raising income level. Consumers, especially those living in large cities such as Jakarta and Bandung, are more concerned about food safety and quality. The Project tried to address this gap by introducing cultivation techniques and developing marketing channels, which would contribute to the stable supply of safe and quality horticultural products to the growing markets. Thus, the relevance of the project is regarded as high.

2) Effectiveness: Relatively high

The Project achieved the targets of output 1-1, 1-2, 1-3 and 2. It was confirmed by the Terminal Evaluation Team that many farmers expressed their satisfaction on the improvement of production techniques, which resulted in higher yields and/or improved quality of the commodities. On the other hand, several points could be improved for the indicators stipulated in the PDM, specifically indicators for the project purpose, output 1-2, and output 2.

For the project purpose, the Terminal Evaluation Team observed that the logic on how the project purpose could lead to the overall goal was not clearly defined. The only difference between the project purpose and the overall goal is the scalability – increasing the number of beneficiary farmers in the target areas. The overall goal aims that the achievement of the project purpose goes beyond the "target"

farmer groups at the model sites, although the scope of the expansion is not clearly defined in the indicators. The achievement of the project purpose is defined by two indicators: "*improved production and management techniques are applied by 70% of the target farmers*" and "*distribution and marketing channels that allow agricultural products to be sold to modern market are developed at 70% of the target groups*". It is difficult to say that, by achieving only these two indicators, the beneficiaries of the Project will expand beyond the target farmer groups in the model sites. The same question applies to the linkage between the overall goal and the super goal. Therefore, effectiveness of the project is regarded as relatively high.

3) Efficiency: High

The quality, quantity, and timing of inputs by both Japanese and Indonesian sides were appropriate to accomplish project activities. In particular, the Project implementation structure, which placed the field staff in three layers, contributed to high efficiency of project implementation to cover a large project area with limited resources. In terms of cost, DGH and DINAS allocated separated budget to conduct additional activities and programs to ensure sustainability of the Project. In this regard, the input from the Indonesian side is also considered as appropriate. Also, with regard to the "important assumptions" for the process connecting project activities to project outputs, emergence of COVID-19 since early 2020 was clearly an unexpected challenge. Still, the Project amended the R/D to extend the Project period and adjusted the activities accordingly, which resulted only in some operational delay but not in significantly negative impacts. Therefore, efficiency of the Project is regarded as high.

4) Impact: Moderate

Several cases of ripple effects were reported, in which non-target farmers learned from the target farmer groups or DINAS about the cultivation techniques transferred by the Project. With additional mechanism to disseminate the outputs of the Project, it could be expected that the number of the impacted farmers will increase. Also, while the outbreak of COVID-19 posed unprecedented challenges to farmers in Indonesia, some farmers could increase resilience by working with E-commerce companies, which rapidly expanded under the COVID-19 situation. The improved production capacity assisted by the Project enabled the target farmer groups to join the E-commerce businesses. Furthermore, the Project attracted media attention and it was reported in both Indonesian and Japanese media over the course of the implementation period, which contributed to increasing awareness of the cooperation relationship between Japan and Indonesia. Lastly, no negative impact on gender, environment, etc. were observed. Hence, impact of the Project is regarded as moderate,

5) Sustainability: Moderate

Sustainability of the Project is assessed by perspectives of 1) sustainability at policy level, 2) sustainability at institutional level, 3) sustainability at technical level, 4) financial sustainability. Overall, sustainability of the Project is moderate because of the following reasons:

<u>Policy Sustainability</u>

Policy sustainability of the Project is high:

As described previously, enhancing capacity of farmer groups and improving quality of horticultural products are in line with the policy priorities of the government of central, provincial, and district level. Therefore, the sustainability at policy level is regarded as high.

Institutional Sustainability

Institutional sustainability of the Project is relatively high:

DGH has continuously shown a sense of ownership throughout the project implementation. Also, some DINAS such as Sukabumi or Bandung actively followed up on the Project, including initiating programs by allocating budget to provide continued support for farmers. However, not all DINAS has shown its responsiveness, especially where the original staff was replaced by new staff. With regards to the farmers' institutions, including farmer groups, associations, or cooperatives, additional capacity building is required to ensure project sustainability. It was found that managerial capacities are still limited in many farmer groups, except for large scale cooperatives. Although it was not directly addressed in the Project activities, it is ideal for the Project to support institutional capacity building of the farmer groups.

Technical Sustainability

Technical sustainability of the Project is moderate:

Due to the limited numbers and availability of extension workers, technical transfer to extension workers was not fully achieved. Some farmers group, especially those with large scale will be able to continue the newly learned techniques in a sustainable manner. However, as mentioned above, there is a gap among the farmer groups. Relatively smaller scale groups may not be able to keep up the production techniques learned through the Project. To address the gap, it would be important to avoid possible disengagement of those smaller scale farmers by supporting the institutional capacity of the farmer groups which enables farmers to support each other within the groups. Also, technicality on marketing side still needs to be addressed. The target farmer groups still have some areas for improvement in marketing skills, including market analysis and business negotiations. To ensure the Project technical sustainability on both production and marketing sides, further capacity development of the target farmer groups is required.

Financial Sustainability

Financial sustainability of the Project is moderate:

In line with the National Medium-Term Development Plan (RPJMN) 2020-2024 which states the supply chain project as one of its priority, the DGH and DINAS have allocated the budget for continuous implementation of project and project-related activities. It would contribute to the financial sustainability of the Project. With regards to financial sustainability among farmers, many farmer groups expressed their intention to continue their newly learned agricultural practices at their own cost after the Project ends. However, due to capacity differences among farmer groups, some farmers have enough resources to purchase sufficient inputs but others do not. Establishment of market linkages based on the financial self-sufficiency is essential for farmers to continue the Project deliverables. To figure out the actual financial situation, cost-benefit analysis considering all related costs needs to be done. Also, the challenge of late payment when selling the products to modern markets, which almost all the target farmer groups mentioned, need to be further addressed. As of the Joint Terminal Evaluation, the Project could not develop stable and continuous relationship with financial service providers (FSPs) on this matter.

3-3 Major factors that contributed to achieve the project purpose

(1) Factors related to planning

It was confirmed by the Terminal Evaluation Team that many farmers expressed their satisfaction on the improvement of production techniques, which resulted in higher yields and/or improved quality of the commodities. On the increased cultivation techniques (Output 1-1), it was observed that technical assistance provided by Japanese experts with high agricultural skills contributed to the significant improvement of the cultivation techniques of target farmer groups. Working closely with the private sector, especially from Japan, also enabled Indonesian farmers to have access to new and advanced agricultural inputs.

On farmer groups' capacity to plan and carry out cultivation according to market needs (Output 1-2), the Terminal Evaluation Team found that the implementation of planting calendars contributed to the improved the field management of the farmer groups. Further support in using the planting plan by the end of the Project is expected to strengthen the planning capabilities of farmer groups to meet market demand.

On developing marketing channels (Output 1-3), the Project was effective in connecting farmer groups to modern markets in Jakarta, especially linking farmer groups with Japanese supermarkets to sell Japanese vegetables. The Terminal Evaluation Team observed that markets channels were diversified through the Project, shifting from predominantly traditional markets to modern markets, including E-commerce. The Project's support in facilitating business networking, including through business forums and negotiating several business meetings together with farmer groups, was also found effective to achieve output 1-3

On enhanced capacities of government officials (Output 2), it was pointed out that training in Japan strongly encouraged the participants to be proactively involved in the Project activities. The Project's support led to the numerous programs initiated by the Indonesian partners in both central and regional level.

(2) Factors related to implementation

In order to conduct a regular monitoring of the field activities taking place in the large area of the project sites and respond to issues in an efficient manner, the Project team established the implementation structured which enabled the close monitoring of the farmer groups. One field staff was allocated in each District/City to monitor the field activities. Above field staff, two field coordinators were assigned to provide the technical support and monitor the progress of the activities. They also share information with DINAS and extension staff, as well as establish connection with local supply chain actors. To act as an overall project manager, the Project Office was established in Jakarta. The Project office held weekly meetings with DGH to exchange information and report the Project's progress. Trust with the farmer groups built through the close monitoring contributed to the achievement of the project output.

3-4 Major factors that hampered to achieve the project purpose

(1) Factors related to planning

As described in the section of effectiveness, several points could be improved for the indicators stipulated in the PDM, specifically indicators for the project purpose, output 1-2, and output 2. Each indicator needs to be logically stipulated in PDM.

In order to achieve overall and super goals, additional mechanism would be required to disseminate the Project activities to other areas. It may include strengthening capacity of government officials especially at the regional level (DINAS). This point could be included as one of the indicators of the project purpose. It is expected that the Project's achievements will spread to other farmer groups to some extent without additional intervention by the government if the farmer groups could proactively learn from the "good models" developed by the Project and by entering into supply chains initiated by the leading/core farmer groups. However, this still requires certain mechanisms, especially at the district level, to achieve the overall and super goals within its timeframe.

Also, developing and maintaining marketing channels were mentioned as the biggest challenges which target farmer groups face at the time of the Terminal Evaluation. It is thus essential for the Project to continue addressing the marketing capacities of the farmer groups, including ensuring stable supply, quality management, and basic skills such as cost-benefit analysis, market identification, negotiating skills, and/or paralegal training (basic course on legal documents and procedures and business negotiations), to realize the solid and long-term relationship with the target markets.

(2) Factors related to implementation

While the above-mentioned outputs made considerable achievements, the component of financial access, Output 1-4, was not achieved as only 50 target farmers used financial services facilitated by the Project, as opposed to the target of 150 members. While the difficulties in achieving the Output 1-4 was mainly due to the unforeseeable changes in the business operations of BTPN, the following could be considered for the future activities to minimize such risks:

First, some areas for improvement were observed in the selection process for partner financial service providers (FSPs). Generally speaking, there are two points to consider when selecting an FSP partner: 1) understanding and commitment by the FSP on the Project goal and purpose, and 2) financial stability of the FSP. Regarding the former issue, it is essential to confirm the commitment to the Project with the entire institution, starting with the board of directors. Signing of a Memorandum of Understanding (MoU) between the Project and partner FSP is a common procedure in many projects. The MoU should be reviewed and approved by the board, and ideally signed by the chairperson, although the CEO/executive director can also sign on behalf of the institution.

Second, the Project could map out all FSPs operating in the target areas, not limiting itself to the FSP providing KUR, before determining which FSPs are best suited to be the Project's partners. Then, the selection could be done with a fair comparison using the above-mentioned criteria. For the future project, the above points should be considered when selecting the financial service providers.

3-5 Conclusion

The Project has contributed significantly to improve the productive capacities of the target farmer groups in the model sites in West Java Province. The Project covered a large area with various farmer groups, diverse in their size, organizational capacities, and agricultural techniques. The Project took a flexible and efficient approach to address various capacity gaps presented by the farmer groups. During the six trial projects that were implemented, advanced agricultural techniques were introduced by the

Japanese experts which led to the increased yields and productivity of target farmer groups. Close monitoring by the Project expert team enabled farmer groups to have frequent consultation with the Project field staff and Japanese experts on the cultivation techniques, thus reducing the risks of poor harvest. The trust built between the Project expert team and the farmer groups led to the high acceptance rate for the newly introduced cultivation techniques in their own fields.

During interviews conducted for the Terminal Evaluation, without exception all farmer groups stated that the Project has helped them to increase their capacities in producing good quality vegetables. Many farmer groups also found new markets, especially modern markets in Jakarta, and diversified their market channels.

The remaining challenges of the Project include strengthening the marketing capacities of the farmer groups. While many farmer groups acquired skills and confidence in producing high quality fruits and vegetables, many of them still have difficulties in cultivating crops according to the demands from the market and in supplying to the market in a stable manner. During the terminal evaluation, the need to strengthen marketing skills, such as cost-benefit analysis, effective planning for cultivation, market analysis, and business negotiation were confirmed. These needs will be reflected in the designing of the Project's Phase 2, which has been requested by the Government of Indonesia and approved by the Government of Japan and planned to start in 2021.

To ensure the sustainability of the Project, it is expected that Indonesian partners, including DGH and DINAS in target sites, take a proactive role in disseminating good practices obtained through the Project. It is also expected that some leading farmer groups will take active role in disseminating the agricultural techniques acquired during the Project to other farmer groups, in order to strengthen the horticultural value chain in West Java Province.

3-6 Recommendations

Based on the findings of the Joint Terminal Evaluation, the Terminal Evaluation Team (hereinafter referred to as "the Team") would like to make the following recommendations to be implemented by the end of the Project with a view to ensuring the Project's sustainability and achieving the overall goal.

(1) Categorize the Project's target farmer groups by their characteristics and identify patterns and good practices

The target farmer groups of the Project were very diverse in their size, markets and productive capacities. To analyze the activities of the Project, the Team requests the Project experts team to categorize the Project's target farmer groups, especially those who participated in the trial projects in 2019-2020, by their size, geographical advantages/disadvantages (i.e. proximity to the market, topography, altitude), organizational structures (i.e. cooperatives, associations, farmer groups), cultivation capacities (i.e. appropriate use of agricultural techniques/inputs/skills), total production and sales structures, and target markets (i.e. selling their products to suppliers to supermarkets, food industries, traditional markets). This information will be a useful guidance to identify good practices and lessons learned from the Project.

(2) Support farmer groups in conducting cost-benefit analysis on agricultural inputs

It is important for farmer groups to acquire skill to conduct accurate cost-benefit analysis in order to make production and marketing strategies according to the market needs. In this regard, the Team suggests the Project expert team to support farmer groups in conducting cost-benefit analysis of each crops based on the current level of production. Cost-benefit analysis could be introduced especially when expanding the size of the production beyond the sites of trial projects (100 m^2).

(3) Jointly with DINAS, review and propose the indicators for the overall goal and specify the target farmer groups

An overall goal is to be achieved by the Indonesian side after three years from the end of the Project. As explained previously, the only difference between the project purpose and the overall goal of the Project is the scalability – scope of the beneficiary farmers in the model sites. However, since the indicators of the overall goal do not define the scope of the target farmer groups, they could be read as to empower the "entire" farmer groups at the model sites. Therefore, the Team suggests that the Indonesian side and the Project expert team propose more clear indicators, if necessary.

(4) Establishing a plan to disseminate good practices to other farmer groups

It is expected that DGH and DINAS will take a leading role in disseminating good practices identified through the implementation of the Project to other farmer groups who did not participate in the Project. Continued implementation of the follow-up activities such as supporting farmer groups' trial projects would be a valuable support to expand the impacts of the Project beyond the target farmer groups. The Team suggests, especially to DINAS, to consider creating a plan, with budget allocation, to disseminate good practices to achieve overall goal of the Project.

(5) Considering key points for further dissemination

Through the implementation of the Project, some important points were identified to increase the productive capacities and the marketing skills of farmer groups. The Team recommends DGH and DINAS to take into consideration the following points when implementing their own activities.

1) Successful cultivation techniques by some farmer groups should be showcased to other farmers to increase their motivation. Many farmers will only be convinced to try new techniques after confirming the results of such techniques.
2) Close monitoring of farmer groups by field staff/extension workers is required to increase their skills. One of the reasons for the success of the Project was the close monitoring conducted by the field staff, which contributed to the increased communication between the farmer groups and the Project team and resulted in quick responses to troubles such as pests and diseases. While limited number of extension workers is the common challenges in all DINAS, effort should be taken to mobilize the extension workers as much as possible.
3) Technical support to the farmer groups should be customized as much as possible since each farmer group has different capacity and needs for the assistance. Group trainings will be efficient but may not address diverse needs of farmer groups. In this regard, it would be useful to assess the capacity of the farmer groups and tailor the technical support to extent possible to maximize the impact. Categorization of the farmer groups mentioned in the recommendation (1) will be useful inputs for such assessment.
4) Partnership with private sector should be explored not only for the marketing component but also for the cultivation techniques and access to finance. It would be useful to support leaders and

selected members of relevant farmer groups to strengthen negotiation and financial skills such as accounting, since many farmers face difficulties in agreeing business terms with the private sector.

5) Cropping patterns and/or planting plans based on the market demands should be developed by farmers groups to supply products in continuous manner. The Project's activities in supporting target farmer groups to develop planting plans could provide useful inputs to DGH and DINAS to continue this activities in their own programs.

3-7 Lessons learnt

(1) Taking comprehensive approach to address both productive and marketing capacities

Since horticultural products face significant price fluctuation and frequent changes in market demands, horticultural farmers should improve their skills in business management and market development, in addition to the cultivation techniques. This would allow farmer groups to adjust their production and the sales based on the market demands. Necessary skills also include capacities in preparing well-planned planting patterns, which would enable farmers to have more predictable and stable production. In this regard, it is necessary to take comprehensive approach to address both productive and marketing capacities when supporting the horticultural farmers.

(2) Creating Win-win relationships with private sector

The Project worked closely with the private sector, especially from Japan, and introduced new and advanced agricultural techniques to the target farmer groups. Working with Japanese companies also provided opportunities for those companies to explore possibilities of doing business in Indonesia by trying their agricultural inputs/equipment in Indonesian context. Stable relationships could be built only when a project offers mutual benefits and create win-win situations between farmers and the private sector.

(3) Analyzing market demands when selecting the products

Information on the market demands is extremely important when selecting crops for cultivation, especially when crops are new to the target market. The Project introduced new products, Japanese vegetables, to Indonesian markets given the growing demand for the value-added vegetables by the emerging high- and middle-income population. While Japanese vegetables brought high potential to the farmer groups to differentiate their products, issues such as consumer education, socialization of buyers, and marketing strategies become key factors for the successful introduction of such special crops.

(4) Working closely with various departments in the counterparts

The Project worked closely with the various departments in DGH for the implementation of the activities. For example, the Project worked with the Directorate of Horticulture Seedling in DGH and the seeds for selected Japanese vegetables were smoothly registered. When a project has a plan to introduce new crops, it is effective to involve a seed-related department from the beginning since obtaining quality seeds is essential for the sustainable production. By working with the various partners within the main counterparts, the Project could increase effectiveness and efficiency of the Project.