Country Name	The Project for Promotion of Exportable Vegetable Seed Production
Kyrgyz Republic	The Project for Promotion of Exportable Vegetable Seed Production

I. Project Outline

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Background	Agriculture is a key industry in the Kyrgyz Republic, and during the Soviet era, Kyrgyzstan was a major seed producer. However, after the collapse of the Soviet Union, Kyrgyzstan's seed production declined significantly. For Russia and other Commonwealth of Independent States (CIS) countries, Kyrgyzstan's potential as a seed-producing country was recognized as high, given its favorable climate and soil, and its well-developed water supply system. In particular, about vegetable seeds, Japanese seed companies also highly evaluated Kyrgyzstan's potential as a future seed production base. On the other hand, there were some obstacles to the promotion of seed production, such as the lack of coordination between the private sector, government agencies, and other related parties; the lack of information dissemination and information gathering capabilities of seed associations and other industry organizations to overseas markets; the lack of inspection technology to guarantee seed quality; the lack of producers with production technology capable of doing business with foreign seed companies; and the lack of organization among producers; in addition, there were few producers who had the production technology to do business with overseas seed companies, and producers were not organized.			
	Through conducting surveys and making recommendations on policies and regulations for vegetable seed			
Objectives of the Project	production, development of Farmers Field School(FFS) system, capacity building on the seed testing, and assistance on business matching between vegetable seed producers/organizations and foreign companies, the project aims at producing vegetable seed with exportable quality in the Chui, Talas, Jalal Abad, and Osh Region, thereby contributing to start exporting vegetable seeds in the target area. 1. Overall Goal: Export vegetable seeds in the target area starts. 2. Project Purpose: Vegetable seed with exportable quality is produced in the target regions			
Activities of the Project	 Project site: Project site: Chui, Talas, Jalal Abad, and Osh Region (Jalal Abad and Osh Regions added after January 2015) Main activities: Conducting surveys and making recommendations on policies and regulations for vegetable seed production, development of FFS system, capacity building on the seed testing, assistance on business matching between vegetable seed producers/organizations and foreign companies, etc. Inputs (to carry out the above activities) Japanese Side			
Project Period	(ex-ante) February 2013 - JanuaryProject Cost2018 [60 months] (actual) June 2013(Japanese side only)(ex-ante) 505 million yen, (actual) 599 million yen			
Implementing Agency	The Ministry of Water Recourses, Agriculture and Processing (MoWRAP, former Ministry of Agriculture, Food Industry and Melioration(MAFIM)) ¹ The Department of Agricultural Crops Examination, MoWRAP (DACE), Seed Association Kyrgyzstan (SAK), Agricultural Cooperative (KOSS)			
Cooperation Agency in Japan	The Ministry of Agriculture, Forestry and Fisheries, Center for Seeds and Seedlings, NARO (NCSS/NARO), Japan Seed Trade Association			

II. Result of the Evaluation

1 Relevance/Coherence

[Relevance]

Consistency with the Development Policy of Kyrgyz Republic at the Time of Ex-Ante Evaluation >

Increasing seed production and improving seed productivity were the priority activities to be carried out by 2020 in the "Agroindustrial Development Strategy of the Kyrgyz Republic till 2020" (2012). In addition, the direction of private sector promotion through public-private partnerships was in the "Medium-Term Development Plan" (2010-2014). The project was consistent with the development policy of the Kyrgyz Republic at the time of ex-ante evaluation.

<Consistency with the Development Needs of Kyrgyz Republic at the Time of Ex-Ante Evaluation >

Although there was high foreign demand for vegetable seed production in Kyrgyzstan, there were challenges to vegetable seed production and exports, including a lack of cooperation with the private sector and a lack of seed production skills and knowledge and

¹ MAFIM was restructured to the Ministry of Agriculture in 2022 and again renamed to the current ministry name in 2023. DACE and the Crop Production Development Division are the divisions of the counterpart of MoWRAP.

organization of producers. The project was consistent with the development needs of the Kyrgyz Republic at the time of ex-ante evaluation. <Appropriateness of Project Design/Approach>

The project was designed by taking into consideration the equality of benefits for vulnerable groups including women, rural population, small-scale farmers, and seasonal workers, many of whom are in the vulnerable sections of society. In addition, the project's plan and approaches were developed to address potential development challenges. The lessons learned from the past similar projects were utilized to include actors from the private sector and strengthened the platform for coordination with the stakeholders. Thus, the project design/approach was appropriate. No problem attributed to the project design/approach was confirmed.

In light of the above, the relevance of the project is 3^2 .

[Coherence]

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

In the "Country Assistance Policy for the Kyrgyz Republic" (2009), one of the priority areas was set as the promotion of agricultural development. The project was consistent with Japan's ODA policy to the Kyrgyz Republic at the time of ex-ante evaluation.

<Collaboration/Coordination with JICA's other interventions>

The collaboration/coordination between the project and "Community Empowerment Project through Small Business Promotion by One Village One Product (OVOP) Approach in Issyk-Kul region" (2012-2017) and "Project for Capacity Development of Business Persons through Kyrgyz Republic-Japan Center for Human Development" (2013-2016) of JICA was planned at the time of ex-ante evaluation and implemented although slightly different from planned, and the positive effect was confirmed at the time of ex-post evaluation. Through collaboration with OVOP project, KVS learned the organizational structure of OVOP groups (producers) and has produced seeds for the target group of the OVOP project and one public association.

<Cooperation with other institutions/ Coordination with international framework>

The cooperation with the World Food Program (WFP), German Agency for International Cooperation (GIZ) and Korera International Cooperation Agency (KOICA) were planned during the project period and implemented as planned, however, the positive effect was not confirmed clearly at the time of ex-post evaluation.

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

[Evaluation Result of Relevance/Coherence]

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

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the Time of Project Completion>

At the time of project completion, the Project Purpose was achieved beyond the plan. Trial seed collection consignment contracts with nine overseas seedling companies were made in 2019, subsequently, the vegetable seed was exported to foreign countries like Japan, Russia, Taiwan, and Korea based on the contract with eight companies, nine crops, and 17 varieties as planned (Indicator 1). Fifty-nine farmers out of 76 FFS farmers³ exported the seeds. The quality standards of the exporting vegetable seeds set by the contract companies were stricter than the ISTA standards. Therefore, it could be said that 59 farmers met the ISTA standard for seed quality, exceeding the target of 48 farmers (Indicator 2).

<Continuation Status of Project Effects at the Time of Ex-Post Evaluation>

By the time of the ex-post evaluation, the project effects have been continued.

From 2020 to 2022, KVS signed consignment cultivation contracts with 4-6 companies to continuously export vegetable seeds, and the number of actual export contracts was six companies in 2020, and four companies in 2021 and 2022⁴ (Indicator 1). In 2020 and 2021, the number of exporting farmers decreased due to the spread of coronavirus infection⁵. However, the number of exporting farmers was increased in 2022, with 44 farmers exporting vegetable seeds. The number of FFS farmers was 124 in 2022, up from 76 in 2019. Since the contract quality for consignment cultivation was set stricter than ISTA standards, it could be said that 44 farmers produced vegetable seeds that meet ISTA standards, and the project effects are continuing (Indicator 2).

The Government of the Kyrgyz Republic has continued to support KVS's activities and has approved the use of equipment provided by the project. However, starting from 2023, they would charge rental fees for the equipment. KVS, despite its financial limitations, has managed to conduct experimental cultivations. KVS conducted FFS across different regions to promote better farming practices. Although DACE has been adhering to ISTA seed testing standards, DACE hasn't renewed the certification of ISTA since 2020 because of budget constraints. As a result, DACE has not been enabled to issue an official certificate, instead, has provided a protocol of testing as documentation.

<Status of Achievement of the Overall Goal at the Time of Ex-Post Evaluation>

At the time of ex-post evaluation, the Overall Goal has been achieved as planned. KVS has continued seed exports and the volume of exported seeds and income of KVS Commission have been increased. Despite the spread of coronavirus infection and the negative impact of the Ukrainian war, KVS has continued seed exports and increased the seed export volume and KVS Commission income. Thus, KVS has been continuously receiving consignment contracts and being commissioned to produce vegetable seeds, and the operation and management of the cooperative could be said to be sustainable (Indicator 1). Further strengthening of the Plant Quarantine System phytosanitary system and continued strong international demand for seed production in Kyrgyz were also considered to have contributed to the stabilization of KVS's operation management⁶.

<Other Impacts at the Time of Ex-Post Evaluation>

At the time of ex-post evaluation, KVS and farmers cited awareness among farmers regarding the significance of preserving soil fertility, through compost application, measured use of mineral fertilizers, and judicious pesticide application as the positive impact. KVS

 $^{^{2}}$ ④: very high, ③: high, ②: moderately low, ①: low

³ The term "farmer" includes farmers engaging seed production (producers) and farmers planning to engage in seed production.

⁴ The number of contracted companies and contracts exported decreased slightly in 2021 due to the spread of COVID-19 infection and in 2022 due to the Ukrainian war.

⁵ Twenty-one farmers in 2020, and 27 farmers in 2021.

⁶ However, there was concern for export. According to KVS, in case diseases of importing seeds would be identified, Kyrgyz producers would be asked to conduct additional testing such as Polymerase Chain Reaction (PCR) test.

and DACE cited the positive impact for inhabitants of rural areas (targeted area) brought by the project as follows: 1) generation of employment opportunities for seasonal workers; 2) reduction of the migration needs to urban centers or other cities brought by the convenience of finding employment close to residence; 3) enhancement of the financial stability for agricultural households; 4) enhancement of the women's communities participation in the contract seed production; 5) augmentation of the agricultural knowledge which could contribute to the income increase of farmers. No negative impact was observed.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is ③.

Achievement	of Project Purpose	and Overall Goal
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	Achiever	nent of Project Purpose and Overall Goal		
Aim	Indicators	Results	Source	
(Project Purpose)	1. Not less than 1 (one) case	Status of the Achievement (Status of the Continuation): achieved beyond the	KVS Presentation	
Vegetable seed	of export of vegetable seed	plan (continued)	and the answer to	
with exportable	produced in the target area is	(Project Completion)	the questionnaire	
quality is	achieved.	In 2019, trial seed collection consignment contracts were made with nine		
produced in the		overseas seed companies. As a result, vegetable seeds were exported to Japan,		
target regions		Russia, Taiwan, and South Korea under contracts with 8 companies for 9 crops		
		and 17 varieties. (Ex-Post Evaluation)		
		From 2020 to 2022, KVS signed consignment cultivation contracts with 4-6		
		companies to continuously export vegetable seeds, and the number of actual		
		export contracts was six companies in 2020, and four companies in 2021 and		
		2022.		
	2. The number of vegetable	Status of the Achievement (Status of the Continuation): achieved beyond the	KVS Presentation	
	seed farmers who satisfy the	plan (continued)	and the answer to	
	Seed Quality Criteria as	(Project Completion)	the questionnaire	
	results of test according to	Fifty-nine farmers out of 76 FFS farmers exported the seeds. The quality	_	
	ISTA standard, will be 48.	standards of the exporting vegetable seeds set by the contract companies were		
	15 1A standard, will be 48.	stricter than the ISTA standards. Therefore, it could be said that 59 farmers met		
		the ISTA standard for seed quality.		
		(Ex-Post Evaluation)		
		In 2020 and 2021, the number of exporting farmers decreased due to the spread		
		of coronavirus infection (20 farmers in 2020 and 27 farmers in 2021); in 2022,		
		the number of exporting farmers increased, and 44 farmers exported vegetable		
		seeds; the number of FFS farmers was 124 in 2022, up from 76 in 2019. Since		
		the contract quality of vegetable seeds for consignment cultivation was set		
		stricter than the ISTA standard, it could be said that 44 farmers produced vegetable seeds that met the ISTA standard.		
		In the Chui Region and the Osh Region, where there are large cities (Bishkek		
		and Osh), the number of FFS farmers exporting seed decreased after the project's		
		completion. This was because many farmers quit seed production and migrated		
		to those large cities. The reason for this migration to large cities was that it took		
		a year to earn an income from contract farming, and it was possible to earn an		
		income in a short period by moving to urban areas to produce and sell crops.		
		KVS has indicated that it would focus more on the areas away from urban areas		
		in the future.		
(Overall Goal)		Status of the Achievement: achieved as planned	Interview with	
Export		(Ex-Post Evaluation)	KVS and answers	
vegetable seed		At the time of the ex-post evaluation, KVS was contracted to produce vegetable	to the questionnaire	
in the target		seeds and was conducting this task. Although no target value has been set for		
area starts		d this indicator, it could be concluded that the target was achieved as planned, as		
	others for vegetable seed production, become			
	sustainable.	increased, despite the difficulties caused by the negative impacts of the pandemic and the Ukrainian war. KVS has continuously exported seeds after the		
	sustamatic.	termination of the project. In addition, as Table 1 shows, in 2022, the volume of		
		exported seeds and income of KVS Commission has been increased compared		
		to the actual results in 2019.		
		Table1: KVS Commission and Actual quantity of the exported seeds		
		2019 2020 2021 2022		
		Actual quantity of 946.96 776.20 912.00 1212.80		
		the exported seeds		
		(KG)		
		KVS 6,008 4,853 6,384 8,589		
		Commission(income)		
		(USD)		

3 Efficiency

The project cost slightly exceeded the plan (the ratio against the plan:118%) and the project period exceeded the plan (the ratio against the plan:133%). The project period was extended by 20 months because of the responses to achieve results. Specifically, during the period

extended from the plan, the KVS signed a cultivation for the trial seed collection consignment contracts with overseas nursery companies, resulting in the successful export of seeds. In addition, three teams of experts and local consultants visited the KVS members' fields to monitor and advise on crop cultivation. Training for KVS members on the physiology and ecology of vegetable seed production was provided, as well as business management training to promote the organization of the cooperative. The project cost was increased due to the extension of the project period and the implementation of the additional activities.

	Project Cost (Japanese side only, yen)	Project Period (months)
Plan (ex-ante)	505 million yen	60 months
Actual	599 million yen	80 months
Ratio (%)	118%	133%

Outputs were produced as planned.

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

4 Sustainability

<Policy Aspect>

At the time of ex-post evaluation, "National Development Strategy of the Kyrgyz Republic for 2018-2040" has aimed to turn the Kyrgyz Republic into a leading exporter in the regional market and the Eurasian Economic Union (EAEU) market of high-quality environmentally friendly, organic agricultural products. "The Concept for the Development of Agriculture in the Kyrgyz Republic for 2023-2028" drafted as of September 2023 has been stated the need for the development of seed production through the promotion of breeding work which included the production of elite and reproductive seeds of major crops (mainly cereals, vegetables were not included) in the volumes necessary for agricultural production, the change of the variety, and the renewal of the variety of seeds. However, this draft of the law has not been clear when it would be adopted.

<Institutional/Organizational Aspect>

At the time of ex-post evaluation, the structures, and functions of DACE, KVS, and SAK have remained unchanged from the time of project completion. DACE has retained its capacity to conduct seed tests, and KVS operates under a cooperative structure that affords a certain tax benefit. On the other hand, the current structure of KVS does not align with the criteria set for official seed producers in Kyrgyzstan. Therefore, KVS has not been able to receive government loans and subsidies. The number of staff of DACE has been sufficient, however, the number of staff of KVS has not been sufficient because of the budget constraints⁷. KVS has established cooperative linkages with public and private organizations to promote vegetable seed export. KVS has collaborated closely with MoWRAP, DACE, the Union of Cooperatives of the Kyrgyz Republic, Public Union OVOP+1, and several other organizations involved in the promotion of export-oriented production of vegetable seeds. It was confirmed by MoWRAP, DACE, and SAK that they cooperate with KVS Cooperative, and the network is likely to be sustained in the future.

<Technical Aspect>

According to DACE, most of the staff trained by the project has remained in DACE. As for KVS, most of the farmers who engaged in the project continue to stay with KVS. In addition, the number of farmers possessing the required technical skills and knowledge has increased.

It likely has indicated that the culture of skills and knowledge transfer including training has been self-sustaining within KVS. After the completion of the project, in 2021 and 2022 the trainings were conducted within the KVS, and more than 200 farmers (non-members of KVS) participated in the trainings on seed production. In 2023, the trainings were given to the members of KVS. In addition, during the cropping period (from April to October) the KVS regional managers conduct instructional monitoring to help farmers to understand seed production technology. Additionally, the manuals developed in the project have been actively utilized and serve as valuable resources for seed producers⁸.

<Financial Aspect>

At the time of the ex-post evaluation, the financial condition of KVS was not secure enough to ensure that the effects achieved by the project were sustained and expanded steadily. Because of the budget constraint, as indicated above, KVS doesn't secure the required number of employees, as a result, KVS could not cooperate with international development partners and conduct regular monitoring of farmers. On the other hand, KVS has diversified its revenue streams, such as the cultivation of local vegetable seed varieties, producing vegetable seedlings, and replicating primary strawberry seedlings. These endeavors contribute to increase revenue and can contribute to the stable operation of KVS.

As for DACE, DACE has also not secured a budget for prolonging the ISAT certificate. The ISAT certificate has been a key component in maintaining the standard and quality of seed testing and thereby sustaining the project's effects. The lack of a secured budget poses a significant challenge to the sustainability of project effects.

<Environmental and Social Aspect>

Though there is no formal monitoring system for environmental and social aspects, KVS recognizes that the issue of climate change, particularly water shortages, is a significant concern. In response to this, KVS and farmers started to integrate the drip irrigation systems in certain locations to promote efficient water usage and mitigate the impact of water shortages on seed production.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the policy, institutional/organizational, and financial aspects of the implementing agencies. Therefore, the sustainability of the project effects is ②.

5 Summary of the Evaluation

The project achieved the Project Purpose beyond the plan which was to produce vegetable seed with exportable quality in the target regions. After the project completion, the project effects have been continued. The Overall Goal to start vegetable seeds export in the target reasons was mostly achieved as planned. As for the efficiency the project cost slightly exceeded the plan, and the project period exceeded the plan. Regarding sustainability, there have been some issues in the policy, institutional/organizational, and financial aspects, however

⁷ According to KVS, if they were able to obtain contracts for seed export with a volume of 7 tons in a year, KVS could have the budget to afford the required number of employees (15 staff).

⁸ However, since each seed buyer has its manual for seed production, KVS has followed those manuals for the contracted seed production.

sustainability in the technical aspect was high.

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

IV. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- 1) ISTA certification renewal expenses have not been secured since 2020. It is recommended that DACE secure the budget and renew the ISTA certificate.
- 2) In case diseases will be identified from the export seeds, producers will be asked to conduct additional testing such as PCR test. It is recommended that MoWRAP strengthen the Plant Quarantine Labs for conducting PCR testing for seeds within 3-4 years.
- 3) The Government has allowed KVS to continue using the equipment provided by the Project for free. However, from 2023 Government will charge rental fees. It is recommended that MoWRAP charges a reasonable rental fee by considering the financial status and conditions of KVS in 2023.

Lessons Learned:

After the project completion, some of the farmers, the project's beneficiaries in two regions that have big cities migrated to the cities in the regions. The areas near the big cities generally have better economic opportunities and/or alternative lifestyles, and contract farming should take one year to generate income. It could be said that these factors could lead the migration. For similar future projects, especially those concerning agricultural production for export, it is advisable to select the target sites by considering the population outflow and mitigate the risk of the negative impact on the continuation of the project effect. Also, it is desirable to secure an alternative source of income except for contract seed production.



Farmer of KVS member in the field (Taken by JICA Kyrgyz Republic Office on 9th August 2023)



Squash in the Elita Farm produced by the members of KVS. The Elite farm has been used for both experiment of new variety of seed and seed production.

(Taken by JICA Kyrgyz Republic Office on 9th August 2023)