

Ex-Ante Evaluation (for Japanese ODA Loan)

Europe Division

Middle East and Europe Department

1. Name of the Project

Country: The Republic of Moldova (Moldova)

Project: Project for Modernization of Agricultural Machineries and Equipment

Loan Agreement: June 30, 2020

2. Background and Necessity of the Project

(1) Current Status and Issues of the Agricultural Sector and Priority of the Project in Moldova

Approximately 80% of the land in Moldova is covered in rich, fertile black soil that is relatively favorable for agriculture. The agricultural sector is also of high importance to the country's economy, employing around 30% of the workforce (60% in rural areas), and agricultural products and processed foods account for over 40% of Moldova's exports. The agricultural sector constitutes around 10% of GDP.

Around 60% of Moldova is farmland, and most of this is cultivated mainly for cereals. In addition to the low-value cereals, recent years have also seen a trend towards increased production of fruit and other high added-value agricultural products that have become an important part of national economic strategy.

The major issue facing the Moldovan agricultural sector is the low productivity of agricultural products such as cereals, which is caused in part by a lack of modern agricultural machinery and equipment. Upgrades of Moldovan agricultural machinery have been made through Grant Aid provided by JICA and the Japanese government (such as Grant Assistance for Underprivileged Farmers, generally known as Japanese "2KR" [Second Kennedy Round]); however, still roughly 80% (20,000) of tractors in Moldova have exceeded their service life (10 years). (Source: Moldovan government statistics.) There has been a rapid spike in demand for sorting and packing equipment for exports as well as for equipment for chiller / freezer rooms to enable longer shipping periods for fruit and other high value-added agricultural products, but such equipment has spread slowly throughout the country. Reasons for the slow

modernization of agricultural machinery and equipment have been said to include the fact that small- to medium-sized agricultural enterprises lack the access to finance to make capital investments, and moreover that they lack adequate assets to use as collateral to secure loans from private banks.

With accelerating trends such as high poverty rates (14.5% in 2015) in the rural area of Moldova caused by agricultural laborers' low incomes and income instability, aging farmers as young people trend away from farming, and workers migrating to seek higher incomes abroad, there is a need to improve agricultural productivity through mechanization and upgrades to machinery.

In this context, the Moldovan government has put forth the Agriculture and Rural Development Strategy 2014-2020, which is built on three main pillars: 1) Increase the competitiveness of agri-food sector in Moldova through modernization and market integration (particularly better access to funding and the modernization of agricultural machinery); 2) Ensure sustainable management of natural resources; and 3) Improve the conditions for living and working in rural areas. Moreover, the Activity Program of the Government of the Republic of Moldova clearly identifies improved access to funding for the agricultural sector (especially for young people up to 36 years old, women, and organic farmers) as a specific action to be taken. Addressing the problem of funding access while modernizing agricultural machinery and equipment is in line with these government strategy and targets.

(2) Japan and JICA's Cooperation Policy and Operations in the Agricultural Sector

"Industry promotion" is one of the priority areas listed in Japan's Country Assistance Policy for the Republic of Moldova (October 2014), which aims to cultivate and strengthen the Moldovan agricultural and food processing sectors as key domestic industries by improving capabilities in the agricultural sector, thus, the Project is in line with that policy. The Project also aims to contribute to the improvement of productivity in the Moldovan agricultural sector through the modernization of its agricultural machinery and equipment. In this sense, it is thought to contribute to SDGs 2, "Zero hunger," and 8, "Economic growth."

Since 2000, the Japanese government and JICA have provided Moldova with agricultural machinery (e.g. tractors, combine harvesters) through nine installments of 2KR (including two years, 2009 and 2011, in which JICA handled implementation and management) and Grant Aid "Economic and Social

Development Programme". (Of the 604 tractors provided, 188 were Japanese tractors.) The Project aims to modernize agricultural machineries and equipment by using Hire Purchase Contract (HPC) framework (e.g. contract format, operational manual) (*) developed through the cooperation of the past assistance. Moreover, maintenance equipment has been provided to Moldova through Grant Aid "Project for Improvement of Equipment for the National Training Center for Agricultural Mechanization" to improve maintenance capabilities.

(*) Should agricultural enterprises targeted by the Project (agricultural corporations, producers' associations, and other organizations registered under the Law on supporting the Small and Medium Enterprises sector) express an interest in purchasing agricultural machinery or equipment, the Agency for Development and Modernization of Agriculture (ADMA) under the Ministry of Agriculture, Regional Development and Environment (hereinafter the "Ministry of Agriculture") will procure such agricultural machinery or equipment and lease it to agricultural enterprises. The machinery or equipment will be leased out to the enterprise until sufficient leasing payments have been made (e.g. registration fee, insurance, monitoring fee), at which point ownership rights to the machinery or equipment will be transferred to the agricultural enterprise. The lease period is typically two years, or three years in preferential term. Although no collateral is required in contract, the enterprise will be requested to return the equipment or machinery if payments fall into arrears.

(3) Other Donors' Activities

Other donors that provide ongoing aid to Moldova's agricultural industry, one of its primary industries, include the EU, the World Bank, USAID, IFAD, and FAO. The EU provides policy and institutional development aid, while the World Bank, USAID, and FAO help to improve the competitiveness of the sector by working to strengthen food safety systems, conduct value chain analysis, improve export processes, and otherwise build up infrastructural systems.

3. Project Description

(1) Project Objective

The objective of the Project is to improve agricultural productivity by providing

modern agricultural machineries and equipment to small and medium agricultural enterprises throughout Moldova, thereby contributes to the development of agricultural sector in the country.

(2) Project Site / Target Area

Throughout the Republic of Moldova.

(3) Project Component(s)

- 1) Procurement and provision of agricultural machinery and equipment: Tractors, combine harvesters, attachments, post-harvest equipment (e.g. washing equipment, sorting machines, packing machines, equipment for chiller/freezer rooms).
- 2) Consulting services (e.g. bidding assistance, implementation management, and improvement of financial management capabilities)

(4) Estimated Project Cost (Loan Amount)

2,100 million yen (Of which, 2,059 million yen is eligible for yen loans)

(5) Schedule

Scheduled for March 2020 to June 2026 (total of 76 months). The Project will be complete when the final batch of lease payments for procured agricultural machinery/equipment is made in June 2026 (i.e. handover of machineries and equipment).

(6) Project Implementation Structure

- 1) Borrower: The Government of the Republic of Moldova
- 2) Guarantor: None
- 3) Executing Agency/Implementing Agency: Ministry of Agriculture/ADMA
- 4) Operation and Maintenance System: ADMA

(7) Collaboration and Division of Roles with other Projects and Donors

- 1) Japan's assistance activities

Described in "2. Background and Necessity of the Project (2) Japan and JICA's Cooperation Policy and Operations in the Agricultural Sector" above.

- 2) Other Development Partners' assistance activities

USAID, the World Bank, FAO, and other organizations will provide agricultural enterprises with technical instruction focused primarily on fruit cultivation, while agricultural enterprise with clear business plans receive priority aid from these donors (e.g. the HPC application process is simplified). Other types of collaboration will also be pursued to enable further capital investment through the Project.

(8) Environmental and Social Consideration/Cross-Cutting Issues/Category of Gender

1) Environmental and Social Consideration

(1) Category: C

(2) Reason for Categorization: The Project is considered to have minimal adverse impact on the environment as per JICA Guidelines for Environmental and Social Considerations (published in April 2010).

2) Cross-Cutting Issues: None in particular

3) Category of Gender: ■GI(S) (Gender Informed. (Significant))

<Project description / Reason for classification> According to the Project plan, female-handed agricultural enterprises will be able to select a preferential term (three-year lease period) and receive a 0.5% reduction on service fee. Therefore, the Project incorporates gender-informed activities and is classified as Gender Informed (Significant).

(9) Other Important Issues:

The 2KR and the Economic and Social Development Programme have provided tractors produced by Japanese companies, and there are local dealers to provide repair services and spare parts in Moldova. Japanese agricultural machinery and equipment will also be considered to procure under the Project after confirming the needs, local repair services and others.

4. Target Outcomes

(1) Quantitative Effects

Outcomes (Operation and Effect Indicators)

| Indicator | Baseline (Actual value in 2018) | Target (2028) [Expected value 2 years after project completion] |
|--|--|--|
| Volume of HPC per year (million MDL/year) | 248 | 298 |
| Proportion of HPC of female-managed enterprise in total HPC per year (%/year) | 19 | 25 |
| Variety of machineries and equipment ADMA offers | 3 | 11 |
| (for agricultural machineries) Productivity of agricultural products (kg / ha / number of agricultural laborers) | (to be determined by the timing of the signing of HPC) | (to be determined by the timing of the signing of HPC) |
| (for post-harvest equipment) Unit price of agricultural products (MDL/kg) | (to be determined by the timing of the signing of HPC) | (to be determined by the timing of the signing of HPC) |

(2) Qualitative Effects

Development of agriculture sector in Moldova, Capacity development of ADMA (e.g. procurement and financial management capabilities).

(3) Internal Rate of Return

Internal rate of return cannot be calculated because it is not possible to identify target aid recipients (agricultural enterprise) and agricultural machinery and equipment before the Project begins.

5. Preconditions/External Factors

(1) Preconditions: None in particular

(2) External conditions

No major changes to foreign policy and economic policy due to changes in government or similar factors.

6. Lessons Learned from Past Projects

Some of lessons noted in the post-project evaluation of the Natural Resources Management and Poverty Alleviation Project (evaluated 2008) in Peru were that,

in locally decentralized and participatory projects that are complex to implement and entail a large project management workload, it is important to propose operations that are appropriate for the capabilities of the implementing organization and to effectively support project management through consulting and other services.

Over a hundred HPCs are expected to be signed through the Project every year, but it should be ensured that the aid provided does not greatly exceed the scale of the 2KR and revolving fund (approx. 1.5 billion yen per year). The organization has also never served as a yen loan provider and used a procurement agent method in the past Grant Aid. Thus, the Project is to provide bidding and procurement aid through consulting services and so on.

7. Evaluation Results

This Project is consistent with Moldova's development tasks and policies as well as the cooperation policies and analysis of the Japanese government and JICA. It aims to contribute to the improvement of productivity in the Moldovan agricultural sector through the modernization of its agricultural machinery and equipment, and it is thought to contribute to SDGs 2, "Zero hunger," and 8, "Economic growth." Hence, there is a strong need to provide support for the implementation of the Project.

8. Plan of Future Evaluation

(1) Indicators to be Used

As indicated in sections 4. (1) to (3).

(2) Timing

Two years after project completion (ex-project evaluation)