

Japanese ODA Loan

Ex-Ante Evaluation(for Japanese ODA Loan)

South Asia Division 4, South Asia Department
Japan International Cooperation Agency

1. Name of the Project

- (1) Country: The People's Republic of Bangladesh
- (2) Project: Food Safety Testing Capacity Development Project
- (3) Project Site / Target Area: Dhaka District, Dhaka City (Dhaka Division (Population: 45 million, Census 2022) Target Facility), Chattogram District, Chattogram City (Chattogram Division (Population: 34 million, Census 2022) Target Facility), Khulna District, Khulna City (Khulna Division (Population: 17 million, Census 2022) Target Facility)

Loan Agreement: March 25, 2025

2. Background and Necessity of the Project

- (1) Current Status and Issues of the Food Industry Sector and the Priority of the Project in Bangladesh

Bangladesh has improved in GDP per capita from \$1,248 in 2015 to \$2,529 in 2023 (World Bank, 2023). With the increase in income, changes in eating habits have led to a rise in non-communicable diseases such as obesity, cancer, and diabetes, and this triggers a growing trend towards health-consciousness among Bangladesh citizens. Additionally, due to an underdeveloped domestic distribution network, there are many challenges in the supply chain for transporting and storing perishable foodstuffs from distant locations, thus raising rapidly growing concern about the food safety in the market.

Moreover, due to the weak food safety inspection system, there are concerns about an excessive use of pesticides and chemical fertilizers on crops, contamination of agricultural, livestock; marine products with chemical residues such as lead and heavy metals exceeding standards in feed and water; and excessive use of preservatives and coloring agents at the food processing stage. Bangladesh has experienced health impacts from diarrheal diseases, hepatitis A and E, and other health problems caused by consumption of contaminated food (JICA, 2019).

The Government of Bangladesh indicated a need to ensure the food safety of agricultural products in the National Agricultural Policy 2012, enacted the Food Safety Act in 2013, and established the Bangladesh Food Safety Authority

(hereinafter referred to as “BFSA”) in 2015, directly under the Ministry of Food. The objective of the BFSA is to effectively monitor food safety in the entire food value chain to protect the health of consumers and to ensure that food-related agencies comply with food safety regulations. BFSA is responsible for an interdisciplinary coordination on food safety management among other relevant organizations on the basis of scientific knowledges, while respective ministries previously worked this issue on a siloed-based approach. Even though the importance of science-based policy making is well recognised, there are very few public testing facilities in Bangladesh that are capable of conducting food safety testing. Therefore, there is a need to improve testing facilities, equipment, and personnel systems to improve the reliability of food safety testing.

The Government of Bangladesh is expected to graduate from the Least Developed Country (LDC) status in 2026, which will result in a loss of benefits such as preferential tariff and other benefits. With a view to strengthening their international competitiveness of its exports products, diversifying their industrial structure, currently depending on the garment industry, to high value-added export industries is becoming important. The “National Industry Policy 2022” highlights the necessity to streamline the value chains between agriculture and food industry so as to address growing domestic demand. Also, the agriculture and food processing sector are positioned as one of the key focused sectors toward a diversification of exports in the Industry Policy.

On the other hand, excessive contaminations such as salmonella, botulinum toxin, pesticide residues, and heavy metals have been detected in products for export like seafood and vegetables, indicating a significant challenge in promoting exports due to the lack of a reliable food testing system and enforcement of regulations. Therefore, it is crucial for Bangladesh to improve the safety of agricultural and processed food products to increase and add value to export products. Similarly, an testing system for imported food items is insufficient, and there is a need to establish a well-managed testing system to prevent harmful food from entering domestic distribution.

After the interim government was formed in August 2024, the Government of Bangladesh has indicated that it will continue to expedite the implementation of existing ODA loan projects and accelerate the consideration of new loan projects. In that context, the Project continues to be positioned as one of the highest priority projects.

(2) Japan’s and JICA’s Policy Cooperation Policy and Operations in the Food

Industry Sector

“Country Development Cooperation Policy for the People’s Republic of Bangladesh” (February 2018) emphasizes support for promoting private sector activities and human resource development to achieve high economic growth, improving the living environment and livelihoods in rural areas, and enhancing the quality of public health services, with a focus on non-communicable disease prevention. The Project contributes to accelerating economic growth that benefits Bangladesh citizens, the prevention of non-communicable diseases, and the achievement of Universal Health Coverage (UHC) through improvements in food safety. Furthermore, JICA Country Analysis Paper for Bangladesh (March 2023) clearly states that the aim of strengthening the agricultural sector (including food processing industries) and reducing health impacts from foodborne diseases by supporting the improvement of food safety testing facilities and equipment.

The JICA Global Agenda (Agriculture and Rural Development) emphasizes the importance of promoting the food processing industry and ensuring food security. The Project is consistent with this policy and analysis. Furthermore, in Japan-Bangladesh Joint Statement on Strategic Partnership (April 2023) the importance of cooperation in food processing and distribution is highlighted, and a memorandum of understanding has been signed between the Ministry of Agriculture of Bangladesh and the Ministry of Agriculture, Forestry, and Fisheries of Japan for cooperation in food and agriculture. Additionally, in the Japan-Bangladesh Economic Partnership Agreement (EPA) Joint Study (December 2023) it is agreed on promoting trade and investment in the food processing and agricultural sectors, expecting further development of bilateral cooperation.

In the second pillar of a “Free and Open Indo-Pacific (FOIP)”, it is mentioned that there is a need to strengthen the entire food system from production, processing, consumption, and build resilient and sustainable food systems on “Food Security”. An realization of strengthening regional health security is also focused on “Global Health” in the pillar. The Project is also consistent with these policies.

(3) Other Donors’ Activities

The Food and Agriculture Organization of the United Nations (FAO) supported for food safety in Bangladesh, including the development of relevant laws and regulations, strategic plans for food governance, training for food handling operators (2013-2019), and also implemented project that establish indicators on food safety and monitor across several countries in Asia, including Bhutan and

Bangladesh (2019-2024). The United States Department of Agriculture (USDA) supports private sector food safety through projects aimed at removing trade barriers in export markets and certifying private testing facilities (2019-2025).

3. Project Description

(1) Project Description

① Project Objective

The objective of the Project is to improve the food safety inspection capacity of the Bangladesh Food Safety Authority (BFSA) by building the necessary infrastructure for scientific food safety testing in major cities, including the capital, Dhaka, contributing to the promotion of food processing industries, industrial diversification, and the prevention of diseases caused by unsafe food.

② Project Components

- a) Construction of food safety reference laboratory building, food safety testing room, training building and office building (Central Lab) in Dhaka (international competitive bidding)
- b) Construction of testing facilities and office building (Divisional Lab) in Chattogram and Khulna (international competitive bidding)
- c) Procurement of equipment (pesticide residue testing equipment, heavy metal/mineral testing equipment, microbiological testing equipment, etc.) (international competitive bidding)
- d) Consulting services: detailed design, bidding support, construction supervision, organizational and testing capacity strengthening, etc. (short-list method)

③ Project Beneficiaries (Target Group)

Direct beneficiaries: BFSA staff, food-related companies

Ultimate beneficiaries: The citizens of Bangladesh (approximately 172 million people (World Bank, 2023))

(2) Estimated Project Cost

41,345 million Yen (Japanese ODA loan: 28,699 million Yen)

(3) Schedule

March 2025-March 2031 (73 months)

The Project will be completed when all facilities are operational (March 2031) .

(4) Project Implementation Structure

- 1) Borrower: The Government of the People's Republic of Bangladesh

- 2) Guarantor: N/A
- 3) Executing Agency: Bangladesh Food Safety Authority (BFSA) under the Ministry of Food
- 4) Operation and Maintenance System : Bangladesh Food Safety Authority (BFSA) under the Ministry of Food
- (5) Collaboration and Sharing of Roles with Other Donors
 - 1) Japan's Activity

The Technical Cooperation for "The Project for Strengthening the Inspection, Regulatory and Coordinating Function of the Bangladesh Food Safety Authority" (2021-2026) (hereinafter referred to as "STIRC") aims to improve the administrative capacity of BFSA, an implementing agency of the Project, and to establish an on-site testing system as well as to conduct simple food testing necessary for food safety monitoring. In terms of digitalization, a data registration and data collection system are being established on a trial basis under STIRC to efficiently consolidate and manage food testing results that have been collected in analog form in the future. Through the Project, a food safety testing building, testing facilities and equipment will be established. It is possible to make more extensive and precise testing system, and it is expected to have a synergy effect with STIRC. In addition, STIRC is also working toward the establishment of a centralized food business license system through interagency coordination, and a close collaboration between the Project and STIRC is planned for an establishment of a highly reliable food testing system. The Technical Cooperation for "The Market-oriented Agriculture Promotion Project for Smallholder Horticulture Farmers through Multi-stakeholder Partnerships" (2021-2025) is providing technical assistance to improve productivity of high value-added crops that meet market needs. Through the Project, safer crops are expected to be distributed, especially after an establishment of standards and testing systems for pesticide and antibiotic residues. In addition, the Japanese ODA Loan "Food Value Chain Improvement Project" (approved in 2020) is providing low-interest, long-term financing to agricultural and food processing companies with technical assistance to improve food safety, thereby adding value to agricultural products and support for strengthening the agricultural product value chain. The primary target of "Food Value Chain Improvement Project" is medium to large-scale food processing companies engaged in overseas exports.

Therefore, those companies are likely to directly benefit from food testing services provided by the laboratories established under the Project and also food export certificates issued by BFSA in future.

2) Other Donors' Activity: N/A

(6) Environmental and Social Consideration

① Category: C

② Reason for Categorization: The Project is deemed to have minimal adverse impacts on the environment as specified in the Japan International Cooperation Agency Guidelines for Environmental and Social Considerations (issued January 2022).

(7) Cross-Sectoral Issues

① Disability Consideration: In the facility design phase, preparation of necessary slopes where there are steps and barrier-free restrooms are expected to be installed.

② Countermeasure against Infectious Diseases: Infection prevention measures will be implemented, taking into account the local situation, laws and regulations on infection control in accordance with WHO guidelines.

(8) Gender Category: [Gender Project] GI (S) (Gender Activities Integration Program)

<Details of Activities/Reason for Categorization> A gender analysis was conducted during the preparatory survey, which revealed issues at the BFSA, such as a lack of consideration for female employees' job duties after pregnancy, leading to resignation. The Project will promote various actions to proceed gender mainstreaming throughout facility design, construction, and implementation stages, based on a gender action plan (draft). It results necessary working conditions for gender mainstreaming (e.g., reducing fieldwork during maternity period, provision of maternity leave/ childcare leave). Therefore, The Project is classified as a Gender Activities Integration Program.

(9) Other Important Issues: N/A

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline	Target (2033) [2 years after project completion] Number of food testing, per year
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Microbiology	N/A	37,440
Chemical	N/A	31,800
[breakdown]		
-Pesticide Residue	N/A	11,400
-Antibiotics	N/A	6,000
-Heavy Metal	N/A	8,400
-Food Additives	N/A	6,000

(2) Qualitative Effects

Promotion of food processing industry, industrial diversification, enhancement of trust in food and processed food products, export expansion through securing food safety, and prevention of food borne diseases and improvement of health status.

(3) Internal Rate of Return

Based on the assumptions listed below, economic internal rate of return (EIRR) for the Project is 28.2%,while financial internal rate of return (FIRR) is not calculable.

【EIRR】

Cost : Total project cost, operation and maintenance cost (excluding taxes)

Benefit : Difference between the total of an increase in exports from the Project and a decrease of economic losses due to reduction of food borne illnesses (with case) and the absence of the Project (without case)

Project Life : 35 years

【FIRR】

FIRR is not calculated since revenue generating activity is not primarily engaged in the Project..

5 . External Factors and Risk Control

(1) Preconditions: N/A

(2) External Factors: No significant policy changes will occur under the interim government formed in August 2024 and the new government established following the upcoming national elections.

6 . Lessons Learned from Past Projects

In the ex-post evaluation of the Technical Cooperation Project “Strengthening of the National Food Safety Program” for the Republic of Chile (evaluated in 2011), There is lessons learnt that it is important to secure appropriate laboratory

facilities, equipment, and trained technicians, along with the implementation of continuous training programs for technicians for the development of inspection and analytical capabilities. Through a preparatory survey of the Project, installment of appropriate laboratory facilities and equipment, development of training plans for technicians, and medium-to-long-term plans for facility and equipment maintenance are considered. In the Project, phasing approach on techcal support and consulting services will be planned for strengthening of BFSA's organizational and inspection capacity.

7 . Evaluation Results

The Project aligns with the Bangladesh's development challenges and policies as well as Japan's and JICA's cooperation policies and analysis. It contributes to the revitalization of the food processing industry, the promotion of the private sector necessary for economic growth, and the reduction of health hazards caused by food borne diseases through the establishment of a food testing system in Bangladesh. The Project will also contribute to Goal 2 (Zero Hunger) and , Goal 3 (good health and well-being), and Goal 9 (Industry, Innovation, and Infrastructure) of SDGs. Thus, the necessity for JICA to support the Project is substantial.

8 . Plan for Future Evaluation

(1) Indicators to be Used

As indicated in Sections 4.

(2) Future Evaluation Schedule

Ex-post evaluation: 2 years after the project completion

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