

Ex-Post Project Evaluation 2020 Package II-4 (Jordan)

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JAPAN INTERNATIONAL COOPERATION AGENCY

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Jordan

FY2020 Ex-Post Evaluation Report of
Technical Cooperation Project "Project for Formulating Water Supply Plan for the Host
Communities of Syrian Refugees" and
Grant Aid Project "The Programme for Urgent Improvement of Water Sector for the Host
Communities of Syrian Refugees in Northern Governorates"
External Evaluator: Tomoko Tamura, Kaihatsu Management Consulting, Inc.

0. Summary

In this ex-post evaluation, two projects that supported improvement of water supply and sewerage services in northern Jordan are evaluated in an integrated manner. These are: technical cooperation for development planning, "Project for Formulating Water Supply Plan for the Host Communities of Syrian Refugees" (hereinafter referred to as the "Technical Cooperation Project"), and a grant aid project, "The Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorate" (hereinafter referred to as the "Grant Aid Project").

Improving water supply and sewerage services was a priority for Jordan at the time of both the planning and ex-post evaluation of the projects, and the objectives of the projects were consistent with development policies and plans, and sector strategies. In particular, the northern part of the country was experiencing population growth due to the influx of Syrian refugees, and there was an urgent need to improve the services. The projects were consistent with Japan's aid policy at the time of planning and were formulated and initiated promptly considering the urgent need for assistance. They were implemented in coordination with other development cooperation agencies. The projects were well aligned with Jordan's development plan, development needs and Japan's ODA policy, and the project approach was appropriate; therefore, relevance of the projects is high.

In the Technical Cooperation Project, in addition to the planned outline design of the Grant Aid Project, development of the master plans for water supply and sewerage sectors, and implementation of technical transfer, the outline design of the "Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorates Phase II" (hereinafter referred to as the "Grant Aid Project Phase II"), and the design and cost estimation of the project proposed in one of the master plans, were carried out. In the Grant Aid Project, the construction of a new distribution main and distribution pipelines between the southern part of Irbid Governorate and Bait Ras area, and the rehabilitation and renewal of the distribution pipe network in Hawaarah area of the same Governorate, were implemented almost as planned. The cost of both projects was within plan, but the duration of the projects was longer than planned. Therefore, the efficiency of the projects is fair.

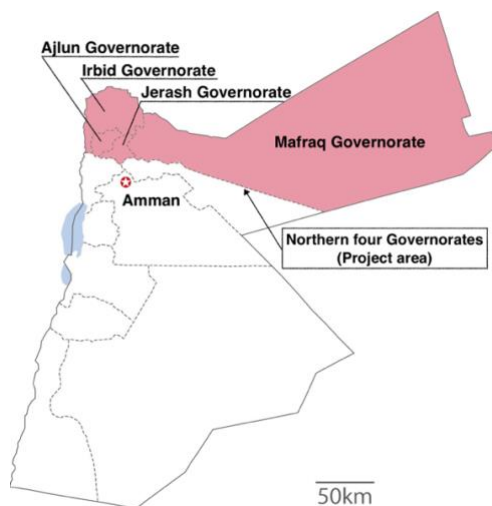
The objective of the Technical Cooperation Project was that the proposed and developed plans would be used. The proposed plans have been implemented as this Grant Aid Project and as that

of Phase II. In addition to these, two projects proposed in the water supply sector master plans are being implemented with the support of the EU, AFD (French Development Agency), KfW (German Development Bank), and USAID. Thus, the objective was achieved. The flow rate in the distribution main, which is the operation indicator of the Grant Aid Project, is lower than the target due to changes in the water transmission plan. There was a certain degree of improvement in water supply service in the target areas, and there was also an impact in terms of improving the living environment and reducing a disparity in conditions of water supply. Therefore, the effectiveness and impact of the projects are fair.

No major problems have been observed in the institutional/organizational, technical, financial aspects and current status of the operation and maintenance system. Therefore, sustainability of the project effects is high.

In light of the above, these projects are evaluated to be satisfactory.

1. Project Description



Project Location



The distribution main and a pressure reducing valve installed by the Grant Aid Project

1.1 Background

Jordan is one of the countries with the lowest water resources in the world. Ninety-two per cent of the country is desert, with an annual rainfall of only 200mm¹. While the demand for water continued to increase due to population growth, the average per capita water supply in Jordan was around 61 liters per day², far below the government's target of 120 liters per day (2014).³

¹ The average rainfall in Japan is 1,718 mm (The average for the period from 1971 to 2000. Source: Website of the Ministry of Land, Infrastructure, Transport and Tourism of Japan.)

² P13, National Water Strategy of Jordan 2016-2025.

³ The average per capita water supply in general households in Tokyo is 214 liters per day (FY2019. Source: Website of Tokyo Metropolitan Government Bureau of Waterworks).

Due to the outbreak of the Syrian crisis, there was an influx of Syrian refugees into Jordan since 2011. The four northern governorates of Jordan that were the target area of the two projects have seen a large influx of Syrian refugees because they are near the Syrian border. In particular, 23.3% of the refugees in Jordan lived in Irbid governorate - urban area, accounting for 10% of the governorate's population.⁴ The areas where Syrian refugees settled in large numbers came to be known as host communities of Syrian refugees.

At the time of planning these projects, 97% of the population of the four northern governorates used water supply services - these were essential for the population. However, due to the limited allocation of water resources and inadequate capacity and deterioration of the water transmission and distribution facilities, they were unable to receive adequate water supply services. This situation was further worsened by the rapid increase in population due to the influx of refugees.

To address the problem faced by the host communities of Syrian refugees, and to support the improvement of water supply services, JICA launched a Technical Cooperation Project in December 2013 (blue part in Fig. 1). The project had three components: A) proposal of outline design of projects, B) formulation of plan of assistance, and C) technical transfer. The Grant Aid Project was implemented based on the outline design carried out under Component A (1) (Fig. 1, green part). In addition, Grant Aid Project Phase II⁵ of JICA is being implemented based on the outline design developed in Component A (2) by the United Nations Office for Project Services (UNOPS), in collaboration with the United Nations.

The water supply master plan for Irbid city, which is one of the water supply master plans for the two cities developed under Component B (1), was selected for implementation with assistance from EU, AFD and KfW. JICA developed the basic and detailed designs, and reference materials for the preparation of bid document to facilitate this. This work was Component B (3).

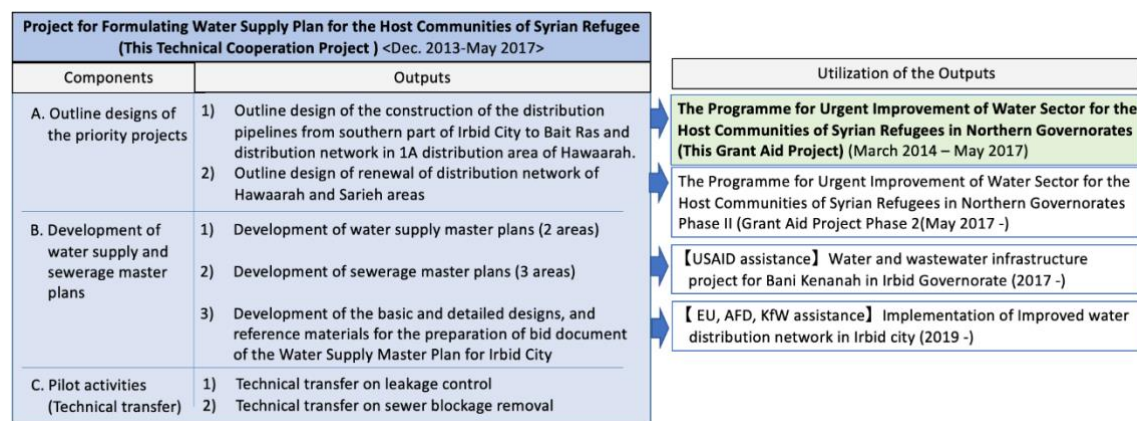


Figure 1 Utilization of the Outputs of the Technical Cooperation Project and relationship between the Technical Cooperation Project and the Grant Aid Project

⁴ Source: Jordan Response Plan 2015, Executive Summary, "Facts and Figures", and UNHCR statistics in September 2013. Population of Irbid Governorate in 2013 was 1,137,100 and there were 117,206 refugees.

⁵ Works that were included in the draft plan of the Grant Aid Project but no longer fitted within its budgetary framework were included in the Phase II with the agreement of the executing agency.

1.2 Project Outline

Technical Cooperation Project: Project for Formulating Water Supply Plan for the Host Communities of Syrian Refugees

Overall Goal		Water supply and sewerage services in the host communities of Syrian refugees is improved.
Project Purpose		<ul style="list-style-type: none"> • A grant aid project is implemented immediately according to the outline design for the prioritized projects. • The water supply and sewerage service development plans developed by this project are utilized by the WASH Task Force⁶ functioning under the Host Community Support Platform, formulated by the Jordanian government and development partners as a tool for prioritizing and selecting projects, and are implemented.
Outputs	Component A	Formation of short-term priority projects Development of outline design of the priority projects that are to be implemented through Grant Aid assistance.
	Component B	Formulation of master plans necessary to maintain water supply and sewerage sector services for the host communities.
	Component C	Technology transfer through pilot activities such as leak detection and repair and cleaning of sewage pipes.
Total cost (Japanese side)		649 million yen
Project Period		December 2013 - May 2017 (Extension period: January 2017 - May 2017)
Target Area		Four northern governorates (Irbid, Ajlun, Jerash and Mafraq governorates)
Implementing Agency		Water Authority of Jordan (hereinafter referred to as "WAJ")
Other Relevant Agencies/ Organizations		Supervisory organization: Ministry of Water and Irrigation Organization for operation and maintenance: Yarmouk Water Company (hereinafter referred to as "YWC")
Consultant		TEC International Co., Ltd.
Related Projects		【Grant aid project】 Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorates (March 2014 -)

⁶ The WASH Task Force is an internationally coordinated working group formed by the Jordanian government and UN agencies to provide humanitarian assistance in the field of water, sanitation and hygiene against the backdrop of the influx of Syrian refugees into Jordan. "WASH" stands for Water, Sanitation and Hygiene.

	<p>【Grant aid project】 Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorates Phase 2 (May 2017 -)</p> <p>【 Project assisted by EU, AFD, KfW 】 Implementation of Improved Water Distribution Network in Irbid City</p> <p>【 Project assisted by USAID 】 Water and wastewater infrastructure project for Bani Kenanah in Irbid Governorate</p>
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Grant Aid Project: The Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorates

The objective of the Grant Aid Project was to improve water supply services to meet the increasing water demand by upgrading and renewing water supply facilities in Irbid City, Bait Ras and Hawaarah areas in Irbid governorate - thereby contributing to improvement in the living environment of the local community.

Grant Limit / Actual Grant Amount	2,510 million yen /2,501 million yen
Exchange of Notes Date /Grant Agreement Date	March 2014/ March 2014
Executing Agency	WAJ (Operation and Maintenance Agency is YWC)
Project Completion	May 2017
Target Area	Irbid city, Bait Ras and Hawaarah areas in the Irbid Governorate
Main Contractor	Dai Nippon Construction
Main Consultant	TEC International Co., Ltd.
Preparatory Survey	January 2014 - June 2014

Integrated Evaluation

In this integrated ex-post evaluation, the two projects were evaluated together for relevance and sustainability, and a sub-rating of the two projects were provided simultaneously for these criteria. This was because both projects had a common objective of improving water supply and sewerage services for the host communities of Syrian refugees, were implemented at the same time, and have the same executing, and operation and maintenance agencies. For the criteria of efficiency and effectiveness and impacts, the external evaluator studied results of each project separately first, since project period, project cost, outputs, and expected effects and impacts of these projects were independent from each other. Then, the external evaluator made an evaluation judgement and provided a joint sub-rating for each criterion, considering the levels of achievement of the two projects in a comprehensive manner. An overall evaluation and an overall rating were provided for the two projects as a whole, based on evaluation results of the five criteria.

2. Outline of the Evaluation Study

2.1 External Evaluator

Tomoko Tamura, Kaihatsu Management Consulting, Inc.

2.2 Duration of Evaluation Study

This ex-post evaluation was conducted with the following schedule.

Duration of the Study: October 2020 - November 2021

Duration of the Field Study: January 13th, 2021 - September 7th, 2021

In this ex-post evaluation, the external evaluator did not travel to Jordan due to travel restrictions resulting from the Covid-19 pandemic; a Jordanian research assistant collected information in the country. The external evaluator provided guidance and control for the information collection, had online discussions with the executing and operation and maintenance agencies, and made analysis and evaluation based on information obtained.

3. Results of the Evaluation (Overall Rating: B⁷)

3.1 Relevance (Rating: ③⁸)

3.1.1 Consistency with the Development Plan of Jordan

Jordan's development plan was the National Agenda (2006-2015) at the time of project planning, and Jordan 2025 (2016-2025) at the time of the ex-post evaluation. The Water Strategy of Jordan, the sectoral strategy for the country, targets the provision of adequate and safe drinking water and sanitation facilities to the people, both at the time of planning and ex-post evaluation. Thus, the two projects, targeting the improvement of water supply and sewerage services, are consistent with the country's water supply and sewerage development plan throughout, from planning to ex-post evaluation.

3.1.2 Consistency with the Development Needs of Jordan

At the time of project planning, a rapid increase in the population of Jordan due to the influx of Syrian refugees was causing water shortages and inequalities in access to water. Therefore, the improvement of water supply services was an urgent and critical need. As mentioned in "1.1 Background," there was a high concentration of refugees in the northern part of the country and in the Irbid governorate – an urban area in the region; there was an urgent need to improve water supply services. At the time of the ex-post evaluation, water supply services continued to be essential for the population of the country and the northern region; there is a continuing need for facilities constructed by the two projects. The need for sewerage services is also high, both at the

⁷ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁸ ③: High, ②: Fair, ①: Low

time of planning and at the time of the ex-post evaluation, due to the increase in the water supply service population and population density caused by urbanization.

Thus, the objectives of the two projects, to improve water supply and sewerage services, are consistent with the country's development needs, both at the time of planning and ex-post evaluation.

3.1.3 Consistency with Japan's ODA Policy

At the time of planning the projects, Jordan was contributing to peace and stability in the Middle East region by receiving a large number of Syrian refugees, and its active involvement in the peace process in the Middle East. Japan's policy was to continue to support this contribution. The two projects also corresponded to the specific measure "Program for Effective Utilization of Water Resources" of the development issue "Sustainable Management of Natural Resources and Environmental Conservation" of "Assisting Autonomous and Sustainable Economic Growth." This was a priority area of the Japanese Government's Country Assistance Policy for Jordan at that time. In this way, both projects were consistent with Japan's aid policy at the time of planning.

3.1.4 Appropriateness of the Project Plan and Approach

1) Prompt project formation and commencement based on the urgent need for support (Coordination and special measures taken by JICA)

Given the urgency of the need for assistance and an early impact, JICA quickly formulated and initiated both projects, mainly by making the following special arrangements:

The Technical Cooperation Project

In the Technical Cooperation Project, JICA decided on the general framework of the assistance, quickly formed the project by applying the fast-track system;⁹ and promptly dispatched a contractor of the project comprising a team of consultants to Jordan. This was due to the urgency of implementing the assistance, and the fact that other donors were also considering rapidly implementing support to the water sector in the country.

The Grant Aid Project

An outline design, which is usually conducted in a preparatory study for a Grant Aid project, was carried out as one component of the Technical Cooperation Project. This enabled prompt formulation of the Grant Aid Project, reducing time being spent on selecting and signing a contract with a consultant team for a preparatory study.

⁹ JICA identifies projects that require urgent action, such as disaster reconstruction assistance, as projects eligible for the fast-track system, to speed up the decision-making process for project planning and implementation, and to simplify the process of selecting and contracting experts necessary for project implementation.

2) Cooperation with other development cooperation agencies

Both projects were implemented in effective coordination with other development partners to urgently address Jordan's challenges in the water sector due to the influx of Syrian refugees.

Participation of the JICA project team in the WASH Task Force

The Technical Cooperation Project started promptly as mentioned above. Therefore, a team of Japanese consultants with extensive experience in working in the water sector in the country was able to participate early in discussions of the WASH Task Force, to review the request for assistance from WAJ from a technical perspective with consideration of the action being taken by other donors, and to identify a project of high priority for assistance.

Utilization of the master plans by an EU, AFD and KfW supported project

The JICA Project Team noted during discussions of the Task Force that the EU, AFD and KfW had recognized the importance of the project proposed in one of the master plans developed under the Technical Cooperation Project and were ready to provide funding for it. JICA prepared the basic and detailed designs and reference materials for the preparation of bid document as part of activities in the Technical Cooperation Project and facilitated implementation of this project.

[Interview with the AFD office in Jordan]

At the time of the ex-post evaluation, the evaluation team interviewed the staff of AFD office in Jordan and asked them about utilization of the output of the Technical Cooperation Project. They told the team that the master plan prepared in the Project was the starting point of the ongoing project "Implementation of Improved Water Distribution Network in Irbid City", which is one of the components of the "Improved access to water, water distribution performance and related sewerage disposal in Irbid Governorate for host communities and Syrian refugees." JICA developed the basic and detailed designs and reference materials for the preparation of bid document, which enabled the project preparation to start steadily and quickly. The component has completed the procurement of consultants and environmental and social studies, and, as of June 2021, tenders for construction contractors were underway. Construction would start in August 2021.

3) Project approach for the Grant Aid Project

As shown in "3.3.1.1 Quantitative Effects," the flow rate in the distribution main, which is an operation indicator of the Grant Aid Project, was lower than the target. This was mainly due to a reduction to the allocation of Disi groundwater¹⁰ to the northern region of the country that was

¹⁰ Disi groundwater is fossil groundwater pumped from the Disi aquifer in southern Jordan. At the time of planning in 2017, 10MCM (million cubic meters) of this groundwater was planned to be sent to the northern region. Later, this plan was changed due to the need to supply more water to the area around the capital Amman.

planned at the time of project planning. In the meantime, the Government continues to work to improve water supply services in the target areas by developing other water sources and implementing projects for improving water distribution to compensate for this. As mentioned above, the facilities constructed under the Grant Aid Project are essential for the provision of water supply services to people in the target areas and will also be used to distribute the increasing volume of water in the future. Therefore, although achievement of the operation indicator at the time of the ex-post evaluation is low, it is not considered that there was a problem in the planning and approach of the Grant Aid Project.

In summary, these projects have been highly relevant to Jordan's development plan and development needs, as well as Japan's ODA policy, and there was no problem with the project approach. Therefore, its relevance is high.

3.2 Efficiency (Rating: ②)

3.2.1 Project Outputs

As Table 1 shows, three components of the Technical Cooperation Project were implemented as planned: A. Outline design of the Grant Aid Project, B. Development of the water supply and sewerage sector master plans, and C. Technology Transfer for Leakage Control and Sewerage Blockage Removal. In addition to these three components, development of the outline design of the second Grant Aid Project, development of the basic and detailed designs and the reference materials for the preparation of bid document of the project proposed in one of the master plans were also carried out. Thus, the output of the project was more than planned.

Table 1 Planned and actual outputs of the Technical Cooperation Project

Plan	Actual	Plan vs. Actual
A Formation of short-term priority projects and outline design for implementing priority projects with grant aid	The outline design of the Grant Aid Project has been carried out. In addition, the outline design of the Grant Aid Project Phase II has been carried out.	More than planned
B Development of water supply and sewerage master plans	Master plans for the water supply and sewerage sectors were developed. In addition, the basic and detailed designs, and the reference materials for the preparation of bid document for international competitive bidding for a part of the water supply master plans, were developed.	More than planned
C Technical transfer to YWC staff through pilot activities such as leak detection and repair, and sewer cleaning	Pilot activities for leakage control and sewer blockage removal were carried out. The necessary skills were transferred to YWC staff, and the procured equipment was transferred.	As planned

The Grant Aid Project consisted of two components: (1) the construction of a new distribution pipeline between the southern part of Irbid City and Bait Ras area, and (2) the rehabilitation and renewal of the water distribution network in Zone 1A of Hawaarah area in the Irbid Governorate. These were implemented largely as planned (table 2 and Fig. 2). In component (1), the actual extension of the pipelines was slightly longer than planned, due to changes in some distribution pipe routes and construction methods.¹¹ These changes were made based on necessity and have not affected the use of the facilities or the expected benefits. In component (2), it was no longer possible to carry out all the envisaged construction items due to the rapid depreciation of the yen at that time. Therefore, it was decided and agreed with the executing agency to construct only the main pipelines and exclude the service lines from the work plan. This was a reasonable change in line with the implementation policy of the Project, which was to prioritize urgent works and implement them quickly and flexibly within the project budget.¹²

Table 2 Planned and actual outputs of the Grant Aid Project (Construction of the facility)

Components	Plan	Actual	Plan vs. Actual
(1) Construction of a new distribution pipeline between the southern part of Irbid city and the Bait Ras area	<ul style="list-style-type: none"> • 18,610 m of distribution pipelines • 5 pressure reducing valves 	<ul style="list-style-type: none"> • Total of 19,206 m of distribution pipes • 5 pressure reducing valves 	Slightly more than planned.
(2) Rehabilitation and renewal of the distribution network in Zone 1A distribution area of the Hawaraah Area in Irbid Governorate	<ul style="list-style-type: none"> • 17,670 m of distribution pipelines • 350 m of service lines • 2 pressure reducing valves 	<ul style="list-style-type: none"> • 7,526 m of distribution pipelines in total • 2 pressure reducing valves 	Less than planned, but changes are reasonable.

Source: Project Completion Report and project consultant's response to the questionnaire.

¹¹ The Ministry of Public Works proposed a plan to construct an underpass above the planned route of a distribution pipeline; and therefore, the change in design was needed in a way that the pipeline would go around the underpass. The geological features at two of the six sites, where a jacking method of construction was planned, were found to be very hard, and that it would take a long time to complete the construction. Therefore, the construction methodology was changed to open-cut method.

¹² The construction of the service lines excluded from the Project was included in the Grant Aid Project Phase II.



Pressure reducing valve



Distribution main



Manhole cover

Photos were taken at the time of the ex-post evaluation

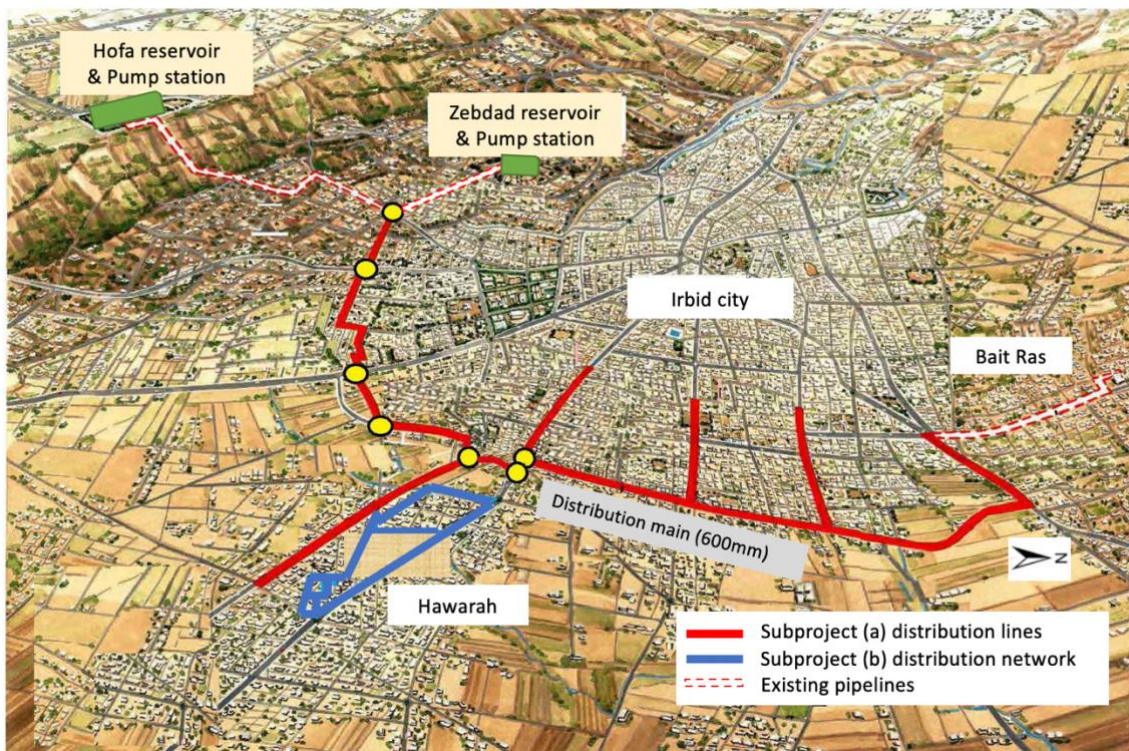


Figure 2 Layout of the distribution pipelines and network constructed by the Grant Aid Project

Source: Illustrated by the external evaluator using a picture in the Annex of the Project Completion Report.

The consulting services were carried out as planned. Apart from delays in the supply of water for testing and granting of construction permits by the Ministry of Public Works, the project was carried out without any problems.

As described above, the outputs of the Grant Aid Project were generally in line with the plan.

3.2.2 Project Inputs

3.2.2.1 Project Cost

The planned project cost of the Technical Cooperation Project was 660 million yen, and the actual cost was 649 million yen, which was within the plan (98%). The planned cost of the Grant Aid Project was 2,510 million yen from Japan and 3 million yen from Jordan, totaling 2,513 million yen. The actual cost of the Project for Japan was 2,501 million yen. Since no information was provided on the actual project cost from Jordan, an analysis of the difference in the project cost of the Grant Aid Project was carried out using only the project cost from Japan. As a result, it was concluded that the project cost was as planned (100%).

3.2.2.2 Project Period

The planned project period for the Technical Cooperation Project was 37 months and the actual period was 42 months, with the actual result exceeding the plan (114%). As mentioned above, the project carried out the following additional work: the outline design for the Grant Aid Project Phase II, the basic and detailed designs and preparation of reference materials for the preparation of bid document for one of the projects proposed in the master plans. This work was planned to be completed within the project period. However, it took more time than planned to consult and coordinate with the relevant authorities, review the implementation method, and review and update the report, and an extension to the period was required.

The planned project period for the Grant Aid Project was 30 months and the actual period was 39 months; the actual period exceeded the plan (130%). The main reasons for the delays were the time taken to tender for the selection of the construction contractor and to respond to design changes, and delay in the provision of water for testing by the Ministry of Public Works.

3.2.2.3 Input Elements (Technical Cooperation Project)

The planned and actual input elements of the Technical Cooperation Project were largely in line with the plan (Table 3). The number and man-months of JICA experts dispatched were increased to ensure the availability of expertise and time necessary for the additional work. Equipment was procured and provided as required, based on a review of the nature of the pilot activities. The Jordanian inputs, such as assignment of counterpart staff for technical transfer and the provision of the project office, were implemented as planned.

Table 3 Planned and actual input elements for the Technical Cooperation Project

Input element	Plan	Actual
JICA Experts	16 (137 man-months)	31 (162 man-months)
Equipment	Equipment for pilot activities (leak detectors, high-pressure sewer cleaning units, pipe materials for sewer connection, etc.), survey equipment	Materials and equipment for the implementation of pilot activities (welding machines for pipe jointing, high-pressure sewer cleaning units, TVs for sewer diagnosis, pipe materials for sewer connections, etc.)

Although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the projects is fair.

3.3 Effectiveness and Impacts¹³ (Rating: ②)

3.3.1 Effectiveness

3.3.1.1 Quantitative Effects

1) Technical Cooperation Project

In the Technical Cooperation Project, the following two targets and indicators for the use of the developed and proposed plans were set to measure the effectiveness of the Project.¹⁴ Both targets have been well achieved; and the effect of the Project has been produced as planned.

Target 1: The Grant Aid Project is implemented promptly based on the outline design for the priority projects.

Progress in utilization of the plans	Progress in implementing priority projects through Grant Aid
Indicators of the targets to be achieved through the utilization of the plans	Use of the facilities constructed by the Grant Aid Project
Status of achievement (Results)	This Grant Aid Project has been promptly started and completed; the facilities constructed are in use. The Grant Aid Project Phase II is also being implemented.

¹³ Sub-rating for Effectiveness is to be put with consideration of Impacts.

¹⁴ Overall goal and PDM were not formulated for this technical cooperation project, because this was a development plan study type of technical cooperation project.

Target 2: The water supply and sewerage master plans to be developed by the project will be utilized by the WASH Task Force for selecting priority projects, and these projects start to be implemented.

Progress in use of the plans	The status of the water supply and sewerage master plans to be developed being referred to in other plans and shared with relevant institutions.
Indicators of the targets to be achieved through use of the plans	Number of projects implemented, their progress, among those proposed in the water supply and sewerage master plans.
Status of achievement (Results)	<ul style="list-style-type: none"> • A seminar on the formulated master plans was held in February 2015, attended by 70 stakeholders. • The WAJ recognizes the master plans as the medium-term plan for the region. • The following two projects proposed in the master plans are currently being implemented: <ul style="list-style-type: none"> – EU-, AFD- and KfW-supported "Implementation of Improved Water Distribution Network in Irbid City" – USAID-supported "Water and Wastewater Infrastructure Project"

The method of removing blocked sewer pipes using the high-power vacuum tracks, which was taught in the Technical Cooperation Project, has been useful for efficient removal of blocked sewer pipes, and the equipment provided has been used. It was not possible to identify any specific examples of the use of methods to repair leaks.

2) Grant Aid Project

(1) Operation Indicators

The flow rate of the distribution main from the southern part of Irbid City to the Bait Ras area (see Fig. 2), which is one of the facilities constructed under this Grant Aid Project, was set as an operation indicator. This pipeline is the main facility constructed under the project, and the flow rate indicates the operational status of the pipe, so this is an appropriate indicator to measure the operational status of the project.

Since completion of the project, the distribution main has been used to distribute water to the eastern part of Irbid, Bait Ras and Hawaraah areas as planned. In the target year,¹⁵ the total annual

¹⁵ At the time of planning, the target year to produce the planned effect was set at the year following the completion of the project. Therefore, the target year is 2018.

flow volume of the distribution main was 4.06 MCM,¹⁶ which was less than the target of 11.00 MCM (Table 4; achievement rate of 37%). There has been no significant change since the target year. The distribution main is not used as effectively as planned.

Table 4 Target and actual values of the operation indicator "Flow rate of the distribution main" of the Grant Aid Project

Flow rate of the distribution main	At the time of planning In 2014	Target value (One year after project completion)	Actual values			
			Target year: 2018	2019	2020	2021*
Daily average (m ³ /day)	0	30,000	11,125	11,601	10,924	10,754
Annual total (MCM/year)	0	11.00	4.06	4.23	3.99	3.93
Target achieved (%)			37	39	36	36

Source: Planned and target values are from the preparatory survey for the Grant Aid Project (P.4-3), actual values are the responses from the WAJ to the questionnaire.

Note: The flow rate at the time of planning was zero because this distribution main was newly constructed by the Project.

The daily averages and annual total of the figure for 2021 were calculated from data for the period from January to May 2021.

As mentioned in "3.1.4 (3) Project Approach of the Grant Aid Project," the flow rate of the distribution main was less than the target value mainly due to a change in the transmission plan of Disi groundwater to the northern region. As Fig. 3 shows, the volume of Disi groundwater transmitted to the area was only 2.4 MCM in 2018, although it was planned to be 10.0 MCM. As a result, the amount of water in the Hofa reservoir was less than planned. Therefore, it was decided to supply water to the distribution main from the Zebdad reservoir, which had a relatively large amount of water. However, the volume of water supplied to the distribution main has been around 4 MCM in recent years, because the Zebdad reservoir supplies water not only to the beneficiary area of the Grant Aid Project, but also to West, and Central and Upper Irbid.

¹⁶ MCM is million cubic meters.

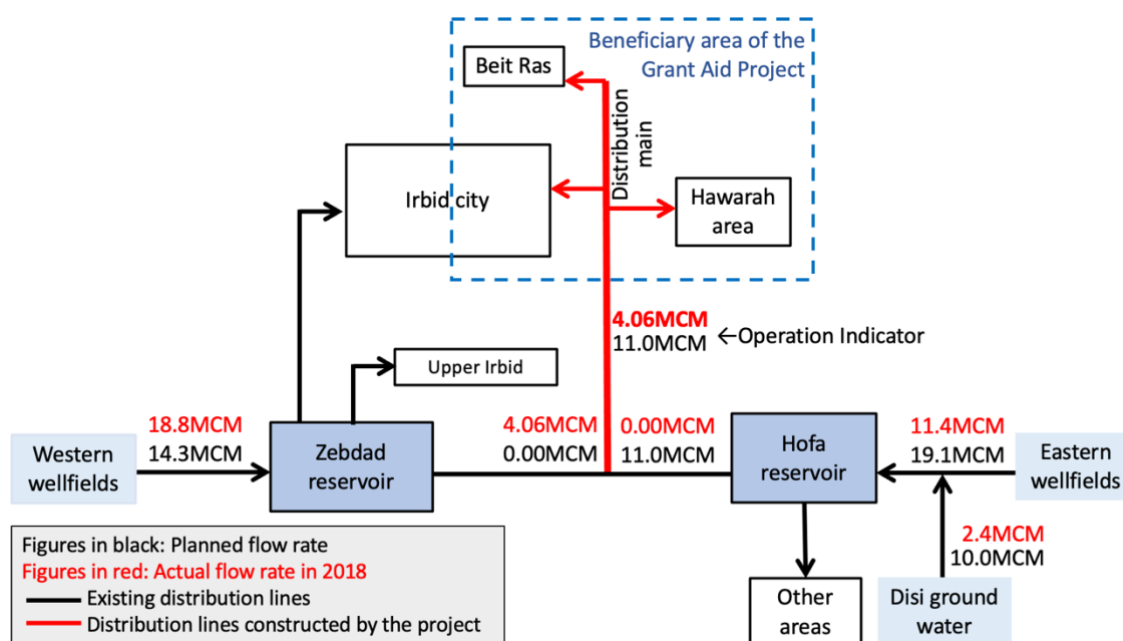


Figure 3 Planned and actual flow rates to the beneficiary area of the Grant Aid Project (2018)

Source: Prepared by the external evaluator. The source of the planned flow volume is the Detailed Planning Study Report, and that of the actual flow rate is the document provided by WAJ data.

(2) Effect Indicators

At the time of planning, water was supplied once a week to the beneficiary area of the project, namely the eastern part of Irbid City, Hawaraah and Bait Ras areas, by valve operation. However, because these areas were located at the end of the distribution main that existed at that time, water supply pressure to the houses was low, and it was difficult for water to reach these houses. Sometimes, water was not supplied to some areas, especially to places located at higher altitude and equipped with old distribution pipes. Residents stored the supplied water in tanks in the houses and used it little by little. However, they had to buy water from water lorries when they were not able to store enough water to meet their needs.

Therefore, it was expected that water supply services in the beneficiary area would be improved by implementation of this project. To find out whether this has been realized, the changes in amount and frequency of water supply, and amount of water consumption, were studied in the ex-post evaluation. The results of the study were as follows (Table 5).¹⁷

¹⁷ The leakage rate and number of complaints were also studied to see if there were any changes before and after the Project. However, a comparison could not be made because reliable data - both before and after the project - was not available.

Amount of water supply: Increased to a certain extent

The data on amount of water supply, both at the time of planning and ex-post evaluation, was not available since the beneficiary area of the Project has not been isolated as a distribution area. Therefore, changes in the amount of water supplied to the area from the Zebdad reservoir, including the beneficiary area, were studied. This is the total amount of water supply to Irbid city, Bait Ras and Hawaraah areas (mentioned as “target area” in the Table 5). It was found that the amount of water supply at the time of the ex-post evaluation (2020) had increased to 1.9 times the amount at the planning and reached the planned target amount although it had taken longer than planned. The main reason for this increase was an increase in supply from the Western wellfield to the Zebdad reservoir and commencement of transmission from the second Wadi Arab water treatment plant to Zebdad reservoir in the second half of 2020. Therefore, the amount of water supply must have been increased to a certain extent compared to that at the time of planning in the beneficiary area, as well.

Frequency of water supply: Some improvements have been made

Water is distributed to the beneficiary area once a week. The twice-weekly water distribution has not been realized, and there has been no change in the frequency of water supply. However, a questionnaire survey of beneficiaries¹⁸ conducted with 40 households in the beneficiary area showed that households that received little or no water when the project was planned, had started to receive water every week after the project was completed. It can be said that there has been some improvement in the frequency of water supply at the beneficiary area.

Water consumption: Reached the target value for households surveyed in the questionnaire survey

The average daily water consumption per person at the time of the above-mentioned questionnaire survey was found to be 85 liters per person per day, according to water bills of the 40 households surveyed. The water consumption of these households has increased since the time that the project was planned and met the target amount. However, due to the small sample size this result cannot be generalized and should be taken as a reference value.

¹⁸ A questionnaire survey of beneficiaries was carried out to study the opinions of residents in the beneficiary area regarding the improvement of water supply services and their living environment by the two projects, and to find any specific examples of these improvements. It was conducted as a reference in evaluating effectiveness and impact of the projects. A face-to-face interview survey was carried out using a questionnaire, visiting 40 households and 6 institutions and business entities. The survey was conducted in February and March 2021. It was conducted in the eastern part of Irbid city, Bait Ras and Hawaraah areas, which are served by the distribution main, and the distribution pipelines constructed by the Grant Aid Project. The sample households were selected using the quota sampling method. There were 10 female and 30 male respondents. For the institutions and business entities, six places were selected, including schools and clinics, that were considered to have relatively high water consumption. Due to the significant sampling and the limited sample size compared to the population (water supply service population), the results of this survey cannot be generalized.

Table 5 Target and actual values for effect indicators for improving water services

Effect indicators	At the time of planning in 2014	Target values 1 year after project completion	Actual values	
			At the target year in 2018	At the ex-post evaluation in 2020
Amount of water supply in the target area (MCM)	12MCM	23MCM	19MCM	23MCM
Frequency of water distribution to the beneficiary area (times/week)	Once a week	Twice a week	Once a week	Once a week
Amount of water consumption (liters/person/day)	54	85	Unknown	85 (Reference value)

Source: Source of the figures at the time of planning and target values are the preparatory survey report of the Grant Aid Project (P4-3); the source of frequency of water distribution and amount of water consumption are the result of the questionnaire survey of beneficiaries; that of the amount of water supply volume is the total of Irbid City, Bait Ras and Hawala areas that were calculated from data provided by the WAJ.

Note: The water supply volumes shown by the above table are the amount of water distributed to the beneficiary area through the distribution main of the Grant Aid Project and those distributed to other areas, such as Western Irbid, through other pipelines. As mentioned earlier, the flow rate of the distribution main of the Grant Aid Project did not increase from 2018 to 2020, but the above table shows an increase during this period. It is because this amount includes the water supply in other areas.

To understand changes in the demand for water supply services in the beneficiary area, we have also examined changes in the water supply service population of the Grant Aid Project. The service population has increased compared to the estimates at the time of planning.

Table 6 Changes in service population in the beneficiary area of the Grant Aid Project

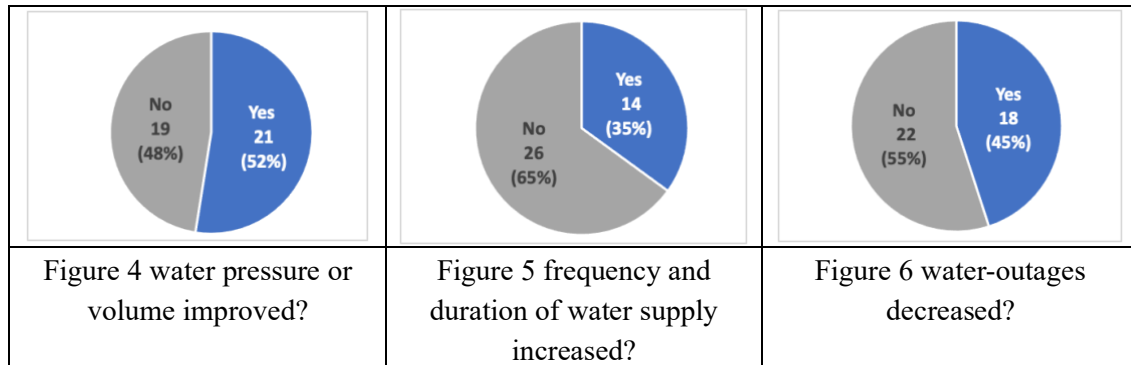
Item	At the time of planning in 2012	2017		At the ex-post evaluation in 2020
		Estimated at time of planning	Actual	
Water supply service population* (persons)	344,724	473,344	598,558	622,126

*Note: Sum of the population of Irbid city, Bait Ras and Hawala areas. As the water supply coverage in the beneficiary area is 97%, the population of the area was considered as the service population.

Source: Sources of the planning and estimated population at the time of planning are the Preparatory Survey Report for the Grant Aid Project (P3-20); population of 2017 and 2020 are from Directorate of Family and Population Surveys, Department of Population and Social Statistics, Jordan.

In addition to confirming the data presented in Table 5 and Table 6 we examined whether there were any examples of improved water supply services since the completion of the Grant Aid Project in the above-mentioned questionnaire survey. As shown in the figure 4 below, 21 out of 40 households (52%) reported an increase in water pressure or quantity. The frequency and duration of water supply increased (Fig 5: 14 households, 35%), and the number of water-outages

decreased (Fig. 6: 18 households, 45%). It was also observed that households that previously had little, or no water supply received water every week after the completion of the project (see the case study on next page). This is probably due to improved pressure and volume of water supplied to the households because of the new distribution main and pipelines constructed by the Project. On the other hand, some households reported no change in the situation with their water supply.



Source: Questionnaire survey of beneficiaries conducted at the time of the ex-post evaluation (n=40)

Facilities and business establishments in the beneficiary area of the Grant Aid Project were also visited and interviewed in the same way. Three out of the six places stated that the frequency, duration, and pressure of the water supply had improved and that they used to buy water from water lorries but had not done so in the last two years.

From the above, it can be said that there are certain examples of improved water supply services in the beneficiary area.

3.3.1.2 Qualitative Effects (Other Effects)

YWC has been distributing water to the beneficiary area once a week by opening and closing gate valves installed in the distribution pipelines. YWC staff explained that the Grant Aid Project has improved the water volume and pressure, allowing them to distribute more water in a shorter time, which has made water distribution work more efficient. The Grant Aid Project was also expected to reduce the electricity costs of pumps in the reservoir and the leakage rate in the beneficiary area. However, there was no measurement conducted for these items, and therefore it cannot be confirmed whether there was any effect on them.

3.3.2 Impacts

3.3.2.1 Intended Impacts

The results of the above-mentioned questionnaire survey indicate that the projects have had an impact on improving living conditions and reducing disparities in water supply, and that the projects have benefited both Jordanians and Syrian refugees indiscriminately, contributed to the improvement and reduction of disparities in water supply conditions and supported the host communities' acceptance of Syrian refugees. The findings of the survey are summarized below.

Improvement of living environment

The evaluation team asked the 27 households that reported improvements in water supply services in the above-mentioned questionnaire survey if there were any examples of improvements in their living conditions as a result of the Project. They all replied there was a reduction in expenses. They used to buy water from water lorries when they did not have sufficient water supply. However, as a result of the projects, the frequency and volume of water supply increased, reducing the need to buy water and thus reducing expenses. Some households mentioned improved hygiene, and a reduction in psychological stress from running out of water, as an impact of the Projects.



They no longer have a shortage of water for washing hands as amount of water supply was increased by the Grant Aid Project
(A primary school in Irbid city)

[The implementation of the projects reduced psychological stress from running out of water]

Interview with an eight-member family in the Bait Ras area

They use water supply for everything except drinking - including cooking, washing, and bathing. In the past, there was little water supply, and even when there was the water pressure was very low. In the past two years, they always received water supply once a week; the duration and pressure of the water supply are sufficient to meet their need for water. The improved water supply service has reduced the psychological stress of worrying about running out of water.



They used to have to buy water from water lorries of private companies because there was very little supply. But they no longer need to buy water in this way since the service has improved. They are happy that they no longer pay for buying water from water lorries. The price of water from water lorries fluctuates, but in summer, when demand is high, it can be eight times higher than their water tariff. This expense for buying water was a big burden for them.

Reducing disparities in water supply conditions

Eighteen of the twenty-seven households (67%) who indicated that there had been an improvement in water supply services stated that they thought the project had contributed to reducing disparities in water supply conditions. The reason for this response is that previously this area did not receive water, but since completion of the project, it has received water, the same

as other areas. Nine households (33%) answered "don't know" because they were not aware of the water supply conditions in other areas.

3.3.2.2 Other Positive and Negative Impacts

Impacts on Natural and Social Environment

An initial environmental examination was conducted for the Grant Aid Project. According to the results of the IEE, mitigation measures were implemented, such as sprinkling water, checking for oil leaks from construction equipment and vehicles, deployment of security personnel, and installation of safety fences and guideways. In response to requests from residents, employment of residents in the beneficiary area, implementation of construction work after business hours in the city center, and simple maintenance of roads near the construction area, were also carried out. During the construction there were no environmental impact issues or complaints from the residents. There was no resettlement or land acquisition.

The executing agency visited the construction site and confirmed that the air quality, noise, and vibration caused by the construction had not been a problem, but no measurement of these items was taken. Stakeholder meetings with the residents were not held as a result of consideration based on JICA's Guidelines for Environmental and Social Considerations.¹⁹ On the other hand, it is assumed that the residents were able to inform the contractor of any problems regarding environmental impacts from the fact that they had made various requests to the contractor as mentioned above.

[Measures needed in the future for improved environmental and social considerations]

As mentioned above, no environmental impact problems occurred during construction of the Grant Aid Project, and no complaints were filed by residents. However, from the perspective of environmental and social considerations, the following points need to be kept in mind in the future.

- The executing agency to measure dust, noise, and vibration according to the monitoring plan and quantitatively monitor the environmental impacts. The consultant/contractor and JICA country office to advise the agency on the need for these measurements.
- To ensure environmental factors are monitored, the measurement work should be included in the contract with the construction contractor.
- The executing agency to hold a stakeholder meeting with residents prior to construction to explain details of the construction, the expected environmental and social impacts and mitigation measures, and how to file complaints.

Impact on Gender Equality

¹⁹ The Guideline states that a discussion with local stakeholders should be held for Category B projects if necessary.

No direct relationship was found between the improvement of water supply services through the Grant Aid Project and the promotion of gender equality, empowerment and strengthening of women's leadership. This may be because men are responsible for storing water in tanks at home and buying water from water lorries in the beneficiary area.

Impact on Conflict Prevention and Peace Building

The two projects have benefited both Jordanians and Syrian refugees in the beneficiary area without discrimination, contributed to an improvement in water supply services, reduced disparities in water supply conditions, and supported the host communities' acceptance of Syrian refugees. The neutrality and public nature of the executing agency, WAJ, and the operation and maintenance agency, YWC, is also high. The two projects have not had any negative impact on relations with neighboring countries and have not caused instability in the country.

As mentioned above, the plans developed and proposed in the Technical Cooperation Project are being utilized as expected. The flow rate of the distribution main, the operation indicator of the Grant Aid Project, is lower than the target, and the pipeline has not been used as effectively as expected. On the other hand, water supply services in the beneficiary area have improved to a certain extent due to the construction of the new distribution facilities under the Grant Aid Project. The impact of the projects has been to improve the living environment and reduce disparities in water supply conditions. In this manner, this project has achieved its objectives to some extent. However, there were several problems in the status of the effects of the projects. Therefore, effectiveness and impacts of the project are fair.

3.4 Sustainability (Rating: ③)

3.4.1 Institutional/Organizational Aspect of Operation and Maintenance

As at the time of the project planning, WAJ is responsible for the execution of water supply and sewerage service policies, and its responsibilities remain unchanged. YWC, a wholly owned subsidiary of WAJ, is responsible for the operation and maintenance of water supply and sewerage services in the four northern Governorates, as at the time of project planning.

The Operating Area 1, Operation and Maintenance Division of the Irbid Governorate Water Administration of YWC, is in charge of the maintenance of the facilities constructed by the Grant Aid Project. A total of 130 staff members have been assigned under the purview of the director to handle water distribution, pipe laying, tariff collection, billing, data entry, and general affairs. WAJ and YWC are under-staffed overall due to the suspension of recruiting new civil servants due to the Covid-19 pandemic, and they could not replace staff who retired. However, there are no vacancies in key positions, and the necessary personnel are in place to maintain the facilities

constructed by the Grant Aid Project. As such, there are no institutional or organizational issues that would hinder sustainability of the projects.

3.4.2 Technical Aspect of Operation and Maintenance

The operation and maintenance of the facilities constructed by the Grant Aid Project consists of regular inspections of the distribution pipelines and pressure reducing valves. This is a task that has been carried out routinely by YWC staff for some time; they did not have any technical problems. There are no equipment or facilities constructed by the Project that are not in use or are used infrequently due to technical problems. Thus, there are no technical issues that hinder the sustainability of the two projects.

3.4.3 Financial Aspect of Operation and Maintenance

All that is required for operation and maintenance of the facilities constructed by the Grant Aid Project is opening and closing of gate valves, and periodic inspections and repair. These tasks involved personnel costs that can be covered by those normally budgeted; they do not require significant investment. Currently, the budget for the necessary personnel costs has been allocated. The financial situation of WAJ and YWC is deteriorating due to accumulated operating losses, and



A YWC staff member distributing water by operating a gate valve in a manhole

they depend on government subsidies. This needs to be improved in terms of sustainable water supply management. On the other hand, the Jordanian government has been giving priority to financial subsidies to WAJ and YWC under the policy of operating water supply and sewerage services as public utilities from the aspect of stability of people's lives; this is expected to continue in the future.

Thus, although WAJ and YWC are financially dependent on government subsidies, it has not hindered the sustainability of the Project's effect; it is expected to remain the same in the future. It should be noted that WAJ is working to improve its finances with the support of the International Monetary Fund (IMF), and its financial situation may improve in the future.

3.4.4 Status of Operation and Maintenance

There are no unused, broken, or damaged facilities constructed by the Grant Aid Project or in the equipment provided in the Technical Cooperation Project. The regular inspection of pressure reducing valves and distribution pipelines proposed in the defect liability inspection are carried out every six months.

WAJ and YWC are working on the "Implementation of Improved Water Distribution Network in Irbid City", in accordance with one of the master plans prepared by the Technical Cooperation Project, to formulate water distribution zones for optimal water distribution. The distribution main constructed by the Grant Aid Project will be an important part of this network. Tertiary distribution lines and house connections in Hawaraah and adjacent Sarieh areas are being constructed in Grant Aid Project Phase II, and they will be connected to the distribution pipelines constructed by the Grant Aid Project. Then, it is expected that the quantity and pressure of water supply in those areas will improve. Water transmission from the Wadi Arab Phase II water treatment plant to the Zebdad reservoir started in 2020. It is planned to increase the amount of transmission in the future.

As mentioned above, the operation and maintenance of the facilities provided by the Grant Aid Project are in good condition, and measures to improve water supply services in the beneficiary area have been implemented and planned; there are no particular issues related to sustainability.

No major problems have been observed in the institutional/organizational, technical, financial aspects and current status of the operation and maintenance system. Therefore, sustainability of the project effects is high.

4. Conclusions, Lessons Learned and Recommendations

4.1 Conclusion

In this ex-post evaluation, two projects that supported improvement of water supply and sewerage services in northern Jordan are evaluated in an integrated manner. These are: technical cooperation for development planning, "Project for Formulating Water Supply Plan for the Host Communities of Syrian Refugees", and a grant aid project, "The Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorate".

Improving water supply and sewerage services was a priority for Jordan at the time of both the planning and ex-post evaluation of the projects, and the objectives of the projects were consistent with development policies and plans, and sector strategies. In particular, the northern part of the country was experiencing population growth due to the influx of Syrian refugees, and there was an urgent need to improve the services. The projects were consistent with Japan's aid policy at the time of planning and were formulated and initiated promptly considering the urgent need for assistance. They were implemented in coordination with other development cooperation agencies. The projects were well aligned with Jordan's development plan, development needs and Japan's ODA policy, and the project approach was appropriate; therefore, relevance of the projects is high.

In the Technical Cooperation Project, in addition to the planned outline design of the Grant Aid Project, development of the master plans for water supply and sewerage sectors, and implementation of technical transfer, the outline design of the Grant Aid Project Phase II, and the

design and cost estimation of the project proposed in one of the master plans, were carried out. In the Grant Aid Project, the construction of a new distribution main and distribution pipelines between the southern part of Irbid Governorate and Bait Ras area, and the rehabilitation and renewal of the distribution pipe network in Hawaarah area of the same Governorate, were implemented almost as planned. The cost of both projects was within plan, but the duration of the projects was longer than planned. Therefore, the efficiency of the projects is fair.

The objective of the Technical Cooperation Project was that the proposed and developed plans would be used. The proposed plans have been implemented as this Grant Aid Project and as that of Phase II. In addition to these, two projects proposed in the water supply sector master plans are being implemented with the support of the EU, AFD, KfW, and USAID. Thus, the objective was achieved. The flow rate in the distribution main, which is the operation indicator of the Grant Aid Project, is lower than the target due to changes in the water transmission plan. There was a certain degree of improvement in water supply service in the target areas, and there was also an impact in terms of improving the living environment and reducing a disparity in conditions of water supply. Therefore, the effectiveness and impact of the projects are fair.

No major problems have been observed in the institutional/organizational, technical, financial aspects and current status of the operation and maintenance system. Therefore, sustainability of the project effects is high.

In light of the above, these projects are evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

(1) Implement measures to improve water supply services, including the Grant Aid Project Phase II, without delay and make further effective use of the facilities constructed by this Grant Aid Project

Due to a change in the allocation plan of Disi groundwater, the flow rate of the distribution main, which is the operation indicator of the Grant Aid Project, was below target, and the distribution main has not been used as effectively as planned. It is recommended that the WAJ to implement the ongoing projects, such as the Grant Aid Project Phase II, Implementation of Improved Water Distribution Network in Irbid City and the increase of water transmission from the second Wadi Arab II water treatment plant, without delay, and make effective use of the facilities constructed by the Project, and further improve the water supply services in the project area.

4.2.2 Recommendation to JICA

(1) Monitoring the progress of related projects and ensuring effective use of the facilities constructed by the Grant Aid Project

As the water distribution main of the Grant Aid Project have not been used as effectively as planned, it is recommended that JICA continue to monitor the progress of related projects in the project area to confirm the effective use of the facilities of the Grant Aid Project, and improvement of water supply services in the target area. For example, JICA can find out the combined effect of the two grant aid projects, such as increase in amount of water and pressure in Hawaraah area, once the pipelines constructed by this Grant Aid Project would be connected with the pipelines being constructed under that of Phase II.

4.3 Lessons Learned

(1) Appropriate application of cooperation schemes responding to urgent need of assistance, and flexible management of the project according to the needs, had facilitated prompt delivery of effective assistance

In view of the urgency of the need for assistance, JICA launched the Technical Cooperation Project under the fast-track system as early as possible, conducted the outline design of the Grant Aid Project in one of the components of the Technical Cooperation Project, and formulated the Grant Aid Project promptly.

JICA started the Grant Aid Project by concluding a comprehensive Exchange Note and Grant Agreement with the Jordanian government. This encompassed several sub-projects identified under the Technical Cooperation Project. Then, they finalized the selection and detail of contents of sub-projects in the detailed survey. This approach led to prompt implementation of the Grant Aid Project. This can be referred to as a good example of emergency assistance.

(2) Providing effective support in coordination with other development partners

In the course of participating in discussions of the WASH Task Force, it became clear that the EU, AFD and KfW would provide assistance to one of the master plans prepared under the Technical Cooperation Project. Therefore, the basic and detailed designs and the reference materials for preparation of bid document were developed to facilitate the implementation of this assistance. This is currently being implemented under the project "Implementation of Improved Water Distribution Network in Irbid City," supported by the EU, AFD and KfW. Interviews with staff in the AFD office in Jordan conducted during the ex-post evaluation confirmed that the preparation of the basic and detailed designs and reference materials for preparation of bid document developed by JICA facilitated the steady and prompt preparation of the project.

As mentioned above, the prompt start of the Technical Cooperation Project, and the early and continuous participation of a team of Japanese consultants, who had experience working in the

water sector in Jordan, in the discussions of the WASH Task Force, may also have contributed to the development of this collaboration. This can be referred to as an example of JICA coordinating with other development partners to provide effective emergency assistance.

Jordan

FY2020 Ex-Post Evaluation of Japanese ODA Loan Project

“Financial Sector, Business Environment
and Public Service Reform Development Policy Loan”

External Evaluator: Yukimasa Fukuda, Global Group 21 Japan, Inc.

0. Summary

The objective of this project is to improve public finances of the Government of Jordan by supporting its reforms in the fields of financial market, business environment, and the public service sector (energy and water), thereby contributing to the economic stabilization of Jordan. The project was composed of two tranches¹, the first one targeting the challenges in the public services sector (energy and water) and the second one aiming to improve the financial market and business environment. This ex-post evaluation was conducted for the second tranche (hereinafter, “the Project”), which was solely financed by JICA.

The implementation of the Project supported the following policy actions: “publicize yield of the government bond”, “publicize government bond auction schedule”, “activate and publicize interbank repo transactions”, “prepare for the introduction of credit rating system,” and “clarify the government’s industrial development policy”, which were fully consistent with Jordan’s development policy and needs as well as Japan’s ODA policy. The project plan and approach were also appropriate. Therefore, the Project’s relevance is high.

By implementing the Project, market participants started using published information on the government bond yield and auction schedule on the web for their government bond trading, thereby generating effects such as diversification of bond holders, increase in bid-to-cover ratio in government bond auction, extension of average government bond maturity. These are also assumed to have contributed in reducing domestic debt interest payment burden to some extent. In addition, the disbursement under the Project contributed to the improvement of the country’s fiscal and balance of payments in 2017. On the other hand, studies toward the introduction of credit rating system, which the Project aimed to achieve have not progressed. In addition, the publication of the government bond auction schedule has been suspended since 2020 due to COVID-19, and interbank repo transactions have been delayed for technical reasons. Therefore, the Project’s effectiveness and impact are fair.

¹ Tranche: Each disbursement amount in case disbursement of approved loan amount is made in portions upon achieving conditions (a French word meaning “a portion”).

1. Project Description



Project Location (Entire Jordan)



Jordanian officials at a meeting

1.1 Background

The Hashemite Kingdom of Jordan (hereinafter, "Jordan") is a constitutional monarchy that gained independence from the United Kingdom in 1946, with a land area of 89,000 square kilometres (about a quarter of Japan). It is surrounded by conflict-ridden countries such as the Palestinian territories, Syria, and Iraq, as well as Middle Eastern powers such as Israel, Saudi Arabia, and Egypt. Jordan is thus susceptible to the regional situation, but plays an important role as a moderate and a key player of peace and stability in the Middle East region. The Jordanian economy has grown steadily in the mid-2000s, supported mainly by direct investment from the Gulf countries. However, its economic structure has remained fragile due to its status as a non-oil producing country and the lack of strong means of earning foreign currency. Against the backdrop of the global economic downturn caused by the global financial crisis in 2008, the country's economic growth began to slow down, and the tourism industry and direct investment cooled down due to the destabilization of the regional situation caused by the Arab Spring from the end of 2010 and the financial crisis in Europe. Furthermore, since the outbreak of the Syrian crisis in March 2011, the country has been accepting a large number of refugees from Syria and other neighboring countries, which has put the country's society, economy, and government finances in a difficult situation.

The World Bank provided 250 million USD by its development policy loans in 2012 and 2014, respectively, to improve fiscal and macroeconomic frameworks, improve financial sector policies, improve the business environment, and enhance social safety nets. The World Bank also provided 250 million USD by its development policy loans for water and energy sector reforms in 2015 and 2016², respectively.

In August 2012, the IMF provided a 2 billion USD Stand-By Arrangement³ aimed at stabilizing

² The first tranche of the Project was implemented by co-financing with the World Bank's 2016 development policy loan.

³ IMF Stand-By Arrangement (SBA): IMF's lending instrument for emerging and advanced market countries to help them overcome their short term or potential balance of payments problems.

Jordan's macroeconomic situation, reducing inequality, and removing impediments to growth. In addition, in August 2016, its successor EFF⁴ totalling 723 million USD was approved by the IMF Executive Board. At the time of appraisal for this Project, major developed countries, including Japan, were providing assistance to Jordan in coordination with the IMF and the World Bank.

1.2 Project Outline

The objective of the Project⁵ is to improve public finances of the Government of Jordan by supporting its reforms in the fields of financial market, business environment, and the public service sectors (energy and water), thereby contributing to the economic stabilization of Jordan.

Loan Approved Amount/ Disbursed Amount	30,000 million yen / 30,000 million yen ⁶
Exchange of Notes Date/ Loan Agreement Signing Date	December 2016 / December 2016
Terms and Conditions	Interest Rate Yen LIBOR + 20bp ⁷ Repayment Period 30 years (Grace Period 10 years) Conditions for Procurement General Untied
Borrower /Executing Agency	The Government of the Hashemite Kingdom of Jordan / Ministry of Planning and International Cooperation (MOPIC)
Project Completion	December 2017
Main Contractor(s)	-
Main Consultant(s)	-
Related Studies (Feasibility Studies, etc.)	- ⁸
Related Projects	Technical Cooperation Projects: Country Specific Training “Improvement of Public Debt Management” (March 2014) Technical Assistance related to ODA Loan: “Fiscal Management Expert (September 2015 – September 2017)” IMF: “Extended Fund Facility” (August 2016)

⁴ IMF Expanded Fund Facility (EFF): IMF's lending instrument to help countries facing medium-term balance of payments problems.

⁵ Public service sector (energy, water) is the subject of the first tranche (10 billion yen), and not the subject of this ex-post evaluation.

⁶ The first tranche: 10 billion yen (disbursed in December 2016), not the subject of this ex-post evaluation. The second tranche: 20 billion yen (disbursed in December 2017).

⁷ LIBOR (London Interbank Offered Rate): a benchmark interest rate at which major global banks borrow in the international interbank market in London for short-term funds. In the Project, an interest rate of Yen LIBOR + 20bp is applied for each semiannual interest payment. 1 bp = 0.01%

⁸ Since the Project is a development policy loan, there is no feasibility study (F/S) report as is generally the case with project loans. Instead, in the preparation stage the direction of sector reform was discussed and policy matrix to be achieved was agreed upon through policy dialogue between JICA and Jordanian side.

2. Outline of the Evaluation Study

2.1 External Evaluator

Yukimasa Fukuda, Global Group 21 Japan, Inc.

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: October 2020 – December 2021

Duration of the Field Study: February 24 – October 6, 2021

In this ex-post evaluation, the external evaluator did not travel to Jordan in consideration of the travel restrictions due to the outbreak of COVID-19, and a local research assistant collected field information. The external evaluator guided the local research assistant and managed the collection of field information, confirmed and discussed information with the implementing agency and related organizations mainly via e-mail, and made analysis and evaluation decisions based on the information thus obtained.

2.3 Constraints during the Evaluation Study

As described in "0. Summary", this Project consists of the first tranche, which targets issues in the public service sector (energy and water), and the second tranche, which targets financial and business environment improvement. In this ex-post evaluation, the second tranche, which is the sole financing of JICA, was evaluated. The first tranche was co-financed by the World Bank and JICA, and the World Bank conducted the ex-post evaluation of the World Bank loan portion⁹.

Since this Project is a program typed loan, the evaluation criteria are relevance, effectiveness and impact. Efficiency has not been analysed or evaluated because it is difficult to make quantitative comparisons between inputs (project costs) and outputs (results). Sustainability was analysed in terms of the implementation and monitoring system of policy actions, and no sub-rating was given to it.

Sub-ratings were given only for relevance, effectiveness and impact, and no overall rating was given because sub-ratings were not given for all five criteria.

3. Results of the Evaluation

3.1 Relevance (Rating: ③¹⁰)

3.1.1 Consistency with the Development Plan of Jordan

At the time of appraisal, the Jordanian government had formulated a 10-year social and

⁹ World Bank's Implementation Completion Report (ICR) Review
<https://documents1.worldbank.org/curated/en/532471561641076061/pdf/Jordan-JO-Energy-Water-Sector-Reforms-DPL.pdf> (accessed February 1, 2021)

¹⁰ ③: High, ②: Fair, ①: Low

economic development program, *Jordan 2025*, starting in 2015, and its concrete measures, the *Executive Development Plan 2016-2018*.

Jordan 2025 is a comprehensive 10-year social and economic policy framework for the period 2015-2025, focusing on creating an environment for more inclusive growth through enhancing macroeconomic stability (fiscal consolidation, balance of payments improvement), business environment, public financial management, governance, labor environment, and competitiveness. Under the *Executive Development Plan 2016-2018*, the financial sector targeted to promote information disclosure and improve the infrastructure of capital markets, etc., while the business environment targeted to improve the rankings of the key indicators such as the World Bank's *Ease of Doing Business Report*¹¹, the WEF's *Global Competitive Indicator*¹², and the Heritage Foundation/WSJ's *Economic Freedom Index*¹³.

The country's development policy at the time of this ex-post evaluation was the *Indicative Executive Program 2021-2024*, which was formulated at the end of 2020. This program follows the previous policy, including the aforementioned improvement of the financial sector and business environment while also taking into account the flexibility to cope with the COVID-19 pandemic.

Thus, the Project, which aims to improve the financial sector and business environment, is consistent with the country's development policy at both the time of appraisal and ex-post evaluation.

3.1.2 Consistency with the Development Needs of Jordan

At the time of appraisal, Jordan's priorities were to vitalize its economy, which had stagnated due to the effects of the 2008 global financial crisis and disturbances in neighboring countries, to undertake financial sector reforms, and to improve its business environment for self-sustaining development without relying on donor support.

Banks, social security institutions, and insurance companies were the main participants in Jordan's bond auctions, but due to the lack of a developed secondary market for government bonds, they often held government bonds to maturity after the auctions. In order for the government to be able to raise funds on more favorable terms, it was necessary to expand the investment destinations of private companies' surplus funds and to improve the transparency of government bond information to attract more market participants. Therefore, the Project set a goal of improving these areas in the financial market. Specifically, the Project's policy actions were set

¹¹ The World Bank's annual ranking of countries by measuring their business regulations and its implementation situation.

¹² The World Economic Forum's annual ranking of countries by measuring their competitiveness, a vital factor of productivity.

¹³ Annual ranking of countries by measuring degree of economic freedom by the Heritage Foundation, a U.S. think tank, and the Wall Street Journal.

to: (a) publicize the yield curve¹⁴ of government bond and make the trading price of government bond explicit; (b) publicize the government bond auction schedule to encourage new investments by domestic and foreign investors; and (c) activate interbank repo transactions¹⁵ to lay the groundwork for the creation of a secondary market for government bond. Another goal was set to improve the business environment in order to attract domestic and foreign investment and improve access to finance by private companies. Specifically, (d) prepare for the introduction of a credit rating system for private companies and (e) clarify industrial development policy were also formulated as policy actions for the Project.

The above development needs at the time of appraisal were fundamental to improving the financial sector and the business environment, and according to the agencies in charge of policy actions, namely the Ministry of Finance, the Central Bank, the Securities Commission, and the Ministry of Industry, Trade and Supply, these needs continue to exist at the time of this ex-post assessment. Thus, the goals of the Project are consistent with the development needs of the country at both the appraisal and the ex-post evaluation stages.

In addition, under the international cooperation framework¹⁶, the Project was intended to contribute to the reduction of Jordan's fiscal burden, which has increased affected by the large influx of refugees and by the disturbances in neighboring countries, and also to meet the short-term financial needs of the country to sustain the reception of refugees and the provision of public services. Specifically, the plan was to improve Jordan's fiscal balance and international balance of payments in 2017 by providing international financial support through a combination of the 20-billion-yen loan from the Project and loans from other donor countries and agencies. Such a goal was consistent with the country's financial needs.

3.1.3 Consistency with Japan's ODA Policy

The Project fell under the priority area "support for self-reliant and sustainable economic growth" in the Japanese government's *Country Assistance Policy to Jordan* (June 2012) at the time of appraisal. In the subsequent *Country Development Cooperation Policy for Jordan* (July 2017), from the perspective of stabilizing the macroeconomy through self-reliant and sustainable economic growth in Jordan, the priority area is to provide assistance related to policy and institutional improvements that contribute to fiscal stability, transparency, accountability, and debt management capacity in order to establish a self-reliant economic foundation. This Project was thus consistent with Japan's aid policy at the time of appraisal.

¹⁴ Yield curve: a curve that demonstrates relationship between bonds of varying years remaining to maturity and the yield. The graph's horizontal axis is years remaining to maturity, the vertical axis depicts the yield.

¹⁵ Interbank repo transactions: short-term lending and borrowing transactions among banks using government bonds as collateral.

¹⁶ Jordan Compact: at the Syrian crisis support conference held in London in February 2016, Jordan announced its intention to pursue economic growth inclusive of Syrian refugees, and the international development community responded by pledging financial support to it.

In addition, at the G7 Ise-Shima Summit in May 2016, the importance of international support for Syrian refugees was confirmed. The Japanese government announced its *Inclusive Assistance towards the Stability of the Middle East region* and announced that it would provide a total of approximately 6 billion USD in assistance to the Middle East region, including Jordan, over the three-year period from 2016 to 2018 to address various issues in the region, including the refugee problem caused by the Syrian conflict. The Project is a part of this assistance.

Therefore, the Project was consistent with Japan's aid policy at the time of appraisal.

3.1.4 Appropriateness of the Project Plan and Approach

In order to improve the financial market, this project aimed to improve the transparency of the government bond market and promote more predictable and stable financing by implementing the publication of the government bond yields, government bond auction schedule, and interbank repo market information. This will contribute to fiscal discipline and debt sustainability, as well as to economic stability. In addition, greater transparency in the government bond market will lead to an increase in opportunities where private companies can invest their surplus funds, which will also contribute to economic stabilization.

The Project also aimed to improve the business environment by introducing a credit rating system and clarifying industrial development policy. These will contribute to the revitalization and stabilization of the economy by improving private companies' access to finance, promoting trade and investment, and stimulating industry. The policy matrix (Table 1), which was set up based on this idea by bundling individual policy actions, was appropriate.

This policy matrix was developed in consultation with the IMF, the World Bank, the United States, etc., that shared the above ideas. Thus, the Project was a part of the international community's concerted effort to support Jordan. In addition, as mentioned earlier, the Project also aimed to quickly close the financing gap in Jordan's public finances and balance of payments in 2017 under international cooperation, so it was appropriate that the Project was provided under the program loan scheme, a scheme that allows for fast disbursement.

In addition, JICA has implemented Fiscal Consolidation Development Policy Loan (2014) and Fiscal and Public Service Reform Development Policy Loan (2015) as development policy loans prior to the Project, and to complement these loans, JICA provided country-specific training in the field of public debt management and dispatched an expert for fiscal management. JICA's fiscal management expert dispatched to Jordan assisted in the formulation of policy actions of the Project to improve the financial market. At the time of appraisal, an expert from the U.S. Department of the Treasury was dispatched to the Jordanian Ministry of Finance, and since the U.S. expert was familiar with the government bond market, JICA's fiscal management expert assisted the formulation of the policy matrix, especially in collaboration with the U.S. expert. Policy actions on preparing for the introduction of a credit rating system to improve the business

environment and clarifying industrial development policy were formulated with the advice of senior advisors from JICA's relevant thematic issue departments. In this way, JICA mobilized its various resources such as fiscal management expert, country training, and thematic senior advisors to be incorporated into the preparation of the policy matrix and policy actions. In addition, the Project was timed to coincide with the implementation of the IMF's EFF, thus the project plan and approach were appropriate.

Based on the above, the implementation of the Project is fully consistent with Jordan's development policy, development needs, and Japan's ODA policy, and the project plan and approach are appropriate. Therefore, its relevance is high.

3.2 Effectiveness and Impacts (Rating: ②)

3.2.1 Effectiveness

3.2.1.1 Achievements of Policy Actions and Targets

The Project supported policy reforms in the financial sector and the business environment sector. Three policy actions in the financial sector and two policy actions in the business environment sector were developed and bundled into the policy matrix shown in Table 1. It was planned that the disbursement would be made on condition that these policy actions were implemented. JICA confirmed that all the policy actions were accomplished by the end of October 2017 as planned, and the loan was disbursed in December 2017. In addition, the effect onset date and the target values of the policy actions were set, and their achievement date was set to be about two years after the completion of the Project, October 2019.

Table 1 Policy Matrix for the Project

Policy Area	Prior Actions II (expected to be achieved by October 2017)	Result Framework		
		Indicator	Baseline	Target
			2015	2019/10
Financial Market Improvement for economic revitalization	#1: Publicize yield of the government bond of each available tenor, updated one day after each auction of the government bond, on the Central Bank of Jordan's website.	Visualize the yield curve to enhance the secondary bond market	No yield curve	Publish yield of the government bond of each available tenor based on the market transactions in addition to the yield curve of the primary market that is already published.
	#2: Minister of Finance Approval on publicizing government bond auction schedule by each tenor and the auction dates on the Ministry of Finance website at the beginning of the year, which is reviewed quarterly.	Transparency in government debt management for the investors to enhance the secondary bond market	No auction schedule published	The amount by tenor to be included in the published auction schedule for the following month by the end of the month.
	#3: Activate interbank repo transactions by having all the banks and the central bank sign the Repo Master Agreement.	Active repo market to enhance the secondary bond market	No interbank repo transactions	Publish the amount and the repo-rate by each tenor on the information vendors.
Business Environment Improvement	#4: Approval by the Governor of the Central Bank of Jordan on the final report of feasibility study on the introduction of credit rating system in Jordan.	Study feasibility on the introduction of credit rating system for improving access to finance	No action plan for the introduction of credit rating system.	Adoption of the action plan produced by Feasibility Study
	#5: Approval by the Council of Minister on the Industrial Policy prepared and finalized by the Ministry of Industry and Trade in line with JICA's recommendation.	Improve and revitalize economy	Average growth rate (2010-2015) of Export: -0.64%	Average minimum growth rate (2016-2018) of Export: 2.6% (*)

(*) The average minimum growth rate is derived from the projections based on the historical data.

Source: JICA Ex-Ante Evaluation

Each policy action, its target value, and the status of achievement at the time of ex-post evaluation are described below.

(1) Financial Market Improvement for Economic Revitalization

(a) Publicizing yield of government bond

At the time of appraisal		At the time of ex-post evaluation
Policy action (expected to be achieved by Oct 2017)	#1: Publicize yield for the government bond of each available tenor, updated one day after each auction of the government bond, on the Central Bank of Jordan's website.	<ul style="list-style-type: none"> In 2017, the Central Bank of Jordan began publishing the government bond yields for each tenor on its own website the day after the auction date, and the policy action was achieved. In 2018, yields of the government bond of each tenor were published based on market transactions in addition to the yield curve of the primary market, and the target was achieved. Till now, this information is published without any problem.
Indicator	Visualize the yield curve to enhance the secondary bond market	
Baseline (2015)	No yield curve	
Target (October 2019)	Publish yield of the government bond of each available tenor based on the market transactions in addition to the yield curve of the primary market that is already published.	

(b) Publicizing government bond auction schedule

At the time of appraisal		At the time of ex-post evaluation
Policy action (expected to be achieved by Oct 2017)	#2: Minister of Finance Approval on publicizing government bond auction schedule by each tenor and the auction date on the Minister of Finance website at the beginning of the year, which is revised quarterly.	<ul style="list-style-type: none"> • In 2016, the Jordanian Ministry of Finance approved publicizing of government bond auction schedule for each tenor at the beginning of each fiscal year on the ministry's website, to be revised quarterly, and the policy action was achieved.
Indicator	Transparency in government debt management for the investors to enhance the secondary bond market	<ul style="list-style-type: none"> • The government bond auction schedule was published in 2016, and the target was also achieved in 2016.
Baseline (2015)	No auction schedule published	
Target (October 2019)	The amount by tenor to be included in the published auction schedule for the following month by the end of the month.	<ul style="list-style-type: none"> • The government bond auction schedule was published in 2016, but has not been updated since 2020 due to COVID-19. This was due to delays in the updating process caused by COVID-19, which reduced the functioning of the department in charge, as well as the difficulty in maintaining the original bond auction schedule due to the increase in health-related expenditures and decrease in revenue caused by COVID-19. Though it depends on the situation of the COVID-19 pandemic in the future, it is expected that the government bond auction schedule will be updated starting in the second half of 2022.

(c) Activating interbank repo transaction, publicizing interbank repo market information

At the time of appraisal		At the time of ex-post evaluation
Policy action (expected to be achieved by Oct 2017)	#3: Activate interbank repo transactions by having all the banks and the Central Bank sign the Repo Master Agreement.	<ul style="list-style-type: none"> • The policy action has been achieved as revised shown on the left. • The Jordanian side requested JICA to revise the policy action that “only banks who wish to go into repo transaction sign the repo agreement on a bilateral basis” (Sept. 2017). JICA concurred to the request as it was in line with the real business practice (Oct. 2017). • The target value was achieved in 2018.
	(Revised in October 2017) #3: Activate interbank repo transactions by devising a Master Repurchase Agreement finalized in cooperation between the Central Bank of Jordan, Association of Banks in Jordan (ABJ) and Jordanian banks and uploaded to ABJ's website for Jordanian banks who desire to sign the agreement on a bilateral basis.	

Indicator	Activate repo market to enhance the secondary bond market	<ul style="list-style-type: none"> • The number of banks that signed repurchase agreements was five in 2018. The number of transactions was 4 in 2018 with a transaction value of 179.5 million JD, and 1 in 2021 with a transaction value of 31 million JD. The total number of transactions was only five, amounting to 210.5 million JD, due to the failure to update the automatic repo transaction system. • The reason why the Central Bank's automated repo trading system was delayed was because it proved technically difficult to implement and had to be done manually. In 2021, the focus was on updating the settlement system, so the automated repo trading system is expected to be implemented from 2022.
Baseline (2015)	No interbank repo transactions	
Target (October 2019)	Publish the amount and the repo-rate by each tenor on the information vendors.	

(2) Business Environment Improvement

(d) Preparing introduction of credit rating system

At the time of appraisal		At the time of ex-post evaluation
Policy action (expected to be achieved by Oct 2017)	#4: Approval by the Governor of the Central Bank of Jordan on the final report of feasibility study on the introduction of credit rating system in Jordan.	<ul style="list-style-type: none"> • the policy action has been achieved as shown on the left. • The Jordanian side requested to change the target to "Adoption of an action plan produce by the Jordanian Securities Commission with coordination of different relevant stakeholders" (December 2017), and JICA concurred the change as it is in line with the actual practice (January 2018). • Since 2018, the preparation of the action plan has not progressed and the target has not been achieved. • The Jordanian side continues to consider the preparation of an action plan, but the work has been delayed due to the impact of COVID-19, including the postponement of discussions between the Jordanian side and interested foreign credit rating agencies.
Indicator	Study feasibility on the introduction of credit rating system for improving access to finance	
Baseline (2015)	No action plan for the introduction of credit rating system	
Target (October 2019)	Adoption of the action plan produced by feasibility Study (Revised in January 2018) Adoption of the action plan produced by the Jordanian Securities Commission with coordination of different relevant stakeholders.	

(e) Clarifying industrial policy

At the time of appraisal		At the time of ex-post evaluation								
Policy action (expected to be achieved by Oct 2017)	#5: Approval by the Council of Ministers on the Industrial Policy prepared and finalized by the Ministry of Industry and Trade in line with JICA's recommendations.	<ul style="list-style-type: none">• The Council of Ministers approved the industrial development policy covering the period 2017-2021 based on JICA's advice, and the policy actions were achieved (JICA advised on vocational training, women's participation, energy conservation, SMEs, and quality control).• The target average export growth rate for 2016-2018 was set at a minimum of 2.6%, and the actual result was about 3%, and the target was achieved. <div>Export value<table><tr><th>year</th><th>million JD</th></tr><tr><td>2016</td><td>4,396.5</td></tr><tr><td>2017</td><td>4,504.2</td></tr><tr><td>2018</td><td>4,674.7</td></tr></table>Source: CBJ Annual Report 2019</div>	year	million JD	2016	4,396.5	2017	4,504.2	2018	4,674.7
year	million JD									
2016	4,396.5									
2017	4,504.2									
2018	4,674.7									
Indicator	Improve and revitalize economy									
Baseline (2015)	Average growth rate (2010-2015) of Export: -0.64%									
Target (October 2019)	Average minimum growth rate (2016-2018) of Export: 2.6% (*) (*) The minimum growth rate is derived from the projections based on the historical data.									

The target value of the policy action "Clarification of Industrial Development Policy" was set to achieve an average export growth rate of at least 2.6% per annum for the period 2016-2018, as mentioned above. This was calculated from projections based on export data for the past 30 years (1986-2015). In fact, the average export growth rate for the period 2016-2018 was 3.1%, from 1,222 million JD in 1986 to 4,219 million JD in 2015, 3.5 times the export value. During that 30-year period, there were eight years in which exports declined year on year, including six years¹⁷ of modest declines ranging from -1.1% to -5.0%, with only one decline of more than 10%, in 2008, when exports declined 12.0% year on year due to the impact of the global financial crisis. The second largest decline was in 2015, when the value of Jordanian exports declined by -9.4% year on year due to border closures caused by the Syrian civil war. The value of Jordan's exports has increased moderately over the 30-year period from 1986 to 2015, without much significant decline except for these two cases. In addition, there has been no significant change in the export structure (major export items, major export destination countries)¹⁸. Therefore, assuming that a crisis of the magnitude of the Lehman Shock will not occur, setting the average export growth rate for 2016-2018 at 2.6% as the target value is relevant.

¹⁷ 1989: -2.4%, 1991: -5.0%, 1997: -2.7%, 2009: -3.7%, 2011: -1.1%, 2012: -2.5% (Source: JICA provided materials)

¹⁸ Major export items (2020): clothes (23.0%), phosphates & phosphoric acid (9.6%), medical & pharmaceutical products (8.4%), potash (7.5%), fertilizers (5.2%), vegetables (3.5%)
Major export destination countries (2020): Arab countries (40.0%), USA (24.2%), India (12.2%), EU countries (3.0%), China (2.3%) (Source: Central Bank of Jordan, Annual Report 2020)

3.2.2 Impacts

Figure 1 illustrates the path from each policy actions to "stabilize Jordan's economy," "improve fiscal discipline," and "improve debt sustainability," which are cited as the Project's qualitative effects. The intermediate steps ((a) to (e)) are based on JICA documents (ex-ante evaluation of the Project) and interviews with JICA¹⁹. The impact of the Project was evaluated as follows according to Figure 1.

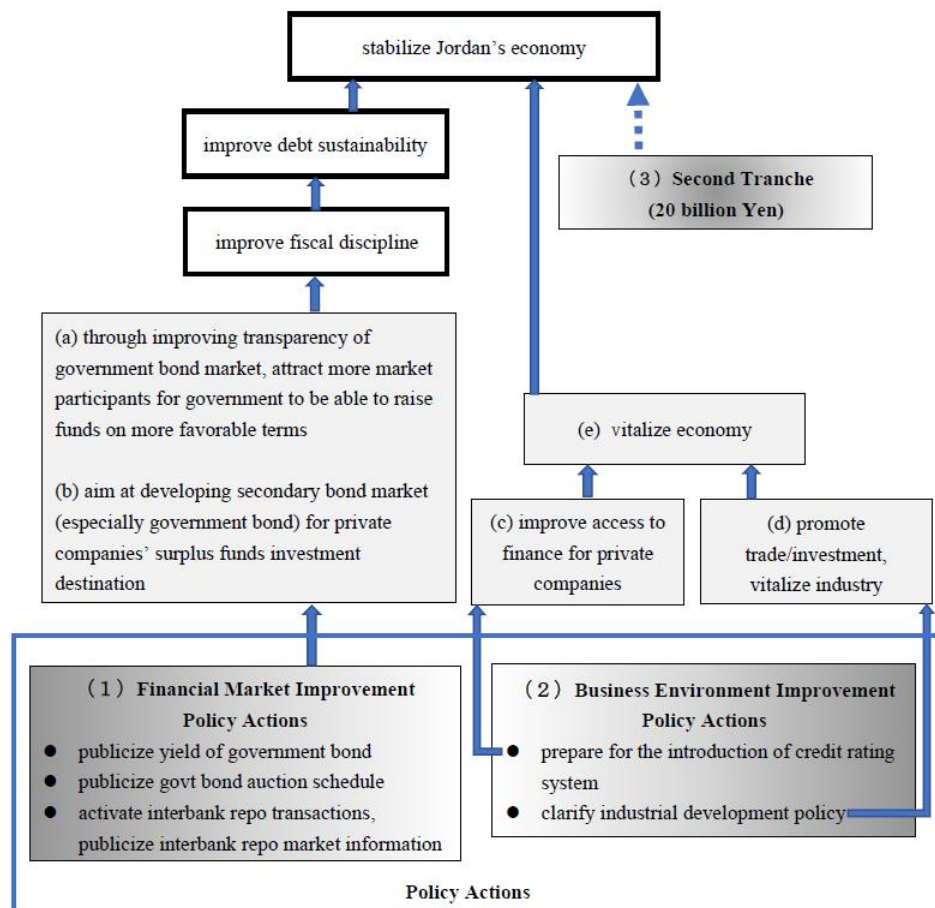


Figure 1 Impact Path

¹⁹ Figure 1, (a), (b), (c): Ex-Ante Evaluation "Financial/Business Improvement: JICA's sole financing. Aim at developing secondary bond market (especially government bond) to secure private companies' surplus funds investment destination and to make the government to be able to raise funds on more favorable terms by attracting more market participants. In addition, attract investments of domestic and foreign investors and improve business environment, improve access to finance for private companies through giving credit rating and clarify the government's industrial development policy." (an excerpt from 3. Project Outline)

Figure 1, (a), (c), (d), (e): An interview with JICA's regional director (February 1, 2021) "It was assumed that concerning financial market improvement, improvement of market transparency leads to more predictable and stable fund raising, and these contribute to the improvement of fiscal discipline and debt sustainability, thereby leading to stabilization of economy. Concerning business environment improvement, improvement of financial access, promotion of trade and investment, and vitalization of industry lead to economic vitalization and these bring about stabilization of economy."

3.2.2.1 Status of Impact

The following (1) and (2) summarize the status of the impact of each policy action according to Figure 1.

- (1) Financial Market Improvement: "Publicize yield of government bond," "publicize government bond auction schedule", "activate interbank repo transactions and publicize interbank repo market information"

According to the Central Bank of Jordan and the Ministry of Finance, the publicizing government bond yields and government bond auction schedule on the websites of the Central Bank and the Ministry of Finance, respectively, has led to the diversification of government bond holders (Table 2), an increase in government bond auction bid-to-cover ratio (Table 3), and a lengthening of the average maturity of government bonds (Table 4). Thus, with regard to the step "(a) through improving transparency of government bond market, attract more market participants for government to raise funds on more favorable terms" shown in Figure 1, there was an improvement in fund-raising conditions, with an increase in market participation by non-banks²⁰, an increase in the government bond auction bid-to-cover ratio, and, as a result, a lengthening of the average maturity of government bonds. As for the contribution to the improvement of funding costs, Table 5, which shows the trend of interest rates on government bond issuance, shows that the simple average of interest rates on 7-year, 10-year, and 15-year government bonds declined by 0.79% when comparing 2017 and 2019. During the same period, US Treasury rates fell by 0.19%, and even though there was a global trend of falling interest rates, the 0.79% decline in Jordanian government bond rates was clearly more than that trend. It is possible to speculate that non-banks in Jordan shifted funds that had previously been invested abroad in major foreign government bonds to the Jordanian government bond market in response to the increased transparency of information in the government bond market. Estimating the reduction of interest rate burden based on the amount of new government bond issuance, the amount of new government bond issuance in 2019 was 4,650 million JD, and assuming that half of that amount, 2,325 million JD, was 7-, 10-, and 15-year government bonds bought mainly by non-banks, the amount would be about 18 million JD. The amount of interest paid by the Jordanian government on domestic debt in 2019 was 744 million JD²¹, so it is possible to estimate that the government reduced its interest payments on domestic debt by about 2 percent in 2019.

As for "(b) aim at developing secondary market for bonds (especially government bonds) as investment destination of private companies' surplus funds" in Figure 1, according to JICA, it was intended to activate the secondary market for government bonds by introducing interbank repo

²⁰ Non-Banks: social security institutions, insurance companies, foreign banks, Deposit Insurance Corporation, other individuals and non-financial companies.

²¹ Central Bank of Jordan Annual Report 2019

transactions in parallel with the activation of the government bond issuance market in (a) of Figure 1. Interbank repo transactions boosted the overall trading volume of the secondary market for government bonds by about 50% in 2018 when they were introduced (Table 6), but as mentioned earlier, due to technical reasons, interbank repo transactions did not take place in 2019 and 2020, and did not make a sustained contribution to the revitalization of the secondary market for government bonds. In addition, as shown in Table 6, the size of transactions in the secondary market for government bonds has remained small, in the range of a few percent of the size of the government bond issue market, or 200-300 million JD. In addition, as shown in Table 7, the corporate bond market is even smaller than the government bond market.

Table 2 Bond holders' breakdown (Unit: million Jordanian Dinar (JD))

	2015	2016	2017	2018	2019
Banks	8,439	7,876	6,601	6,980	7,973
(%)	(68.1)	(61.9)	(54.1)	(53.4)	(53.4)
Non-Banks	3,945	4,847	5,593	6,096	6,968
(%)	(31.9)	(38.0)	(45.9)	(46.6)	(46.6)
Treasury Bills and Bonds	12,384	12,723	12,194	13,075	14,940
(%)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Central Bank of Jordan Annual Report

Table 3 Bid-to-cover ratio in government bond auction

2016	2017	2018	2019
1.69	1.83	1.91	2.04

Source: Jordan Ministry of Finance

Table 4 Average maturity of government bonds (Unit: Years)

2015	2016	2017	2018	2019
2.9	3.0	3.4	3.6	4.2

Source: Jordan Ministry of Finance

Table 5 Average interest rate of government bonds issuance (Unit: %)

	2015	2016	2017	2018	2019	2020
2 years	2.90	2.82	3.70	4.34	4.53	3.27
3 years	3.26	3.25	4.00	4.51	4.63	3.35
5 years	4.06	3.93	4.80	5.45	5.32	3.81
7years	5.12	5.09	6.17	6.24	5.54	3.71
10years		6.34	6.83	6.71	6.14	4.82
15years			8.00	7.92	6.96	5.65
(ref) CBJ main rate	2.50~2.25	2.50	2.75~4.00	4.00~4.75	4.00~4.75	2.50~4.00
(ref)10-year US Treasury bond	2.14	1.84	2.33	2.91	2.14	0.89

Source: Jordan Ministry of Finance

Table 6 Transactions in Domestic Public Debt Instruments (Unit: million JD)

	2015	2016	2017	2018	2019	2020
Primary market Issues	3,620.0	5,546.0	3,931.0	4,166.4	5,800.0	3,860.0
Treasury bills	125.0	1,075.0	820.0	885.0	1,150.0	485.0
Treasury bonds	3,475.0	4,388.0	2,636.0	3,281.4	4,650.0	3,375
Public entities' bonds	20.0	83.0	475.0	0	0	0
Secondary market	362.1	184.3	265.6	395.7	230.6	169.9
Treasury bonds	N/A	N/A	265.6	209.2	230.6	167.6
Public entities' bonds	N/A	N/A	0	7.0	0	2.3
Interbank repo	0	0	0	179.5	0	0

Source: Central Bank of Jordan

Table 7 Trading value of corporate bonds (Unit: million JD)

	2015	2016	2017	2018	2019	2020
Primary market issue	92.5	166.0	224.0	238.5	243.1	243.8
Secondary market	0.9	0	1.9	3.2	0.9	0.3

Source: Amman Stock Exchange

Next, as to whether the publicizing government bond yields and the schedule of government bond auctions contributed to improving fiscal discipline and debt sustainability, the situation of the fiscal balance among the main economic indicators in Table 8 shows that the fiscal balance deteriorated especially in 2018 and 2019, at -3.3% and -4.9% of GDP, respectively, below the IMF's forecast at the time of the 2016 appraisal. The background for this is that the impact of the Arab Spring in 2010 and the Syrian crisis since 2011 impeded the recovery from the global financial crisis of 2008 which was still underway, and the GDP growth rates for 2018 and 2019 were initially expected to be 3.8% and 4.0%, respectively, but the actual figures were halved to 1.9% and 2.0%, respectively. As a result, public debt in the table also worsened to 94.4% of GDP in 2018 and 97.4% in 2019. And in 2020, the COVID-19 pandemic caused all indicators to deteriorate. IMF also pointed out that tax administration weaknesses such as in broadening tax base, removal of sales tax exemptions, reduction of smuggling and tax evasion aggravated fiscal deterioration²². Under such fiscal situation, it is possible to estimate that the interest payments in 2019 on long-term government bonds (7-year, 10-year, and 15-year) were reduced by about 18 million JD (about 2% of the interest payments on domestic debt) by the policy actions as mentioned above, and to that extent, it is possible to assume that the policy actions contributed to "improving fiscal discipline" and "improving debt sustainability."

²² IMF Staff Report, Article IV Consultation, March 2020

Table 8 Major economic indicators (Unit: % of GDP, except 1.)

	2016	2017	2018	2019	2020	2021
1. Real GDP growth (%)						
as projected in 2016	2.8	3.3	3.8	4.0	4.0	4.0
actual	2.0	2.1	1.9	2.0	*—1.6	*2.0
2. Fiscal balance						
as projected in 2016	—3.8	—2.6	—1.0	0.5	0.5	0.4
actual	—3.2	—2.2	—3.3	—4.9	*—7.3	*—5.8
3. Government gross debt						
as projected in 2016	94.4	94.0	91.0	86.3	81.7	77.3
(of which: external debt)	(36.9)	(36.9)	(37.5)	(37.6)	(37.3)	(37.0)
actual	95.1	94.3	94.4	97.4	*109.0	*113.6
(of which: external debt)	(37.5)	(39.9)	(37.2)	(35.0)	* (40.2)	* (45.3)
4. Current account balance						
as projected in 2016	—9.0	—8.9	—7.5	—6.2	—6.2	—6.2
actual	—9.3	—10.6	—7.0	—2.1	*—8.0	*—8.3

Source : IMF EFF reports (* : projections in IMF EFF report Aug 2021)

The IMF and the World Bank are playing a central role in Jordan's fiscal consolidation efforts, and the international community, including Japan, is cooperating with them. The policy actions of the Project were formulated in consultation with the IMF, the World Bank, and others as part of such international cooperation, and it is significant that the Project has made it possible for the first time to publicize very basic government bond information, such as government bond yields and the government bond auction schedule, on the web. In the future, it will be important to see how effectively these policy actions can be utilized as fiscal consolidation progresses.

In this ex-post evaluation, interviews to market participants in the country were made, who said that they now make use of the published information on government bond yields when trading bonds. They also said that the release of the government bond auction schedule made it easier for market participants to make future business plans. These responses from market participants are exactly what was expected from the policy actions, and will help stimulate the economy. With regard to the publicizing the government bond auction schedule, however, some officials pointed out that there were some differences between the information released in advance and the actual content of the auctions. Although it is a big step forward that basic government bond information is now available on the websites of the Ministry of Finance and the Central Bank, it seems that there are still issues to be addressed in terms of high-quality information disclosure.

(2) Business Environment Improvement: "Prepare for the Introduction of a Credit Rating System" and "Clarify Industrial Development Policy"

The introduction of a credit rating system will provide a basis for financial institutions to examine loans to private companies, and is expected to improve access to finance for companies, and the Jordanian side recognizes the importance of the preparation for the introduction of a credit

rating system. However, the adoption of an action plan for the introduction of a credit rating system, which was targeted to be achieved by October 2019, has not been achieved even at the time of this ex-post evaluation, and it is taking time for consideration. Therefore, it has not yet achieved the impact that contributes to "(c) improving access to finance for private companies" and "(e) vitalize the economy" in Figure 1.

The government to "clarify industrial policy" was expected to "(d) promote trade and investment, and vitalize industry" and "(e) vitalize the economy" as shown in Figure 1, but as the World Bank statistics summarized in Table 9 show that exports (as a percentage of GDP) have remained flat or slightly declined from 36.5% in 2015 to 36.3% in 2019. Looking at domestic and foreign investment trends, gross fixed capital formation has halved from 20.4% of GDP in 2015 to 10.9% of GDP in 2019, while foreign direct investment has also halved from 4.1% of GDP in 2015 to 1.9% of GDP in 2019. According to statistics from the Central Bank of Jordan, the share of manufacturing in GDP from 2016 to 2019 has not changed significantly, at about 20 percent, and about 2% for mining sector, as shown in Table 10. In addition, the GDP growth rate remained at 2% every year from 2015 to 2019, and the contribution of the manufacturing sector in the GDP growth rate did not change significantly, ranging from 0.2 to 0.3% every year. In the current *Industrial Policy 2017-2021*, export promotion and investment promotion are listed as the main goals, but as mentioned above, exports have remained flat or declined, and investment has declined significantly. Therefore, how the industrial policy itself contributed to "(d) promote trade and investment, and vitalize industry" or "(e) vitalize the economy" was not clear.

Table 9 Export, investment (Unit: % of GDP)

	2015	2016	2017	2018	2019	2020
Export	36.5	34.4	34.5	35.2	36.3	23.7
Gross fixed capital formation	20.4	18.5	20.0	16.1	10.9	10.5
FDI	4.1	3.9	4.9	2.2	1.9	--

Source: World Bank, World Development Indicators

Table 10 Manufacturing and mining sector (Unit: %)

	2015	2016	2017	2018	2019	2020
Share of manufacturing sector (% of GDP)	21.8	20.7	20.4	20.3	20.1	19.8
Share of mining sector (% of GDP)	2.6	2.1	2.3	2.3	2.3	2.4
Contribution in overall GDP growth						
Manufacturing sector	0.3	0.2	0.2	0.3	0.2	-0.5
Mining sector	0.2	-0.2	0.2	0.0	0.1	0.0
Overall GDP growth rate	2.5	2.0	2.1	1.9	2.0	-1.6

Source: Central Bank of Jordan Annual Reports

(3) Impact of the second tranche (20 billion yen)

At the time of appraisal, the IMF had set Jordan's appropriate foreign exchange reserves at about eight months of imports in order to strengthen Jordan's resilience to risks such as worsening regional conflicts, exchange rate instability, and rising energy import prices. Based on this setting, each country and organization, including Japan, considered the scale of assistance and provided financial support. As a result, the financial gap in the balance of payments was filled in 2017. In addition, this foreign currency was exchanged into Jordanian Dinars to support the national finances. As a result of these supports, the country did not experience any shocks such as fiscal and balance of payments crises, which contributed to the stabilization of Jordan's economy. Table 11 demonstrates the flow of yen loan simultaneously realizing international revenue support and fiscal support confirmed by the Central Bank of Jordan. The second tranche of financial assistance of 20 billion JPY (178 million USD) would have accounted for about 16% of Jordan's balance of payments needs of 1,135 million USD in 2017, and filled about 8% of its fiscal needs of 2,290 million USD (1,624 million JD). This is the largest scale of financial cooperation among donors, and the second tranche is positioned as having contributed to the economic stabilization of Jordan on a substantial scale (Figure 1).

According to Jordan's Ministry of Finance, Japan's pledging of the Project, signing of the Exchange of Notes, and signing of the yen loan during 2016 induced other developed country donors to follow suit. Jordan's Ministry of Finance also says that in the same year, the Jordanian government successfully issued 1.5 billion USD Eurobonds, which was also due to the market's positive perception of international official financial support for Jordan, including the loan under the Project.

Table 11 Balance of payments and fiscal support (2017)²³

Jordan: External Financial Requirements and Sources, 2017		Jordan: Central Government: Summary of Fiscal Operations, 2017	
	(mil USD)		(mil JD)
Gross Financial Requirements	6,382	Total revenue and grants	7,424
Current account deficit (excl. grants)	5,404	Domestic revenue	6,716
		Grants	708
Gross Financing Sources	4,491	Total expenditures, inc. other use of cash	8,169
FDI, net	2,206	Overall balance after fiscal measures (adjusted)	-729
Public grants	1,097		
Public sector borrowing	211	Financing	729
Issuance of sovereign bonds	1,500	Foreign financing (net)	1,624
Error and omissions	626	Domestic financing (net)	-895
Change in reserves	-130		
Total Financing Needs	1,135		
Official Financing	1,135		
Identified official budget support	664		
Japan	178		
World Bank	92		
EU	118		
France	148		
Germany	89		
Italy	40		
Jordan Compact off-budget grants	399		
IMF	72		
Gross Usable Reserves	14,256		
IMF Reserve Adequacy Metric (%)	114		
imports (months)	7.5		

(note)

$$54 + 1,500 + 664 + 72$$

= 2,290 mil USD

= 1,624 mil JD

$$1 \text{ USD} = 0.709 \text{ JD}$$

Source: IMF EFF report 2019

3.2.2.2 Other Positive and Negative Impacts

(1) Impact on the Natural Environment

The Project is a budget support for which no special environmental impact is foreseen, and no special impact was assumed at the time of appraisal (Category C). In this ex-post evaluation, it was confirmed that there was no impact on the natural environment.

(2) Resettlement and Land Acquisition

Resettlement and land acquisition under the Project were not planned and were not implemented.

²³ Out of 211 million USD Public sector borrowing, 54 million USD is for budget support from Arab Monetary Fund (AMF).

(Table 11 Explanation)

- JICA made disbursement in Japanese Yen

(left table: balance of payments support Japan 178 million USD [20 billion JPY]).

- The Central Bank of Jordan converted the foreign currency support including JICA's portion into domestic currency (JD) and transferred it to the Jordanian government.

- The Jordanian government used that JD to finance its budget deficit (right table: budget support).

The implementation of the Project has contributed to the development of the government bond market and is highly effective, as it has realized the publication of government bond yields, the publication of the government bond auction schedule, and the introduction of interbank repo transactions and the publication of the repo transaction information. In addition, the Project has had a certain impact, contributing to the improvement of the country's fiscal balance and international balance of payments in 2017. On the other hand, there is no prospect for the introduction of a credit rating system, interbank repo transactions have been introduced but have been delayed for technical reasons, and the government bond auction schedule has not been updated since 2020 due to COVID-19 pandemic.

As a result of the above, a certain degree of effectiveness has been achieved through the implementation of the Project, and its effectiveness and impact are rated fair.

3.3 Sustainability

3.3.1 Institutional Aspect of Operation and Maintenance

The implementing agency for the Project is the Ministry of Planning and International Cooperation (MOPIC), which is responsible for the formulation and coordination of national development plans, the coordination of the receipt of foreign aid, and the monitoring and evaluation of development projects.

Within MOPIC, the International Cooperation Department (30 staff members, including 2 in charge of Japan) is in charge of aid coordination, and the Projects Department (12 staff members) cooperates with it in terms of project implementation support and monitoring.

In the Project, MOPIC compiled the policy actions of several organizations and confirmed the implementation of the policy actions, which was a condition for JICA's disbursement.

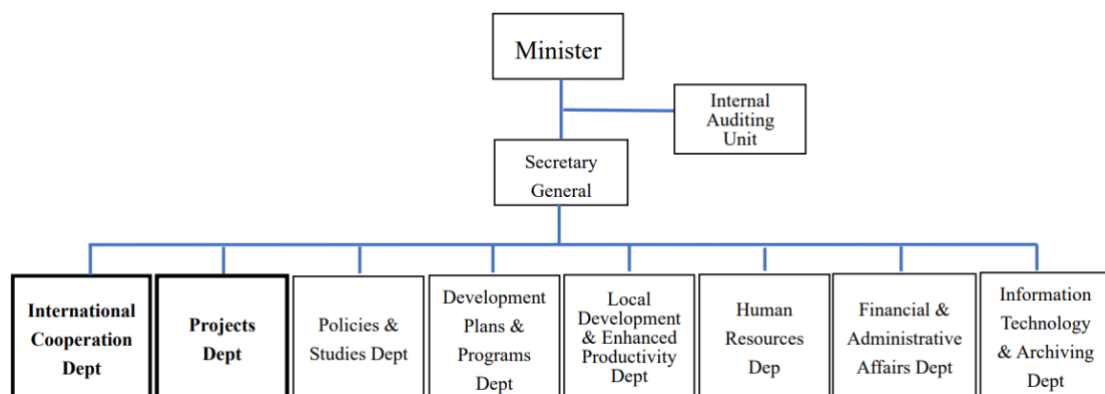


Figure 2 MOPIC Organization

Source: based on MOPIC's website²⁴

²⁴ https://mop.gov.jo/En/Pages/Organizational_Structure (accessed March 14, 2021)

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objective of the Project is to improve public finances of the Government of Jordan by supporting its reforms in the fields of financial market, business environment, and the public services sector (energy and water), thereby contributing to the economic stabilization of Jordan. The project was composed of two tranches, the first one targeting the challenges in the public services sector (energy and water) and the second one aiming to improve the financial market and business environment. This ex-post evaluation was conducted for the second tranche, which was solely financed by JICA.

The implementation of the Project supported the following policy actions: “publicize yield of the government bond”, “publicize government bond auction schedule”, “activate and publicize interbank repo transactions”, “prepare for the introduction of credit rating system,” and “clarify the government’s industrial development policy”, which were fully consistent with Jordan’s development policy and needs as well as Japan’s ODA policy. The project plan and approach were also appropriate. Therefore, the Project’s relevance is high.

By implementing the Project, market participants started using published information on the government bond yield and auction schedule on the web for their government bond trading, thereby generating effects such as diversification of bond holders, increase in bid-to-cover ratio in government bond auction, extension of average government bond maturity. These are also assumed to have contributed in reducing domestic debt interest payment burden to some extent. In addition, the disbursement under the Project contributed to the improvement of the country’s fiscal and balance of payments in 2017. On the other hand, studies toward the introduction of credit rating system, which the Project aimed to achieve have not progressed. In addition, the publication of the government bond auction schedule has been suspended since 2020 due to COVID-19, and interbank repo transactions have been delayed for technical reasons. Therefore, the Project’s effectiveness and impact are fair.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

(1) Continued implementation of policy actions is important

One of the policy actions supported by the Project, "Publicize government bond auction schedule," was done on the Ministry of Finance website in 2016, but has not been updated since 2020 (in charge of Ministry of Finance). As for the "activate interbank repo transactions" the legal system and procedures are in place, but interbank repo transactions have been delayed due to the lack of an automated trading system (in charge of Central Bank). The action plan to "prepare for the introduction of a credit rating system" has not yet been adopted (in charge of Securities Commission). It is important for the Ministry of Finance, the Central Bank, and the Securities

Commission to address these issues quickly and surely to increase the effectiveness of these policy actions supported by the Project.

(2) A closer communication system between MOPIC and the agencies involved in the project is necessary

This ex-post evaluation identified issues such as the government bond auction schedule has not been updated since 2020, interbank repo transactions have been delayed, and there is no prospect of introducing a credit rating system, but MOPIC had not reported these issues to JICA. As agreed with JICA at the time of the Project appraisal, MOPIC is responsible for coordinating and monitoring the Project's activities with the relevant organizations, and it is important that MOPIC and the relevant organizations strengthen the communication to properly monitor the effects of the policy actions supported by the Project and promptly report the results to JICA.

4.2.2 Recommendations to JICA

Based on the achievements of the Project, JICA should consider participating in the study on the capital market development strategy supported by the European Bank for Reconstruction and Development (hereinafter, "EBRD").

The Jordanian side (Central Bank and Securities Commission) is currently studying a comprehensive capital market development strategy²⁵ including bond markets with the cooperation of the EBRD, and it is important for JICA to join in the study to facilitate the Jordanian side and the EBRD to maintain and develop the effects of the policy actions of the Project in their capital market development strategies. For example, when JICA asks the Jordanian side to ensure the implementation of the aforementioned "Recommendations to Implementing Agencies", JICA may reaffirm the importance of JICA-supported policy actions in the capital market development strategy and propose to the Jordanian side to maintain and develop the effects of the policy actions in the strategy. JICA may also make a similar proposal to the EBRD when it shares the results of this ex-post evaluation with the EBRD.

4.3 Lessons Learned

(1) Target the Publication of Information on Websites and Achieving High Effectiveness

²⁵ *Capital Market Development Strategy and Roadmap for Jordan, EBRD, January 2017*

EBRD's technical assistance for a comprehensive capital market development strategy, aiming at boosting economic growth, creating jobs, and enhancing standard of living for Jordanians. The EBRD report was approved by the Jordanian cabinet in 2017. The strategic goals are: to increase investor interest, make the financial market more attractive, ensure private sector initiative, make the securities industry more competitive, strengthen the capacity of JSC, create new investment products, and enhance financial education for market participants. To realize these, the strategy also envisages reform of relevant laws and regulations, reform of tax system, reform of JSC, etc.

July 28, 2021, JSC and EBRD concluded a memorandum of understanding (MOU) to further confirm their cooperation to realize above goals.

For this EBRD's technical assistance, 1.05 million Euro was contributed from the Japan-EBRD Funds.

The policy actions supported by the Project, "Publicize government bond yields" and "Publicize government bond auction schedule," aimed to publicize the information on the websites of the Central Bank and the Ministry of Finance, respectively. The publicizing of such information on the websites is a necessary and important measure in terms of governance and accountability, and it is also expected to have organizational and human resource development effects through the timely updating and publicizing of information. As a result of the publicizing of government bond yields in the Project, market participants can now use the published yield curve when trading bonds. As a result of the regular publication of the government bond auction schedule, effects such as an increase in the amount of government bond held by non-banks, an increase in the government bond auction bid-to-cover ratio, and a lengthening of the average maturity of government bonds have been observed. The posting of information on the government bond yield and government bond auction schedule on the website may seem like a simple administrative task, but in fact it can be considered for an indicator for other similar projects because it can be expected to have such significance effects as mentioned before.

(2) Record of Policy Dialogue is Important for Development Policy Loans without F/S

In the preparatory stage of JICA's development policy loans, there is no feasibility study (F/S) as is generally the case with project loans. Instead, the direction of reform is discussed and the policy matrix to be achieved is agreed upon through policy dialogue between JICA and the developing country. For this reason, in the ex-post evaluation of JICA's development policy loans, it is extremely important to confirm what kind of policy dialogue was conducted at the time of appraisal to determine the relevance and effectiveness and impact of the policy matrix. In the case of co-financing with the World Bank and other MDBs, JICA can refer to the record of their appraisal and policy dialogue. On the other hand, in the case of JICA's stand-alone development policy loan like this Project, the records of JICA's analysis, appraisal, and policy dialogue will serve as the evidence. In this ex-post evaluation, many of the records that serve as the basis for such evidence were not disclosed in written form, and the evaluator had to rely on interviews with JICA staff. In the case of development policy loans, by keeping these records in order can reinforce the objectivity of evaluation of relevance and effectiveness and impacts at ex-post evaluation.