Evaluation of Japan's Grant Aid (Economic and Social Development Program) for the Democratic Socialist Republic of Sri Lanka in JFY 2017

March 2022

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Preface

This report is an evaluation of Japan's Grant Aid (Economic and Social Development Program) for the Democratic Socialist Republic of Sri Lanka in fiscal year (JFY) 2017, and was commissioned to KPMG AZSA LCC by the Ministry of Foreign Affairs of Japan (MOFA) in JFY 2021.

Since its commencement in 1954, Japan's Official Development Assistance (ODA) has contributed to the development of partner countries while tackling global issues. Today, the international community acknowledges the necessity to improve the effectiveness and efficiency of ODA. MOFA regularly conducts ODA evaluations, most of which are conducted at the policy-level with two main objectives: to improve the management of ODA, and to ensure its accountability. These evaluations are commissioned to external third parties to enhance transparency and objectivity.

The objective of this Evaluation was to conduct a project-level evaluation of "Japan's Grant Aid (Economic and Social Development Program) for the Democratic Socialist Republic of Sri Lanka in JFY 2017" to derive recommendations and lessons learned for use in similar projects in the future, and to compile and publish a report on the findings.

The Evaluation Team in charge of this study consisted of a chief evaluator, Dr. Juichi Inada, Professor, Department of Economics, Senshu University, and KPMG AZSA LCC. Professor Inada supervised the entire evaluation process and provided advice and input on analytical and evaluation processes. In addition, to complete this study, we received support from MOFA, the Japan International Cooperation Agency (JICA), and Japanese government agencies, as well as project implementation agencies, government agencies in Sri Lanka and private companies. We would like to take this opportunity to express our sincere gratitude to all those who supported this study.

Finally, the Evaluation Team wishes to note that the opinions expressed in this report do not necessarily reflect the views or positions of the Government of Japan.

March 2022 KPMG AZSA LCC.

Note: This English version is a translation of the Japanese Evaluation Report entitled Evaluation of Japan's Grant Aid (Economic and Social Development Program) for the Democratic Socialist Republic of Sri Lanka in JFY 2017.".

Evaluation of Japan's Grant Aid (Economic and Social Development Program) for Sri Lanka in JFY 2017 <Brief Summary>

Evaluation Structure

Evaluation Team

Chief Evaluator: Dr. INADA Juichi Professor,
 Department of Economics, Senshu University

Consultant: KPMG AZSA LCC

Evaluation Period: October 2021 – March 2022

Survey Country: Sri Lanka (Online Survey)



Procured Buoy in Port of Trincomalee

Evaluation Background, Target, and Objectives

This evaluation was conducted for "Evaluation of Japan's Grant Aid (Economic and Social Development Program) for Sri Lanka in JFY 2017" (Exchange of Notes (E/N) signed in JFY 2017/grant amount: 1 billion JPY) in order to conduct a project-level evaluation and derive recommendations and lessons learned for future ODA planning and implementation from the evaluation results, and to ensure accountability to the public. The main objective of this Project was to strengthen port functions by providing mooring buoys and other equipment manufactured in Japan for port development, thereby contributing to the economic and social development of Sri Lanka and supporting the activities of Japanese companies.

Evaluation Result

(1) Relevance of the Plan

Strong linkages were found between the Project and key Japanese policies such as the Country Development Cooperation Policy for Sri Lanka, the "Free and Open Indo-Pacific" strategy, and the "Expanded Partnership for Quality Infrastructure Initiative". The Project was also consistent with key policies in Sri Lanka and development needs, such as the Trincomalee Provincial Master Plan and the National Ports Master Plan. The implementation arrangements for the Project were appropriate, as evidenced by the timely convening of the committee (intergovernmental council) and fair selection of suppliers. The relevant agencies in Sri Lanka, such as the Sri Lanka Ports Authority (SLPA), had the necessary capacity to implement the Project. The planning process of the Project was appropriate, and the work of the related agencies in Japan such as Japan International Cooperation System (JICS) was highly evaluated by related agencies in Sri Lanka and supplier companies.

(Evaluation result: highly satisfactory)

(2) Effectiveness of Project Result

The port equipment was appropriately provided as planned, and the port functions were improved by enhancing the safety of nighttime navigation and the 24-hour operation system

at the Port of Trincomalee. The Government of Sri Lanka is highly satisfied with the procured port equipment. However, the vessel that included in the procured facilities was damaged due to an accident, and the necessary work on generators by SLPA had not been completed due to delays caused by the restrictions to prevent the spread of COVID-19 infection. Therefore, the vessel and one of the two generators were not in use at the time of this evaluation survey. Clear data on the status of achievement has not been obtained in the short-term because time is required for the manifestation of development and diplomatic effects at the outcome level, such as local socioeconomic development and support for Japanese companies, which are the objectives of the Project. The process at each stage was appropriate, and the agencies involved played their roles appropriately. Note that the project monitoring process was affected by the COVID-19 pandemic.

(Evaluation result: partially unsatisfactory)

*(Note) Rating: highly satisfactory/satisfactory/partially unsatisfactory/unsatisfactory

Recommendations

(1) Recommendations for the Project

► <u>Early implementation of on-site monitoring by the Embassy of Japan in Sri Lanka</u>
Local monitoring should be conducted as soon as possible. Compliance with infection prevention measures in accordance with local regulations in Sri Lanka with due consideration of the situation of COVID-19 pandemic is a requirement.

► Study of strategies to support development around the Port of Trincomalee area

It is difficult to realize the development effects on the local economy through a single project such as port development. To stimulate logistics, attract investment, and lead to economic and social development in the region, a comprehensive approach that combines development of the surrounding infrastructure is necessary. Based on the above, it is recommended that the Government of Japan considers a strategy to support economic development in the area surrounding the Port of Trincomalee to make use of the results of this Project in the future. In considering the strategy, it is desirable to consider collaboration with the "Japan-ASEAN Connectivity Initiative" and other initiatives being promoted by Japan in neighboring countries.

(2) Recommendations and Lessons Learned for the Grant Aid (Economic and Social Development Program) by MOFA

(Recommendations)

► More proactive dissemination of information on projects

It is recommended that information about projects is more actively disseminated to ensure transparency and promote public understanding of ODA.

► <u>Clarification of project objectives and the logic model for achieving effectiveness</u>

If the project objectives and the logic model for achieving the effects are unclear at the planning stage, there is a concern that differences of opinion may arise among the relevant parties regarding the objectives redefined after the fact, making it difficult to derive convincing evaluation results. In particular, there are many cases where diplomatic effects are difficult to redefine, and the timing of evaluations may not be appropriate (a longer period of time is needed for the effects to manifest), which may also be controversial. Regarding the above issues, it is recommended that efforts should be made to clarify the objectives and logic when planning the "Grant Aid (Economic and Social Development Program)" scheme projects, and that the process of consideration is recorded and preserved.

(Lessons Learned)

► Grant Aid by MOFA (Economic and Social Development Program) as a tool to support overseas business development of Japanese companies

The Grant Aid (Economic and Social Development Program) implemented by MOFA is characterized by its ability to proceed consistently from the preparation of bidding documents to the conclusion of contracts solely through procedures by the procuring agency, which leads to project speed and simplicity. In addition, the fact that performance bonds are not required and that the projects are mainly for Japanese products have been favorably received by Japanese companies. In conclusion, the "Grant Aid (Economic and Social Development Program)" scheme can be a useful tool to support the overseas business development of Japanese companies. To this end, it is important to strategically consider how to support the overseas business development of Japanese companies through projects, the content of products, and the purpose of the procured equipment.

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Map of Sri Lanka



(Source: UN Geospatial)

Chapter 1 Background, Objectives and Evaluation Framework

1.1 Evaluation Background and Objectives

The Ministry of Foreign Affairs (MOFA) conducts ODA evaluations (third-party evaluations) to improve the management of ODA and to ensure accountability to the public as an administrative agency. Since MOFA has the responsibility of planning and formulating ODA policies, MOFA's ODA evaluations are mainly conducted at the policy level, including country-specific and issue-specific evaluations, etc. Starting from JFY 2017, in order to enhance the PDCA cycle, completed projects with a maximum grant amount of 1 billion yen or more are subject to ODA evaluation by a third party. Based on the above-mentioned background, this evaluation study was conducted at the project level to evaluate a Grant Aid project implemented by MOFA to draw recommendations and lessons learned from the evaluation results, and to compile and publish a report on the findings.

1.2 Scope of Evaluation

The outline of the evaluated project is as follows.

Table 1-1: Outline of the Evaluated Project

Tuble 1 1. Guille of the Evaluated 1 Toject					
Country and	Grant Aid (Economic and Social Development Program) to Sri Lanka in JFY 2017				
Name of					
Project					
Sector	Rural development				
Aid Category	Economic and Social Development Program				
Request	January 25, 2017				
Receipt Date					
Singing Date of	April 12, 2017				
Exchange of					
Note (E/N)					
Committee	Ministry of National Policies and Economic Affairs				
Members from	Ministry of Ports and Shipping				
Sri Lanka	Sri Lanka Ports Authority				
Contract with	Name of Agency: Japan International Cooperation System (JICS)				
Procurement	Starting date of the Contract: April 26, 2017				
Agency	Ending date of the Contract: October 26, 2020				
Background	· Sri Lanka aims to become an economic, trade, and logistics hub in the South Asian				
and Necessity	region, utilizing its geographical advantage of being located at a strategic point of				
	maritime traffic that links Asia and the Middle East and its proximity to India and				
	other South Asian countries. The Port of Colombo, the largest port in the country,				
	has seen a steady increase in container handling volume, reaching 4.91 million				
	TEUs (container handling units, twenty-foot equivalent units) in 2014 and 5.2 million				
	TEUs in 2015, which is the largest amount in the South Asian region.				

- The Port of Trincomalee, which is a good natural port located in the northeast part of Sri Lanka, is surrounded by deep water, and has excellent conditions as a mooring site because the bay is calm even when there are rough waves on the open sea. In addition, since the port is close to India, the country that is leading economic growth in South Asia, port development has the potential to make a significant contribution to improving connectivity within the region surrounded by the Bay of Bengal.
- However, because of the civil war in Sri Lanka, which lasted for about 30 years until the Liberation Tigers of Tamil Eelam (LTTE) fell in May 2009, basic infrastructure has been devastated and development has been delayed in certain areas, especially in some areas in the north and east part of the country. In the Port of Trincomalee, located in the Eastern Province, navigational assistance infrastructure (e.g., lighthouses) were destroyed during the civil war and have been left untouched, resulting in the continued inability to navigate at night and also causing other adverse effects.
- At the Japan-Sri Lanka Summit Meeting in May 2016, the importance of port development in Sri Lanka as an important hub in the Indian Ocean was recognized given the rising demand and rapid growth in the region. Currently, the Government of Sri Lanka is in the process of formulating a long-term port development master plan. However, the basic port equipment and cargo handling machinery in the Port of Trincomalee have not been repaired due to chronic budget shortfalls and the provision of repairs has not yet been fixed.
- This Project aims to promote economic growth by improving domestic logistics and international connectivity through the expansion of mooring facilities, improvement of safety countermeasures for nighttime navigation and increase of the efficiency of cargo handling processes by providing port equipment (mooring buoys, navigation buoys, and Automatic Identification System (AIS), etc.) to SLPA in Port of Trincomalee, which has excellent conditions for mooring. In addition, since this Project supports the Port of Trincomalee located in the Eastern Province, its implementation is highly significant from the perspective of the reconstruction of conflict-affected areas.

Objective and Contents of the Project

Objective and Outline of the Project:

To contribute to the economic and social development of Sri Lanka and support the business activities of Japanese companies by strengthening port functions through the procurement of mooring buoys and other equipment related to port development that are manufactured in Japan.

	Detailed Plan	Performance/Expectation (month, year)
1) Procured Amount (Input)	JPY 1,000,000,000	JPY 1,000,000,000 (November 2020)
2) Items/Equipment (Input/Output)	•Mooring buoys and other equipment related to port development that are manufactured in Japan (mooring buoys, navigation buoys, AIS, etc.)	Refer to Table 3-1: List of Procured Equipment.

3) Purpose ar (Output/Outco (Qualitative/Q Outcome)	ome)	•Strengthening port functions (improving port functions to enable safer and more efficient port management, such as expanding mooring facilities, safety countermeasures for nighttime navigation and more efficient cargo handling and	Refer to "Chapter 3, 3.2 Effectiveness of Result" of this report.	
	and diplomatic ffectiveness as assistance pact)	processing) • Economic and social development in Sri Lanka (Promoting economic growth by improving domestic logistics and the international connectivity of Sri Lanka, and rehabilitation of a conflict-affected area) • Support Japanese companies for business activities	Refer to "Chapter 3, 3.2 Effectiveness of Result" of this report.	
External conditions or consideration	None.			

(Source: Compiled by evaluation team based on documents provided by MOFA)

1.3 Evaluation Methodology

This evaluation survey was implemented from November 2021 to March 2022. The contents of the survey are as follows.

1.3.1 Framework of the Evaluation

The information about the purpose, content, and effectiveness of the evaluated projects was compiled by organizing the documents and information provided by MOFA and information obtained on the Internet. "Framework of the Evaluation" was developed, which includes items and contents to be verified in this evaluation study. "Relevance of the Plan" and "Effectiveness of Results" were selected as evaluation criteria, with reference to the ODA Evaluation Handbook (July 2021) from MOFA.

Table 1-2: Framework of the Evaluation (Abstract)

Evaluation Criteria	Verification Items	Verification Contents
1 Relevance of the	1-1 Consistency with	1-1-1 Consistency with Development Needs and Policy of
Plan	Objectives	Sri Lanka
		1-1-2 Consistency with Diplomatic Policy and Development
		Cooperation Policy of the Government of Japan
	1-2 Consistency of	1-2-1 Consistency with Development Plans and Activities of

	Planned Projects	Port Sector in Sri Lanka
		1-2-2 Consistency with Diplomacy and Development Plans
		for Assisting Port Sector in Sri Lanka by the Government of
		Japan
	1-3 Appropriateness of	1-3-1 Consistency with Standard Implementation Structure
	Planned	Expected by the Government of Japan for the Grant Aid
	Implementation	(Economic and Social Development Program)
	Structure	1-3-2 Appropriateness of Implementation Structure and
		Capability of Related Agencies in Sri Lanka
	1-4 Appropriateness of	1-4-1 Appropriateness of the Standard Implementation
	Planning Process	Flow by the Government of Japan regarding the Grant Aid
		(Economic and Social Development Program)
2 Effectiveness of	2-1 Achievement and	2-1-1 Achievement of Financing (Input)
Results	Efficiency of the Project	2-1-2 Achievement and Efficiency of Procuring Port
		Facilities (Input/Output)
		2-1-3 Status of Use of the Procured Equipment
		(Input/Output)
		2-1-4 Development Impact through Procurement and Use
		of Port Equipment (Outcome/Impact)
		2-1-5 Diplomatic Leverage through the Procurement and
		Use of Port Equipment (Outcome/Impact)
	2-2 Appropriateness of	2-2-1 Appropriateness of the Processes Compared to the
	the Implementation,	Standard Workflow of the Grant Aid f(Economic and Social
	Monitoring, and Follow-	Development Program) indicated by the Government of
	up Processes	Japan
		2-2-2 Points that Contributed to the Realization of Project
		Effects and Achievement of Project Objectives/Points that
		Should Have Been Taken into Consideration

(Source: Evaluation team)

1.3.2 Desktop Survey

Qualitative and quantitative data necessary for the evaluation was collected through the Internet and literature reviews and was analyzed.

1.3.3 Interviews with Related Agencies

Interviews were conducted with relevant officials from the Government of Sri Lanka, SLPA in Port of Trincomalee, who are the end users of port equipment in the Project, MOFA and the Embassy of Japan in Sri Lanka, and with private companies that were awarded contracts in the Project¹. The interviews were conducted online due to the impact of the COVID-19 pandemic.

¹ Refer to the "List of Interviewees" in the separate volume.

1.3.4 Field Survey

A local consultant was hired from a company in Sri Lanka, and a field survey in the Port of Trincomalee was conducted to check the status of the procured port equipment and operation management conditions of the port through the local consultant.

1.3.5 Examination of Evaluation Results, Recommendations and Lessons Learned

Based on the results of the evaluation survey, the "Relevance of the Plan" and "Effectiveness of Results" were evaluated by a four-degree qualitative rating (highly satisfactory/satisfactory/partially unsatisfactory/unsatisfactory)². In addition, with feedback from the evaluation results in mind, "Recommendations" for the parties involved in the evaluation target and "Lessons Learned" including broader points of consideration related to the evaluation results were considered.

1.4 Evaluation Team

The evaluation team consisted of the following members.

Chief Evaluator: Professor INADA Juichi,

Department of Economics, Senshu University

•Consultants: Mr. HAMADA Masaaki (KPMG AZSA LCC.)

Ms. YOSHINAGA Yumika (KPMG AZSA LCC.)

² Refer to the details of rating criteria in the separate volume.

Chapter 2 Outline of the Evaluated Project

2.1 About Sri Lanka

Sri Lanka is an island country in the Indian Ocean, classified as part of South Asia, located southwest of the Bay of Bengal and southeast of the Arabian Sea. The capital is Sri Jayawardenepura Kotte, located about 10 km southeast of Colombo. The ethnic composition of the population is about 75% Sinhalese and 15% Tamil. The official languages are Sinhala and Tamil, and English is used as a lingua franca. About 70% of the population is Buddhist. The main industries are textiles and agriculture, and it is also known for tea, rubber, and coconut production. Since the end of the civil war in 2009, economic development has been steadily progressing, while infrastructure construction is needed for further economic growth, including transportation, electricity, water, and sewage systems.

Key economic indicators in Sri Lanka are shown in the table below. Although the country has achieved a solid rate of economic growth in recent years, the economy slowed down in 2019 due to simultaneous terrorist attacks, resulting in a growth rate of real GDP of plus 2.26%. The economy further slowed down due to the impact of the COVID-19 pandemic, resulting in a growth rate of real GDP by -3.57% in 2020. The country continued to face difficult economic conditions even after 2021.

Table 2-1: Key Economic Indicators in Sri Lanka

	2017	2018	2019	2020
Nominal GDP (1 billion USD)	87.4	87.9	84.0	80.7
Nominal GDP per Capita (USD)	4,076.8	4,057.3	3,851.7	3,678.7
Inflation Rate (%)	6.6	4.3	4.3	4.6
Unemployment Rate (%)	4.2	4.4	4.8	5.8
Population (million)	21.4	21.7	21.8	21.9

(Source: IMF)

Sri Lanka is geopolitically important to Japan in securing maritime transportation routes and developing economic relations with the South Asian region. Japan imports oil, a major energy resource, from the Middle East, and approximately 80% of maritime transportation routes pass through routes located south of Sri Lanka. The stability of the Indian Ocean is important to sustaining the security of this important maritime transportation route between Japan and the Middle East. It is also necessary to achieve the development of ports in Sri Lanka and strengthen ties with the South Asian region to secure stability in the Indian Ocean.

The Government of Japan adopted the "Free and Open Indo-Pacific" strategy in 2016, and is promoting efforts for peace and stability in the Indo-Pacific region. The Development Cooperation Charter also mentions that Japan will cooperate to build a foundation for economic development by strengthening intra-Asian connectivity and improving the trade

and investment environment.

2.2 About the Port of Trincomalee

The Port of Trincomalee is the fourth largest port in Sri Lanka after the ports of Colombo, Galle, and Hambantota. Modernization of the Port of Trincomalee was delayed due to the conflict, but it is now being developed as a commercial port. In addition, it is one of the best natural ports in the world due to its deep water. The Port of Trincomalee is used to import materials such as oil, wheat, and cement, which are stockpiled and processed near the port and sold domestically and to neighboring countries. The port has four main jetties: Ashroff Jetty, Tokyo Cement Jetty, Prima Ceylon Jetty, and Oil Jetty (Lanka IOC). The Ashroff Jetty is operated and managed by SLPA, and the other three are operated and managed by private companies.



Figure 2-1 Port of Trincomalee

(Source: National Port Master Plan: The Trincomalee Port Development Plan, Volume 3 (Part 1), March 2019)

Sri Lanka is near a major maritime transportation route that crosses the Indian Ocean from

east to west, connecting Asia with Middle East Africa and European regions. Many companies have established operations in Sri Lanka due to its proximity to markets with significant growth potential, such as India, Bangladesh, and Pakistan, which are located north of Sri Lanka. Japanese companies such as Yusen Logistics, SG Holdings, Kintetsu World Express, and Nippon Express have established branches or have been investing in major local companies.

Sri Lanka's trade ports are important to countries conducting trading across the Indian Ocean. The ports are managed by SLPA, but, according to a report by JETRO, SLPA has operational management issues such as the treatment of cargo and long working hours.

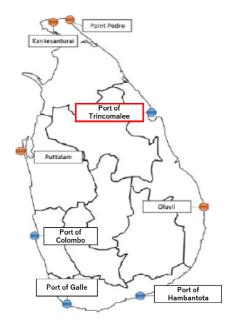


Figure 2-2 Major ports in Sri Lanka (Blue Point)

(Source: National Port Master Plan: Volume 1 (Part 1), p.25.)

2.3 About the Grant Aid (Economic and Social Development Program) by MOFA

MOFA's Grant Aid is carried out in close association with decisions based on diplomatic policy, which require flexible implementation. It is different from JICA's Grant Aid projects, which require sufficient time to conduct preliminary surveys and to establish project effects when planning.

The "Grant Aid (Economic and Social Development Program)," which was known as "Non-Project Grant Aid" until March 2015, was launched in 1987 as foreign currency assistance for the import of goods with the purpose of promoting economic and social development efforts rather than providing funds for project implementation. The procurement agency works on behalf of the governments of partner countries and procures goods. In addition, committees are held for detailed discussions between the Government of Japan and the government of the partner country, which plays an important role in maintaining close contact between the organizations concerned. The committee is composed of representatives of the Embassy of Japan and the government of the partner country, with the participation of the procurement agency as an advisor.

The focal points of the "Grant Aid (Economic and Social Development Program)" are healthcare (equipment procurement), roads (repairing equipment), and fuel (oil, etc.) supplies. The procured goods and suppliers are determined case-by-case based on the intentions of the partner government and the characteristics of the goods. In general, the "Grant Aid (Economic and Social Development Program)" adopts a tied contract and

untied procurement approach, where the contractor is limited to Japanese companies, but the goods are not limited to Japanese products. If the partner country is a Least Developed Country (LDC), the procurement method is basically untied. On the other hand, the tied procurement method is used occasionally in cases where the procurement of goods under the "Grant Aid (Economic and Social Development Program)" is considered to contribute both to the developing country and to Japan's economic diplomacy that has the aim of achieving "high quality growth" or to regional development in Japan, or when the funds are from a supplemental budget for Japanese economic measures. The ratio of projects using the tied procurement method, such as constructing equipment and next-generation automobiles, has been increasing in line with efforts to procure industrial products made in areas affected by the Great East Japan Earthquake in 2011.

Chapter 3 Evaluation Results

3.1 Relevance of the Plan

Rating: highly satisfactory

Reasons:

 All of the following items were rated highly: "Consistency of Objectives," "Consistency of Planned Projects," "Appropriateness of Planned Implementation Structure," and "Appropriateness of Planning Process."

3.1.1 Consistency with the Purpose

(1) Consistency with Development Needs and Policy of Sri Lanka

In January 2017, then Prime Minister Wickremesinghe announced a national economic development plan titled "An Empowered Sri Lanka." The Plan outlined Sri Lanka's mission to become a regional economic and maritime shipping hub since it is in the heart of the Indian Ocean. It also envisions the creation of economic corridors in the southwest and northeast and the establishment of new industrial zones as development efforts to distribute wealth to all people in the country.

Trincomalee, the target of the Project, is the largest city on the east coast and it is the location of the Port of Trincomalee, one of the best natural harbors in Asia. It has been affected greatly by civil war since the 1980s, but, following the end of the civil war, it is becoming more and more popular as a tourism destination. According to the Trincomalee District Master Plan (TDMP) developed by the Urban Development Authority (UDA) in 2017, "Trincomalee will be urbanized as a logistics and tourism hub, and will also be transformed into one of the leading port towns that is also a hub for shipping, logistics and industry in the Bay of Bengal and for surrounding countries." An interview with the Ministry of Finance of Sri Lanka also confirmed that, as the capital of the Eastern Province, Trincomalee is an important center for administrative services. Therefore, the development of the Port of Trincomalee is essential for regional development.

Based on the above information, it can be concluded that this Project, which aimed to enhance the functions of the Port of Trincomalee and the social and economic development of the surrounding areas through the procurement of port equipment, was consistent with the development needs and policies of Sri Lanka and Trincomalee.

(2) Consistency with Diplomatic Policy and the Development Cooperation Policy of the Government of Japan

The Priority Policy for Development Cooperation for JFY 2017 mentions that the basic policy for development cooperation by the Government of Japan is to promote the "Free and

Open Indo-Pacific" strategy to contribute to ensuring peace, stability, and prosperity of the international community under the Development Cooperation Charter, and to further promote the deployment of "Quality Infrastructure" to achieve high-quality growth together with developing countries.

"Free and Open Indo-Pacific" is a concept that aims to realize the stability and prosperity of the international community by connecting the Indian Ocean and the Pacific Ocean and by linking Africa and Asia. The three pillars for the realization of the concept are (1) dissemination and establishment of the rule of law, freedom of navigation, and free trade, (2) pursuit of economic prosperity, and (3) securing of peace and stability. During the interview with MOFA, it was confirmed that equipment was procured for the Port of Trincomalee from the perspectives of strengthening connectivity and supporting sustainable growth in the Indian Ocean region including Sri Lanka toward the realization of a "Free and Open Indo-Pacific."

In addition, the Government of Japan launched the Ministerial Meeting on Strategy relating to Infrastructure Exports and Economic Cooperation in 2013 and prepared the "Infrastructure Systems Export Strategy." The Prime Minister and Ministerial levels are working to expand Japanese infrastructure technology in other countries. Furthermore, the Government of Japan has been disseminating the importance of "Quality Infrastructure" to the international community based on the idea that it is important to consider transparency, openness, and economic efficiency in order to achieve quality growth in developing countries. "Principles for Promoting Quality Infrastructure Investment" were agreed upon at the G7 Ise-Shima Summit held in May 2016. Furthermore, Japan, as the chairing country, announced the "Expanded Partnership for Quality Infrastructure Initiative" launched at the 24th Ministerial Meeting on Strategy relating to Infrastructure Exports and Economic Cooperation.

In May 2016, a summit meeting was held between Prime Minister Abe and President Sirisena who visited Japan to participate in the outreach meeting of the G7 Ise-Shima Summit. During this meeting, the leaders confirmed their recognition of the growing need for assistance in stabilizing maritime routes and the importance of developing ports as hubs in view of rapid growth. Prime Minister Abe stated that Japan would strengthen cooperation with Sri Lanka under the "Expanded Partnership for Quality Infrastructure Initiative".

According to interviews with MOFA, the momentum from the above-mentioned summit meeting led to the request for this Project by Sri Lanka. Considering the process that led to the request, the policy of the Government of Japan at the time, and the content of the Project, it is recognized that the Project has a strong linkage with the "Free and Open Indo-Pacific" strategy, "Expanded Partnership for Quality Infrastructure Initiative" and other policies of the Government of Japan.

3.1.2 Consistency with the Project Contents

(1) Consistency with Development Plans and Activities of the Port Sector in Sri Lanka

As an island nation, Sri Lanka needs to continue to strengthen its port functions and the competitiveness of its ports to maintain its role as a regional transportation hub. The Government of Sri Lanka received a 150 million USD technical assistance grant from the Asian Development Bank (ADB) to develop a National Port Master Plan (NPMP). NPMP was completed in November 2018 and it includes the zoning plan and the Port of Trincomalee Development Plan.

According to NPMP, the Port of Trincomalee is an important port for handling bulk cargoes such as grain, cement, and oil, as well as a hub for providing transshipment, transfer, and mooring services for vessels docked there, taking advantage of the fact that it is one of the best natural deep-water ports in the world.

The Port of Trincomalee Development Plan in NPMP includes a policy to improve port connectivity by installing the necessary facilities for nighttime navigation because port entry and exit has only been possible during the daytime. In addition, NPMP also indicates the importance of installing IT in port functions such as Vessel Traffic Management System (VTMS). The following items are indicated as short- and long-term priority goals for the development of the Port of Trincomalee.

- Night navigation system (short-term goal)
- Upgrade Ashroff Jetty (short-term goal)
- · Development of new oil wharf (short-term goal)
- Upgrade cement wharf (short-term goal)
- Development of a container terminal (long-term goal through public-private partnership)

The Project aims to enhance the port's functions and achieve 24-hour port operations by procuring port equipment such as VTMS, buoys, and lighthouses to the Port of Trincomalee. It can be concluded that the Project was precisely in line with the development policy for the Port of Trincomalee mentioned in the NPMP.

(2) Consistency with Diplomacy and Development Plans for Assisting the Port Sector in Sri Lanka by the Government of Japan

The Country Assistance Policy for Sri Lanka (June 2012) outlines the following Basic Policy and Priority Areas.

Basic Policy of Assistance: To promote economic growth with consideration for least

developed regions

Priority Areas: (1) Promoting economic growth; (2) Supporting development in least developed regions; (3) Reducing vulnerabilities

This Project was formed according to the above-mentioned Assistance Policy and was consistent with the Country Development Cooperation Policy for Sri Lanka by the Government of Japan with the aim of supporting the social and economic development of the region by assisting infrastructure development in the Port of Trincomalee located in northeastern Sri Lanka, which was damaged by the civil war. Most foreign investment in port logistics and port development in Sri Lanka is concentrated in the Port of Colombo and Port of Hambantota in the southwest part of Sri Lanka. Against this backdrop, it is considered that Japan's aid policy in deciding to support the port and the reconstruction in Port of Trincomalee in the northeast of Sri Lanka was appropriate for achieving the above Basic Policy. Furthermore, the NPMP that set the direction for port development in Sri Lanka was implemented through a technical assistance project funded by the ADB through the "Japan Fund for Poverty Reduction." The Project and ADB's NPMP formulation project are related, and synergistic effects from the two projects are expected, which will lead to highly rated results.

3.1.3 Appropriateness of the Implementation Structure

(1) Consistency with Standard Implementation Structure Expected by the Government of Japan for the Grant Aid (Economic and Social Development Program)

In May 2017, JICS was selected as the procurement agent for the Project. In the same month, a committee (intergovernmental committee) was held among the Ministry of National Policies and Economic Affairs³ as signatories from the Sri Lankan side and the Embassy of Japan in Sri Lanka and JICS as signatories from the Japanese side. SLPA was responsible for the implementation of the Project, since SLPA is an organization under the Ministry of Ports and Shipping and the end user of the procured equipment. The awarded companies for the Project were selected through a fair bidding process in accordance with MOFA's Procurement Guidelines for Non-Project Grant Assistance. As described above, the implementation structure of the Project was consistent with the expected standard implementation structure.

³ The name of the government agency has changed.

(2) Appropriateness of Implementation Structure and Capability of Related Agencies in Sri Lanka

According to interviews with JICS, the Ministry of National Policies and Economic Affairs, which was the implementing agency for the Project on the Sri Lankan side, was knowledgeable regarding procedures related to Japanese grant assistance projects, and smoothly dealt with signing committee minutes and the coordination of parties related to transfer funds. The SLPA, the end-user of the port equipment, thoroughly understands the configuration, mechanism, and usage of the procured equipment and smoothly coordinated the technical aspects of communication with the awarded Japanese companies. SLPA also cooperated in various procedures related to the procurement of port equipment.

According to an interview with the Japanese consulting firm that was in charge of the preliminary study on introducing VTMS to the Port of Trincomalee, it was confirmed that the technical level of SLPA was sufficient because a similar system was already in operation in the Port of Colombo. In addition, interviews with the Japanese companies that received orders for each lot and a survey with local agents were conducted, and it was confirmed that the SLPA was evaluated as having sufficient technology and experience to handle the procured equipment. Furthermore, during this evaluation survey, a site visit to the Port of Trincomalee was conducted to confirm the use of the equipment, and it was confirmed that the on-site staff fully understood how to operate the procured equipment, and no operational problems have occurred.

As described above, it can be concluded that the relevant agencies in Sri Lanka had adequate capacity to implement this Project and to operate the procured port equipment.

3.1.4 Appropriateness of the Planning Process

(1) Appropriateness of the Processes Compared to the Standard Workflow of the Grant Aid (Economic and Social Development Program) Indicated by the Government of Japan

As mentioned above, the momentum from the summit meeting with Government of Japan and Government of Sri Lanka in May 2016 led to the planning of this Project. The content of the plan takes into account the needs and regional characteristics of Sri Lanka, as well as the Country Development Cooperation Policy for Sri Lanka.

JICS was selected as the procuring agency, after which the committee was convened, and even in the detailed planning phase, the planning process for this Project was properly executed in accordance with the standard flow of Grant Aid (Economic and Social Development Program) by MOFA. The following is a summary of the standard procedures conducted during this Project.

- 1. Confirm with the implementing agency that there are no plans to finance the requested items using its own budget or funds from other donor agencies.
- 2. Verify the appropriateness of the requested equipment (e.g., grade) confirming the intended use of the equipment, the level of knowledge of the end user, and the environment in which the equipment will be installed.
- 3. Propose procurable quantities with reference to preliminary quotations collected from manufacturers.
- 4. If the total amount of all the requested equipment exceeds the budget, the procurement items will be determined through discussions about the order of priority of procurement between the executing agency (or end user) and the Embassy. If there is a remaining budget after the bidding, additional procurement items will be selected in accordance with this order of priority.

During the interviews with related agencies in Sri Lanka and Japanese companies during this evaluation survey, many of them highly evaluated the work of Japanese agencies such as JICS and the Embassy of Japan in Sri Lanka which played a central role in the implementation of the Project.

3.2 Effectiveness of Results

Rating: partially unsatisfactory

Reasons:

- Regarding "Achievement and Efficiency of the Project," the port equipment was appropriately provided as planned. As a result, the safety of nighttime navigation was improved, and 24-hour operation of the Port of Trincomalee was achieved, which resulted in enhancing the port functions. The Government of Sri Lanka is highly satisfied with the procured port equipment.
- However, the vessel included in the procured facilities was damaged due to an accident and the necessary work on generators by SLPA had not been completed due to delays caused by the restrictions to prevent the spread of COVID-19 infection. Therefore, the vessel and one of the two generators were not in use at the time of this evaluation survey.
- Regarding the "Achievement and Efficiency of the Project," clear data on the status of
 achievement has not been obtained because time is required for the manifestation of
 development and diplomatic effects at the outcome level, such as local socioeconomic
 development and support for Japanese companies, which are the objectives of the
 Project.
- Regarding the "Appropriateness of the Implementation, Monitoring, and Follow-up Processes," the processes at each stage were appropriate. The relevant agencies in Japan and Sri Lanka played their roles appropriately.

 Various restrictions such as economic stagnation and movement restrictions due to the COVID-19 pandemic after 2020 affected the effectiveness of the Project and the monitoring process.

3.2.1 Level of Achievement and Efficiency of the Project Objective

(1) Achievement of Financing

According to the data shared by MOFA, disbursement from the Government of Japan to the account of the Government of Sri Lanka was completed on August 2, 2017, which means that financing was completed as planned. In addition, as shown in Table 3-1: List of Procured Equipment, it was confirmed that the total cost of equipment/services procured was 1 billion JPY, as originally planned.

(2) Achievement and Efficiency of Procuring Port Facilities

The procured equipment was shipped in four separate times in February, July, October, and November 2019. As a result of price competition during the first round of bidding, residual deposits were generated. Therefore, intergovernmental discussions were held to finalize the additional items to be procured based on the request from SLPA. All port equipment procured under the Project was the product of Japanese manufacturers, and the procurement prices were fair according to interviews with the awarded companies and JICS. In accordance with the terms and conditions of the contract with the procuring agency, the equipment and facilities provided had a one-year warranty against any malfunction or failure by the supplier or manufacturer. Also, local agents are available for maintenance and the procurement of parts, which means that SLPA can receive spare parts free of charge or at cost.

All lots were received by the end user, SLPA, in March, August, November, and December 2019. Upon receipt of the procured equipment, installation work and training were conducted.

Table 3-1: List of Procured Equipment

Lot/Ite m No.	Contractor	Name of the Product	Quantity	Additional Procurement	Contract Amount (JPY)
-	JICS	Procurement Agent	1 service	-	28,700,000
1-1	Kanematsu	Vessel	1 unit	-	84,759,000
1-1	Corporation	Spare parts	1 unit	-	261,000
2	The Overseas Coastal	Consultant service	1 service	-	17,531,000
2	Area Development Institute of Japan in a joint venture with Japan Port Consultants, Ltd.	Additional natural conditions survey	1 service	Additional	11,702,476
3-1	Mitsubishi Corporation	VTMS (Vessel Traffic	1 system	-	95,846,920

Lot/Ite	Contractor	Name of the Product	Quantity	Additional	Contract
m No.	Contractor	Traine of the Freddot	Quartity	Procurement	Amount (JPY)
		Management System)- 01			
3-1		Spare magnetron and ink cartridge for Vessel Traffic Management System -01	4 sets	Additional 1	660,220
3-1		Forelock anchor shackle for Item 4	2 sets	Additional 2	107,000
3-2		VTMS-02	1 system	-	73,539,540
3-2		Spare magnetron and ink cartridge for Vessel Traffic Management System -02	4 sets	Additional 1	651,480
3-2		Forelock anchor shackle for Item 5, 6, 7 and 8	14 sets	Additional 2	404,600
3-1 3-2		Additional work for VHF re-programming of Item No.1 and Item No.2	1 service	Additional 4	2,001,694
3-3		Mooring Buoy	1 unit	-	145,995,800
3-3		Mooring Buoy	1 unit	Additional 1	148,594,800
3-3		LED marine lantern for Item 3 Mooring buoy	1 set	Additional 3	800,000
3-4		Navigation Buoy (No.1, No.2)	2 units	-	47,648,260
3-5		Navigation Buoy (No.4, No.6, No.12, No.13, No.14)	5 units	-	82,596,700
3-6		Navigation Buoy (No.9, No.10)	2 units	-	29,357,910
3-7		Navigation Buoy (No.3, No.5, No.7W, No.7S, No.8, No.11)	6 units	-	98,894,290
3-8		Navigation Buoy (No.7E)	1 unit	-	17,406,340
3-9		Lighthouse (LH-01)	1 unit	-	26,707,120
3-10		Lighthouse (LH-02)	1 unit	-	26,707,120
4-1		Fire pump	10 units	_	21,355,450
4-1	Sirius Corporation	Fire pump	4 units	Additional	8,532,180
4-2		Generator	1 unit		14,669,550
4-2		Generator	1 unit	Additional	14,569,550
Total	-				1,000,000,000

(Source:JICS)

■ Vessel (Lot 1)

SLPA received the vessels and spare parts (for engines) for Lot 1 on March 1, 2019. The manufacturer and contractor provided training on operation and maintenance regarding vessel handling, and how to take off and berth, etc. to SLPA staff on April 9-11, 2019. Lot 1 was to be transported to the Port of Trincomalee via the Port of Colombo. Therefore, 16 SLPA staff working at the Port of Trincomalee were trained in Colombo.

■ Consulting Service (Lot 2)

The consulting services for Lot 2 consisted of a survey for the VTMS to be procured for Lot 3 and bid preparation and evaluation. A site survey was conducted to check if the procured equipment will be appropriate for SLPA to achieve their need for 24-hours-a-day port operation and to be able to moor more vessels, as well as a survey to confirm the natural environment. Initially, the scope of work included a series of bid preparation tasks related to survey and design, estimation of construction costs, and preparation of bidding documents, but the evaluation of bidding documents was also added. Lot 2 was completed on July 31, 2018.

The fixing of large mooring buoys that were to be procured in Lot 3 was the first task for the SLPA. Therefore, the bidder for Lot 2 prepared and provided SLPA staff with a technical notebook containing the minimum required concepts and know-how on designing and construction in response to SLPA's request for services, and also provided training in Trincomalee and Colombo for one day each.

■ VTMS, Buoys, Lighthouses (Lot 3)

The installation of the VTMS for Lot 3 was completed on June 25, 2020, after reprogramming to accommodate a frequency change that was required. The contractor's VTMS personnel spent about a month and a half in Trincomalee to handle the Project. SLPA received VTMS accessories, mooring buoys, navigation buoys, and lighthouses on August 7, 2019. Normally, buoys and other equipment are installed by contractors; however, in this Project, SLPA installed the equipment under the supervision and guidance of the contractor. Installation of the mooring buoys, navigation buoys, and lighthouses was completed on October 19, 2019. In addition, SLPA received LED lanterns for the mooring buoys as additional equipment on November 29, 2019.

Prior to the installation of the lighthouse and buoys, training on the use and maintenance of the lighthouse and buoys was conducted with 17 SLPA staff in Colombo on October 11 and 12, 2019. Training on VTMS operation and maintenance and AIS radar was conducted with 6 SLPA staff in Trincomalee. SLPA mentioned during the interview that SLPA staff who had experience working at the Port of Colombo had used the VTMS before the Project and had some problems with its operation. However, all of the problems were resolved in this training. If there any malfunction of the procured equipment in Lot 3 occurs, SLPA can contact the local agent of manufacturer. In the event of a malfunction caused by the equipment, parts

and other items can be obtained from the local agent.

■ Fire pump, Generator (Lot 4)

SLPA received all units, including additional equipment for Lot 4, fire pumps and generators, on December 3, 2019. There is no local manufacturer representative for the fire pumps, although there is a local agent who serves for purchasing parts. Therefore, the contractor sent a third country engineer to Trincomalee on December 12, 2019, to conduct training, including the trial operation of the fire pumps. Since there are no products similar to the procured fire pumps in Sri Lanka, if parts need to be replaced due to malfunction or other reasons, they will need to be imported through the local agent. If any other technical problems arise, the local agent will take care of them.

The manufacturer's local agent handled the delivery and installation of the generators and training. The installation of the generators was completed on January 14, 2020, and training was completed on January 31, 2020. The local agent also provided manuals on maintenance. Spare parts for the generators are provided, but when parts need to be replaced due to malfunctions, etc., they can be obtained through the agent.

(3) Usage Condition of the Equipment

This evaluation study included an inspection of the Port of Trincomalee from February 7 to 9, 2022, to confirm the usage condition of port equipment provided by the Project. As a result of the inspection, it was confirmed that the vessel had an accident and damaged its propeller, making it inoperable until the implementation of repairs scheduled for March 2022, and one of the two generators has not been used to date because the cable work has not been completed⁴. It was also confirmed that the other equipment is generally being used properly and that necessary maintenance is being carried out.

■ Vessel

The provided vessel (named "Trinco 1") was delivered to the Port of Trincomalee on October 16, 2019, following training on operation and maintenance that was conducted in April 2019. Trinco 1 is used as a pilot boat in the Port of Trincomalee. Specifically, it is used to guide the Deputy Harbor Master to incoming vessels. Onboard the vessel, the Deputy Harbor Master and the captain and crew work to understand the vessel's arrival plan, anchorage location, and other information to bring the vessel safely into port.

Basic daily maintenance of Trinco 1, such as oil changes, is handled by three employees of the Port of Trincomalee and other maintenance is handled by mechanical engineers at the Port of Trincomalee. For scheduled maintenance, a maintenance team from the Port of

⁴ The latest status and plans for propeller repair and cable work were confirmed through the communication with the Port of Trincomalee on March 15, 2022.

Colombo visits the Port of Trincomalee to perform the work. Due to the short period from the supply of Trinco 1 until now, no maintenance costs have been incurred. Spare parts are stored safely in a warehouse at the Port of Trincomalee.

Trinco 1 is no longer in use due to an accident that occurred on January 29, 2020, which damaged the propeller. The accident occurred when a cox misidentified a rock as a buoy, and the propeller struck the rock, although there was a navigation buoy on the route to warn of the rock hazard. Maintenance of the equipment is the responsibility of the Sri Lankan side. The propeller was once repaired at the Colombo Dockyard in June 2021, but the problem (vibration at high speed) was not fixed, and it was decided to replace the propeller with a genuine one from the manufacturer. The propeller replacement is scheduled for March 2022 due to movement restrictions associated with the COVID-19 pandemic and the SLPA procurement process taking time. Until that time, the old vessel is being used.



Figure 4-1 Vessel provided (Trinco 1)

■ VTMS

VTMS consists of three parts: (1) Automatic Identification System (AIS), (2) radar, and (3) software called VTMS. An AIS antenna installed on an object sends a VHF signal to a receiving unit installed on a radar tower, and the receiving unit decodes the VHF signal and displays it on a monitor. VTMS tracks the position and movement of buoys, ships, lighthouses, and any other objects, but, as a prerequisite, the object must have an AIS antenna installed on it and switched on. If the AIS antenna is turned off when a vessel enters the Port of Trincomalee, legal action can be taken against the vessel in accordance with the Safety of Life at Sea Convention (SOLAS). In cases such as a decrease in the strength of the VHF signal during bad weather, for example, or the entry into the port of small fishing vessels without AIS antennae or vessels that have turned off the AIS antenna due to technical problems, the vessel's movements will be captured and tracked by radar.

According to the Deputy Harbor Master, VTMS is a very user-friendly software and SLPA is fully familiar with this system. From the time of delivery to now, no bugs or other technical problems with the system have arisen, but if problems should arise, the local agency is to be

contacted to deal with them appropriately. If a system update is required, the local distributor will notify the SLPA, and the SLPA will ensure that the VTMS version is always up to date. Spare parts such as magnetrons (devices that convert VHF signals into images), ink cartridges, and monitors are stored in the records room next to the monitoring room.

To monitor the port around the clock using VTMS, the VTMS team is staffed by seven people: three marine traffic controllers and four messengers. The VTMS team maintains a 24-hour watch with 12-hour shifts.

Navigational buoys/mooring buoys

Sixteen navigational buoys and two mooring buoys were installed in the Port of Trincomalee as a result of this Project. The navigational buoys are used to form channels that mark navigable waters. Mooring buoys are used for mooring vessels. There are various types of navigational buoys, including starboard (red), port (green), special (yellow), and azimuth (yellow and black) buoys. For example, danger zones are identified by yellow and black azimuth buoys. Prior to this Project, locally-made navigational buoys were installed in the Port of Trincomalee. These did not have LED lights, AIS antennae, or solar panels for AIS antennae, so all of the old buoys were replaced with new navigational buoys. Additionally, prior to this Project, there were no mooring buoys in the Port of Trincomalee. The Port of Trincomalee is now the only port in Sri Lanka with two mooring buoys.

These buoys are being maintained by a 24-member crew that washes, cleans, and repaints them. The LED light on one of the mooring buoys was damaged in an accident with a boat, and a replacement will be installed soon.





Figure 4-2 Mooring buoy and navigational buoy

■ Lighthouse

Prior to this Project, only the lighthouse structure was available at the Port of Trincomalee without lights. This Project resulted in the installation of lighting at two lighthouses. The lighting is controlled by photovoltaic sensors. Each lighthouse has two scheduled maintenance inspections per year (June and December). During daily maintenance, the solar panels are washed and cleaned with fresh water. The crew responsible for the maintenance of the buoys is also responsible for the maintenance of the lighthouses.

■ Fire pump

Fourteen fire pumps were installed in the Port of Trincomalee as a result of this Project. All fire pumps are portable and are battery-operated. The batteries were provided separately by the Project and are being recharged according to a schedule. From the time of the Project until now, there have been no fires or accidents at the Port of Trincomalee. Therefore, the fire pumps provided by the Project have not yet been used. In the event of a fire accident, the Port of Trincomalee is fully equipped to respond immediately with these fire pumps.



Figure 4-3 Fire pump

■ Generator

The Project installed two diesel generators with a capacity of 650 kVA each. Each generator is kept in the generator room. Each generator room contains three pieces of equipment: the generator, the Auto Transfer Switch (ATS) panel, and the step-down transformer. It was decided that the construction of the rooms, substations, cables, and transformers would be arranged through the budget of the SLPA. The person responsible for the maintenance and operation of the generators is a mechanical engineer from the Port of Trincomalee. As part of the maintenance, the mechanical engineer inspects the parameters of both generators daily. Apart from the daily inspections, scheduled inspections are also carried out according to a checklist provided by the manufacturer.

It was planned that one of the generators will be used to operate the Ashroff Jetty, and the

other will be used for the rest of the Port, including the offices. According to the mechanical engineer, at the time of this evaluation study, the construction of the cables connecting the generators and the automatic transfer settings supposed to be carried out by SLPA at the responsibility of Sri Lanka side had not been completed for both generators due to delays of related work near the installation site caused by the restrictions to prevent the spread of COVID-19 infection. As a result, only the generator for the Ashroff Jetty has been used manually for 140 hours so far during power outages at the port, while the other generator has not yet been used. The cable work is expected to be started in the middle of 2022 after related works and completed in late 2022.



Figure 4-4 Generator

(4) Development Effects through Equipment Provision and Utilization

(A) Improvement of port operations

Previously, the Port of Trincomalee operated 12 hours a day, from 6:00 AM to 6:00 PM. With this Project, 24-hour operation was realized since November 2019. This was the direct and most significant effect of the Project. Interviews with SLPAs indicated that the improved port equipment increased the motivation of port staff. The following is a description of the specific improvements made to each of the port equipment provided by the Project.

Vessel

The newly granted Trinco 1 is said to be far easier to use than the old vessel. Unlike the old vessel, Trinco 1 also has thrust at the bow, allowing the vessel to be easily moved sideways. In addition, Trinco 1 can maneuver faster than the old vessel (old vessel: 6 knots; new vessel: average 20 knots, top speed 30 knots). While the old vessel could only accommodate 6 people, the new vessel can now accommodate 18. This is very useful when a large number of people are needed for maintenance work at sea.

■ VTMS

VTMS can display real-time data. Prior to the introduction of VTMS, a paper-based system was in use, with vessel positions marked on paper charts by staff. Staff used radio equipment to call vessels and ask for their berthing positions. This was not an efficient or accurate method. It is believed that some vessels were not in contact with staff and were hiding. Currently, this type of sneaking is impossible because vessels entering the waters of the Port of Trincomalee are always detected by the VTMS.

Navigational buoy

An AIS antenna is fixed to the navigational buoy, allowing the vessel to communicate with the buoy via VHF signals to determine the exact location of the buoy in real time. It is especially important for vessels arriving in port at night to determine the position of the buoy. The flashing light and flashing frequency of a navigational buoy allows vessels to identify the type of buoy and determine a safe route.

Mooring buoy

Mooring buoys are a cost-effective way for ports to generate income. With this Project, the Port of Trincomalee became the only port in Sri Lanka with two mooring buoys, providing a long-term, stable source of income. According to information confirmed during the project site visit, a 90,000-ton vessel was moored at one of the mooring buoys. The daily mooring fee paid by this vessel to SLPA is approximately US\$1,100 after applying a discount of approximately 40%.

■ Fire pump

Since no fires or accidents have yet occurred following the Project, the fire pumps provided have not yet been used.

Because the new fire pumps are portable, they can be quickly and easily transported to any location in the harbor. In addition, the pumps can be operated by a single person, eliminating the need to assemble a large team to manage the fire pumps.

■ Generator

The Ashroff Jetty, which is under the management of SLPA, has equipment for handling cargo and lighting facilities, but due to its high-power usage, power outages were an issue. With the installation of a generator, the jetty can now operate without issue even in the event of a power outage.

The two generators provided by the Project have a total power capacity of 1,300 kVA and are expected not only to use electricity at the Port of Trincomalee but also to meet the future power needs of investors in the port and industries in the hinterland.

(B) Operational status of the Port of Trincomalee

A review of vessel traffic data at the Port of Trincomalee obtained from the Ministry of Ports and Shipping was made, and a summary is provided in the table below. It was found that vessel traffic has been on a downward trend since 2017, despite the fact that the Project has resulted in a 24-hour operation.

Table 4-2: Vessel traffic in the Port of Trincomalee

Unit: vessel

Offic. Vesse						
	2017	2018	2019	2020	2021	
Jan	20	22	17	13	12	
Feb	20	25	12	18	10	
Mar	25	20	18	19	12	
Apr	19	13	12	9	11	
May	25	18	22	8	9	
Jun	20	24	14	12	13	
Jul	24	17	12	18	11	
Aug	23	19	15	17	9	
Sep	24	30	12	25	11	
Oct	21	19	13	15	16	
Nov	33	11	11	16	11	
Dec	17	18	16	9	-	
Total	271	236	174	179	125	

(Source: Data provided by the Ministry of Ports and Shipping)

While cargo volumes at Tokyo Cement's and Prima Ceylon's jetties have generally remained constant, cargo volumes at Ashroff and Oil jetties have shown a downward trend, with a particularly noticeable decline at Ashroff Jetty, which is managed by SLPA.

Table 4-3: Cargo volume at each jetty at the Port of Trincomalee

					Unit: ton	
	2017	2018	2019	2020	2021	
Ashroff Jetty (managed by SLPA)						
clinker	850,775	634,987	115,156	27,500	0	
gypsum	64,570	12,804	-	-	-	
coal	82,186	107,502	101,000	100,200	108,900	
slug	10,200	-	-	-	-	
Total	1,007,731	755,293	216,156	127,700	108,900	
Tokyo Cement Com	pany (Lank	a) PLC. Jetty	y			
clinker	1,432,996	1,438,216	1,438,708	1,498,358	1,471,382	
gypsum	72,315	60,500	32,690	65,880	21,000	
limestone	-	-	-	110,771	99,356	
pozzolan	-	-	-	43,650	128,502	
cement	-	-	105,200	98,275	0	
Total	1,505,311	1,498,716	1,576,598	1,816,934	1,720,240	
Prima Ceylon (Priva	te) LTD. Jet	ty				
wheat	758,092	807,851	774,776	768,213	895,528	
wheat bran pellets	121,650	140,650	163,730	116,000	66,450	
Total	879,742	948,501	938,506	884,213	961,978	
Lanka IOC (subsidiary of Indian Oil) Jetty						
petroleum products	416,375	342,981	336,937	275,425	305,889	
Total	416,375	342,981	336,937	275,425	305,889	

(Source: Data provided by the Ministry of Ports and Shipping)

According to an explanation from the Deputy Harbor Master of the Port of Trincomalee, the reasons for the decrease in vessel traffic and cargo volume are as follows. Bulk cargo is handled at the Port of Trincomalee. Traditionally, clinkers brought by bulk carriers to the Ashroff Jetty were transshipped onto smaller vessels and transported to other ports in the country, such as the Port of Galle. In recent years, however, bulk carriers carrying clinker have been entering the southern Port of Hambantota. This is because the fees at the Port of Hambantota are lower than those at the port of Trincomalee. According to the Deputy Harbor Master, it is possible to lower the fees at the Port of Hambantota, which is operated by a Chinese company under a PPP arrangement, but this is difficult at the Port of Trincomalee, which is operated directly by the Government of Sri Lanka.

In March 2020, the Government of Sri Lanka introduced import restrictions in response to the economic stagnation caused by the COVID-19 epidemic, limiting the issuance of L/C for the import of automobiles and non-essential goods in order to prevent foreign currency outflow. As a result, Sri Lanka's overall imports fell significantly from about US\$19 billion in 2019 to about US\$16 billion in 2020⁵. On the other hand, with regard to changes in cargo volumes at the Port of Trincomalee from 2019 to 2020, the decrease in cargo volumes at the Ashroff Jetty mentioned above is notable, but cargo volumes at other privately operated jetties have remained relatively steady. In order to analyze the changes in cargo volumes at each pier, including the effects of port equipment provided by the project, it is necessary to

⁵ https://www.trademap.org/

confirm demand fluctuations and individual circumstances of each private company, but such information could not be confirmed during this evaluation study and it was difficult to evaluate the project effects sufficiently.

The following table shows the changes in revenue, expenditure, and profit before tax for the Port of Trincomalee since 2017. Performance has increased or decreased from year to year. In 2020, revenue and profit are down compared to the previous year. Data for 2021 has not yet been confirmed, but it will take a long time to translate the improved port functions into a stronger revenue base for the Port of Trincomalee, as the past two years have been affected by the COVID-19 pandemic.

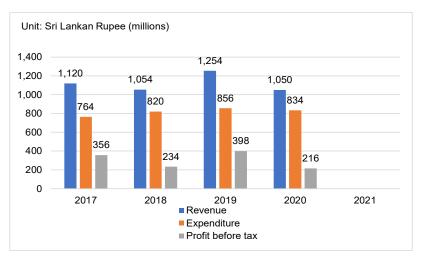


Figure 4-5 Port of Trincomalee Performance Trends

(Source: SLPA Annual Report, data provided by SLPA)

(C) Social and economic development in the region

The average monthly household income in Trincomalee had been increasing since around 2009/10, but remained largely unchanged from 2016 to 2019. The rapid increase in income since around 2009/10 is presumably due to the end of the civil war.

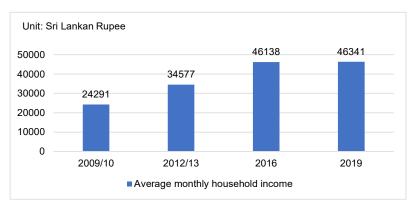


Figure 4-6 Average monthly household income in Trincomalee

(Source: Trincomalee District Secretariat)

According to an interview with the Trincomalee District Secretariat, economic activity in the district has increased in recent years, particularly in the tourism industry. The Trincomalee District Secretariat also commented that the 24-hour operation of the Port of Trincomalee may have promoted employment at the port, leading to an increase in the income of local residents. However, it is difficult to evaluate the project effects because 24-hour operation at the Port of Trincomalee was realized in November 2019 while the data on household income since 2020 is not available. The economic stagnation caused by the expansion of COVID-19 might also have an impact on Trincomalee District.

According to interviews with JETRO and local Japanese companies, few Japanese companies are actively utilizing the Port of Trincomalee at present. In Sri Lanka, major cities are unevenly located on the west coast, while the east coast is underdeveloped, and Trincomalee is an isolated port in the east. It is difficult to attract companies simply by developing the port alone, and it is necessary to develop infrastructure around it while involving the surrounding countries and regions. For example, access from Colombo to Trincomalee by land takes a long time. To improve this, the development of the Central Expressway is currently underway, consisting of four construction zones: Zone 1: Colombo to Mirigama, Zone 2: Mirigama to Kurunegala, Zone 3: Kandy to Kurunegala, and Zone 4: Kurunegala to Dambulla. Construction zone 2 was completed around the end of 2021, but it will take time to complete all of the zones.

The Port of Trincomalee has a geographical advantage, being located to the east of Sri Lanka. If cargo from major eastern cities such as Kolkata, Dhaka, Chittagong, and Yangon could be collected in Trincomalee and shipped to the Middle East and Europe, or vice versa, the Port of Trincomalee could become a trading port like Dubai and Singapore. However, the Port of Trincomalee does not have a container terminal. During this evaluation study, unconfirmed information was received from several interviewees that there was a plan to develop a container terminal at the Port of Trincomalee with Japanese assistance in the past, but the accuracy of this information is not clear. The Government of Sri Lanka indicated in the NPMP that it intends to concentrate containerized cargo at the Port of Colombo and to develop the Port of Trincomalee as an industrial port to handle bulk cargo.

The development of the Port of Trincomalee will require a comprehensive strategy that includes the development of peripheral infrastructure such as expressways and container terminals, while also taking into consideration the relationship with neighboring countries. However, at present, port development in Sri Lanka is concentrated in the Ports of Colombo and Hambantota, and the development of the Port of Trincomalee appears to be lagging behind these ports. Given this situation, the development of the Port of Trincomalee is still expected to take a long time.

(5) Diplomatic Effect through Equipment Provision and Utilization

(A) Positioning of the Project in Japan's diplomatic policy

In interviews with the Government of Sri Lanka, they expressed appreciation for the port equipment provided under the Project and the enhanced port functions of the Port of Trincomalee, as well as the efforts of the Embassy of Japan in Sri Lanka and JICS in implementing the Project. Through this Project, which was formed on the occasion of the May 2016 summit meeting between then President Sirisena and Prime Minister Abe, the Government of Japan was able to clearly demonstrate to Sri Lanka its "Free and Open Indo-Pacific" strategy and also the policy to promote the deployment of "quality infrastructure." For example, looking at the port call of the Japanese Self-Defense Vessel to the port of Trincomalee, the first call was made in 2013, but since 2017, when the E/N for this Project was signed, port calls have been made every year up to the present. From the above, it can be inferred that this Project had a certain effect in strengthening bilateral relations between Sri Lanka and Japan and in promoting Japan's diplomatic policy.

In many cases, however, these diplomatic effects are difficult to measure quantitatively or qualitatively with evidence. There is a strong relation between Japan's diplomatic policy at the time of project planning and the content of this Project. However, it was difficult to confirm and analyze from the documents and the interviews in this evaluation study what specific effects were expected from the implementation of this Project in relation to these diplomatic policies, and to what extent these objectives were achieved.

(B) Support for Japanese companies

Interviews was conducted with Japanese companies that are the contractors for this Project regarding the effect of this Project in terms of support for Japanese companies. No information was obtained from the Japanese companies regarding any tangible direct effects, such as increased sales in Sri Lanka or new commercial opportunities related to this Project. Through the project site visit and interviews with the SLPA and other relevant organizations in Sri Lanka, it was confirmed that the Sri Lankan people strongly trust the quality and durability of Japanese products. However, it is not clear whether this Project contributed to the enhancement of the presence of Japanese companies and products in Sri Lanka, as Japanese companies and products have traditionally had a very strong reputation in Sri Lanka.

On the other hand, Japanese companies also commented that the strengthened networks with the local government and local agents, as well as the experience of introducing port equipment to the Sri Lankan market, were meaningful for their future business development in Sri Lanka and other overseas countries. It is expected that this Project will have a medium-to long-term effect on the overseas expansion of Japanese companies in the future.

Japanese companies mentioned that the Grant Aid (Economic and Social Development Program) implemented by MOFA is a simple process and moves quickly. For Japanese companies, this may be one advantage of the scheme. In addition, many of the projects under the Economic and Social Development Program require that the products provided are Japanese products, which makes it easier for Japanese companies to participate in the program in terms of ease of procurement and negotiation with manufacturers. One Japanese company commented that since the strength of Japanese products lies in their high-functionality and high added-value, the more projects that provide such products, the more opportunities for Japanese companies will increase.

3.2.2 Appropriateness of Implementation, Monitoring, and Follow-up Processes

(1) Appropriateness of the Processes Compared to the Standard Workflow of the Grant Aid (Economic and Social Development Program) Indicated by the Government of Japan

(A) Appropriateness of the Implementation Processes

The Project was appropriately implemented. No major issues related to the implementation process were identified during this evaluation study. According to JICS, the implementing agency, the Sri Lankan Ministry of Finance, and the end-user, SLPA, were prompt and cooperative in handling the various coordination procedures of the Project. It can be evaluated that the process proceeded smoothly because each of the stakeholders in Sri Lanka and Japan had a sense of ownership and played their own roles.

Procurement of all goods procured under the Project was carried out in accordance with MOFA's "Procurement Guidelines for Non-Project Grant Assistance." Basically, the companies awarded the contract were selected impartially through public competitive bidding. Contractors were selected through direct contracting only for items for which there were logical reasons to do so, such as procurement of items that were additional to the original contract.

Installation of each port facility generally proceeded as planned. However, the VTMS was completed approximately 10 months later than planned due to delays in the construction of the radar tower for which the Government of Sri Lanka was responsible. According to the SLPA, the delay was due to the time required for bidding procedures, delays in importing steel and other construction materials, and the time required to consult military officials and obtain permission to install one of the two lighthouses at the Sri Lankan naval base.

Though Sri Lanka experienced a large-scale simultaneous terrorist attacks in the capital city of Colombo in April 2019, the main impact was limited to the Colombo area and there was little impact on the Project. In addition, Project coordination work was affected by the outbreak of the COVID-19 pandemic that limited in-country travel and face-to-face meetings

from 2020 onward, but the Project was successfully completed in November 2020.

(B) Appropriateness of the Monitoring and Follow-up Processes

According to interviews with the Embassy of Japan in Sri Lanka, the COVID-19 pandemic in the final stages of the Project placed restrictions on long-distance travel within Sri Lanka. As a result, Embassy staffs have not yet been able to visit the Port of Trincomalee. The Embassy has been checking the situation with JICS and SLPA in order to monitor the progress and status of the Project after its completion.

(2) Points that Contributed to the Realization of Project Effects and Achievement of Project Objectives/Points that Should Have Been Taken into Consideration

The COVID-19 pandemic since 2020 has been a significant external factor on the Project. The evaluation of "Achievement and Efficiency of the Project Objective" confirmed that neither vessel traffic nor cargo handling volume at the Port of Trincomalee has increased since the Project. This result may be influenced by the lockdown and other regulations in Sri Lanka due to the outbreak of COVID-19 and the resulting stagnation of economic activities.

From 2020 onwards, in particular, the COVID-19 pandemic has caused various obstacles for stakeholders involved to carry out the Project. The stakeholders successfully completed the Project in compliance with Sri Lankan national regulations while working to prevent the spread of infection and carrying out the necessary processes. This is highly evaluated under the category of "Appropriateness of the Implementation, Monitoring, and Follow-up Processes".

The influence of the ongoing global outbreak of COVID-19 including the outbreak of the new Omicron strain continues to be felt worldwide. As a result, it has not been possible to hold events in the Project such as on-site monitoring or completion ceremonies by Embassy staff. This can be considered unavoidable at this time as a result of the influence of external factors beyond control.

Chapter 4 Recommendations and Lessons Learned

4.1 Recommendations for the Project

■ Early implementation of on-site monitoring by Embassy staff (short term recommendation)

In the wake of the COVID-19 outbreak, on-site monitoring by Embassy staff has not yet been implemented. It is recommended that local monitoring is conducted as soon as possible after the influence of COVID-19 has subsided. However, it is a requirement that the COVID-19 situation is fully taken into account and that infection prevention measures are followed in accordance with local regulations in Sri Lanka.

■ Establish a strategy to support regional development around the Port of Trincomalee (mid-term and long-term recommendation)

According to interviews with JETRO and local private companies, business activity and investment in the Port of Trincomalee have not been stimulated despite the fact that the Project has enhanced the functions of the port. Data on vessel traffic and cargo handling volumes at the Port of Trincomalee since the Project have so far shown no increasing trend.

In the case of this Project, there was also the external factor of COVID-19 pandemic, so it is too premature to evaluate the development effects of the Project based solely on the above results. However, the results also indicate that it is difficult to realize development effects in the local economy through a stand-alone project such as port development. In order to revitalize logistics at ports, attract investment to the surrounding areas, and lead to economic and social development in the region, it is believed that comprehensive efforts are needed to improve access to major cities through road improvement and other measures, combined with the development of peripheral infrastructure such as the expansion of existing terminals.

Based on the above issues, it is recommended that the Government of Japan consider a strategy to support economic development in the region surrounding the Port of Trincomalee in order to make use of the effects of this Project in the future. The Government of Sri Lanka has already formulated master plans such as the NPMP for port sector development and TDMP for regional development in Trincomalee. Therefore, it is necessary to review these plans and follow the direction of the Government of Sri Lanka policy.

Sri Lanka's geopolitical advantages need to be understood if regional social and economic development is to be pursued through port development. It is also necessary to consider how to facilitate trade transactions with neighboring countries and how Sri Lanka can function as a regional hub. Therefore, in implementing this recommendation, it is desirable to consider collaboration with the "Japan-ASEAN Connectivity Initiative", which is being promoted by Japan in neighboring countries such as Myanmar and Thailand. This recommendation is not a direct recommendation to "provide assistance," but rather a recommendation to "consider an assistance strategy."

4.2 Recommendations and Lessons Learned for the Grant Aid (Economic and Social Development Program) by MOFA

4.2.1 Recommendations

■ More proactive dissemination of information on projects (short- and medium-term recommendation)

In conducting this evaluation study, the evaluation team searched the Internet for information. Only information on the E/N signing ceremony and a brief overview of the Project were available as public information disseminated by MOFA. It was difficult to ascertain the background and objectives of the Project from such information. Although the amount of information may vary depending on the individual project, there seems to be a general lack of publicly available information with regard to Grant Aid (Economic and Social Development Program) implemented by MOFA. It is recommended that MOFA more proactively disseminates information on its projects in order to ensure transparency in ODA and to promote public understanding.

Clarification of project objectives and logic model for project effect manifestation (short- and medium-term recommendation)

According to documents provided by MOFA, the Project objectives were the "economic and social development of Sri Lanka" and "support for Japanese business activities." However, there were no documents at the time of planning as to what exactly these objectives meant and what conditions would be required to judge that the objectives had been achieved. Therefore, it was necessary for the evaluation team to interpret these objectives and set the evaluation criteria and items.

In Grant Aid implemented by MOFA, for which the period is insufficient for the implementation of preliminary studies, it is sometimes necessary to redefine the objectives of the project when evaluating a project after the completion. However, if the objectives of the project and the logic model for achieving the project effects are unclear at the time of planning, there is a concern that differences of opinion may arise among the stakeholders concerned regarding the redefined objectives and it makes it difficult to derive a satisfactory evaluation judgement. In many cases, it is particularly difficult to redefine diplomatic effects. In addition, the timing of the evaluation may not be appropriate for measuring long-term effects (i.e., it takes a longer period of time for the effects to be realized).

In light of the above issues, it is recommended that MOFA, when planning Grant Aid (Economic and Social Development Program) makes every effort to clarify as much as possible the objective of the project and the logic model for achieving its effects, and record and preserve the process of its consideration.

Note that when implementing Grant Aid (Economic and Social Development Program), it

is important to be agile and not to conduct time-consuming preparatory studies for cooperation due to the nature of the scheme. Therefore, this recommendation does not require detailed preliminary studies or the setting of performance indicators. This recommendation is only an expectation that the objectives of the project and the logic model of the realization of its effects are explained to the extent that a common understanding can be achieved even after project completion.

4.2.2 Lessons Learned

■ Grant Aid (Economic and Social Development Program) by MOFA as a tool to support overseas business development of Japanese companies

Strengthening economic relations between Japan and the partner countries by providing excellent Japanese products and promoting the overseas business development of Japanese companies is considered one of the objectives of the Grant Aid (Economic and Social Development Program) implemented by MOFA.

MOFA's Grant Aid (Economic and Social Development Program) is characterized by its ability to be implemented quickly and easily. The Economic and Social Development Program schemes have the following characteristics: (1) the procuring agency can proceed with the entire process from the preparation of bidding documents to the conclusion of a contract with the contractor, (2) the procuring agency can verify and approve any changes in items or design, (3) the procuring agency manages the funds in a procurement account, and (4) it is not necessary to conduct a preliminary study using a consultant except for large and complex projects⁶. These characteristics make projects faster and simpler.

In this evaluation study, the Japanese companies that provided port equipment expressed a high regard for these characteristics of Economic and Social Development Program schemes. One Japanese company also commented that the fact that no performance bond is required is also an advantage for private companies.

The products to be provided are determined in consultation with the partner country. In the case of non-LDCs, the products are often Japanese products (Tide aid). According to Japanese companies, it is easier to conduct business with Japanese manufacturers if the products are Japanese products, as communication with them is easier and there is mutual trust. Furthermore, since Japanese products are strong in high-added-value and high-functionality, it was suggested that if such products are provided in more projects, more Japanese companies will be willing to participate in the project. In addition, given the growing need for climate change countermeasures in recent years, it was suggested that the provision of equipment related to disaster prevention, such as water level meters and rain gauges for flood countermeasures, would also be effective.

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⁶ In the case of this project, a consultant was hired for the procurement of the VTMS because it was a large and complex project.

Grant Aid (Economic and Social Development Program) implemented by MOFA is favorably received by Japanese companies, and, if utilized strategically, it can be a useful tool to support Japanese companies. For that reason, it is important to strategically consider how to support the overseas business development of Japanese companies through projects, the content of products and the purpose of provision.

Of course, the content of products will be decided based on the needs of the partner countries and in consultation with them. This lesson learned does not mean that "Tide aid" should be promoted but merely shows the possibility of utilizing Grant Aid (Economic and Social Development Program) as a tool to support the overseas business development of Japanese companies.

This report is a compilation of the results of a survey conducted by KPMG AZSA LLC on behalf of the Ministry of Foreign Affairs of Japan. While we have endeavored to compile this report in a timely manner based on information available at the time of the survey, the contents of this report may not correspond to the circumstances of specific individuals or organizations not included in the scope of this survey, and we do not guarantee the accuracy or completeness of the information at the time of receipt or thereafter. This report is intended to report the results of the commissioned work on a factual basis and is not intended to provide any assurances. This report had been submitted only to the Ministry of Foreign Affairs of Japan, and KPMG AZSA LLC assumes no responsibility, directly or indirectly, for the use of this report by any third party who has reviewed this report or obtained a copy of this report.