

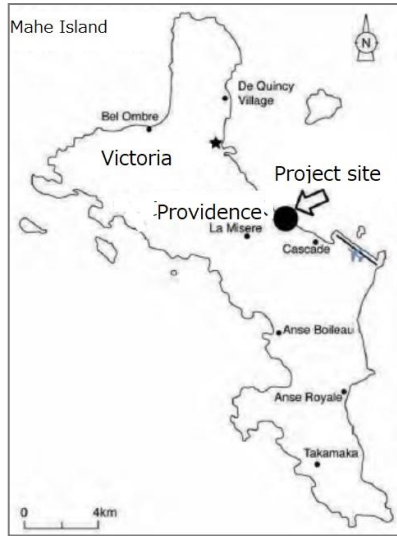
FY2021 Simplified Ex-Post Evaluation Report of Japanese Grant Aid Project

External Evaluator: Maki Hamaoka, Foundation for Advanced Studies on International Development

Duration of the Study: September 2021 - November 2022

Duration of the Field Study: February 15, 2022 - February 28, 2022 and April 30, 2022 - May 7, 2022

Country Name	<Project Name> The Project for Construction of Artisanal Fisheries Facilities in Mahé Island (Phase 2)
Seychelles	



Location of the project site (source: Ministry of Foreign Affairs website¹)

Ice plant constructed by the project (source: field survey)

I. Project Outline

Background	At the time of planning, fisheries were one of the major industries in Seychelles and annual fishery catches were increasing year by year. Under “The Project for Construction of Artisanal Fisheries Facilities in Mahé Island (Phase 1, 2008-2010),” fishing facilities were built in Providence and Bel Ombre to accommodate the increased fishery catches in Victoria Fishing Port and to disperse the concentration of landings. As a result of many sea cucumber fishing vessels moving their bases from Victoria Fishing Port to Providence Fishing Port, the number of fishing vessels using Providence Fishing Port increased, affecting small-scale fishermen’s activities. Victoria Fishing Port had no room for expansion, and rapid development and expansion of other fishing ports in the country was necessary.			
Objectives of the Project	To secure mooring space for the increasing number of fishing vessels and efficient operation of fishing ports and to ensure the quality of marine products by expanding the fishing port and improving fishery facilities at Providence Fishing Port, thereby contributing to the development of the Seychelles fishery industry, including fish processing.			
Contents of the Project	<p>1. Project Site: Providence in Mahé Island</p> <p>2. Japanese Side: (1) Civil facilities: quay No. 1 (96.23 m), quay No. 2 (116 m), access roads, U-turn paving mooring buoys (2) Facilities and equipment: ice plant (ice making machine, ice storage), landing shed,² water supply system, power supply system, lamppost, water drainage system, access road (3) Consulting services/soft component: detailed design, construction management, soft components for operation and maintenance of ice plant</p> <p>3. Seychelles Side: (1) Conducting the Environmental Impact Assessment (EIA) and obtaining the environmental authorizations; (2) Banking Agreements (B/A) and issue of Authorization to Pay (A/P); (3) Application for acquirement of permits and approvals necessary for construction, buildings, and works under the project; (4) Removing obstacles in the construction site and site clearance; (5) Providing facilities for the performance of work; (6) Installing a fence around the ice plant</p>			
Implementation Schedule	E/N Date	March 22, 2016	Completion Date	July 9, 2018 (Handover)
	G/A Date	March 22, 2016		
Project Cost	E/N Grant Limit / G/A Grant Limit: 1,460 million yen, Actual Grant Amount: 1,347 million yen			
Executing Agency	Seychelles Fishing Authority (SFA)			
Contracted Agencies	Main Contractor(s): Penta Ocean Construction Co., Ltd.			
	Main Consultant(s): Joint venture between OAFIC Co., Ltd. and ECOH Corporation			

¹ <https://www.mofa.go.jp/mofaj/area/seychelles/index.html>

² Shaded area for landing fish

II. Result of the Evaluation

Summary

This project was implemented to secure mooring space for the increasing number of fishing vessels, ensure efficient operation of fishing ports, and ensure quality of marine products by expanding the fishing port and improving fishery facilities at Providence Fishing Port, thereby contributing to the development of the Seychelles fisheries industry, including fish processing.

The objectives of this project were in line with the Seychelles' development plans and development needs, and the project was formulated with consideration for small-scale fishermen. In addition, in line with Japan's development cooperation policy, mutual linkage with JICA's assistance in the fisheries sector and collaboration with other donors were sought. Therefore, relevance and consistency are high. Although the number of fishing vessels using Providence Fishing Port is higher than expected and the congestion rate has not been alleviated to the level expected at the time of planning, the congestion at the fishing port has improved since before the project's implementation. In addition, the ice-making capacity has been greatly improved, and the freshness of landed fish is maintained in better condition than before. The project's objective of "securing mooring space for the increasing number of fishing vessels, efficient operation of fishing ports, and ensuring quality of marine products" was achieved through this project's implementation. Regarding the project's expected impact on the development of the fishing industry in Seychelles, an increase in the fish catch at Providence fishing port was confirmed after the project's completion, and it can be said that the project, which improved the fishing port's ice-making capacity and usability, contributed to the development of the fishing industry in Seychelles to a certain extent. The project's implementation has mostly produced the planned effects. Therefore, the effectiveness and impacts of the project are high. The project cost and project period remained within the plan's parameters, and the outputs were mostly achieved as planned. Therefore, the project's efficiency is very high. No issues have been observed in the policy and system or institutional/organizational, technical, financial, environmental, or social aspects, including the operation and maintenance system's current status. (Future) Risks have been well mitigated. Therefore, the sustainability of the project effect is very high.

In light of the above, this project is evaluated as highly satisfactory.

Overall Rating³	A (Highly satisfactory)	Relevance & Coherence	③ ⁴	Effectiveness & Impacts	③	Efficiency	④	Sustainability	④
-----------------------------------	------------------------------------	----------------------------------	----------------	------------------------------------	---	-------------------	---	-----------------------	---

<Special Perspectives Considered in the Ex-Post Evaluation/Constraints of the Ex-post Evaluation>

Interviews with fishermen were planned to be conducted with fishermen with whom it would be possible to make comparisons before and after the project's implementation. However, the selection of interviewees was difficult due to the inability to contact the fishermen who had been operating before the project's implementation and to obtain their consent to cooperate in the interviews. In Providence Fishing Port, two of the nine fishermen who agreed to cooperate in the interviews started fishing after the project's completion, so questions regarding pre- and post-project implementation comparisons were excluded. In Victoria Fishing Port, fishermen interviewed during the preparatory survey and fishermen who were in the fishing port during the field survey were asked to cooperate in the interviews, but only 3 vessels agreed to do so.

1 Relevance/Coherence

<Relevance>

- Consistency with the Development Policy of Seychelles at the Time of Ex-Ante Evaluation

Strategy 2017 (2007-2017) identified tourism and fisheries, the two pillars of the economy, as future focus areas to double GDP, with the goal of Seychelles becoming a major seafood processing center in the Indian Ocean. "*The Fisheries Policy (2005)*," a sectoral plan, focused on promoting sustainable fishery development through the development of new fishing ports and the improvement of infrastructure in existing fishing ports. Therefore, the project's objective was consistent with Seychelles' development policy.

- Consistency with the Development Needs of Seychelles at the Time of Ex-Ante Evaluation

As of 2016, annual fishery catches in Seychelles amounted to about 270,000 tons, of which catches from small-scale fisheries accounted for 4,135 tons. Catches by artisanal fisheries are mainly landed at Victoria Port on Mahé Island, and these catches were increasing annually. This increase led to congestion inside Victoria Fishing Port, lost catches due to a decline in landing efficiency, a decrease in moored vessels' safety, and problems such as declining freshness owing to catches exceeding refrigeration facilities' capacity. The rapid development and expansion of other fishing ports in the country was required, and the expansion of Providence Fishing Port, which was the second largest fishing port in the country, was consistent with the Seychelles fishery sector's needs.

In addition, whereas Victoria Fishing Port, the largest fishing port in the country, is mainly used by large fishing vessels, Providence Fishing Port is mainly used by small-scale fishermen. In this regard, it can be said that the project was formed in consideration of socially vulnerable groups, assuming the effects of the project, such as "making it easier for small-scale fishermen to use quay and port facilities," "making it easier to refuel small fishing boats and replenish water and ice," "making it easier to obtain ice necessary for long fishing trips," "eliminating the need to maintain fishing gear and nets under the hot sun by installing landing shed," and "enabling fresh fish to be shipped to local markets and improving profits for small-scale fishermen."

<Coherence>

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

This project fully aligned with Japan's aid policy for Seychelles. Japan's ODA policy for Seychelles included the fishery sector as a priority area for development cooperation with Seychelles, and its policy was to provide assistance in the fishery sector, including the utilization of

³ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁴ ④: Very High ③: High, ②: Moderately low, ①: Low

fishery resources and port development to diversify the Seychelles economy and strengthen bilateral relations in the fishery sector.⁵

- Internal Coherence

The project utilized lessons learned from Phase 1. In Phase 1, delays in obtaining permission to use land the Ministry of Land Use and Housing owned led to significant project delays. The ex-post evaluation of Phase 1 led to the lesson that the project should be implemented on land with prior permission for land use or on land the implementing agency owned. This project was planned to use land which SFA owned. In this way, the project had a certain degree of interconnection with JICA's support for other projects in terms of utilizing the lessons learned from the previous phase.

- External Coherence

Regarding consistency in support that development cooperation agencies other than Japan provided, it was confirmed that this project and the support the Fisheries Partnership Agreement (FPA) provided between the EU and the Seychelles government are mutually complementary. The Seychelles government signed the FPA with the EU in 2013 to construct fish processing facilities in Providence Fishing Port, which had been built in the previous phase of Japanese grant aid. Because these facilities were only buildings and did not include equipment such as ice making machines, there was no overlap between EU support and this project. Rather, the facility expanded and improved in this project and the EU-supported fish processing facilities complement each other and therefore effectively utilize the facilities each organization supports. Furthermore, the Seychelles government and the EU signed a new six-year Sustainable Fisheries Partnership Agreement (SFPA) in February 2020, which provides for fishing opportunities for EU-flagged vessels, financial compensation from the EU, and support for Seychelles' fishery sector.

To meet the increasing demand for ice, the SFA installed one ice plant at Providence Fishing Port in 2020 with SFPA funds. This was not planned at the time of planning, but as stated in "Effectiveness", Providence Fishing Port users' improved satisfaction with ice sales is a synergistic effect of the project and EU support.

<Evaluation Result>

The objective of this project was consistent with Seychelles' development plan and development needs, and the project was formed with consideration for small-scale fishermen. In addition, the objective of the project was consistent with Japan's development cooperation policy and the project has internal coherence in that it was mutually linked with JICA's assistance in the fisheries sector, and external coherence in that it was linked with assistance from other donors. In light of the above, the relevance and coherence of the project are high.⁶

2 Effectiveness/Impacts⁷

<Effectiveness>

<Quantitative Effects>

The objective of this project, "to secure mooring space for the increasing number of fishing vessels, efficient operation of fishing ports, and ensure quality of marine products," was mostly achieved.

The first indicator, "reduction of congestion rate," showed a certain level of improvement compared to before the project's implementation although it did not reach the planned value because the number of fishing vessels using Providence Fishing Port was higher than assumed at the time of planning.

For the second indicator, fish-catch-landing volume (tons/year), data for three years after the project was not available⁸, so we compared data for 2020, two years after the project, to the target. The actual result in 2020 was 495 tons compared to the target of 292 tons, which is a high level of achievement (170%) because the tuna industry has been booming since 2015 and the number of longline fishing vessels⁹ using Providence Fishing Port has been increasing.

The third indicator, "ice sales at the fishing port," indicates the amount of ice sold from ice plants procured in Phase 1 and this project. The actual results far exceeded the target value, so the achievement level is very high. According to the SFA's explanation, the plate ice the plants produced, procured through JICA projects, is thick and lasts longer, and the number of fishing vessels coming to Providence Fishing Port to purchase ice is increasing every year. The ice machines operate 24 hours a day, 7 days a week, but the supply of ice from the ice machines procured in Phase 1 (2 ice machines, 5 tons/day for each) and the ice machines procured in this project (2 ice machines, 5 tons/day for each) cannot keep up with the ever-increasing demand. As stated in External Coherence, the SFA added one ice plant at Providence Fishing Port in 2020 to increase ice-making capacity and meet the increasing demand for ice.

⁵ Japan's ODA data by country (2015)

⁶ Relevance: ③, Coherence: ③

⁷ When providing the sub-rating, Effectiveness and Impacts are to be considered together.

⁸ The SFA is stepping up the procedures and means with regards to the collection of data as to ensure that all required data are captured. The fish-catch landing is being collected by another department (Fisheries Statistics and Economics) and this department is working on addressing the data for ports managed by SFA to be more readily available via a new data management system which is being worked on and to be implemented in 2023.

⁹ A longline is a fishing method in which multiple ropes with baited hooks are connected at regular intervals. The depth at which the ropes are set depends on the species of fish, and they are set in the middle or bottom layer. (source: <https://www.msc.org/jp/what-we-are-doing/our-approach-JP/fishing-methods-JP/longlines>)

Quantitative Effects

Indicator	Baseline 2015 Baseline Year	Target 2021 3 Year(s) after Completion	Actual 2018 Completion Year	Actual 2019 1 Year after Completion	Actual 2020 2 Years after Completion	Actual 2021 3 Years after Completion
Indicator 1 Quay congestion rate (%)	191 ^{Note1}	100 ^{Note2}	n.a.	95 ^{Note3}	n.a.	141 ^{Note4}
Indicator 2 Fish-catch-landing volume (tons/year)	150	292	237	338	495	n.a.
Indicator 3 Ice sold at the fishing port (tons/month)	125	375	509	524	524	524

Source: Prepared by the evaluator based on the preparatory survey report (2015), documents provided by JICA and the SFA

Note 1: The baseline value is the number of active fishing vessels (23), calculated based on the mooring survey and baseline survey during the preparatory survey in 2015, and divided by the number of vessels in the quay design (12).

Note 2: The target value is the number of vessels in port (moorings)/planned moorings in 2021 (39). The number of vessels in port is the sum of 23 active vessels in 2015, 11 vessels that were expected to move from Victoria Fishing Port, and 5 vessels that fish processing companies purchased.

Note 3: The actual number of vessels after one year of completion is the number of moored fishing vessels at the time of the final inspection in July 2019 divided by the number of vessels planned to be moored.

Note 4: The evaluator calculated the congestion ratio by dividing the actual results three years after the project's completion by the planned number of moored vessels. The actual value was the average (55 vessels) of three measurements, taken on February 15, 2022 (54 vessels), May 3, 2022 (56 vessels), and May 4, 2022 (55 vessels).

<Qualitative Effects>

The evaluator verified the effects assumed at the time of the planning of the project “mooring space for fishing vessels is secured at Providence Fishing Port, and efficient fishing port operations and quality assurance of marine products were promoted” as follows: (a) improvement of work efficiency in the fishing port through guidance and management of the use of fishing port facilities (changes in time for berthing at the landing shed, landing time, preparation time, and waiting time before berthing), (b) improvement of safety for vessels and fishermen by optimizing the rate of quay congestion at Providence/Victoria Fishing Port, and (c) provision of appropriate amount of ice to fishermen through operation and maintenance of ice plants and improvement of the system (recognition of fishermen for the provision of ice).

(a) Improvement of work efficiency

As previously stated, the improvement in work efficiency is limited because the congestion rate has not eased to the expected level. At Providence Fishing Port, three of the seven vessels interviewed indicated that the time to berth at the landing site before and after the project implementation decreased, two indicated that it increased, and two did not know; at Victoria Fishing Port, two indicated no change and one indicated that it increased. Regarding time for going fishing, three of the seven vessels in Providence Fishing Port reported a decrease after the project completion, three reported no change, one reported that it depended on the number of vessels in port and the time required to get ice, and for Victoria Fishing Port, one of the three vessels reported no change, one reported an increase, and one reported that it depended on the situation. Although congestion at the fishing port has eased compared to before the project implementation, it has not reached the level expected before the project's implementation, and the interview results indicate that work efficiency has not improved as much as expected. One of the main reasons the congestion rate has not improved is that approximately 40% of the moored fishing vessels are non-operational.¹⁰ Most of the inactive fishing vessels have ceased operations due to engine failure. Because Providence Fishing Port has no place where the vessels can be salvaged and repaired¹¹, they remain moored in the port. Currently, the SFA has no legal authority to move these inactive vessels, but this situation is expected to improve, as the SFA will be able to move inactive vessels forcibly once the “Providence Fishing Port Management Plan”¹² is officially implemented in December 2022.

In addition, although there is a bit congestion due to unloading of sea cucumber catches when it is seasonal in the landing sheds, with proper coordination among the Pier Masters and boat owners in the Providence Fishing Port, the port runs smoothly and there is less congestion than before.

(b) Improvement of safety for vessels and fishermen by optimizing the rate of quay congestion at Providence/Victoria Fishing Port

According to the SFA, no collisions were reported before or after the project's implementation in the Victoria or Providence fishing ports.¹³ In Providence Port, 32 CCTV cameras were installed in 2021 to monitor collisions and attempted collisions in the port and the waters near the port. In addition, as part of the Providence Fishing Port Management Plan, a port safety plan is partially in effect, and the SFA is working to ensure safety in the fishing port. For example, all fishing vessels are required to notify the pier master (the person responsible for coordinating port operations and shore use) 12 hours before entering the port. Through these controls, efforts are made to secure berths and moorings and avoid congestion in the port. Currently, as stated above, the SFA does not have the legal authority to move inactive fishing

¹⁰ At the time of the field survey on May 3, 2022, 20 of the 56 moored fishing vessels were inactive. Five of these vessels were Indian-flagged vessels that had been illegally capturing dolphins, and the remaining 15 had been inactive for over a year. The number of moored vessels minus the inactive vessels is 39, which is the planned number.

¹¹ The SFA is working to reduce congestion in the port, with small internal rules in place for fisherman compliance, such as the need to formally submit a letter to the SFA to request repair work in advance.

¹² SFA submitted the final draft in 2017. It is currently being revised and will enter into force in December 2022. A standard operation procedure (SOP) has been developed and partially implemented for users of the fishing port regarding security, control, and mooring associated with the plan. Under the plan, the fishing's operation port will be outsourced to a private organization and the SFA will be the management body/facilitator that will facilitate communication and consultation on management and improvements. SFA will organize consultative meetings with the boat owners prior to fully implement the Port Management Plan by December 2022.

¹³ Source: Answers to the questionnaire from SFA

vessels, but users appreciate this recent improvement in safety at Providence Fishing Port. Their appreciation is one of the reasons the number of users of Providence Fishing Port is increasing.

(c) Provision of appropriate amount of ice to fishermen through operation and maintenance of ice plants and improvement of the system (recognition of fishermen for the provision of ice)

After the project's completion, fishermen using Providence Fishing Port are more able to obtain the necessary amount of ice in a timely manner than before the project's implementation, and fishermen's satisfaction with ice supply is generally high.¹⁴ Five of the seven vessels¹⁵ that responded to the interviews indicated that the amount of ice available before the project was not sufficient, and three of the three vessels in Victoria Fishing Port indicated that it was not sufficient. After the project's completion, three of the nine vessels interviewed at Providence Fishing Port stated that they had enough, and four stated that they had some whereas at Victoria Fishing Port, two of the three vessels stated that they did not have enough and one stated that they had some. The results of the interviews with fishermen indicate that Providence Fishing Port has been able to provide an adequate amount of ice to fishermen since the project's completion. In fact, the sufficiency of available ice is also reflected in fishermen's satisfaction with ice sales. At Providence Fishing Port, seven of the nine vessels interviewed were "very satisfied," one was "satisfied," one was undecided, and one was dissatisfied. At Victoria Fishing Port, two of the three vessels interviewed were undecided, and one was dissatisfied. In Providence Fishing Port, the majority of those interviewed were satisfied with the current ice supply. At Providence Fishing Port, in addition to obtaining the right amount of ice in a timely manner, the installation of landing sheds has enabled fishermen to sell fish to fish processing companies and mongers while maintaining the marine products' freshness, thereby increasing sales of seafood products.

In light of the above, regarding the project's effectiveness, although the improvement of congestion at Providence Fishing Port has not reached the planned level, improvement has occurred from the time of planning, and further improvement is expected when the Providence Fishing Port Management Plan is officially implemented in December 2022. In addition, ice-making capacity has improved significantly, ensuring the freshness of landed fish. Therefore, the objective of "securing mooring places for the increasing number of fishing vessels, efficient fishing port operations, and ensuring the quality of marine products" has been achieved.

<Impacts>

<Impact Status>

The project's impact, which was assumed at the time of planning, is "development of the Seychelles fisheries industry, including fish processing." Due to the gap between the project's implementation and the expected effect to link the project targeting Providence Fishing Port and the development of the entire fishery industry in Seychelles in a causal relationship, the ex-post evaluation focused on the changes in fishery catches and processing by the fishermen at Providence Fishing Port to verify the impact. It was confirmed that the fishery catches at the small-scale fishery in Victoria Fishing Port has been decreasing whereas the catch in Providence Fishing Port has continued to increase because vessels moved from Victoria Fishing Port to Providence Fishing Port, as was assumed at the time of planning, but it is also likely that the expansion of fishing facilities due to this project and the opening of fish processing facilities in the Providence area have led to an increase in catch at Providence Fishing Port.

Annual Catch at Small-scale Fisheries in Seychelles

Unit: MT

	2015	2016	2017	2018	2019	2020
Mahé Island	2,706	2,005	3,777	3,667	3,873	3,020
Victoria Fishing Port ^{Note}	1,095	598	969	813	914	549
(Percentage of total Seychelles catch)			22%	19%	21%	16%
Providence Fishing Port			125	237	338	495
(Percentage of total Seychelles catch)			3%	6%	8%	14%
Total of Seychelles	3,214	2,516	4,356	4,187	4,411	3,460

Source: Documents provided by the SFA

Note: Prior to 2016, SFA statistics included the Providence Port catch in the Victoria Port catch.

In the interviews with fishermen about their fishing income before and after the project's implementation, four of the nine vessels at Providence Fishing Port indicated an increase, four indicated a decrease, and one indicated no change. Two of the four vessels attributed the increase in fishing income to an increase in fish-catch-landing volume, and two vessels attributed it to an increase in their catch's wholesale price. The four vessels that experienced a decrease cited lower profits due to increasing commodity prices and fuel costs, even though the wholesale price of fish was almost the same as before. Three of the four vessels with increased fishing income were semi-industrial longline vessels (average length 14-23 m), which are classified as medium-sized vessels, one was a lavenir boat (average length 7-11 m), which is classified as a small-scale vessel, and two of the four vessels with decreased income were of the semi-industrial type. Therefore, it can be said that there is no difference in fishing income before and after the project's implementation depending on the type of fishing vessel. In Providence Fishing Port, the number of fishermen who reported an increase in fishing income and of those who reported a decrease were equal, and as already noted in the evaluation constraints, due to the small number of interviews, it is not possible to conclude that fishing income increased for fishers as a whole. However, certain impacts were identified, such as improved ice supply leading to increased catches at Providence Fishing Port and the installation of landing sheds leading to maintained freshness of landed fishes. Some fishermen have used profits from increased fishing income to purchase food and expand their fishing activities.¹⁶

¹⁴ Source: Interviews with boat owners, answers to the questionnaire from SFA

¹⁵ Interview results from two of the nine boats/vessels interviewed were not applicable because they began using the Providence Fishing Port after the project's completion.

¹⁶ Source: Interviews with 4 boat owners (three longline vessels and one lavenir boat in Providence Fishing Port)

<Other Positive and Negative Impacts>

The EIA study for the project was conducted in accordance with the Seychelles' Environment Protection (Impact Assessment) Regulations, 1996. The SFA prepared the EIA report, and the Ministry of Environment, Energy, and Climate Change received it in July 2016 and subsequently approved it.¹⁷ Conditions such as a strict ban on stockpiling within 15 meters of the sea, provision and maintenance of roadside drains and culverts, and no direct discharge of wastewater into the sea were fulfilled.¹⁸

As shown below, no negative impacts were identified regarding the natural environmental aspects.

Water Quality: In response to the expected water pollution in the surrounding area due to the construction of the quays, the construction equipment that minimizes water pollution was used as planned and anti-pollution membranes were installed. There is no inflow of cooling wastewater from the ice making machines into the port or of domestic wastewater from the port into the sea. The SFA and the contractor regularly tested water quality during construction, and the SFA did so after the project's completion, and they confirmed that there were no water quality problems.

Soil: During construction, the contractor performed adequate maintenance of heavy equipment to prevent soil contamination due to oil leakage from heavy equipment on site.¹⁹

In terms of environmental and social impacts (land acquisition and resettlement), there were no negative impacts because the project was an expansion of an existing fishing port on land the executing agency owned and did not involve land acquisition or resettlement.²⁰ (Name of applicable guideline: JICA Guidelines for Environmental and Social Considerations (2010), Environmental Category: B)

No other positive or negative impacts were generated that we did not anticipate at the time of planning.

<Evaluation Result>

Regarding the project's effectiveness, the congestion rate has not reached the level expected at the time of planning because more fishing vessels used Providence Fishing Port than expected at the time of planning, but the freshness of landed fish has been maintained in better condition than before due to the improved ice-making capacity. Overall, the project's objectives of "securing mooring sites for the increasing number of fishing vessels, efficient operation of the fishing port, and ensuring the quality of fishery products" were achieved through the project's implementation. In addition, the project's expected impact on the development of the fishing industry in Seychelles was achieved to a certain extent, as the increase in catch after the completion of the Providence Fishing Port project was confirmed, and the project seems to have contributed to its development to a certain extent. Therefore, the effectiveness and impacts of the project are high.

3 Efficiency

Both the project cost and project period were within the plan (compared to the plan: 92% and 96%, respectively). The outputs were completed as planned except for the installation of the fence around the ice plant, which was one of the Seychelles' obligations and was completed one year after the project's completion due to the time required to measure the fence's perimeter. As a result of the above, the project's inputs (cost and period) were efficient in relation to the outputs, and the efficiency of the project is very high.

4 Sustainability

• Policy and System

Vision 2033 (2019) identifies six pillars: (i) good governance, (ii) people at the center of development, (iii) social cohesion, (iv) innovative economy, (v) economic transformation, and (vi) environmental sustainability & resilience.²¹ In the National Development Strategy 2019-2023, which is linked to Vision 2033, fisheries are included as one of the areas of focus in (4) innovative economy among the above six pillars.

The sector plan, *the Fisheries Policy (2019)*, aims to provide effective, efficient, transparent, and accountable service delivery through a participatory approach to ensure long-term sustainable fisheries and aquaculture management and conservation so that the sector continues to play a key role in the country's sustainable development and the Seychelles nation's socioeconomic well-being.²² The policy points out that inadequate infrastructure support — including markets, ice making plants, repair and landing areas, and aging fishing vessels — are the main hindrances to business growth, better fisheries practices, value chain development, and fish products. In response to this challenge, one of the implemented policies is "infrastructure support and value chain development," which states that the government will facilitate the development of onshore infrastructure connecting fishers, businesses, and markets with those that support value-adding and product development to increase in-country processing, improve net gain in the sector, capture more landings of the catch taken within national waters, and increase exports consistent with international standards.²³

In light of the above, sustainability in terms of policy and system necessary for ensuring project effects is ensured.

• Institutional/Organizational Aspect

SFA's Fishing Port Operations and Management Department handles the operation and maintenance of Providence Fishing Port. Currently, Providence Fishing Port is operated and maintained by 19 people: one port manager, one pier master, two fuel attendants, three ice plant operators, two ice plant technicians, seven contracted security guards²⁴, one cleaner, and two handy men. At the time of the first field survey in February 2022, salesclerks with no proper knowledge and expertise doubled as ice plant operators. The SFA subsequently hired three operators with technical knowledge in April 2022. When new ice plant operators are assigned, they receive technical training on ice plant operation and safety aspects from representatives of a private maintenance company the SFA has contracted who was maintenance advisor and was trained by a Japanese technician in the soft component for ice plant operation and maintenance has during the project's implementation. In addition, the port manager previously served as port manager for several ports, but in March 2022, a dedicated fishing

¹⁷ Source: Documents the consultant provided

¹⁸ Source: Documents the consultant provided

¹⁹ Source: Answers to the questionnaire from SFA

²⁰ Source: Preparatory survey report and answers to the questionnaire from the consultant

²¹ Source: *Vision 2033 (2019)*

²² Source: *The Fisheries Policy (2019)*

²³ Source: *The Fisheries Policy (2019)*

²⁴ This will phase out gradually with SFA introducing its own internal employed security officers for accountability, transparency and control.

port manager was assigned to Providence Fishing Port.

In light of the above, the SFA has the necessary organization and structure in place to sustain the project effects.

• Technical Aspect

Fishing port facilities (quays, roads, etc.) are visually inspected. No specific problems were observed during the field survey. Daily maintenance, such as securing the path between the ice storage and the compressor in the event of water retention as well as draining the front of the ice storage, is being properly implemented.

The ice plants are operated and maintained according to the basic rules stipulated in the operation and maintenance guidance for the ice plants prepared through the soft component. Daily ice plant operation is properly recorded in operation logbooks as explained to the SFA technicians during the soft component's implementation.²⁵ In addition, maintenance and inspections of the ice plants are conducted monthly, semi-annually, or annually, depending on the nature of the inspections, through a contract between the SFA and a private maintenance company. Based on the above, the SFA has the technical capabilities necessary for the operation and maintenance of the facilities developed by the project, and the technical sustainability is high.

• Financial Aspect

The SFA became a financially autonomous parastatal organization in January 2019. The SFA has maintained a surplus from the time of planning to the time of the ex-post evaluation although the SFA has not received any budget from the government since then. Providence Fishing Port also remained profitable from the time of planning to the ex-post evaluation. In particular, revenue from ice sales has increased more than 10-fold since the project's completion. SFA is selling ice in 3 bags dimensions: 15 kg, 25 kg and 50 kg, and the price of ice sold for fishing boats has been maintained at 0.6 SCR per kg. This is due to the government policy to maintain the unit price of ice sales as a measure to support small-scale fishermen in order to ensure food safety, since the price of ice affects the purchase and price of fresh fish. Although revenues from ice sales are sufficient for the operation of ice plants, there is a new effort to conduct some more analyses and to try and advise the government to revise this rate to ensure SFA's operational expenses.

In addition, as stated in "External Coherence," the Seychelles government signed a six-year SFPA with the EU in February 2020, which includes financial support for the Seychelles fishery sector; for the six years from 2020 to 2026, the EU will contribute €5.3 million annually, of which €2.8 million is to be used to support Seychelles' fishery policy. With financial support from SFPA, one ice machine was installed at Providence Fishing Port in 2020. In addition, to alleviate congestion at Providence Fishing Port, a fishing port consisting of a mooring area, ice plant, and gear warehouse was constructed in the northern part of Mahé Island, and a fishing port consisting of an ice plant, landing shed, and gear house is under construction 8 km south of Providence Fishing Port, scheduled to open in December 2022. In addition, ice plants have been installed at several other ports, including Victoria Fishing Port. Therefore, it was confirmed that the finances for infrastructure development are secured.

In light of the above, the financial resources of the SFA necessary to sustain the project effects have been secured, and the financial sustainability is high.

Profit and Loss Sheet for the SFA

Unit: Thousand SCR

Year	2015	2016	2017	2018	2019	2020	2021
(1) Revenues							
(a) Government fund	100,857	124,359	142,488	152,525			
(b) Other revenues	217,540	234,360	125,302	170,619	226,464	266,822	312,371
Total revenues	318,397	358,719	267,791	323,144	226,464	266,822	312,371
(2) Expenses							
(a) Personnel expenses	17,962	21,724	20,721	26,305	45,445	61,712	71,126
(b) Office expenses	6,021	14,879	16,416	16,430	12,191	22,519	24,561
(c) Maintenance expenses	45,259	53,201	74,417	71,071	50,525	69,849	74,106
(d) Travel expenses	1,170	1,467	148	520	3,783	439	948
(e) Research expenses	9,402	8,001	12,558	18,056	17,236	15,717	5,908
(f) Other expenses	21,043	25,086	18,228	20,144	7,233	13,027	14,861
Total expenses	100,857	124,359	142,488	152,525	136,413	183,263	191,510
Net balance (1)-(2)	217,540	234,360	125,302	170,619	90,051	83,559	120,861

Source: Documents provided by the SFA

²⁵ Source: Answers to the questionnaire from SFA and direct observation during field survey

Profit and Loss Sheet for Providence Fishing Port

Unit: Thousand SCR

	2015	2016	2017	2018	2019	2020	2021
Expenditure							
Personal cost	192,000	192,000	192,000	192,000	192,000	192,000	288,000
Electricity	2,852,036	2,751,130	2,802,066	2,711,729	2,817,531	2,842,037	2,813,988
Water	346,392	321,481	340,652	313,771	343,094	316,877	310,493
Maintenance cost for facilities	102,000	102,000	102,000	102,000	102,000	102,000	102,000
Total Expenditure	3,492,428	3,366,611	3,436,718	3,319,500	3,454,625	3,452,914	3,514,481
Income							
Sales of ice	366,000	366,400	366,900	3,662,340	3,775,596	3,775,704	3,774,600
Rental fee for Fishermen's gear storage	201,600	201,600	201,600	201,600	201,600	201,600	201,600
Electric supply for Refrigerated container	259,200	259,200	259,200	259,200	259,200	259,200	259,200
Drinking water	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Total income	851,800	852,200	852,700	4,148,140	4,261,396	4,261,504	4,260,400
Balance	-2,640,628	-2,514,411	-2,584,018	828,640	806,771	808,590	745,919

Source: Documents provided by the SFA

• Environmental and Social Aspect

Water quality monitoring, the subject of environmental monitoring on the Seychelles side after the project's completion, has been regularly conducted; as of September 2021, the Seychelles Bureau of Standard had found no particular water quality problems. Because domestic wastewater is treated at a sewage treatment plant, there was no inflow into the sea from the time of the preparatory survey, and little impact on the environment, such as water and soil pollution, was expected. In this regard, no impact on water quality is expected in the future.²⁶

• Preventative Measures to Risk

At the time of planning, no risks related to the facility's operation after the project's completion were assumed. Also, no new risks were assumed at the time of the ex-post evaluation.

• Current Status of Operation and Maintenance

The facilities and equipment procured under the project have been consistently well maintained since the project's completion. No problems have arisen in obtaining spare parts or dealing with facility breakdowns. During the second field survey, the evaluator visited other fishing ports that were constructed through Japanese grant aid in the past and found that the ice plants that were procured a long time ago are still in use,²⁷ so good maintenance of the facilities and equipment procured under the project can also be expected in the future. At the time of the final inspection, it was confirmed that the water pressure in the two water supply facilities installed under the project was low. The SFA increased pressure through the Public Utilities Corporation (PUC), the agency in charge of water supply. During the second field survey, the water supply facilities were checked and found to have been improved to a level that would not interfere with use. SFA is working on other options to control their own water supply at Providence Fishing Port: SFA plans to install two 10,000 liter water storage tanks at Providence Fishing Port and use pumps to speed up the water supply and pressure to the fishing boats, which will be completed in 2022.

<Evaluation Result>

No issues have been observed in the policy and system or institutional/organizational, technical, financial, environmental, or social aspects, including the operation and maintenance systems' current status. (Future) Risks have been well mitigated. Therefore, the sustainability of the project effects is very high.

III. Recommendations & Lessons Learned

• Recommendations to Executing Agency

Improvement of Congestion at Providence Fishing Port

The SFA needs to take strict measures to reduce congestion in Providence Fishing Port by implementing the Providence Fishing Port Management Plan as planned. In particular, the SFA should take strict measures such as moving inactive fishing vessels that are obstructing the smooth navigation of fishing vessels in the fishing port to other locations instead of leaving them inactive.

It is also desirable to ensure that zoning is implemented according to the size and mode of operation of the vessels that are to be covered by the Providence Fishing Port Management Plan that separates mooring areas in the future to improve operational stability and work efficiency.

• Recommendations to JICA

None

• Lessons Learned

None

²⁶ Source: Preparatory Survey Report, answers to SFA's questionnaire and direct observation during the field survey

²⁷ Facilities such as ice plants constructed in Anse à la Mouche Fishing Port procured under "The Coastal Fisheries Development Project" (1994) and in Bel Ombre Fishing Port under "The Project for Construction of Artisanal Fisheries Facilities in Mahé Island" (2008).

IV. Non-Score Criteria

- Performance
- Objective Perspective

Although JICA has no office in Seychelles and has limited opportunities to monitor directly the status of the facilities that have been constructed, the JICA Kenya office regularly confirms with the SFA via email the problems identified during the final inspection, such as insufficient flow and pressure in the public water supply system in Providence Fishing Port and the status of the fishing port utilization. In March 2022, the national staff of the JICA Kenya office visited Providence and Victoria Fishing Ports to confirm the current status.

- Additionality
None



Fishermen taking ice from an ice storage
(source: field survey)



Fishermen landing their catch in the landing shed
(source: field survey)