

Islamic Republic of Mauritania

FY2019 External Ex-Post Evaluation of Japanese Grant Aid Project

“The Project for the Expansion of Fishing Port in Nouadhibou”

External Evaluator: Koichiro Ishimori, Value Frontier Co., Ltd

0. Summary

The objective of this project was to expand the functions at the port of Nouadhibou, the principal port of artisanal and coastal fishing in Mauritania, by developing its infrastructure, thereby contributing to sustainable development of artisanal and coastal fishing that played an important role in poverty reduction and development in the country. The implementation of the project has been highly relevant to Mauritania’s development plan and development needs, as well as Japan’s ODA policy. Therefore, its relevance is high. Although the project cost was within the plan, the project period exceeded the planned period by 191%, mostly because dredging the basins consumed a longer time. Thus, efficiency of the project is fair. As a result of the infrastructural development at the port, the port of Nouadhibou has been able to have more pirogues and coastal boats moored. The expansion of its functions has also contributed to promoting poverty reduction and social development in Mauritania, besides bringing tremendous benefits to consumers in Japan. Therefore, effectiveness and impacts of the project are high. Some minor problems have been observed in terms of organizational and current status of operation and maintenance. Therefore, sustainability of the project effects is fair.

In light of the above, this project is evaluated to be satisfactory.

1. Project Description



Project location



Pirogues at a mooring pier

1.1 Background

The history of cooperation for the port of Nouadhibou goes back to 1977 when an expert in fishery sent to Mauritania by JICA found by chance a grown octopus inside an old tire floating off the coast of Mauritania. Following this, the expert assiduously persuaded Mauritians, who had no custom of eating octopuses, to catch octopuses. He also trained them on pot fishing while keeping the export in mind. Over forty years since then, the port of Nouadhibou has

grown into the world's leading landing place of octopuses.

When pot fishing started, there was no infrastructure at the port of Nouadhibou until Arab Fund for Economic and Social Development (FADES)¹ constructed the basic structure at the port by developing two landing piers and four mooring piers from 1986 to 1997. Years later, the port started experiencing a significant growth in pot fishing and having a high demand for accommodating pirogues and developing port infrastructures. For these reasons, JICA implemented the grant aid project, “the Project for Basic Development and Infrastructure of Fishing Port in Nouadhibou (I) (II),” from 1999 to 2002 and set up mooring piers for pirogues, a handling place, and other infrastructures, at the port. Meanwhile, JICA also implemented Technical Cooperation for Development Planning, “the Study for the Fishery Resources Management Plan,” from 2000 to 2002. As a result, the artisanal and coastal fishing at the port grew under sustainable use of marine resources, and the port started increasing exports of octopuses to Europe and Asia including Japan. However, Mauritania was facing problems with quality control of exported octopuses. Hence, JICA implemented the project for sending experts to the Mauritanian Fish Marketing Company (SMCP)² for “Classification and Quality Control of Cephalopod Products,” from 2010 to 2012 and provided fish processing factories near the port with trainings on quality control of exported octopuses. Following this, the port's significant growth in pot fishing continued and started to require a further expansion. Then, JICA implemented this grant aid project, “the Project for the Expansion of Fishing Port in Nouadhibou,” from 2013 to 2016. In addition, JICA made the grant agreement for the grant aid project, “the Project for the Construction of Inspection and Analysis Laboratories of National Office of Sanitary Inspection of Fish and Aquaculture Products (ONISPA)³ in Nouadhibou,” with ONISPA in February 2019, because inspection and analysis laboratories of ONISPA that checked the quality of fish and aquaculture products before exports, were deteriorating. As seen above, this project is part of the international cooperation projects that have been developing the port of Nouadhibou to be the world's leading landing place of octopuses for over 40 years under the partnership between the governments of Japan and Mauritania.

1.2 Project Outline

The objective of this project was to expand the functions at the port of Nouadhibou, the principal port of artisanal and coastal fishing in Mauritania, by developing its infrastructure, thereby contributing to sustainable development of artisanal and coastal fishing that played an important role in poverty reduction and development in the country.

¹ Fonds Arabe pour le Développement Economique et Social.

² Société Mauritanienne de la Commercialisation des Produits de la Pêche.

³ Office National d'Inspection Sanitaire des Produits de la Pêche et de l'Aquaculture.

Grant Limit / Actual Grant Amount	1,117 million yen / 1,113 million yen
Exchange of Notes Date /Grant Agreement Date	May 2013/May 2013 June 2013 (1st amendment), January 2016 (2nd amendment)
Executing Agency(ies)	L’Etablissement Portuaire de la Baie du Repos (EPBR)
Project Completion	October 2016
Target Area	Nouadhibou, Mauritania
Main Contractor(s)	Tokura Corporation
Main Consultant(s)	Ecoh Corporation
Preparatory Survey	June 2012–February 2013
Related Projects	<p>【Grant Aid Project】 “The Project for Basic Development and Infrastructure of Fishing Port in Nouadhibou (I) (II)” (December 1999–March 2002) “The Project for the Construction of Inspection and Analysis Laboratories of National Office of Sanitary Inspection of Fish and Aquaculture Products in Nouadhibou” (Grant Agreement in February 2019)</p> <p>【Technical Cooperation Project】 “The Technical Cooperation for Development Planning of Study for the Fishery Resources Management Plan” (2000–2002) “The Project for dispatching experts, Classification and Quality Control of Cephalopod Products” (2010–2012)</p>

2. Outline of the Evaluation Study

2.1 External Evaluator

Koichiro Ishimori, Value Frontier Co., Ltd

2.2 Duration of Evaluation Study

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

Duration of the Study: September 2019 – September 2020

Duration of the Field Study: December 8 – December 23, 2019, and March 2 – March 6, 2020

2.3 Constraints during the Evaluation Study

The external evaluator asked EPBR in the questionnaire to provide him with actual data on 1) the number of pirogues moored at the newly constructed piers, 2) the congestion rate of pirogues at the newly constructed piers, and 3) the number of coastal boats moored at the newly constructed quay, which had been set as indicators of quantitative effects of the effectiveness of the project. However, it turned out that EPBR had not kept these records. Therefore, the external evaluator considered surveying them during the field studies. However, he concluded that, in view of the institutional limitations of the external evaluation, it would not be appropriate to do so because the survey would be limited to only some days during the field studies. Moreover, the surveyed figures would not accurately represent the average of the whole of 2019 and 2020. Besides, the surveyed figures would not be useful in making a yearly comparison since the completion of the project because they would be limited to only 2019 and 2020 when the

ex-post evaluation work was done. Consequently, for evaluation, the external evaluator decided to use the estimated figures that EPBR had provided regarding the indicators 1) to 3) above.

3. Results of the Evaluation (Overall Rating: B⁴)

3.1 Relevance (Rating: ③⁵)

3.1.1 Consistency with the Development Plan of Mauritania

Poverty Reduction Strategy Paper 2011–2015 (2011), the national development plan at the time of ex-ante evaluation, noted the fishery industry as one of the core industries that would support Mauritanian economy and referred to the expansion of the port of Nouadhibou as one of the eight priorities in the fishery industry. Similarly, *Sustainable Management Strategy for the Fishery and Aquaculture Sector 2008–2012 (2007)*, the sectoral policy, highlighted the importance of infrastructure development for incorporating the fishery industry into Mauritanian economy and referred to the development of port infrastructure.

National Strategy for Accelerated Growth and Shared Prosperity 2016–2030 (2017), the national development plan at the time of ex-post evaluation, notes the incorporation of the fishery industry into Mauritanian and global economy at the section, “promoting diversified growth of the core industries,” as one of the three means to achieve the strategic goal of “promoting sound, sustainable, and inclusive growth.” Similarly, *National Responsible Management Strategy for Sustainable Development of Fishery and Maritime Economy 2015–2019 (2015)*, the sectoral policy, continues to highlight the importance of infrastructure development for incorporating the fishery industry into Mauritanian economy and refers to the development of port infrastructure.

Since the project developed infrastructures at the port of Nouadhibou, one can say that it was consistent with the development plans of Mauritania at the time of ex-ante evaluation and still is at the time of ex-post evaluation.

3.1.2 Consistency with the Development Needs of Mauritania

The grant aid project, “the Project for Basic Development and Infrastructure of Fishing Port in Nouadhibou (I) (II),” from 1999 to 2002, expanded the port of Nouadhibou that was the principal port of artisanal and coastal fishing. Following this, the port was able to have all pirogues moored in 2002. Even after that, however, pirogues continued to increase. Consequently, the port became congested and pirogues were moored even at ship-handling areas because of the shortage of moored piers, resulting in hinderances to smooth preparation for going fishing and safe sailing at the port at the time of ex-ante evaluation. At the same time, coastal boats had problems in landing of fish because there was no quay for them.

The landing volume of artisanal and coastal fishing at the port of Nouadhibou at the time of

⁴ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁵ ③: High, ②: Fair, ①: Low

ex-post evaluation represents 39% (2017)⁶ of the total volume in Mauritania and the port of Nouadhibou is the largest port in artisanal and coastal fishing in Mauritania. The port of Nouadhibou, being the principal port for the fishery industry, is expected to be incorporated into Mauritanian economy as the strategies articulate and to play an important role in poverty reduction and development in the country by offering employment opportunities. For these reasons, maintaining or expanding the functions at the port of Nouadhibou, which enables smooth preparation for going fishing and safe sailing, still has high needs.

Since the project aimed to expand the functions by developing infrastructures at the port of Nouadhibou, one can say that it was consistent with the development needs of Mauritania at the time of ex-ante evaluation and still is at the time of ex-post evaluation.

3.1.3 Consistency with Japan's ODA Policy

Japan's ODA Charter (2003) at the time of ex-ante evaluation noted poverty reduction as its priority. It stated that, to achieve poverty reduction, employment had to be increased, and the quality of life needed to be improved through sustainable economic growth in developing countries, and then that the government of Japan would support them. It also noted sustainable growth as its priority and stated that, to support sustainable growth, the government of Japan would develop socioeconomic infrastructures that are important for economic activities. *The Medium Term Policy on Official Development Assistance (2005)* noted poverty reduction as its priority. The section "(ii) strengthening capabilities to make a living" of "(b) direct support for the poor" stated that the government of Japan would develop small-scale economic infrastructures, such as port infrastructure, to benefit the poor. It also noted sustainable growth as its priority. The section "(a) developing socioeconomic infrastructure" stated that infrastructure has a fundamental role in promoting activities of the private sector and that the government of Japan would support the development of socioeconomic infrastructure, such as ports. *The ODA Databook by Country (2012)* noted inclusive support for the fishery industry and referred to the development of infrastructures, such as port infrastructures corresponding to the increase in fishing boats, as its agenda to work on.

Considering that the port of Nouadhibou, the principal port of artisanal and coastal fishing, offered employment opportunities to the poor from the inlands of Mauritania and that the project aimed to expand the infrastructures at the port of Nouadhibou, one can say that the project was consistent with Japan's ODA policy.

In sum, this project has been highly relevant to the Mauritania's development plans and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

⁶ "Rapport annuel des statistiques de Pêche en Mauritanie 2017," the Ministry of Fish and Maritime Economy.

3.2 Efficiency (Rating: ②)

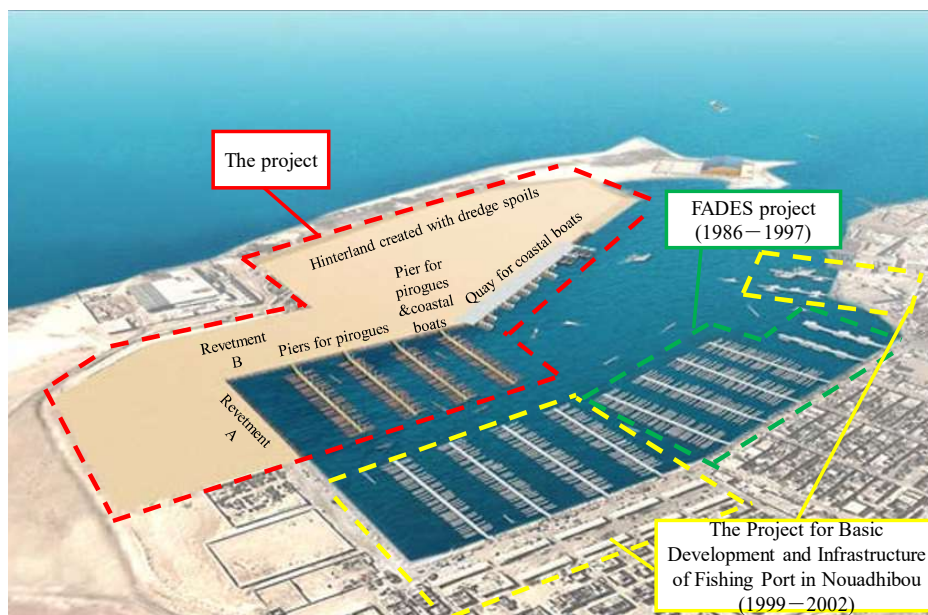
3.2.1 Project Outputs

Table 1 given below summarizes the planned and actual outputs of the project.

Table 1: Planned and Actual Outputs of the Project

Outputs	Planned outputs	Actual outputs
1) Piers at which pirogues moor	4: Length 96 m × Width 2.5 m	3: Length 96 m × Width 2.5 m 1: Length 96 m × Width 4.3 m (Based on EPBR's request, the pier was made 4.3 m wide so that coastal boats manufactured at a shipyard adjacent to the port of Nouadhibou can moor alongside.)
2) Quay at which coastal boats moor	1: Length 200 m × Width 10 m	Same as planned
3) Revetment	Revetment A (pier section): 362 m Revetment B (west end of the pier): 40 m	Same as planned
4) Dredging basins	Dredge spoils: Approx. 230,000 m ³	Same as planned

Source: Materials provided by JICA and EPBR



Source: Made by the external evaluator based on the materials provided by JICA

3.2.2 Project Inputs

3.2.2.1 Project Cost

The planned Japanese and Mauritanian costs for the project were 1,117 million yen and 15 million yen, respectively, and thus the total planned cost was 1,132 million yen. The actual Japanese and Mauritanian costs for the project were 1,113 million yen and 17 million yen, respectively, and thus the total actual cost was 1,130 million yen. Therefore, it was within the planned cost. The detailed information on the costs is given in Table 2 below.

Table 2: Planned Costs and Actual Total Costs for the Project

Costs	Planned costs	Actual costs
Japanese costs	1,117 million yen	1,113 million yen
	Construction work: 1,016 million yen Design & supervision: 101 million yen	Construction work: 1,004 million yen Design & supervision: 109 million yen
Mauritanian costs	55.2 million ouguiya (≃ 15 million yen ⁷)	52.5 million ouguiya (≃ 17 million yen ⁸)
	<ul style="list-style-type: none"> • Implementation of environmental impact assessment: 8.0 million ouguiya • Relocation of the existing drain pipes: 19.5 million ouguiya • Disposal of wastes on the construction site: 10.0 million ouguiya • Disposal of wastes inside dredge spoils: 4.5 million ouguiya • Disposal of wastes during filling in hinterland with dredge spoils: 9.6 million ouguiya • Bank charge: 3.6 million ouguiya 	<ul style="list-style-type: none"> • Implementation of environmental impact assessment: 7.0 million ouguiya • Relocation of the existing drain pipes: 15.0 million ouguiya • Disposal of wastes on the construction site: 12.0 million ouguiya • Disposal of wastes inside dredge spoils: 5.0 million ouguiya • Disposal of wastes during filling in hinterland with dredge spoils: 10.0 million ouguiya • Bank charge: 3.5 million ouguiya

Source: Materials provided by JICA and EPBR

3.2.2.2 Project Period

The planned project period was 22 months from May 2013 (G/A agreement) to February 2015, whereas the actual period was 42 months from May 2013 (G/A agreement) to October 2016, thus becoming 191% of the planned period, which was significantly longer than it had been planned. These twenty months of the delay were because of the following two reasons:

- 1) The agency responsible for the project was changed from the Ministry of Fisheries and Maritime Economy (MPEM)⁹ to the Authority of the Free Zone of Nouadhibou (AZFN)¹⁰ in June 2013. Because of this change, JICA needed to obtain the authorization of the detailed design (D/D) of the project from AZFN, resulting in 1 month of delay in the D/D period.
- 2) Originally, the contractor dredged the basins from the land. However, it was found out that the volume of the dredged spoils returning to the sea was larger than it had been expected. In view of the limitation in dredging the basins from the land, the contractor then decided to use a dredger. However, there was no dredger in Mauritania. Therefore, it needed to import a dredger from Italy. This change required an additional time to procure and transport a dredger. In addition, it was necessary for the contractor to dredge the basins again with the dredger and furthermore to repair the dredger that posed technical troubles. All these hassles resulted in 19 months of delay in the construction period.

⁷ Calculated based on the exchange rate used in the preparatory survey.

⁸ Calculated based on the average exchange rate from International Financial Statistics during the project period.

⁹ Ministère des Pêches et de l'Économie Maritime.

¹⁰ Autorité de la Zone Franche de Nouadhibou.

In sum, although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the project is fair.

3.3 Effectiveness and Impacts¹¹ (Rating: ③)

3.3.1 Effectiveness

3.3.1.1 Quantitative Effects (Operation and Effect Indicators)

Table 3: Quantitative Effects

	Baseline	Target	Estimated Figures			
	2012	2018	2016	2017	2018	2019
	-	3 years after completion	Completion year	1 year after completion	2 years after completion	3 years after completion
1) Number of pirogues moored at the newly constructed piers ¹²	728	1,081	920	960	960	960
2) Congestion rate of pirogues at the newly constructed piers (%) ¹³	144.6	100	85.1	88.8	88.8	88.8
3) Number of coastal boats moored at the newly constructed quay ¹⁴	0	43	5	30	45	45

Source: Materials provided by JICA and EPBR

Note 1: As mentioned in section 2.3 “Constraints during the Evaluation Study,” the figures from 2016 to 2019 in the indicators 1) to 3) above are not the actual figures but the estimated figures provided by EPBR.

Note 2: The target year, 3 years after completion of the project, of achieving each indicator was set as 2018 at the time of ex-ante evaluation. However, because of the delay, 3 years after completion of the project actually became the year of 2019. Therefore, the external evaluator considered 2019 as the target year.

Note 3: The targets in the indicators 1) and 2) were set based on the assumption that the average number of pirogues moored at newly constructed piers at the port of Nouadhibou during the peak time would not exceed 1,081, as estimated at the time of ex-ante evaluation because of the policy effects of limiting the number of pirogues by MPEM.

1) Number of pirogues moored at the newly constructed piers

The figure in 2019, 3 years after completion of the project, was 960, which is 88.8% of the target. Therefore, it is judged that the target has been achieved.

2) Congestion rate of pirogues moored at the newly constructed piers

The figure in 2019, 3 years after completion of the project, was 88.8%, which is 88.8% of the target. Therefore, it is judged that the target has been achieved.

¹¹ Sub-rating for Effectiveness is to be put with consideration of Impacts.

¹² The figure 728 as baseline was the planned number of pirogues moored at the existing eight piers before the project. The figure 1,081 as target was calculated by adding the planned number (353) of pirogues moored at the newly constructed four piers to 728 as baseline.

¹³ The congestion rate of pirogues moored at the newly constructed piers has a proportional relation with the number of pirogues moored at the newly constructed piers. Therefore, the external evaluator considered the degrees of achieving respective indicator 1) and 2) as one in his evaluation.

¹⁴ The figure as baseline was zero because there was no quay at which coastal boats could moor at the port of Nouadhibou at the time of ex-ante evaluation.

3) Number of coastal boats moored at the newly constructed quay

The figure in the completion year (October to December 2016) was small, but it gradually increased as a result of EPBR's instructions to moor coastal boats at the newly constructed quay. The figure in 2019, 3 years after completion of the project, was 105%. Therefore, it is judged that the target has been achieved.

3.3.1.2 Qualitative Effects (Other Effects)

1) Improvement in pirogues' safety for mooring and preparing for going fishing

All ten fishermen of pirogues whom the external evaluator interviewed answered that they could now safely moor pirogues and prepare for going fishing because the newly constructed piers were stable.

2) Improvement in coastal boats' safety for fish landing, mooring, and preparing for going fishing

All five fishermen of coastal boats whom the external evaluator interviewed answered that they could now safely land fish, moor pirogues, and prepare for going fishing because the newly constructed quay was stable.

3) Decrease in repairing costs of pirogues and coastal boats

All of the same fifteen fishermen of pirogues and coastal boats answered that there was no large difference in the repair costs of pirogues and coastal boats because until now they had not encountered an accident that had caused severe damage at the port.

3.3.2 Impacts

3.3.2.1 Intended Impacts

(1) Quantitative Effects

There was no quantitative effect in particular.

(2) Qualitative Effects

1) Promoting Poverty Reduction (Offering the poor good employment opportunities in the fishery industry and related industries)

The port of Nouadhibou offers employment opportunities not only to about 24,000 artisanal and coastal fishermen but also to about 6,000 workers at 2,100 shops related to the port, such as fish wholesalers, fishing-tackle shops, groceries, and snack stands. Therefore, a huge community called "fishermen's village" has been formed at the port. According to EPBR, over 90% of about 30,000 people are poor workers who have permanently or temporarily come from the inlands of the desert areas to seek jobs.

Considering the characteristics of the port of Nouadhibou, the external evaluator interviewed artisanal fishermen and concerned workers from the inlands to check whether there had been any effect on poverty reduction and found out the following effects.

○ Artisanal fishermen (ten men)

Their monthly disposable incomes have got roughly 6.6 times higher, on average, compared with the incomes when they were in the inlands, increasing from 2,171 ouguiya to 14,350 ouguiya.

○ Concerned workers (ten men)

Their monthly disposable incomes have got roughly 4.2 times higher, on average, compared with the incomes when they were in the inlands, increasing from 3,800 ouguiya to 16,900 ouguiya.

2) Promoting Social Development (Many fish retailers are women and play an important role in social advancement of women by participating in economic activities.)

The external evaluator interviewed ten female fish retailers from the inlands to check whether there had been any effect on employment and income and found out the following effects on social development.

○ Fish retailers (ten women)

Their monthly disposable incomes were 7,900 ouguiya, on average. All of them answered that they could not live an extravagant life but had a decent life. Seven of them were either divorced or bereaved or their husbands were unemployed. Having three to eight children, all worked as breadwinners of the family. Two were singles and supported their families on behalf of their parents. One supported a family together with her husband working as an artisanal fisherman.



Female fish retailers answering the interview questions at the handling place in the port of Nouadhibou

3.3.2.2 Other Positive and Negative Impacts

(1) Impacts on the Natural Environment

EPBR implemented the Environmental Impact Assessment (EIA) for the project, and the Ministry of Environment and Sustainable Development (MEDD)¹⁵ issued an authorization on January 27, 2013 before the project. During the construction, EPBR conducted the maintenance check of heavy machinery and vehicles once a month and measured turbidity at four points of the port once a week for preventing air, water, and soil

¹⁵ Ministère de l'Environnement et du Développement Durable.

pollution. It also conducted fixed point observations of changing the objects once a month for monitoring topography and geography and confirmed that there was no negative impact on the natural environment. EPBR then filled out the monitoring sheets and submitted them to JICA regularly (on October 22, 2014, March 10, 2015, August 25, 2015, and February 29, 2016). Meanwhile, EPBR had agreed to monitor the impacts of the project on air quality and ecosystems at the port for 3 years after completion of the project. However, EPBR observed no particular impact during the construction, and then did not conduct any detailed monitoring after completion of the project. Therefore, such impacts are unclear today. However, as far as the external evaluator observed the project site during his field studies, he found many waterfowls. Therefore, it is judged that there has been no negative impact even after the project.

(2) Resettlement and Land Acquisition

The project has not caused any resettlement and land acquisition. On September 18, 2012, before the project, EPBR exchanged a removal agreement with fourteen workers who made dried fish at the site where dredging was planned and paid them 300,000 ouguiya as compensation. In addition, EPBR provided an alternative working place for eight of the fourteen workers and introduced farms and taxi companies to the rest of the six workers who demanded new jobs. The monthly revenues on average from October 2014 to February 2016 of the eight workers who started making dried fish at the alternative working place were slightly higher (200,000 to 250,000 ouguiya) compared with the revenues before removal. The economic situation for the rest of six workers is unknown because there is no information available.

(3) Unintended Positive/Negative Impacts

The history of the cooperation between the government of Japan and the port of Nouadhibou goes back to December 1976 when the Fisheries Agency of Japan sent a mission, followed by the dispatch of an expert in fishery to MPEM by JICA in 1977. The expert first tried to work on net fishing with Mauritians but faced difficulties in making progresses due to lack of port infrastructures and skills. One day, however, he found by chance a grown octopus inside an old tire floating off the coast of Mauritania. Since then, he began to assiduously persuade Mauritians who had no custom of eating octopuses to catch them with pots, which required neither large-scale port infrastructures nor specific skills, and eventually helped them to start pot fishing at the port of Nouadhibou while keeping the export in mind. Later, pot fishing gradually grew as a result of the efforts, and FADES constructed the basic infrastructures of the port of Nouadhibou by developing two landing piers and four mooring piers from 1986 to 1997.

Years later, the port started experiencing a significant growth in pot fishing and having a high demand for accommodating pirogues and developing port infrastructure. For these reasons, JICA implemented the grant aid project, “the Project for Basic Development and Infrastructure of Fishing Port in Nouadhibou (I) (II),” from 1999 to 2002, and set up mooring piers for 711 pirogues, a handling place, and other infrastructures, at the port. Meanwhile, the government of Mauritania made the “Development policy of the fishery sector” for sustainable use of marine resources in 1995, considering the importance of the sector in its economy. However, it did not have sufficient capabilities for conducting research on marine resources. Thus, JICA also implemented Technical Cooperation for Development Planning, “the Study for the Fishery Resources Management Plan,” from 2000 to 2002. As a result, artisanal and coastal fishing at the port grew under sustainable use of marine resources, and the port started increasing the volume of octopus exports to Europe and Asia including Japan. However, Mauritania was facing problems with quality control of the exported octopuses at that time. Therefore, JICA implemented the project for sending experts to SMCP, “Classification and Quality Control of Cephalopod Products,” from 2010 to 2012, and provided fish processing factories near the port with trainings on quality control of exported octopuses. Following this, the port witnessed a huge growth to such an extent that 3,500 pirogues operated and started to require a further expansion. Then, JICA implemented this grant aid project “the Project for the Expansion of Fishing Port in Nouadhibou” from 2013 to 2016. Besides, when exporting octopuses landed at the port, the fish processing factories need a hygiene certificate issued by ONISPA for their exports. However, inspection and analysis laboratories of ONISPA were deteriorating. Therefore, JICA made the grant agreement for the grant aid project, “the Project for the Construction of Inspection and Analysis Laboratories of ONISPA in Nouadhibou,” with ONISPA as a counterpart agency and plans to assist fish processing factories in receiving the certificate at the time of ex-post evaluation.

The total volume of octopuses that Japan imported from January to December 2019 was approximately 34,911 tons, of which approximately 12,150 tons¹⁶, roughly 35%, were from Mauritania. This means that Mauritania was the greatest exporter of octopuses to Japan. Then, approximately 11,290 tons out of approximately 12,150 tons, roughly 93%, were from the port of Nouadhibou¹⁷. In other words, because of the port of Nouadhibou, Japanese consumers are able to buy octopuses easily and enjoy a rich diet.

Thus, the series of cooperation by JICA for over 40 years have not only supported the port of Nouadhibou and Mauritanian economy but also brought about huge benefits to Japanese consumers.


¹⁶ Trade Statistics of Japan, the Ministry of Finance.

¹⁷ SMCP statistics.

In conclusion, the figures of the indicators 1) to 3) specifying the quantitative effects of effectiveness seem to have achieved the targets, though they all were estimates, and the qualitative effects, such as improvement in safety for fish landing, mooring, and preparing for going fishing have also been observed. Besides, as the qualitative effects of impacts, a huge community called “fishermen’s village” has been formed at the port and provides employment opportunities for about 30,000 people, of which over 90% are poor workers who have permanently or temporarily come from the inlands of the desert areas to seek jobs. The external evaluator also observed the effects on poverty reduction through increases in disposable incomes of artisanal fishermen and workers and on social development for female fish retailers. Furthermore, the series of cooperation by JICA since the 1970s have not only supported the port of Nouadhibou and Mauritanian economy but also brought about huge benefits to Japanese consumers.

In sum, this project has achieved its objectives. Therefore, effectiveness and impacts of the project are high.


(March, 2020)




A case of Nichirei Corporation
 ~13,000km of octopuses’ trip~


Mauritania
Japan


Procurement




Procurement









Port of Nouadhibou

Nichirei Fresh Inc associated company (Process & Export)

Nichirei Fresh Inc

Fresh Maruichi Inc. Toyohashi Factory (Process)




Super markets

Consumers

Autonomous port of Nouadhibou
 ⇒ Port of Nagoya (2 months)

Artisanal fishermen at the port of Nouadhibou go fishing in the morning and return at dusk almost every day, except during the closed seasons from the middle of April to the middle of June and the beginning of October to the middle of November. Octopuses landed at the port are delivered to the processing and export company associated with Nichirei Fresh Inc. near the port during the day so that they do not lose freshness.

The company usually starts sorting octopuses at dusk. After freezing them at -35 degree Celsius overnight, they are kept in freezers at -20 degree Celsius until the permission for the exports is granted from SMCP.

For one-and-a-half to two months, the octopuses for which a permission for the exports has been granted are transported in a freezing container to the port of Nagoya, approximately 13,000 km away from the autonomous port of Nouadhibou that is 3 km away from the company.

The Toyohashi factory of Fresh Maruichi Inc., which was invested by Nichirei Fresh Inc., defrosts the octopuses that have arrived at the port of Nagoya, removes the sliminess on them with salt, treats them in heating processes such as steaming and boiling and cooling processes before their delivery.

Nichirei Fresh Inc., annually sells 1,000 tons of octopuses processed at the factory to supermarkets in Kanto, Chubu, and Kansai regions in Japan.

And this way, we Japanese consumers are able to buy octopuses imported from Mauritania at supermarkets and enjoy a rich diet through numerous octopus dishes.



3.4 Sustainability (Rating: ②)

3.4.1 Institutional / Organizational Aspect of Operation and Maintenance

3.4.1.1 Institution

MPEM has been taking numerous measures from the perspective of managing marine resources and limiting the activities and number of pirogues. For instance, even before the project, it has been forbidding the bottom trawling fishing¹⁸ and permitting only pot fishing by pirogues to prevent overfishing from the perspective of managing marine resources. In 2015, during the project, it changed and even increased the tariff to catch fish from the perspective of managing marine resources and limiting the activities by pirogues. It used to have one set tariff of 1,580 ouguiya for 1 year, and in return, artisanal fishermen could catch whichever fish they wanted. However, it changed the set tariff to a new tariff system of adding up all the tariffs depending on the types of fish that they would catch and increased the tariffs¹⁹. In parallel, it also started to crack down on pirogues without a license to catch fish. In 2019, after the project, MPEM issued a decree that no one could produce pirogues without its permission from the perspective of limiting the number of pirogues.

¹⁸ Bottom trawling fishing is a fishing method that puts a net on the bottom of the sea and trawls all sea creatures in the net.

¹⁹ For instance, the tariff to catch octopuses was raised to 4,100 ouguiya for 1 year and 1,200 ouguiya was also added to it, making it total 5,300 ouguiya, when artisanal fishermen wanted to catch the surface fish.

3.4.1.2 Organization

MPEM continues to administer fishery. However, in June 2013, EPBR was taken out of the administration under MPEM. Now, EPBR is put under the administration of AZFN so that the fishery industry at the port of Nouadhibou would be further incorporated into the regional economy of Nouadhibou.

EPBR has the department of administration and finance and the department of facility operation under the harbor master and the vice harbor master, consisting of 95 staff. EPBR was supposed to allocate fifteen new staff members in addition to the existing staff strength of 25, becoming 40 in total, at the surveillance section of the department of facility operation after the project, so that it could properly administer landing and mooring at the piers and the quay constructed by the project. However, EPBR has not done it and currently allocates only thirteen staff members, which are even fewer than the then existing staff strength allocated before the project. As described in the section, “the Status of Operation and Maintenance.” the organizational aspect of operation is insufficient in terms of administering fish landing and mooring at the piers and the quay constructed under the project. Meanwhile, as described in the same section, the organizational aspect of maintenance seems appropriate because there is no problem with maintenance, though the staff at the maintenance section of the department of facility operation is limited to only five.

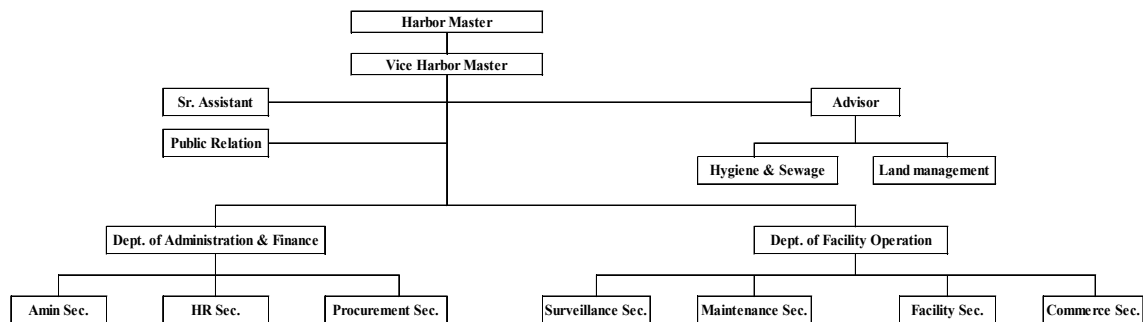


Figure 1 : Organizational Chart of EPBR

Source: Materials provided by EPBR

3.4.2 Technical Aspect of Operation and Maintenance

The surveillance section under the department of facility operation operates the piers and the quay constructed under the project, while the maintenance section maintains them. There is no problem with the technical aspect of operation because, for instance, the surveillance section monitors the depth of the water courses and the basins based on the bathymeter manual that the consultant of the project has produced and checks the amount of sediments every six months, whereas the project expected them to do so once a year. There is no problem with the technical aspect of maintenance, either, because the maintenance section can respond to the maintenance of the concerned infrastructures as described later in the section, “the Status of Operation and

Maintenance.” In addition, the department of facility operation is currently in the process of making a plan for dredging expected to take place in 2022, which is 6 years after completion of the project, based on the plan of the project. Therefore, it is judged that there is no problem with the technical aspect of operation and maintenance of the project.

3.4.3 Financial Aspect of Operation and Maintenance

EPBR under the administration of AZFN receives no subsidy and is financially independent. The port tax, operating revenue to EPBR, which is changeable according to the amount of exports of fish that artisanal and coastal boats land at the port of Nouadhibou occupied approximately 70% in 2017 to 76% in 2019 of the total revenue to EPBR. It grew from approximately 63% in 2011 before the project and is in an increasing trend. The land rent and other charges, nonoperating revenues to EPBR, are also stable. Although the details of the expenses are unknown because they are not publicly available, EPBR recorded the net profit from 2017 to 2019 and thus was financially sound, as Table 4 below illustrates. EPBR needs to dredge soils for maintaining the functions at the port of Nouadhibou every 6 years, costing approximately 200 million ouguiya. It is EPBR that will bear the cost in principle. However, it also has an agreement with AZFN by which AZFN will compensate the costs that EPBR alone cannot bear. Therefore, it is judged that there is no problem with the financial aspect of operation and maintenance of the project.

Table 4: Balance of EPBR

(Unit: 1,000 ouguiya)

	2017	2018	2019
Revenues	98,483	118,106	131,656
Port tax	68,755	88,985	99,912
Land rent	12,851	12,228	13,764
Subsidy	0	0	0
Others	16,877	16,893	17,980
Expenses	80,040	79,319	95,493
HR	Details are not publicly available.		
O&M			
Investment			
Others			
Net profit	18,443	38,787	36,163

Source: Materials provided by EPBR

3.4.4 Status of Operation and Maintenance

The major issues identified at the time of checking the defect inspection and the current status of them are as follows.

- 1) Larger pirogues exceeding the designed size moored at the newly constructed piers

EPBR has had discussions about mooring pirogues exceeding the size designed for the port of Nouadhibou with their owners and reached an agreement that they would moor

larger pirogues outside the port of Nouadhibou. By the time of the ex-post evaluation, the issue has been resolved.

2) Pirogues moored under connecting bridges

Whenever EPBR found pirogues moored under connecting bridges, it took them out by a tugboat and gave instructions. By the time of the ex-post evaluation, the issue has been resolved.

3) Pirogues moored with a chain

Whenever EPBR found pirogues moored with a chain, it cut it off by a chain clipper and gave instructions. However, there are still such pirogues.

4) Overspeed sailing by pirogues and coastal boats at the port

There are still pirogues and coastal boats that overspeed sailing at the port, though the administration section of the department of administration and finance imposes a fine of 500 ouguiya on their owners.

EPBR has resolved the issues 1) and 2) at the time of ex-post evaluation. However, it has not completely resolved the issues 3) and 4), though it has been trying. The staff shortage at the surveillance section hinders immediate responses and instructions.

In conclusion, there is no problem with the institutional aspect of operation and maintenance. However, there is a minor problem with the organizational aspect as the staff shortage at the surveillance section under the department of facility operation hinders the administration of fish landing and mooring at the newly constructed piers and quay. There is no problem with the technical and financial aspects, either. However, there is a minor problem with the current status because the staff shortage at the surveillance section hinders immediate responses and instructions to violations and leaves the issue identified at the time of checking the defect inspection as partially unsolved.

In sum, some minor problems have been observed in terms of the organizational aspect and the current status of operation and maintenance. Therefore, sustainability of the project effects is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objective of this project was to expand the functions at the port of Nouadhibou, the

principal port of artisanal and coastal fishing in Mauritania, by developing its infrastructure, thereby contributing to sustainable development of artisanal and coastal fishing that played an important role in poverty reduction and development in the country. The implementation of the project has been highly relevant to Mauritania's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high. Although the project cost was within the plan, the project period exceeded the planned period by 191%, mostly because dredging the basins consumed a longer time. Thus, efficiency of the project is fair. As a result of the infrastructural development at the port, the port of Nouadhibou has been able to have more pirogues and coastal boats moored. The expansion of its functions has also contributed to promoting poverty reduction and social development in Mauritania, besides bringing tremendous benefits to consumers in Japan. Therefore, effectiveness and impacts of the project are high. Some minor problems have been observed in terms of organizational and current status of operation and maintenance. Therefore, sustainability of the project effects is fair.

In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

- 1) Based on the agreement between the governments of Mauritania and Japan before the project, EPBR was supposed to monitor impacts of the project on air quality and ecosystems at the port and make reports to JICA for 3 years after completion of the project, but it has not done so. Although the period of 3 years after completion of the project—October 2016 to September 2019—had already passed by the time of the ex-post evaluation, it is expected that EPBR will make a report on the final monitoring result to JICA because it is also aware of its importance.

- 2) The staff shortage at the surveillance section of the department of administration and finance hinders immediate responses and instructions to violations at the port of Nouadhibou and thus leaves the issue identified at the time of checking the defect inspection as partially unsolved. Considering this, it is expected that EPBR will increase the number of staff at the section.

4.2.2 Recommendations to JICA

Based on the agreement between the governments of Mauritania and Japan before the project, EPBR was supposed to monitor impacts of the project on air quality and ecosystems at the port and make reports to JICA for 3 years after completion of the project, but it has not done so. Besides, there is no record either that JICA has asked EPBR to make reports to it. It is expected that JICA would ask EPBR to do so based on the agreement.

4.3 Lessons Learned

1) The importance of putting keeping records of the data necessary for the ex-post evaluation in the list of activities that the counterpart agency needs to carry out

As described in section 2.3, “Constraints during the Evaluation Study,” EPBR has not maintained the records of actual data on indicators of the quantitative effects of effectiveness of the project. Consequently, the external evaluator had no choice but to use the estimated figures that EPBR has provided for the ex-post evaluation. Keeping the project management and ex-post evaluation after the project in mind, it is important for JICA to put keeping records of data necessary for the ex-post evaluation in the list of activities that the counterpart agency needs to carry out when forming a project.

2) Coherent cooperation combining grant aid projects with technical cooperation projects

The factor that the project has had huge impacts is “coherence.” It is the sixth evaluation indicator that the Development Assistance Committee of Organisation for Economic Co-operation Development newly adopted in December 2019. In order to make catching octopuses with pots at the port of Nouadhibou the export industry in Mauritania, JICA has coherently planned and implemented the grant aid projects and the technical cooperation projects in a timely and appropriate manner for over 40 years. Consequently, they have brought about mutual synergies and had huge impacts on the recipient country as well as the donor county, Japan.