

Third Party Evaluation Report 2020
Ministry of Foreign Affairs of Japan

**Evaluation of Japan's Individual Grant Aid
(Economic and Social Development Program
to the Republic of Mozambique
in the Fiscal Year 2017)**

March 2021

Chief Evaluator: SATO Kan Hiroshi, Chief Senior Researcher,
Research Operations Department, Institute of Developing
Economies, Japan External Trade Organization
(IDE-JETRO)

Japan Techno Co., Ltd.

Preface

This report is an Evaluation of Japan's Individual Grant Aid (Economic and Social Development Program to the Republic of Mozambique in the Fiscal Year 2017), and was commissioned to Japan Techno Co., Ltd. by the Ministry of Foreign Affairs of Japan (MOFA) in the fiscal year 2020.

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

The objective of this evaluation was to conduct a project-level review of Japan's Individual Grant Aid (Economic and Social Development Program to the Republic of Mozambique in the Fiscal Year 2017) and to produce recommendations and lessons learned to improve project planning for the effective and efficient implementation of future assistance by the Government of Japan. For accountability purposes, the results are available to the general public.

The Evaluation Team in charge of this study consisted of Mr. SATO Kan Hiroshi, Chief Senior Researcher, Research Operations Department, Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO), and consultants of Japan Techno Co., Ltd. Mr. Sato served as a chief evaluator and provided guidance and supervision in the entire evaluation process. In addition, to complete this study, we have received support from MOFA, the Japan International Cooperation Agency (JICA), the ODA Task Force, and Crown Agents Japan Limited, as well as government agencies, project implementation agencies, and other donors in Mozambique. We would like to take this opportunity to express our sincere gratitude to all those who supported this study.

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

March 2021

Japan Techno Co., Ltd.

Note: This English version is a translation of the Japanese Evaluation Report of Japan's Individual Grant Aid (Economic and Social Development Program to the Republic of Mozambique in the Fiscal Year 2017).

Contents

Preface	
Contents	
Abbreviations	
Location Map of Recipient Country	
Chapter 1 Background, Objectives and Evaluation Framework.....	1
1-1 Evaluation Framework	2
1-2 Evaluation Methodology.....	4
1-3 Restrictions on the Evaluation Studies (COVID-19 Impact)	5
Chapter 2 Outline of the Evaluated Project	7
2-1 Outline of the Recipient Country	7
2-2 Outline of the Evaluated Project.....	8
Chapter 3 Evaluation Results	12
3-1 Evaluation from Development Viewpoints.....	12
3-1-1 Relevance of the Project	14
3-1-2 Effectiveness of Results	23
3-1-3 Appropriateness of Processes	28
3-3 Evaluation from Diplomatic Viewpoints.....	35
3-3-1 Diplomatic Importance.....	35
3-3-2 Diplomatic Impact	36
Chapter 4 Recommendations.....	38
4-1 Setting of Project Outcome and Its Management based on the Analysis of Development Needs.....	38
4-2 Improvement of Monitoring after the Handover of Procured Product....	38
4-3 Promotion of Public Relations Activities in Japan and Mozambique	39

Abbreviations

COP	Conference of the Parties to the United Nations Framework Convention on Climate Change
EDM	Electricidade de Moçambique
E/N	Exchange of Notes
G/A	Grant Agreement
GDP	Gross Domestic Product
GNI	Gross National Income
HCB	Hidroeléctrica de Cahora Bassa (Cahora Bassa hydroelectric plant)
HFO	Heavy Fuel Oil
IMO	International Maritime Organization
INDC	Intended Nationally Determined Contributions
IPP	Independent Power Producer
ISO	International Organization for Standardization
JICA	Japan International Cooperation Agency
LNG	Liquefied Natural Gas
MEF	Ministérios da Economia e Finanças (Ministry of Economy and Finance)
MINEC	Ministério dos Negócios Estrangeiros e Cooperação (Ministry of Foreign Affairs and Cooperation)
MIREME	Ministério de Recursos Minerais e Energia (Ministry of Mineral Resources and Energy)
NDC	Nationally Determined Contributions
MOFA	Ministry of Foreign Affairs
ODA	Official Development Assistance
OECD-DAC	Organisation for Economic Co-operation and Development, Development Assistance Committee
PETROMOC	Petróleos de Moçambique
SADC	Southern African Development Community
SDGs	Sustainable Development Goals

TICAD	Tokyo International Conference on African Development
UNFCCC	United Nations Framework Convention on Climate Change
ZESCO	Zambia Electricity Supply Corporation

Location Map of Recipient Country



(Source: United Nations Geospatial Information Section)

Chapter 1 Background, Objectives and Evaluation Framework

Evaluation Implementation Structure

(1) Evaluation Team:

- Chief Evaluator: SATO Kan Hiroshi Chief Senior Researcher, Research Operations Department, Institute of Development Economies, Japan External Trade Organization (IDE-JETRO)

- Consultants: MORI Naoki Senior Consultant, Japan Techno Co., Ltd.
AZUMA Mikiko Senior Consultant, Japan Techno Co., Ltd.

(2) Evaluation Implementation Period: September 2020 – March 2021

Background, Objectives and Scope of Evaluation

(1) Background of Evaluation:

Official Development Aid (ODA) is one of the important pillars of international contribution by the Government of Japan. It is implemented in the forms of grant aid, technical cooperation, ODA loans, and multilateral assistance. Grant aid is mainly implemented by the Ministry of Foreign Affairs (MOFA) and the Japan International Cooperation Agency (JICA), an incorporated administrative agency. Grant aid projects that closely link to diplomatic needs and require flexible implementation are directly handled by MOFA, and projects that are worth JPY one billion or more are to be evaluated by third party, such as this evaluation study.

(2) Objectives of Evaluation:

MOFA implemented the Economic and Social Development Program in Mozambique in 2017. The project aimed at solving the power shortage in the country and ensuring a stable power supply by providing low-sulfur heavy fuel oil for power generation. Contribution to the economic and social development of the country was further expected through the intervention. The main objectives of this evaluation are to obtain recommendations and lessons learned for future ODA planning and implementation as well as to fulfill accountability to the public by assessing the achievements of the grant aid project implemented by MOFA.

(3) Scope of Evaluation:

Economic and Social Development Program to Mozambique in the Fiscal Year 2017 (Provision of Fuel Oil for Power Generation)” (Amount of the grant extended: Japanese Yen (JPY) 1.5 billion)

1-1 Evaluation Framework

In this evaluation, in accordance with the ODA Evaluation Guidelines (13th Edition, June 2020) and considering the Evaluation Criteria (Relevance, Coherence, Effectiveness, Efficiency, Impact, and Sustainability) of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC) as the basis, the following evaluation criteria were adopted from development viewpoints: a) relevance of projects, b) effectiveness of results and c) appropriateness of processes, and verification items were set for each criterion to perform a comprehensive evaluation. Also, from the perspectives of Japan's national interest, qualitative evaluation was carried out from diplomatic viewpoints with respect to a) diplomatic importance and b) diplomatic impact. The evaluation framework prepared by the evaluation team is shown in Table 1-1. The evaluation team also created an objective framework for the project (Figure 1-1) to determine the scope of the evaluation and assess the relevance of the project and the effectiveness of results.

Table 1-1 Evaluation Framework

Evaluation Criteria	Verification Items	Details
Evaluation from Development Viewpoints		
Relevance of the Project	Consistency with Japan's high-level policies	<input type="checkbox"/> Consistency with Japan's ODA policies such as the Development Cooperation Charter <input type="checkbox"/> Consistency with Japan's policies toward Africa (Tokyo International Conference on African Development (TICAD)) <input type="checkbox"/> Consistency with the Country Development Cooperation Policy for Mozambique <input type="checkbox"/> Consistency with the development policies on energy and "quality infrastructure"
	Consistency with development needs of the recipient country	<input type="checkbox"/> Consistency with the National Development Strategy and the 5-year Government Plan of Mozambique <input type="checkbox"/> Consistency with the national energy policy and strategy, and the Integrated Master Plan on Mozambique Power System Development <input type="checkbox"/> Consistency with the development needs for electric power supply in the recipient country
	Consistency with international priority issues	<input type="checkbox"/> Consistency with the targets of international priority issues, such as the Sustainable Development Goals (SDGs), mainly Goal 7: Energy
	Relationship with other donors	<input type="checkbox"/> Degree of complementarity with other donors' cooperation policies and initiatives <input type="checkbox"/> Degree of differentiation from cooperation by other donors
Effectiveness of Results	Inputs (financial, human, and material resources input to the project)	<input type="checkbox"/> Breakdown and basis of the JPY1.5 billion assistance <input type="checkbox"/> Type, quantity, and price of the procured fuel oil for power generation <input type="checkbox"/> If the details, target group, and target area of the cooperation were appropriate
	Outputs (As a result of the above-mentioned inputs,	<input type="checkbox"/> If the specifications, quality, and quantity of the procured fuel oil for power generation were the same as planned

Evaluation Criteria	Verification Items	Details
	<p>what products and/or services were generated relative to the initially-established goals and objectives and to what extent they were implemented as per the plan)</p>	<input type="checkbox"/> If the delivery timing was the same as planned <input type="checkbox"/> If the delivery destination and delivered quantity of the fuel oil were the same as planned
	<p>Outcomes and impacts (achievement of the initially-established goals and objectives and short-, medium- and long-term effects obtained as a result of the assistance)</p>	<input type="checkbox"/> Where, for what purpose, and how the procured fuel oil was used <input type="checkbox"/> Contribution of the project implementation to the elimination of power shortage and stable power supply in the target area
Appropriateness of Processes	<p>Identification of development issues with regard to the project</p>	<input type="checkbox"/> Background of the request from the government of the recipient country <input type="checkbox"/> How the request from the Government of Mozambique was examined to determine the cooperation details, including target area, and items, specifications, and quantity of materials and equipment to be procured <input type="checkbox"/> If discussion and coordination with the Government of Mozambique were conducted appropriately about the requested project
	<p>Effective collaboration with other project schemes</p>	<input type="checkbox"/> If the project collaborated effectively with other ODA projects of Japan <input type="checkbox"/> If the support for the project was pledged at the right timing to enhance the synergy effect with the collaborated projects in case it collaborated with other ODA projects of Japan
	<p>Project implementation structure and process of related agencies</p>	<input type="checkbox"/> Implementation structures of Japan and Mozambique such as roles of related agencies and implementation process <input type="checkbox"/> If the process of monitoring and feedback during the implementation period of the project was appropriate <input type="checkbox"/> If unexpected incidents around project implementation and changes in the development cooperation environment occurred, how they were coped with <input type="checkbox"/> If publicity activities of the project were carried out appropriately in terms of the target, content, and method
	<p>Effective collaboration with various other bilateral and multilateral donor organizations</p>	<input type="checkbox"/> If appropriate discussion and coordination with other donors were carried out as necessary in the formulation and implementation of the project <input type="checkbox"/> What process was followed to ensure consistency and collaboration with cooperation programs of other donor organizations
Evaluation from Diplomatic Viewpoints		
Diplomatic Importance	<input type="checkbox"/> What makes the project important in the context of the bilateral relationship between Japan and Mozambique <input type="checkbox"/> What makes the project important in the context of Japan's assistance to Africa (TICAD) <input type="checkbox"/> What makes the project important for the safety and prosperity of the people of Japan, including companies and organizations	

Evaluation Criteria	Verification Items	Details
	Diplomatic Impact	<input type="checkbox"/> Contribution to the improvement of Japan's presence and integrity in the international community <input type="checkbox"/> How has the project contributed to strengthening the bilateral relationship <input type="checkbox"/> Impact on the people of Japan, including companies and organizations <input type="checkbox"/> If the publicity activities of the project have made any impact on strengthening the bilateral relationship between Japan and Mozambique, such as improved understanding and integrity of Japan.

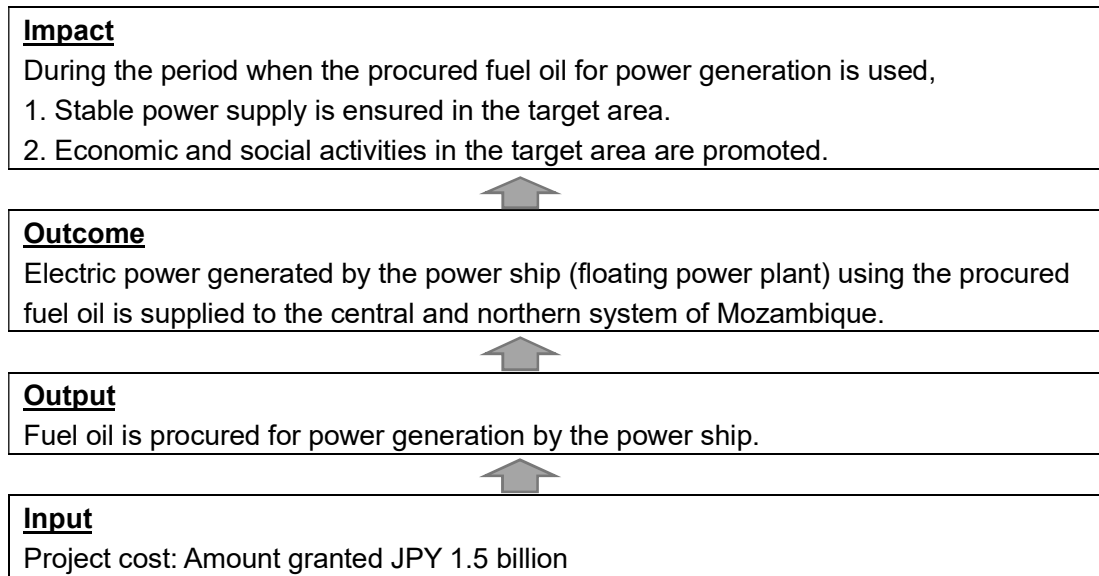


Figure 1-1 Objective Framework

1-2 Evaluation Methodology

An evaluation study was implemented from September 2020 to January 2021 in accordance with the evaluation framework. The study mainly consisted of literature research, and questionnaire and interview surveys (face-to-face and online) with relevant organizations in Japan and Mozambique. As described in the next section, field visits by the evaluation team were not conducted, and studies were restricted to those possible in Japan (face-to-face or online), due to the COVID-19 global pandemic. Figure 1-2 shows a flow of the evaluation study.

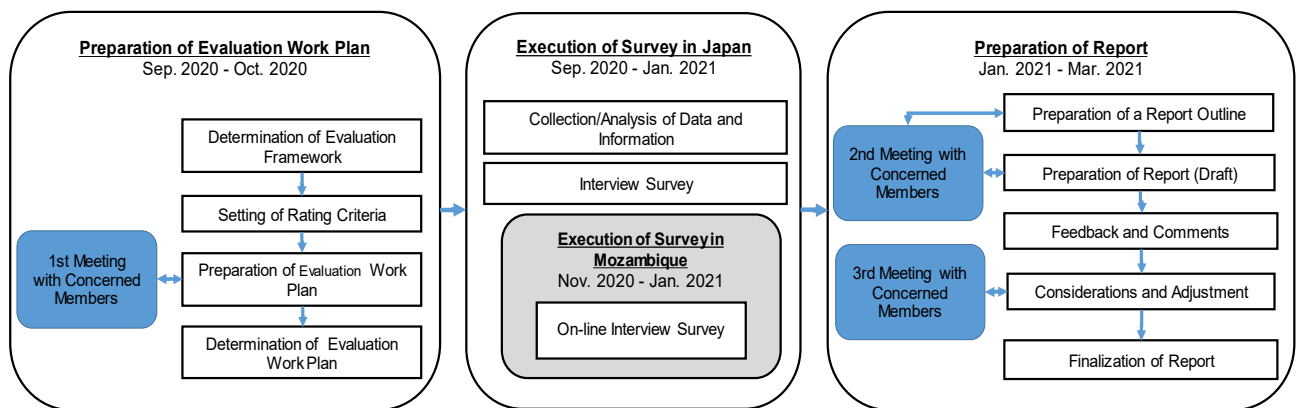


Figure 1-2 Evaluation Workflow

1-3 Restrictions on the Evaluation Studies (COVID-19 Impact)

Due to the impact of the global COVID-19 outbreak, the evaluation team was unable to travel to Mozambique and conduct face-to-face interviews with the relevant organizations of the project. As an alternative measure, the evaluation team carried out interviews using online meeting tools to obtain necessary information and discuss matters related to the verification items. The team sent questionnaires to interviewees prior to the interviews and asked them to prepare their responses. Where the interviewees could fill out the questionnaires, they were requested to send them back to the evaluation team before the interviews.

The local institutions targeted for the questionnaire survey and interviews were: the Ministry of Foreign Affairs and Cooperation (MINEC), which coordinates ODAs to Mozambique; the Ministry of Mineral Resources and Energy (MIREME), the implementing agency of the project; the Ministry of Economy and Finance (MEF); Electricidade de Moçambique (EDM), the end-user of the project; the Independent Power Producer (IPP); and other donors. Of these, interviews could not be held with MIREME and MEF due to scheduling conflicts. In addition, responses to the questionnaires could not be obtained from these two ministries. Due to these circumstances, information from these ministries is limited to the project documents and existing literature.

With regard to the online interview survey, there were some difficulties in coordinating the participation of relevant personnel and securing the communication environment due to the stay-at-home requirements at the target organizations of the interviews for the COVID-19 response. Besides, the local communication conditions often resulted in interruptions of online interviews in terms of audio being cut off or

audio being available but without video. Although it was difficult to communicate sufficiently in many cases, the team made efforts to collect necessary information through e-mails as a communication supplement and follow-ups by a research assistant based in Maputo.

Chapter 2 Outline of the Evaluated Project

2-1 Outline of the Recipient Country

The Republic of Mozambique is located in the southeast of the African Continent and shares its border with Tanzania, Zambia, Malawi, Zimbabwe, Eswatini, and the Republic of South Africa. The area is 799,000km², which is about 2.1 times that of Japan, and it has a long coastline facing the Indian Ocean that measures about 2,700km from north to south. Maputo, the capital of the country located in the south, Beira, the capital of Sofala Province in the central part, and Nacala in Nampula Province in the north are major ports, which are the starting points of the economic corridors with South Africa and other neighboring inland countries. The total population in 2021¹ is about 30.8 million, and that of 2017, when the Government of Mozambique requested the project, was about 27.9 million, with an average annual population growth rate of 2.8% (2007-2017)².

The civil war, which lasted 17 years after the independence from Portugal in 1975, ended in 1992. Then, after the peacebuilding process of about two years, presidential and National Assembly elections were held under a multi-party system in October 1994. The current head of state is President Filipe Jacinto Nyusi, who is now serving his second term from 2020, following the first term from 2015. With respect to international relations, the country is a member of the Southern African Development Community (SADC) and the Community of Portuguese Language Countries, and it has also joined the Commonwealth of Nations.

In the aspect of the economy, the real GDP growth rate, which had been around 6 to 8% since 2010, declined to 3.8% in 2016 due to the decrease of export revenues caused by plummeting resource prices, currency depreciation, increase in inflation, and rapid rise in foreign debts. Also, the problem of undisclosed debts, which was revealed in 2016, triggered a suspension of general budget support and loans from donors as well as a decrease in foreign investments. As the latest figure, the real GDP growth rate as of 2019 is as low as 2.3%³.

Concerning the industrial structure, in terms of GDP composition by sector of origin, agriculture accounts for 25.0%, industry including construction for 24.0%,

¹ Website of Instituto Nacional de Estatística (<http://www.ine.gov.mz/>)

² Instituto Nacional de Estatística (2019), "Censo 2017 IV Recenseamento Geral da População e Habitação, 2017, Resultados Definitivos – Moçambique"

³ Unless otherwise noted, data of the World Bank (<https://data.worldbank.org/>) are referenced in this section.

manufacturing for 8.2%, and services for 40.9% (2017). As for the labor force by sector of occupation, agriculture employs 74.4%, industry including mining, manufacturing, energy production, and construction employs 3.9%, and services employ 21.7% of the working population (2015 estimate)⁴. In the industry and manufacturing, private sector investments have been active for aluminum smelting, development of energy resources such as coal and natural gas, and infrastructure development for relevant sectors of transportation, communication, and energy. It should be particularly noted that one of the largest natural gas fields in the world was recently discovered off the coast of Cabo Delgado Province in the north of Mozambique. These gas fields are being developed with the involvement of foreign enterprises, and production is expected to begin in or after 2024.

According to the DAC List of ODA Recipients, with the gross national income (GNI) per capita as USD 470 (2017), Mozambique is classified as a least developed country. The Human Development Index ranked 180th out of 189 countries in 2017 and 181st out of 189 in 2020⁵. According to the government statistics, the poverty rate improved from 60.3% in 2002/2003 to 48.4% in 2014/2015, but considering the poverty rate by province, it is the highest in Niassa, which is 67%, followed by 65% in Nampula, 62% in Zambezia, and 50% in Cabo Delgado and Sofala⁶, which means that the poverty rate is relatively high in the northern and central regions which were developed later than the southern region.

2-2 Outline of the Evaluated Project

Mozambique has been suffering from chronic shortages of electric power resulting from the economic growth in recent years. At the time of the project request, the 5-Year Government Plan (2015-2019), which is the national development plan of Mozambique, had identified economic and social infrastructure development as one of its priority areas. With regard to the energy sector, the strategic objective was to improve access to electricity, liquid fuels, and natural gas in both the aspects of quality and availability for the development of socio-economic activities, domestic consumption, and exports. In the current 5-Year Plan (2020-2024), economic infrastructure is also listed as a strategic area, with priority given to investments in high quality infrastructure such as energy, telecommunications, ports, roads, and railroads.

⁴ CIA, The World Fact book: Mozambique (<https://www.cia.gov/the-world-factbook/countries/mozambique/>)

⁵ UNDP (2018), "Human Development Indices and Indicators 2018 Statistical Update"
UNDP (2020), "Human Development Report 2020"

⁶ World Bank (2018), "Overview: Mozambique Poverty Assessment: Strong but not Broadly Shared Growth"

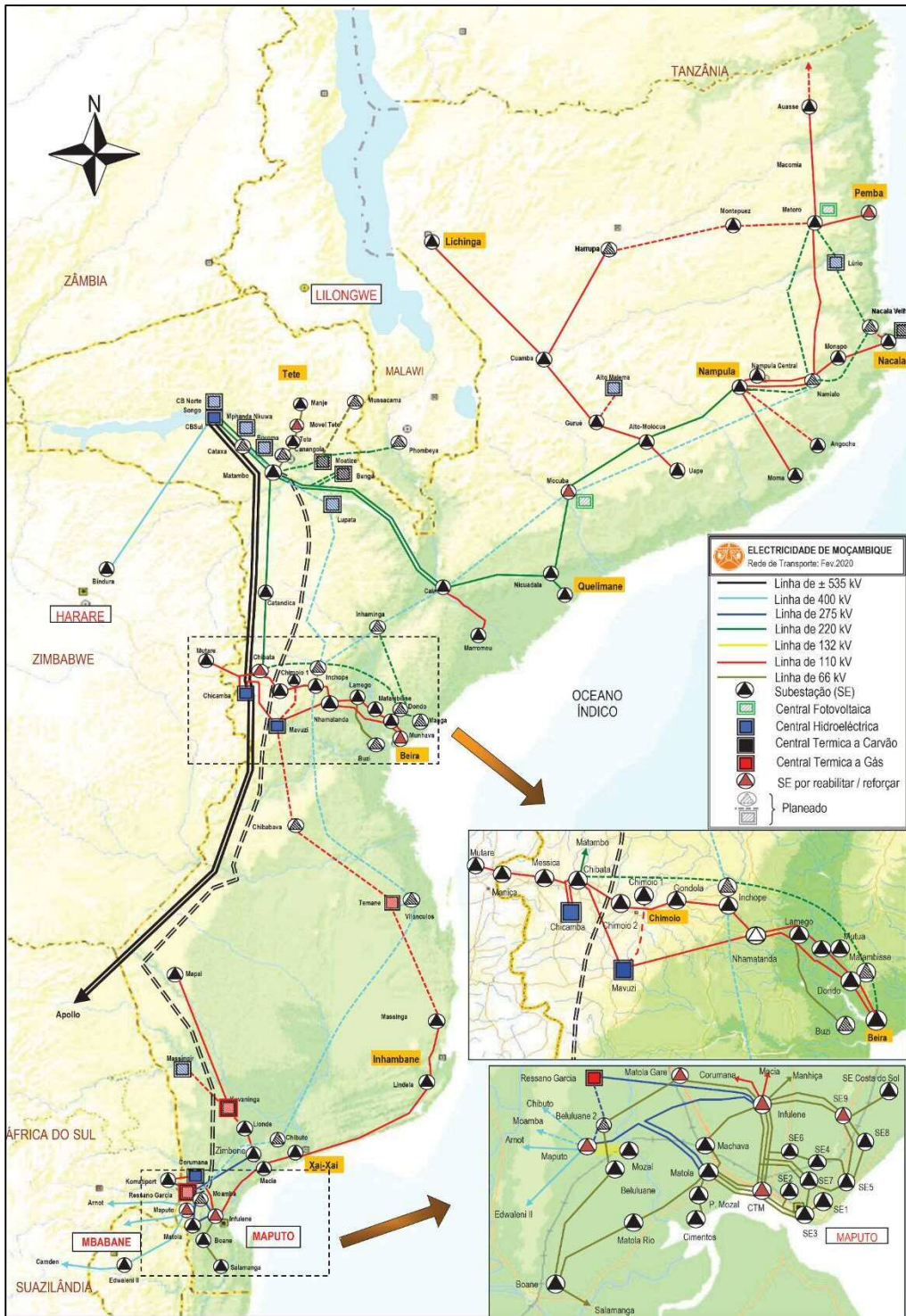
The percentage of population living below the international poverty line is 62.9% (2014/2015).

The power system of Mozambique is broadly divided into the southern system, which supplies power to Maputo Province including Maputo City as well as part of Inhambane Province and Gaza Province, and the central and northern system, which cover Manica Province, Sofala Province, Tete Province, Zambezia Province, Cabo Delgado Province, Nampula Province, and Niassa Province as well as the rest of Inhambane Province and Gaza Province. These two systems are not interconnected⁷ (Figure 2-1). Access to electricity as of 2017 is 27% across the country. While it is 60% in the southern region, it is significantly lower in the central and northern regions at about 17%⁸. Power outage caused by cyclones and flooding is a serious problem, and as such, elimination of power shortage is a pressing issue. The majority of the power demand in the central and northern system is covered by Cahora Bassa hydroelectric plant (Hidroeléctrica de Cahora Bassa: HCB), the largest power generation infrastructure in the country. Since about 70% of the electricity generated by the plant is sold to South Africa, it has not been able to meet the domestic power demand fully.

As an emergency measure taken before the construction and operation of new power plants for the central and northern system, EDM has been leasing a power ship from Karpower International DMCC (Karpower), an independent power producer (IPP), since March 2016 to supply power to the central and northern system with a view to supplementing the power supply to the northern region, namely Nampula, Cabo Delgado, and Niassa Provinces. These three provinces are included in the Nacala Corridor, and especially in the areas with heavy power demand, which mainly consist of Nampula and Cabo Delgado Provinces, the power supply is not keeping pace with demand growth. The power ship has been made available for shared use with neighboring Zambia off the coast of Nacala port in Nampula Province based on a tripartite contract between EDM, ZESCO Limited (former Zambia Electricity Supply Corporation Limited), and Karpower.

⁷ The central and northern system consist of the central system (part of Inhambane, Gaza, Sofala, and Manica) and the northern system (Tete, Zambezia, Cabo Delgado, Nampula, and Niassa as well as the rest of Manica and Sofala). Since the two systems are interconnected, they are treated as one. In this report, the term “central and northern system” refers to both the central and northern systems.

⁸ EDM (2019) “Annual Report 2019”



(Source: Reproduced from EDM Annual Report 2019)

Legend:

Linha de \pm 535/400/275/132/110/66kV	Transmission lines	Central Termica a Carvão	Coal-fired thermal power plant
Substação (SE)	Substation	Central Termica a Gás	Gas-fired thermal power plant
Central Fotovoltaica	Solar power plant	SE por reabilitar / reforçar	Substation for rehabilitation/reinforcement
Central Hidroelétrica	Hydroelectric power plant	Planeado	Planned power plants and substations

The shaded power plants and dotted transmission lines in the figure show plans of EDM.

Figure 2-1 Power System in Mozambique (2020)

As the contract was to expire in the middle of March 2018 and ZESCO, the main off-taker, did not continue with the contract, the power ship was to be used only by EDM since then. However, the economic crisis caused by the problem of undisclosed debts made it difficult for EDM and the Government of Mozambique to secure the budget required for procurement of fuel oil for power generation. In June 2017, the Government of Mozambique requested the Government of Japan to extend cooperation for procurement of fuel oil.

This project was implemented as grant aid for the Economic and Social Development Program based on the request. The project aims to eliminate electricity shortage and ensure a stable supply of electricity by providing low sulfur heavy fuel oil (HFO) for power generation to the Government of Mozambique, thereby contributing to the economic and social development of the country. The outline of the project is described as follows:

- | | | | |
|------|----------------------------|---|--|
| (1) | Request from Mozambique | : | In June 2017, the Ministry of Foreign Affairs and Cooperation of Mozambique submitted a Note Verbale and written request for the provision of fuel oil for power generation. |
| (2) | Project Scheme | : | Grant Aid for Economic and Social Development Program |
| (3) | Amount | : | JPY 1.5 billion |
| (4) | Exchange of Notes | : | August 24, 2017 |
| (5) | Implementing Agency | : | Ministry of Mineral Resources and Energy |
| (6) | End-user ⁹ | : | Electricidade de Moçambique (EDM) |
| (7) | Method | : | Procurement agent system (Procurement agent: Crown Agents Limited) |
| (8) | Target Sector | : | Electricity sector |
| (9) | Purchased Product | : | Low sulfur heavy fuel oil for power generation |
| (10) | Date of Project Completion | : | December 17, 2018, date of completion of the contract with the procurement agent |

⁹ "End-user" refers to the agency that receives and uses the product procured based on the contract between the procurement agent and contractor, the party supplying the product for Grant Aid for Economic and Social Development Program to the recipient country in accordance with the contract with the procurement agent.

Chapter 3 Evaluation Results

3-1 Evaluation from Development Viewpoints

Outline of Evaluation Results (Evaluation from Development Viewpoints)

(1) Relevance of the Project: Satisfactory B

Verification items: Consistency with Japan's high-level policies, consistency with development needs of the recipient country, consistency with international priority issues, and relationship with other donors

Main reason: This project intended to assist the improvement of electricity supply in northern Mozambique located in the Nacala Corridor and resulting economic and social development through procurement of fuel oil for power generation. While the project was not meant to increase or expand power generation capacity, it helped EDM secure a stable power supply in the Nacala Corridor. In this sense, the project was consistent with Japan's high-level policies such as assistance to infrastructure development and support for the development of the Nacala Corridor, development needs of Mozambique with improved access to electricity, which is with high priority of the Government of Mozambique and essential to promote industrialization, needs for stable supply of electricity in the target area, and the targets for energy access in SDGs. However, when examining a project request, it is also desirable to consider the appropriateness of using HFO for power generation from the perspective of ensuring environmental and EDM's financial sustainability and improving the disparity in access to electricity within the target area.

(2) Effectiveness of Results: Satisfactory B

Verification items: Inputs, outputs, outcomes/impacts

Main reason: It is necessary to build large-scale power plants to improve the electricity supply in the northern region from long-term perspectives. However, while waiting for these to be materialized, the existing grid will continue to be pressed due to increased power demand. Therefore, the cooperation approach, which assists the procurement of fuel oil for power generation to sustain the power

supply from the power ship as an emergency response aimed at stabilizing and ensuring the quality of electricity supply and preventing large-scale power outage, is considered relevant. The maximum quantity of fuel oil allowed to be purchased within the limit of the E/N amount was used to supply electricity from the power ship for approximately one year. Fuel procurement through the project enabled EDM, as an end-user, to secure 100% of the power it needed as agreed in the contract with the IPP. With respect to the outcome and impact, it should be noted that the project allowed the target area to maintain production activities by ensuring the quality of electricity and stability in the electricity supply. In the meantime, the entire power system in the target area still faced challenges, such as the limited capacity of the transmission line from Nacala City, where the power ship is moored, affecting the amount of power supply, and the occurrence of power outages due to equipment failure for grid management. For these reasons, the project did not necessarily have an extremely high impact on promoting social and economic activities.

(3) Appropriateness of Processes: Partially satisfactory C

Verification items: Identification of development issues, effective collaboration with other project schemes, project implementation structure and process of related agencies, and effective collaboration with other donors

Main reason: The project was implemented appropriately in line with the procedures of the Grant Aid for Economic and Social Development Program (procurement agent system), which includes identification of development issues, consideration of requests, and determination of cooperation details. On the other hand, it was found that the use of the procured fuel oil after handover and actual electricity supply performance were not adequately monitored and recorded. Also, the contents of the information communicated about the project were not concrete enough in that it fell short of clearly publicizing the project details and expected development effects.

3-1-1 Relevance of the Project

(1) Consistency with High-Level Policies of Japan

(A) Consistency with Japan's ODA Policies

One of the priority issues set forth in the Development Cooperation Charter (2015) is the achievement of the economic growth of developing countries through human resources development, infrastructure development, and establishment of regulations and institutions, as well as the growth of the private sector resulting from these actions for sustainable development with a view to eradicating poverty. Accordingly, Japan's ODA aims to provide assistance as necessary for securing the foundation and driving force of economic growth. The project covered by this evaluation is a project for procurement of fuel oil required for maintaining the electricity supply from the power ship, which is an emergency power source, to ensure the quality and stability of electricity supply supporting the people's livelihood and industrial activities in northern Mozambique, namely Cabo Delgado, Nampula and Niassa Provinces, located in the Nacala Corridor. Although it was limited as cooperation and may be regarded as an emergency-response measure, it was consistent with Japan's ODA policies in that it contributed to infrastructure development and the continuation of social and economic activities in the target area by supporting the supply of electricity for the duration of the use of the fuel oil provided.

(B) Consistency with Policies toward Africa

As a regional policy toward Africa, the Development Cooperation Charter indicates that Japan will provide assistance through joint efforts of the public and the private sector through the process of the Tokyo International Conference on African Development (TICAD). In TICAD VI held in Nairobi, the capital of Kenya, in 2016, Japan made a statement about "strengthening connectivity by promoting "Quality Infrastructure Investment" to align with the G7 Ise-Shima Principles" to introduce its initiatives for one of the priority areas that is "promoting structural economic transformation through economic diversification and industrialization." The statement declares that Japan will contribute to the achievement of economic diversification and industrialization through supporting quality infrastructure development, which serves as the foundation of economic activities, and facilitating the activities of the private sector as the core of economic activities. The planned investment includes region-wide development, primarily for three regions of priority, i.e., Nacala Corridor, Mombasa/Northern Corridor and the West Africa Growth Ring¹⁰, and high-efficiency

¹⁰ The Mombasa/Northern Corridor refers to the corridor extending from Mombasa Port in Kenya to Uganda, and the West Africa Growth Ring refers to four corridors connecting Cote d'Ivoire, Ghana, Togo, and Burkina Faso.

power generation as energy development, among others.

As this project was not for the construction or rehabilitation of power plant facilities, it did not lead to permanent enhancement of the power generating capacity in Mozambique. However, since the project helped in ensuring a stable power supply to the Nacala Corridor to a certain extent, it contributed to quality infrastructure investment, which is one of the priority areas in TICAD VI. Also, from the perspectives of contribution to sustained socio-economic activities in the target area through ensuring stable electricity supply, it was consistent with another area of priority in TICAD VI concerning “promoting social stability for shared prosperity.”

(C) Consistency with the Development Policy on Energy

With regard to Japan’s development policy on energy, particularly for electricity supply, the Development Cooperation Charter mentions as part of the priority issues the need to address “ensuring sustainable access to resources and energy.” The ODA sectoral development policy concerning assistance to electricity supply describes that electricity supply is essential to industrial development and improvement of living standards in developing countries, and supplying electricity to unelectrified areas, especially in developing countries, will contribute to improving living standards, promoting industry, and creating jobs.

As for this project, among the low sulfur HFO, natural gas, or liquefied natural gas (LNG) that could be used as fuel for power generation at the power ship, it was decided to use low sulfur HFO since there were no facilities or supply system to stably receive natural gas/LNG¹¹ in Nacala, where the power ship is installed, at the time of the project request and implementation. In addition, as the power ship is a rental power source, EDM was burdened with the costs of procuring HFO and purchasing electricity generated by the power ship.

As described above, the project had some limitations in ensuring sustainability from the perspectives of environmental consideration and EDM’s financial capability. However, this needs to be considered in conjunction with the fact that the introduction of the power ship to serve as part of the base load¹² was an emergency measure until additional power plants will be built in the northern region. As the project aims to contribute to maintaining the economic and social activities in the target area through ensuring a stable supply of electricity, it is considered that the project had a certain degree of consistency with Japan’s development policy on the energy sector.

¹¹ Compared with other fossil fuels such as coal and oil, it is lower in emissions of carbon dioxide (CO₂) and nitrogen oxides (NO_x) and does not emit sulfur oxides (SO_x).

¹² Power source that can generate electricity stably and can operate continuously day and night

(D) Consistency with the Country Development Policy for Mozambique

The Country Assistance Policy for Mozambique (2013) specifies as a priority area the promotion of comprehensive development of the Nacala Corridor as an area with high potential for transportation route for mining and energy resources and agricultural development as part of the programs for revitalizing the regional economy, including corridor development. More specifically, it sets forth infrastructure development assistance, such as rehabilitation of roads and bridges, improvement of Nacala port and electricity infrastructure, and agricultural development assistance. In the Rolling Plan of the Country Assistance Policy, this project is positioned as part of the Assistance Program “Program for development and improvement of Nacala Corridor” under Development Target 1-1 “Corridor Development Assistance.”

(2) Consistency with the Development Needs of the Recipient Country

(A) National Development Strategy and 5-Year Government Plan of Mozambique

The National Development Strategy of Mozambique (2015-2035) aims to improve the living conditions for the population through structural transformation of the economy and expansion and diversification of the production base. To achieve this objective, it further declares to promote industrialization focusing on human capital development, infrastructure development, research, innovation and technological development, and organizational and institutional development. One of the priority areas for infrastructure development in the Strategy is developing electricity and alternative energy sources. It also describes the need to promote access to electricity and develop alternative sources of power generation as part of the measures for agricultural modernization, productivity improvement, and vitalization and expansion of the manufacturing industry.

The 5-Year Government Plan (2015-2019), which is a basic document of the national development plan, includes economic and social infrastructure development as one of the priority areas with improving access to and availability of electricity as a priority issue. Agriculture, electricity, infrastructure, and tourism are priority sectors in this plan. According to MINEC of Mozambique, the development of the power sector in the Nacala Corridor is expected to contribute to the promotion of industrialization and agriculture (agribusiness), in addition to improving the people’s livelihood. The cooperation based on this project, which is to secure power generation required for stabilizing the power supply in the northern region, is in line with the priority areas of the National Development Strategy/Plan as mentioned above.

(B) Development Needs of the Target Area

As described below, it is confirmed that northern Mozambique has needs for sustained socio-economic activities and stability and quality improvement in electricity supply. Therefore, this project is considered consistent with the development needs of the target area.

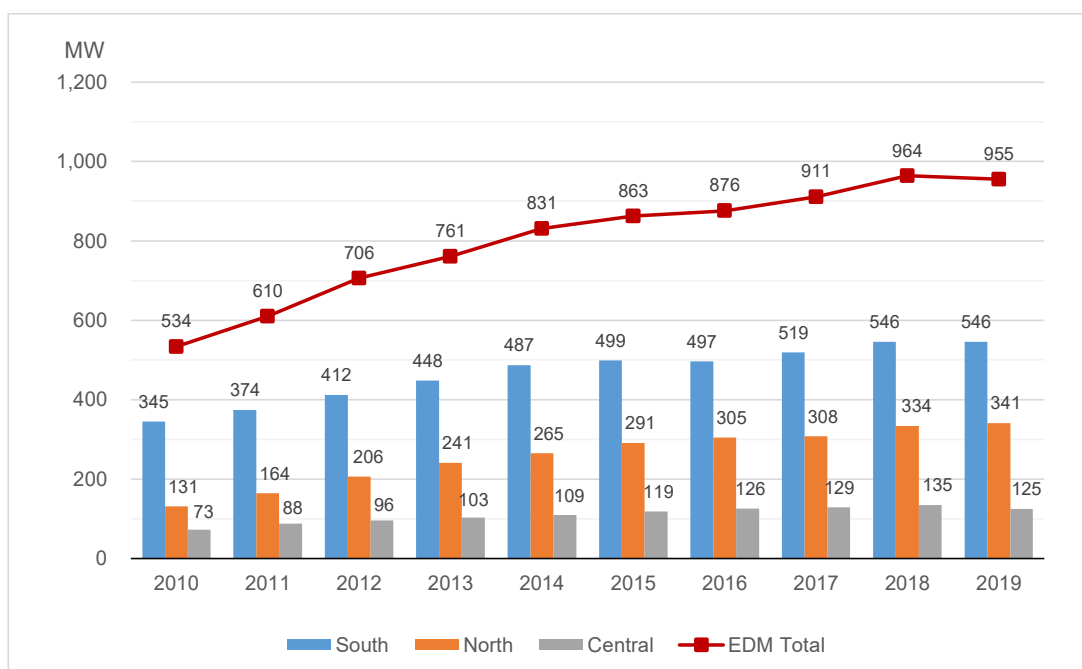
(a) Nacala Corridor Development

The Government of Mozambique prioritizes the development of railways, ports, and power grid along with roads for the purpose of industrial development. The Nacala Corridor, which extends from the Port of Nacala, is an important area as a transportation route for ample mining and energy resources of Mozambique. The area also has a high potential for agricultural development. Power supply to the Nacala area, in addition to improvement of the transportation infrastructure, is essential to promote the development of the Nacala Corridor. It is critical not only to meet the electricity demand to support the livelihood of the people in the Nacala area but also to maintain industrial activities.

Concerning the relationship between the socio-economic development needs of the Nacala Corridor and the request for this project, MINEC of Mozambique explains that improvement of electricity supply was high on the agenda to achieve the objectives of promoting industrialization, electrifying educational facilities, and expanding the market for agribusiness in the region.

(b) Electricity Supply in Northern Mozambique

When this project was requested, electricity consumption in northern Mozambique, including the Nacala area, had been increasing at an average rate of 22% per year in the preceding five years, and the supply capacity of the central and northern system of EDM could not keep up with the growing demand. Figure 3-1 shows the trend of maximum power demand at the time of the request.



(Source: Produced by the evaluation team based on the EDM Annual Report 2019)

South: Maputo Province including Maputo City, and part of Inhambane Province and Gaza Province

North: Provinces of Tete, Zambezia, Cabo Delgado, Nampula, and Niassa, part of Manica and Sofala Provinces

Central: part of Inhambane, Gaza, Sofala, and Manica Provinces

Figure 3-1 Trends of Annual Maximum Demand

The central and northern system relies on HCB in Tete Province for most of the power supply. The plant has a capacity of 2,075MW and supplies 200MW to the central and northern system while most of its power is exported to South Africa. In particular, the provinces of Nampula and Cabo Delgado, major power consumers in the northern region, are located far from the plant, and the power loss during transmission is significant. For instance, Nacala City in Nampula Province is about 1,000km away from HCB. Therefore, EDM needed to reinforce the capacity of the transmission and distribution facilities, expand the grid, and reinforce generation capacity in specific areas to meet the rapid increase in power demand. Also, a long-distance transmission line from HCB was cut due to the flood in 2015, which resulted in a power outage for a month.

At the time of the request for this project, the northern region had no large-scale power generation other than HCB. Accordingly, EDM had made short-term investments in installing additional compensation equipment to keep the system voltage within a certain range and new emergency generation capacity to secure the minimum supply power in the capital cities of the Provinces in the central and northern regions with a view to strengthening the existing system. A diesel power generator with a total output of 18MW leased from Aggreko had been installed in Nacala until June 2016, but it was

removed after the end of the lease period.

Because of the significant growth of power demand in the industrial sector of the northern region centered on the Nacala Corridor, it was predicted that EDM's existing system would not make up for a significant portion of the newly required electricity. In addition, there were concerns about the increase in load shedding and occurrence of large-scale blackouts, as the rapid increase in power consumption might make it difficult to control the voltage.

According to the business plan of EDM at the time of the request of the project, priority development issues concerning the electricity supply in the northern region were as follows:

- Increasing the power supply to promote the rural electrification plan of the Government
- Coping with the power shortage of about 100MW caused by the growth in the power demand of the industrial sector by about 20-30%
- Responding to the increase in new customers, especially large-scale consumers in the industrial sector in the Nacala area. Ensuring power quality and connectivity.

(c) Ensuring Stable Electricity Supply by Power Ship

From 2014 to 2016, Zambia suffered from a power shortage due to declined water levels of the dam lakes of domestic hydroelectric plants caused by drought, which seriously affected mining, the country's major industry. In response, the Government of Zambia reached an agreement with the Government of Mozambique to introduce a power ship as an emergency measure. Based on a tripartite contract between ZESCO, EDM, and Karpower, which owns and operates the power ship, 75-80 MW of power generation and supply to Zambia via EDM's transmission network began in March 2016¹³.

In addition to Zambia, the power ship served as an emergency power plant for Nampula, Cabo Delgado, and Niassa Provinces, which were covered by the northern system of EDM. It was expected that EDM would benefit from using the power ship, such as the realization of stable and quality electricity supply to northern Mozambique, especially to the Nacala Corridor, reduction of power losses, and generation of revenue from power transmission to Zambia. The power ship played the functions and roles of

¹³ While ZESCO received the supply of electricity based on the contract with Karpower, EDM had a contract with HCB concerning the electricity supply from the hydroelectric plant. According to the explanation of EDM, it was offset as the same amount of electricity generated by the power ship was generated by HCB which were transmitted to Zambia via Zimbabwe.

securing the quality of electricity under normal conditions and generating electricity only with its own facilities without relying on the power received from external sources in the event of a large-scale power outage to feed electricity to the northern system.

During the two-year tripartite contract period from 2016 to mid-March 2018, ZESCO paid the costs of power generation and fuel oil consumed by the power ship, and no cost was borne by EDM or the Government of Mozambique. As ZESCO did not renew the contract after the completion of the contract period in March 2018, the Mozambican side decided that EDM would continue to use the power ship with the installed capacity of 110MW and supply power up to 48MW to EDM. However, it was difficult for the Government of Mozambique and EDM to secure the budget for the fuel oil for power generation because of their financial circumstances. As shown in Table 3-1 below, the total supply power by the power generation equipment in the central and northern system was 368.2MW (total supply power by the facilities No.1 to No.11 in the table) as of 2018, of which the power ship accounted for about 13%.

Table 3-1 Existing Power Generation Equipment in the Central and Northern System

No.	Plant Name	Type	Installed Capacity (MW)	Supply Power to EDM Grid (MW)	Operation Start
1	Mavuzi (EDM)	Hydro	57	57	1995-1957
2	Chicamba (EDM)	Hydro	44	44	1968-1969
3	Nampula Emergency (EDM)	Thermal (D/E)	4	1.5	1971
4	Cahora Bassa (HCB)	Hydro	2,075	200*	1975
5	Quelimane Emergency (EDM)	Thermal (D/E)	6.88	2.5	1980
6	Lichinga (EDM)	Hydro	0.73	0.5	1983
7	Beira GT35 (EDM)	Thermal (OCGT)	14	12	1988
8	Cuamba (EDM)	Hydro	1.1	0.5	1989
9	Pemba Emergency (EDM)	Thermal (D/E)	1.46	1.0	2002
10	Lichinga Emergency (EDM)	Thermal (D/E)	1.5	1.2	2003
11	Nacala Barcassa - IPP (Karpower)**	Thermal (Power Ship)	110	48	2016
12	Mocuba (PPP)	Solar	40	30	2019

(Source: JICA (2019), "Preparatory Survey Report on the Project for Construction of Nacala Emergency Power Plant in the Republic of Mozambique" (Japanese))

D/E: Diesel Engine, OCGT: Open Cycle Gas Turbine

* The supply power from HCB in the table above shows a standard allocation to the northern grid.

** The power ship is planned to be switched to LNG-based power generation. The vessel operated since 2016 was replaced in November 2019 by the one with 120MW of installed capacity and capable of generating power with both LNG and fuel oil (diesel and heavy oil).

Before the installation of the power ship, the electricity was of poor quality and the voltage was unstable, which significantly affected the business of large-scale consumers receiving power from EDM. The production and facilities of steel mills, for example, are very negatively impacted in case of a power outage. EDM estimates that load shedding of 60MW, equivalent to about 25% of the electricity consumption of the entire northern region, would be required if the electricity supply from the power ship is suspended.

(3) Consistency with International Priority Issues

The project is positioned as indirectly contributing to Target 7.1 “Ensure universal access to affordable, reliable and modern energy services” under Goal 7: “Affordable and Clean Energy” of the SDGs. Although the project did not directly lead to improved access to electricity as it had no component to promote electrification, stable power supply and improved reliability of the supply achieved by the project had secured the environment for the use of on-grid electricity by domestic and industrial users.

Further, as the project took an approach to secure a stable power supply in the target area by supplying power generated at a power ship with HFO to EDM grid, it would have been more appropriate to examine the relevance of the request from the perspectives of Goal 13: “Climate Action” and Goal 10: “Reduced Inequalities” of SDGs as well. Prior to the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) (COP21) in December 2015, the Government of Mozambique submitted an intended nationally determined contribution (INDC) to the UNFCCC secretariat aiming at reducing greenhouse gas emissions. The INDC was registered as a nationally determined contribution (NDC) upon the conclusion of the Paris Agreement in June 2018. It describes reduction targets and measures for mitigation contribution as well as undertakings for adaptation contribution for the implementation period of 2020 to 2030. Since the target sectors of NDC submitted by Mozambique include energy/power generation, it could have served as one of the policy guidelines when the request for this project was made although it was before the implementation period of the NDC.

In relation to Goal 10: “Reduced Inequalities,” its contribution to reducing inequalities within the region concerning electricity access would be limited. This is because the focus of the project was not on increasing power generation capacity or promoting electrification to relieve power shortages in the central and northern system.

Nevertheless, taking into account the urgency of this project, types of power

generation required by EDM¹⁴, availability of fuels in the target area, economic efficiency, environmental consideration¹⁵, and other conditions, assistance for the procurement of fuel oil for power generation is considered to have been relevant as a means of cooperation when the request was examined¹⁶. Also, stabilization of voltage in the grids and prevention of large-scale power outages were expected through the implementation of the project. It is, therefore, considered that the project contributed to facilitating social and economic activities in the target area by securing the power supply to the infrastructures, such as the public facilities and the commercial and industrial facilities connected to the grid.

(4) Relationship with Other Donors

MOFA of Japan explains that there were no projects funded by other donors of which complementary development effects were taken into account when planning this project. At the planning stage, MOFA confirmed that this project had no overlap of cooperation with other donors, and by doing so, it differentiated itself from cooperation by other donors. EDM expressed the view that other donors were more interested in supporting long-term solutions rather than emergency power generation although they were also aware of the EDM's project of the power ship.

The World Bank, Norway, France, Germany, and other donors have been extending cooperation in the electricity sector in central and northern Mozambique. As for other donor's support implemented for the improvement of the central and northern system between 2017 and early 2019, which corresponds to the period from the request for this project until the end of the use of the procured fuel oil, there is the Energy Development and Access Project (APL-2) implemented from February 2010 to June 2017 with the support of the World Bank. APL-2 included rehabilitation and reinforcement of existing primary networks of the central and northern system, extension and intensification of the medium and low voltage grid in peri-urban areas in Nampula and Tete Provinces, and reinforcement of equipment in Mocuba and Pemba

¹⁴ EDM has been using the power ship as part of the base load. When the project was requested, solar power plants were under planning or construction as new power generation for the central and northern system with the cooperation of other donors. Solar power plants cannot be used as base load because they are limited to daytime generation and the output is affected by weather conditions.

¹⁵ According to an interview with the Mozambique Office of Karpower, the owner and operator of the power ship, for the installation and operation of the power ship, the company conducted environmental and social impact assessment and obtained environmental license, and has been carrying out annual environmental audit and submitting periodic reports to the Ministry of Land, Environment and Rural Development, in accordance with the domestic and international environmental regulations.

¹⁶ The record on examination of this project by the ODA Task Force confirms that, while exploring other options for cooperation that could contribute to the electricity needs of Nacala area, the provision of fuel oil was considered as a measure that would allow the quickest possible assistance with a priority on schedule to address the emergency situation in the midst of Mozambique's undisclosed debt problems.

substations. Extension and intensification of the grid in the peri-urban areas as well as rehabilitation and reinforcement of primary networks are considered to have contributed to a certain degree to secure a more reliable transmission of electricity from the power ship to the grid although there was no specific linkage planned between APL-2 and the project under this evaluation according to the interview with the World Bank Mozambique office.

3-1-2 Effectiveness of Results

(1) Inputs

The implementation schedule of the project is shown in Table 3-2. According to the Agreed Minutes on Procedural Details concluded between the Governments of Japan and Mozambique with regard to the project, a procurement agent agreement needs to be made within three months after the date of entry into force of E/N. The actual results show that it took about four months as MIREME required time to check and approve the text of the agreement. However, in general, it can be said that the project was able to respond quickly to the needs of the Government of Mozambique by taking advantage of the characteristics of the Economic and Social Development Program Scheme. The first lot of the procured fuel oil was handed over to EDM in approximately nine months from the submission of the project request, as shown as the date of completion of the contract in (G) in the table below. The delivery of the second lot was completed in about one year, as indicated in (H) in the same table.

Table 3-2 Project Implementation Schedule (Actual)

Item		Date	
(A)	Submission of the Note Verbale and written request	June 6, 2017	
(B)	Conclusion of E/N	August 24, 2017	
(C)	Execution of the grant	Same as the date of conclusion of the agent agreement	
(D)	Date of conclusion of the agent agreement	December 22, 2017	
(E)	Date of approval of the agent agreement	January 16, 2018	
(F)	Disbursement of the grant from the account of the Government of Mozambique to the agent's account	March 6, 2018	
(G)	Procurement contract (direct contract)	Date of tender	—
		Conclusion of the contract	March 12, 2018
		Completion of the contract	March 12, 2018
(H)	Procurement contract (competitive bidding)	Date of tender	April 13, 2018
		Conclusion of the contract	April 26, 2018
		Completion of the contract	May 26, 2018
(I)	Completion of the agent agreement	December 17, 2018	
(J)	Return of balance and closing of the agent's account	January 25, 2019	

The grant of JPY 1.5 billion was used to pay for the procurement of low sulfur HFO, agent's fees, and bank charges. A total of 29,347.952 tons of low sulfur HFO that conforms to ISO 8217:2012, the international quality standard of marine fuel oils (heavy fuel oil)¹⁷, was purchased in accordance with the provision of the bidding document.

As shown in Table 3-3, the fuel oil was procured twice. The first procurement was based on a direct contract with Karpower, the owner and operator of the power ship, and the second part was carried out by the contractor selected through the competitive bidding process.

Table 3-3 Details of Procured Fuel Oil

	Contractor	Amount of HFO Purchased	Contract Amount (USD)	Country of Origin
Direct contract	Karpower International DMCC	6,128.943 tons*1	2,546,103.89	Malaysia
Competitive bidding	Toyota Tsusho Corporation	23,219.009 tons*2	11,284,654.60	EU

(Source: Project Completion Report prepared by Crown Agents)

*1: Total amount of HFO that remained on board the power ship and the fuel tanker as of 12:00 midnight on March 11, 2018 before the procurement contract, based on the measurement certificate of an independent third-party inspector

*2: The quantity procured through competitive bidding is the maximum quantity that can be procured within the ceiling amount, which is the remaining amount after subtracting the procurement agent's fees and the payment for the direct contract from the amount of the grant. The tender document for the competitive bidding indicates only the ceiling limit of the budget, and it does not specify the quantity of fuel to be procured. The tendering was conducted on a premium basis (transport cost, service charge, and others). The actual unit price of HFO was to be determined by adding the average of the international market price of HFO for five days before and after the delivery date of the fuel to the price premium offered by the contractor.

The reason why a part of the procurement was conducted under the direct contract was that urgent action was required to support the continuous power supply under the circumstances where the Government of Mozambique could not secure the budget in time for the fuel oil to be required for the power ship after completion of the tripartite contract in March 2018, which would have discontinued the electricity supply from the power ship. The delivery deadline specified by EDM would not be met if a competitive bidding process or request for quotations was implemented. As a result of coordination with Karpower, it was found that the continuation of supply of electricity from the power

¹⁷ The tender document specifies that the sulfur content must not exceed 1.0 mass %. As a result of the amendment of MARPOL Convention by International Maritime Organization (IMO) to prevent air pollution caused by ships, regulations have been imposed on emissions of NOx, SOx, etc. in ship emissions since 2004. When this project was implemented in 2017-2018, regulations were in place under the convention that limited the sulfur content of fuel oils to 3.5 mass % or less in general sea areas. (This was brought down to 0.5 mass % or less in January 2020.)

ship would be possible by purchasing the unsold fuel from Karpower. The company had already secured some fuel in Mozambique in anticipation of the contract renewal with EDM. Since the following requirements set in the “Procurement Guidelines for Japanese Non-Project Grant Aid” were met, employment of direct contracting in the project was approved by MOFA:

- When the project has adequate reasons for seeking to maintain the uniformity and/or continuity of the product provided under the existing contract
- When there is a limited number of suppliers that satisfy the qualification requirements

(2) Outputs

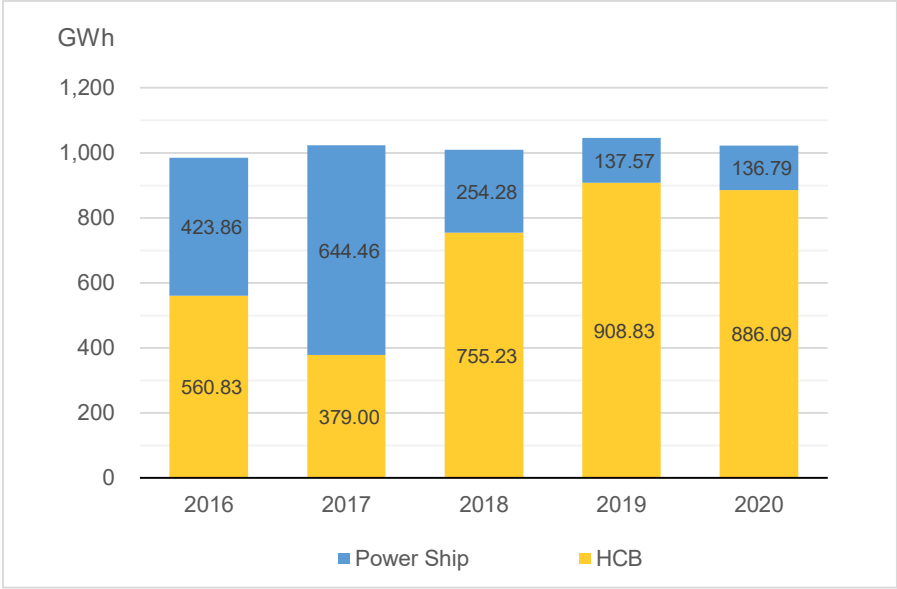
The conclusion of a direct contract and the selection of a contractor by competitive bidding were conducted as planned without any delays. In addition, there were no changes in the procurement item, technical specifications, time of delivery, place of delivery and use of fuel, and end-users from the tender documents and contract documents.

The fuel oil procured through the competitive bidding was handed over to the fuel tanker moored off the coast of Nacala Port on May 26, 2018. Then, it was transferred to the power ship and used until around February 2019. EDM took some operational measures so that the procured fuel could be used at least for one year. More specifically, EDM developed a power generation profile of the power ship and minimized fuel consumption by stopping or reducing power generation at the power ship when the power consumption is low in the daytime in order to extend the period of use of the procured fuel oil as long as possible.

According to Karpower, approximately 131GWh in total was generated and supplied to the EDM grid from March 12, 2018 to February 2019, the period of use of the fuel oil procured in the project. The electricity supplied from the power ship benefited the city of Nacala and the provincial capital Nampula and its surrounding districts, among others in the three northern provinces. During this period, EDM did not purchase additional fuel oil or receive the provision of fuel from other organizations. It was in February 2019 when EDM started procurement procedures for fuel replenishment with its own budget.

EDM expressed appreciation for this project in the interview survey, saying that the procurement of fuel oil with the support of this project enabled EDM to secure 100% of the power it needed as agreed in the contract with the IPP, thus maintaining the power supply to the network. As shown in Figure 3-2, the electricity generated by the power

ship has decreased since 2018. This is due to the completion of the tripartite contract between ZESCO, EDM, and Karpower in mid-March 2018, which resulted in a contract with EDM alone and a change in the supply power from the power ship from 80MW to 48MW. The decrease in power supply from the power ship compared to the previous year up to 2017 has been supplemented by an increase in power purchase from HCB, which has ensured that the overall supply remains about the same.



(Source: Produced by the evaluation team based on the questionnaire collected from EDM)
 The above graph represents the situation of the Provinces of Nampula, Cabo Delgado, and Niassa. Power plants other than HCB are not accounted for in the graph because of their small generation capacity.

Figure 3-2 Electricity Supplied by the Power Ship in the Northern Region

(3) Outcome/Impact

Regarding the outcome of maintaining electricity supply from the power ship to the EDM grid through the use of the fuel oil procured in the project, EDM highlights most that the quality of power supply, such as stability of power within the network, was guaranteed. As for the impact, they have the view that the stabilization of electricity supply contributed to production activities at factories and others, and the facilitation of new connections to the grid. The overall number of EDM customers in the northern region has been increasing every year (Table 3-4).

Table 3-4 Number of EDM Customers in the Northern Region

Category	2016	2017	2018	2019	2020
Domestic	307,284	339,289	410,335	461,275	534,337
Commercial	26,373	30,163	34,774	38,037	41,847
Agriculture	33	37	17	24	17
LVBC	515	550	522	478	414
MV/HV	712	786	822	877	877
Special Customers	4	6	6	6	6
Total	334,921	370,831	446,476	500,697	577,498

(Source: Produced by the evaluation team based on the questionnaire collected from EDM)

LVBC: Low Voltage Big Consumers, MV/HV: Medium Voltage/High Voltage

The above table represents the situation of the Provinces of Nampula, Cabo Delgado, and Niassa.

Major large-scale power consumers, i.e., special customers with contracted power of 1MW or more and receiving voltage of 66kV or more, in the Nacala area are as follows:

- MMI Steel Mills: steelmaking
- MEREC: flour milling and confectionery
- CLN (Corredor Logístico Integrado de Nacala/Nacala Logistics Corridor): Transportation of coal from coal mines in western Mozambique to Nacala Port
- Cement factory
- Zinc sheet factory

As the evaluation team could not obtain qualitative information from customers of EDM on the project impact due to the limitations of the field survey, the evaluation of impact is based only on findings from interviews with EDM and Karpower. It is considered that the continued power generation using the procured fuel oil led to secure stable power supply, and contributed to maintaining social and economic activities in the areas with high consumption of electricity, such as the Nacala area, Nampula City, and its surrounding areas.

The project, however, did not reach the point where it is judged to have an extremely high impact on the promotion of social and economic activities in the target area. According to EDM, there have still been problems in the overall power system in the target area. One of such problems is the limited capacity of the transmission line from Nacala City, where the power ship is located, to Monapo, a point on the way to Nampula City, which has been affecting the volume of power supply. Also, power outages have occurred due to the failure of equipment being used to improve the stability of the grid.

(4) Measures for Continuation of Electricity Supply from the Power Ship and Improvement of Electricity Supply in the Target Area after the Project Completion

After this project was completed, EDM has secured the budget to continue the electricity supply by the power ship. There is no financial support from other donors for fuel oil procurement. The term of the contract between EDM and Karpower for leasing the power ship is ten years starting March 2018, and is divided into two phases. It is planned that HFO is used for power generation in the first phase, and LNG replaces HFO in the second phase. Since the procurement of HFO for the power ship causes a heavy financial burden on EDM, it has been decided that by the joint venture of Karpower and Mitsui O.S.K. Lines, the power ship will switch to using LNG, which is available at a lower price, to generate the power to be supplied to EDM. According to Karpower and EDM, the power generation with LNG is expected to begin by the second quarter of 2021, but this will depend on the progress of the license application and the ongoing construction of a floating storage and regasification unit (FSRU).

Also, the “Project for Construction of Nacala Emergency Power Plant,” which is a component of the Integrated Master Plan for Mozambique Power System Development (2018) formulated with JICA’s technical cooperation, is being implemented from 2019 with Japan’s grant aid. The project aims to eliminate the short-term supply-demand gap of electricity and achieve a stable power supply in the Nacala Corridor, thereby contributing to improving the living conditions and promoting economic and social development in the target area. As an emergency power generation, the plant will be equipped with a gas turbine generation system, which can be operated with both fuel oil (diesel oil or kerosene) and natural gas with the sending-end output of 30MW, fuel storage tank, equipment for substation facilities, and others.

3-1-3 Appropriateness of Processes

(1) Identification of Development Issues in the Project

(A) Background of the Request

Prior to the official submission of a written request by Mozambique in June 2017, Japan had received a verbal request from the Mozambique side to provide fuel oil with an explanation of issues, as described below, through the exchange of views with EDM since around October 2016. Electricity supply by the power ship based on the joint contract with Zambia was indispensable for the economic activities in the Nacala area in those days. As the contract was valid only until March 2018, it was necessary to take some measures to ensure the availability of electricity after that. Completion of the contract with no measures taken to continue the power generation thereafter meant

that the electricity supply to Nacala and other areas would be completely halted in the spring of 2018, which was a pressing issue.

Mozambique had concerns that if they could not procure the fuel oil, the power ship would not generate power and the electricity supply to the Nacala area would decline, which would negatively impact the industry and lead to dissatisfaction of the residents with the Government of Mozambique. At the summit meeting held in March 2017 when President Nyusi visited Japan, then Prime Minister Abe expressed the intent of assisting efforts of Mozambique toward economic and fiscal reforms through technical cooperation and supporting the balance of payments by extending grant aid to procure fuel and other necessary goods¹⁸. Moreover, at the Japan-Mozambique development cooperation working-level policy dialogue in May 2017, the Director of Directorate of Asia and Oceania, MINEC, explained that he had been told that the Government of Japan was preparing for the provision of fuel and that he was looking forward to it. Although EDM had requested the donor community to assist the procurement of fuel oil for power generation in those days, they could not obtain cooperation from any donors other than Japan.

(B) Examination into Request Details and Decision of Project Scope

The Government of Mozambique stated in the request that 12,000 tons (USD 300/ton) of HFO would be required per month from March 2018 until December 2020 for the generation of 75-80MW of electricity as the base load. Under these conditions, the amount of fuel oil required during the said period would be approximately 264,000 tons, which would cost USD 79,200,000. Based on the request from Mozambique, and taking into consideration the appropriateness of the project as ODA, diplomatic importance, the budget status of Japan at the time, and relationship with other countries, among other factors, the decision was made to extend a grant of JPY 1.5 billion, which was a large amount for Grant Aid for Economic and Social Development Program.

In response to the request, consultations and coordination were carried out between the Embassy of Japan and the Government of Mozambique. The ODA Task Force chose to implement the project as Grant Aid for Economic and Social Development Program (procurement agency system) in order to ensure speedy implementation, as fuel supply was required by mid-March 2018 when the contract for the use of the power ship would expire. The final decision on the project scope and scheme was made by MOFA.

¹⁸ Joint Statement between the Republic of Mozambique and Japan on the Occasion of the Official Visit to Japan by President of the Republic of Mozambique, H.E. Mr. Filipe Nyusi, from 13 to 16 March, 2017 (<https://www.mofa.go.jp/mofaj/files/000237248.pdf>)

Since October 2016, the Embassy of Japan in Mozambique had occasionally conducted interviews with EDM and collected necessary information through the ODA Task Force to check the local conditions related to the request. The collected information was then reported to MOFA. On-site surveys in the target area were not conducted for this project, as the Grant Aid for Economic and Social Development Program does not usually involve such surveys. In particular, the amount of the grant had been determined in advance in this project and the fuel oil was supposed to be procured within that range.

(2) Effective Collaboration with Other Project Schemes

(A) Project for Construction of Nacala Emergency Power Plant (G/A signed in 2019)

In the technical cooperation project for the formulation of the “Integrated Master Plan for Mozambique Power System Development” conducted in 2016-2018 under the scheme of the Technical Cooperation for Development Planning, JICA assisted the development of a master plan, including power generation, transmission and distribution plans for the whole country, for 25 years (until 2042 as a target year). Based on this master plan, the “Project for Construction of Nacala Emergency Power Plant” is being implemented as a grant aid project in the north of the country. This grant aid project was requested in 2016 to realize improved and stable power supply in central and northern Mozambique. The project involved the installation of a power generation facility that can be operated with both fuel oil (diesel oil or kerosene) and natural gas with the sending-end output of 30MW as an emergency power generation. The preparatory survey of the project made it clear that the project objective was to develop an emergency power generation that would make up for the 30MW shortfall in electricity supply as of 2022 when the project was to be completed.

At the time of the project formulation, EDM had not been finalized the policy for the operation of the power ship after commissioning of the emergency power plant. The preparatory survey report for the project suggests that the continued use of the power ship (or alternative rental power generation facility) is essential even after 2022, when the emergency power plant is scheduled to be installed, to secure the supply capacity against the increase in electricity demand in the central and northern system until the construction of the large-scale power plants planned in the master plan is realized.

Considering the fact that the power ship was introduced as a short-term emergency power generation until the construction of power plants in the Nacala area, this grant aid project has a certain degree of complementary relationship with the project under evaluation. In addition, the request for the support for procurement of fuel oil through the Economic and Social Development Program has brought the renewed attention

of the relevant organizations in Japan and Mozambique to the necessity and urgency of securing the power supply in the Nacala area.

(B) Preparatory Survey for Nacala Corridor Transmission & Distribution Network Reinforcement Project (2015-2017)

The survey points out that the construction of power plants and improvement of transmission and distribution networks are essential to keep up with the growing demand for electricity in the central and northern regions. As such, the development of new power generation and reinforcement of existing networks are pressing issues. In the course of the survey, the needs for power generation facilities at that time were ascertained, but not as the needs for future development of the facilities. Subsequently, the master plan mentioned earlier was formulated, and development needs for constructing a power plant in the Nacala area in the future were presented. Securing short-term power generation had been an issue for the northern system since then. As the power generation by the power ship was an emergency response after all, construction of a power plant was proposed from the viewpoint of achieving a more stable power supply over the medium to long term.

(C) Assistance for Formulation of Power Generation Development Plan for Northern Mozambique (Technical Cooperation through JICA Loan Account) (2014)

Installation of a 40MW-class gas turbine was proposed as emergency power generation equipment to alleviate the serious shortage of supply capacity in the northern region. Since it would take a long time to construct an ordinary power plant, it was also recommended that EDM should proceed with the installation of the Caia-Namialo transmission line to secure the supply capacity necessary to meet the medium- and long-term growth of demand after the installation of the emergency power generation equipment.

(3) Project Implementation Structure and Process of Related Agencies

(A) Implementation Structure of the Japanese Side

Country Assistance Planning Division III of the International Cooperation Bureau of MOFA was the main control division for the implementation structure on behalf of the Government of Japan. Through the Embassy of Japan in Mozambique, the Division negotiated with the Government of Mozambique, received the written request, confirmed the content of the request, collected necessary information, managed the examination of the request by the ODA Task Force, and superintended the project.

Crown Agents Limited, the procurement agent, procured the product on behalf of the Government of Mozambique based on the agent agreement with the Government of

Mozambique. Crown Agents assigned a project officer, a supervisor, and a local agent. The officer in charge traveled to Mozambique before the competitive bidding and confirmed the progress with MIREME and EDM. The local agent attended meetings of the intergovernmental consultative committee as an advisor. JICA Mozambique Office checked for duplication with current JICA projects, taking part in the ODA Task Force and other opportunities.

(B) Implementation Structure of the Mozambique Side

The implementation agency of the project is MIREME, and the end-user is EDM. The request was prepared by EDM under the consultations with MEF and submitted to the Embassy of Japan in Mozambique by MINEC which serves as the aid coordination office. At the implementation stage, daily operations of the project were handled mainly by the Procurement Department and Nacala Office of EDM. Karpower, the owner and operator of the power ship, generated electricity using HFO procured in the project and supplied by EDM. Electricity generated at the power ship was fed into the national grid based on the contract with EDM.

Mozambique was responsible for providing tax exemption for the procurement of HFO through competitive bidding in the project. Although EDM was initially designated as the consignee of the fuel oil in the procurement contract, it was changed to Petr6leos de Moçambique (PETROMOC) as it was solely responsible for fuel procurement in Mozambique and was the only organization authorized to apply for tax exemption for fuel procurement. Thus, the procedures were completed without a hitch.

(C) Implementation Process

The procurement in the project was administered in accordance with the "Procurement Guidelines for Japanese Non-Project Grant Aid" (September 2005). After the conclusion of the agent agreement with the Government of Mozambique, Crown Agents confirmed details of the product to be procured, including quantity and specifications, and other procurement conditions, with the Government of Mozambique at a consultative committee meeting held in Maputo on March 9, 2018. The meeting was attended by representatives of MIREME, EDM, the Embassy of Japan, Crown Agents, and Karpower. This was the only meeting held by the consultative committee for this project. Although the meeting was held just before the date of completion (12:00 midnight on March 11, 2018) of the tripartite contract of the power ship, necessary matters were adequately discussed and decided, including the justification of the direct contract for fuel procurement with Karpower, resulting in the conclusion of the direct contract on March 12, 2018.

On occasions other than the consultative committee meeting, the procurement agent mainly communicated and coordinated with the Embassy of Japan and EDM by e-mails and phone calls, and through the local agent. EDM mainly contacted MIREME for coordination.

The project implementation status was monitored by the procurement agent while contacting relevant organizations in Mozambique as appropriate. Quantity and quality inspections of procured fuel oil were conducted by third-party inspection agencies contracted by the contractors prior to shipping and delivery, and inspection certificates were submitted from the contractors to the procurement agent. The EDM representative performed confirmation of receipt of the fuel oil and signed a receipt on the date of delivery completion, which was also submitted by the contractors to the procurement agent. The procurement agent submitted the quarterly reports and a completion report to the Mozambique side and the Embassy of Japan. MOFA and the Embassy of Japan monitored the project progress based on the quarterly reports from the procurement agent. The Embassy also checked the status of the project implementation and the use of the procured fuel oil through the exchange of information with EDM conducted from time to time.

Japan did not require Mozambique to report the status of the use of the fuel oil after the handover or the operational status of the power ship in writing. EDM informed the Embassy of the completion of delivery of the fuel oil and expected period of use of the product by a letter dated May 30, 2018. The evaluation team could not find a document of EDM reporting that the procured fuel oil was used up as per schedule.

(D) Public Relations Activities of the Project

To publicize this project in Japan, MOFA posted a press release about the conclusion of E/N between the Ambassador of Japan to Mozambique and the Ambassador of Mozambique to Japan with the presence of the foreign ministers of both countries in Maputo on its website. The article about the meeting of foreign ministers of Japan and Mozambique, which was held prior to the signing ceremony of E/N, also mentions the gratitude of the Minister of Foreign Affairs and Cooperation of Mozambique for the cooperation provided through this project. The press release describes that the provision of fuel oil for power generation will resolve the shortage of electricity in Mozambique to ensure a stable electricity supply, thereby contributing to the economic and social development of the country. However, it does not include any information on the target area of the project or specific development issues concerning the electricity supply in the area.

While MINEC of Mozambique also issued a press release on the meeting of foreign ministers and the signing of E/N mentioned above, it did not explain the project objective of securing a stable power supply in the Nacala area through procurement of fuel oil for power generation or other specific details of the project.

(4) Effective Collaboration with Other Donors

In the power sector of Mozambique, sector working group meetings have been occasionally held for coordination of cooperation policies and programs among the donors. The Embassy of Japan and/or JICA also attend the meeting depending on the agenda. Although the Embassy of Japan did not have particular opportunities to discuss or coordinate the scope and target area of this project with other donors supporting Mozambique's power sector during the project formulation and implementation, it had constantly been collecting information about the trend of cooperation by different countries/organizations and checked for duplication with assistance by other donors in doing so. The Embassy explained to the evaluation team that they had also issued press releases on the project, and if there were any inquiries, they would respond to the content.

3-3 Evaluation from Diplomatic Viewpoints

Outline of Evaluation Results (Evaluation from Diplomatic Viewpoints)

(1) Diplomatic Importance

Mozambique has gateways to the sea for inland countries such as Zambia and Malawi, and the Port of Nacala is one of them. Peace and stability in the Nacala Corridor, which provides connectivity between the Indian Ocean and inland countries of Africa, are important for the development of Mozambique and the entire African continent as well as the achievement of “Free and Open Indo-Pacific” that Japan has been promoting. Mozambique is a pro-Japanese nation. Mozambique and Japan have been cooperating with each other in the international community. In 2017, the two countries celebrated the 40th anniversary of the establishment of diplomatic relations. Furthermore, the country is rich in mineral and energy resources, and approximately 30 Japanese companies have established operations there. This project was expected to contribute to promoting social and economic activities in the Nacala Corridor centered on the northern region of Mozambique. The implementation of this project is considered to have had a significant meaning.

(2) Diplomatic Impact

This project was requested urgently to sustain the power generation required for stable electricity supply to the central and northern system in the midst of the worsening financial situations of Mozambique due to the problem of undisclosed debts. The fact that the request was promptly responded to and the power supply was maintained is considered to have contributed to strengthening the trust in the bilateral relationship.

3-3-1 Diplomatic Importance

After the conclusion of the peace accord between the ruling and opposition parties in 1992, which brought an end to the civil war, Mozambique has been steadily making efforts for democratization and peacebuilding, and a high economic growth rate has been maintained. However, with GNI per capita as low as USD 470 (2017) when this project was requested, the country is positioned as one of the least developed countries in the world. Accordingly, it is essential to resolve issues, including those in the energy sector, to reduce poverty. The access to electricity in the northern region covered by this project and located in the Nacala Corridor is significantly low as compared to the southern region.

Mozambique has gateways to the sea for inland countries such as Zambia and Malawi, and the Port of Nacala is one of them. Peace and stability in the Nacala

Corridor, which provides connectivity between the Indian Ocean and inland countries of Africa, is important for the development of the country and the entire African continent as well as the achievement of “Free and Open Indo-Pacific” that Japan is promoting. The country is a pro-Japanese nation. Mozambique and Japan have been cooperating with each other in the international community. In 2017, the two countries celebrated the 40th anniversary of the establishment of diplomatic relations. Furthermore, the country is rich in mineral and energy resources, and approximately 30 Japanese companies have established operations there¹⁹.

The project was expected to contribute to promoting social and economic activities in the Nacala Corridor centered on the northern region of Mozambique. Also, it is considered important in that the project leads to the development of the business environment in the region, along with other Japanese cooperation in the power sector and other sectors.

3-3-2 Diplomatic Impact

(1) Strengthening of Bilateral Relationship

Implementation of this project is highly recognized by the Government of Mozambique as demonstrated by the statement of Mr. Baloi, then Minister of Foreign Affairs and Cooperation, that greatly appreciated the assistance of Japan. Dr. Magala, then chairman of the board of directors and CEO of EDM, also reiterated appreciation for the grant of fuel in his statement. In the interview with MINEC, it was mentioned that Japan’s cooperation to Mozambique was a good example of bilateral cooperation, that the political and diplomatic relations between the two countries were very positive, and that the visit of Japanese Foreign Minister Motegi to Mozambique in December 2020 was a manifestation of such favorable bilateral relations.

This project is based on a request from high-level talks including a summit meeting. In response to the urgent request from Mozambique, Japan quickly extended support for the procurement of fuel oil for power generation by utilizing the scheme of the Economic and Social Development Program. It ensured the continuation of power generation and a stable power supply in the target area. This has contributed to the economic and social development of the country, which has led to the strengthening of good bilateral relations with Mozambique.

¹⁹ Ministry of Foreign Affairs, “Survey of the Number of Japanese Companies Operating Overseas 2019” (as of October 1, 2020)

As for the background of such a relationship, the Embassy of Japan expressed the view that Japan has been taking approaches of getting people involved from the grassroots, providing technical cooperation to achieve growth together with the recipient country. Its close cooperation based on empathetic consultation with the recipient country may have contributed significantly to the establishment of the relations.

(2) Support and Cooperation from the Government of Mozambique to Japan's Diplomatic Policy and Initiatives for Assisting the Development of Africa

MOFA of Japan expressed the view that Japan has obtained support and cooperation from the Government of Mozambique toward its diplomatic policy in the development of Africa, including the efforts made in the international community and through the TICAD process, as the favorable bilateral relationship was strengthened through the implementation of this project. Also, MINEC of Mozambique commented that TICAD served as a very inclusive platform, allowing the participation of African countries, including Mozambique, as well as Japan and other donors who were interested in development cooperation and investment in Africa. Accordingly, the evaluation concludes that this project has led to understanding the effectiveness of the coordination of development issues and support approaches through the TICAD process.

(3) Response to Public Relations Activities for this Project

According to MINEC, local governments are responsible for following up the implementation status of development projects in their provinces. Therefore, the provincial government of Nampula and other local governments around the Province are aware of this project through the sector coordination meeting with the central government. Also, EDM mentioned that residents of the northern region were highly interested in the reasons behind the improvement of the quality of electricity supply after the power ship was introduced in Nacala. The residents are aware that the improvement was due to the use of the country's first power ship. However, it is not clear if they are also aware that Japan has assisted in the procurement of fuel oil for power generation by the power ship. The signing of the E/N for this project was covered by local media, but the evaluation team could not confirm if the media coverage had been effective enough for the citizens to recognize the specific details of Japan's cooperation.

Chapter 4 Recommendations

Recommendations based on Evaluation Results

- (1) Setting of Project Outcome and Its Management based on the Analysis of Development Needs
- (2) Improvement of Monitoring after the Handover of Procured Product
- (3) Promotion of Public Relations Activities in Japan and Mozambique

4-1 Setting of Project Outcome and Its Management based on the Analysis of Development Needs

According to the press release concerning the conclusion of E/N for this project, the project objective is to resolve the power shortage in Mozambique by providing fuel oil for power generation to ensure a stable power supply, thereby contributing to the economic and social development of Mozambique. The request of the project and the results of the interview survey with EDM explain that the power ship was primarily introduced to secure the electricity supply. The use of the fuel oil procured in the project was expected to ensure stability and quality of power supply, i.e., suppressing sudden fluctuations in voltage, in the northern region, especially in the Nacala Corridor where electricity demand was growing rapidly. Moreover, as an impact, it was expected that the project would contribute to ensuring the reliability of power supply by EDM without negatively affecting the production activities of large-scale power consumers such as the industrial sector in the target area. Even before the implementation of this project, electricity demand had continued to exceed supply in the northern system. Unless electricity supplied by the power ship increases, the use of the power ship is not expected to be a means to resolve electricity shortages.

For similar projects in the future, it is recommended to analyze the outcome and impact of the operation of the power generation facilities in line with the actual power supply situation in the recipient country and to set indicators for measuring the effects of the project. By doing so, the objective, scope, and expected effects of the project can be clearly understood by the relevant stakeholders and third parties when managing the progress of the project and explaining and disclosing information to the public. It is also advisable to describe in detail the expected effects of the project in the press release.

4-2 Improvement of Monitoring after the Handover of Procured Product

The implementation status of this project was monitored by MOFA and the Embassy of Japan based on the quarterly reports and a completion report submitted by the

procurement agent. Completion of the handover of the procured product at the final delivery location was confirmed with a signed receipt from the end-user EDM and the inspection certificates issued by the third-party inspection agency. As for the actual period in which the fuel oil was used after the delivery, it was confirmed during occasional exchanges of views between the Embassy of Japan and EDM. No written record has been kept about the achievement of the expected effects of the project, such as the record of the amount of electricity generated by the power ship and the status of the power supply to the target area.

As the product procured in this project, fuel oil, is expendable, it was challenging to perform post-verification of the usage condition of the product after handover and achievement of the expected effects of the project without documented records. It may have been an idea to request EDM to submit monitoring reports about the use of fuel oil after the handover and resulting achievement of the project effects in contrast with pre-determined outcome and impact.

In planning similar projects in the future, it would be appropriate to pre-check the project monitoring structure of the implementing agency of the power generation project, the accumulation and update status of project-related data, and the preparation of periodic performance reports. It is also suggested that the implementing agency be tasked with reporting on the data necessary for monitoring the achievement of outcomes/impacts so that the effectiveness of the cooperation can be ascertained through the monitoring data.

4-3 Promotion of Public Relations Activities in Japan and Mozambique

MOFA's press release on the signing of E/N for this project states that "by providing fuel oil for power generation, the project aims to resolve the shortage of electricity in Mozambique and ensure a stable supply of electricity." It does not explain the target area of the project, the background to the implementation of the project, or the specific significance and importance of the project implementation. Also, the press release by MINEC of Mozambique only states that an E/N for Japanese grant aid for implementing the Economic and Social Development Program has been signed.

For ensuring sufficient understanding and support for the significance and development effects of Japan's ODA projects, it is recommended that public relations activities for both the Japanese and Mozambican publics should include specific details such as the nature of the cooperation, target areas, beneficiaries, background, and significance and importance of the project implementation. This project provided emergency support to the Government of Mozambique and EDM, which had been

unable to secure a budget for fuel oil for power generation in time due to financial constraints, and helped maintain the electricity supply in the Nacala area for about one year. As the product procured in this project was fuel oil for power generation, it would be difficult to publicize the utilization of the product visibly. As an alternative, it can be considered, for example, to have the details and effects of Japan's cooperation described in the customer communication materials or the annual report of EDM.