

Ex-Ante Evaluation

Africa Division 4, Africa Department, JICA

1. Basic Project Information

Country: Republic of Côte d'Ivoire

Project: Abidjan Port Cereal Berth Construction Project

Loan Agreement: March 30, 2017

2. Background and Necessity of the Project

(1) Current State and Issues of the Port Sector in Côte d'Ivoire and the Priority of the Project

The Republic of Côte d'Ivoire serves as a regional hub as the country is the gateway to its inland neighboring countries in the Sahel region (Mali, Burkina Faso, and Niger) through international corridors and railways extending from Abidjan Port. The port handles the largest volume of cargo in the region of the West African Economic and Monetary Union (UEMOA), which aims to create a market with a population of about 100 million.

In 2014, Abidjan Port handled about 21 million tons of cargo and about 610,000 TEUs (twenty-foot equivalent unit) of container cargo (from data released by the Autonomous Port of Abidjan); the port handles the largest volume of bulk cargo in sub-Saharan Africa and one of the largest port in West Africa in terms of the volumes of container cargo. Common imported cargo is oil, followed by cereals such as rice, wheat, and sugar, while common exported cargo is cereals such as cacao, cashew nut, and coffee. The port began its development in the country's "Ivorian miracle" era in the 1970s, during which it achieved an 8 percent annual economic growth. It currently has the largest port infrastructure in West Africa, with 25 berths, including ro-ro berths, a fishing port, and four gantry cranes. Although the port has no berths used exclusively for cereal cargo, there are 16 berths (five at the north pier, seven at the west pier, and four at the south pier) for both cereal and other cargo.

Since the 1980s, there has been no new investment in Abidjan Port due to economic and political turmoil, and the infrastructure has not kept pace with the cargo demand boosted by the rising population and economic growth of Côte d'Ivoire and inland Sahel countries. While the volume of cereal cargo handled, excluding wheat cargo, is expected to increase by about 30 percent from 2.45 million tons in 2014 to 3.16 million tons in 2030, the berth occupancy rate, which exceeded 70 percent in 2014, is projected to reach the physical limit of 80 percent in 2018. In addition, the south pier will go out of service due to the construction of a container berth in front of the pier. The construction

of new cereal berths is therefore an urgent priority.

The government of Côte d'Ivoire has shown its ambition to reinforce its port infrastructure using public and private funds in the fourth strategic pillar of “developing infrastructure across the economy as a whole while protecting the environment” in its National Development Plan (NDP) 2016–2020, which aims to make the country an emerging economy by 2020. The government sees the development of Abidjan Port as a priority project.

(2) Japan and JICA's Policy and Operations in the Port Sector and the Priority of the Project

Japan's Country Assistance Policy for the Republic of Côte d'Ivoire (April 2014), focusing on “accelerating the country's economic growth,” plans to develop port and other infrastructure centered around the Autonomous District of Abidjan to build up domestic and regional growth foundations. JICA's Country Analysis Paper for the Republic of Côte d'Ivoire (March 2016) also presents a plan to assist with the development of the country's transport and other economic infrastructure to bring extensive benefits. This Project is therefore consistent with both the policy and analysis. Japan has not provided cooperation in the country's port sector before. This Project is considered to contribute to the achievement of Sustainable Development Goal 8 “inclusive and sustainable economic growth.”

(3) Other Donors' Activity

The Export-Import Bank of China assists in deepening the Vridi Canal, expanding its entrance, and constructing container berths. Its assistance does not overlap with this Project.

3. Project Description

(1) Project Objective

This Project aims to meet the increasing demand for the transportation of cereals in Côte d'Ivoire and inland Sahel countries by constructing new cereal berths at Abidjan Port, thereby contributing to more efficient regional logistics.

(2) Project Site/Target Area

Autonomous District of Abidjan (with a population of about 4.8 million)

(3) Project Components

- 1) Constructing a front quay 450 meters long and 15 meters deep and a north quay 250 meters long and 13 meters deep
- 2) Dredging 14 meters for the front quay and 10 meters for the north quay
- 3) Reclaiming 9.9 hectares of the harbor (7.8 hectares for yards and 2.1 hectares for

quay aprons)

4) Constructing a 200-meter mooring facility for small boats (such as tugboats)

5) Constructing a Harbor Master watchtower

6) Providing consulting services (including bidding assistance and construction supervision)

(4) Estimated Project Cost (Loan Amount)

10,890 million yen (including an ODA loan of 10,869 million yen)

(5) Schedule

This Project is scheduled to start in March 2017 and end in September 2021 (55 months). This Project will be completed when the facility is brought into service (September 2020).

(6) Project Implementation Structure

1) Borrower: The Government of the Republic of Côte d'Ivoire

2) Guarantor: N/A

3) Executing Agency: Abidjan Autonomous Port Authority

4) Operating and Maintaining Agency: Abidjan Autonomous Port Authority

(7) Collaboration and Sharing of Roles with Other Schemes and Donors

1) Japan's Assistance Activities

Abidjan Port, the target of this Project, is considered as the starting point of the "Project on the Corridor Development for West Africa Growth Ring Master Plan"; Japan is helping formulate this plan by providing technical cooperation.

2) Assistance Activities of Other Donors

In the Japan-France Plan for Sustainable Development, Health, and Security in Africa adopted by the prime ministers of both countries in October 2015, the countries have agreed to contribute to sustainable urban development in Abidjan, a model city for sustainable urban development. For this purpose, JICA will cooperate in the field of transport while the French Development Agency (AFD) will cooperate in the field of water, sanitation and other fields. This Project is considered as one of the JICA's transport projects under the Plan.

(8) Environmental and Social Consideration/Poverty Reduction/Social Development

1) Environmental and Social Consideration

(i) Category: B

(ii) Reason for Categorization

This Project is not considered to have a significant adverse impact on the environment because it is not a large-scale port project, as described in the JICA Guidelines for Environmental and Social Considerations (effective as of April

2010). This Project is also not associated with sensitive characteristics or areas as described in the JICA Guidelines.

(iii) Environmental Permit

An environmental and social impact assessment (ESIA) report for this Project will be submitted to the National Environmental Agency (ANDE) of Côte d'Ivoire for its approval in April 2018.

(iv) Anti-Pollution Measures

For dust and exhaust gas generated by the construction work, water sprinkling, vehicle maintenance, and other measures will be taken. Water pollution caused by dredging work will be limited with measures such as the installation of silt fence, which will be taken if a high level of turbidity is observed. Waste will be disposed of by waste disposal operators or carried to designated disposal sites in accordance with a waste management plan. For the expected adverse impacts on air quality due to increased traffic after the facility is brought into service, measures to ease traffic congestion on the surrounding roads will be studied.

(v) Natural Environment

Since the project site is not or near a sensitive area, such as a national park, this Project is considered to have minimal adverse impacts on the natural environment.

(vi) Social Environment

Since this Project takes place in the existing port area owned by the Autonomous Port of Abidjan, it will not involve any resettlement or acquisition of land.

(vii) Other/Monitoring

The Autonomous Port of Abidjan will play a major role in monitoring air pollution, water pollution, and waste disposal during the construction work and after the facility is brought into service.

2) Cross-Sectional Issues

Measures for infectious diseases including HIV/AIDS: The rate of HIV infection in Abidjan is said to be 5.1 percent in 2012. At the peak of the construction work, about 100 construction workers and other related people, employed from both in and outside the city, are expected to stay in the city. The Autonomous Port of Abidjan founded the AIDS Committee of the Autonomous Port of Abidjan (COSIPAA) as a nongovernmental organization aimed at providing health and medical care to its staff. During the construction work, educational programs targeting mainly construction workers and other related people will be provided

with the cooperation of the COSIPAA.

3) Gender Classification: N/A

<Activities and Reason for Classification> No particular gender activities are planned.

(9) Other Important Issues

Under the Special Terms for Economic Partnership (STEP), this Project will have a detailed design study (D/D) conducted by Japanese consultants and use Japanese technologies. These technologies include steel pipe sheet piles, hat-shaped steel sheet piles, and H-shaped steel, which will be used for the berth construction.

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual value in 2014)	Target (2022) (Two years after project completion)
Volume of grain ¹ cargo handled (tons)	1,967,517	2,111,701
Maximum draft of incoming grain vessels (meters)	9–10	13
Average load of grain cargo (tons)	20,000	40,000
Berth occupancy rate (percent)	70.5	60

(2) Qualitative Effects

This Project will invigorate the logistics and economy of Côte d'Ivoire and inland Sahel countries by increasing the volume of cereal cargo handled, contribute to food security, and enable the port to keep up with the upsizing of vessels in the marine transport market.

(3) Internal Rate of Return (IRR)

The economic internal rate of return (EIRR) and the financial internal rate of return (FIRR) for this Project are 23.4 and 3.0 percent, respectively, if the following preconditions apply:

[EIRR]

- Cost: Project cost (excluding tax), operating and maintenance costs

¹ Rice, sugar, salt, and cacao

- Benefit: Differences between the case with the new cereal berth constructed and the case without it (land transport cost of cargo unloaded at other ports and reduced ship congestion and overstay)

- Project Life: 40 years

[FIRR]

- Cost: Project cost, operating and maintenance costs
- Benefit: Port charges and concession fees
- Project Life: 40 years

5. Preconditions and External Factors

To produce the desired effects from this Project, the government of Côte d'Ivoire needs to finish deepening the Vridi Canal (from the current depth of 13.5 meters to 18–20 meters), the entrance to Abidjan Port, before the facility is brought into service under this Project.

6. Lessons Learned from Past Projects

The ex-post evaluation (2005) of the Qinhuangdao Port E and F Berth Construction Project, a loan project for the People's Republic of China, says, "Cargo demand increased due to the rapid economic growth following the appraisal of the project. This needed repeated design changes and changes to the plan for the entire port, significantly lowering project efficiency. We should have therefore clarified the roles of the target port, formulated a detailed plan based on long-term supply-demand projections, been actively involved in the plan changes, and made appropriate proposals to the recipient government." The ex-post evaluation (2011) of the Batangas Port Development Project, a loan project for the Republic of the Philippines, suggests that demand projections should consider not only macroeconomic indicators, but also the mid- to long-term prospects of the industrial structure of the port's hinterlands and the activities of shipping companies handling cargo, if possible. The ex-post evaluation also points out that options which may become necessary, if a concession agreement is not concluded as expected, should be prepared in the project planning phase.

While Côte d'Ivoire is seeing rapid economic growth, JICA has, through the preparatory survey, clarified the role of the cereal berth constructed in this Project as berths used only for cereal cargo. JICA has also agreed with the counterpart to research and analyze the long-term cereal demand of the country and inland Sahel countries and secure enough storage space by expanding the reclaimed area for warehouse sites, based on the research and analysis results.

7. Evaluation Results

This Project is consistent with the development challenges and policies of Côte d'Ivoire and the cooperation policies and analyses of Japan and JICA. The construction of new cereal berths at Abidjan Port will contribute to more efficient regional logistics. For these reasons, it is highly necessary to assist with this Project.

8. Plan for Future Evaluation

(1) Indicators to be Used

As mentioned in 4.(1) to (3).

(2) Timing

An ex-post evaluation will be conducted two years after the completion of this Project.