Ex-Post Monitoring of Completed ODA Loan Project

Republic of Cameroon

"Douala Port Container Terminal Modernization Project"

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1. Project Description

Map of Project Area

Gantry Cranes in Operation

1.1 Project Objective

The objective of this project is to contribute to expand container handling capacity through the installation of gantry cranes at Douala Port, the largest port in Cameroon, thereby contributing to the economic development of Cameroon and neighboring landlocked countries.

1.2 Outline of the Loan Agreement

Approved Amount/ Disbursed Amount	6,000 million yen/5,999 million yen
Loan Agreement Signing Date/ Final Disbursement	May 1987/May 2001
Ex-Post Evaluation	2005
Executing Agency	Port Authority of Douala (PAD) Guarantor: Government of Republic of Cameroon
Main Contractor	Mitsui & Co., Ltd.
Main Consultant	Ocean Consultant, Japan Co., Ltd

1.3 Background of Ex-post Monitoring

Cameroon showed steady economic growth of 7.5% per annum through the early 1980s and the amount of cargo handled at Douala Port reached its peak of 3.92 million tons in 1983. Under these circumstances, the Loan Agreement was signed in 1987 to prepare for the increase

in cargo volume by developing container facilities featuring safer and more economical containers.

However, the project was not completed until 14 years after the Agreement due to procedural delays on Cameroon's side, and lack of coordination with the World Bank on issues such as demand forecast, economic impact, questions regarding management structure of the executing agency, and differences in viewpoints on the privatization of the maintenance and management structure.

In addition, the Cameroon economy experienced negative economic growth between 1988 and 1994 and stagnated severely. Thus, the container traffic volume in the year of completion (2001) did not reach the volume forecasted in 1987 nor did it reach that forecasted for the year of post evaluation (2004).

This project introduced consulting services and prepared recommendations on the operations and maintenance during project execution, but privatization after project completion lowered project sustainability by insufficient improvement of the operation and maintenance system. Furthermore, improvement of the outer ring road around the Douala Port, which was expected to further positively impact the project, was recommended. Therefore, this project was selected for ex-post monitoring and reviewed under each criterion with the findings from the field survey and other research activities with a final conclusion being drawn.

2. Outline of the Monitoring Study

2.1 Duration of Monitoring Study

Duration of the Study: April 2011~February 2012

Duration of the Field Study: August 29~September 10, 2011

2.2 Constraints during the Monitoring Study

None

3. Monitoring Results

3.1 Effectiveness

3.1.1 Quantitative Effects

3.1.1.1 Improvement in Container Handling Capacity

(1) Container Handling Efficiency (Unit/Hour)

Container handling efficiency, containers processed per hour, improved from 7~8 units per hour (before project) to 24.4 units per hour at the time of ex-post evaluation (Table 1). Subsequently, the efficiency has ranged between 20 and 22 units per hour, and decreased by 10% from the time of ex-post evaluation. The around the clock operating rates are 55~65%.

Table 1: Container Handling Efficiency

Year	1996 (Before Project)	2004 (Ex-Post Evaluation)	2005	2006	2007	2008	2009	2010 (Ex-Post Monitoring)
Container Handling Effciency (Unit/hour)	7~8	24.4	22.6	20.2	20.7	20.6	21.2	22

Source: PAD

(b) Container Handling Capacity (TEU/year)

Annual container handling capacity has been set as 262,000 TEU[1] per year since 2001 after project completion and has remained unchanged from the designed capacity.

(c) Annual Container Traffic (TEU)

Along with the growth of the economy, the total container traffic in 2010 increased by 57% from that in 2004. This means that the current traffic is beyond the original capacity of 262,000 TEUs (Table 2).

Table 2: Container Traffic and GDPs

Year	1996 (Before Project)	2004 (Ex-Post Evaluation)	2005	2006	2007	2008	2009	2010 (Ex-Post Monitoring)
Container Traffic(TEU)	106,000	179,538	187,506	199,985	217,171	270,245	281,438	288,932
GDP(bil. CFA) Yr. 2000 price	5,508	7,755	7,933	8,188	8,465	8,682	8,851	9,117

Source: PAD and IMF

(d) Containerization Rate (%)

With the increasing volume of containers, the containerization rate has also been increasing. The rate was 27.6% in 2005 (from January to September) after project completion, but it increased to 41% in 2010. Nonetheless, these numbers are lower than the forecasted number of 61.7% at the time of project appraisal. The forecasted number was too high and non-containerized cargo also developed.

(e) Average Berthing Time and Other Indicators

Average berthing time, berth occupancy rate, and average container yard staying time are shown in Table 3. Among these, the average berthing time diminished from 4.04 days (1995) to 3.20 days (2004) and reached 3.10 days (2009) as a result of project completion. Container yard

[1] Twenty-foot Equivalent Unit. A 40 foot container is 2 TEUs.

staying time improved from 22.00 hours (2004) to 19.53 hours (import, 2009) and 7.97 hours (export, 2009) after project completion. The concessionaire, Douala International Terminal (DIT), is to report these indicators regularly to PAD and is improving efficiency from both land- and sea-sides.

Table 3: Average Berthing Time and Other Indicators

		Year	1995	2004	2009
Indicator		Unit	Before Project	Ex-Post Evaluation	Ex-Post Monitoring
Average Berthing Time		Day	4.04	3.20	3.10
Berth Occupancy Rate		%	55.80	62.00	51.66
Average Staying Time on Container yard	Import	Day	24.10	22.00	19.53
	Export				7.97

Source: PAD

These indicators present that the operation and effect indicators are maintaining and developing the numbers at the time of ex-post evaluation and quantitative effects are judged to appear continuously.

3.1.1.2 Internal Rate of Return (IRR)

Without data provided from PAD, the ex-post evaluation calculated the Financial Internal Rate of Return (FIRR) and Economic Internal Rate of Return (EIRR) as 7.7% and 10.5% respectively by partially inferred data. Because PAD and DIT did not provide necessary financial data for IRRs, this ex-post monitoring survey does not calculate the rates.

3.1.2 Qualitative Effects

Since the ex-post evaluation did not measure qualitative effects, this ex-post monitoring survey does not compare those.

3.2 Impact

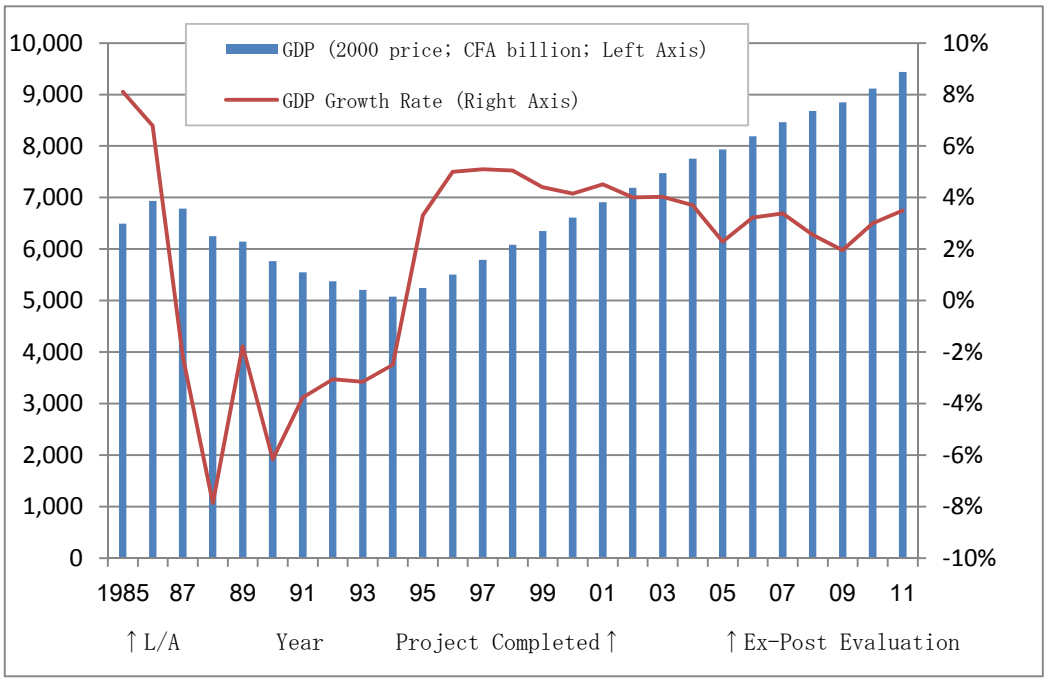
3.2.1 Situation of Impact

3.2.1.1 Impact on Cameroon's Economy

Cameroon's economy observed negative growth from the late 1980s to early 1990s and positive growth after hitting bottom in 1994 (Table 2 and Figure 1). In addition, macroeconomic and fiscal management conditions are improving after the completion of Heavily Indebted Poor Countries (HIPC) Initiative[2] application in 2006. Consequently, the Gross National Income (GNI) per capita became US$1,180 (2010, World Bank) and Cameroon

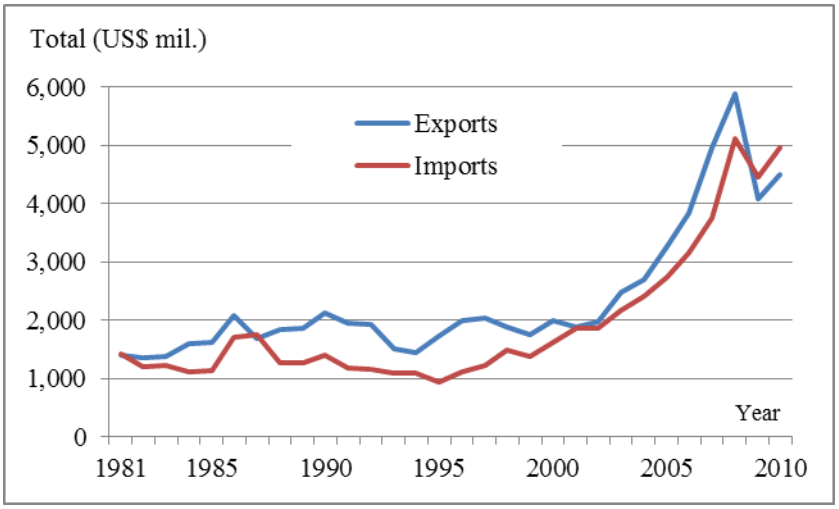
[2] By this process, a total debt amount of 10 billion Japanese yen loans was exempted in October 2006.

is classified as a “Lower Middle Income Country.”



Source: IMF Economic Outlook 2011 (2011 value is estimated)

Figure 1: Actual GDP of Cameroon and its Growth Rates



Source: Economic Intelligence Unit (2011)

Figure 2: Imports and Exports of Cameroon

With economic growth, the export of oil, timber, aluminum, coffee and cotton expanded (Figure 2) and Douala Port contributed to the growth through containerization of these export products.

3.2.1.2 Impact on Neighboring Countries

Douala Port is also functioning as an external port for Chad, Central African Republic (CAR) and north Congo (not an inland country). Among them, Chad and CAR have no external ocean ports other than Douala Port.

Table 4 shows the economic importance of the Douala Port although the trade amounts of the three fluctuate over the years. Of the total cargo through Douala Port, 20-30% is imported to and exported from three neighboring countries and 80-90% of this is with Chad. In recent years, cargo to Chad has frequently been related to plant and pipelines. Containerization rates are not available.

Table 4: Transit Cargo through Douala Port to and from Neighboring Countries

Unit: ton

Country		2004	2006	2007	2008	2009	2010
Chad	Imports	184,261	180,823	196,358	278,249	474,676	460,940
	Exports	60,183	28,078	34,086	34,004	24,071	30,332
	Total	244,444	208,901	230,444	312,253	498,747	491,272
Central African Republic	Imports	78,895	192,931	63,091	83,433	96,030	111,091
	Exports	174,076	244,606	155,222	168,802	104,376	126,020
	Total	252,971	437,537	218,313	252,235	200,406	237,111
Congo (north)	Imports		4,694	5,438	21,919	17,765	11,712
	Exports		171,155	173,774	196,780	103,299	138,580
	Total		175,849	179,212	218,699	121,064	150,292

Source: PAD

3.2.2 Other Positive/Negative Impacts

3.2.2.1 Impact on Natural Environment

PAD is contracting out channel dredging work to a private company. According to PAD, the channel has been maintained properly and no negative environmental impact is reported.

There is no national standard to regulate air quality, water quality and noise and evaluation criteria have not been established. The port is located in a remote location away from residential areas and there is no effect on residents (based on the field survey).

3.2.2.2 Impact on Douala Urban Transport

Ex-post evaluation pointed out the traffic on the road to and from the port caused traffic congestion in the city center and prevented smooth cargo operations because of the poor condition of the outer ring road of Douala Port. According to the field survey, cargo trucks are temporarily stopped at the port gate for document inspection. Additionally, most cargo trucks now do not go through the city center because the outer ring road connecting the port has been completed. Senior District Officer of Douala issued an administrative order to regulate truck and container trailer bans in the city area between 5 am and 9 pm and it is mostly upheld.

Consequently there is little negative impact on traffic conditions around the port.

3.2.2.3 Resettlement and Land Acquisition

There has been no resettlement and no new land acquisition.

The above factors indicate the positive economic impact on Cameroon and the three neighboring countries through the increase in trade volume. In addition, any negative impact, such as traffic congestion in Douala City, pointed out by the ex-post evaluation, has been confirmed to be largely mitigated.

3.3. Sustainability

3.3.1 Structural Aspect of Operation and Maintenance

PAD conceded the container terminal operation to DIT, which has direct responsibility for operation and maintenance until the year 2020. DIT conducts operation and maintenance and reports to PAD. DIT dedicates 250 employees out of 280 to operation and maintenance. The staffing number is sufficient to operate two gantry cranes and conduct container yard work around the clock.

DIT workers in the container terminal requested the same level of wages as PAD workers in other terminals and went on strike in 2007. DIT workers consider their labor conditions worse than those of PAD workers and this is a concern for DIT (according to PAD and DIT).

The Ex-Director General and Ex-Chairperson of the Board of PAD have been charged with suspicion of embezzlement of PAD financial resources. Both received a guilty sentence in the Higher Court and appealed to the Supreme Court in 2009. Cameroon newspapers often inquire about the non-transparency of PAD management.

3.3.2 Technical Aspect of Operation and Maintenance

DIT employs technicians trained in the Republic of South Africa. DIT conducts operational training in a training facility of a subcontracted Dutch company four times annually.

DIT staff conduct routine repair work such as painting and replacement of consumables. More important repair work is carried out by the foreign engineers as necessary.

Periodical maintenance of gantry cranes is scheduled based on the crane maker’s criteria. Based on the hours operated, certain maintenance is performed and large scale repair work is to be conducted by South African and European engineers. Thus, DIT is maintaining the gantry cranes properly in terms of routine maintenance work.

3.3.3 Financial Aspect of Operation and Maintenance

Although PAD operated in the red until 2004, it is in the black since 2005. In 2005 PAD conceded its port operation to DIT, thus the leasing fee revenue influenced the financial

condition. DIT pays 3.8 billion CFA francs to PAD and charges on average 145,000 CFA francs for each 40 foot container. DIT had revenue of 38.17 billion CFA francs and expenditures of 37.56 billion CFA francs in 2008. Operation and maintenance costs accounted for 24.93 billion CFA francs. These numbers show that DIT secured operation and maintenance costs. However, the financial statements of DIT have not been disclosed for this monitoring purpose.

3.3.4 Current Status of Operation and Maintenance

The container yard has strict gate control and unauthorized vehicles and persons cannot enter the yard. Safety management system is also reinforced. Gantry cranes are properly maintained as described above and they are operational around the clock. There have been no specific problems observed during the field survey.

By these facts, DIT is conducting operation and maintenance up to the year of 2020, the final year of the concession contract, and no specific problems are anticipated in terms of technical and financial matters. On the other hand, the labor issues of DIT and non-transparency of past management of PAD remain concerns in structural aspects of operation and maintenance.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

As the container traffic (288,000 TEUs, 2010) has already exceeded the designed handling capacity (262,000 TEUs), significant effects have been observed.

This project played an important role for Douala Port to function not only as the main port for Cameroon, but also as an external port for central African countries. Especially, the role it played in contributing to Cameroon's export and import boom since 2005 is significant.

The ex-post evaluation concluded that the concession of the terminal had led to low sustainability of the project. Contrarily, this monitoring survey found that the sustainability is held by the concession scheme.

The ex-post evaluation recommended: i), cooperation from implementing agency, and ii), improvement of outer ring road of container yard. Regarding i), PAD cooperated with this monitoring mission to a certain extent in matters such as provision of information and facilities. Regarding ii), the traffic problem has been solved by the improvement of the outer ring road as described in 3.2.2.2.

4.2 Recommendations

None

4.3 Lessons Learned

None

Comparison of Planned and Actual Outcomes

Item	Planned	Actual
1.Output	(1) Procurement of Equipment 1) 2 gantry cranes for quays 2) 4 transfer cranes for container yard 3) 8 tractors, 10 trailers 4) Computer system (2) Utilities, civil engineering and construction work, etc. (3) Engineering services	(1) Procurement of Equipment Mostly as planned. 1) as planned, 2), 3) and 4) cancelled. Additions: 1 small fire engine, 1 mobile workshop, operation and maintenance training) (2) Utilities, civil engineering and construction work, etc. Mostly as planned. (There was some additional civil engineering and construction work.) (3) Engineering services Mostly as planned.
2.Duration	May 1987~December 1990 (44 months)	July 1990~July 2001 (133 months)
3. Project Costs Foreign Currency Local Currency Total ODA loan Portion Conversion Rate	 6,000 million yen 1,875 million CFA francs 6,994 million yen 6,000 million yen 1 CFA franc = 0.53 yen (as of January 1985)	 5,999 million yen 481 million CFA francs[3] 6,079 million yen 5,999 million yen 1 CFA franc = 0.166 yen (2001 average)

[3] Estimated figures have been used as the executing agency did not provide data.