

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country: Republic of Cameroon

Project: Yaounde - Brazzaville International Corridor Development Project
(Mintom-Lele Section)

L/A Signing Date: May 30, 2017

Loan Amount: 5,894 million Yen

Borrower : The Government of the Republic of Cameroon

2. Background and Necessity of the Project

(1) Current State and Issues of the Road Sector/Project Target Area in the Republic of Cameroon

The Central Africa region where the Republic of Cameroon (hereinafter referred to as "Cameroon") and the Republic of the Congo (hereinafter referred to as "Congo, Rep.") are located is blessed with abundant mineral resources and forest resources, with high potential for development including agriculture. However, due to inadequacies of transportation infrastructure, etc., intra-regional economic integration has not progressed. The volume of trade within the Central African Economic and Monetary Community (hereinafter referred to as "CEMAC") out of the total trade volume of CEMAC member countries including the two countries is extremely limited, at 1% or less. In addition, there are large regional economic disparities. For this reason, in the "Central African Transport Master Plan" (2004) formulated by the Economic Community of Central African States (hereinafter referred to as "ECCAS"), to which the two countries are affiliated, 55 projects that contribute to regional economic integration are positioned as priority projects. In particular, the development of an international corridor connecting the capitals of member countries is a top priority.

Cameroon's southern part is a region that produces foods such as cassava and banana, and other agricultural products such as cacao. Also, the region has a high potential for development, as it is blessed with mineral resources such as iron ore. However, the Mintom-Lele section covered by the Project is a rough, unpaved road, which is a major obstacle to the distribution to and from the region, leading to the delay of poverty reduction and economic development in the area.

(2) Development Policies for the Road Sector/Project Target Area in Cameroon and the Priority of the Project

"Yaounde - Brazzaville International Corridor Development Project (Mintom-Lele Section)" (hereinafter referred to as "the Project") will develop the unpaved road which makes up a part of the international corridor that connects the capital cities of Cameroon and Congo, Rep., the Port of Douala, the largest regional logistics hub in the region and Port of Kribi in Cameroon, as well as reaching Gabon and Equatorial Guinea. It is a key corridor for regional integration of Central Africa. In addition, the corridor is expected to play a part of the main artery, connecting Lagos of Nigeria, which has the largest population in the African Continent, and Kinshasa, the capital of the Democratic Republic of the Congo. For this reason, the improvement of the road connecting Cameroon and Congo, Rep. is positioned as priority work in Cameroon's "Transport Sector Strategy" (2009) in addition to the above ECCAS Master Plan. The

leaders of the both countries have agreed, in the policy dialogue between them, to make it a top priority cooperative project.

(3) Japan and JICA's Policy and Operations in the Road Sector/Project Target Area

Japan's Country Assistance Policy for the Cameroon Republic (December 2012) is based on the "support for economic growth and job creation toward stable economic and social development." It places great importance on the improvement of international arterial roads that will contribute to the promotion of distribution in the region. In addition, at the "Japan-African Regional Economic Communities (RECs) Summit Roundtable (September 2014), Japan announced that it will strengthen support for promoting infrastructure development, which was expressed at TICAD V (the Fifth Tokyo International Conference on African Development) and at the Regional Economic Communities (RECs) level as well. Moreover, the initiatives of "development of economic and social infrastructure," and "promotion of trade and direct investment" are raised as priorities for a co-financing scheme called "Accelerated Co-financing Facility for Africa" (hereinafter referred to as "ACFA") with the African Development Bank (hereinafter referred to as "AfDB"). The Project is consistent with the policies listed above.

In addition, Japan has supported the development of major trunk roads in Cameroon in various projects including "Transport Facilitation Program for the Bamenda - Mamfe - Ekok/Mfum - Abakaliki - Enugu Corridor" (Approved in 2009, ACFA), and "Batchenga - Lena Road Project" (Approved in 2014, ACFA).

(4) Other Donors' Activity

AfDB: Bamenda - Mamfe - Enugu (Cameroon and Nigeria) International Corridor Project (AFCA), Batchenga - Lena Road Project (ACFA Joint Type), Yaounde - Brazzaville International Corridor Development Project (Phase 1, connected with the Project at Mintom) (AfDB alone), etc. are underway.

EU, World Bank: Implementation of international corridor development project between Douala - Bangui - N'djamena (Cameroon, Central Africa and Chad)

(5) Necessity of the Project

The Project is consistent with the policies of the Government of Cameroon and ECCAS and Japan's assistance policy, and it is expected that the Project will contribute to poverty reduction and economic development in the target area, as well as to economic integration within CEMAC including neighboring Equatorial Guinea and Gabon. Therefore, it is highly necessary for JICA to support the Project.

3. Project Description

(1) Project Objectives:

The objective of the Project is to secure the efficient transportation network and to strengthen the transportation capacity by improving Mintom-Lele section of unpaved arterial roads connecting Yaounde to Brazzaville, thereby contributing to the poverty reduction and the economic development in the targeted areas, as well as to the regional integration in the Central African Economic and Monetary Community (CEMAC) area.

- (2) Project Site/Target Area: Republic of Cameroon South Province (Mintom-Lele)
- (3) Project Components:
 - Development of arterial roads, etc. of the Mintom-Lele section (approx. 67 km) (international competitive bidding)
 - Consulting services: (short list method (QCBS: Quality- and Cost-Based Selection), not subject to JICA assistance)
- (4) Estimated Project Cost: 11,688 million Yen (Loan Amount: 5,894 million Yen)
- (5) Schedule: The scheduled duration is between March 2017 and January 2022 (59 months in total). Project completion is defined as the commencement of service (March 2021).
- (6) Project Implementation Structure:
 - 1) Borrower: The Government of the Republic of Cameroon
 - 2) Executing Agency: Ministry of Public Works (MINTP)
 - 3) Operation and Maintenance System: The General Department of Infrastructure Works (DGTI) in MINTP will be the maintenance and management body of the target road of the Project. MINTP has so far implemented projects as the executing agency for road improvement in Cameroon with the assistance of the World Bank and AfDB, and there are no particular technical problems. In Cameroon, since sufficient road maintenance and management revenue sources are secured by taxation on fuel and collection of tolls on toll roads through the second generation road funds established in 1998, there are no particular budgetary problems.
- (7) Environmental and Social Consideration/Poverty Reduction/Social Development
 - 1) Environmental and Social Consideration
 - i) Category: A
 - ii) Reason for categorization: The Project is located in a sensitive area, and has sensitive characteristics under the JICA Guidelines for Environmental and Social Considerations (promulgated in April 2010).
 - iii) Environmental Permit: The Environmental and Social Impact Assessment (ESIA) report on the Project was approved by Cameroon's Ministry of the Environment and Nature Protection in August 2009.
 - iv) Anti-Pollution Measures: Regarding air pollution, water quality, noise/vibration, etc. during construction, contractors will take measures such as water sprinkling, soil runoff control, and limiting the speed of construction vehicles, etc. Concerning noise, vibration, etc. after the commencement of service, the executing agency will take measures such as setting a speed limit near residential areas.
 - v) Natural Environment: The Project site (Mintom-Lele) is not located in or around sensitive areas, such as national parks. Also, there are no animal movement corridors for wildlife including rare species on the roads covered

by the Project. However, there will be deforestation of about 216 ha in the target area of the Project, for road expansion and securing the Right of Way (ROW). Afforestation will be implemented along the roads and at borrow pit sites by contractors during construction, and by the Ministry of Forestry and Wildlife, etc. after the commencement of service.

- vi) Social Environment: The Project will result in involuntary resettlement of 128 people, but in the preceding phase (Phase 1) which is in operation by AfDB, the compensation has already been paid in accordance with the Resettlement Action Plan formulated based on the country's domestic law and Policy Statement and Operational Safeguards of AfDB. However, some residents who are affected by the Project and already paid compensation have not yet moved. The relocation will proceed according to the Resettlement Action Plan. It was confirmed that the Resettlement Action Plan and its implementation status in the preceding phase do not substantially deviate from the JICA Guidelines for Environmental and Social Considerations. In the Project area, indigenous people called Pygmy including Baka tribe reside. Consideration is paid to their living and culture in the review of road alignment and discussions with residents, etc. Residents in the target areas have expressed no particular opposition to the Project, but expressed expectations for a reduction in poverty by the Project.
- vii) Other/Monitoring: With regard to air quality, water quality, noise/vibration and ecosystems during construction, as well as the progress status of resident resettlement, etc., the construction management consultant and the executing agency are responsible for monitoring them. After the road is in service, the executing agency will monitor air quality, water quality, noise/vibration, ecosystem, and impact on lives after resettlement.

2) Promotion of Poverty Reduction

Poverty measures/Poverty considerations: The Project will contribute to poverty reduction through economic revitalization of the target area by ensuring the transportation route of agricultural products, and through increased access to employment and income improvement by road infrastructure improvement.

Measures for Infectious Diseases Including HIV/AIDS: Educational activities on prevention of HIV and Malaria in the area along the roads of the Project. (not subject to JICA assistance)

- 3) Promotion of Social Development: As a part of community development support through the AfDB loan, a women's activity support center will be set up in the area along the target road of the Project. Therefore, the Project is classified as a gender integrated project.
- (8) Collaboration with Other Donors: The Project is to be implemented in the Mintom-Lele section in Cameroon through joint financing with AfDB under the ACFA (Accelerated Co-financing Facility for Africa) scheme, as part of the "Phase 2 of Ketta - Djoum Road Development and Yaounde - Brazzaville International Corridor Development Project" scheduled to be implemented by AfDB. The

Central African Development Bank (hereinafter referred to as "BDEAC") also plans joint financing with AfDB on the development of the Lele-Ntam section in Cameroon. In addition, with the support of AfDB, the following support programs are to be implemented: community development support (including support for women's groups, and that for indigenous people) along the route including the roads covered by the Project, support for strengthening road sector (support for traffic plan development, support for strengthening road maintenance and management functions, etc.), biodiversity conservation support, transport and logistics improvement support (including One Stop Border Post (OSBP) facility construction), etc.

(9) **Other Important Issues:** None

4. Targeted Outcomes

(1) Quantitative Effects (Operation and Effect Indicator):

Indicator	Baseline (Actual Value in 2015)	Target (2021) [Expected value 1 year after project completion] *2
Annual average daily traffic volume in Mintom (Vehicles/day)	Passenger cars: 75 Heavy vehicles: 27	Passenger cars: 243 Heavy vehicles: 113
VOC*1 between Mintom and Lele (FCFA/per vehicle per km)	Passenger cars: 764 Heavy vehicles: 1,929	Passenger cars: 306 Heavy vehicles: 953
Time required for traveling between Mintom and Lele (hours)	2.6	1.3

*1 VOC (Vehicle Operation Cost): Comprehensive vehicle costs including fuel costs required per km of travel, maintenance costs, and vehicle wear expenses, etc.

*2 The target value is normally set to 2 years after completion of a project, but it is assumed to be one year after project completion because the evaluation implementation date on the AfDB side is in 2021.

(2) Internal Rate of Return: Promotion of intra-regional integration, improvement of transportation environment, activation of trade, improvement of value chain of agricultural products, promotion of measures to improve the living environment of local residents in the target area.

(3) Internal Rate of Return:

Based on the conditions indicated below, the Project's Economic Internal Rate of Return (EIRR) is 27.4%. Since the Project is a road construction project which does not collect fees, the Financial Internal Rate of Return (FIRR) is not calculated.

Cost: Project cost (excluding tax)

Benefit: VOC saving, reduction of road maintenance and management costs, increase in the value of agricultural products, shortened driving time, etc.

Project Life: 20 years

5. External Factors and Risk Control

None

6. Lessons Learned from Past Projects and Application to the Project

(1) Lessons from Similar Projects

The Republic of Peru's "Rural Highway Rehabilitation and Improvement Project" (1996 L/A signing) earned a good reputation in the ex-post evaluation for early repair on surface pavement in the sections where there was a large number of overloaded vehicles, as well as the installation of axle weight inspection stations. It was pointed out that full consideration for maintenance should be paid on similar road improvement projects. The evaluation further states that especially in sections where overloaded vehicle traffic is expected to be heavy, it would be desirable to install axle weight inspection stations by the time road construction is completed.

(2) Application of Lessons Learned to the Project

In the AfDB loan project to be implemented in conjunction with the Project, it has been proposed to consider a weight inspection system and enforcement system (including installation of axle weight inspection stations) suitable for the road environment in the Project area in Cameroon, utilizing the AfDB's existing survey results on these systems in other countries of Africa.

7. Plan for Future Evaluation

(1) Indicators to be Used:

- 1) Annual average daily traffic volume in Mintom (Vehicles/day)
- 2) VOC between Mintom and Lele (FCFA/per vehicle per km)
- 3) Time required for traveling between Mintom and Lele (hours)

(2) Timing: One year after the completion of the Project

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