

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country : Republic of Cameroon

Project : Batchenga - Lena Road Project

Loan Agreement : March 28, 2015

Loan Amount : 6,264 million Yen

Borrower : Government of the Republic of Cameroon

2. Background and Necessity of the Project

(1) Current State and Issues of the Transport Sector in the country

Cameroon's one of its priorities is the transport sector, in which 85% of passenger cargo relies on road transport. Although in recent years the traffic volume in the pavement road section has undergone a rapid increase of 9% per year, the paved sections of the road network with a total length of 121,700 km (national roads and rural roads) are concentrated around the capital of Yaounde and the region's largest logistics center, Port of Douala (yen loan provided in 1987). As a result, only 9% of the nation's roads are paved.

The Centre Region, where the Project is located, is blessed with mineral resources such as bauxite and sapphire. It is also one of Cameroon's leading agricultural areas, with cacao grown in the region (production volume ranked 6th in the world) and coffee (8th in the world), as well as wood and cork exported to Japan as well. Agricultural products such as cassava and bananas are supplied to the Central Africa Economic and Monetary Community (hereinafter CEMAC – its members are the six countries: Cameroon, Gabon, Equatorial Guinea, Chad, Central Africa, and the Congo Republic). However, the target for the Project, which longitudinally runs from north to south, is a poor, unpaved road. During the rainy season it is very difficult to drive through. This underdeveloped transport infrastructure in the region is one of the greatest obstacles preventing the distribution of these agricultural products.

In addition, in order to move or transport people and commodities between the nation's northern area and the principal cities like Yaounde and Douala, there is no choice but to pass the Central African border with ongoing political unrest, or take a huge detour to the vicinity of Nigeria's eastern border where terrorism by Islamic militants (Boko Haram) occurs frequently. This has become a hindrance to smooth economic activity and is directly related to the high rate of poverty in the northern region of Cameroon. It is also one of the causes for the inequality between north and south. Moreover, because the economies of landlocked neighboring countries like Chad, and Central Africa greatly depend on logistics from Douala Port, the delay in the improvement of road infrastructure from Cameroon's interior to the north has become an obstacle to economic development and social stability of landlocked countries in Central Africa.

Of the arterial roads connecting between the capital, Yaounde and northern border area close to Chad, improvement of the unpaved Batchenga-Lena section and its surround roads of the entire project, which includes the Project, will support regional community development through the development of social infrastructure and women's empowerment, urban development, policy formulation and organizational strengthening in the transport sector, and more, the resolution of such bottleneck issues can be expected. Moreover, efficient transport routes for mineral resources and agricultural products will be ensured and transport capacity enhanced. This will contribute to social development and poverty reduction in the target area, rectify differences between the north and south, and further lead to economic development in the CEMAC with the Gulf of Guinea, as well as Chad and other landlocked countries in Central Africa and stability in the region.

## (2) Development Policies for the Transport Sector in the country and the Priority of the Project

Cameroon has set forth its national goal to join the emerging nations in 2035 and has positioned its development priorities to include infrastructure development to contribute to economic and social development as well as the promotion of regional integration in both its "Poverty Reduction Strategy Paper" (2003–2015) and "Strategy for Growth and Employment (DSCE)" (2010–2020). Because of this background, the entire project, which includes the Project is consistent with the issues of DSCE "Transport Sector Strategy (2009)" and "Road Master Plan (2006)" and is positioned as high priority.

## (3) Japan and JICA's Policy and Operations in the Transport Sector

Japan's Country Assistance Policy for the Cameroon Republic is based on the "support of economic growth for the stable development of the economy and society and employment expansion". It puts priority on the promotion of economic growth through the development of economic and social infrastructure and lays heavy importance on the improvement of roads that will contribute to the promotion of distribution, as centers of logistics for landlocked countries. Moreover, "economic and social infrastructure" as well as "promotion of trade and direct investment" are raised as priorities for the co-financing scheme "Enhanced Private Sector Assistance for Africa Initiatives" (hereinafter, EPSA) with the AfDB also, meaning that the entire project, which includes the Project, is consistent with these policies.

In addition, Cameroon belongs to the first group, which is the preferred group, of the "Coalition for African Rice Development (CARD)", an initiative that Japan has been promoting since the TICAD IV in 2008. Our nation-specific assistance policy also, considers agriculture and rural development as major areas, which includes a technical development project, called the Upland Rice Development Project of the Tropical Forest Zone (PRODERiP) (commencing in 2011), based in the Centre Region where the Project is located, and it also contributes to the spread and

expansion of the results of the technical cooperation.

#### (4) Other Donors' Activity

AfDB: Douala-Bangui-N'djamena (Cameroon, Central Africa and Chad) corridor development (EU, co-financing with the World Bank, 2009–2013), Bamenda-Mamfe-Enugu (Cameroon and Nigeria) international corridor (co-financed with JICA, in progress), Ouesso-Sangmelima (Cameroon and Republic of Congo) international corridor (co-financed with the Islamic Development Bank, in progress), Kumba-Mamfe road improvement (in progress).

World Bank, Islamic Development Bank: Considering support through co-financing with AfDB on Batchenga-Ngaoundere Road Project (improvements north of Lena).

#### (5) Necessity of the Project

Through the Project, by improving unpaved roads on the Batchenga-Lena Road connecting Cameroon's north with its south, effective transport routes within the Project's region will be ensured, transport capacity strengthened, and differences between the north and south rectified, thus leading to regional economic revitalization, peace and stability in the interior countries of the CEMAC. In addition, because it is consistent with Japan's Assistance Policy toward the Republic of Cameroon, there is a valid necessity to support the implementation of the Project.

### 3. Project Description

#### (1) Project Objective(s)

The objective of the Project is to develop the road transportation capacity and transportation network of Cameroon by improving Mannkim-Yoko section (82.1km, here after the "Project") of unpaved arterial roads connecting Batchenga to Lena in the Central Region, thereby contributing to the economic development in central and northern areas of Cameroon and the landlocked countries of the Central African region. Funding will be co-financed with the AfDB (ACFA Joint type).

#### (2) Project Site/Target Area

Centre Region in Cameroon

#### (3) Project Component(s)

The AfDB will finance consulting services in connection with the entire plan, and the Central African State Development Bank (BDEAC) will finance community development programs for communities surrounding arterial roads. The share of financing among participating donors and the Government of Cameroon (GoC) pertaining to the entire plan, which includes this ODA project, is as follows.

Overview of entire plan by component		Financiers	Type of co-financing
(1) Road works of arterial roads between Batchenga and Lena (248.5km) (Total of 4	<b>First section:</b> Batchenga – Ntui (20.8km) (Includes bridge construction)	French Development Agency (AFD), GoC	Parallel
	<b>Second section:</b> Ntui – Mankim	BDEAC, AfDB, GoC	Joint

sections)	(100.8km)		
	<b>Third section: Mankim – Yoko</b> (82.1km)	JICA, AfDB, GoC	Joint
	<b>Fourth section: Yoko – Lena ( 44.8km)</b>	AfDB, GoC	—
(2) Support to community development	Paving related peripheral farm roads, developing social infrastructure such as schools and health centers, supporting women's empowerment, etc.	BDEAC, GoC	—
(3) Support to urban development	Establishment of urban development master plan, etc.	AfDB, GoC	—
(4) Support to transport sector	Strengthening transport sector (reinforcing of weight inspection system, etc.)	AfDB, GoC	—
(5) Project management	Supporting AfDB implementation unit, assessing socio-economic and environmental impact, auditing, etc.	AfDB, BDEAC, GoC	Joint

\*Portion of JICA cooperation is shaded

(4) Estimated Project Cost (Loan Amount)

18,938 million Yen (Loan Amount : 6,264 million Yen)

(5) Schedule

The scheduled duration is between March 2015 and November 2019 (57 months total). Project completion will be defined as commencement of service.

(6) Project Implementation Structure

1) Borrower : Republic of Cameroon

2) Guarantor : None

3) Executing Agency : Ministry of Public Works (hereafter "MINTP")

4) Operation and Maintenance System: The maintenance of roads developed and improved under the Project will be the responsibility of the Directorate for Road Investments (hereafter DIR). In Cameroon, through the second-generation road fund established in 1998, efforts have been made to maintain roads and ensure management resources by levying fuel taxes and imposing toll charges on roads. The DIR plans to conduct maintenance using the resources of the afore-mentioned road fund., MINTP has so far implemented projects as the central ministry responsible for the nation's roads with the assistance of the World Bank and the AfDB. As such, no problems can be foreseen regarding implementation capacity from a financial aspect. Based on the results of appraisal it has been determined that there are no financial or technical problems.

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

1) Environmental and Social Consideration

i. Category: A

ii. Reason for categorization: The entire project, including the project, have features that correspond to impacts listed under the "Japan International

Cooperation Agency Guidelines for Environmental and Social Considerations" (promulgated April 2010)

- iii. Environmental permit: The Environmental and Social Impact Assessment (ESIA) report related to the project was approved by the Cameroon's Ministry of Environment and Protection of Nature in August 2014.
- iv. Anti-pollution measures: Regarding air pollution during construction, water quality, noise and vibration and other matters, the contractors will take measures such as controlling watering, soil erosion, transport vehicle speed and so on, to meet domestic emission standards. Regarding noise and vibration, etc., once the road is in service, measures such as setting speed limits will be taken by the implementing agency.
- v. Natural environment: The target area for the project is located approximately 15km from the national parks of Mpem et Djim and Mbam et Djerem registered under the Ministry of Environment and Protection of Nature, However, as there is no transitional zone in the vicinity of these national parks, development on these project sites has been approved. There are no animal movement corridors for wildlife, including rare species such as elephants and chimpanzees in the project's target region. In addition, with the new road construction, etc. by expansion and linear review of the road, there will be deforestation of 180ha in the target area the entire project including the project, however this is to avoid the felling of large trees and to minimize impact is attained. Moreover, afforestation is scheduled for after the road is ready for service.
- vi. Social environment: In the target section for the project, it is estimated that there will be land acquisition of about 27.7ha and involuntary resettlement of 616 persons in 77 households. As such, procedures are being carried out in accordance to the country's domestic law and resettlement plans. There was no particular opposition regarding the project from the affected residents during consultations on resettlement.
- vii. Other / Monitoring: Regarding air and water quality, noise and vibration, ecosystems, as well as progress and payment of compensation for resettlement, contractors and the implementing agency will be in charge of monitoring. After the road is in service, and the implementing agency will take initiative in monitoring the ecosystem and impact on lives after resettlement.

## 2) Promotion of Poverty Reduction

Measures against poverty and its consideration: i) Economic revitalization in the target area by securing routes to transport agricultural products, and ii) Access to employment and income improvement through road and social infrastructures contributing to poverty reduction.

## 3) Promotion of Social Development: Integration of gender activities (Reason for

classification: As part of community development programs implemented by other donors, capacity development such as supporting women's entrepreneurial activities will be provided to women's unions, in addition to technical assistance for the processing of agricultural produce for the economic empowerment of women.)

(8) Collaboration with Other Donors: Co-financing with AfDB, AFD, and BDEAC

(9) Other Important Issues: None

#### 4. Targeted Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (Actual Value in 2014)	Target (2020) 【Expected value 1 years after project completion】
Annual average daily traffic (vehicles/day)	66	278
Average running cost per km (FCFA/vehicle · km)	Light vehicles: 349 Heavy vehicles: 2,065	Light vehicles:196 Heavy vehicles: 1,732
Transit time (hours)	12	3

\* FCFA is the currency used in the CEMAC region. 1EUR=655.957 FCFA (fixed)

2) Internal Rate of Return

Based on the following assumptions, the economic internal rate of return (EIRR) of the entire project is 20.8%. The financial internal rate of return (FIRR) is not calculated.

- Cost: Project cost (not including tax)
- Benefit: VOC savings (Vehicle Operation Cost: Comprehensive vehicle costs including fuel costs required per km of travel, maintenance costs, and vehicle wear expenses etc.), reduction of road maintenance costs, agricultural production expansion and increase in the value of agricultural products, shortened driving time, etc.
- Project life: 20 years

(2) Qualitative Effects : Promotion of regional economic integration, improvement of traffic environment, activation of trade, improvement of living environments for local residents

#### 5. External Factors and Risk Control

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plementation of planned loan target business by other donors.

#### 6. Lessons Learned from Past Projects

Rural Highway Rehabilitation and Improvement Project in Peru earned a good reputation in Post-evaluation for early repair and surface pavement in sections where there was a large number of overweight vehicles, as well as the installation of weight

stations. They points out that full consideration for maintenance should be carried out 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 weight inspection stations by the time road construction is completed.

In the Project, during project implementation in the transport sector support component, which is one of the components of the entire project, the plan is for AfDB to analyze the weight inspection and enforcement system in Cameroon and to propose a similar system that is suitable for the country's road environment.

#### 7. Plan for Future Evaluation

##### (1) Indicators to be Used

Annual average daily traffic (vehicles/day)

Average running cost per km (FCFA/vehicle · km)

Transit time (hours)

##### (2) Timing

Two (2) years after the completion of the project.

END