

Ex-Ante Evaluation Report

1. Name of the Project

Country: The United Republic of Tanzania

Project: Arusha-Holili Road Improvement Project

Loan Agreement: February 4, 2022

2. Background and Necessity of the Project

(1) Current State and Issues of Transportation Sector and the Priority of the Project in Tanzania

The United Republic of Tanzania (hereinafter referred to as "Tanzania") is a member of the East African Community (EAC) that aims to promote regional integration and serves as a regional transportation relay point. Inland countries such as the Republic of Uganda, the Republic of Burundi, and the Republic of Rwanda secure their transportation routes to the Indian Ocean via the Central Corridor that passes through Tanzania and the Northern Corridor that passes through the Republic of Kenya (hereinafter referred to as "Kenya"). Arusha-Holili Road Improvement Project (hereinafter referred to as the "Project") is located between the Northern Corridor, which leads from the coast of Kenya to Uganda, Rwanda, and Burundi, and the Central corridor, which leads from the coast of Tanzania to Rwanda, and Burundi. The section of the Project works as a complementary route for these two main corridors that carry out logistics bases from the coastal area, such as Mombasa and Dar es Salaam, to the inland area. Thus, the role of this section is important for the East Africa region.

In order to fulfill its potential as a hub country connecting Eastern Africa within and to Southern Africa, the Government of Tanzania sets the priority targets in the transportation sector to improve road conditions, including the elimination of traffic congestion on roads, and to reduce travel time and transportation costs. It also emphasizes the need to reduce traffic congestion caused by overloading heavy vehicles and other factors, and to prevent traffic accidents.

The Project is expected to improve the connectivity to the Northern corridor and contribute to securing transportation routes for neighboring inland countries to reach the Indian Ocean via Tanzania and the Northern Corridor, which will enhance the EAC's regional integration and promote trade within and outside the EAC.

The Government of Tanzania has published and is implementing a Five Year Development Plan (FYDP) as a strategic action plan to achieve the goals of its

long-term national development plan "VISION 2025". In both FYDP II (FY2015/16 to FY2020/21) and FYDP III (FY2020/21 to FY2025/26), infrastructure development (road development, in particular) is emphasised as a priority area. In FYDP III, improving road conditions, including reducing congestion on roads, and reducing travel time and transportation costs, is one of the key priorities for the transportation sector. In addition, the target sections of the Project were mentioned in the FYDP II. Thus, the necessity of the Project in the transportation sector is high.

(2) Japan and JICA's Cooperation Policy and Operation in the Transportation Sector

The Country Development Cooperation Policy for the United Republic of Tanzania (September 2017) by the Government of Japan also specifies "infrastructure development to support economic and social development" as one of the key priority areas. The JICA Country Analysis Paper for Tanzania (March 2018) indicates that "infrastructure development to support economic and social development" is a priority issue for development. The Project is in line with these policy and analysis because it aims to respond to the rapidly increasing demand for road transportation in Tanzania, thereby revitalizing the Tanzanian economy.

(3) Other Donors' Activities

The AfDB implements road improvement projects in Singida-Babati-Minjingu, Mbinga-Mbamba Bay, Tabora-Koga-Mpanda, and Zanzibar. The United States Agency for International Development (USAID) works to improve access between farmers and markets through local road development and supports the improvement of local roads in four districts: Kilombero District, Mvomero District (Morogoro Region), Kongwa District (Dodoma Region), and Kiteto District (Manyara Region). The World Bank has set "infrastructure development and service delivery" as one of priority targets, and is engaged in the improvement of existing road networks and the improvement project for urban roads in Zanzibar. The European Union (EU) has supported projects for the improvement, development, maintenance, and management of existing roads by providing financial aid for the road sector, which currently focuses on providing support for the construction of local roads in the Morogoro Region, Iringa Region, and Ruvuma Region. And the EU also implements a wildlife protection and

community development programme in the area of the Project.

3. Project Description

(1) Objectives

The objective of the Project is to increase capacity of the road in terms of volume and loading, improve traffic safety and lower vehicle operating costs for Tengeru-Usa River, New Kikafu Bridge and Moshi Town Sections by widening the road into dual carriageway, constructing a new bridge at Kikafu and improving safety measures at vicinity of the existing Kikafu Bridge, thereby responding to the growing traffic demand and hence contributing to economic development and regional integration in East Africa.

(2) Project Site / Target Area

Arusha and Kilimanjaro Region

(3) Project Component(s)

- A) Consultanting services
- B) Civil works: Tengeru - Usa River and Moshi Town road sections
- C) Civil works: New Kikafu Bridge section including approach road;
- D) Road Safety measures

(4) Estimated Project Cost (Loan Amount) : JPY 24,310 million

(5) Schedule

February 2022 (L/A)~June 2027 (when the facilities are put into service)

(6) Project Implementation Structure

- 1) Borrower: : The Government of the United Republic of Tanzania
- 2) Guarantor: none
- 3) Executing Agency: Tanzania National Roads Agency
- 4) Operation and Maintenance System: the same as 3)

(7) Cooperation and Sharing of Roles with Other Donors

1) Japan's Activity

JICA has been providing technical cooperation through the Project on Capacity Development for Trade Facilitation and Border Control in East Africa (December

2017 to March 2022) to improve the operational and border control performance of customs brokers and relevant parties for the One Stop Border Post (hereinafter referred to as "OSBP"). JICA also dispatched an Advisor for Regional Infrastructure Development for EAC Secretariat (July 2014 to July 2022) to the EAC Secretariat to promote the legal framework support for the OSBP operation, regional infrastructure development, and other initiatives. Through this project and the dispatch of a successor for the Advisor above, JICA will continue to support smooth customs procedures between Holili and Taveta at the Tanzania-Kenya border, which will shorten the transportation time and further expand the effects of the Project.

2) Other Donors' Activity

The Project will be implemented as a parallel co-financing scheme with the AfDB under the framework of the Accelerated Co-Financing Facility for Africa (ACFA). The Sakina-Tengeru road in Arusha District (completed in July 2017) adjacent to the west side of the section targeted by the Project, the Arusha bypass road (completed in early 2019), and the Taveta-Voi road and the Taveta bypass road on the Kenyan side (completed in May 2017) were constructed by the loans of the AfDB (funds were partially provided by the Kenyan government for the construction on the Kenyan side).

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

1) Environmental and Social Consideration

① Category: B

② Reason for categorization:

The Project is not considered to be a large-scale road and bridge sector project, is not located in a sensitive area, and has none of the sensitive characteristics under the JICA guidelines for environmental and social considerations (April 2010; hereinafter referred to as "JICA Environmental Guidelines"), it is not likely to have a significant adverse impact on the environment.

③ Environmental permit:

The Environmental and Social Impact Assessment (ESIA) report on the Project was approved by the Minister for the Environment under the Vice President's Office of the United Republic of Tanzania in September 2014. Due to some design changes after the ESIA approval, the revised ESIA was

re-approved in September 2016.

④ Anti-pollution Measures:

With regard to air quality, water quality, noise, vibration, etc., during the construction period, measures will be taken to meet the emission and environmental standards in Tanzania, such as watering, inspection of construction vehicles, and restrictions on the construction period in the rainy season. Noise level after the start of service will be managed through regular road maintenance and other measures.

⑤ Natural environment:

The target section of the Project is not situated in sensitive areas such as national parks and their surrounding areas, and it is assumed that the adverse impact on the natural environment will be minimal.

⑥ Social environment:

About 29.5 ha of land will be acquired for the sections targeted by the Project, but there will be no involuntary resettlement. The land acquisition will be conducted in accordance with the procedures of Tanzania and the abbreviated resettlement plan prepared based on the JICA Environmental Guidelines. No major objection against the Project from affected persons have been observed.

⑦ Other/monitoring

The air quality, water quality, noise, vibration, etc., during the construction period for the Project and after the start of service will be monitored by TANROADS.

2) Cross-Cutting Issues

Infectious disease prevention measures (such as anti-AIDS/HIV measures): Since the Project is a large-scale infrastructure project in which workers concentrate on a single construction site for a long period of time, measures against sexually transmitted diseases such as AIDS and HIV will be implemented for relevant workers during the construction period.

3) Gender Category: [N/A] GI (Gender mainstreaming needs survey/analysis project)

Activities/Reason for categorization

Although a survey was conducted on the need for gender mainstreaming, it did not lead to specific efforts that would contribute to gender equality and women's empowerment.

(9) Other Important Issues

The Project will adopt a PC extradosed bridge, which has been adopted by many Japanese companies.

4. Target Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Operation and effect indicators

Indicators	Original* (2015)	Target (2029) 【2 Years after Completion】
AADT (pcu / day)		
Tengeru-Usa West	12,287	23,990
Usa West (KM 17.3) -Usa East (KM 18.7)	9,429	18,200
Bomangombe (KM 51.8) - Kwasadala (KM 54.8) (Kikafu Bridge section)	7,044	13,630
MoshiTown	25,976	50,660
Travel Time (hour)		
Tengeru-Usa West	0.36	0.23
Kikafu Bridge section	0.16	0.09
Moshi Town	0.31	0.18
Number of Traffic Accidents (including Number of Fatal and Injured Persons)		
Kikafu Bridge section	13	1
Number of passengers (persons/day)		
Tengeru-Usa West	63,623	114,300
Kikafu Bridge section	31,454	56,550
Moshi Town	80,102	143,500
Cargo volume (tons/day)		
Tengeru-Usa West	13,684	25,150
Kikafu Bridge section	11,237	20,700
Moshi Town	8,654	16,050

*Not included Motor-bike

*The Original and Target indicators are based on the data from the preparatory survey for cooperation in 2018. After the start of the project, the latest status will be checked and consider the necessity and possibility of modifying the Target indicators.

(2) Qualitative Effects

Improvement of logistics efficiency by ensuring smooth road transportation, improvement of the safety of pedestrian, bicycle, and automobile traffic, Tanzania's economic growth and the regional integration in the EAC.

(3) Internal Rate of Return

Based on the following premises, the economic internal rate of return (EIRR) of the Project is 17.6%. The financial internal rate of return (FIRR) is not calculated because tolls will not be collected from users.

[EIRR]

Costs: Project cost and operation and maintenance costs (all exclude tax)

Benefits: Reduction of travel time, distance, and costs

Project life: 30 years

5.Preconditions / External Conditions

(1) Preconditions N/A

(2) External conditions N/A

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

In the ex-post evaluation of the yen-loan assistance for the Islamic Republic of Pakistan under the Indus Highway Construction Project (evaluation year: 2004), the results indicated that premature deterioration of road surfaces occurred due to overloaded vehicles, so it is necessary to take measures against them. Based on these findings, vehicle weighing scales and moving vehicle weighing systems (MVWSs) are newly installed in this Project.

7. Evaluation Results

The Project conforms to the development issues and policies of the Government of Tanzania as well as the assistance policies and analysis results of the Government of Japan and JICA. Moreover, the Project will improve connectivity inside and outside the region through the promotion of road network development, and contribute to the economic development of Tanzania and other countries in the EAC region, as well as to the achievement of SDG 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation). Thus, the necessity to support the implementation of the Project is high.

8. Plan for Future Evaluation

(1) Indicators to Be Used

According to 4. 1).

(2) Timing of the Next Evaluation

Ex-post evaluation: 2 years after the Project completion