

## Ex-ante Evaluation

South East Asia Division 5

South East Asia and Pacific Department, JICA

### 1 Name of the Project

Country: Republic of the Philippines (Philippines)

Project: Road Network Development Project in Conflict Affected Areas in Mindanao

Loan Agreement: June 18, 2019

### 2 Background and Necessity of the Project

#### (1) Current State and Issues of the Development in the Conflict Affected Areas in Mindanao

Conflict had been continuing for more than 40 years in Western Mindanao Island (including Autonomous Region in Muslim Mindanao (hereinafter referred to as "ARMM")), and the Comprehensive Agreement on Bangsamoro (CAB) was signed by the Government of the Republic of the Philippines and the Moro Islamic Liberation Front (hereinafter referred to as "MILF"), where the autonomous government of Bangsamoro was mutually agreed upon. Under this agreement, the Bangsamoro Organic Law (hereinafter referred to as "BOL") was signed by the President and enacted in July 2018. Due to the result of the plebiscite held in Western Mindanao Island including ARMM in January and February 2019 according to BOL to define the territory of the Bangsamoro Government, the area targeted by the project is likely to be included in the territory of the Bangsamoro Government. Furthermore, the Bangsamoro Transition Authority (hereinafter referred to as "BTA"), which is the predecessor of the Bangsamoro Government, will be established in the first half of 2019.

Having natural conditions suitable for agricultural production, such as abundant rainfall throughout the year and fertile soil, ARMM has high-potential for development. However, it is affected by a lack of infrastructure improvement, etc. due to long-time conflict, with a poverty rate is 53.4%. This is two or more times the national average of 22.1%, and the highest in the country (2015 national statistics). Development of a road network is especially lagging behind. According to the "Bangsamoro Development Plan II" created with the support of JICA in 2016, road density in the region remains at half or less of the national average. Due to this, facilitation of traffic and physical distribution, as well as strengthening of connectivity in and out of the region through new construction and repair of roads, is considered as issues to revitalizing the region and reducing the poverty rate. BOL plans to establish a new autonomous government in 2022, so it is important to realize the dividend of peace and support the consolidation of peace through improving necessary infrastructure such as roads in the region.

The “ARMM Regional Development Plan 2017–2022,” which was formulated in line with the Ambisyon Natin 2040 long-term vision of the country’s government, states that infrastructure improvement will be accelerated in order to promote socio-economic growth in the region, and each subproject of the Road Network Development Project in Conflict Affected Areas in Mindanao (hereinafter referred to as this “Project”) is positioned as a priority project. In addition, the government of the country has specified 75 flagship projects under the “Build, Build, Build” program and this Project is one such flagship project.

(2) Japan’s and JICA’s Cooperation Policy for Conflict Affected Areas in Mindanao and the Positioning of this Project

Japan’s Country Assistance Policy for Philippines (April 2018) specifies “peace and development in Mindanao” as a priority area and states that Japan will cooperate for economic development, etc. and assist in building a resilient community against conflict, terrorism and violent extremism through rehabilitation and reconstruction of Marawi City on the island and its surrounding areas to realize peace and stabilization of the island. The JICA Country Analysis Paper for the Republic of the Philippines (November 2014) also states that a support framework which contributes to poverty reduction, income generation and regional infrastructure improvement should be established after the execution of a peace agreement. In this respect, this Project is consistent with the policy and analysis discussed above.

Japan has assisted in developing a road network in ARMM in the past through funding aid and technical cooperation. In the “Central Mindanao Road Project” (Loan Agreement: 2003) Japanese ODA loan program, Japan supported the widening and improvement of an existing highway connecting a main city of ARMM, Cotabato City to the southwest area. In addition, training, etc. for road maintenance in such region is being provided in a technical cooperation, the “Comprehensive Capacity Development Project for the Bangsamoro” (scheduled from 2013 to 2019).

(3) Other Donor’s Activity

The Asian Development Bank (ADB) has executed a loan agreement for the “Improving Growth Corridors in Mindanao Road Sector Project” in January 2018 and is currently implementing road improvement in the Zamboanga Peninsula of Western Mindanao Island. In addition, ADB has executed a loan agreement for emergency assistance in the reconstruction of Marawi City in December 2018, supporting road improvement in the city and its surroundings.

**3 Project Description**

(1) Project Objective

This Project will facilitate traffic and physical distribution as well as strengthen connectivity in and out of the region in the conflict-affected areas of Mindanao. This will be achieved through new construction and repair of connecting roads to highways

between cities, thereby contributing to economic revitalization and poverty reduction, as well as peace consolidation in the region.

## (2) Project Site/Target Area

Conflict-affected areas in Mindanao (Province of Lanao del Sur and Province of Maguindanao; Population: about 2.219 million persons (2015 national statistics))

## (3) Project Components

- a) New construction (about 72.9 km) and repair (about 6.0 km) of connecting roads to highways between cities
- b) Pavement and repair of roads in Marawi City (about 23 km)
- c) Consulting services (detailed design, tender assistance, construction supervision, monitoring of environment management, support for relocation of residents, etc.)

## (4) Estimated Project Cost

270.44 million US dollars (of which the ODA Loan amount is 202.04 million US dollars (equivalent to 22.224 billion yen))

## (5) Schedule

June 2019 to June 2025

## (6) Project Implementation Structure

- 1) Borrower: The Government of the Republic of the Philippines
- 2) Executing Agency: Department of Public Works and Highways (DPWH)
- 3) Operation and Maintenance Agency: Operation and maintenance after project completion is to be assumed by BTA, which is to be established in the first half of 2019. Under the current structure, a regional office of the Department of Public Works and Highways-ARMM (hereinafter referred to as "DPWH-ARMM") provides maintenance. After the BTA is established, the current DPWH-ARMM, including its staff members, etc. is to be transferred to BTA. (The details of the BTA, such as its personnel, have not been decided at this time.)

## (7) Collaboration with Other Schemes and Donors

### 1) Related aid activities by Japan

The "The Programme for the Support for Rehabilitation and Reconstruction of Marawi City and its Surrounding Areas" (execution of grant agreement: May 2018) plans to provide support in the form of a grant for urgently required road sections in Marawi City. In technical cooperation, the "Comprehensive Capacity Development Project for the Bangsamoro" (scheduled from 2013 to 2019), training for road maintenance has been provided to DPWH-ARMM. Further, we

will implement detailed design of other subprojects, for which a cooperation preparation survey was conducted, in the form of loan technical support.

2) Aid activities of other donors:

None in particular

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

1) Environmental and Social Considerations

(i) Category: B

(ii) Categorization rationale: This Project is determined to have no significant undesirable effect on the environment in view of the characteristics of the sector, the project or the region according to the JICA Guidelines for Environmental and Social Considerations (promulgated in April 2010) (hereinafter referred to as "JICA Guidelines").

(iii) Environmental approval: In June 2018, the environment impact statement (EIS) report for this Project obtained an environment clearance certificate (ECC) from the Department of Environment and Natural Resources (DENR).

(iv) Pollution control measures: For water quality erosion, air pollution, noise and vibration during the construction work period, mitigation measures such as turbid water discharge using a settling tank and a silt fence, sprinkling water onto a road, speed limits on construction machinery, installation of sound insulation walls, and introduction of low-noise construction equipment will be taken. To address noise after the start of operation, noise control measures, such as the creation of a green belt along the road as a buffer zone, will be implemented. Further, surplus construction soil generated by building of a new road in the mountain district will be discarded in the waste disposal site, which has already obtained environmental approval.

(v) Natural environment aspect: Given that the area targeted by this Project does not fall under a location or nearby place that is susceptible, such as a national park, any undesirable effect on the natural environment will likely be minimal.

(vi) Social environment aspect: This Project assumes non-voluntary relocation of residents from 91 households out of all subprojects. The relocation of residents and the acquisition of land will be carried out in accordance with domestic procedures of the Philippines and a resident relocation plan that meets JICA Guidelines. In the consultation with residents over the relocation, an explanation of the project outline and the overview of compensation and support were given, and no particular opposition to the project implementation was found.

(vii) Others and monitoring: During the construction work period, the executing agency, the constructor and the local government will monitor water quality, air pollution, noise and vibration, waste, etc. in the area around the project site based on the environmental management plan and the environmental monitoring plan. Land acquisition, the implementation status of resident relocation and livelihood recovery will be monitored by the executing agency and the local government.

2) Cross-cutting Items: It is expected that implementation of this Project will contribute to poverty reduction and economic revitalization in the target area by creating new employment opportunities for local residents, increase the revenue of agriculture workers by reducing transport costs, and more.

3) Gender Classification: [Excluded] GI (Gender mainstreaming needs survey/analysis project) <Activities/Classification Rationale> Although gender mainstreaming needs had been surveyed/confirmed in this Project, specific efforts that would contribute to gender equality and women's empowerment will not be implemented.

#### (9) Other Important Issues

The BTA will be established in 2019. After that, the Bangsamoro Government will be established in 2022 through a Bangsamoro parliamentary election. After the establishment of the BTA, the functions of the ARMM are to be transferred to the BTA.

## 4 Target Outcomes

### (1) Quantitative Effects

#### 1) Outcomes (Operation and Effect Indicators)

Indicator	Target section	Baseline (Actual value in 2017)	Target (2026) [2 years after completion]
Annual average traffic volume (unit count/day)	Subproject 2 (Barora-Macasandag)	- (Due to new construction)	2,192
	Subproject 7 (Daanaingud-Mipaga)	-	2,116
	Subproject 8 (Making-Nituan)	-	3,199
	Subproject 9 (North Manuangan-Nituan)	-	1,464
Time required (minutes)	Subproject 2 (Barora-Macasandag)	60.3	38.7
	Subproject 7 (Daanaingud-Mipaga)	27.4	15.2
	Subproject 8 (Making-Nituan)	20.1	17.5
	Subproject 9 (North Manuangan-Nituan)	48.5	44.8
Reduction of travel cost	Subproject 2 (Barora-Macasandag)	-	429

(1 million pesos/year)	Subproject 7 (Daanaingud-Mipaga)	-	131
	Subproject 8 (Making-Nituan)	-	53
	Subproject 9 (North Manuangan-Nituan)	-	47
Passenger count (passenger/year)	Subproject 2 (Barora-Macasang)	-	4,127,156
	Subproject 7 (Daanaingud-Mipaga)	-	6,073,821
	Subproject 8 (Making-Nituan)	-	7,573,236
	Subproject 9 (North Manuangan-Nituan)	-	1,995,754
Freight volume (tons/year)	Subproject 2 (Barora-Macasang)	-	396,779
	Subproject 7 (Daanaingud-Mipaga)	-	365,342
	Subproject 8 (Making-Nituan)	-	412,922
	Subproject 9 (North Manuangan-Nituan)	-	379,055

(Note) Indicators of roads in Marawi City are to be confirmed in the detailed design.

## (2) Qualitative Effects

The qualitative effects of this Project include an increase in regional economic activities, as well as improvement of access to social services (hospital, etc.) for neighborhood residents.

## (3) Internal Rate of Return

Based on the following assumptions, the Economic Internal Rate of Return (EIRR) of this Project is 12.7% (excluding pavement and repair of roads in Marawi City). The Financial Internal Rate of Return (FIRR) is not calculated, as this Project is a toll-free road project.

[EIRR]

Cost: Cost of project, operation and management cost (excluding tax); Benefits: Reduction of travel cost and time, maintenance and operation cost decrease by improved roads, revenue increase by increased cultivation area, etc.; Project life: 30 years from the start of operation (if time from the project start is included, 36 years).

## 5 Preconditions and External Factors

There are destabilizing factors in public security, such as existence of Islamic extremism in the area targeted by the project, and stable progress of peace process in Mindanao is a precondition.

## **6 Lessons Learned from Past Projects and Applications to this Project**

The ex-post evaluation results of the “Central Mindanao Road Project,” an ODA loan program for this country, pointed out that the maintenance system of DRWH-ARMM was weaker technically compared with DPWH and enhancement of support to DPWH-ARMM, such as assistance from DPWH and associated technical cooperation for maintenance, would be required.

For DPWH-ARMM, technical training, etc. for DPWH-ARMM personnel have been provided in a technical cooperation, the “Comprehensive Capacity Development Project for the Bangsamoro” (scheduled from 2013 to 2019) in addition to the development of 24 trainers for infrastructure management including a road in technical cooperation, the “ARMM Human Capacity Development Project” (from 2008 to 2013). Based on the previous support, we will consider future support for human resources development of the Bangsamoro autonomous government.

## **7 Evaluation Results**

This Project is consistent with issues and policies on development of this country as well as cooperation policy and analysis of Japan and JICA, which contributes to economic revitalization and peace consolidation through the road improvement in the conflict-affected areas in Mindanao. Given that this Project is deemed to contribute to SDGs’ Goals 1 (poverty eradication), 8 (sustainable economic development), 9 (resilient infrastructure and expansion of industrialization) and 16 (peace and fairness for all people), the need for JICA to support the implementation of the project is high.

## **8 Plan for Future Evaluation**

### (1) Indicators to be Used

As indicated sections 4 (1) to (3).

### (2) Timing of the Next Evaluation

Ex-post evaluation: Two years after project completion