

Ex-Ante Evaluation (for Japanese ODA Loan)

Southeast Asia Division 1
Southeast Asia and Pacific Department, JICA

1. Name of the Program

Country: The Republic of Indonesia (Indonesia)

Program: Disaster Resilience Enhancement and Management Program Loan

Loan Agreement: February 18, 2020

2. Background and Necessity of the Program

(1) Current State and Issues of the Disaster Prevention Sector in Indonesia

Indonesia is prone to floods, landslides, earthquakes, volcanic eruptions, and other natural disasters, which are one of the causes of financial and social losses. In 2018, in particular, the country suffered heavy casualties and negative impact on its economic activities due to a series of earthquake and tsunami related, large-scaled disasters, including the Lombok earthquake on July 29th, Central Sulawesi earthquake and tsunami on September 28th, and Sunda Strait volcanic eruption and tsunami on December 22nd.

It has been estimated¹ that Indonesia's annual economic loss from these frequent natural disasters exceeds 180 billion yen. The breakdown of the estimation by disaster type shows that earthquakes, fires, and floods account for the most portion of it. In contrast, the average of Dana Cadangan, a disaster response fund earmarked each year by the Indonesian government for disaster recovery and restoration, has been around 25 billion yen² (2005–2017), which cannot cover the economic loss from disasters.

On the grounds of the massive damage from the 2004 Sumatra earthquake and Indian Ocean tsunami, Indonesian government has enhanced its disaster-related legal system and organizations by, for example, establishing a disaster management law (2007) and National Agency for Disaster Countermeasure (BNPB, 2008), with an aim to develop an overall disaster response system which covers preventive steps to be taken before the occurrence of disaster, as well as post-disaster response. With support from international society, including Japan, it has also intensified its efforts for grasping disaster risks, as well as for preparing for disasters, including development of the Indonesia Tsunami Early Warning System (InaTEWS).

However, as compared to the four priorities for action (① Understanding disaster risk, ② Strengthening disaster risk governance to manage disaster risk, ③ Investing in disaster risk reduction for resilience, and ④ Enhancing disaster preparedness for effective response and to Build Back Better ("BBB") in recovery, rehabilitation and

¹ Source: Estimated by Fiscal Policy Agency, Ministry of Finance, Indonesia. The average of values from 2000 through 2017.

² Source: Estimated by Fiscal Policy Agency, Ministry of Finance, Indonesia. The average of values from 2000 through 2016.

reconstruction specified by the Sendai Framework for Disaster Risk Reduction 2015–2030 (adopted at the third UN World Conference on Disaster Risk Reduction in March 2015), the nation is only half-way through its efforts for establishing a disaster prevention system, while facing challenges.

(2) Japan and JICA's Policy and Operations in the Disaster Prevention Sector

Japan's Country Development Cooperation Policy for Indonesia (September 2017) singled out providing assistance for disaster risk reduction measures toward creating a safe and fair society in its priority area, "Assistance for creating a safe and fair society through well-balanced development". JICA's Country Analysis Paper for Indonesia (June 2018) also considers disaster prevention measures as a key challenge, specifying that cooperation should be provided to the nation through enhancement of its overall disaster prevention (structural and non-structural measures) so that its disaster response capabilities will be improved for the preventative (proactive measure), emergency response, rehabilitation and reconstruction phases. In addition, Japan hosted the U.N. World Conference on Disaster Risk Reduction and, as a country with developed disaster prevention, contributed to the development of the "Sendai Framework for Disaster Risk Reduction 2015-2030" by sharing knowledge and technologies at the third Conference held in March 2015, making disaster risk reduction measures one of Japan's important fields of cooperation. Therefore, the program complies with the national policy and is consistent with JICA's analysis results. Furthermore, in terms of strengthening the disaster prevention capability, it contributes to "ensuring peace and stability," as stated in the Free and Open Indo-Pacific Vision.

(3) Other Donor's Activity

The World Bank has been supporting the government of Indonesia since 2018 as the nation makes efforts for raising disaster risk finance. The bank specified actions to be taken for disaster risk insurance in its policy matrix for Indonesia Fiscal Reform DPL 3 (a loan of 1 billion USD) (2019). The bank also approved the Indonesia Disaster Resilience Initiative Project (IDRIP) (a loan of 160 million USD) at the board of directors in November 2019, with an aim to support the country in establishing a multi-hazard early warning system and other efforts. The board of directors also approved in June 2019 the Central Sulawesi Rehabilitation and Reconstruction Project (a loan of 150 million USD), in connection with the Central Sulawesi earthquake.

In the context of the disaster of the Central Sulawesi earthquake and tsunami, the Asian Development Bank granted the country in November 2018, immediately after the disaster, a loan called Emergency Assistance for Recovery and Rehabilitation from Recent Disasters (500 million USD). It also approved, at the board of directors in June 2019, Emergency Assistance for Rehabilitation and Reconstruction (a loan of about 300 million USD) and, in the same year, agreed to Financial Market Development and Inclusion Program (Sub program 3) (a loan 500 million USD.)

3. Program Description

(1) Program Objectives

The objective of the program is to support the implementation of disaster related policies and strategies of the Republic of Indonesia through policy dialogue, thereby contributing to strengthening the capacity to deal with natural disasters.

(2) Program Site/Target Area

Indonesia

(3) Program Components

The program will help the country to steadily improve and implement its policies and systems in accordance with the four pillars, shown below, that were set out by and agreed to among relevant Indonesian authorities, on the basis of the Sendai Framework for Disaster Risk Reduction 2015–2030. A total of 14 policy actions are specified and their progress and achievement will be assessed. Main goals and key policy actions are also listed below.

Pillar	Policy actions achieved (by end of June 2019)	Policy actions to be achieved in the future (by end of June 2020)	Policy actions to be achieved in the future (by end of June 2021)
1. Strengthening DRR governance and mainstreaming	<ul style="list-style-type: none"> ○ Commenced review and discussion to incorporate lessons learned from disasters in Central Sulawesi and Lombok into next National Medium-Term Development Plan (RPJMN). ○ Finished final draft Disaster Management Master Plan 2015-2045 (DMMP), which is the first national long-term master plan in disaster management. ○ Developed local DRR strategies/plans in 34% of kabupaten and kota, which includes effective measures to reduce disaster risk. 	<ul style="list-style-type: none"> ○ Publish RPJMN and reflects lessons learned from disasters in Central Sulawesi and Lombok. ○ Issue Presidential Regulation of DMMP and develop the guidance for report, evaluation, and monitoring cycle of DMMP. ○ Increase the percentage of kabupaten and kota with local DRR strategies/plan, which includes effective measure to reduce disaster risk, from 34% to 35%. 	<ul style="list-style-type: none"> ○ Implement DRR actions based on RPJMN 2020-2024. ○ Conduct disseminations of Disaster Management Master Plan 2015-2045 (MP) for local stakeholders. ○ Provide assistance for formulation of local DRR strategies/plans of areas that created the DRR strategies/plans.

<p>2. Promotion of understanding of disaster risk</p>	<ul style="list-style-type: none"> ○ Developed two technical guidelines for local level risk assessment ○ Started discussion on activities for strengthening seismic and tsunami observation network ○ Started discussion on activities for strengthening FEWS owned by PUPR ○ Developed Contingency Plan for potential hazard in 11 areas 	<ul style="list-style-type: none"> ○ Develop additional two technical guidelines for local level risk assessment ○ Increase accumulation of seismic and tsunami observation data ○ Increase accumulation of flood data by collecting flood data precisely and continuously ○ Develop Contingency Plan for potential hazard in 15 areas 	<ul style="list-style-type: none"> ○ Develop additional two technical guidelines for local level risk assessment ○ Enhance the rapidness and accuracy of earthquake information and tsunami warning ○ Implement flood EWS in 2 areas as a pilot by installed FEWS 2 unit ○ Provide assistance for areas who will created the Contingency Plans
<p>3. Promotion of investing in disaster risk reduction for resilience</p>	<ul style="list-style-type: none"> ○ Started drafting strategic plan (Renstra) including DRR policy at a national level 	<ul style="list-style-type: none"> ○ Legalize strategic plan (Renstra) 2020-2024 including appropriate DRR programs/targets 	<ul style="list-style-type: none"> ○ Encourage appropriate DRR programs allocated for achieving targets of Renstra 2020-2024.
<p>4. Enhancing to Build Back Better in recovery, rehabilitation and reconstruction</p>	<ul style="list-style-type: none"> ○ Started preparation on hazard map that rested on the basis of collected observation data and risk assessment based on the disaster in September 2018 ○ Started preparation on regional spatial planning based on Disaster Prone Areas to realize disaster resilient cities 	<ul style="list-style-type: none"> ○ Elaborate hazard map ○ Formulate General Spatial Plan (RTRW) and Detailed Spatial Plan (RDTR) in Central Sulawesi Province, Palu City, Sigi Regency based on elaborated hazard map with proper stakeholder communication while ensuring the consistency with infrastructure development. 	<ul style="list-style-type: none"> ○ Utilize the spatial plans to reconstruct infrastructures

(4) Program Cost

Loan Amount: 31,800 million yen (equivalent to 300 million dollars)

(5) Schedule

The financial assistance for the program will begin in February 2020. The 1st phase of the program, all policy actions of which were achieved by June 2019, will be regarded complete upon deposit of the loan (scheduled to be done in March 2020). It is expected at this point in time that financial assistance will be provided until the 3rd phase. The 2nd phase will be implemented with policy actions to be achieved by June 2020 and the 3rd phase by June 2021.³

(6) Program Implementation Structure

- 1) Borrower: The Government of Republic of Indonesia
- 2) Executing Agency: Ministry of National Development Planning (BAPPENAS)

(7) Collaboration with Other Donors

1) Japanese Donors' Activity

Individual experts "Inclusive Disaster Risk Reduction Policy Advisers" (from September 2017 to June 2022) and "Integrated Water Resources Management Policy Advisers (September 2016 to June 2021) have provided indirect support in the development of the Program. With regard to improvement of disaster management capabilities, a technical cooperation (Project for Development of Regional Disaster Risk Resilience Plan in Central Sulawesi) has been implemented with an aim to reduce disaster risk. Another technical cooperation (Capacity Development on Operation of Earthquake and Tsunami Analysis and Warning Dissemination) has also been implemented with an aim to improve the system and capability to convey information on earthquakes and tsunami. In addition, there are grant aid projects to help to develop a disaster observation network, including seismometers, (Project for Improvement of Equipment for Disaster Risk Management). Furthermore, concerning the Central Sulawesi earthquake and tsunami, Japan assisted the country through an emergency development survey and grant aid project (Programme for the Reconstruction of Palu 4 Bridges in Central Sulawesi Province) and a loan assistance (Infrastructure Reconstruction Sector Loan in Central Sulawesi), helping to develop and implement their plans in an integrated manner.

2) Other Donors' Activity

It is expected at this point in time that the program will be provided with financial assistance until its 3rd phase. Use of co-financing is being considered for the 2nd phase and any subsequent phases.

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

1) Environmental and Social Consideration

1. Category: C
2. Reason for Categorization: The program is likely to have a minimum or no adverse impact on the environment or society, in light of Japan International Cooperation Agency Guidelines for Environmental and Social Considerations (published in April 2010).

³ In this context, the program means the 1st phase. Policy actions that should be achieved by the end of June 2020 are set for the 2nd phase and by the end of June 2021 for the 3rd phase, with a projection that this will improve the series of policies and systems.

2) Cross-Cutting Issues

- ① Climate Change Measures: The program aims to increase Indonesia's capability to respond to the risk of floods, whose impact due to climate change has been a matter of concern, through the policy actions to promote installation of a flood early warning system. It thus contributes to measures for climate change (adaptation measures).
- ② Consideration for Persons with Disabilities: Hearing will be conducted with organizations for persons with disabilities and residents with disabilities in the course of development of disaster prevention strategies and plans and an effort will be made to oblige implementation of inclusive, disaster prevention efforts.

3) Gender Category: [N/A] ■ GI (a case of research/analysis of needs for gender mainstreaming)

<Details of the activity/Reason for Categorization> Although special consideration to socially vulnerable groups (women, elderly persons, disabled persons) is given by the Indonesian government, it did not result in the implementation of specific activities that contribute to gender equality or women's empowerment.

- (9) Other Important Issues: Policy actions that should be achieved by the 2nd phase (June 2020) and 3rd phase (June 2021) have been tentatively set for the program. It is currently assumed that financial assistance will be provided until the 3rd phase. As for assistance for the 2nd phase and any subsequent phases, we will examine each case upon request from the Indonesian government.

4. Targeted Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicators)

Indicators	Baseline (2019)	Target (2021) [End of program]
The percentage of developed local DRR strategies/plans	34 %	More than 35 %
The number of Contingency Plans that include timing of issue for Early Warning, and evacuation sites on hazard analysis under BNPB support	11 Contingency Plans	More than 26 Contingency Plans
The increase of budget allocation for programs related to Disaster Risk Reduction under PUPR support	9.3 trillion Rp. (2018)	Most than 9.3 trillion Rp. (Average over the past 3 years)
The number of spatial plans to be prepared based on elaborated hazard maps	0	At least 6 spatial plans

2) Impact

Improved disaster prevention system/capability of relevant agencies of the Indonesian government

(2) Qualitative Effects

Enhanced ability of the Indonesian government to develop/implement disaster prevention policy and improved disaster management ability

(3) Internal Rate of Return

Not applicable.

5. External Factors and Risk Control

(1) External Conditions: No major change will be made to the Indonesian government policies after a new administration is inaugurated (October 2019).

6. Lessons Learned from Past Programs

The results of after-action assessment of the Development Policy Loans (I–IV) for Indonesia and other evidence show that it is necessary to more actively link Development Policy Loans (DPL) with technical cooperation because they are complementary to each other, creating synergies in different phases of the reformation process. The results of after-action assessment of Project of Capacity Development for the Implementation of Climate Change Strategies and other evidence show that, for the policies improved to produce effect, it is important to establish a system for holding policy consultations, including ones after completion of the program.

Considering these lessons, policy actions that are linked to the results of previous and future technical cooperation will be set and a policy consultation and monitoring system centered around BAPPENAS will be established for the current program.

7. Results of Evaluation

The program conforms to the development challenges and policy of Indonesia and cooperation policy and analysis of Japan and JICA. The program will contribute to realization of a disaster-resilient society and economy, by helping the target country to improve its disaster prevention policy and systems, encouraging it to invest in disaster measures, and enhancing its disaster response capabilities. Furthermore, the program is expected to contribute to the Sustainable Development Goals 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) and 13 (Take urgent action to combat climate change and its impacts). Therefore, the necessity to support the Program is high.

8 Plans for Future Evaluation

(1) Indicators to be Used

As mentioned in 4. (1) to (2)

(2) Future Evaluation Schedule
Upon completion of the program

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