### **Ex-ante Evaluation**

#### **1. Name of the Project**

Country: The Republic of Peru Project: Stand-by Emergency Credit for Urgent Recovery (SECURE) Loan agreement: March 31, 2014 Loan amount: 10,000 million yen Borrower: The Republic of Peru

### 2. Background and Necessity of the Project

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

With the bulk of its national land located in the circum-Pacific seismic belt, Peru is highly susceptible to damage from earthquakes and tsunamis. In particular, any disaster affecting the region around Lima, Peru's capital and home to 30% of its total population (30 million people), is likely to cause extremely serious damage. In 2007, a large earthquake affecting the Ica Region, which is located to the south of Lima, led to economic losses of 3 billion dollars. An earthquake of the same magnitude occurring in Lima is estimated to cause 30 billion dollars in damage (estimate by the Inter-American Development Bank (IDB)). Peru is also susceptible to the effects of natural disasters (floods, landslides and debris flows resulting from downpours as well as droughts) caused by periodic natural phenomena such as El Niño and La Niña. In 1998 and 1999, such disasters led to total economic losses of 3.5 billion dollars in Peru. In addition, due to the effects of global warming, there is an increased risk of a glacial lake outburst. As these examples show, Peru is a country at high risk of damage from disasters; human and economic damage from natural disasters likely poses a serious threat to Peru's sustained socioeconomic development. (2) Development Policies for the Disaster Prevention Sector in Peru and Priority of the Project

In May 2011, Peru enacted the Law of the National Disaster Risk Management System (SINAGERD) and established policies for determining the responsibilities of each government agency in charge of disaster prevention and for enhancing disaster risk management systems. In November 2012, the Peruvian government also formulated the National Disaster Risk Management Policies. In order to improve the government's disaster risk management capability, focus is placed on the following areas: (1) establishment and development of disaster risk management systems based on SINAGERD; (2) enhancement of decision-making capability for disaster prevention and disaster response at the national, regional, and municipal government levels; (3) prioritization of personnel and material resources as well as funds needed in disaster risk management; and (4) enhancement of the disaster prevention culture and disaster response skills.

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

This project is classified as a "Disaster Recovery Support Program" subsumed under the high-priority category "Disaster Prevention," which is defined in the Japanese government's aid policy for Peru. The project is therefore consistent with the Japanese government's aid policy for Peru as well as with JICA's aid guidelines for Peru. The disaster prevention sector is also implementing a Science and Technology Research Partnership for Sustainable Development (SATREPS) Project for Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru and a Grant Aid Project for Improvement of Equipment for Disaster Risk Management.

(4) Other Donors' Activities

The World Bank is focused on supporting Peru's disaster risk management policies; in 2010, the World Bank offered a disaster standby loan of 100 million dollars (Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option) to Peru. To enhance Peru's natural disaster response capabilities, Andean Development Corporation (CAF) is working to establish a natural disaster credit line with an upper limit of approximately 300 million dollars. In January 2014, the Inter-American Development Bank (IDB) offered a disaster standby loan of 300 million dollars to support the enhancement of Peru's disaster risk management. No

disbursement has been effected under these loans.

(5) Necessity of the Project

As described above, this project aims to support the Peruvian government's efforts for disaster prevention and disaster response and to provide the funds urgently needed in the event of a disaster. The project is consistent with the Peruvian government's development policies as well as with the aid policies of the Japanese government and JICA. It is therefore highly necessary and appropriate for JICA to support the implementation of this project.

# **3. Project Description**

### (1) Project Objective

This project aims to promote the policy actions required to improve disaster risk management capabilities in Peru, a country at high risk of disaster damage, and to provide the funds urgently needed in the event of a disaster. As such, the project is designed to support quick disaster recovery in Peru and to contribute to sustained socioeconomic development for the country.

(2) Project Site/Target Area: All regions of Peru

(3) Project Outline

Based on the policy action matrix below, the Peruvian government ensures continued efforts in the disaster prevention sector implementation of the technical cooperation and grant-aid projects being carried out with JICA's support as well as performs policy actions for mainstreaming of disaster prevention. If it is confirmed that the Peruvian government is fulfilling these conditions, the loan will be executed for the purpose of rehabilitation of the disaster upon the Peruvian government's declaration of a national emergency based on a request for disbursement by the government.

Targeted area	Policy actions achieved (2014)	Policy actions to be achieved in the future (by 2017)	
<ol> <li><u>Improvement of</u> <u>earthquake and tsunami</u> <u>damage mitigation</u> <u>technologies</u></li> <li>Need for specific measures to enhance earthquake and tsunami disaster prevention systems</li> <li>SATREPS Project for Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru (the "Project") (scheduled for 2010–2015) being implemented by JICA</li> </ol>	<ul> <li>With JICA's support, Peruvian government agencies have achieved the following:</li> <li>Analysis of the underground soil structure of survey areas and disclosure of earthquake data</li> <li>Tsunami wave propagation simulation testing and compilation of tsunami hazard maps</li> <li>Technical transfer by former JICA trainees to enhance tsunami evacuation plans for survey areas</li> <li>Activities for raising local community members' awareness regarding earthquake and tsunami disaster prevention</li> </ul>	<ul> <li>(1)Achievement of project goals (preparation of scenarios for a massive earthquake, prediction of damage, development of damage mitigation technologies, promotion of earthquake resistance, etc.)</li> <li>(2)Integration by the Peruvian government of project proposals reflected in national disaster prevention plans</li> <li>(3)Enhancement of technical collaboration between administrative agencies in charge of disaster prevention and personnel training</li> </ul>	
<ul> <li>2. <u>Improvement of</u> <u>earthquake and tsunami</u> <u>emergency information</u> <u>transmission systems</u></li> <li>Need to increase the speed and stability of emergency information transmission</li> <li>Grand Aid Project for Improvement of Equipment for Disaster Risk</li> </ul>	Agreement on the basic design of the grant-aid cooperation program and preparation of an INDECI action plan (development and authorization of rules regarding procedures for broadcasting emergency warnings)	<ul> <li>Achievement of the following by government agencies through the effective use of materials procured for the project:</li> <li>(1)Enhancement of earthquake and tsunami risk management</li> <li>(2)Implementation of a more advanced earthquake and tsunami information transmission system (supersonic</li> </ul>	

Management (scheduled for 2012–2016) being implemented by JICA		tide indicators, etc.)
<ul> <li>3. <u>Mainstreaming of</u> <u>disaster prevention and risk</u> <u>management in public</u> <u>investment plans</u></li> <li>The Peruvian government is assessing the disaster risks of public projects; however, risk assessments of existing public buildings are insufficient.</li> </ul>	Incorporation of disaster risk assessment into the national public investment system (SNIP) by Peru's Ministry of Economy and Finance (MEF)	<ul> <li>(1)Simplification of the Peruvian MEF's review procedures for disaster rehabilitation and recovery projects</li> <li>(2)Preparation of lifeline system disaster risk assessment guidelines by CENEPRED</li> <li>(3)Preparation of land utilization plan guidelines for disaster risk mitigation by CENEPRED</li> </ul>

(4) Total Project Cost/Loan Amount: 10 billion yen

(5) Schedule: The policy action support period for this project is from November 2012 to January 2014. The disbursement period is three years from effectuation of the loan agreement. The project will terminate when the loan amount is fully disbursed or when the disbursement period elapses (the disbursement period can be extended four times, up to a total of 15 years).

(6) Project Implementation Structure

- 1) Borrower: The Republic of Peru
- 2) Executing agency: Ministerio de Economía y Finanzas (MEF)
- 3) Operation and maintenance system: A dedicated section within MEF carries out monitoring twice annually in collaboration with JICA and other related organizations in order to check progress toward the achievement of the 2017 goals defined in the policy action matrix.

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

- 1) Environmental and social considerations
  - (i) Category: C
  - (ii) Reason for categorization: this project is likely to have minimal adverse impact on the environment, "Under the JICA Guidelines for Environmental and Social Consideration" (April 2010).
- 2) Promotion of poverty reduction: Proper implementation of disaster prevention plans is likely to reduce disaster damage risks for the poor, who are the most vulnerable in the event of a disaster.
- 3) Promotion of social development (gender perspectives, prevention of AIDS and other infections, participatory development, considerations for the disabled, etc.): None in particular

(8) Other Schemes and Collaboration with Other Donors: Progress toward the achievement of goals defined in the policy action matrix is also monitored through technical cooperation and grant-aid programs. Consistency with the policy action matrixes of the World Bank and IDB has already been confirmed. (CAF has not developed a policy action matrix.)

(9) Other Important Issues

- This project intends to introduce into Peru the approach proposed by the Japanese government for integrating disaster prevention in development programs. The project is expected to attract global attention regarding integrating disaster prevention into development plans.
- In Peru, there are concerns over the growing risk of damage from natural disasters resulting from El Niño and other forms of climate change. This project aims to support policy actions for disaster risk mitigation and management as well as to provide the funds needed to recover from a large-scale disaster. As such, it contributes to adaptation to climate change.
   Macro-economic situation: No IMF supported program has been implemented.
- 4. Targeted Outcomes

# (1) Quantitative Effects

### Performance Indicators (Operation and Effect Indicators)

Targeted area	Indicator	Baseline (2013)	Target (2017)
Improvement of earthquake and tsunami emergency information transmission systems	Number of regions with access to accurate information using a new system for transmission of earthquake and tsunami information implemented by INDECI	0	10

(2) Qualitative Effects

Improvement of national, regional, and municipal governments' disaster prevention plans to enhance earthquake and tsunami risk management; enhancement of the Peruvian government's disaster risk mitigation and management capabilities; simplification of MEF's domestic review procedures for disaster recovery projects; quick supply to meet demand for disaster rehabilitation and recovery funds; quick supply to meet needs for life support among disaster victims immediately after a disaster

### 5. External Factors and Risk Control

There will not be substantial changes to the Peruvian government's disaster prevention administration or policies.

### 6. Results of Evaluations and Lessons Learned from Past Projects

(1) Results of Evaluations of Similar Past Projects: Past support projects for rehabilitation for typhoons and other disasters have demonstrated the necessity of providing quick financial support after a disaster.

(2) Lessons for the Project: Based on the aforementioned lesson learned from past projects, there is a need to review measures to provide comprehensive support, including utilization of technical cooperation and other schemes, in addition to quick provision of funds through this project, in order to adequately and quickly meet local needs in the event of a disaster.

# 7. Plans for Future Evaluations

(1) Major Indicators to Be Used in Future Evaluations

Same as in 4. Targeted Outcomes (1) Quantitative Effects, Performance Indicators.

(2) Evaluation Timing

After project completion