

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country: Republic of El Salvador

Project: Stand-by Loan for Natural Disaster Recovery

Loan Agreement: May 28, 2016

Loan Amount: 500 million yen

Borrower: Republic of El Salvador

2. Background and Necessity of the Project

(1) Current State and Issues of the Disaster Risk Management Sector in El Salvador

El Salvador is highly vulnerable to earthquakes, storms, floods, landslides, and other natural disasters. It is ranked 11th in the world for losses from disasters scaled by GDP (Germanwatch, 2016). Two large earthquakes struck the country in 1986 and 2001, causing more than 1,000 deaths each. The economic losses resulted from the 2001 earthquake is estimated at about 1,850 million USD (corresponding to 13.4% of the then GDP). Moreover, when Tropical Depression 12E hit El Salvador in 2011, the country experienced the heaviest rainfall in its history and suffered an economic loss of about 840 million USD (corresponding to 3.6% of the then GDP). The casualties and economic losses caused by natural disasters have become obstacles to the development of the nation.

The Government of El Salvador enacted the Law for Civil Protection and Disaster Prevention and Mitigation in 2005 as a basic law for disaster risk management. Based on this law, national, department, municipal, and community commissions for civil protection and disaster prevention and mitigation (hereinafter referred to as “civil protection commissions”) were established. Moreover, the Civil Protection and Disaster Prevention and Mitigation Fund was created to secure financial resources for recovery from natural disasters. However, the fund cannot provide sufficient support because it has only a small budget of four million USD per year and because the disbursement must be completed within 15 business days after the end of the state of emergency though longer-term loans are required to rebuild basic services and social and economic infrastructure after disasters. Thus, the problem remains how to secure financial resources for response to and recovery from natural disasters.

(2) Development Policies for the Disaster Risk Management Sector in El Salvador and the Priority of the Project

The Government of El Salvador has identified “transformation into a sustainable economy and society that is resilient to climate change impacts” as one of the goals in the National Development Plan 2014-2019. Moreover, six Central American countries<sup>1</sup>, including El Salvador, adopted the Central American Policy on Comprehensive Risk Management (hereinafter referred to as “PCGIR”<sup>2</sup>) through the Coordination Center for the Prevention of Natural Disasters in

<sup>1</sup> Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama

<sup>2</sup> Política Centroamericana de Gestión Integral de Riesgo

Central America (CEPREDENAC<sup>3</sup>), a regional framework for disaster risk management, in 2010. Each of the Member States has needed to develop its own disaster risk management policy in line with the PCGIR. The current draft of El Salvador’s national disaster risk management plan focuses on preparation for and response to natural disasters, including disaster risk management, and prioritizes the establishment of a mechanism for sustainable recovery and reconstruction. Therefore, the effort to secure financial resources for recovery through this Project is consistent with the priority of the draft national disaster risk management plan.

(3) Japan and JICA’s Policy and Operations in the Disaster Risk Management Sector.

This Project is in line with Japan’s Country Assistance Policy for El Salvador as “Disaster Prevention and Environmental Conservation for Sustainable Development” is identified as one of the priority areas in the policy. JICA has provided support for soft and hard measures to prevent and reduce vulnerability to disaster risks, combining grant aid, technical cooperation, and volunteer projects under the Program for Strengthening the Disaster Management System. These cooperation projects are classified into three categories: (i) projects to strengthen community capacity for disaster risk management; (ii) projects to strengthen the capacity of the Department of Climate Change Adaptation and Strategic Risk Management to enhance public infrastructure; and (iii) projects to strengthen capacity to analyze and address natural disasters (particularly earthquakes and tsunamis). Table 1 below shows the projects falling under the Program for Strengthening the Disaster Risk Management System.

In addition, a large earthquake hit El Salvador in 2001, and JICA dispatched a Japan Disaster Relief Medical Team, which provided clinical care in Usulután department in eastern El Salvador. JICA also provided emergency disaster relief (supplies) in 2005, 2009, and 2011, when El Salvador was stricken by hurricanes and tropical depressions<sup>4</sup>.

Table 1. Major projects completed and undergoing under the Program for Strengthening the Disaster Risk Management System in El Salvador

Category	Scheme <sup>5</sup>	Major project	Status	Project duration (yrs)
Strengthening community based disaster risk management capacities	TCP	Project on Capacity Development for Disaster Risk Management in Central America	Completed	2007-2012
	TCP	Project on Capacity Development for Disaster Risk Management in Central America (Phase 2)	Undergoing	2015-2020

<sup>3</sup> Centro de Coordinación para la Prevención de los Desastres Naturales en América Central

<sup>4</sup> El Salvador was stricken by Hurricane Stan in 2005, Hurricane Ida in 2009, and Tropical Depression 12E in 2011.

<sup>5</sup> TCP: Technical Cooperation Project; GA: Grant Aid; EXP: Individual Expert Dispatch

Capacity development of the institutions for strengthening public infrastructure	TCP	Project for the Department of Adaptation for the Climate Change and Strategic Risk Management for Strengthening of Public Infrastructure	Completed	2012-2015
	TCP	Economic Infrastructure Rehabilitation Assistance Project	Completed	2012-2013
	TCP	Project for the Department of Adaptation for the Climate Change and Strategic Risk Management for Strengthening of Public Infrastructure (Phase 2)	Planned	2016-2021
Strengthening institutional capacity to analyze and respond to disasters effectively	GA	Project for Improvement of Equipment for Disaster Risk Management	Completed	2012 <sup>6</sup>
	EXP	Project for Enhancement of Technology for the Observation of Earthquakes and Tsunamis	Undergoing	2015-2018

#### (4) Other Donors' Activity

The World Bank aims to strengthen the foundation for economic recovery. Based on this policy, the World Bank provided the Development Policy Loan with a Catastrophe Deferred Drawdown Option (CAT-DDO) to El Salvador as general budget support to meet the financial demands that will occur when a natural disaster strikes the country. The two parties signed a loan agreement in the sum of 50 million USD with a disbursement period of three years in March 2011. In October 2011, when Tropical Depression 12E caused significant damage to economic infrastructure such as roads and bridges, the Government of El Salvador decreed a state of emergency and withdrew the amount in two installments of 25 million USD each.

#### (5) Necessity of the Project

As this Project is designed to promote the policy actions required to improve the disaster risk management capacity of El Salvador, which is vulnerable to natural disasters, and provide financial support for recovery from natural disasters, the Project is consistent with the challenges facing El Salvador and in line with the development policies of the Government of El Salvador and assistance policy / analysis papers of the Government of Japan and JICA. Therefore, it is highly necessary for JICA to implement this Project.

### 3. Project Description

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

This Project aims to promote the policy actions required to improve the disaster risk management capacity of El Salvador, which is vulnerable to natural disasters, and support

<sup>6</sup> It is the year when the Grant Agreement (G/A) was signed.

the country to recover from natural disasters as soon as possible by providing financial resources for reconstruction after disasters, thereby contributing to sustainable economic and social development of the country.

(2) Project Site/Target Area

Throughout El Salvador

(3) Project Component(s)

JICA will provide technical support to the Government of El Salvador to make continuous efforts for disaster risk management in accordance with the Policy Action Matrix shown in Table 2 and monitor the policy actions on an annual basis to confirm whether disaster risk management is mainstreamed in the actions. Given that these conditions are met, this Project will disburse funds for recovery from natural disasters based on the request by the Government of El Salvador when it declares a state of emergency. The policy actions that are specified as “completed” in Table 2 had been accomplished as of August 2015.

Table 2. Policy Action Matrix

Category	Policy actions completed (as of Aug. 2015)	Policy actions to be taken (2016-2018)
<p>(i) Strengthening community-based disaster risk management capacities</p> <p>Responsible organization: General Directorate of Civil Protection (Dirección General de Protección Civil: DGPC) of Ministry of Interior and Territorial Development (Ministerio de Gobernación y Desarrollo Territorial: MIGOBDT)</p>	<p><b>【1. Plan and Policy】</b></p> <p>1-1. The National Plan for Civil Protection disaster prevention and mitigation by DGPC with the philosophy of BOSAI Project is revised.</p> <p>1-2. Work plans of communal and municipal committees of civil protection, disaster prevention and mitigation in places of higher risk are developed (community: 1631 plans, municipal: 86).</p> <p>1-3. 5 municipal plans for civil protection, prevention and mitigation of disasters are developed.</p> <p><b>【2. Information】</b></p> <p>2-1. One (1) guide for community plan of civil protection is developed.</p> <p>2-2. One (1) guide for family emergency plan is developed.</p> <p>2-3. One (1) technical guideline for pre-diagnosis of seismic risk in buildings is developed.</p>	<p><b>【2. Information】</b></p> <p>The information concerning basis for the community-based disaster risk management activities is compiled, filed, and shared at a national and regional level.</p>

	<p><b>【3. Organization】</b></p> <p>3-1. 262 municipal committees of civil protection, disaster prevention and mitigation are established.</p> <p>[5. Human resource development]</p> <p>5-1. Strengthened the capacity of DGPC staff to deliver training and raise awareness of community-based disaster risk management (229 technical experts and 56 trainers)</p> <p>5-2. Enhanced the knowledge and skills of residents on community-based disaster risk management</p>	<p><b>【3. Organization】</b></p> <p>3-1. The organization to promote the activities of the community-based disaster risk management in a sustainable manner is strengthened.</p> <p><b>【4.Operation】</b></p> <p>4-1. The Community-based disaster risk management is strengthened, and the information about lessons and findings of the activities are compiled for public use.</p> <p><b>【5. Training】</b></p> <p>5-1. The training capacity for the community-based disaster risk management is strengthened.</p>
<p>(ii) Capacity development of the institutions for strengthening public infrastructure</p> <p>Responsible organization: Department of Climate Change Adaptation and Strategic Risk</p>		<p><b>【1. Plan and Policy】</b></p> <p>1-1. A Sector policy and a plan for disaster risk reduction and climate change are developed.</p> <p>1-2. A supervision plan for sustainable management of rainwater in the Metropolitan Area of San Salvador is developed.</p>

Management (Dirección de Adaptación Al Cambio Climático y Gestión Estratégica del Riesgo: DACGER) of Ministry of Public Works, Transportation, Housing and Urban Development (Ministerio de Obras Públicas, Transporte, Vivienda y Desarrollo Urbano: MOPTVDU)

**【2. Information】**

- 2-1. A manual for systematic evaluation of damage to infrastructure during emergencies by MOPTVDU is developed.
- 2-2. Five (5) technical manuals for disaster risk reduction in public infrastructures are developed.
- 2-3. Manuals for regional use are presented to SIECA for its review.
- 2-4. A national conference (2013) and a regional conference (2014) of Adaptation to Climate Change and Disaster Risk Reduction for Public Infrastructure are held.
  - i. Participants for National Conference: 129
  - ii. Participants for Regional Conference: 259

**【4.Operation】**

- 4-1. Prioritization of disaster risk reduction works of bridges, roads, secondary and primary drains to extreme rainfall is done.
- 4-2. 84 works of bridges, roads, secondary and primary drains which affected by the impact of storms 2009-2015 are implemented with consultation of DACGER.

**【5. Training】**

- 5-1. Engineers of MOPTVDU are trained using manual for evaluation of damage during emergencies.

**【2. Information】**

- 2-1. Technical support for SIECA to make the manual of hydrology and hydraulics for roads for Central America is provided.

**【4.Operation】**

- 4-1. Capacity of MOPTVDU and DACGER for technical diagnostics of the risks (rainfall and earthquake) in road infrastructure is strengthened (Project GENSAI fase II).

**【5. Training】**

Collaboration between DACGER and SIECA to disseminate disaster risk reduction at the regional level is strengthened.

**(ii)** Strengthening institutional capacity to analyze and respond to disasters effectively

**【2. Information】**

Earthquake monitoring is performed precisely using the new stations.

<p>Responsible organization: General Directorate of Environmental Observatory (Dirección General del Observatorio Ambiental: DGOA) of Ministry of Environment and Natural Resources (Ministerio de Medio Ambiente y Recursos Naturales: MARN), and DGPC-MIGOBTD</p>	<p><b>【3. Organization】</b></p> <p>3-1. The number of monitoring stations of natural disasters including meteorological radars network is increased.</p> <p>3-2. Monitoring center of natural disasters for 24 hours is established.</p> <p>3-3. The local community capacity is strengthened through the creation of local observer's network with 600 persons.</p> <p><b>【4. Operation】</b></p> <p>4-1. Earthquakes and tidal are monitored, and related information is issued using the equipment, accelerometers (11) broadband stations (5) GPS stations (3), tide gauge stations (1) and webcam monitoring (2) that they have been installed at the end of July 2014.</p> <p><b>【5. Training】</b></p> <p>5-1. Human resources of observatory are trained regarding seismology, GPS and tides.</p>	<p><b>【5. Training】</b></p> <p>5-1. Workshops to strengthen the capacity of monitoring, early warning systems and network of local observers for earthquakes and tidal are held by DGPC and DGOA / MARN.</p> <p>5-2. A training system of DGOA / MARN to monitor earthquakes and tsunamis is established together with JICA expert on "Enhancement of Technology for the Observation of Earthquakes and Tsunamis"</p>
<p>(iv) Mainstreaming disaster risk management</p>	<p><b>【1. Plan and Policy】</b></p> <p>1-1. Disaster risk reduction plans such as Rainy Season Plan are created.</p>	

<p>Responsible organization: Ministry of Finance (Ministerio de Hacienda), DGPC-MIGOBDT, MOPTVDU (DACGER and Department of Housing and Urban Development (Viceministerio de Vivienda y Desarrollo Urbano: VMVDU)), MARN, and Secretariat for Vulnerability Issues (Secretaría para Asuntos de Volunerabilidad: SAV)</p>	<p><b>【3. Organization】</b></p> <p>3-1. Secretariat for Vulnerability Affairs is established directly under the presidential decree in January 2011</p> <p>3-2. DACGER is established in MOPTVDU in December 2010 to strengthen public infrastructure against the risks caused by climate change, by the executive agreement by MOPTVDU.</p> <p>3-3. The commission of Urban Developments and public investment is established.</p>	<p><b>【3. Organization】</b></p> <p>3-1. National Council for environmental sustainability and vulnerability is established.</p> <p>Collaborations among related institutions on disaster risk reduction are strengthened.</p>
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(4) Estimated Project Cost (Loan Amount)

500 million Yen (Loan Amount : 500 million Yen)

(5) Schedule

This Project is scheduled to support policy actions from January 2016 to December 2018, and the policy actions are to be accomplished by August 2015 and December 2018. The loan is to be disbursed for three years after the effective date of the Loan Agreement. This Project is deemed complete when the loan amount is fully disbursed or when the disbursement period is expired (the period can be extended four times up to a total of 15 years). Government expenditures after November 25, 2015 can be retroactively financed by this Project.

(6) Project Implementation Structure

1) Borrower : Republic of El Salvador

2) Executing Agency : Ministry of Finance (Ministerio de Hacienda)

3) Operation and Maintenance System: The Project promotes to implement the policy action matrix. As monitoring of implementation of the matrix, Ministry of Finance receives information from each responsible organization and reports the progress of the implementation to JICA. Ministry of Finance confirms the progress once a year at a monitoring meeting.

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

1) Environmental and Social Consideration

Category: C

Reason for Categorization: This Project is classified as Category C in accordance with the JICA Guidelines for Environmental and Social Considerations (published in April



2010) because it is likely to have a minimal adverse impact on the natural environment.

2) Transversal issues

Climate Change-Related Project: There are concerns that El Salvador is becoming increasingly vulnerable to floods and other natural disasters caused by climate change. This Project can contribute to adaptation to climate change by supporting policy actions for disaster risk reduction and management as well as financing recovery from large-scale natural disasters.

Promotion of Poverty Reduction: Poor and other vulnerable people who are most susceptible to the adverse impact of disasters are likely to receive special consideration in community-based disaster risk management activities as mentioned above. Therefore, this Project is classified as a poverty-integrated project.

Measures for Infectious Diseases including HIV/AIDS: None

Participatory Development / Consideration for the Handicapped, etc.: None

3) Gender Category

Gender category: Gender-integrated project

Reason for Categorization: This Project is classified as a gender-integrated project because gender considerations are integrated into the activities to (i) strengthen community capacity for disaster risk management and (iv) mainstream disaster risk management as specified in the Policy Action Matrix.

(8) Collaboration with Other Donors: None

(9) Other Important Issues: This Project is expected to facilitate the implementation of the Sendai Disaster Risk Reduction Framework advocated by the Government of Japan and adopted at the Third United Nations World Conference on Disaster Risk Reduction, including the mainstreaming of disaster risk management in all sectors and proactive investment in disaster resilience.

4. Targeted Outcomes
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(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicator)

Category	Indicator	Baseline (Actual value in 2015)	Target (in 2018, when the policy actions are completed)

(i) Strengthening community-based disaster risk management capacities	To be determined in Q2 2016 <sup>7</sup>	-	-
(ii) Capacity development of the institutions for strengthening public infrastructure	Formulation of a policy and a plan for the disaster risk reduction/climate change sector	-	A policy and a plan are formulated.
	Formulation of a sustainable rainwater management plan	-	The plan is formulated.
	Development of a manual of hydrology and hydraulics for roads for Central America	0	The manual is developed.
	Number of technical diagnostics of the risks (rainfall and earthquake)	0	60
	Holding of a regional conference in the Project for the Department of Adaptation for the Climate Change and Strategic Risk Management for Strengthening of Public Infrastructure (Phase 2)	-	The regional conference is held.
(iii) Strengthening institutional capacity to analyze and respond to disasters effectively	Improvement of the shakemap	-	The shakemap is improved.
	Update of earthquake archive	-	The earthquake archive is updated.
	Revision of the manual of procedure for transmitting information of earthquakes and tsunami	-	The manual is revised.
	Number of workshops held by the MARN and DGPC for monitoring of earthquakes and tide levels etc	0	6

<sup>7</sup> The indicator and its target are to be determined after the detailed action plan of the Technical Cooperation Project on Capacity Development for Disaster Risk Management in Central America (Phase 2) is formulated in the second quarter of 2016.

	Planning of training to strengthen capacity to monitor earthquakes and tsunamis	-	The training plan is drafted.
(iv) Mainstreaming disaster risk management	Number of meetings of the national commission on sustainable environmental management and vulnerabilities	0	2
	Number of meetings of the joint coordination committee of the Project on Capacity Development for Disaster Risk Management in Central America (Phase 2)	0	3

(2) Qualitative Effects

Strengthening disaster risk reduction / management capacity at the national, municipal, and community levels; accelerating disaster recovery projects based on the “build back better” concept; and rebuilding and stabilizing the lives of the affected people in El Salvador

5. External Factors and Risk Control

None

6. Lessons Learned from Past Projects

(1) Results of Evaluation of Similar Past Projects

Previous projects for recovery from hurricanes and other natural disasters taught a lesson that it is essential to meet the financial needs immediately after disasters.

(2) Lessons for the Project

Based on the above lesson, this Project is designed to promote comprehensive measures, not only by rapidly disbursing the Project’s funds when a natural disaster occurs but also by providing technical cooperation to strengthen and mainstream disaster risk management to meet the local needs immediately and properly.

7. Plan for Future Evaluation

(1) Indicators to be Used: Shown in the Performance Indicators, (1) Quantitative Effects, 4. Targeted Outcomes above.

(2) Timing: After project completion

(END)