

RECORD OF DISCUSSIONS  
BETWEEN  
THE RESIDENT REPRESENTATIVE OF JICA NICARAGUA OFFICE AND  
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF NICARAGUA  
ON JAPANESE TECHNICAL COOPERATION  
FOR THE PROJECT ON CAPACITY DEVELOPMENT FOR DISASTER RISK  
MANAGEMENT IN CENTRAL AMERICA "BOSAI"

The Resident Representative of the Japan International Cooperation Agency (hereinafter referred to as "JICA") in Nicaragua exchanged views and had a series of discussions with the Nicaraguan authorities concerned with respect to desirable measures to be taken by JICA and Nicaraguan Government for the successful implementation of the Project on Capacity Development for Disaster Risk Management in Central America "BOSAI".

As a result of the discussions, and in accordance with the provisions of the Agreement on Technical Cooperation between the Government of Japan and the Government of Nicaragua, signed in Managua on May 30th, 2001 (hereinafter referred to as "the Agreement"), the Resident Representative of JICA and Nicaraguan authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Done in duplicate in the English and Spanish languages, each text shall be equally authentic. In case of any divergence of interpretation, the English text shall prevail.

Managua, December 2<sup>nd</sup>, 2008

Kiyofumi NAKAUCHI  
Resident Representative,  
Japan International Cooperation Agency  
Nicaragua Office

J. Ramón Arnesto S.  
Executive Secretary  
SE-SINAPRED  
Nicaragua

Lic. Valdrack Ludwing Jaentschke Whitaker  
Vice Ministro - Secretario de Cooperación Externa  
del Ministerio de Relaciones Exteriores de la  
República de Nicaragua

## THE ATTACHED DOCUMENT

## I. COOPERATION BETWEEN JICA AND NICARAGUAN GOVERNMENT

1. The Government of Nicaragua will implement the Project on Capacity Development for Disaster Risk Management in Central America “BOSAI” (hereinafter referred to as “the Project”) in cooperation with JICA and the Executive Secretariat of the Center of Coordination for the Prevention of Natural Disaster in Central America (hereinafter referred to as “SE-CEPREDENAC”).
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

## II. MEASURES TO BE TAKEN BY JICA

In accordance with the laws and regulations in force in Japan and the provisions of Article III of the Agreement, JICA, as the executing agency for technical cooperation by the Government of JAPAN, will take, at its own expense, the following measures according to the normal procedures of its technical cooperation scheme.

## 1. DISPATCH OF JAPANESE EXPERTS

JICA will provide the services of the Japanese experts as listed in Annex II. The provision of Articles V, VI and VII of the Agreement will be applied to the above-mentioned experts.

## 2. PROVISION OF MACHINERY AND EQUIPMENT

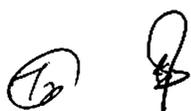
JICA will provide such machinery, equipment and other materials (hereinafter referred to as “the Equipment”) necessary for the implementation of the Project as listed in Annex III. The provision of Article VIII of the Agreement will be applied to the Equipment.

## 3. TRAINING OF NICARAGUAN PERSONNEL IN JAPAN

JICA will receive the Nicaraguan personnel connected with the Project for technical training in Japan and third countries.

## III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF NICARAGUA

1. The Government of Nicaragua will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese technical



cooperation, through full and active involvement in the Project by all related authorities, beneficiary groups and institutions.

2. The Government of Nicaragua will ensure that the technologies and knowledge acquired by the Nicaraguan nationals as a result of the Japanese technical cooperation will contribute to the economic and social development of Nicaragua.
3. In accordance with the provisions of Article VI of the Agreement, the Government of Nicaragua will grant in Nicaragua privileges, exemptions and benefits to the Japanese experts referred to in II-1 above and their families.
4. In accordance with the provisions of Article VIII of the Agreement, the Government of Nicaragua will take the measures necessary to receive and use the Equipment provided by JICA under II-2 above and equipment, machinery and materials carried in by the Japanese experts referred to in II-1 above.
5. The Government of Nicaragua will take necessary measures to ensure that the knowledge and experience acquired by their personnel from technical training in Japan and third countries will be utilized effectively in the implementation of the Project.
6. In accordance with the provision of Article V of the Agreement, the Government of Nicaragua will provide the services of Nicaraguan counterpart personnel and administrative personnel as listed in Annex IV.
7. In accordance with the provision of Article V of the Agreement, the Government of Nicaragua will provide the buildings and facilities as listed in Annex V.
8. In accordance with the laws and regulations in force in Nicaragua, the Government of Nicaragua will take necessary measures to supply or replace at its own expense machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the Equipment provided by JICA under II-2 above.
9. In accordance with the laws and regulations in force in Nicaragua, the Government of Nicaragua will take necessary measures to meet the running expenses necessary for the implementation of the Project.

#### IV. ADMINISTRATION OF THE PROJECT



1. Executive Secretary of National System for the Prevention, Mitigation and Attention of Disasters (hereinafter referred to as “SINAPRED”), as the Project Director in Nicaragua, will bear the overall responsibility for the administration and implementation of the Project within Nicaragua.
2. The Director of Management and Development of SINAPRED, as the Project Manager in Nicaragua, will be responsible for the managerial and technical matters of the Project within Nicaragua.
3. The Executive Secretary of SE-CEPREDENAC, as the Regional Coordinator, will be responsible for the coordination and knowledge/information sharing among CEPREDENAC member counties, as well as the implementation of regional level activities of the Project.
4. The Japanese Chief Advisor will provide necessary recommendations and advice to the Project Director, the Project Manager and the Regional Coordinator on any matters pertaining to the implementation of the Project.
5. The Japanese experts will give necessary technical guidance and advice to the counterpart personnel of the Project on technical matters pertaining to the implementation of the Project.
6. For the effective and successful implementation of technical cooperation for the Project, a Joint Coordinating Committee (hereinafter referred to as “JCC”) will be established whose functions and composition are described in Annex VI. JCC meetings will be held in one of the CEPREDENAC member countries, and the host country will be determined for each meeting.

## V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by JICA, Nicaraguan authorities concerned, and SE-CEPREDENAC at the middle and during the last six months of the cooperation term in order to examine the level of achievement.

## VI. CLAIMS AGAINST JAPANESE EXPERTS

In accordance with the provision of Article VII of the Agreement, the Government of Nicaragua undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from, occurring in the course of, or otherwise



connected with the discharge of their official functions in Nicaragua except for those arising from the willful misconduct or gross negligence of the Japanese experts.

## VII. MUTUAL CONSULTATION

There will be mutual consultation between JICA, Nicaraguan Government and SE-CEPREDENAC on any major issues arising from, or in connection with this Attached Document.

## VIII. MEASURES TO PROMOTE UNDERSTANDING OF AND SUPPORT FOR THE PROJECT

For the purpose of promoting support for the Project among the people of Nicaragua, the Government of Nicaragua will take appropriate measures to make the Project widely known to the people of Nicaragua.

## IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document shall be from December 2<sup>nd</sup>, 2008 to May 29<sup>th</sup>, 2012.

ANNEX I	MASTER PLAN
ANNEX II	LIST OF JAPANESE EXPERTS
ANNEX III	LIST OF MACHINERY AND EQUIPMENT
ANNEX IV	LIST OF COUNTERPART AND ADMINISTRATIVE PERSONNEL
ANNEX V	LIST OF BUILDINGS AND FACILITIES
ANNEX VI	JOINT COORDINATING COMMITTEE



## ANNEX I MASTER PLAN

The project will be implemented in accordance with the Master Plan as follows.

### 1. Title of the Project

The Project on Capacity Development for Disaster Risk Management in Central America, "BOSAI"

### 2. Overall Goal

Information, knowledge, and methodologies on local disaster risk management in Central America are commonly utilized in different areas in the region.

### 3. Project Purpose

Communities' and municipal authorities' capacity for disaster risk management is strengthened in the target areas, and the capacity of CEPREDENAC members for promoting local disaster risk management is strengthened.

### 4. Outputs

- (1) The mechanism for disaster response and disaster risk reduction is strengthened in target communities in collaboration with inhabitants, community organizations, and municipal authorities.
- (2) Knowledge of disaster risk management is promoted in target communities.
- (3) Emergency response and disaster risk reduction goals, tools, and activities are included in the Municipal Development Plans among target areas.
- (4) Capacity for promoting local disaster risk management is enhanced in national disaster management and research institutions in each country and SE-CEPREDENAC.
- (5) Mechanism for disseminating and replicating processes, outcomes, and lessons of the Project to other areas in Central America is established.

### 5. Activities

- (1)-1 Identify/establish community groups for the implementation of the project.
- (1)-2 Conduct risk assessment in the project areas with community initiative, including monitoring of major hazards, disaster recurrence, vulnerability assessment, socio-economic characteristics, regulations on land utilization, etc.
- (1)-3 Elaborate an emergency response plan and risk reduction plan in communities and municipalities.
- (1)-4 Prepare risk maps in the project sites according to (1)-3.
- (1)-5 Establish an appropriate early-warning system in the selected project sites.
- (1)-6 Involve ex-trainees and municipal and national disaster management staff as facilitators

of the activities as mentioned above.

- (1)-7 Analyze and document the process of the project activities.
- (2)-1 Prepare emergency response and disaster risk reduction manuals/ guidelines with community groups and facilitators in the project site, in accordance with official national plans and risk management systems.
- (2)-2 Conduct participatory workshops on emergency response and disaster risk reduction by utilizing manuals/guidelines prepared in activity (2)-1.
- (2)-3 Raise awareness of school teachers and pupils in schools of project sites by utilizing the manuals/guidelines prepared in activity (2)-1.
- (2)-4 Conduct emergency drills regularly.
- (2)-5 Monitor the implementation of project activities every semester and report results to the Joint Coordination Committee (JCC).
- (2)-6 Present the results of project activities to the target communities, their municipal authorities, and community organizations.
- (3)-1 Staff of the target municipal authorities participates in “Disaster Control in Central America” training program in Japan in order to strengthen capacity for emergency response and disaster risk reduction. (See Activity (4)-1)
- (3)-2 Hold seminars and workshops on planning of disaster risk management for management personnel in local government by utilizing the ex-trainees coming back from Japan as facilitators.
- (3)-3 Draft and deliver action plans on municipal emergency response and disaster risk reduction under the leadership of national institutions in collaboration with ex-trainees and management personnel in local governments, and conduct follow-up programs.
- (4)-1 Staff of CEPREDENAC members (one from the national level in each country and one from SE-CEPREDENAC) participates in “Disaster Control in Central America” training program in Japan. (See Activity (3)-1)
- (4)-2 Staff of CEPREDENAC member countries and Executive Secretariat of the CEPREDENAC, participates in the third-country training programs in Mexico and other countries.
- (4)-3 Establish, revise, and modify the database that integrates the progresses, results, achievements, lessons, experiences, and resources of the Project related to emergency response, disaster risk reduction, and research outcomes in each country.
- (4)-4 Formulate and implement a training program for data analysts.
- (4)-5 Collect data and information in each project site and feed this information into the database.
- (4)-6 Prepare white paper that includes events and achievements on emergency response, legal framework, risk management strategies, and project results in Central America under responsibility of the national institutions for disaster management in each country in coordination with SE-CEPREDENAC.

- (5)-1 Strengthen alumni network on “Disaster Control in Central America” for ex-trainees coming back from Japan.
- (5)-2 Conduct forums that allow exchanges of knowledge and lessons learned in project sites and other related areas in Central America.
- (5)-3 Present the results of the project to the representatives of the national institutions for disaster management in Central America under the leadership of SE-CEPREDENAC.
- (5)-4 Elaborate pamphlets on good practices of local disaster risk management developed in the Project, and distribute them to the personnel related to disaster risk management in local governments in other areas.
- (5)-5 Distribute the manuals/guidelines prepared in activity (2)-1 to neighboring municipalities and communities, and explain how to elaborate and utilize such manuals/guidelines in their respective localities.
- (5)-6 Provide the database information established in activity (4)-3 through Internet.

**Remark**

Underlined parts in inputs and activities are related to the components of training programs in Japan and third countries as well as dispatch of a Japanese expert for CEPREDENAC. These components are invariable inputs and activities, and the project, per se, cannot control them. Therefore, the evaluation study of this project is going to be conducted except underlined parts.

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## ANNEX II LIST OF JAPANESE EXPERTS

Fields to be covered by the Japanese experts are as follows. Both long-term and short-term experts will undertake their activities in some or all of CEPREDENAC member countries.

a. Long-term experts

- Chief Advisor
- Community-based Disaster Management

b. Short-term experts

- Integrated Watershed Management and Flood Control
- Earthquake Risk
- Landslide Risk
- Volcano Risk
- Tsunami Risk
- Other fields as required



### ANNEX III LIST OF MACHINERY AND EQUIPMENT

1. Equipment for the implementation of activities in target areas
2. Equipment for the accumulation and the dissemination of the information acquired through the project activities

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## ANNEX IV LIST OF COUNTERPART AND ADMINISTRATIVE PERSONNEL

### 1. Administrative Personnel

#### (1) Project Director in Nicaragua

Executive Secretary of SINAPRED

#### (2) Project Manager in Nicaragua

Director of Management and Development, SINAPRED

### 2. Counterparts

#### (1) National level

SE-SINAPRED:

- Director of Preparation for the Response
- Director of Prevention and Territorial Attention
- Director de Organization y Operaciones
- Responsible of Public Relation

#### (2) In target areas

- General Director of Environmental Management of Municipal Office of Leon
- Department of Risk Management of Municipal Office of Leon

### 3. Collaboration Institution

- Nicaraguan Institute of Territorial Study (INETER).  
Technical Office of Geophysics

### 4. Other institutions and organizations will be defined after the beginning of the Project.



## **ANNEX V LIST OF BUILDINGS AND FACILITIES**

1. Buildings and facilities necessary for the implementation of the Project
2. Office space, furniture and facilities necessary for the activities of Japanese experts and meetings
3. Other facilities mutually agreed upon as necessary

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## ANNEX VI JOINT COORDINATING COMMITTEE

The Joint Coordinating Committee (JCC), whose functions and composition are indicated as follows, will be established for the smooth and effective implementation of the Project.

### 1. Functions

The JCC will meet at least twice a year and whenever the necessity arises, in order to fulfill the following functions;

- (1) To formulate the annual work plan of the Project
- (2) To review the progress of the annual work plan and the overall progress of the Project
- (3) To review and exchange opinions on major issues that may arise during the implementation of the Project
- (4) To discuss any other issue(s) pertinent to smooth implementation of the Project

### 2. Composition

#### (1) Chairperson:

- Project Director of the host country of the JCC meeting

#### (2) Members:

##### a. Central American side:

- Project Directors of the CEPREDENAC member countries
- Project Managers of the CEPREDENAC member countries
- Regional Coordinator

##### b. Japanese side:

- Project Chief Advisor (Expert for the Project)
- Program Coordinator (Expert for SE-CEPREDENAC)
- Resident Representatives of JICA Offices in CEPREDENAC member countries

#### (3) Observers

The following person(s) may attend the JCC as observer(s)

- Representative(s) of the Embassy of Japan in CEPREDENAC member countries
- Representative(s) of Plan Puebla Panama (PPP) in Panama
- Representative(s) of the headquarters, national and overseas offices of JICA
- Other persons invited by the Chairperson of the JCC

NOTE: JCC decisions will be made by consensus. Observers may provide comments for JCC, but do not have votes for making decisions.



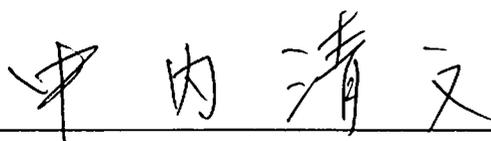
**REGISTRO DE LAS DISCUSIONES  
ENTRE EL REPRESENTANTE RESIDENTE DE LA OFICINA DE JICA EN  
NICARAGUA Y LAS AUTORIDADES PERTINENTES DEL GOBIERNO DE  
NICARAGUA EN TORNO A LA COOPERACIÓN TÉCNICA DEL JAPÓN PARA EL  
PROYECTO DE DESARROLLO DE CAPACIDADES PARA LA GESTIÓN DE RIESGOS  
DE DESASTRES EN AMÉRICA CENTRAL “BOSAI”**

El Representante Residente de la Agencia de Cooperación Internacional del Japón (en adelante “JICA”) en Nicaragua intercambió puntos de vista y sostuvo una serie de discusiones con las autoridades pertinentes de Nicaragua con respecto a las medidas deseadas a tomar por JICA y el Gobierno de Nicaragua para la exitosa ejecución del Proyecto de Desarrollo de Capacidades para la Gestión de Riesgos de Desastres en América Central “BOSAI”.

Como resultado de las discusiones, y de acuerdo con las disposiciones del Acuerdo de Cooperación Técnica entre el Gobierno del Japón y el Gobierno de Nicaragua, firmado en Managua el 30 de mayo del 2001 (en adelante “el Acuerdo”), el Representante Residente de JICA y las autoridades pertinentes de Nicaragua acordaron recomendar a sus respectivos gobiernos los asuntos tratados en el documento adjunto a la presente.

Elaborados por duplicado tanto en idioma español como en inglés, ambos textos son igualmente auténticos. En caso de cualquier divergencia de interpretación, debe prevalecer el texto en inglés.

Managua, 2 de Diciembre, 2008



Kiyofumi NAKAUCHI  
Representante Residente  
Agencia de Cooperación Internacional del Japón  
Oficina en Nicaragua



J. Ramón Arnesto S.  
Secretario Ejecutivo  
SE-SINAPRED  
República de Nicaragua



Lic. Valdrack Ludwing Jaentschke Whitaker  
Vice Ministro - Secretario de Cooperación Externa  
del Ministerio de Relaciones Exteriores de la  
República de Nicaragua

**DOCUMENTO ADJUNTO****I. COOPERACIÓN ENTRE JICA Y EL GOBIERNO DE NICARAGUA**

1. El Gobierno de Nicaragua ejecutará el Proyecto de Desarrollo de Capacidades para la Gestión de Riesgos de Desastres en América Central “BOSAI” (en adelante “el Proyecto”) en cooperación con JICA y la Secretaría Ejecutiva del Centro de Coordinación para la Prevención de los Desastres Naturales en América Central (en adelante “SE-CEPREDENAC”)
2. El Proyecto se implementará de acuerdo con el Plan Maestro presentado en el Anexo I.

**II. MEDIDAS A ADOPTAR POR JICA**

De acuerdo con las leyes y reglamentaciones vigentes en Japón y las disposiciones del artículo III del Acuerdo, JICA, en calidad de agencia ejecutora de la cooperación técnica del Gobierno del Japón, adoptará a sus expensas las siguientes medidas, de acuerdo con los procedimientos normales de sus esquemas de cooperación técnica.

**1. ENVÍO DE EXPERTOS JAPONESES**

JICA proveerá los servicios de los expertos japoneses detallados en la lista del Anexo II. La disposición del artículo V, VI, y VII del Acuerdo será aplicada a los referidos expertos.

**2. SUMINISTRO DE MAQUINARIAS Y EQUIPOS**

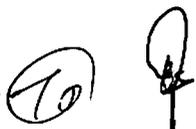
JICA suministrará las maquinarias, equipos y demás materiales (en adelante “los Equipos”) detallados en la lista del Anexo III necesarios para la ejecución del Proyecto. La disposición del artículo VIII del Acuerdo será aplicada a los Equipos.

**3. CAPACITACIÓN DE PERSONAL NICARAGÜENSE EN JAPÓN**

JICA recibirá al personal nicaragüense relacionado con el Proyecto para su capacitación técnica en Japón y en los terceros países.

**III. MEDIDAS A ADOPTAR POR EL GOBIERNO DE NICARAGUA**

1. El Gobierno de Nicaragua adoptará las medidas necesarias para garantizar que la ejecución auto-sustentada del Proyecto sea mantenida durante y después del periodo de la cooperación



técnica japonesa, a través de la participación plena y activa de todas las autoridades, instituciones y grupos beneficiarios vinculados con el Proyecto.

2. El Gobierno de Nicaragua garantizará que las tecnologías y conocimientos adquiridos por los ciudadanos nicaragüenses como resultado de la cooperación técnica japonesa contribuya al desarrollo económico y social de Nicaragua.
3. De acuerdo con las disposiciones del artículo VI del Acuerdo, el Gobierno de Nicaragua otorgará privilegios, exenciones y beneficios en Nicaragua a los expertos japoneses citados anteriormente en II-1 y a sus familias.
4. De acuerdo con las disposiciones del artículo VIII del Acuerdo, el Gobierno de Nicaragua adoptará las medidas necesarias para recibir y utilizar los Equipos suministrados por JICA según se menciona en II-2, y los equipos, maquinarias y materiales traídos por los expertos japoneses referidos anteriormente en II-1.
5. El Gobierno de Nicaragua adoptará las medidas necesarias para garantizar que los conocimientos y las experiencia adquiridas por su personal como resultado de la capacitación técnica recibida en Japón y los terceros países sean utilizados efectivamente para la ejecución del Proyecto.
6. Conforme con lo dispuesto por el artículo V del Acuerdo, el Gobierno de Nicaragua proporcionará los servicios del personal nicaragüense de contraparte y del personal administrativo detallados en la lista del Anexo IV.
7. De acuerdo con lo dispuesto por el artículo V del Acuerdo, el Gobierno de Nicaragua proporcionará los edificios e instalaciones detallados en la lista del Anexo V.
8. De acuerdo con las leyes y reglamentaciones vigentes en Nicaragua, el Gobierno de Nicaragua adoptará las medidas necesarias para proveer o reemplazar bajo su cargo las maquinarias, equipos, instrumentos, vehículos, herramientas, repuestos y cualquier otro material necesario para la ejecución del Proyecto, aparte de los Equipos proporcionados por JICA según lo mencionado anteriormente en II-2.
9. De acuerdo con las leyes y reglamentaciones vigentes en Nicaragua, el Gobierno de Nicaragua adoptará las medidas necesarias para sufragar los gastos comunes requeridos para la ejecución del Proyecto.



#### IV. ADMINISTRACIÓN DEL PROYECTO

1. El Secretario Ejecutivo de Sistema Nacional para la Prevención, Mitigación y Atención de Desastres (en adelante “SINAPRED”), como Director del Proyecto en Nicaragua, asumirá la responsabilidad general de la administración y ejecución del Proyecto en Nicaragua.
2. La directora de Gestión y Desarrollo de SINAPRED, como Gerente del Proyecto en Nicaragua, será responsable de los aspectos gerenciales y técnicos de la ejecución del Proyecto en Nicaragua.
3. El Secretario Ejecutivo de SE-CEPREDENAC, en calidad de Coordinador Regional, será responsable de la coordinación y intercambio de conocimientos/informaciones entre los países miembros de CEPREDENAC, así como la implementación de las actividades regionales del Proyecto.
4. El Asesor Principal japonés hará las recomendaciones necesarias y asesorará a los Directores y Gerentes del Proyecto, y Coordinador Regional en los aspectos relativos a la ejecución del Proyecto.
5. Los expertos japoneses proporcionarán la orientación técnica y asesoría necesarias al personal de contraparte del Proyecto en los aspectos técnicos vinculados con la ejecución del Proyecto.
6. Para la ejecución efectiva y exitosa de la cooperación técnica para el Proyecto, se establecerá un Comité Mixto de Coordinación (en adelante “JCC”), cuya composición y funciones están descritas en el Anexo VI. Las reuniones del JCC se llevarán a cabo en uno de los países Miembros del CEPREDENAC y el país huésped será determinado en cada reunión.

#### V. EVALUACIÓN CONJUNTA

La evaluación del Proyecto será realizada conjuntamente por JICA, las autoridades pertinentes de Nicaragua, y SE-CEPREDENAC a mitad y durante los últimos seis meses del período de cooperación con el fin de examinar el nivel de resultados.



## VI. RECLAMOS CONTRA LOS EXPERTOS JAPONESES

De acuerdo con lo dispuesto por el artículo VII del Acuerdo, el Gobierno de Nicaragua toma bajo su cargo los reclamos que puedan surgir en contra de los expertos japoneses que participan en la cooperación técnica para el Proyecto, como resultado o durante el curso del éste, o de alguna manera vinculados con el desempeño de sus funciones oficiales en Nicaragua, excepto de aquellos que se produzcan por conductas malintencionadas o negligencia grave por parte de los expertos japoneses.

## VII. CONSULTAS MUTUAS

Habrá consultas mutuas entre JICA, el Gobierno de Nicaragua y SE-CEPRENAC sobre cualquier asunto de importancia que surja o esté vinculado con este Documento Adjunto.

## VIII. MEDIDAS PARA PROMOVER LA COMPRENSIÓN Y EL APOYO PARA EL PROYECTO

A fin de promover el apoyo de la población nicaragüense para el Proyecto, el Gobierno de Nicaragua adoptará las medidas apropiadas para que los ciudadanos nicaragüenses adquieran amplio conocimiento del Proyecto.

## IX. PERIODO DE LA COOPERACIÓN

El período de cooperación técnica para el Proyecto según el presente Documento Adjunto será del 2 de Diciembre 2008 al 29 de Mayo de 2012.

ANEXO I	PLAN MAESTRO
ANEXO II	LISTA DE EXPERTOS JAPONESES
ANEXO III	LISTA DE MAQUINARIAS Y EQUIPOS
ANEXO IV	LISTA DEL PERSONAL DE CONTRAPARTE Y ADMINISTRATIVO
ANEXO V	LISTA DE EDIFICIOS E INSTALACIONES
ANEXO VI	COMITÉ DE COORDINACIÓN CONJUNTO

## ANEXO I PLAN MAESTRO

El Proyecto se ejecutará de acuerdo con el Plan Maestro de la siguiente manera:

### 1. Título del Proyecto

Proyecto de Desarrollo de Capacidades para la Gestión de Riesgos de Desastres en América Central “BOSAI”.

### 2. Objetivo Superior

Uso en común de información, conocimientos y metodologías sobre la gestión local de riesgos de desastres en las diferentes áreas de la Región.

### 3. Propósito del Proyecto

Fortalecer las capacidades de las comunidades y de las autoridades municipales para la gestión de riesgos de desastres en las áreas enfocadas, y fortalecer las capacidades de los miembros de CEPREDENAC para promover la gestión local de riesgos de desastres.

### 4. Resultados Esperados

1. Fortalecimiento de los mecanismos de respuesta a desastres y reducción de riesgos en las comunidades enfocadas en colaboración con la población, las organizaciones comunitarias y las autoridades municipales.
2. Promoción de los conocimientos en gestión de riesgos de desastres en las comunidades enfocadas.
3. Integración de las metas, los instrumentos y las actividades de respuesta a emergencia y reducción de riesgos de desastres en los Planes Municipales de Desarrollo en las áreas enfocadas.
4. Aumento de las capacidades para promover la gestión local de riesgos de desastres en las instituciones nacionales de gestión e investigación de desastres en cada país y en la SE-CEPREDENAC.
5. Establecer los mecanismos para diseminar y repetir en otras áreas de América Central los procesos, resultados y lecciones aprendidas del Proyecto.

### 5. Actividades del Proyecto

- (1)-1 Identificar/establecer los grupos comunitarios para la ejecución del Proyecto.
- (1)-2 Realizar con la iniciativa comunitaria una evaluación de riesgos en las áreas del Proyecto, incluyendo observación de las principales amenazas, frecuencia de los desastres, estimación de las vulnerabilidades, características socio-económicas, regulaciones sobre la utilización del terreno, etc.
- (1)-3 Elaborar un plan de respuesta a emergencias y un plan de reducción de riesgos tanto en las comunidades como en las municipalidades.
- (1)-4 Preparar mapas de riesgos en las áreas del Proyecto, de acuerdo con los resultados del punto (1)-3.
- (1)-5 Establecer un sistema apropiado de alerta inmediata en las áreas del Proyecto seleccionadas.
- (1)-6 Involucrar a los ex-becarios, y a los funcionarios municipales y nacionales en la gestión de desastres, como facilitadores de las actividades mencionadas anteriormente.

- (1)-7 Analizar y registrar el proceso de las actividades del Proyecto.
- (2)-1 Preparar junto con los grupos comunitarios y facilitadores en las áreas del Proyecto, manuales/directrices de respuesta a emergencias y reducción de riesgos, de acuerdo con los planes nacionales oficiales y los sistemas de gestión de riesgos.
- (2)-2 Realizar talleres participativos sobre respuesta a emergencias y reducción de riesgos, utilizando los manuales/directrices elaboradas en la actividad (2)-1.
- (2)-3 Acrecentar la conciencia de los maestros y los estudiantes de las escuelas en las áreas del Proyecto, utilizando los manuales/directrices elaboradas en la actividad (2)-1.
- (2)-4 Realizar simulacros de emergencia de forma regular.
- (2)-5 Monitorear la ejecución de las actividades del Proyecto cada seis meses, e informar sobre los resultados al Comité de Coordinación Conjunto (JCC).
- (2)-6 Presentar los resultados de las actividades del Proyecto a las comunidades enfocadas, a sus autoridades municipales y a las organizaciones comunitarias.
- (3)-1 Participación de los funcionarios de las autoridades municipales enfocadas en el programa de capacitación “Control de Desastres en América Central” en Japón, con el fin de fortalecer la capacidad de respuesta a emergencias y reducción de riesgos de desastres. (Ver actividad (4)-1)
- (3)-2 Llevar a cabo seminarios y talleres para la planificación de la gestión de riesgos de desastres para el personal administrativo de los gobiernos locales, utilizando la colaboración de los ex-becarios que regresan de Japón como facilitadores.
- (3)-3 Formular y entregar planes de respuesta a emergencias y de reducción de riesgos a nivel municipal bajo la guía de las instituciones nacionales con la colaboración de los ex-becarios y del personal administrativo de los gobiernos locales, y realizar programas de seguimiento.
- (4)-1 Participación de los funcionarios de los miembros de CEPREDENAC (uno de cada país a nivel nacional y otro de SE-CEPREDENAC) del programa en Japón de capacitación “Control de Desastres en América Central”. (Ver actividad (3)-1)
- (4)-2 Participación de los funcionarios de los países Miembros del CEPREDENAC y la Secretaría Ejecutiva del CEPREDENAC en los programas de capacitación en México y otros terceros países.
- (4)-3 Establecer, revisar y modificar la base de datos que incluye los avances, resultados, logros, lecciones, experiencias y recursos del Proyecto, relacionados con la respuesta a emergencias, la reducción de riesgos de desastres, y los resultados de las investigaciones en cada país.
- (4)-4 Elaborar y ejecutar un programa de capacitación para el análisis de datos.
- (4)-5 Recopilar datos e información de cada una de las áreas del Proyecto, e incorporar la información a la base de datos.
- (4)-6 Preparar el Libro Blanco incluyendo eventos y resultados sobre respuesta a emergencias, marco legal, estrategias en gestión de riesgos, resultados del Proyecto en América Central bajo la responsabilidad de las instituciones nacionales para la gestión de desastres de cada país en coordinación con la SE-CEPREDENAC.
- (5)-1 Fortalecer la red de ex-alumnos del curso “Control de Desastres en América Central” para los ex-becarios que regresan de Japón.
- (5)-2 Realizar foros que permitan el intercambio de conocimientos y lecciones aprendidas en las



áreas del Proyecto y en otras áreas relacionadas en América Central.

- (5)-3 Presentar los resultados del Proyecto a los representantes de las instituciones nacionales relacionadas con la gestión de desastres en América Central, bajo la guía de la SE-CEPREDENAC.
- (5)-4 Elaborar los folletos sobre buenas prácticas de gestión local de riesgo de desastres desarrolladas en el Proyecto, y distribuirlos al personal relacionado con la gestión de riesgo de desastres en los gobiernos locales en otras áreas.
- (5)-5 Distribuir los manuales/directrices elaborados en la actividad (2)-1 a los municipios y las comunidades vecinas, y explicar cómo se elaboran y utilizan tales manuales/directrices en sus propias localidades.
- (5)-6 Suministrar por Internet la información incorporada en la base de datos establecida en la actividad (4)-3.

Nota

Las partes subrayadas en los insumos y actividades están relacionadas con los componentes de los cursos de capacitación en Japón y en tercer país, como con el envío de un experto japonés para CEPREDENAC. Dichos componentes son insumos y actividades invariables, por lo que no pueden ser controlados por el Proyecto. Por lo tanto, los estudios evaluativos del Proyecto serán conducidos excepto las partes subrayadas.

**ANEXO II LISTA DE EXPERTOS JAPONESES**

A continuación se detallan los campos que cubrirán los expertos japoneses. Tanto los expertos a largo plazo como a corto plazo realizan sus actividades en algunos o en todos los países miembros de CEPREDENAC.

**a. Expertos a largo plazo**

- Asesor Principal
- Gestión de desastres basada en la comunidad

**b. Expertos a corto plazo**

- Gestión integrada de cuencas y control de inundaciones
- Riesgos sísmicos
- Riesgos de deslizamientos de tierra
- Riesgos volcánicos
- Riesgos de maremotos (tsunami)
- Otros campos según se requiera



### ANEXO III LISTA DE MAQUINARIAS Y EQUIPOS

1. Equipos para la ejecución de las actividades en las áreas enfocadas
2. Equipos para el acopio y difusión de la información adquirida mediante las actividades del Proyecto

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## ANEXO IV LISTA DE PERSONAL DE CONTRAPARTE Y ADMINISTRATIVO

### 1. Personal Administrativo

#### (1) Director del Proyecto en Nicaragua

Secretario Ejecutivo de SE-SINAPRED

#### (2) Gerente del Proyecto en Nicaragua

Director(a) de Gestión y Desarrollo de SE-SINAPRED

### 2. Personal Contraparte

#### (1) Nivel Nacional:

SE-SINAPRED:

- Director(a) de Preparación para la Respuesta
- Director(a) de Prevención y Atención Territorial
- Director(a) de Organización y Operaciones
- Responsable de Relación Pública

#### (2) Áreas enfocadas

- Director(a) General de Gestión Ambiental de la Alcaldía Municipal de León
- Departamento de Gestión de Riesgos de la Alcaldía Municipal de León.

### 3. Instituciones colaboradoras

- Instituto Nicaragüense de Estudios Territoriales (INETER).  
Dirección Técnica de Geofísica

### 4. Otras instituciones y organizaciones podrán ser definidas después del inicio del proyecto.



## ANEXO V LISTA DE EDIFICIOS E INSTALACIONES

1. Edificios e instalaciones necesarios para la ejecución de Proyecto.
2. Espacio para oficinas, muebles e instalaciones necesarias para las actividades de los expertos japoneses y para reuniones.
3. Otras instalaciones concertadas mutuamente según la necesidad.



## ANEXO VI COMITÉ DE COORDINACIÓN CONJUNTO

Para la ejecución fluida y efectiva del Proyecto será formado el Comité de Coordinación Conjunto (JCC), cuya composición y funciones se indican a continuación.

### 1. Funciones:

El JCC se reunirá al menos dos veces al año o cuando sea necesario, con el fin de cumplir las siguientes funciones:

- (1) Formular el plan de trabajo anual para el Proyecto.
- (2) Examinar los avances del plan de trabajo anual y el avance general del Proyecto.
- (3) Examinar e intercambiar opiniones sobre temas de importancia que surjan de la ejecución del Proyecto.
- (4) Discutir algún(os) otro(s) tema(s) vinculado(s) a la fluida ejecución del Proyecto.

### 2. Composición:

#### (1) Presidente

- Director del Proyecto del país organizador de la junta de JCC

#### (2) Miembros:

##### a. Por parte de Centro América:

- Directores del Proyecto de los países miembros de CEPREDENAC
- Gerentes del Proyecto de los países miembros de CEPREDENAC
- Coordinador Regional

##### b. Por parte de Japón:

- Asesor Principal del Proyecto (Experto para el Proyecto)
- Coordinador del programa (Experto para la SE-CEPREDENAC)
- Representantes residentes en las oficinas de JICA en los países miembros de CEPREDENAC

#### (3) Observadores

La(s) siguiente(s) persona(s) puede(n) tomar parte en el JCC como observador(es):

- Representante(s) de la Embajada de Japón en los países miembros de CEPREDENAC
- Representante(s) del Plan Puebla Panamá (PPP) en Panamá
- Representante(s) de las oficinas central, domésticas, y extranjeras de JICA
- Otras personas invitadas por el presidente del JCC

NOTA: Las decisiones del JCC serán tomadas por consenso. Los observadores pueden aportar sus comentarios al JCC, pero no tienen voto en la toma de decisiones.



## 主要面談者リスト

### プロジェクト専門家

木下 建 (チーフ・アドバイザー)  
堀米 昇士朗 (コミュニティ防災／治水対策)  
川東 英治 (コミュニティ防災／業務調整)

### 中米防災センター調整事務局 SE-CEPREDENAC

イバン・モラレス (Iván Morales) / 事務局長  
マリア・エウヘニア・ソト (María Eugenia Soto) 国際協力部 コーディネーター  
ビニシオ・メンデス (Ing. Vinicio Méndez) 土地利用管理部 コーディネーター

### 中米統合機構 (SICA) 事務総局 Secretaría General del SICA

オマル・オロスコ (Omar Orozco) 国際協力部長 Director de Cooperación Internacional  
齋藤 千佳 中米統合機構広域協力アドバイザー (JICA 専門家)

## Guatemala グアテマラ

### グアテマラ国家防災調整局 (CONRED)

アレハンドロ・マルドナド (Ing. Alejandro Maldonado) 長官 Secretario Ejecutivo  
ジョハナ・ミネル・フエンテス (Yojana Miner Fuentes) 社会コミュニケーション部長  
Directora de Comunicación Social  
ハイロ・アレーガ (Jairo Arreaga) 災害軽減部長 早期警戒システム担当 Sistema de  
Alerta Temprana Director de Mitigación  
スーシィ・ヒロン (Susy Girón) 災害事前準備部長 Directora de Preparación  
モイセス・カハス (Moisés Cajas) プロジェクト・スーパーバイザー Supervisor del  
Proyecto BOSAI  
エドガル・ゴマル (Edgar Gomar) 第2地域事務所長 Delegado Regional Oficina Regional  
II  
ホセ・カスティージョ (José Castillo) プロジェクト現地コーディネーター  
Coordinador del Proyecto "BOSAI"

### グアテマラ地震・火山・気象・水文庁 (INSIVUMEH)

グスタボ・チグナ (Gustavo Chiguna) 火山学者 vulcanólogo  
ショマラ・レオン (Xiomara León) GIS 担当 especialista SIG

JICA グアテマラ駐在員事務所

佐々木 健雄 所長

青木 英剛 次長

伊藤 珠代 企画調査員

**El Salvador エルサルバドル**

エルサルバドル総務省市民防災局 (Dirección General de Protección Civil)

ホルヘ・メレンデス (Lic. Jorge Meléndez) 局長 Director General

フェルミン・アルベルト・ペレス (Fermín Alberto Pérez) 研修部長 Jefe de Formación y Capacitación

サラゴサ市 Municipio de Zaragoza (ラ・リベルター県 La Libertad)

レネ・カバジェロ (Rene Cavallero) 市議会議員 Concejal Municipal

サン・ルイス・タルパ市 San Luis Talpa (ラ・パス県 La Paz)

ロベルト・アントニオ・ソリアーノ・アバルカ (Roberto Antonio Soliano Abarca) 市長 Alcalde

ネルソン・アレキサンデル・アギレ・ロペス (Nelson Alexander Aguirre López) 市議会議員 Síndico

日本大使館

加来 至誠 特命全権大使

丸橋 重友 書記官

JICA エルサルバドル事務所

那須 隆一 所長

金子 健二 次長

小林 実 所員

マリア・エバ・オルティス (María Eva Ortíz) プロジェクト現地コーディネーター  
Coordinador del Proyecto “BOSAI”

マイラ・バスケス (Mayra Vásquez) プロジェクトアシスタント Asistente Proyecto BOSAI

タイ・マンシア (Thai Mancía) プロジェクトアシスタント Asistente Proyecto BOSAI

加藤 留未 JOCV 隊員

**Honduras ホンジュラス**

ホンジュラス災害対策常設委員会 (COPECO)

ホセリーナ・マタモロス (Joselina Matamoros) COPECO Tegucigalpa

エステバン・トロチェス (Esteban Trochez) COPECO Choluteca

ナマシグエ市 Municipio de Namasigüe (チョルテカ県 Choluteca)

ダグラス・オレスト (Douglas Orested) 市長 Alcalde Municipal Namasigüe

エル・トリュンフォ市 Municipio de El Triunfo (チョルテカ県 Choluteca)

アレックス・ベントウーラ (Alex Ventura Martínez) 市長 Alcalde Municipal

カルロス・マルティネス (Carlos Martínez) エル・トリュンフォ市職員 (Personal de Alcaldía)

JICA ホンジュラス事務所

小原 学 次長

内藤 千帆 現地職員

根岸 マリオ 気候変動プログラム担当

ギジェルモ・ペレス (Guillermo Pérez) プロジェクト現地コーディネーター Coordinador del Proyecto “BOSAI”

**Nicaragua ニカラグア**

ニカラグア国家防災機構 (SINAPRED)

ホルヘ・ラモン・アルネスト・ソーサ (Jorge Ramón Arnesto Soza) 局長 Secretario Ejecutivo

リヒア・エステル・カルデロン・モレノ (Ligia Esther Calderón Moreno) 国土災害予防部 Dirección Prevención Territorial

シヨマラ・ゴンサレス (Xiomara González) / プロジェクト・マネージャー Gerente del Proyecto BOSAI

エベリン・カナレス・ペレス (Eveling Canales Pérez) プロジェクト・フォローアップ担当 Responsable de Seguimiento del Proyecto

ニカラグア国土調査院 (INETER)

ハビエル・メヒア・バルトダノ (Javier Mejía Baltodano) 副所長 Sub-Director Ejecutivo

アンヘリカ・ムニョス (Angélica Muñoz) 地球物理局長 Directora General de Geofísica

ファビオ・セグラ (Fabio Segura) 地球物理学技術部長 Director Técnico Geofísico

レオン市リスク管理部事務所 Oficina del Departamento de Gestión de Riesgos, Alcaldía Municipal de León

マヌエル・カルデロン・セベス (Manuel Calderón Chévez) 市長 Alcalde Municipal de León  
マルガリータ・エルナンデス・ムニョス (Margarita Hernández Muñoz) レオン市リスク  
管理部長 Jefa Departamental de Gestión de Riesgos, Alcaldía de León

JICA ニカラグア事務所

門屋 篤典 / 企画調査員

セルヒオ・マリオ・マルタ (Sergio Mario Malta) プロジェクト現地コーディネーター  
Coordinador del Proyecto "BOSAI"

**Costa Rica コスタリカ**

コスタリカ国家災害対策緊急委員会 (CNE)

ホセ・ホアキン・チャコン・ソラノ (Ing. José Joaquín Chacón Solano) 災害管理部長  
Director de Gestión en Desastres

オスカル・ルケ (Oscar Lücke) 予防・軽減部 Departamento Prevención y Mitigación

カニヤス市 Municipio de Cañas (グアナカステ県 Guanacaste)

カティア・ソロールサノ・エルナンデス (Katty Solórzano Hernández) 市長 Alcaldesa  
Municipal Municipalidad de Cañas

エリカ・カバサス・ラモス (Erika Cabezas Ramos) 社会マネージメント領域コーディネ  
ーター Coordinadora Área de Gestión Social

JICA コスタリカ支所

一柳 直仁 支所長

柳原 麻紀子 企画調査員

フランク・コロマ (Frank J. Coloma) プロジェクト現地コーディネーター Coordinador del  
Proyecto "BOSAI"

田中 真一郎 JOCV 隊員

**Panamá パナマ**

パナマ内務省市民防災機構 (SINAPROC)

アルトゥーロ・アルバラード・デ・イカサ (Arturo Alvarado De Icaza) 長官 (Director General)

フリーダ・ドミンゲス (Lic. Frieda Domínguez) 市民防災学校校長 (Directora de la Academia)

ホルヘ・ロドリゲス (Lic. Jorge E. Rodríguez) 国際技術協力部長 (Director de Cooperación Técnica Internacional) プロジェクト・マネージャー (Gerente del Proyecto BOSAI)

パナマ経済財務省 (Ministerio de Economía y Finanzas)

ケルビア・マルティネス・デ・ピティ (Kelveia Martínez de Pittí) 部門管理・研修担当官 (Jefa del Área de Gestión Sectorial, Formación y Becas)

ベルナルド・ロドリゲス (Bernardo Rodríguez) 部門コーディネーター Coordinador Sectorial

ラウル・エレラ (Raul Herrera) プログラム・コーディネーター / Coordinador Programas

日本大使館

三沢 真 特命全権大使

三輪 能弘 参事官

尾崎 精一 書記官

清水 一良 領事

JICA パナマ支所

三澤 吉孝 支所長

松井 恒 企画調査員

スレマ・デ・バラガン (Zulma de Barragan) 管理コーディネーター (Coordinadora Administrativa)

ジュリッサ・クエスタ (Julissa Cuesta) コミュニティ技術コーディネーター (Coordinadora Técnica Comunitaria)



評価グリッド【実績と実施プロセス】

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
実績の検証	投入は計画通りか	日本側の投入は計画どおりか	計画値との比較	1. 長期専門家派遣の実績	<ul style="list-style-type: none"> <li>・専門家報告書</li> <li>・対象国防災関係機関</li> <li>・聴き取りによる補完</li> </ul>	報告書及び聴取
		対象国側の投入は計画どおりか		2. 短期専門家派遣の実績		
		1. 対象コミュニティにおける防災体制は強化されているか		3. 機材供与の実績		
		2. 対象コミュニティにおける防災体制は向上しているか	4. 在外事業強化費の投入実績			
		3. 防災の目標・施策・具体的活動などが対象自治体の計画に含まれるようになったか。	5. 調査団の派遣実績			
			1. C/P配置の実績			
			2. 執務室・施設・設備等の提供に関する実績			
			3. C/Pの国内出張旅費の支出実績			
			4. 光熱水料などの運営管理費の支出実績			
			1-1. 対象コミュニティにおける防災組織の形成実績	1-1. 対象コミュニティにおける防災組織の形成実績 1-2. 対象コミュニティにおける災害リスクマップの作成実績 1-3. 対象コミュニティにおける災害警報伝達システムの実績 1-4. 対象コミュニティにおける防災計画の作成実績	現地コンサルタントによる調査	報告書及び聴取
		PDMIにおける目標値との比較				
		2. 対象コミュニティにおける防災マニアル/ガイドラインの整備実績				
		PDMIにおける目標値との比較				
		2. 対象コミュニティにおける防災知識は向上しているか	2-1. 対象コミュニティにおける防災ワークショップ、セミナー等のイベントの実績	専門家		
			2-2. 学校における防災に関する活動の実績	専門家 現地コンサルタントによる調査		
			2-3. 対象コミュニティにおける避難訓練の実績			
			3-1. 対象自治体における帰国研修員の活動実績		・対象自治体 ・専門家	聴き取り(調査票)
			3-2. 対象自治体の計画における防災目標・施策・具体的活動の取り込み実績			

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
		4. 対象各国の防災関連機関及びCEPREDENAC調整事務局においてコミュニティ防災を推進する能力が強化されているか。	PDMIにおける目標値との比較	4-1. コミュニティ防災のための手法・ツール・技術の現地適応化実績 4-2. コミュニティ防災のための手法・ツール・技術の利用に関するW/Sの開催実績 4-3. コミュニティ防災のための手法・ツール・技術に関する、地域共有のデータベース及び保管場所の確立実績 4-4. 対象国及びCEPREDENAC調整事務局におけるプロジェクトの年間活動計画の作成実績 5-1. 対象国における防災分野帰国研修員ネットワークの年次会合の開催実績 5-2. 地域レベルの防災分野帰国研修員ネットワークの年次会合の開催実績 5-3. 帰国研修員データベースの構築状況・活用実績 5-4. コミュニティ防災に関する知識や教訓の交換・共有を目的とした中米地域防災会議の開催実績 5-5. コミュニティ防災の優良事例をまとめたパンフレットの作成実績及びコミュニティへの配布実績 5-6. 合同調整委員会の開催実績 5-7. 対象国間におけるプロジェクトの経験交換活動の開催実績 5-8. CEPREDENACにおけるプロジェクト情報の伝達・報告・移転のための体制の設置状況	・専門家報告書 ・CEPREDENAC、対象国防災関連機関等の関係者 ・プロジェクトの成果品（パンフレット等）	聞き取り（調査票）
		5. コミュニティ防災に係る情報・経験・手法を普及する体制が整備されているか。	PDMIにおける目標値との比較			
プロジェクト目標は達成される見込みであるか	対象コミュニティ及び対象自治体の防災能力は向上しているか		PDMIにおける目標値との比較	1. 対象コミュニティの自然災害に対する脆弱性の減少度合い 2. 対象自治体の災害管理能力の向上度合い	現地コンサルタントによる調査	報告書

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
		対象各国の防災関連機関及びCEPREDENAC調整事務局におけるコミュニケーション防災を推進する能力が強化されているか	PDMIにおける目標値との比較	3. 対象各国の防災関連機関及びCEPREDENAC調整事務局のコミュニケーション防災を推進する能力向上の度合い		
	外部条件によりプロジェクトの成果達成が促進・阻害されることはあったか	中米防災10カ年計画（PRRD）の内容に変更はないか	変更の有無	PRRD	専門家またはJICA事務所	PRRD
		CEPREDENAC調整事務局の人員や機能に大幅な変更はないか	変更の有無	事実確認	専門家	聴き取り
	プロジェクト開始からこれまで、成果の活用事例があったか	対象コミュニケーションにおいて災害が起き、防災組織/防災計画が役立った事例	事例の有無/あればその事例の検討	活用事例	・専門家 ・C/P	聴き取り

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法	
	大項目	小項目					
実施プロセスの検証	PDMの改訂はいつ、どのように行われたか		<ul style="list-style-type: none"> <li>時期</li> <li>関係者</li> <li>方法</li> </ul>	改訂の経緯	<ul style="list-style-type: none"> <li>専門家</li> <li>JICA</li> </ul>	<ul style="list-style-type: none"> <li>報告書及び聴き取り</li> </ul>	
		活動は計画通りに実施されているか		PDMに記載された活動と実際の活動の比較・実績検証	※別紙「活動項目ごとの評価」参照。	<ul style="list-style-type: none"> <li>現地コンサルタントによる調査</li> <li>専門家</li> </ul>	<ul style="list-style-type: none"> <li>報告書</li> <li>聴き取り</li> </ul>
	プロジェクトの実施体制は適切か	適切なモニタリングの仕組みはあるか/行われているか	仕組みの有無		<ul style="list-style-type: none"> <li>モニタリングシート</li> <li>関係者の意見</li> <li>2009年7月運営指導調査資料</li> </ul>	<ul style="list-style-type: none"> <li>専門家</li> <li>現地JICA事務所</li> </ul>	
		意思決定過程・コミュニケーションは適切か	適切/不適切な事例の抽出・分析	プロジェクト実施体制図	<ul style="list-style-type: none"> <li>関係者の意見</li> <li>支援の記録(頻度・内容)</li> <li>関係者の意見</li> </ul>	<ul style="list-style-type: none"> <li>専門家</li> <li>C/P</li> <li>専門家</li> <li>現地JICA事務所</li> </ul>	<ul style="list-style-type: none"> <li>聴き取り及び資料収集</li> <li>報告書</li> <li>聴き取り</li> </ul>
	実施機関及びC/Pのプロジェクトに対する認識は高いか	対象コミュニティにおけるプロジェクトに対する認識は高いか、また積極的な参加が得られているか	実績及び関係者の意見	関係者の意見	<ul style="list-style-type: none"> <li>専門家</li> <li>C/P</li> <li>現地JICA事務所</li> </ul>	<ul style="list-style-type: none"> <li>報告書</li> <li>聴き取り</li> </ul>	
		対象自治体におけるプロジェクトに対する認識は高いか、また計画に反映されているか		関係者の意見			
		各国防災関係機関におけるプロジェクトに対する認識は高いか、また計画に反映されているか		関係者の意見			
		CEPREDENAC調整事務局におけるプロジェクトに対する認識は高いか		関係者の意見			

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
	適切なC/P(専門性・人数・時間・能力)が配置されているか	各対象コミュニティに適切なC/Pがいるか	実績及び関係者の意見	C/Pの配置実績	<ul style="list-style-type: none"> <li>・専門家</li> <li>・C/P</li> <li>・現地JICA事務所</li> </ul>	<ul style="list-style-type: none"> <li>・報告書</li> <li>・聴き取り</li> </ul>
		各対象自治体に適切なC/Pがいるか				
	JICAの他スキームとの連携は十分に図られているか	各国防災関係機関に適切な担当者が配置されているか	<ul style="list-style-type: none"> <li>・計画と実態の比較</li> <li>・関係者の意見</li> </ul>	事例	<ul style="list-style-type: none"> <li>・専門家</li> <li>・C/P</li> <li>・現地JICA事務所</li> </ul>	<ul style="list-style-type: none"> <li>・報告書</li> <li>・聴き取り</li> </ul>
		CEPRENENAG調整事務局にプロジェクト専従のスタッフはいるか				
	対象となつている6カ国の相互の関係は良好か	JICAボランティアの活動との連携にはどのような事例があるか	事例の抽出・検討	事例(ニカラグア技プロ、エルサルワダの耐震プロジェクト、シャヤーガス病対策プロジェクト、開調など)	<ul style="list-style-type: none"> <li>・専門家</li> <li>・C/P</li> <li>・現地JICA事務所</li> </ul>	<ul style="list-style-type: none"> <li>・報告書</li> <li>・聴き取り</li> </ul>
		本邦研修の帰国研修員は、十分に活用されているか				
	他にプロジェクトの実施過程で生じている問題はあるか。その原因は何か	第三国研修スキームは十分に活用されているか	関係者の意見	事例の意見	<ul style="list-style-type: none"> <li>・関係者の意見</li> <li>・事例</li> </ul>	
		実施済みの他のプロジェクトで得られた知見・情報は活用されているか				
	予期していなかった阻害要因または促進要因はあったか、あればその事例		事例の有無/あればその事例の検討	とくにホンジュラスの2009年クーデターに関する情報		

評価グリッド【5項目評価】

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
妥当性	プロジェクトの目標は対象地域・社会のニーズに合致しているか	各国防災関連機関のニーズに合致しているか	国・地域の方針と関係者の意見	各国防災関連機関のニーズ	各国防災関連機関	調査票または聴き取り
		CEPREDENACのニーズに合致しているか			CEPREDENAC	
	プロジェクトの目標は対象グループのニーズに合致しているか	対象コミュニティのニーズに合致しているか	自治体の方針と関係者の意見	対象コミュニティのニーズ	対象コミュニティ	
		対象地方自治体のニーズに合致しているか		対象地方自治体のニーズ	対象地方自治体	
	中米地域全体の防災分野における開発政策との整合性はあるか		政策ペーパーとプロジェクト内容の照合	政策ペーパー	・SICA ・CEPREDENAC	資料収集
		対象国政府の防災分野における開発政策との整合性はあるか	プロジェクト開始後に変更はないかの確認		各国防災関連機関	
	日本の中米地域に対する援助政策との整合性はあるか				ODA-TF	
		JICAの国(地域)別事業実施計画との整合性はあるか		ローリングプランの記載を確認	・国(地域)別事業実施計画 ・ローリングプラン	対象国JICA事務所
	プロジェクトは中米地域及び各対象国における防災分野の開発課題に対する効果をあげる戦略として適切か	対象コミュニティの選定は適切か	プロジェクトチームのキャパシティと対象コミュニティの質的・量的関係者の意見	選定の経緯 対象の規模	専門家	調査票または聴き取り
		国ごとに協力対象とした優先災害種は適切か	事例の有無/あればその事例の検討	・選定の経緯 ・過去の被災記録 ・事例 ・他援助機関の防災分野資料	・専門家 ・他ドナー	
対象グループ外への波及性はあるか	対象外の自治体やコミュニティから、プロジェクト関係者に対してコミュニティ防災の手法の照会があったか	事例の有無/あればその事例の検討	事例	・専門家 ・C/P		

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
	効果の受益/費用の負担が公平に分配されるか	対象コミュニティ間における受益/負担のバランスはとれているか 対象国間における受益/負担のバランスはとれているか	実績及び関係者の意見を検討	・活動及び予算の配分実績 ・及び関係者の意見	専門家	資料収集及び聴き取り
		日本の技術の優位性はあるか	関係者の意見	日本の技術の優位性を示す具体例	専門家	調査票または聴き取り
	事前評価以降、プロジェクトを取り巻く環境に変化はないか	「日本の経験」は活かされているか 他ドナー・援助機関の手法と矛盾・対立する点はないか 中米地域で政策・経済・社会上的変化はないか 実際に大規模災害が起きたか	環境変化がプロジェクトの妥当性に与えた/与え得る影響を検討する	政権交代・クーデター等に関するデータ 2009年ハリケーンに関するデータ	・専門家 ・C/P ・各国JICA事務所	資料収集及び聴き取り

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
有効性	投入/アウトプットの実績、活動の状況に照らし合わせ、プロジェクト目標の達成の見込みはあるか	これまでに達成された/達成できていないアウトプットは何か 残りの期間でプロジェクト目標の達成が見込めるか(=すべてのアウトプットを達成できるか)	「実績の検証」―「アウトプットは計画どおり産出されているか」を参照し、残り期間での達成可能性を検討する			
	アウトプットは、プロジェクトの目標達成へ向けて貢献しているか アウトプットからプロジェクト目標に至る外部条件は、現時点においても変わらないか	1. CEPREDENACの各国委員会は本プロジェクトに対するコミットメントを継続する」は満たされているか 2. 対象自治体がプロジェクトにコミットし、それを実行する」は満たされているか 新たに見つかった外部条件はないか。あれば何か。それは満たされるか	実績からログフレームを再検討する 現状を再チェックし、プロジェクト目標達成に影響がないかを検討する	プロジェクト目標の達成見込み 各国委員会のコミットメント 対象自治体のコミットメント 貢献・阻害要因	専門家 ・CEPREDENAC ・各国防災関連機関 ・専門家 ・対象自治体 ・各国防災関連機関 ・専門家 ・専門家	聞き取り 資料収集及び聞き取り
	アウトプット以外にプロジェクト目標の達成状況に影響を与える貢献または阻害要因はあるか 広域を対象としてプロジェクトを実施することにより効果が高まる/低くなるということはあるか		二国間協力との比較	貢献・阻害事例	専門家 ・各国JICA事務所	

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
効率性	アウトプットの達成度は適切か	著しく遅れていたり進んでいたりして計画の見直しが必要なアウトプット項目はないか アウトプットの達成を促進または阻害した要因はあるか。あれば何か 長期専門家の専門分野・人数・派遣時期・能力は適切か 短期専門家の専門分野・人数・派遣時期・能力は適切か 本邦研修の受け入れ人数・分野・実施時期は適切か 第三国研修の受け入れ人数・分野・実施時期は適切か 供与機材の種類・量・供与時期は適切か 在外事業強化費の額・投入時期は適切か	「実績の検証」―「アウトプットは計画どおり産出されているか」を参照し、効率性を検討する。			
	アウトプットはプロジェクトの見合ったものか プロジェクトの実施プロセスの効率性に影響を与えている促進・阻害要因はなにか	投入の質・量・時期は、アウトプットの目標値から見て適切か	「実績の検証」―「投入は計画どおりか」 「実績の検証」―「アウトプットは計画どおり産出されているか」の結果を参照し、投入実績・計画と、アウトプットの実績値・目標値を比較検討する		専門家 ・各国JICA事務所	
	アウトプットはプロジェクトに見合ったものか プロジェクトの実施プロセスの効率性に影響を与えている促進・阻害要因はなにか	事例の有無/あればその事例の検討	事例	専門家		資料収集及び聴き取り
	広域を対象としてプロジェクトを実施することにより、二国間で実施する場合より効率的か	二国間協力との比較	貢献・阻害事例	専門家 ・各国JICA事務所		

評価項目	評価設問		判断基準・方法	必要なデータ	情報源	データ収集方法
	大項目	小項目				
インパクト	上位目標の達成の見込みはあるか	プロジェクトの目標達成の結果として上位目標の達成がもたらされるか	プロジェクト目標の達成状況と上位目標との比較、関係者の意見を加えた検討	「実績の検証」―「プロジェクト目標は達成される見込みがあるか」 ・関係者の意見	<ul style="list-style-type: none"> <li>・専門家</li> <li>・C/P</li> </ul>	
		上位目標の達成に影響を及ぼす促進・阻害要因はあるか	プロジェクト目標から上位目標に至る外部条件は、現時点においても変わらないか	プロジェクト外で上位目標達成へ向けた具体的な取り組み事例はあるか		
自立発展性	上位目標以外の効果・影響が予想されるか	対象国によって異なる効果・影響は出ているか、または予想されるか	事例の有無/あればその事例の検討	取り組み事例	<ul style="list-style-type: none"> <li>・専門家</li> <li>・C/P</li> </ul>	
		プロジェクト目標の達成で見込まれる効果は、プロジェクト終了後も持続されるか	プロジェクト外で上位目標達成へ向けた具体的な取り組み事例はあるか	事例の有無/あればその事例の検討		
自立発展性	プロジェクト目標の達成で見込まれる効果は、プロジェクト終了後も持続されるか	対象国・地方自治体によって異なる効果・影響は出ているか、または予想されるか	事実を確認し、問題点があれば検討する	CEPREDENACの事業計画	CEPREDENAC	
		対象国・地方自治体によって異なる効果・影響は出ているか、または予想されるか	PRRD及び後継の計画案	対象国の防災計画		

**Joint Mid-term Review Report**  
**for**  
**the Project on Capacity Development for Disaster Risk Management**  
**in Central America “BOSAI”**

**San Salvador, 5<sup>th</sup> March, 2010**

金子 健二

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Mr. Kenji KANEKO

Leader

Japanese Review Team

Japan International Cooperation Agency

Japan



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Mr. Iván Morales

Leader

Central American Review Team

Executive Secretariat

Center of Coordination for the Prevention of

Natural Disaster in Central America

## **CHAPTER 1 Outline of the Mid-term Review Study**

### **1-1 Background**

Central America is disaster prone region, and the countries in the region have been making a concerted effort to reduce disaster risks through a regional cooperation mechanism of the Center of Coordination for the Prevention of Natural Disaster in Central America (herein after referred to as “CEPREDENAC”). In 2006, five Governments of Central American countries, namely, Guatemala, Honduras, El Salvador, Costa Rica and Panama, submitted official requests to the Government of Japan for technical cooperation with regard to local disaster risk management. Based on these requests, from May 2007, Japan International Cooperation Agency (herein after referred to as “JICA”) initiated the Project on Capacity Development for Disaster Risk Management in Central America “BOSAI” (hereinafter referred to as “BOSAI Project” or simply “the Project”) with disaster risk management authorities of the six countries and the Executive Secretariat of CEPREDENAC (hereinafter referred to as “SE-CEPREDENAC”). In 2007, the Government of Nicaragua submitted a request for cooperation in this field to the Government of Japan, and joined the Project in December 2008.

In the third year of its five-year cooperation period, JICA and the Central American project implementing agencies conducted the Mid-term Review Study.

### **1-2 Purposes of the Mid-term Review Study**

- 1) To confirm the actual inputs and activities, implementation process, the degree of the achievements of the outputs, and the prospects of achieving the project purpose and overall goal based on the Project Design Matrix (PDM).
- 2) To assess the Project from the five evaluation criteria: Relevance, Effectiveness, Efficiency, Impact and Sustainability.
- 3) To make recommendations on the measures to be taken during the remaining project cooperation period and to draw lessons learned for similar technical cooperation projects.

### 1-3 Members of the joint review team

The members of the joint review team for the Mid-term Review are the followings.

<Japanese side>

	Name	Field in charge	Occupation
1	Mr. Kenji Kaneko	Leader (Japanese side)	Deputy Chief Representative, JICA El Salvador Office
2	Mr. Takashi Komura	Community-based Disaster Risk Management	Associate Professor, College of Environment and Disaster Research, Fuji Tokoha University
3	Mr. Ichiro Sato	Cooperation Planning	Assistant Director, Disaster Management Division II, Water Resources and Disaster Management Group, Global Environment Department, JICA
4	Mr. Yoshihiko Nishimura	Evaluation Analysis	CDC International Corporation
5	Mr. Shingo Maeyama	Interpreter	Japan International Cooperation Center (JICE)

<Central American side>

	Name	Field in charge	Occupation
1	Mr. Iván Morales	Leader (Central American side)	Executive Secretary, SE-CEPREDENAC
2	Mr. Vinicio Méndez	Evaluation Analysis	Coordinator of Territorial Management, SE-CEPREDENAC

Note: The Mid-term Review Study was jointly implemented with the Follow-up Study for the training course “Disaster Control in Central America” of JICA Hyogo International Center. The Follow-up Study team consisted of Mr. Masaru Arakida (Asian Disaster Reduction Center) and Mr. Yukinari Hosokawa (JICA Hyogo International Center).

### 1-4 Outline of BOSAI Project

The outline of BOSAI Project is as follows. For details, see PDM (agreed on January 21, 2010) (See Annex 1).

Overall Goal:

Information, knowledge, and methodologies on local disaster risk management in Central America are commonly utilized in different areas in the region.

Project Purpose:

Communities’ and municipal authorities’ capacity for disaster risk management is strengthened in the target

areas, and the capacity of CEPREDENAC members for promoting local disaster risk management is strengthened.

#### Outputs:

1. The mechanism for disaster risk management is strengthened in target communities in collaboration with inhabitants, community organizations, and municipal authorities.
2. Knowledge of disaster risk management is promoted in target communities.
3. Disaster response and risk reduction goals, tools, and activities are included in municipal plans in the target areas.
4. Capacity for promoting local disaster risk management is enhanced in national disaster management institutions in each country and SE-CEPREDENAC.
5. Mechanism for disseminating information, experience and methodologies about local disaster risk management is established.

## CHAPTER 2 Methods and Criteria of the Mid-term Review

### 2-1 Review methods

Both Central American and Japanese sides jointly analyzed and reviewed BOSAI Project, based on the Project Cycle Management (PCM) concept. This Mid-term Review was based on PDM Version 0, which had been revised in September 2009, and agreed on January 2010. The joint review team conducted surveys at the project sites through questionnaires and interviews to the counterpart personnel, Japanese experts and other stakeholders.

The joint review team confirmed the achievements, assessed the Project based on the five criteria as mentioned below, made recommendations, and drew lessons learned.

### 2-2 Review Criteria

The definition of the five review criteria is the following.

(1) Relevance	Relevance of the Project is reviewed by the validity of the Project Purpose and Overall Goal in light of the Central American development policy and needs and the Japanese cooperation policy.
(2) Effectiveness	Effectiveness is assessed to what extent the Project has achieved its Project Purpose, clarifying the relationship between the Project Purpose and Outputs.
(3) Efficiency	Efficiency is analyzed with emphasis on the relationship between Outputs and Inputs in terms of timing, quality, and quantity.
(4) Impact	Impact is assessed in terms of positive/negative and intended/unintended influence caused by the Project.
(5) Sustainability	Sustainability is assessed in terms of political, financial, and technical aspects by examining the extent to which the achievements of the Project will be sustained after the Project is completed.

## CHAPTER 3 Project Achievement

Prior to this Mid-term Review Study, a preliminary survey was conducted to collect information on the achievements of both municipal-level and community-level activities. A local consultant contracted with the Project visited communities and municipalities in each country. Due to time constraints and limited availability of people involved in BOSAI Project in some municipalities and communities, not all communities and municipalities were surveyed. The number of communities and municipalities surveyed in each country is as follows.

Country	Number of surveyed municipalities / Number of target municipalities	Number of surveyed communities / Number of target communities
Costa Rica	3/6	6/6
El Salvador	5/5	5/5
Guatemala	4/5	19/20
Honduras	4/5	9/9
Nicaragua	1/1	3/3
Panama	1/3	6/6
Total	18/25	48/49

See Annex 2 for the list of target municipalities and communities. Because there is no official document that defines target municipalities and communities, the survey was conducted for those communities and municipalities which the project activities were undertaken with, and they are regarded as target municipalities and communities in this Review Report.

In this chapter, Project Achievement is analyzed using this preliminary survey data. In the analysis, the number of surveyed municipalities/communities, instead of the number of target municipalities/communities, is mainly used.

### 3-1 Actual inputs

Based on the R/D and the PDM, both Japanese and Central American sides provided inputs accordingly.

Japanese side

(1) Dispatch of experts

Japanese experts were dispatched in the following specialties: chief advisor, community-based disaster management, Disaster Imagination Game (DIG), tsunami risk management, project coordination, and so forth. For more details, see attached Annex 3.

(2) Counterpart trainings

Four persons participated in a counterpart training course in Japan. 39 persons participated in the training course in Japan, “Disaster Control in Central America” and 25 persons participated in the third-country training course, “Civil Protection and Disaster Prevention” in Mexico although not all of them are involved in BOSAI Project. Furthermore, 3 persons participated study tours overseas using local operational budget of the Project. For more details, see attached Annex 4.

(3) Equipment provision

Japanese side provided equipment, such as equipment for early warning system, office equipment, and vehicles. For the list of equipments provided, see attached Annex 5.

(4) Local operational cost

Japanese side provided a part of necessary expenses for carrying out the activities of the Project.

For the total amount of the expenses of BOSAI Project including dispatch of the Japanese experts, counterpart trainings, provision of equipment, and local operational cost, see attached Annex 6.

Central American side

(1) Counterparts

Central American side assigned 89 counterpart and administrative personnel to BOSAI Project. For more details, see attached Annex 7.

(2) Local Operational Cost

Central American side provided various expenses to implement the project activities. For more details, see attached Annex 6.

3-2 Implemented Activities

Implemented Activities

	Planned	Actual
<b>Output 1 : The mechanism for disaster risk management is strengthened in target communities in collaboration with inhabitants, community organizations, and municipal authorities.</b>		

1-1	Establish disaster risk management organizations in the target communities.	<p>47 out of 48 (98%) surveyed communities established disaster risk management organizations. Achievement of each country is as follows:                  [Costa Rica] 6 established/6 surveyed communities                  [El Salvador] 4 established/5 surveyed communities                  [Guatemala] 19 established/19 surveyed communities                  [Honduras] 9 established/9 surveyed communities                  [Nicaragua] 3 established/3 surveyed communities                  [Panama] 6 established/6 surveyed communities</p>
1-2	Conduct disaster risk assessment in the target communities with community initiative.	<p>38 out of 48 (79%) surveyed communities conducted disaster risk assessment with community initiative. Achievement of each country is as follows:                  [Costa Rica] 4 conducted/6 surveyed communities                  [El Salvador] 2 conducted/5 surveyed communities                  [Guatemala] 14 conducted/19 surveyed communities                  [Honduras] 9 conducted/9 surveyed communities                  [Nicaragua] 3 conducted/3 surveyed communities                  [Panama] 6 conducted/6 surveyed communities</p>
1-3	Prepare risk maps in the target communities.	<p>31 out of 48 (65%) surveyed communities completed preparation of risk maps. Achievement of each country is as follows:                  [Costa Rica] 3 prepared/6 surveyed communities                  [El Salvador] 2 prepared/5 surveyed communities                  [Guatemala] 11 prepared/19 surveyed communities                  [Honduras] 7 prepared/9 surveyed communities                  [Nicaragua] 2 prepared/3 surveyed communities                  [Panama] 6 prepared/6 surveyed communities</p> <p>In addition, other 14 communities are under preparation of the risk maps. It will reach 94% when they complete the process.</p> <p>However, the prepared risk maps have not been widely propagated to the residents in the surveyed communities as shown in the data below:                  [Costa Rica] 0 propagated/3 prepared maps                  [El Salvador] 0 propagated /2 prepared maps                  [Guatemala] 0 propagated /11 prepared maps                  [Honduras] 3 propagated &amp; 4 in progress/7 prepared maps                  [Nicaragua] 0 propagated /2 prepared maps                  [Panama] 0 propagated /6 prepared maps</p>
1-4	Establish an appropriate early warning system in the target communities.	<p>38 out of 48 (79%) surveyed communities have started the process for establishing early warning system (hereinafter referred to as "EWS"). However, no surveyed community but Maravilla (Libano) community has completed the process. The numbers of communities that have started or completed the establishment of EWS are as follows:                  [Costa Rica] 1 completed &amp; 2 in progress/6 surveyed communities</p>

		<p>[El Salvador] 3 in progress/5 surveyed communities                  [Guatemala] 19 in progress/19 surveyed communities                  [Honduras] 8 in progress/9 surveyed communities                  [Nicaragua] 0 in progress/3 surveyed communities                  [Panama] 5 in progress/6 surveyed communities</p> <p>On the other hand, 45 out of 48 (94%) surveyed communities indicated that there were certain means of communication to distribute disaster related information among the communities.</p> <p>[Costa Rica] 4 existing/6 surveyed communities                  [El Salvador] 5 existing/5 surveyed communities                  [Guatemala] 18 existing/19 surveyed communities                  [Honduras] 9 existing/9 surveyed communities                  [Nicaragua] 3 existing/3 surveyed communities                  [Panama] 6 existing/6 surveyed communities</p> <p>This could imply that what is still absent to complete the establishment of EWS in many community is a reliable source of information on disaster warning because once they receive it, they have means to distribute it among their communities.</p> <p>When the hurricane “Ida” struck El Salvador in November 2009, an ex-trainee of JICA training course in the municipality of San Pedro Masahuat received information on a flood in the upstream of Jiboa River, and transmitted the information to downstream communities. One of the downstream communities, Las Hojas, activated the emergency sirens that had been introduced by BOSAI Project, and evacuated the residents before a large-scale flood struck the community.</p>
1-5	<p>Elaborate an emergency response plan based on the activities in the target communities. Involve ex-trainees and municipal and national disaster risk management staff as facilitators of the activities as mentioned above.</p>	<p>26 out of 48 (54%) surveyed communities have their own disaster response plans. Achievement of each country is as follows:</p> <p>[Costa Rica] 3 existing/6 surveyed communities                  [El Salvador] 1 existing/5 surveyed communities                  [Guatemala] 11 existing/19 surveyed communities                  [Honduras] 4 existing/9 surveyed communities                  [Nicaragua] 1 existing/3 surveyed communities                  [Panama] 1 existing /6 surveyed communities</p> <p>In addition, other 16 communities are under preparation of the disaster response plans. It will reach 88% when they complete the process.</p> <p>However, being similar to the case of risk maps, those disaster response plans are not widely propagated to the residents in the surveyed communities as shown in the data below:</p> <p>[Costa Rica] 1 propagated/3 existing plans                  [El Salvador] 0 propagated /1 existing plans                  [Guatemala] 0 propagated /11 existing plans                  [Honduras] 2 in progress/4 existing plans</p>

		[Nicaragua] 1 in progress/1 existing plans [Panama] 0 propagated /1 existing plans
1-6	Undertake the above-mentioned activities in cooperation with ex-trainees, and municipal and national disaster risk management staff to replicate the knowledge, information or methodologies from the experience of Japan in the region	Although there is no statistical record to show whether this activity is fulfilled, the interviews with Japanese experts, counterpart personnel and other persons related to BOSAI Project indicate that ex-trainees are generally actively involved in the community-level project activities. Municipal and national disaster risk management staff members participate in the community-level activities although the level of their participation varies depending on the national system of promoting local disaster risk management in each country.
1-7	Register and document the process of the activities.	The process of activities is not well registered and documented. There is a need to improve registration and documentation of project activities.
<b>Output 2: Knowledge of disaster risk management is promoted in target communities.</b>		
2-1	Prepare methodologies, tools and technologies to promote disaster risk management in the target communities.	7 items have been prepared so far. See Annex 8 (1) Educational/awareness-raising materials for communities.
2-2	Conduct participatory workshops using the methodologies, tools and technologies to promote disaster risk management in the target communities.	The methodologies, tools and technologies prepared by BOSAI Project are appropriately utilized for community level activities including community-level workshops.
2-3	Raise awareness about disaster risk management of school teachers and pupils in schools in the target communities using the methodologies, tools and technologies to promote disaster risk management.	There is no data available to confirm the level of implementation of this activity.
2-4	Conduct evacuation drills in the target communities.	3 out of 48 surveyed communities conducted evacuation drills more than once every year. Breakdown of this figure is as follows: [Costa Rica] 1 conducted/6 surveyed communities [El Salvador] 1 conducted/5 surveyed communities [Guatemala] 1 conducted/19 surveyed communities [Honduras] 0 conducted/9 surveyed communities [Nicaragua] 0 conducted/3 surveyed communities [Panama] 0 conducted/6 surveyed communities
2-5	Monitor the implementation of the project activities every semester and report the results to the Joint Coordinating Committee (JCC).	There are no semestral reports on project monitoring. JCC meetings are held annually, and project activities are reported by each country.
<b>Output 3: Disaster response and risk reduction goals, tools, and activities are included in municipal plans in the target areas.</b>		

3-1	Coordinate actions and processes for the inclusion of risk management in municipal plans	No information is available to confirm the level of implementation of this activity.
3-2	Staff in charge of disaster risk management of the target municipal authorities participates in “Disaster Control in Central America” training program in Japan.	During the project cooperation period, 9 municipal level personnel participated in “Disaster Control in Central America” training program.
3-3	Hold workshops on planning of disaster risk management for staff in charge of disaster risk management of the target municipal authorities.	This activity has not been implemented so far.
3-4	Formulate plans on disaster risk management by the target municipal authorities in collaboration with the national institutions of disaster risk management in each country.	<p>16 out of 18 (89%) surveyed municipalities have disaster response plans. Achievement of each country is as follows:</p> <p>[Costa Rica] 2 completed/3 surveyed municipalities  [El Salvador] 5 completed/5 surveyed municipalities  [Guatemala] 4 completed/4 surveyed municipalities  [Honduras] 4 completed/4 surveyed municipalities  [Nicaragua] 1 completed/1 surveyed municipalities  [Panama] 0 completed*/1 surveyed municipalities</p> <p><i>* In the case of Panama, SINAPROC directly deals with the project activities through its branch office in accordance with the national disaster risk management system in place in Panama. Therefore, it is difficult to expect municipalities to develop their own disaster risk management plans in Panama.</i></p>
<b>Output 4: Capacity for promoting local disaster risk management is enhanced in national disaster management institutions in each country and SE-CEPREDENAC.</b>		
4-1	Promote the participation of personnel of the national institutions of disaster risk management in each country and SE-CEPREDENAC in “Disaster Control in Central America” training program in Japan and the third country training program “Civil Protection and Disaster Prevention” in Mexico.	During the project cooperation period, 23 persons of national institutions of disaster risk management or SE-CEPREDENAC participated in “Disaster Control in Central America” training program. 25 persons participated in the third country training program “Civil Protection and Disaster Prevention” in Mexico. See Annex 4 for details.
4-2	Develop and adapt methodologies, tools and technologies to promote local disaster risk management.	4 items have been prepared so far, and 2 more items are being prepared. See Annex 8 (2) Methodologies, tools and technologies to promote local disaster risk management.

4-3	Organize workshops to learn application of the developed methodologies, tools and technologies for the national institutions of disaster risk management in each country.	Following workshops were conducted so far: <ul style="list-style-type: none"> <li>- DIG workshop, March 2008, March 2009, and August 2009</li> <li>- Town Watching workshop, March 2009</li> <li>- Early warning system workshop, August 2009</li> </ul>
4-4	Establish a physical space to store and share in the Central American Region the developed methodologies, tools and technologies.	SE-CEPREDENAC is developing a disaster risk management information center inside its premises with the assistance of Taiwan. SINAPROC is establishing a similar information center to provide information for the region.
<b>Output 5: Mechanism for disseminating information, experience and methodologies about local disaster risk management is established.</b>		
5-1	Develop a database and conduct seminars to exchange experience for the purpose of strengthening the network of ex-trainees that participated in the training program in Japan.	<p>JICA office of each country has a database of ex-trainees although it is not limited to those related to disaster risk management field.</p> <p>No national-level ex-trainee meeting has been held, except in Panama where such a meeting was held once.</p> <p>A regional ex-trainee meeting was held in March 2010. Besides, ex-trainees convene annually at the occasion of preliminary courses of the training course, "Disaster Control in Central America" in Japan. The preliminary courses were held in the following countries and dates.</p> <ul style="list-style-type: none"> <li>- Panama, October 2007</li> <li>- Mexico, October 2008</li> <li>- Mexico, October 2008</li> </ul>
5-2	Organize forums that allow exchanges and share of knowledge and lessons learned about local disaster risk management including the personnel of municipal authorities, under the initiative of SE-CEPREDENAC and the national institutions of disaster risk management in each country.	The first regional forum was held in February 2010 in Costa Rica. The forum is planned to be held annually during the rest of the project cooperation period.
5-3	Present annually the results of the project to the representatives of the national institutions of disaster risk management in each country during the meeting of the Joint Coordinating Committee (JCC).	<p>JCC meetings have been held annually as follows:</p> <ul style="list-style-type: none"> <li>- February 2008 in El Salvador</li> <li>- March 2009 in Guatemala</li> </ul> <p>At each JCC meeting, the progress of BOSAI Project was presented to the representatives of the national institutions of disaster risk management of the 6 countries.</p>

5-4	Reproduce and distribute printed materials on good practices of local disaster risk management of the municipalities and/or communities that undertake advanced activities in the target areas of the project for staff of municipal authorities in charge of local disaster risk management in each country.	This activity will be implemented during the rest of the project cooperation period.
5-5	CEPREDENAC and the national institutions of disaster risk management in each country distribute the methodologies, tools and technologies developed in the activity 2-1 to promote disaster risk management in municipalities and communities neighboring the target communities.	This activity will be implemented during the rest of the project cooperation period.

### 3-3 Achievements of Outputs

**Output 1 : The mechanism for disaster risk management is strengthened in target communities in collaboration with inhabitants, community organizations, and municipal authorities.**

The level of achievement of Output 1 is high. The target communities have been fulfilling the basic requirements for disaster risk management at community-level. There is a need for further support to help the communities with acquiring the access to reliable and timely disaster warning information.

	Indicators	Achievements
1-1	Disaster risk management organizations are established in more than 90% of the target communities.	This indicator is considered to be fulfilled because 98% of surveyed community established disaster risk management organizations.
1-2	Risk maps are elaborated in more than 90% of the target communities.	The percentage of surveyed communities that have risk maps is 65%, which is still short of the target value but approaching it steadily.
1-3	Communication systems of disaster alert are functioning in more than 90% of the target communities.	79% of surveyed communities have started the process for establishing early warning system but few have completed it. 94% of surveyed communities already have means of communication to distribute disaster related information among the communities.
1-4	Disaster response plans are elaborated in more than 90% of the target communities.	54% of surveyed communities already have their own disaster response plans, and 16 more communities are elaborating it, which will lead to 88% when completed.

**Output 2: Knowledge of disaster risk management is promoted in target communities.**

The level of achievement of Output 2 is not considered to be very high. Relatively few awareness raising and educational activities are recorded. This may be partly due to a lack of documentation and reporting of community-level activities.

	Indicators	Achievements
2-1	More than 10 manuals/guidelines of disaster risk management are prepared in the Central American Region. (Including Spanish translation of existing documents)	7 educational/awareness raising materials have been prepared so far.
2-2	At least three events are conducted in the target communities every year, such as workshops and seminars of disaster risk management.	Only 12.5% of surveyed communities have meetings related to disaster risk management at least once a year. There is little sign of having three events per target community every year.
2-3	At least one activity per year about disaster risk management is conducted at schools.	There is no data available to confirm the level of implementation of this indicator.
2-4	One evacuation drill is conducted during the project cooperation period in each target community.	No surveyed communities conducted evacuation drills every year but 21% indicated that an evacuation drill had been undertaken once or in preparation.

**Output 3: Disaster response and risk reduction goals, tools, and activities are included in municipal plans in the target areas.**

The level of achievement of Output 3 is moderately high. Most surveyed municipalities have disaster response plans. Many of them have planning instruments to incorporate disaster risk management into municipal plans, and ex-trainees at the municipal level often play an important role in that process.

	Indicators	Achievements
3-1	Ex-trainees who work at municipal level conduct at least 3 activities per year to link disaster risk management with municipal plans.	No data is available to confirm the level of achievement of this indicator but interviews with Japanese experts, counterpart personnel and other related persons indicates that most ex-trainees are actively involved in promotion of disaster risk management. An ex-trainee in Cañas municipality in Costa Rica organized and coordinated different activities of disaster risk management for communities, including a DIG workshop, used-tire dyke construction, and a participatory flood damage survey, in cooperation with the experts of BOSAI Project and Japan Overseas Cooperation Volunteer (JOCV).
3-2	Disaster risk management goals, tools and activities are included in municipal plans in 60% of target municipalities.	60% of surveyed municipalities indicated that there are planning instruments where disaster risk management priorities can be incorporated at the municipal level, which indicates that this indicator may have already been fulfilled. Further survey is required to confirm if the municipal plans incorporate disaster risk management goals, tools and activities.

**Output 4: Capacity for promoting local disaster risk management is enhanced in national disaster management institutions in each country and SE-CEPRENAC.**

The level of achievement of Output 4 is high. Different methodologies, tools and technologies to promote disaster risk management are developed and shared in the region. Project planning and management capacities

of national institutions of disaster risk management are improving through the process of planning and implementation of annual plans of operation (APO) although establishing a system of monitoring, documenting and reporting the implementation of the APO is still a challenge.

	Indicators	Achievements
4-1	At least 6 types of methodologies, tools and technologies to promote disaster risk management are developed and adapted in Central American Region (including local application of existing methodologies, tools and technologies).	4 items have been prepared, and 2 more items are being prepared. This indicator will be fulfilled when they are completed.
4-2	One workshop per year is conducted using the methodologies, tools and technologies to promote disaster risk management.	5 workshops have been organized so far, which makes more than 1 workshop per year.
4-3	A database and a physical space is established to store the methodologies, tools and technologies to promote disaster risk management for sharing among the countries in Central American Region.	A database is expected to be established in SE-CEPREDENAC with the cooperation of Taiwan. A space to store and exhibit physical (non-electronic) documents and educational materials related to disaster risk management will also be established in the premises of SE-CEPREDENAC
4-4	Annual plans of operation of the project are developed in each country and at the regional level.	Annual plans of operation of the project are actually developed in each country and at the regional level.

**Output 5: Mechanism for disseminating information, experience and methodologies about local disaster risk management is established.**

The level of achievement of Output 5 is moderately high. Different activities were undertaken to exchange information and experience in the region such as JCC meetings, thematic workshops, and a regional forum. CEPREDENAC is establishing a mechanism for information sharing and dissemination within the region. The remaining challenge is a better utilization of the regional and national network of ex-trainees for sharing and dissemination of the project results and experience.

	Indicators	Achievements
5-1	A meeting is held annually at national level for the network of ex-trainees in the field of disaster risk management for Central American Region.	No national-level ex-trainee meeting has been held, except in Panama where such a meeting was held once.
5-2	A meeting is held annually at regional level for the network of ex-trainees in the field of disaster risk management for Central American Region.	A meeting of ex-trainees is held annually at the occasion of preliminary courses of the training course, "Disaster Control in Central America" in Japan.
5-3	A database of ex-trainees is developed for exchange of information.	The database has not been developed although data of ex-trainees are available at JICA office in each country.

5-4	During the project cooperation period, at least three regional forums in Central America of disaster risk management (including field visits) are organized for exchanging and sharing knowledge and lessons about local disaster risk management.	One forum has been held in February 2010, and another 2 forums will be held during the remaining cooperation period.
5-5	Printed materials that present good practices of local disaster risk management are elaborated and distributed both in target communities and in other communities.	This is planned to be achieved during the remaining cooperation period.
5-6	An annual Joint Coordinating Committee meeting is held to report results of the project.	JCC meetings have been held annually.
5-7	At least one activity for exchange of experience of the project among the participating countries is held annually.	JCC meetings provide an opportunity to exchange experience among the participating countries. Other meetings such as DIG workshop, EWS workshop, and regional forum also provide such an opportunity.
5-8	A mechanism of communication, reporting and information transmission of the project exists in CEPREDENAC	CEPREDENAC regularly organize meetings of directors of national institutions of disaster risk management where the information on the Project is reported and transmitted from time to time. CEPREDENAC also has a network of liaison officers in CEPREDENAC member organizations through which communication and coordination for BOSAI Project can be undertaken.

### 3-4 Implementation Process

Since its commencement in May 2007, BOSAI Project was implemented according to the master plan that was annexed to the Record of Discussion of the Project, and annual plans of operation (APOs). The master plan of the Project is common for all the participating countries while APOs are prepared by each participating country in accordance with the master plan. A tentative project design matrix (PDM) for BOSAI Project was made and agreed among project implementing agencies by signing the minutes of meeting in October 2006 at the occasion of the preparatory study of the Project. This tentative PDM did not have descriptions of “indicators” and “means of verification”, which made it difficult to measure the progress of the Project. It was not until January 2010 when the PDM with “indicators” and “means of verification” was agreed among the project implementing agencies. The reason for having taken more than two years to agree on the PDM was partly due to the difficulty with identifying an appropriate and feasible method of measuring the disaster risk management capacity (or disaster vulnerability) at the municipal-level and the community-level. Another reason was that reaching an agreement on major issues took long time because 6 national institutions of disaster risk management, SE-CEPREDENAC and JICA were involved in this project.

Many people involved in BOSAI Project indicated the difficulties with communication, monitoring and coordination of the Project. This is largely due to the fact that the Project involves an enormous number of organizations and persons, including the 6 national institutions of disaster risk management, SE-CEPREDENAC, Japanese experts, JICA headquarters and offices in 6 countries, 25 municipalities, 49 communities, and many more organizations related to “Disaster Control in Central America” training course in Japan, and the third country training program “Civil Protection and Disaster Prevention” in Mexico. The fact that many local level activities have been taking place in remote areas also made it difficult to monitor and coordinate the activities. Factors that eased those difficulties were the mechanism of coordination of CEPREDENAC, and the existence of local project coordinators assigned by JICA in each country except in Guatemala where CONRED assigned local project coordinators.

The level of recognition of and participation in BOSAI Project by the related organizations and personnel is fairly high. One of the major promoting factors of this high recognition and participation would be the “Disaster Control in Central America” training course in Japan. Since the beginning of its first phase in 2000, the training course accepted 132 trainees, and many of them understood the Japanese spirit of disaster risk management, i.e. “BOSAI”, and had motivation to apply and disseminate the knowledge and experience acquired in Japan to their respective countries and localities. Those who are the most actively participating in the project activities at both national and local levels tend to be ex-trainees.

### 3-5 Prospects of Achievement of the Project Purpose

**Project Purpose: Communities’ and municipal authorities’ capacity for disaster risk management is strengthened in the target areas, and the capacity of CEPREDENAC members for promoting local disaster risk management is strengthened.**

The prospect of achieving the Project Purpose is moderate at this stage. While the level of achievement of the Project Purpose at the municipal and community level is relatively high, it is not very high at the national and regional level. Further efforts are needed to strengthen the capacity of CEPREDENAC member organizations.

	Indicators	Achievements
1	Reduction of vulnerability of disasters in the target communities (Indicator: 80% of the communities reach, at least, 6 points of the evaluation sheet for the communities)	19 out of 48 (40%) surveyed communities marked more than 6.0 points (the full mark is 11.0 points)*, which is still far short of the target value of 80%. However, considering the fact that 32 out of 48 (67%) surveyed communities marked more than 5.0 points, the prospects of achieving the goal seems to be attainable by the end of the cooperation period.
2	Strengthening the disaster risk management capacity of the target municipalities (Indicator: 80% of the	15 out of 18 (83%) surveyed municipalities marked more than 6.0 points (full mark is 10.0 points)*. The prospect of fulfilling this indicator is, therefore, considered to be high.

	municipalities reach, at least, 6 points of the evaluation sheet for the municipalities	
3	Improvement of knowledge and ownership about local disaster risk management of CEPREDENAC member national institutions (Indicator: they reach, at least, 4 points of the evaluation sheet	Among the 6 national institutions of disaster risk management and SE-CEPREDENAC, only CONRED has reached 4.0 points (full mark is 6.0 points)*. Three other institutions marked more than 3.0 points.

\* Note: Points given for each item of the evaluation sheets attached to the PDM can be a fraction of 1.0 (i.e. 0.25, 0.5 or 0.75), which means that the task in question has not been completed but is in progress or partly done.

### 3-6 Prospects of Achievement of the Overall Goal

**Overall Goal: Information, knowledge, and methodologies on local disaster risk management in Central America are commonly utilized in different areas in the region.**

There are already some effects of dissemination of the project results, which is a promising sign toward the achievement of the Overall Goal. Further efforts are required to synthesize and disseminate the experience and knowledge acquired through BOSAI Project as widely as possible in Central American Region.

	Indicator	Achievements
1	Existence of practical examples of good utilization of the project results in municipalities and communities in the Central American Region	There are some examples of the application of project results in communities and municipalities that are not included in the target sites. For instance three communities in Capira district in Panama voluntarily installed plain rain gauges that were introduced by BOSAI Project. In El Salvador, some municipalities (not included in target municipalities) contacted target municipalities and JICA El Salvador Office to request for information and assistance of the Project after the disaster of hurricane "Ida" in November 2009.

## CHAPTER 4 Evaluation Results from Five Evaluation Criteria

### 4-1 Relevance

Relevance is high from the following viewpoints:

It is considered that BOSAI Project is consistent with the needs of the target areas and groups. Central America is vulnerable to natural disasters. Even within less than three years of the project cooperation period by now, many natural disasters occurred in Central America, such as flood and sediment disasters induced by the hurricane "Ida" in El Salvador, landslides in Guatemala, and earthquakes in Costa Rica and Honduras. Recognizing such high vulnerability, most people related to the Project at the regional, national, municipal and community levels were strongly interested in disaster risk management and in the project activities, according to interviews with them.

BOSAI Project is consistent with the disaster risk management policy and plan of the Central American

region and countries. Regional Plan of Disaster Reduction (PRRD) 2006-2015 of Central America defines the strengthening local capacity of disaster risk management, which the Project is driving for, as one of the five components of the strategic framework of the Plan. Furthermore, Central American Policy for Integral Management of Disaster Risks (PCGIR), which is under the final stage of its approval process of CEPREDENAC, clearly indicates the necessity to strengthen local capacities of disaster risk reduction and response as a measure to attain the integral management of disaster risks. Because the 6 countries of the region is harmonizing their disaster risk management plans and policies with the regional ones, BOSAI Project should also be consistent with national policies and plans of the participating countries.

BOSAI Project is consistent with Japanese government policies and plans, too. In 2005, Leaders of Central American Countries and Japan adopted “Action Plan of Tokyo Declaration” in which Japan committed itself to provide the Central American countries with assistance in the area of disaster reduction. This action plan is still sustained as a basis of Japanese policies of Official Development Assistance (ODA) for Central American Region. Disaster risk management is a priority issue of JICA’s cooperation policy for Central America as well as JICA’s country assistance plan for each country in the region. It is also worth mentioning that the Project’s approach of the regional cooperation in collaboration with CEPREDENAC under SICA is consistent with Japanese Government’s policy of supporting to integration of Central American countries through SICA.

#### **4-2 Effectiveness**

Further efforts are required to enhance effectiveness of the Project.

The level of achievement of the Project Purpose is not very high at the time of this Mid-term Review but it will be significantly improved if a regional mechanism of dissemination and sharing of information and experience is strengthened.

A possible factor that could affect the achievement of the Project Purpose is a dispersion of scarce resources, including funding, personnel, and time, by extending the project activities to too many municipalities and communities. This should be avoided by clearly defining the target municipalities and communities, and keeping them within a manageable number.

#### **4-3 Efficiency**

Efficiency is moderately high.

The level of achievement of Outputs is moderately high, and some Outputs require further efforts to be achieved.

The cost efficiency of BOSAI Project is considered to be high. It would have required more inputs if 6 independent projects had been implemented in the 6 countries to attain similar results. In addition, the Project’s approach of active collaboration with other projects, such as “Disaster Control in Central America” training course in Japan, the third country training program “Civil Protection and Disaster Prevention” in Mexico, and dispatch of Japanese overseas cooperation volunteers, generated a value added. It should be mentioned,

however, that both the regional cooperation and the collaboration with other projects incurred hidden transaction costs for coordination among many stakeholders, which could affect the cost efficiency of BOSAI Project. The challenge is, therefore, to establish an efficient system of coordination, which will lead to reduction of the transaction costs.

Areas for improvements were observed with regard to the amount and the timing of inputs from both Japanese and Central American sides. There was an opinion from some persons related to the Project that it could have achieved more results if more Japanese long-term experts had been assigned. In addition, there was an opinion from counterpart personnel of different countries that there were some cases where disbursement of funding by JICA offices was delayed.

#### **4-4 Impact**

It is difficult to evaluate the level of impact of the Project at this stage but there are signs of positive impacts of the Project.

Some examples were observed that indicate BOSAI Project's contribution to fulfillment of the Overall Goal (See 3-6 Prospects of Achievement of the Overall Goal).

The collaboration with CEPREDENAC enhances a possibility that the Project's results can be reflected on the regional policies and plans of disaster risk management, and subsequently on those of each country in the region as well.

Some unexpected positive effects of BOSAI Project were observed. For example, through the communal work of constructing the used-tire dyke in El Hotel community of Costa Rica, the unity of the community residents was strengthened. Particularly, a socially excluded youngster regained a trust from community residents through his active participation in the communal work. Similar cases of strengthened solidarity of the community were also observed in El Salvador.

#### **4-5 Sustainability**

The prospect of securing sustainability of BOSAI Project is moderately high but will largely depend on the efforts during the rest of the project cooperation period.

From a political and institutional aspect, favorable policy environment for the sustainability of the Project will be sustained even after the end of the Project, once the PCGIR is in place (see 4-1 Relevance).

Sustainability from a technical aspect will not be a major problem, either. The Project has been advocating and disseminating the use of appropriate technologies, both in terms of cost and technical sophistication, for the community-level and municipal level activities of disaster risk management. This will give favorable effects on the sustainability of the Project.

Organizational and financial aspect of the sustainability will be the key and, at the same time, the challenge for securing overall sustainability of BOSAI Project. National institutions of disaster risk management generally have smaller number of staff and less financial resources compared with other line ministries, and

there will always be difficulties with meeting a demand for support to local disaster risk management. In addition, there are frequent changes of governments and their personnel both at national and municipal levels, which makes it difficult to ensure the sustainability. One of the possible solutions to these problems would be collaboration with other stakeholders such as schools, universities, mass media, NGOs and government organizations of other sectors, to disseminate knowledge and information on disaster risk management to communities and municipalities. It is also important to develop sufficient capacity of municipalities during the remaining cooperation period in order to ensure continuous support to the target communities from the municipalities, which will be the key to the sustainability of local level activities of the Project. Japanese side covers a significant portion of the operational costs required for local level activities, which is not desirable in terms of financial sustainability of the Project. The ratio of operational costs covered by Japanese side needs to be gradually reduced toward the end of the cooperation period, and the gap needs to be filled by resources of Central American side.

#### **4-6 Conclusions**

BOSAI Project has been implemented in accordance with PDM, regional and national annual plans of operation, and begun to produce different positive effects. The overall level of achievement of Outputs is moderately high. The level of achievement of the Project Purpose is moderate at this stage but expected to be improved during the remaining cooperation period.

The relevance of the Project is high. Efficiency and sustainability are moderately high. Although it is difficult to consider that effectiveness and impact of the Project is high at this stage, there is a good prospect for significant improvement during the remaining cooperation period. Values added of being a regional project were observed in terms of relevance, efficiency and impact of the Project.

Therefore, it is concluded that the Project does not require any major modifications of the basic plan and the implementation framework.

To enhance the achievement and effects of the Project, the following recommendations are made.

## **CHAPTER 5 Recommendations and Lessons Learned**

### **5-1 Recommendations**

#### **(1) Measures to ensure the sustainability of the Project**

In order to ensure the sustainability of the Project after the end of its cooperation period, the following measures are recommended to be taken during the remaining cooperation period.

- a. SE-CEPREDENAC is developing a new database of methodologies, tools and technologies to promote disaster risk management in which those developed by BOSAI Project will be included. It should be networked with existing databases of institutions such as SINAPROC and Regional Disaster Information Center Latin America and the Caribbean (CRID) so that the countries in Central America can readily access to them whenever necessary. In addition to the database, it is recommended that SE-SEPREDENAC shall

have a space to store and exhibit non-electronic documents and materials where visitors can see and try them.

- b. National institutions of disaster risk management should endeavor to increase their inputs to disaster risk management activities to be implemented under the framework of BOSAI Project toward the completion of the Japanese cooperation, taking the specific situations of each country into consideration. This will help mitigating possible negative effects of the sudden disappearance of Japanese inputs at the end of the Project. Likewise, the staff members for promoting local disaster risk management of the national institutions of disaster risk management should be increased so that they can take over the roles of Japanese experts in providing advice and guidance for municipal authorities and communities.
- c. Activities to promote local disaster risk management should be integrated into activities of other sectors such as school education, land-use and urban planning, health and sanitary extension, mass media and research by universities. To this end, the national institutions of disaster risk management should try to involve those who undertake such activities.

#### (2) Institutionalizing Bosai Project in the national institutions of disaster risk management

The national institutions of disaster risk management should elevate their ownership to the Project, adopting the BOSAI culture into their organizational culture. In addition, they should integrate the project activities into their regular institutional activities, and implement them with a joint effort of different departments and sections within the institutions.

#### (3) Strengthening the capacities of target municipalities to secure continuous support to target communities

The capacity development of communities often takes a long period of time. Therefore, sufficient follow-up support to communities is vital until they will become capable enough to continue disaster risk management activities on their own. The national institutions of disaster risk management should strengthen their efforts to build capacities of the target municipalities so that the municipalities could provide continuous support to the communities. In this respect, it is desirable to clearly define the target municipalities and communities in each country for the remaining cooperation period of BOSAI Project.

#### (4) Strengthening dissemination of the project results and effects

BOSAI Project has begun to produce tangible results and effects. It is the time to strengthen the efforts to disseminate and promote the project results and effects. For this purpose, it is indispensable to improve documentation and reporting of the progresses and achievements of the Project. It is recommended that the national institutions of disaster risk management of each country prepares semi-annual progress reports in accordance with the annual plan of operation (APO) as well as the planned activities and monitoring indicators of the PDM of the Project, and submit them to SE-CEPRENAC which are to be shared with Japanese side. It is also recommended that the Project make a better use of the project website to disseminate information,

experience and results. Another recommendation is the dissemination and promotion through the network of ex-trainees because they will be effective agents of dissemination and promotion for the Project, considering the fact that they understand the concept of disaster risk management, and work in different geographical areas, technical fields, sectors (private and public), and levels (regional, national and local).

(5) Improvement of the efficiency of the project administration

In order to accelerate the project activities and, consequently, increase the project effectiveness, all parties involved should improve the efficiency of their administration, including coordination, and fund management, .

## 5-2 Lessons learned

(1) It is important to be well aware of the benefits and challenges of regional projects when planning such a project. Regional projects demand enormous efforts for coordination and information sharing among participating organizations of the countries involved. In addition, the project budget dispensed in different countries makes the financial management of the project complicated. Therefore, it is necessary to spare extra resources for administrative capacity of the project team, compared with conventional bilateral cooperation projects, while collaboration with regional organization of the related field is effective to reduce the difficulties with coordination and information sharing.

## Project Design Matrix

Project Title: Project on Capacity Development for Disaster Risk Management in Central America "BOSAI" Ver: 0 Date: 1 September 2009

Target area: 6 countries of Central America

Project Period: May 30, 2007 to May 29, 2012

Target Group: Inhabitants of communities and related municipal authorities in the pilot sites as well as personnel of the national institutions of disaster risk management in each country and SE-CEPREDENAC

Narrative Summary	Objectively Verifiable Indicator	Means of Verification	Important Assumption
<p><b>Overall Goal</b> Information, knowledge, and methodologies on local disaster risk management in Central America are commonly utilized in different areas in the region.</p>	<p>Existence of practical examples of good utilization of the project results in municipalities and communities in the Central American Region</p>	<ol style="list-style-type: none"> <li>Interview with personnel of SE-CEPREDENAC and the national institutions of disaster management in each country</li> <li>Working meetings between staff of CEPREDENAC, the municipalities and the communities.</li> </ol>	<p>There is no important change in the National Plans of Disaster Prevention of each country and the Regional Plan of Disaster Reduction 2006 – 2015 (PRRD).</p>
<p><b>Project purpose</b> Communities' and municipal authorities' capacity for disaster risk management is strengthened in the target areas, and the capacity of CEPREDENAC members for promoting local disaster risk management is strengthened.</p>	<ol style="list-style-type: none"> <li>Reduction of vulnerability of disasters in the target communities (Indicator: 80% of the communities reach, at least, 6 points of the evaluation sheet for the communities (see annex 1))</li> <li>Strengthening the disaster risk management capacity of the target municipalities (Indicator: 80% of the municipalities reach, at least, 6 points of the evaluation sheet for the municipalities (see annex 2))</li> <li>Improvement of knowledge and ownership about local disaster risk management of CEPREDENAC member national institutions (Indicator: they reach, at least, 4 points of the evaluation sheet (see annex 3))</li> </ol>	<ol style="list-style-type: none"> <li>Interview with persons of the target communities as well as personnel of target municipal authorities and the national institutions of disaster management in each country, using the evaluation sheets</li> <li>Interview with personnel of the target municipal authorities, using the evaluation sheet</li> <li>Interview with personnel of the national institutions of disaster management in each country and of SE-CEPREDENAC, using the evaluation sheets</li> </ol>	<ol style="list-style-type: none"> <li>The commitment made by the National Commissions of CEPREDENAC is maintained in a continuous way.</li> <li>Commitments are made and fulfilled by the local governments of the project target areas.</li> </ol>
<p><b>Outputs</b> 1 The mechanism for disaster risk management is strengthened in target communities in collaboration with inhabitants, community organizations, and municipal authorities. 2 Knowledge of disaster risk management is promoted in target communities. 3 Disaster response and risk reduction goals, tools, and activities are included in</p>	<ol style="list-style-type: none"> <li>1-1. Disaster risk management organizations are established in more than 90% of the target communities.</li> <li>1-2. Risk maps are elaborated in more than 90% of the target communities.</li> <li>1-3. Communication systems of disaster alert are functioning in more than 90% of the target communities.</li> <li>1-4. Disaster response plans are elaborated in more</li> </ol>	<ol style="list-style-type: none"> <li>Interview with persons of the target communities as well as personnel of target municipal authorities and the national institutions of disaster management in each country, using the evaluation sheets</li> <li>Interview with persons of the target communities as well as personnel of target municipal</li> </ol>	<ol style="list-style-type: none"> <li>The persons trained in disaster risk management continue the institutionally committed works</li> <li>No disasters of large scale occurs in Central American Region that impede project activities.</li> </ol>

<p>municipal plans in the target areas.</p> <p>4 Capacity for promoting local disaster risk management is enhanced in national disaster management institutions in each country and SE-CEPREDENAC.</p> <p>5 Mechanism for disseminating information, experience and methodologies about local disaster risk management is established.</p>	<p>than 90% of the target communities.</p> <p>2-1. More than 10 manuals/guidelines of disaster risk management are prepared in the Central American Region. (Including Spanish translation of existing documents)</p> <p>2-2. At least three events are conducted in the target communities every year, such as workshops and seminars of disaster risk management.</p> <p>2-3. At least one activity per year about disaster risk management is conducted at schools.</p> <p>2-4. One evacuation drill is conducted during the project cooperation period in each target community.</p> <p>3-1. Ex-trainees who work at municipal level conduct at least 3 activities per year to link disaster risk management with municipal plans.</p> <p>3-2. Disaster risk management goals, tools and activities are included in municipal plans in 60% of target municipalities.</p> <p>4-1. At least 6 types of methodologies, tools and technologies to promote disaster risk management are developed and adapted in Central American Region (including local application of existing methodologies, tools and technologies).</p> <p>4-2. One workshop per year is conducted using the methodologies, tools and technologies to promote disaster risk management.</p> <p>4-3. A data base and a physical space is established to store the methodologies, tools and technologies to promote disaster risk management for sharing among the countries in Central American Region.</p> <p>4-4. Annual plans of operation of the project are developed in each country and at the regional level.</p> <p>5-1. A meeting is held annually at national level for the network of ex-trainees in the field of disaster risk management for Central American Region.</p> <p>5-2. A meeting is held annually at regional level</p>	<p>authorities and the national institutions of disaster management in each country, using the evaluation sheets</p> <p>3. Interview with personnel of the target municipal authorities</p> <p>4. Interview with personnel of the national institutions of disaster management in each country and of SE-CEPREDENAC</p> <p>5. Interview with personnel of the national institutions of disaster management in each country and of SE-CEPREDENAC</p>	
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<p>for the network of ex-trainees in the field of disaster risk management for Central American Region.</p> <p>5-3. A data base of ex-trainees is developed for exchange of information.</p> <p>5-4. During the project cooperation period, at least three regional forums in Central America of disaster risk management (including fields visits) are organized for exchanging and sharing knowledge and lessons about local disaster risk management.</p> <p>5-5. Printed materials that present good practices of local disaster risk management are elaborated and distributed both in target communities and in other communities.</p> <p>5-6. An annual Joint Coordinating Committee meeting is held to report results of the project.</p> <p>5-7. At least one activity for exchange of experience of the project among the participating countries is held annually.</p> <p>5-8. A mechanism of communication, reporting and information transmission of the project exists in CEPREDENAC</p>	<p>The training courses in Japan and in a third-country are organized according to the plan.</p> <p>SE-CEPREDEENAC with an assistance of the program coordinator should efficiently coordinate between this project and the training courses mentioned above.</p> <p>The participating organizations and institutions should guarantee that the trained personnel remains during the project cooperation period.</p>
<p>for the network of ex-trainees in the field of disaster risk management for Central American Region.</p> <p>5-3. A data base of ex-trainees is developed for exchange of information.</p> <p>5-4. During the project cooperation period, at least three regional forums in Central America of disaster risk management (including fields visits) are organized for exchanging and sharing knowledge and lessons about local disaster risk management.</p> <p>5-5. Printed materials that present good practices of local disaster risk management are elaborated and distributed both in target communities and in other communities.</p> <p>5-6. An annual Joint Coordinating Committee meeting is held to report results of the project.</p> <p>5-7. At least one activity for exchange of experience of the project among the participating countries is held annually.</p> <p>5-8. A mechanism of communication, reporting and information transmission of the project exists in CEPREDENAC</p>	<p>(Central American side)</p> <p>1. Counterpart personnel Project Directors: Directors of the national institutions of disaster management (1 person in each country; 6 persons in total) Project Managers: Persons assigned by the national institutions of disaster management (1 person in each country; 6 persons in total) Counterpart personnel: Persons in charge in the national institutions of disaster management in each country</p> <p>2. Provision of office space, facilities, and equipment, etc., necessary for implementation of the project</p>
<p><b>Activities</b></p> <p>1-1 Establish disaster risk management organizations in the target communities.</p> <p>1-2 Conduct disaster risk assessment in the target communities with community initiative.</p> <p>1-3 Prepare risk maps in the target communities.</p> <p>1-4 Establish an appropriate early warning system in the target communities.</p> <p>1-5 Elaborate an emergency response plan based on the activities in the target communities. <u>Involve ex-trainees and municipal and national disaster risk management staff as facilitators of the activities as mentioned above.</u></p> <p>1-6 <u>Undertake the above-mentioned activities in cooperation with ex-trainees, and municipal and national disaster risk</u></p>	<p><b>Inputs</b></p> <p>(Japanese side)</p> <p>1. Long-term experts: Chief advisor, Local disaster risk management, etc. (3 experts)</p> <p>2. Short-term experts: Tsunami disaster risk management, Local disaster risk management planning, Disaster simulation training (DIG, etc.), Community-level landslide management, etc. (approximately 15 experts in total)</p> <p>3. Provision of equipment: radio-communication equipment, vehicles, etc.</p> <p>4. Operational costs for the project</p> <p>5. Missions: Mid-term review, etc.</p>

<p><u>management staff</u> to replicate the knowledge, information or methodologies from the experience of Japan in the region.</p> <p>1-7 Register and document the process of the activities.</p> <p>2-1 Prepare methodologies, tools and technologies to promote disaster risk management in the target communities.</p> <p>2-2 Conduct participatory workshops using the methodologies, tools and technologies to promote disaster risk management in the target communities.</p> <p>2-3 Raise awareness about disaster risk management of school teachers and pupils in schools in the target communities using the methodologies, tools and technologies to promote disaster risk management.</p> <p>2-4 Conduct evacuation drills in the target communities.</p> <p>2-5 Monitor the implementation of the project activities every semester and report the results to the Joint Coordinating Committee (JCC).</p> <p>3-1 Coordinate actions and processes for the inclusion of risk management in municipal plans</p> <p>3-2 Staff in charge of disaster risk management of the target municipal authorities participates in "Disaster Control in Central America" training program in Japan.</p> <p>3-3 Hold workshops on planning of disaster risk management for staff in charge of disaster risk management of the target municipal authorities.</p> <p>3-4 Formulate plans on disaster risk management by the target municipal authorities in collaboration with the national institutions of disaster risk management in each country.</p>		<p>3. Allocation of domestic travel expenses of counterpart personnel</p> <p>4. Allocation of administrative and operational costs such as fees for electricity, water-supply, etc.</p>	<p>Preconditions</p> <p>To implement the project, the agreement and cooperation must be obtained from the national institutions of disaster management in each country.</p>
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<p>4-1 Promote the participation of personnel of the national institutions of disaster risk management in each country and SE-CEPREDENAC in "Disaster Control in Central America" training program in Japan and the third country training program "Civil Protection and Disaster Prevention" in Mexico.</p> <p>4-2 Develop and adapt methodologies, tools and technologies to promote local disaster risk management.</p> <p>4-3 Organize workshops to learn application of the developed methodologies, tools and technologies for the national institutions of disaster risk management in each country.</p> <p>4-4 Establish a physical space to store and share in the Central American Region the developed methodologies, tools and technologies.</p>		
<p>5-1 Develop a data base and conduct seminars to exchange experience for the purpose of strengthening the network of ex-trainees that participated in the training program in Japan.</p> <p>5-2 Organize forums that allow exchanges and share of knowledge and lessons learned about local disaster risk management including the personnel of municipal authorities, under the initiative of SE-CEPREDENAC and the national institutions of disaster risk management in each country.</p> <p>5-3 Present annually the results of the project to the representatives of the national institutions of disaster risk management in each country during the meeting of the Joint Coordinating Committee (JCC).</p> <p>5-4 Reproduce and distribute printed materials on good practices of local disaster risk management of the municipalities and/or communities that</p>		

<p>undertake advanced activities in the target areas of the project for staff of municipal authorities in charge of local disaster risk management in each country.</p> <p>5-5 CEPREDENAC and the national institutions of disaster risk management in each country distribute the methodologies, tools and technologies developed in the activity 2-1 to promote disaster risk management in municipalities and communities neighboring the target communities.</p>	
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## Evaluation sheet for target communities

Country : \_\_\_\_\_

Community \_\_\_\_\_

**1. There is an organization of disaster risk management.**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**2. There are basic diagnoses of community risks (maps of hazards, resources and capacities)**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

**3. The basic diagnoses of community risk are made public (map of hazards, resources and capacities) for the inhabitants (distributed to all families, displayed in public spaces, etc.).**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**4. There is a disaster response plan (which determines responsibility for preventive measures and response actions).**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**5. The disaster response plan is made public for the inhabitants. (distributed to all families, available in the public space for consultation, etc.).**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

**6. Hazard monitoring is carried out. (For example: to obtain information through radio-broadcasting or radio-communication in case of earthquake or tsunami.)**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**7. There is a community communication network system about information, warnings and preventive forecasts of disaster risks.**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

**8. The community has a place for evacuation shelter. (Not necessary to be an exclusive space for evacuation)**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**9. There is an early warning system in operation or being established in communities**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

**10. Drills or simulations are conducted at least once a year.**

The activities are conducted with a frequency equal to or more often than expected

The activities are not conducted

Additional Comment: \_\_\_\_\_

**11. Meetings related to disaster risk management are organized at least once a year.**

The activities are conducted with a frequency equal to or more often than expected

The activities are not conducted



Additional Comment: \_\_\_\_\_

\_\_\_\_\_

## Evaluation sheet for the target municipalities

Country \_\_\_\_\_ Municipality : \_\_\_\_\_

### 1. There is an organization of disaster risk management.

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

### 2. There are basic diagnoses of community risks (maps of hazards, resources and capacities)

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

### 3. There is a disaster response plan at the municipal level

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**4. The municipality actively accesses to information sources related to disaster risk management.  
(information, warnings and forecasts related to disaster risks)**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

**5. There are some schools which regularly carry out activities or events on disaster risk management.**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comment: \_\_\_\_\_

**6. There are municipal resources (financial, human, material, equipment and other resources) for the activities of disaster risk management.**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

**7. There are planning instruments where disaster risk management priorities can be incorporated at the municipal level.**

There are the instruments with a frequency equal to or more often than expected

There are no such instruments

Additional Comment: \_\_\_\_\_

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**8. There are means to report information related to the occurrence of disasters to the national institution and the communities.**

There are the measures with a frequency equal to or more often than expected

There are no such measures

Additional Comment: \_\_\_\_\_

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**9. A person in charge of disaster risk management is assigned in the municipality, who may hold another post simultaneously. (place a note of clarification if the person is an ex-trainee).**

There is a person in charge on the full-time or part-time basis

No person in charge is assigned

Additional Comment: \_\_\_\_\_

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**10. Disaster drills and simulations conducted at least once a year.**

The activities are conducted with a frequency equal to or more often than expected

The activities are not conducted

Additional Comment: \_\_\_\_\_

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## ANNEX 3

**Evaluation sheet to be applied to the system to promote disaster risk management  
for each country and the region of Central America**

Country: \_\_\_\_\_

Institution \_\_\_\_\_

**1. Good practices on disaster risk management remain accessible to the public via internet or printed materials.**

There is a mechanism or process 100% completed There is a mechanism or process completed between 50% and 100% There is a mechanism or process completed by 50% or less The process or mechanism has not been initiated (state the reason) 

Additional Comment: \_\_\_\_\_

**2. The tools related to disaster risk management are produced, collected and managed so that each country of Central America can consult with and reproduce them.**

There is a mechanism or process 100% completed There is a mechanism or process completed between 50% and 100% There is a mechanism or process completed by 50% or less The process or mechanism has not been initiated (state the reason) 

Additional Comment: \_\_\_\_\_

**3. There are mechanisms to share and promote the developed methodologies and tools in the Central American Region.**

There is a mechanism or process 100% completed There is a mechanism or process completed between 50% and 100% There is a mechanism or process completed by 50% or less The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

\_\_\_\_\_

**4. The national institution for the disaster risk management in each country has a mechanism of collaboration with the institutes of scientific and technological research related to the collection, dissemination and transmission of disaster information.**

There is a mechanism or process 100% completed

There is a mechanism or process completed between 50% and 100%

There is a mechanism or process completed by 50% or less

The process or mechanism has not been initiated (state the reason)

Additional Comments: \_\_\_\_\_

\_\_\_\_\_

**5. Personnel trained in Japan remains in the national and regional institutions**

100% of trained staff remains

Between 50% and 100% of trained staff remains

Less than 50% of trained staff remains

No one remains (state the reason)

Additional Comments: \_\_\_\_\_

\_\_\_\_\_

**6. There is a space to share and promote the appropriate technologies that serve to promote disaster risk management in the Central American Region (Techniques to make simplified pluviometers and water level indicators, the technique of construction of low-cost infrastructure for disaster risk management, etc.).**

There is a space with a frequency

Not performed the activity / activities

Additional Comment: \_\_\_\_\_

\_\_\_\_\_

## List of Target Municipalities/Districts and Communities

Country	Target municipalities/districts	Target communities	
Costa Rica	Cañas	El Hotel Santa Isabel Bebedero	
	Cobano	Montezuma	
	Liberia		
	Nicoya		
	Santa Cruz	Conchal	
	Tilarán	Maravilla (Libano)	
El Salvador	Nuevo Cuscatlán	San Jose Rivas	
	San José Villanueva	Santa María	
	Zaragoza	Corralito	
	San Luis Talpa	San Marcos Jiboa	
	San Pedro Masahuat	Las Hojas	
Guatemala	Escuintla	San Miguel Los Lotes La Reina San Andrés Osuna La Trinidad Chucho Guadalupe Santa Marta Ceilán Don Pancho Rochela	
		San Juan Alotenango	El Porvenir
		Santa Lucia Cotzumalguapa	No target community in this municipality
		San Pedro Yepocapa	Santa Sofia Sangre de Cristo El Porvenir Morelia Panimaché I Panimaché II Yucales
			Siquinalá
		Honduras	Choluteca
El Triunfo	Matapalos Arriba Santa Teresa		
Marcovia	Guapinol Los Llanitos		
Namasigüe	Santa Isabel San Rafael Centro		
Tegucigalpa	Canaan I Canaan II		
Nicaragua	León	Las Peñitas Poneloya Salinas Grande	
Panamá	Barú	Acueducto Almendro Baco	
	Capira	Los Faldares Tres Hermanas	
	Mariato	Cascajilloso Varadero	

Note: Target communities and municipalities/districts are not officially determined. Therefore, those communities and municipalities/districts where project activities have been implemented are regarded as "target communities" or "target municipalities".

## ANNEX 3

## List of Dispatched Experts

	Name	Organization	Field	Period
1	Hidetomi Oi	Japan International Cooperation Agency (JICA)	Chief Advisor / Community-based Disaster Management	2007.5.29-2008.4.30
2	Masaru Arakida	Asian Disaster Reduction Center (ADRC)	Community-based Disaster Management	2007.6.15-2009.8.31
3	Takashi Komura	Fuji Tokoha University	Disaster Imagination Game (DIG)	2008.2.27-2008.3.17
4	Hiroshi Fukuoka	Kyoto University	Community-level Landslide Management	2008.3.1-2008.3.17
5	Ken Kinoshita		Chief Advisor	2008.3.31-2010.6.30
6	Toshitaka Katada	Gunma University	Tsunami Risk Management	2008.7.26-2008.8.18
7	Shoshiro Horigome	JICA	Community-based Disaster Management/Water-related Disaster Management	2008.10.9-2010.10.8
8	Toshitaka Katada	Gunma University	Tsunami Risk Management	2009.1.30-2009.2.14
9	Yujiro Ogawa	Fuji Tokoha University	Community-based disaster management planning	2009.2.16-2009.3.8
10	Takashi Komura	Fuji Tokoha University	Disaster Imagination Game (DIG)	2009.2.24-2009.3.16
11	Eiji Kawahigashi		Project Coordination/Community-based Disaster Management	2009.7.14-2011.7.13
12	Takashi Komura	Fuji Tokoha University	Disaster Imagination Game (DIG)	2009.8.22-2009.9.3
13	Toshitaka Katada	Gunma University	Community-based disaster management (Tsunami)	2009.12.7-2009.12.15
14	Haruyuki Yamamoto	Hiroshima University	Small-scale structural measures	2010.1.3-2010.1.11
15	Hiroshi Fukuoka	Kyoto University	Sediment Disaster Management	2010.1.14-2010.1.26

ANNEX 4

List of Trainings in Japan and Third Countries

(1) List of counterpart trainings in Japan

	Name	Country	Position/Organization	Theme	Period of the course
1	José Joaquín Chacón	Costa Rica	Director of Risk Management, National Commission of Risk Prevention and Attention of	Integrated Disaster Risk Management	February 1 – February 5, 2010
2	Jorge Meléndez	El Salvador	Director, Civil Protection	Integrated Disaster Risk Management	February 1 – February 5, 2010
3	Alejandro Maldonado	Guatemala	Executive Secretary, National Coordinator for Disaster Reduction: CONRED	Integrated Disaster Risk Management	February 1 – February 5, 2010
4	Ivan Morales	SE-CEPRENAC	Executive Secretary, Center of Coordination for Prevention of Natural Disaster in Central America:	Integrated Disaster Risk Management	February 1 – February 5, 2010

(2) List of participants in the training course, “Disaster Control in Central America”

	Name	Nationality	Organization	Year of participation
1	GONZALEZ PICADO Francisco	Costa Rica	CNE	2007
2	ACOSTA CORTES Mario	Costa Rica	Coordinator of Regulations / Nicoya Region, Ministry of Public Health	2007
3	FONSECA BONILLA Walter Gerardo	Costa Rica	CNE	2008
4	ALEMAN ALVAREZ Jose Francisco	Costa Rica	Assistant / Administration Department, Costa Rican Red Cross	2008
5	ARAYA ARAYA Ramon Gilberto	Costa Rica	CNE	2009
6	GENTENO ARIAS Lesly del Carmen	Costa Rica	Primary School Teacher/ Carmen Lyra School, Ministry of Public Education	2009
7	SOLORZANO HERNANDEZ Edwin Ricardo	El Salvador	General Direction of Civil Protection	2007
8	RODAS MORENO Santos Antonio	El Salvador	Municipality of San Pedro Mazahuat	2007
9	HELENA ULLOA Jose Aristides	El Salvador	General Direction of Civil Protection	2008
10	FLORES SANTOS Cesar Walberto	El Salvador	Technician of Environment Unit	2008

11	CABALLERO Jose Rene	El Salvador	Municipality of Zaragoza	2009
12	VIVIDOR RIVAS Armando Antonio	El Salvador	General Direction for Civil Protection	2009
13	VENTURA PORTILLO Baudilio	El Salvador	General Direction of Civil Protection	2009
14	TOBAR LUCERO Elfa Ismari	Guatemala	CONRED	2007
15	YAX CUNCUN Gloria Estela	Guatemala	Professional Technician / Municipality of Guatemala	2007
16	MEJIA GODOY Victor Mauricio	Guatemala	Municipality of Santa Lucia Cotzumalguapa	2007
17	CHAVARRIA SANTIZO Juan Carlos	Guatemala	CONRED	2008
18	CASTILLO QUINTANILLA Jose Antonio	Guatemala	CONRED	2008
19	ARREAGA MORALES Jairo Estuardo	Guatemala	CONRED	2009
20	PALACIOS HERNANDEZ Vicente	Guatemala	CONRED	2009
21	GIRON GALVEZ Susy Jeannette	Guatemala	CONRED	2009
22	MENDEZ GARCIA Sergio Vinicio	Guatemala	SE-CEPRENAC	2009
23	PEREZ MONDRAGON Guillermo Migdonio	Honduras	GOPECO	2007
24	QUINONEZ ESPINO Julio Cesar	Honduras	CODEM, Municipality of Tegucigalpa City	2007
25	MONTERO RODRIGUEZ Arlette	Honduras	GOPECO	2008
26	ARANDA BAUTISTA Marco Antonio	Honduras	CODEM, Municipality of Tegucigalpa City	2008
27	MALTA BONILLA Sergio Mario	Nicaragua	Facilitator in Disaster Prevention / ASODEL	2007
28	ALVAREZ CASTILLO Jose Antonio	Nicaragua	Head / Geohazard Department, INETER	2007
29	GONZALEZ DETOURNIELLE Martha Xiomara	Nicaragua	SINAPRED	2008
30	MUNGUIA HERNANDEZ Maria	Nicaragua	Municipality of Leon	2008
31	CANALES PEREZ Eveling Francisca	Nicaragua	SINAPRED	2009
32	PAIZ JUAREZ Antonio de Jesus	Nicaragua	Municipality of Leon	2009
33	ARMEN ROWE Federico	Panama	SINAPROC	2007
34	PALACIOS Armando Javier	Panama	SINAPROC	2007
35	LOPEZ ADAMES Jose Elias	Panama	SINAPROC	2008
36	ESPINOSA FERNANDEZ Eric	Panama	SINAPROC	2008
37	BATISTA Jorge Tulio	Panama	Representative / Mayor Office	2009

38	MARTINEZ Valentin	Panama	Local Rick Management Committee, Capira District	2009
39	RODRIGUEZ CHERIGO Jorge Enriquez	Panama	SINAPROC	2009

(3) List of participants in the third-country training course, "Civil Protection and Disaster Prevention" in Mexico

	Name	Nationality	Organization	Year of participation
1	Gilbert Adolfo Jiménez Siles	Costa Rica	CNE	March 2007
2	Elenilson Armando Martínez Ascencio	El Salvador	General Direction of Civil Protection	March 2007
3	Ovidio García	Guatemala	CONRED	March 2007
4	Julio César Quiónes Espino	Honduras	CODEM, Tegucigalpa	March 2007
5	Ariel Omar López Bustillo	Honduras	COPECO	March 2007
6	Edgard René Orozco Campos	Nicaragua	SINAPRED	March 2007
7	Jamil Antonio Robleto Molina	Nicaragua	INETER	March 2007
8	Kira X. Puga Ehrman	Panama	SINAPROC	March 2007
9	Reynaldo Rodríguez García	Panama	SINAPROC	March 2007
10	Marina Villanueva Villanueva	Costa Rica	CNE	May 2008
11	Edwin Alfredo Velis	El Salvador	General Direction of Civil Protection	May 2008
12	Fermín Alberto Pérez Hernández	El Salvador	General Direction of Civil Protection	May 2008
13	Manuel Humberto Hidalgo Enríquez	Guatemala	CONRED	May 2008
14	Joaquín Baldemar Alvarado	Honduras	COPECO	May 2008
15	Norman Martín Sánchez García	Nicaragua	SINAPRED	May 2008
16	Federico Armién	Panama	SINAPROC	May 2008
17	Noriela Rodríguez	Panama	SINAPROC	May 2008
18	Guido Antonio MARÍN QUIRÓS	Costa Rica	CNE	August 2009
19	Edwin Ricardo SOLÓRZANO HERNÁNDEZ	El Salvador	General Direction of Civil Protection	August 2009
20	Glenda Yanira DURÁN DE TEJADA	El Salvador	General Direction of Civil Protection	August 2009
21	Andrés Abelino CASASOLA	Guatemala	CONRED	August 2009
22	Darwin Reynaldo MUÑOZ SALINAS	Honduras	COPECO	August 2009
23	María Margarita Hernández Muñoz	Nicaragua	Municipality of Leon	August 2009
24	José Javier Castillo Melgarejo	Panama	SINAPROC	August 2009
25	Jorge Enrique Rodríguez Chérigo	Panama	SINAPROC	August 2009

(4) List of participants in the study tours

	Name	Nationality	Organization	Theme (visited countries)	Period of the visit
1	Daniel Gallardo	Costa Rica	CNE	Tsunami disaster risk management (Japan and Thailand)	March 2008
2	Alejandro Gutiérrez	Costa Rica	Institute of Oceanography	Tsunami disaster risk management (Japan and Thailand)	March 2008
3	Elda Vásquez de Godoy	El Salvador	SNET	Tsunami disaster risk management (Japan and Thailand)	March 2008

ANNEX 5

List of Equipments Provided

Equipment	Maker	Model	Quantity	Currency	Unit price	Fiscal year of	Recipient country
Radio communication equipment (including accessories)	KENWOOD	TK-7100H	12	US Dollar	773.43	2007	Costa Rica
Equipment cage for vehicle	THULE	Extreme	1	Colon	253,838.00	2008	Costa Rica
Laptop computer	HP	Pavillontx2000	1	Colon	835,362.00	2008	Costa Rica
Still camera	Sonny	DSCW-15DR	1	Colon	187,170.00	2009	Costa Rica
Video camera	Sonny	DGRSR-45DD	1	Colon	315,000.00	2009	Costa Rica
Printer	Epson	TX600	1	US Dollar	279.79	2009	Costa Rica
Digital Camera			3	US Dollar	350.00		El Salvador
Canopi			1	US Dollar	577.75		El Salvador
Desktop computer	HP		1	US Dollar	895.00		El Salvador
Desktop computer	HP		2	US Dollar	900.00		El Salvador
Desktop computer	HP		2	US Dollar	1114.16		El Salvador
Meeting table			1	US Dollar	1160.00		El Salvador
Mini telemetric station			1	US Dollar	300.00		El Salvador
Chainsaw			1	US Dollar	502.85		El Salvador
Chainsaw			3	US Dollar	445.00		El Salvador
Chainsaw			3	US Dollar	680.00		El Salvador
Projector	EPSON		1	US Dollar	800.00		El Salvador
Radio communication base with antenna			3	US Dollar	907.21		El Salvador
Portable radio communication equipment			12	US Dollar	285.00		El Salvador
Video camera			3	US Dollar	750.00		El Salvador
Digital video camera	Sony	DCRDVD405	1	Quetzal	8,999.00	2007	Guatemala
Still camera	Sony	DSCN1	1	Quetzal	3,999.00	2007	Guatemala
Compact SGVA Projector	Sony	VPLES3	1	Quetzal	12,275.00	2007	Guatemala
Battery for digital video camera	Sony	NFPF90	1	Quetzal	2,065.00	2007	Guatemala
Desktop computer	Dell	Optiplex 755 Minitower Core 2 Duo E440/2.0Ghz 2M 800FSB Win Vista Business	1	Quetzal	17,571.49	2008	Guatemala
Notebook	Dell	Inspiron 1420 Intel Core 2 Duo T7250 2.0 GHz. 800 MHz 2M L2 Cache Red	1	Quetzal	9,232.16	2008	Guatemala
GPS	Garmin	Etrevistahcx GPS vista color High Resol	1	Quetzal	3,138.75	2008	Guatemala
Vehicle	Toyota	Land Cruiser	1	Converted from JICA office vehicle			Honduras
Laptop computer	Dell	Vostro 1500	1	US Dollar	1,750.00	2007	Honduras
Projector	Epson	Power Lite 77	1	US Dollar	825.00	2007	Honduras
Radio Base	Kenwood	TK7100-H 64CH	2	US Dollar	687.74	2007	Honduras
Radio transmitter	Kenwood	TK2202LK 16CH	4	US Dollar	195.82	2007	Honduras
Vehicle	Toyota	KUN25L-HRMDH	1	US Dollar	20,323.00	2009	Nicaragua
Laptop computer	DELL	DELL 1520	2	US Dollar	2,341.20	2009	Nicaragua
Desktop computer	DELL	VOSTRO220	1	US Dollar	1,285.60	2009	Nicaragua
Printer	HP Laser	P2035	2	US Dollar	540.00	2009	Nicaragua
Digital Camera	Panasonic	LS70	1	US Dollar	195.00	2007	Panama
Lap top computer	Dell	xpsm 1330	1	US Dollar	1,599.99	2007	Panama
Digital camera	HP	MZ69	3	US Dollar	159.97	2007	Panama
Lap top computer	HP	Pavilion DV2626	3	US Dollar	1,549.00	2007	Panama

Equipment	Maker	Model	Quantity	Currency	Unit price	Fiscal year of	Recipient country
Projector	EPSON	Powerlite 77c	3	US Dollar	999.99	2007	Panama
Video camera	SONY	SO12717293H	1	US Dollar	549.97	2007	Panama
Computer software	Microsoft	Office2007	1	US Dollar	509.97	2007	Panama
Screen	Selectron	PSCC 86	3	US Dollar	199.97	2007	Panama
Multipurpose printer	Canon	04-mp140	3	US Dollar	56.97	2007	Panama
Portable speaker unit		Messenger OGFG0876	3	US Dollar	539.00	2007	Panama
Transceiver	Motorola	EM400	2	US Dollar	1,987.00	2009	Panama

Note: Only equipments with a unit price of 20,000 Japanese Yen or higher at the time of procurement are listed

ANNEX 6  
Expenditures of the Project

Japanese side

(unit: thousand Japanese Yen)

Item	Japanese fiscal year			TOTAL
	2007	2008	2009 (planned)	
Counterpart training	0	0	5,134	5,134
Dispatch of experts	23,633	43,023	42,392	109,048
Provision of equipment	9,582	4,095	3,465	17,142
Dispatch of study teams	2,399	0	7,951	10,350
Other expenditures including local operational	32,135	42,917	45,103	120,155
Total	67,749	90,035	104,045	261,829

Central American side

Costa Rica

Item	Currency	Amount
Domestic travel cost in 2008	UD Dollar	4,362.00
Domestic travel cost in 2009	UD Dollar	1,837.00
Procurement and installation of a repeater	UD Dollar	17,000.00
Operational cost 2008	UD Dollar	27,296.00
Operational cost 2009	UD Dollar	25,789.00
Operational cost 2010	UD Dollar	5,071.00
Personnel cost 2008	UD Dollar	1,674.00
Personnel cost 2009	UD Dollar	1,674.00
Personnel cost 2010	UD Dollar	1,525.00

El Salvador

Item	Currency	Amount
Project office space, with furniture at Civil Protection 2007-2010		
Electricity, water supply and internet access for the project office at Civil Protection 2007-2010		
Office space for municipal emergency operation centers		
Transport cost covered by Civil Protection 2008-2009	UD Dollar	271.68
Transport cost covered by municipalities 2008-2009	UD Dollar	1,347.12
Personnel cost of Civil Protection 2007-2009	UD Dollar	4,452.60
Personnel cost of municipalities 2008-2009	UD Dollar	19,796.52
Workshop cost covered by municipalities 2008-2009	UD Dollar	6,357.48

Guatemala

Item	Currency	Amount
Operational costs 2007	Quetzal	200,000.00
Operational costs 2008	Quetzal	332,706.18
Operational costs 2009 (personnel cost)	Quetzal	390,620.00
Water, electricity and telephone fees		

Office furniture and equipment		
Portable radios, motorcycle, 4x4 car, etc.		

Honduras

Item	Currency	Amount
Fuel cost for the project vehicle (2008-2009)	Lempira	18,976.70
Maintenance cost for the project vehicle (2008-2009)	Lempira	1,030.00
Fuel cost for power generator (2008-2009)	Lempira	190.00
Personnel cost		
Travel cost		
Internet, electricity fee, stationary, etc.		

Nicaragua

Item	Currency	Amount
Operational cost 2009	Córdoba	127,000.00
Operational cost 2010	Córdoba	120,000.00
Personnel cost 2009	Córdoba	280,000.00
Personnel cost 2010	Córdoba	315,000.00

Panama

Item	Currency	Amount
Project office space		
Office furniture and equipment		
Warehouse		
Training rooms		

ANNEX 7: List of Counterpart Personnel

Name	Organization	Role in Project	Country	Period of participation
Vanessa Rosales Ardon	CNE	Project Director	Costa Rica	2009–Present
Daniel Gallardo	CNE	Project Director	Costa Rica	2007–2009
Douglas Salgado Duarte	CNE	Project Manager	Costa Rica	2007–Present
José Joaquín Chacón	CNE	Counterpart	Costa Rica	2010–Present
Oscar Lücke	CNE	Counterpart	Costa Rica	2010–Present
Guido Matamoros Ruiz	CNE	Counterpart	Costa Rica	2007–Present
Oscar Chinchilla	CNE	Counterpart	Costa Rica	2007–Present
Ivannia Dixon Ballestero	CNE	Counterpart	Costa Rica	2007–Present
Sergio Sanchez Castillo	CNE	Counterpart	Costa Rica	2007–Present
Gabriela Vega	CNE	Counterpart	Costa Rica	2009–Present
Marco Vinicio Saborio	CNE	Counterpart	Costa Rica	2007–Present
Ramon Araya	CNE	Counterpart	Costa Rica	2009–Present
Victor Fallas	CNE	Counterpart	Costa Rica	2010–Present
Jorge Melendez	Civil Protection	Project Director	El Salvador	2009–Present
Jorge Barahona	Civil Protection	Project Director	El Salvador	2007–2009
Raúl Murillo	Civil Protection	Counterpart	El Salvador	2007–Present
Fermin Perez	Civil Protection	Project Manager	El Salvador	2007–Present
Edwin Solórzano	Civil Protection	Counterpart	El Salvador	2007–2008
Arístides Helena	Civil Protection	Counterpart	El Salvador	2008–2009
Baudilio Ventura	Civil Protection	Counterpart	El Salvador	2010–Present
Armando Vividor	Civil Protection	Counterpart	El Salvador	2010–Present
Elda de Godoy	SNET	Counterpart	El Salvador	2007–2009
Ernesto Duran	SNET	Counterpart	El Salvador	2007–2008
Griselda Barrera	SNET	Counterpart	El Salvador	2007–2008
Jennifer Larreynaga	SNET	Counterpart	El Salvador	2007–2008
Andrés Samayoa	Municipality of Zaragoza	Counterpart	El Salvador	2007–Present
René Caballero	Municipality of Zaragoza	Counterpart	El Salvador	2007–Present
Santos Rodas	Municipality of San Pedro Masahuat	Counterpart	El Salvador	2008–Present
Everilda Ramos	Municipality of San Luis Talpa	Counterpart	El Salvador	2008–Present
Alexis Guzman	Municipality of San José Villanueva	Counterpart	El Salvador	2007–2008
Eduardo Quijano	Municipality of Antiguo Cuscatlan	Counterpart	El Salvador	2007
Juan Humberto de León	Municipality of Nuevo Cuscatlán	Counterpart	El Salvador	2007–Present
Hugo René Hernández	CONRED	Project Director	Guatemala	2007–2008
Alejandro Maldonado	CONRED	Project Director	Guatemala	2008–Present
Juan C. Maldonado	CONRED	Counterpart	Guatemala	2007–2008
Marilú Recinos	CONRED	Counterpart	Guatemala	2007–2008
Mario Ovalle H.	CONRED	Counterpart	Guatemala	2008–Present
Vicente Palacios	CONRED	Counterpart	Guatemala	2008–Present
Moisés Cajas T.	CONRED	Counterpart	Guatemala	2009–Present
José Castillo Q.	CONRED	Counterpart	Guatemala	2007–Present
Edgar Gomar Ruiz	CONRED	Project Manager	Guatemala	2007–2009
Yohana Miner	CONRED	Counterpart	Guatemala	2009–2010
Susy Girón	CONRED	Counterpart	Guatemala	2010–Present
Jairo Arreaga	CONRED	Counterpart	Guatemala	2009–Present
Marco Tulio Burgos	COPECO	Project Director	Honduras	2007–2009
Eva Joselina Matamoros	COPECO	Project Manager	Honduras	2007–Present
Julio César Quiñonez	Municipality of Tegucigalpa	Counterpart	Honduras	2007–Present

Mirna Solano	Municipality of Tegucigalpa	Counterpart	Honduras	2009-Present
Arléth Magali Montero	COPECO	Counterpart	Honduras	2009-Present
Roberto Mendoza	CODEM-Tegucigalpa	Counterpart	Honduras	2007-2008
Yeri Martínez	CODEM-Tegucigalpa	Counterpart	Honduras	2008
Marco Aranda	CODEM-Tegucigalpa	Counterpart	Honduras	2008
Eli Suarez	CODEM-Tegucigalpa	Counterpart	Honduras	2007-2008
Esteban Tróchez	COPECO	Counterpart	Honduras	2008-Present
Jorge Ramon Arnesto S	SE SINAPRED	Project Manager	Nicaragua	2007-present
Xiomara Gonzalez	SE SINAPRED	Project Director	Nicaragua	2007-present
Ligia Calderon	SE SINAPRED	Counterpart	Nicaragua	2007-present
Eveling Canales	SE SINAPRED	Counterpart	Nicaragua	2008-present
Jose Lara	SE SINAPRED	Counterpart	Nicaragua	2008-present
Vigarny Hurtado	SE SINAPRED	Counterpart	Nicaragua	2008-present
Ana Julia Posada	SE SINAPRED	Counterpart	Nicaragua	2008-present
Manuel Lopez	SE SINAPRED	Counterpart	Nicaragua	2008-present
Margarita Hernandez	Municipality of Leon	Counterpart	Nicaragua	2007-present
Jorge Martinez Acuña	Municipality of Leon	Counterpart	Nicaragua	2008-present
Fabio Segura	INETER	Counterpart	Nicaragua	2008-present
Leonel Reina S	INETER	Counterpart	Nicaragua	2008-present
Justo Pastor Leon Conde	INETER	Counterpart	Nicaragua	2008-present
Wilmer Medrano	INETER	Counterpart	Nicaragua	2008-present
Gerald Arriaza Lopez	INETER	Counterpart	Nicaragua	2008-present
Elkin Bustos Guadamuz	INETER	Counterpart	Nicaragua	2008-present
Francisco Hernandez L	INETER	Counterpart	Nicaragua	2008-present
Juan Salvador Mendez	MINED	Counterpart	Nicaragua	2009-present
Silvia Ulloa	MINED	Counterpart	Nicaragua	2009-present
Alicia Garay	MINED	Counterpart	Nicaragua	2009-present
Felix Jose Picado	MINED	Counterpart	Nicaragua	2009-present
Frania Lopez	MINED	Counterpart	Nicaragua	2009-present
Marisol Urbina	MINED	Counterpart	Nicaragua	2009-present
Lenin Moreno	MINED	Counterpart	Nicaragua	2009-present
Roberto Velásquez	SINAPROC	Project Director	Panama	2007-2008
Luis Francisco Sucre	SINAPROC	Project Director	Panama	2008-2009
Arturo Alvarado De Icaza	SINAPROC	Project Director	Panama	2009- Present
Reynaldo Rodríguez	SINAPROC	Project Manager	Panama	2007-2009
Jorge Rodríguez	SINAPROC	Project Manager	Panama	2009-Present
Armando Palacios	SINAPROC	Counterpart	Panama	2007-2009
José Donderis	SINAPROC	Counterpart	Panama	2009-Present
Alejandro López	SINAPROC	Counterpart	Panama	2007-2009
José Aguirre	SINAPROC	Counterpart	Panama	2009-Present
Noriela Rodríguez	SINAPROC	Counterpart	Panama	2007-2009
José Morrone	SINAPROC	Counterpart	Panama	2009-Present

Note: Data of Nicaragua was not available

ANNEX 8 List of methodologies, tools and technologies developed or adapted locally by the Project

(1) Educational/awareness-raising materials for communities

	Item	Description	Remarks
1	Card game	An educational game for small children to teach disaster risk reduction	Adapted from "BOSAI Duck" game developed by the General Insurance Association of
2	Liquefaction experiment kit	A tool to show and explain the mechanism of soil liquefaction phenomenon	Adapted from its original version developed by the National Research Institute for Earth Science and Disaster Prevention of Japan
3	Pamphlet to promote safer houses, "Don Neto's Note"	A tool for promotion of seismic-resistant and chagas-disease-free houses	Jointly developed with other JICA projects, i.e. TAISHIN project and chagas disease control project
4	Picture-story kit	A tool for raising awareness of Tsunami disaster risk reduction	Develop based on a Japanese legendary story, "Inamura no hi"
5	Volcanic disaster risk education kit	Coloring books, calendars and posters to raise awareness of volcanic disaster risk management	
6	Tsunami education material	Consists of pupils' guide and teachers' guide for Tsunami	Modified from the original material prepared by a follow-up project of training
7	Educational games for disaster risk management	An organized games for children to learn disaster risk management	Adapted from "Kaeru Caravan" of Japan

(2) Methodologies, tools and technologies to promote local disaster risk management

	Item	Description	Output products	Remarks
1	DIG (Disaster Imagination Game)	A participatory disaster simulation method	DIG Manual	Adapted from Japanese DIG
2	Plain rain gauge	Technology of making low-cost rain gauges with simple structure	Production manual	Adapted from similar technologies used in different countries
3	Plain water-level gauge	Technology of making low-cost water-level gauges with simple structure	Production manual (to be elaborated)	Adapted from similar technologies used in different countries
4	Simple landslide monitoring	A method of simple landslide monitoring method for communities, using fishing lines and a pair of poles	Operation manual (to be elaborated)	
5	Soil bag making and utilization	Soil bag making and utilization method to mitigate flood damages	Instruction video	Produced with cooperation of a JOCV in Costa Rica
6	Used-tire dyke	Dyke construction technology using used-tires which can be applied at the community level	Design and construction guideline	

## ANNEX 9 Schedule of the Mid-term Review Study

Date			Activities	Accommodation	
1	February	15	Mon.	Departure from Japan (Japanese review team)	
2		16	Tue.	Arrival in San Salvador (Japanese review team) Meeting with JICA El Salvador Office Meeting with project long-term experts	San Salvador
3		17	Wed.	Meeting with the local consultant of the preliminary survey for the Mid-term Review	San Salvador
4		18	Thu.	Surface Transport to Honduras Field visit in Namasigüe city	Choluteca
5		19	Fri.	Field visit in Choluteca, and El Triunfo city	Choluteca
6		20	Sat.	Surface transport to El Salvador	San Salvador
7		21	Sun	Transport to Panama	Panama City
8		22	Mon.	Meeting with JICA Panama Office Courtesy call to Ministry of Economy and Finance Meeting with SINAPROC Meeting with Embassy of Japan	Panama City
9		23	Tue.	Field visit to Capira district	Panama City
10		24	Wed.	Transport to Costa Rica	San José
11		25	Thu.	Meeting with JICA Costa Rica Office Meeting with CNE Surface transport to Cañas city	Cañas
12		26	Fri.	Meeting with mayor of Cañas city Field visit in Cañas, and Tilarán city	Cañas
13		27	Sat.	Transport to El Salvador	San Salvador
14		28	Sun	Drafting the Mid-term Review Report	San Salvador
15	March	1	Mon.	Meeting with JICA El Salvador Office Meeting with General Direction for Civil Protection Field visit in Zaragoza city Meeting with SICA and JICA expert for SICA	San Salvador
16		2	Tue.	Field visit in San Pedro Masahuat city and San Luis Talpa city	San Salvador
17		3	Wed.	Drafting the Mid-term Review Report	San Salvador
18		4	Thu.	Joint Mid-term Review meeting	San Salvador
19		5	Fri.	Joint Mid-term Review meeting Joint Coordinating Committee meeting Signing the Joint Mid-term Review Report and Minutes of Meeting Reporting to Embassy of Japan	San Salvador
20		6	Sat.	Data Analysis	San Salvador
21		7	Sun	Transport to Nicaragua Surface transport to Leon city	León
22		8	Mon.	Field visit in Leon city Surface transport to Managua	Managua
23		9	Tue.	Meeting with JICA Nicaragua Office Meeting with SINAPRED Transport to Guatemala	Guatemala City
24		10	Wed.	Meeting with SE-CEPRENAC Meeting with JICA Guatemala Office Field visit in Volcán de Fuego area	Antigua
25		11	Thu.	Field visit in Volcán de Fuego area	Antigua
26		12	Fri.	Meeting with CONRED Meeting with JICA Guatemala Office Departure from Guatemala (Japanese review team)	
27		13	Sat.		
28		14	Sun	Arrival in Japan (Japanese review team)	

