







卷末資料 - 2:

復旧事業現場写真集

工事箇所名: BK-R1

護岸工	
 <p>Date: June 04, 2010</p> <p>施工前</p>	 <p>Date: June 04, 2010</p> <p>施工前</p>
 <p>Date: December 27, 2010</p> <p>施工中</p>	 <p>Date: January 22, 2011</p> <p>施工中</p>
 <p>Date: February 08, 2011</p> <p>施工後</p>	 <p>Date: February 09, 2011</p> <p>施工後</p>







工事箇所名: BK-R3

橋桁再架設	振動対策工
 <p>Date: February 14, 2010</p>	 <p>Date: February 14, 2010</p>
<p>施工前</p>	<p>施工前</p>
 <p>Date: September 22, 2010</p>	 <p>Date: October 29, 2010</p>
<p>施工中</p>	<p>施工中</p>
 <p>Date: January 05, 2011</p>	 <p>Date: January 05, 2011</p>
<p>施工後</p>	<p>施工後</p>

工事箇所名: KR-R1

護岸工	
 <p>Date: June 04, 2010 施工前</p>	 <p>Date: June 04, 2010 施工前</p>
 <p>Date: September 30, 2010 施工中</p>	 <p>Date: October 06, 2010 施工中</p>
 <p>Date: February 08, 2011 施工後</p>	 <p>Date: February 08, 2011 施工後</p>

工事箇所名: KR-R1

樋管工	水路工
 <p data-bbox="384 831 687 857">Date: February 18, 2010</p>	 <p data-bbox="991 831 1241 857">Date: June 04, 2010</p>
<p data-bbox="488 869 580 896">施工前</p>	<p data-bbox="1070 869 1163 896">施工前</p>
 <p data-bbox="352 1379 667 1406">Date: November 22, 2010</p>	 <p data-bbox="959 1379 1273 1406">Date: December 07, 2010</p>
<p data-bbox="464 1417 557 1444">施工中</p>	<p data-bbox="1070 1417 1163 1444">施工中</p>
 <p data-bbox="360 1928 659 1955">Date: February 08, 2011</p>	 <p data-bbox="967 1928 1265 1955">Date: February 08, 2011</p>
<p data-bbox="464 1966 557 1993">施工後</p>	<p data-bbox="1070 1966 1163 1993">施工後</p>

工事箇所名: KR-R2

護岸工	
 <p>Date: June 03, 2010 施工前</p>	 <p>Date: June 03, 2010 施工前</p>
 <p>Date: September 30, 2010 施工中</p>	 <p>Date: September 30, 2010 施工中</p>
 <p>Date: February 08, 2011 施工後</p>	 <p>Date: February 08, 2011 施工後</p>







工事箇所名: KR-R3

護岸工	
 <p>Date: February 18, 2010</p>	 <p>Date: June 05, 2010</p>
施工前	施工前
 <p>Date: November 24, 2010</p>	 <p>Date: November 24, 2010</p>
施工中	施工中
 <p>Date: February 01, 2011</p>	 <p>Date: February 08, 2011</p>
施工後	施工後

工事箇所名: KR-R4

護岸工	
 <p>Date: June 03, 2010 施工前</p>	 <p>Date: June 03, 2010 施工前</p>
 <p>Date: October 12, 2010 施工中</p>	 <p>Date: November 18, 2010 施工中</p>
 <p>Date: February 08, 2011 施工後</p>	 <p>Date: February 08, 2011 施工後</p>

工事箇所名: KR-R5

護岸工	
 <p>Date: June 03, 2010 施工前</p>	 <p>Date: June 03, 2010 施工前</p>
 <p>Date: December 16, 2010 施工中</p>	 <p>Date: January 04, 2011 施工中</p>
 <p>Date: February 08, 2011 施工後</p>	 <p>Date: February 08, 2011 施工後</p>

工事箇所名: BL-R1

護岸工	
 <p>A photograph showing a concrete retaining wall under construction on the left side of a river. A person is walking on the path to the right. A red arrow points to the river.</p>	 <p>A photograph showing the river and the area where the retaining wall will be built. A red arrow points to the river.</p>
Date: June 04, 2010 施工前	Date: June 04, 2010 施工前
 <p>A photograph showing the construction site with wooden formwork and a yellow excavator. A red arrow points to the river.</p>	 <p>A close-up photograph of the construction process, showing a stone masonry structure being built within wooden formwork. A red arrow points to the structure.</p>
Date: December 10, 2010 施工中	Date: December 22, 2010 施工中
 <p>A photograph showing the completed retaining wall. A red arrow points to the river.</p>	 <p>A photograph showing the completed retaining wall from a different angle. A red arrow points to the river.</p>
Date: February 08, 2011 施工後	Date: February 08, 2011 施工後

巻末資料 - 3:

国際協力機構・インドネシア共和国公共事業省

「パダン沖地震水資源施設災害復旧事業支援に関する覚書」

(2010年4月22日締結)

**MEMORANDUM OF UNDERSTANDING
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE MINISTRY OF PUBLIC WORKS OF THE REPUBLIC OF INDONESIA
ON
PROJECT FOR POST-EARTHQUAKE REHABILITATION OF WATER
RESOURCES MANAGEMENT FACILITIES IN PADANG**

DATE: April 22, 2010
PLACE: Jakarta, Indonesia

For
Japan International
Agency

Cooperation

For
Government of the Republic of
Indonesia



Takashi SAKAMOTO
Chief Representative
Japan International
Agency
Indonesia Office



Cooperation

Mochammad Amron
Acting Director General of Water
Resources
Ministry of Public Works
Republic of Indonesia

Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a preparatory survey mission (hereinafter referred to as "the JICA Mission") to the Republic of Indonesia from November 10 to November 29, 2009 for the purpose of developing a detailed plan for the Project for Post-earthquake Rehabilitation of Water Resources Management Facilities in Padang (hereinafter referred to as "the Project").

During its stay in the Republic of Indonesia, the JICA Mission exchanged views and held a series of discussions with the representatives of relevant organizations of the Republic of Indonesia.

As a result, JICA and the Government of the Republic of Indonesia (hereinafter referred to as "GOI") confirmed that both parties would sincerely cooperate with each other with a view to contributing toward smooth implementation and enhancing development effect of Padang Area Flood Control Project (I) (II) signed on December 14, 1990 and December 1, 1995, respectively, by attaining the purposes of the Project.

Both parties hereby agreed upon the project document of the Project as per Appendix.

Appendix: PROJECT DOCUMENT

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PROJECT DOCUMENT

I. BACKGROUND

Padang City is the capital city of West Sumatra Province, which is located in the center of the western part of Sumatra Island. The City is prospering as a center of administration and education of West Sumatra and also as a commercial center in respect of communication and transport at the western coast of Sumatra Island. Because of its location, Padang City had been suffering from frequent flood damages for many years. In order to prevent continuing flood damages, Japanese ODA Loan Projects, "Padang Area Flood Control Projects (I) (II)" had been implemented from 1990 to 2002. After completion of the flood control projects, there is no remarkable flood damage in Padang City.

On September 30, 2009, an earthquake of magnitude 7.6 occurred off the coast of Padang City and caused the disasters in many parts of Padang and West Sumatra. According to the information from West Sumatra Province, as of October 31, 2009, there were death toll 1,195 people, missing 2 people, injured 1,798 people, refugees 6,554 people, and the damage amounts to Rp 4.8 trillion.

Many water resources management facilities including the flood control facilities were also affected by this earthquake. According to the survey by the West Sumatra Province, as of October 10, the damages of the flood control facilities were confirmed along 12 rivers. In particular, seismic intensity of this earthquake was greater in Padang City, and the flood control facilities constructed by Japanese ODA Loan Projects have also suffered damages.

After the earthquake, JICA had dispatched the Planning Survey Mission for the Post-earthquake Rehabilitation of Water Resources Management Facilities in Padang in November 2009 in order to assist the rehabilitation planning of the damaged facilities. The earthquake caused devastation of river basins and increase of debris in the basins. The damages to the flood control facilities would cause flood damages in Padang City, the center of West Sumatra. Therefore, the earliest rehabilitation of these flood control facilities becomes one of the major keys to the recovery from the earthquake disaster.

II. OUTLINE OF THE PROJECT

1. Overall Goal

The secondary damages of the earthquake in Padang City are prevented by

restoring the original function of damaged water resources management facilities.

2. Purposes

Among the facilities constructed by "Padang Area Flood Control Projects (I) (II)", serious damages of the water resources management facilities are restored.

3. Output

Among the facilities constructed by "Padang Area Flood Control Projects (I) (II)", damaged water resources management facilities which require urgent recovery are rehabilitated.

4. Activities

(1) To select and design the objective facilities for rehabilitation

1. To conduct field investigation in the project site
2. To make rehabilitation design and cost estimation

(2) To select contractors

1. To prepare tender documents
2. To select contractors through the local competitive bidding

(3) To conduct construction works for rehabilitation

In the Project, JICA Indonesia Office will be the employer for rehabilitation works. Contractor selection and construction supervision will be implemented by JICA Indonesia Office and supported by the consultant team.

GOI will undertake to bear claims, if any arises, against the consultant team resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Indonesia except for those arising from the willful misconduct or gross negligence of the consultant team.

(4) To hand over the facilities after rehabilitation works

After final inspection, the rehabilitated facilities will be handed over to GOI. JICA as well as consultants and contractors employed by JICA will not be liable for any defects nor damages after handing over of the facilities.

5. Input (Japanese side, Indonesian side)

[Japanese side]

(1) Dispatch of a Japanese consultant team

JICA will dispatch a team consisted of Japanese consultants (hereinafter referred to as "the Team") to carry out the services. The Team will include the following experts.

1. Team Leader/ River Engineer
2. Bridge Engineer
3. Project Coordinator

The Team will engage local consultants and other supporting staffs.

[Indonesian side]

- (1) Assignment of counterpart personnel
- (2) Provision of appropriate office space and office equipment for the Team
- (3) Provision of data, information and documents related to Padang Area Flood Control Projects (I) (II)
- (4) Provision of data and information regarding the relevant contractors

6. Project Site(s)

Padang, West Sumatra

Water resources management facilities with high priority in both flood control and civil life, as listed in Annex 1, would be the objective facilities of rehabilitation works. However, because of the budget limitation, those facilities might be reviewed in view of contractor selection procedure. The objective facilities will be determined through the discussion with agencies concerned.

7. Duration

12 months (from February 2010 to January 2011)

8. Reports

The Team will prepare and submit the following reports in English to the GOI.

- (1) Inception Report (February 2010)
- (2) Progress Report (June 2010)
- (3) Final Report (January 2011)

9. Social/ Environmental Consideration

Considering that the project activities are mainly rehabilitation of the damaged water resources management facilities constructed by Padang Area Flood Control Project (I) (II), there will not be any significant undesirable impacts on the environments. Furthermore, given that the broken facilities may cause the secondary disasters and that the disasters may adversely affect the environments, it is highly required to implement the rehabilitation works promptly.

Details of the Project are described as the tentative plan of operation (PO).
(Annex 2)

III. IMPLEMENTING ARRANGEMENTS

1. Administration of the Project

(1) Directorate of River, Lake and Reservoir, Directorate General of Water Resources, Ministry of Public Works, as the executive agency, will be responsible for the project administration.

(2) Sumatra V River Basin Office, representing Directorate General of Water Resources, Ministry of Public Works, as the implementing agency, will be responsible for the project implementation.

(3) Regional Development Planning Agency, West Sumatra, Water Resources Management Services, West Sumatra, Regional Disaster Management Agency, West Sumatra and Technical Support Team for Post-earthquake Rehabilitation and Reconstruction of West Sumatra Province, National Disaster Management Agency as the related agencies, will cooperate with the executive agency, the implementing agency as well as the consultant team for smooth project implementation.

(4) In order to promote effective and successful project implementation, the Project Steering Committee and the Project Working Group will be established whose functions and compositions are described in Annex 3 and 4 respectively.

2. Monitoring and Final Inspection

Throughout the Project, the Project Working Group will monitor all the activities including final inspection, cooperating with the Project Steering Committee. The Working Group will consult the Steering Committee in case the difficulties are raised during the Project.

3. Undertakings of GOI

GOI will undertake to provide the followings in order to assist smooth implementation of the Project.

(1) GOI will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese cooperation, through full and active involvement in the Project by all related authorities, beneficiary groups and institutions.

(2) GOI will grant in Indonesia privileges, exemptions and benefits to the Japanese consultants referred to in II-5 (1) above according to the standard of the Colombo Plan Technical Cooperation Scheme.

(3) In accordance with the laws and regulations in force in Indonesia, the Government of Indonesia will take necessary measures to meet:

- (a) Customs duties, internal taxes and any other charges, imposed in Indonesia on the equipment necessary for the project implementation; and
- (b) Running expenses necessary for the implementation of the Project.

4. Mutual Cooperation

JICA and GOI will consult each other whenever any major issues arising in the course of the project implementation.

Annex 1	Proposed Facilities for Rehabilitation Works (Tentative)
Annex 2	Tentative Plan of Operation
Annex 3	Project Steering Committee
Annex 4	Project Working Group

Annex 1 Proposed Facilities for Rehabilitation Works (Tentative)

No.	Location	Damaged Structure	Countermeasures	Rehabilitation Extent (m)
Flood Relief Channel				
1	Around Purus Sluice	Sluiceway, dike, slope protection	Reconstruction of outlet of Sluice, and reconstruction of dike and slope protection.	40
2	Parak Kopi Footpath Bridge	Bridge girder (horizontal displacement)	Re-erection of bridge girder, installation of anti-earthquake stopper.	-
Kuranji River				
3	Around K.8 Sluiceway	Sluiceway, slope protection, dike	Reconstruction of Sluice way and reconstruction of slope protection and dike beside sluiceway.	32
4	Downstream site of Nanggalo Bridge	Dike, slope protection	Reconstruction of dike and slope protection	90
5	Upstream site 1 of Nanggalo Bridge	Dike, slope protection	Reconstruction of dike and slope protection	87
6	Upstream site 2 of Nanggalo Bridge	Culvert, dike, slope protection	Reconstruction of outlet of culvert and reconstruction of dike and slope protection beside culvert.	16
Balimbing River (Tributary of Kuranji River)				
7	Downstream side of Tunggul Hitam Bridge	Dike, slope protection	Reconstruction of dike and slope protection.	142

Note: Objective facilities are subject to change depending on present condition of facilities and discussion with the agencies concerned.

10

Annex 2

Tentative Plan of Operation

Work Item	Japanese Fiscal Year		2010												2011			
	Year	Month	2010												2011			
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
Preparatory Work in Japan																		
(1) Review of Previous Reports, Data and Information				□														
(2) Preparation of Inception Report				□														
Work in Indonesia																		
(3) Submittal, Explanation and Discussion of Inception Report				■														
(4) Rehabilitation Plan, Detailed Design and Cost Estimate				■														
(5) Selection of Contractor(s)				■	■	■												
(6) Establishment of Construction Supervision System						■	■	■										
(7) Preparation, Submittal, Explanation and Discussion of Progress Report						■	■											
(8) Construction Supervision						■	■	■	■	■	■	■	■	■	■	■		
(9) Guidance of Operation and Maintenance of Facilities								■	■	■	■	■	■	■	■	■		
(10) Preparation and Explanation of Final Report (English Version)														■	■	■		
Completion Work in Japan																		
(11) Preparation and Explanation of Final Report (Japanese Version)																□		
Reporting																		
(1) Inception Report				▲▲														
(2) Progress Report								▲										
(3) Final Report															▲	▲		
Construction schedule																		
(1) Selection of Contractor(s)				[Timeline bar from Feb to Sep 2010]														
(2) Construction Period																		
(3) Flood Season																		

Legend:

- Work in Indonesia
- Work in Japan
- ▲ Report (English)
- △ Report (Japanese)

14

1. Functions

The Project Steering Committee will be set up to promote effective and smooth implementation of the Project. The Steering Committee will meet on occasion, in order to fulfill following function:

- To review the progress of activities implemented under the activity plan;
- To review and exchange opinions on major issues that may arise during the project implementation;
- To discuss any other issue(s) pertinent to the smooth implementation of the Project; and
- To give the guidance and suggestion to the Working Group

2. Composition

(1) Chairperson:

Director of River, Lake and Reservoir, Directorate General of Water Resources, Ministry of Public Works

(2) Members:

Representative of the following agencies concerned (Senior Representative will be the member only for JICA Indonesia Office):

- Sumatra V River Basin Office, representing Directorate General of Water Resources, Ministry of Public Works
- Technical Support Team for Post-earthquake Rehabilitation and Reconstruction of West Sumatra Province, National Disaster Management Agency
- Regional Development Planning Agency, West Sumatra Province
- Water Resources Management Services, West Sumatra Province
- Regional Disaster Management Agency, West Sumatra Province
- JICA Indonesia Office

(3) Secretariat:

JICA Indonesia Office and JICA Consultant Team

1. Functions

The Project Working Group will serve as the implementing organization of the Project including the JICA Consultant Team. Function of the Working Group is as follows:

- To assist all activities in the field, including rehabilitation design and final inspection
- To report progress and plan of the activities to the Steering Committee regularly; and
- To cooperate on settlement of issues that may arise during the project implementation.

2. Composition

(1) Chairperson:

Head of Sumatra V River Basin Office, representing Directorate General of Water Resources, Ministry of Public Works

(2) Members:

The JICA Consultant Team and the officials dispatched from the following agencies concerned:

- Directorate of River, Lake and Reservoir, representing Directorate General of Water Resources, Ministry of Public Works
- Sumatra V River Basin Office, representing Directorate General of Water Resources, Ministry of Public Works
- Water Resources Management Services, West Sumatra Province