[資　料]

1. 調査団員・氏名

基本設計現地調査(B/D)

氏　名	担　当	所　属
三村　悟	総括	JICA　地球環境部 水資源・防災グループ防災第二課　課長
相良　冬木	計画管理	JICA　資金協力支援部準備室 事業調査第一課　主任
松本　良治	業務主任/ 河川・砂防計画/維持管理	株式会社 建設技研インターナショナル
三品　孝洋	副業務主任/ 砂防施設設計・施工計画	同　上
渡邊　亮平	橋梁設計・施工計画	同　上
田中　大文	自然条件調査 （地形・地質）	同　上
森下　甲子弘	自然条件調査 （気象・水文・水理）	同　上
清田　大作	環境社会配慮	同　上
三浦　実	調達計画/積算	同　上

基本設計概要説明調査（D・B/D）

氏　名	担　当	所　　属
永石　雅史	総　括	JICA フィリピン事務所　次長
小林　千晃	調査企画	JICA 地球環境部水資源防災グループ 第一課
松本　良治	業務主任／ 河川・砂防計画／維持管理	株式会社 建設技研インターナショナル
三品　孝洋	副業務主任／ 砂防施設設計／施工計画	株式会社 建設技研インターナショナル
渡邊　亮平	橋梁設計／施工計画	株式会社 建設技研インターナショナル

2. 調査行程

調査行程（基本設計現地調査）

工程表				団長	官団員	業務主任 ／河川・砂防計画／ 維持管理	副業務主任／ 砂防施設設計・ 施工計画	橋梁設計 ・施工計画	自然条件調査 （地形・地質）	自然条件調査 （気象・水文・水理）	調達計画／積算	環境社会配慮
日順	日付		曜日	三村　悟	相良　冬木	松本　良治	三品　孝洋	渡邊　亮平	田中　大文	森下　甲子弘	三浦　実	清田　大作
1	8月	7	木		東京→M、JICA表敬							
2		8	金		IC/R説明・協議（DPWH：Rebecca T. Garsuta, Philip F. Meñez, Rogelio O. Ang, Melvin B. Navarro）、協議（DENR：Cesar S. Siador, Jr., Marivic E. Yao）、JICA専門家（北林次長、野村調査員、加本専門家）打合せ							
3		9	土		M（PR183/10：00発）→CDR（11：40着）→C、現地調査							
4		10	日		現地調査、団内打合せ							
5		11	月		IC/R説明・協議（LGU：Leo G. Vasacar, Ronnie L. Almosor、DEO：Benjamin S. Babia, Rolando C. Conzon, Elvis A. Jamero、PENRO：Gaudioso B. Malaton, Roberto S. Rufino, Luisito Salugsugan）						
6		12	火	東京（JL741/9：35発）→ M（13：05着）、団内打合せ	協議(NEDA-Region10：Refael G. Evangelista, Jr.)、C→CDO（PR186/15：50発）→M（17：25着）、団内打合せ				現地調査/技術協議・確認（実施機関）		C→CDO（PR186/15：50発）→ M（17：25着）、団内打合せ	
7		13	水	M/D協議（DPWH：Rebecca T. Garsuta, Philip F. Meñez, Melvin B. Navarro）、協議（DOF：Erwin Sta. Ana、NEDA：Kathreen V. Miranes, Ameta B. Benjamina）					同上		M/D協議（DPWH）、協議（DOF、NEDA）	
8		14	木	M/D協議（DPWH：Rebecca T. Garsuta, Philip F. Meñez, Melvin B. Navarro）、協議（FCSEC：Shinichi Hasebe, Nakamura Shinya, Resito V. David, Dolores M. Hipolito）					同上		M/D協議（DPWH）	
9		15	金	M/D署名（DPWH：Rebecca T. Garsuta, Philip F. Meñez, Melvin B. Navarro）、JICA（松田所長、北林次長、野村調査員）・EOJ（吉野二等書記官）報告					同上		M/D協議・サイン、JICA・EOJ報告	
10		16	土	M（JL742/14：25発）→東京（19：50着）		M（PR183/10：00発）→CDR（11：40着）、協議（DPWH Regional Office：Bonifacio R. Lora, Celedonia M. Cabrera）、→C			同上		M（PR183/10：00発）→ CDR（11：40着）、協議（DPWH Regional Office）、→C	
11		17	日			資料整理						
12		18	月			現地調査/技術協議・確認（実施機関）						東京→M
13		19	火			同上、州知事：Jurdin Jesus M. Romualdoと打合せ						DPWH：Edgar Fabregasと打合せ
14		20	水			同上						M→CDR→C
15		21	木			同上						
16		22	金			SHM準備						
17		23	土			SHM、協議結果整理						
18		24	日			資料整理						
19		25	月			現地調査/技術協議・確認（実施機関）				C→CDO→M	現地調査/技術協議・確認（実施機関）	
20		26	火			同上				M→東京	同上	
21		27	水			同上					同上	
22		28	木			C→CDO CDOにおける建設資材業者の視察			現地調査/技術協議・確認 （実施機関）		C→CDO CDOにおける建設資材業者の視察	現地調査/技術協議・確認 （実施機関）
23		29	金			CDO（PR186/15：50発） →M（17：25着）	CDOにおける建設資材業者の視察 CDO→C		同上		CDOにおける建設資材業者の視察 CDO→C	同上
24		30	土			技術協議・確認（実施機関）	現地調査/技術協議・確認（実施機関）				現地調査/技術協議・確認（実施機関）	
25		31	日			資料整理	資料整理				資料整理	

（つづき）

工程表				団長	官団員	業務主任 ／河川・砂防計画／ 維持管理	副業務主任／ 砂防施設設計・ 施工計画	橋梁設計 ・施工計画	自然条件調査 （地形・地質）	自然条件調査 （気象・水文・水理）	調達計画／積算	環境社会配慮
日順	日付		曜日	三村　悟	相良　冬木	松本　良治	三品　孝洋	渡邊　亮平	田中　大文	森下　甲子弘	三浦　実	清田　大作
26	9月	1	月			技術協議・確認（実施機関）	現地調査/技術協議・確認（実施機関）				現地調査/技術協議・確認（実施機関）	C→CDO DENR：Mey D. Jimenesとの技術協議・確認
27		2	火			同上	同上				同上	DENR：Mey D. Jimenesとの技術協議・確認 CDO→C
28		3	水			同上	同上				現地調査/技術協議・確認（実施機関）	
29		4	木			同上	C→CDO→M		現地調査/技術協議・確認（実施機関）		同上	
30		5	金			同上	DPWH（Rebecca T. Garsuta, Philip F. Meñez, Rogelio O. Ang, Melvin B. Navarro）との技術協議・確認		同上		同上	
31		6	土			同上	M→CDR→C		同上		同上	
32		7	日			資料整理	資料整理				資料整理	
33		8	月			技術協議・確認（実施機関）	現地調査/技術協議・確認（実施機関）				現地調査/技術協議・確認（実施機関）	
34		9	火			同上	同上				同上	
35		10	水			同上	C→CDO→M、技術協議（DPWH Regional Office：Dulce C. Adiong）、団内打合せ				C→CDO→M、団内打合せ	
36		11	木			DPWH（Rebecca T. Garsuta, Philip F. Meñez,　Rogelio O. Ang, Melvin B. Navarro）との技術協議					DPWHとの技術協議	
37		12	金			JICA（北林次長、野村調査員）、EOJ（吉野二等書記官）へ調査報告					JICA、EOJへ調査報告	
38		13	土			資料整理					資料整理	M→Tokyo
39		14	日			同上					同上	
40		15	月			M→Tokyo					同上	

マニラ（M）
カミギン（C）
移動（マニラ⇔カミギン）
移動（東京⇔マニラ）
カガヤン デ オロ（CDO）

注）　技術的検討項目については、カミギン島の実施機関と打合せの上決定するものとして設定したスケジュール

JICA: 国際協力機構
DPWH: 公共事業道路省
DENR: 環境天然資源省
LGU: 地方政府（カミギン州政府）
DEO: DPWH地方技術事務所
PENRO: 環境天然資源省地方事務所
DOF: 財務省
NEDA: 国家経済開発庁
SHM: ステークホルダーミーティング
EOJ: 在フィリピン日本大使館
FCSEC: 治水・砂防技術センター

調査行程（基本設計概要書説明調査）

日数	日程			JICA		コンサルタント（松本、三品、渡邊、）	
				団長：永石次長	小林　千晃	業務内容	宿泊地
				業務内容	業務内容		
1	2月	15日	日			東京09:35→マニラ13:30（JL741） 団内打合せ	マニラ
2		16日	月	DPWH表敬		JICA表敬、DPWH表敬	〃
3		17日	火			AM:DPWH協議，PM:FCSEC表敬	〃
4		18日	水		東京09:35→マニラ13:30（JL741）	AM:DPWH協議	〃
				PM:NEDA協議			
5		19日	木	DPWH協議			〃
6		20日	金	団内打ち合せ			〃
7		21日	土	マニラ → カガヤン・デ・オロ → カミギン島 PM:カミギン州 Provincial Office　表敬			カミギン
8		22日	日	カミギン島現場視察、PM:カミギン島→カガヤン・デ・オロ			〃
9		23日	月	永石、小林、松本　：　AM:カガヤン・デ・オロ → マニラ，PM:NEDA協議			マニラ
				三品、渡邊　：　AM: DPWH Region 10 協議，　PM:カガヤン・デ・オロ → マニラ			
10		24日	火	AM:団内打ち合せ，PM:大使館報告			〃
11		25日	水	AM:ミニッツ署名	マニラ → 東京	AM:ミニッツ署名	〃
12		26日	木			マニラ 09:10 → 東京14:10（JL746）	－

3. 関係者（面会者）リスト

在フィリピン日本国大使館	
吉野　広郷	二等書記官
JICAフィリピン事務所	
松田　教男	フィリピン事務所長
北林　春美	フィリピン事務所　次長
永石　雅史	フィリピン事務所　次長
野村　陽子	企画調査員（防災担当）
内田　久美子	所　員
Minnie Dacanay	Consultant
環境天然資源省　環境管理局	
Cesar S. Siador, Jr.	
Marivic E. Yao	
環境天然資源省　リージョンX事務所	
Mey D. Jimenes	Chief of Environmental Impact Assessment & Monitoring Division
財務省	
Erwin Sta. Ana	Planning Officer
公共事業道路省　設計局	
Adriano M. Doroy	Engineer V
Perfecto L. Zaplan Jr.	Engineer V
公共事業道路省　設計局　水理部	
Leonardo Lingaw	Engineer IV
Marceliano A. Carlota II	Engineer III
公共事業道路省カミギン地方技術事務所	
Elvis A. Jamero	Engineer II
Rolando C. Conzon	OIC-PE
Benjamin S. Babia	Chief, PDS
公共事業道路省　計画部	
Estelita M. Leonado	Eco. II, PS
Aquilina T. Decilos	Engr. III
Melvin B. Navarro	OIC-PS
Rebecca T. Garsuta	Engineer V
公共事業道路省　環境社会部	
Edgar Fabregas	Economist
Edgar Fabregas	Economist
Ignacia M. Ramos	CE/Environmentalist
公共事業道路省　クラスターII	
Rogelio O. Ang	Project Manager
Roy R. Quilaton	Project Engineer
Ruel R. Caseñas	Engineer II
Philip F. Meñez	Project Director IV
公共事業道路省　リージョンX事務所	
Bonifacio R. Lora	Asst Chief Construction Division
Celedonia M. Cabrera	Chief Planning & Design　Division
Tita B. Rato	KSSTT Chief Planning & Design　Division
Dulce C. Adiong	Engineer ⅢFlood Control Section

治水砂防技術センター	
Minoru KAMOTO	JICA Expert FCSEC
Shinichi Hasebe	JICA Expert FCSEC
Nakamura Shinya	JICA Expert FCSEC
Dolores M. Hipolito	PM II
Resito V. David	Project Director
国家経済開発庁	
Pallo Mert S. Bernardo	EDS-II
Kathreen V. Miranes	Sr. EDS
Ameta B. Benjamina	Supervisor EDS
Reno Joseph Cantre	EDS-II
国家経済開発庁　リージョンX事務所	
Refael G. Evangelista, Jr.	Regional Director
環境天然資源省　カミギン地方事務所	
Roberto S. Rufino	OIC-FMS
Gaudioso B. Malaton	OIC-PENRO
Luisito Salugsugan	Sr. Analyst
カミギン州事務所	
Jurdin Jesus M. Romualdo	Governor
Leo G. Vasacar	Vice Governor
カミギン州事務所　計画開発部	
Felicisimo M. Gomez	Officer
Ronnie L. Almosor	Engineer

4. 討議議事録(M/D)

Minutes of Discussions
on the Basic Design Study
on the Project for Flood Disaster Mitigation in Camiguin Island
in the Republic of the Philippines

In response to a request from the Government of the Philippines (hereinafter referred to as "GOP"), and referring the results of Preliminary Study conducted in January and February 2008, the Government of Japan (hereinafter referred to as "GOJ") decided to conduct a Basic Design Study on the Project for Flood Disaster Mitigation in Camiguin Island (hereinafter referred to as "the Project") in the Republic of the Philippines (hereinafter referred to as "the Philippines") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Philippines the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Satoru MIMURA, Director, Disaster Management Division I, Global Environment Department, JICA and is scheduled to stay in the country from 7th August to 15th September, 2008.

The Team held discussions with the concerned GOP officials and conducted a field survey at the study area. In the course of discussions and field survey, both parties confirmed the main items described in the attached sheets.

Manila, 15th August, 2008

三村 悟

Satoru MIMURA
Leader
Basic Design Study Team
Japan International Cooperation Agency

Maria Catalina E. Cabral, Ph.D.
Assistant Secretary for Planning
Department of Public Works and Highways
Republic of the Philippines

ATTACHMENT

1. Objective of the Project

The objective of the Project is to mitigate the risk of damage from the debris flow to protect lives and properties by constructing sabo dams, and to restore the traffic condition through the reconstruction of Hubangon bridge.

2. Responsible and Implementing Agency

The responsible and implementing organization is the Department of Public Works and Highways (DPWH). The organization chart is shown in **Annex-1**.

3. Project Sites

The project sites are located at the Municipality of Mahinog, Province of Camiguin. The project sites are marked in the map shown in **Annex-2**.

4. Items Requested by the Philippines

In the course of the discussions, the Project components were confirmed as below:

- Construction of two sabo dams across Pontod river,
- Reconstruction of Hubangon Bridge

The Team will carry out further assessment on the requested components of the proposed Project.

5. Japan's Grant Aid Scheme

The Philippines side understood the Japan's Grant Aid scheme and the necessary measures to be taken by the Philippines side in **Annex-3 and 4.**

6. Schedule of the Study

6-1 The Team will proceed for further studies in the Philippines until 15th September, 2008.

6-2 The Team will prepare the draft report of the Basic Design Study in English. JICA will dispatch a mission to explain its contents around February 2009.

6-3 In case that the contents of the report are accepted in principle by GOP, JICA will finalize the report and submit it to GOP around April 2009.

7. Other Relevant Issues

7-1 Limit of the Capacity of Sabo Dams

1) The Team explained that sabo dam mitigates the risk of damage caused by debris flow, but does not mitigate flood itself. The Team also explained that due to such limit of capacity of the structural measures, non-structural measures should be fully implemented even after the completion of the Project in order to minimize the possible damage to lives and properties by natural disaster in the future.
2) The Philippines side fully understood the limit of the capacity of sabo dams as explained by the Team and committed to enhance the non-structural measures in close coordination with Camiguin Provincial Disaster Coordinating Council (PDCC).
3) The Team will study the current activities of non-structural measures carried out in Camiguin Province and report findings to the Philippines side as well as to GOJ. The Team will also examine this issue and

make recommendations if necessary.

4) The Team also explained to the Philippines side that people living in project areas also should understand the limit of the capacity of sabo dams, and such understanding of residents is a precondition to proceed with the Project. The Philippines side committed to conduct information dissemination and awareness campaign to all residents.

7-2 Basic Concept on the Reconstruction of Hubangon Bridge

Both sides confirmed that basic concept of reconstruction of Hubangon Bridge should be based on the present design requirements.

7-3 Culvert on Pontod River

The Philippines side explained that DPWH District Engineering Office (DPWH-DEO) has plan to improve the culvert across Pontod river. Both sides confirmed that the reconstruction of the culvert shall be undertaken by the Philippines side. The Team strongly recommended that the Philippines side accelerates the reconstruction work.

7-4 Operation and Maintenance

Philippines side agreed to allocate sufficient budget and qualified staff for proper and effective operation and maintenance of the Project.

7-5 Environmental and Social Consideration

1) Both sides confirmed that Environmental Compliance Certificate (ECC) shall be secured by DPWH before the Project implementation, when necessary. The Philippines side shall carry out Initial Environmental Examination (IEE) before February 2009.
2) The Philippines side explained that DPWH Environmental and Social Services Office (DPWH-ESSO) has the main responsibility to prepare the IEE. Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR) has the authority to issue ECC or Certificate of Non-Coverage.
3) The Team and DPWH-ESSO will continue the discussion on detailed contents of IEE and the Team will provide ESSO the necessary information on the Project.
4) The Team mentioned that there is a possibility of Right of Way (ROW) acquisition and resettlement of Project Affected Persons (PAPs) along access roads going to sabo dam sites. The Team also mentioned that temporary use of land for detour road and the construction yard is possibly necessary.
5) The Team reminded to the Philippines side that ROW acquisitions and resettlements shall be carried out in accordance with the existing Philippine laws.
6) The Team explained that it is preferable for the Philippines side to confirm if the residents living in project areas have general consent to the Project Implementation, before the arrival of the draft report mission in February 2009.
7) Both sides confirmed that DPWH-ESSO, DEO and Camiguin Provincial Government will hold a stakeholders meeting (public hearing) on the Project at the Municipality of Mahinog on 23rd August at Hubangon church. The Philippines side will prepare the report of the meeting.

7-6 Memorandum of Agreement

1) The Philippines side explained that the delineation of responsibilities on operation and maintenance of

the facilities shall be confirmed through a Memorandum of Agreement (MOA) among DPWH, Local Government Units (LGUs) and other agencies concerned. DPWH shall coordinate these agencies towards the formulation, signing and approval of the MOA.

2) The delineation of responsibilities on ROW acquisition, resettlement and compensation for the Project Implementation shall also be confirmed in the MOA.
3) The Team requested the Philippines side to complete the MOA on General Agreement before the arrival of the draft report mission in February 2009. The Philippines side agreed.
4) The Team explained that the scope of ROW acquisition and resettlement for the Project will be identified in the study around January 2009. Both sides confirmed that the Philippines side needs to complete inventory of the PAPs and ROW boundaries promptly for smooth ROW and resettlement process.

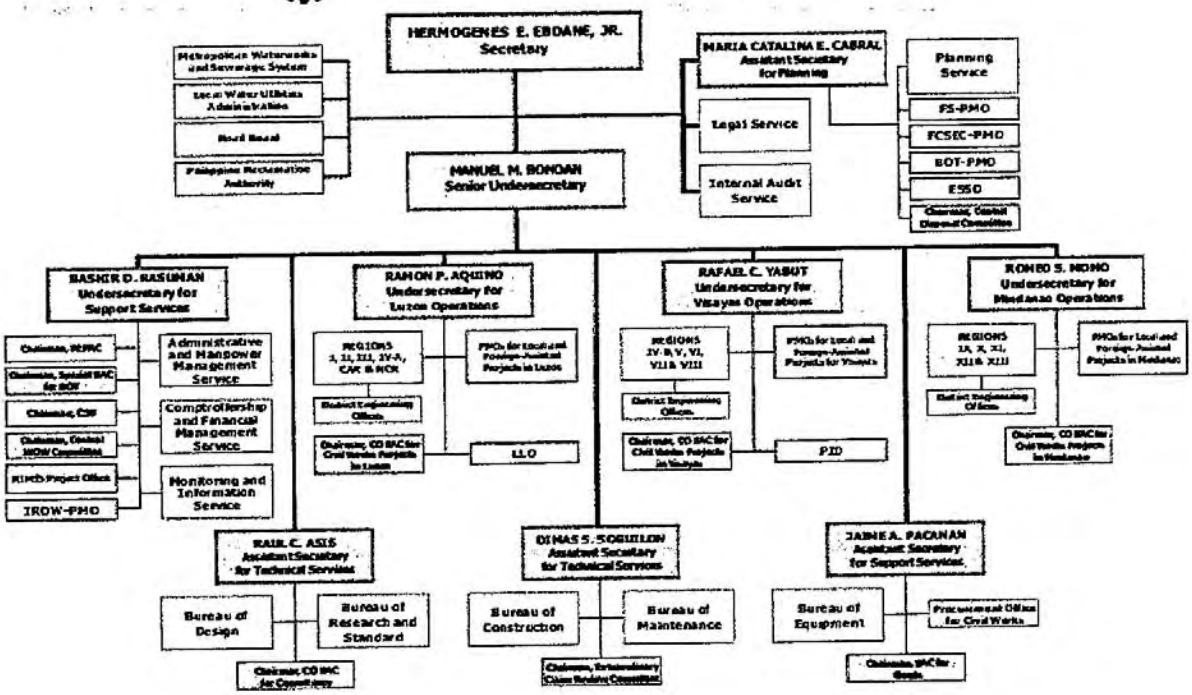
7-7 Value Added Tax and Custom Duties

The Philippines side agreed to secure the required budget for Value Added Tax (VAT) and custom duties. DPWH shall shoulder these taxes in accordance with the implementation schedule. The Team explained to the Philippines side that confirmation of the budget allocation for VAT is considered as one of the preconditions for the Project implementation.

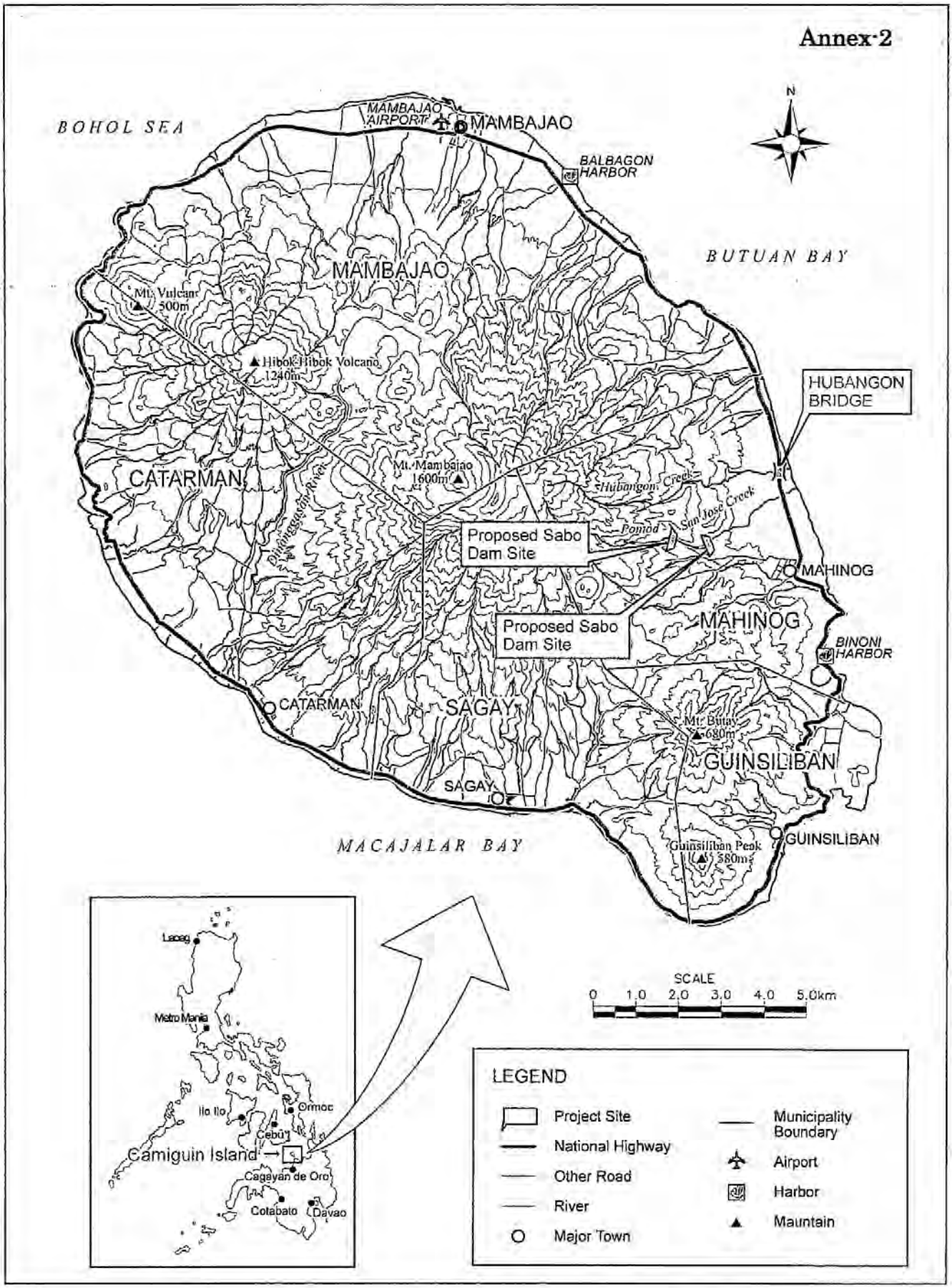
Annex 1 : Organization chart of responsible agency and implementing agency
Annex 2 : Project Site
Annex 3 : Japan's Grant Aid
Annex 4 : Major Undertakings to be taken by Each Government

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

Organizational Chart (as of June 30, 2008)



AMMS - Administrative & Manpower Management Service
BAC - Bidding and Awards Committee
BOC - Bureau of Construction
BOD - Bureau of Design
BOE - Bureau of Equipment
BOM - Bureau of Maintenance
BOT - Build Operate and Transfer
BRS - Bureau of Research and Standards
CAR - Cordillera Administrative Region
CFMS - Comptrollership & Financial Management Service
DEOs - District Engineering Office
ESSO - Environmental and Social Services Office
FCSEC - Flood Control and Sabo Engineering Center
FS - Feasibility Studies
IAS - Internal Audit Service
IROW - Infrastructure Right-of-Way
LS - Legal Service
LLO - Legislative Liaison Office
MIS - Monitoring and Information Service
NCR - National Capital Region
PEPAC - Price Escalation and Price Adjustment Committee
PID - Public Information Division
PMO - Project Management Office
POCW - Procurement Office for Civil Works
PS - Planning Service
RIMSS - Road Information and Management Support System



Location Map

JAPAN'S GRANT AID

The Grant Aid scheme provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

1. Grant Aid Procedures

Japan's Grant Aid scheme is executed through the following procedures:

Application	(Request made by the recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal &Approval	(Appraisal by the Government of Japan and Approval by the Cabinet)
Determination of Implementation	(The Note exchanged between the Governments of Japan and recipient country)

Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study) using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Scheme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes (E/N) signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

(1) Contents of the study

The aim of the Basic Design Study (hereafter referred to as "the Study") conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- Preparation of a basic design of the Project.
- Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA. The consultant firm(s) used for the Study is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

3. Japan's Grant Aid Scheme

(1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(2) "The period of the Grant Aid" means the one fiscal year, which the Cabinet approves, the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed. However, in case of delays in delivery, installation or construction due to unforeseen factors such as national disaster, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(3) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(4) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as **Annex-5**.

(6) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(7) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

(End)

Major undertakings to be taken by each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed	(●)	(●)
3	To construct gates and fences in and around the site when needed		●
4	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
5	To ensure unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the Project site	●	
6	To accord Japanese nationals whose service may be required in connection with the supply of the products and the services under the verified contact, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
7	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●
8	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
9	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

MINUTES OF DISCUSSIONS ON THE BASIC DESIGN STUDY ON "Project for Flood Disaster Mitigation in Camiguin Island in the Republic of the Philippines" (EXPLANATION OF DRAFT REPORT)

From August to September 2008, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Basic Design Study Team on the Project for Flood Disaster Mitigation in Camiguin Island in the Republic of the Philippines (hereinafter referred to as "the Project") to the Republic of the Philippines (hereinafter referred to as "the Philippines"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the study.

In order to explain and consult with the concerned officials of the Government of the Philippines (hereinafter referred to as "the GOP") on the components of the draft report, JICA sent the Draft Report Explanation Team (hereinafter referred to as "the Team"), headed by Mr. Masafumi Nagaishi, Senior Representative, JICA Philippines Office, from 15th February to 26th February 2009.
As a result of the discussions, both parties confirmed the main items described on the attached sheets.

Manila, 25th February 2009

Masafumi NAGAISHI	Maria Catalina E. Cabral, Ph.D.
Team Leader	Assistant Secretary for Planning
Draft Report Explanation Team	Department of Public Works and Highways
Japan International Cooperation Agency	Republic of the Philippines

ATTACHMENT

1. Components of the Draft Report

The Philippine side agreed and accepted in principle the components of the Draft Report explained by the Team.

2. Japan's Grant Aid scheme

The Philippine side understands Japan's Grant Aid Scheme and the necessary measures to be taken by the GOP as explained by the Team and described in Annex 3 of the Minutes of Discussions signed by both sides on 15th August, 2008 (hereinafter referred to as "the Previous M/D").

3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed items and send it to the GOP by May 2009.

4. Confidentiality of the Project

4.1 Detailed Specifications

Both sides confirmed all the information related to the Project including detailed specifications of the facilities, equipment and other technical information shall not be released to any other party(ies) before the signing of all the Contract(s) for the Project.

4.2 Project Cost Estimate

The Team explained to the Philippine side the estimated project cost to be borne by the Government of Japan (hereinafter referred to as "the GOJ") as attached in Annex -1. Both sides agreed that the Project Cost Estimate should never be duplicated in any form nor disclosed to any other party(ies) before the signing of all the Contract(s) for the Project. This confidentiality of the estimated project cost is necessary to ensure fairness of the tender procedure.

5. Other relevant issues

5.1 Components of the Project

The Philippine side agreed that the components of the Project will be determined by the GOJ based on the result of the study.

5.2 Approval of the Investment Coordination Committee (ICC)

The Department of Public Works and Highways shall obtain ICC approval for the implementation of the Project. The GOP is fully aware that the approval of ICC is a precondition before the signing of Exchange of Notes between GOJ and GOP.

5.3 Operation and Maintenance Arrangement

The Team explained the estimated cost for management, operation and maintenance of the facilities as described in Annex -2. The Philippine side is requested to allocate sufficient budget and qualified staff for proper and effective operation and maintenance of the equipment procured under the Project.

5.4 Memorandum of Agreement (MOA)

The Team requested the Philippines side to execute and sign the MOA between Department of Public Works & Highways and the Provincial Government of Camiguin for the maintenance works and, delineation of responsibilities on Right of way (ROW) acquisition, resettlement and compensation of people affected by the project. MOA should be signed by Mar.15th 2009. The Philippines side agreed.

5.5 Undertakings of the Philippines side

Both sides confirmed that the GOP will carry out the following in accordance with the implementation schedule of the Project:

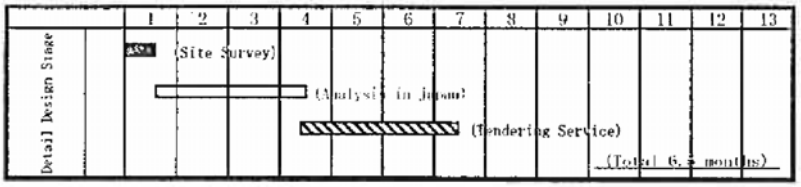
- Secure the required budget for Value Added Tax (VAT) and Customs duties
- Provision of adequate security for the equipment at the proposed project sites

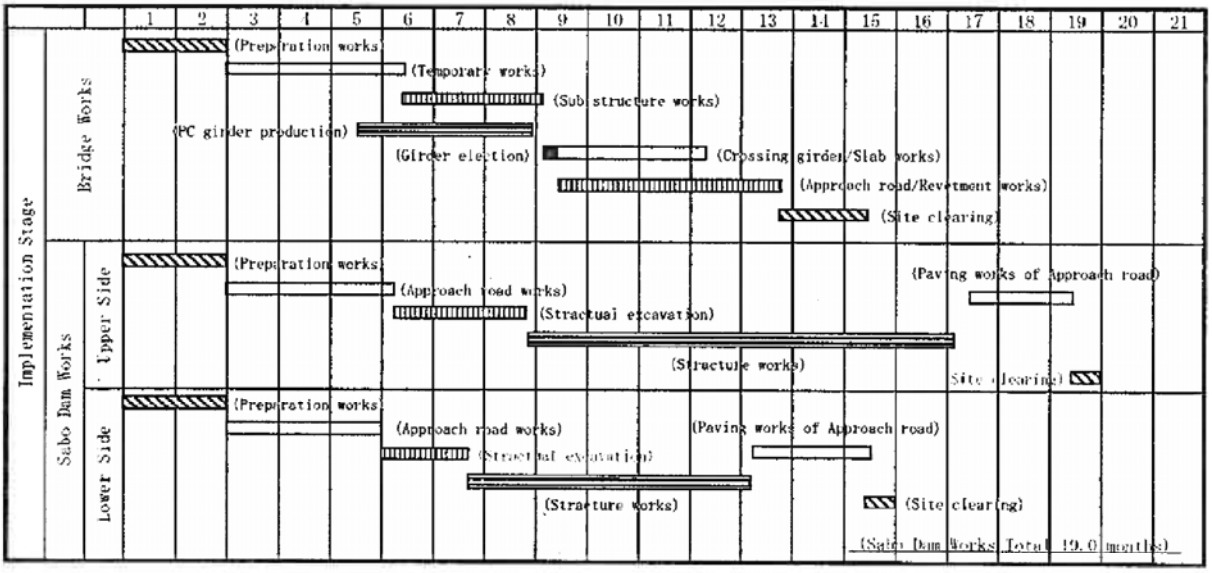
Annex -1 Tentative Implementation Schedule

Annex -2 Estimate of Project Cost and Capital Cost

Annex-1

Tentative Implementation Schedule





Annex-2

Estimate of Project Cost and Capital Cost

1. Estimate of Project Cost and Capital Cost

The total cost of the Project which will be implemented with Japanese grant aid and the Philippines contribution will be approximately 499 million PHPs (1,288 million JPY). The cost breakdown based on the division of work between the two countries is shown below using the estimation condition described in item (3).

However, this estimated project cost is a provisional figure and does not necessarily mean the upper limit for the grant referred to in the E/N and will be further assessed when the implementation of the requested Japanese assistance is examined in a concrete manner.

(1) Japanese Contribution

Estimated Grant Cost: Approximately 444 million PHPs(1,145 million JPY), broken down as follows;

Items		Total Amount Million Peso (Million JPY)
Capital Cost	Sabo Dams	292 (751)
	Bridge	118 (305)
Detailed Design and Construction Supervision		34 (89)
Total		444 (1,145)

(2) Philippines Contribution

Estimated GOP Counterpart Cost: Approximately 55.465 million PHPs (143.099 million JPY)

According to the cost estimation by the Japanese side, the Philippines side is expected to fund the following costs: value added tax (VAT), bank charges and other preparatory works.

Items	Total Amount Million Peso (Million Yen)
1. Advising Commission (Initial Bank Commission Fees)	0.355 (0.916)
2. Payment Commission (Bank Commission Fees for each payment)	0.444 (1.145)
3. Land Acquisition and Relocation of Houses (Sabo dam site)	0.534 (1.377)

4.	Land Acquisition (Bridge site)	0.018 (0.046)
5.	Relocation of Electric and Telephone Poles/Lines	0.560 (1.440)
6.	Installation of Gate (Entrance of Access/Maintenance Road to Sabo dams)	0.040 (0.103)
7.	Value Added Tax (VAT12%)	53.514 (138.066)
	Total	55.465 (143.099)

(3) Conditions of Estimation

1. Time of Estimation : September, 2008
2. Currency exchange rate : US$1.00= ¥106.18 (Exchange rate of Japanese Yen against American dollar)
   PHP1.00= ¥2.58 (Exchange rate of Japanese Yen against Philippine Peso)
   The foreign currency exchange rate is an average market value (TTS rate) of past 6 months starting from the end of August 2008.
3. Construction period : The detailed design and the required period for construction are shown in the schedule of implementation
4. Others : Estimation is conducted based on the system of the Japanese grant aid.

2. Operation and Maintenance Cost

The estimated cost for operation and maintenance of the facilities are as follows:

Items	Amount of Hubangon Bridge (PHP)	Amount of two Sabo Dams (PHP)
Regular Inspection	87,600	87,600
Daily Maintenance	43,800	137,600
Repair	60,200	115,300
Total	191,600	340,500

Basic Design Study on the Project for Flood Disaster Mitigation in Camiguin Island in the Republic of the Philippines

TECHNICAL NOTE

In the technical meetings held on 11th September attended by the Department of Public Works and Highways (DPWH) Central Office and the Basic Design Study Team (the Team), the basic conditions for the design of Sabo Dam and bridge (Hubangon Bridge) were discussed. A list of attendance is shown in Attachment 1. The following design conditions set based on the meetings were reconfirmed between DPWH Central Office and the Team.

The Team stated that the agreed design conditions are tentative and that the final decision shall be made after further analysis in Japan and consultation with JICA and concerned parties in Japan, and DPWH Central Office understood it.

DESIGN CONDITIONS AGREED BETWEEN DPWH AND THE TEAM

1. Reconstruction of Hubangon Bridge

1-1 Location of Bridge, Bridge Length and Numbers of Spans

The new bridge will be constructed at the same location of existing Hubangon Bridge. The new bridge length shall be equal or more than existing bridge length. One span shall be applied in new bridge.

1-2 Basic Design Conditions

1) Codes, Standards, Guidelines and Manuals

The following codes, standards, guidelines and manuals are principally used in establishing design conditions of structures:

- National Structural Code of the Philippines, Volume II (NSCP, Vol. II) for Bridges
- Guidelines, Criteria and Standards for Department of Public Works and Highways, Volume I and II
- American Association of State Highways Officials (AASHTO) Standard Specifications for Highway Bridges, 17th Edition, 2002
- Specifications of Highway Bridges, Japan Road Association, 2002
- DPWH standard specifications for Highways, Bridges and Airports, Volume II, 2004 Edition.

2) Number of the lanes

Two lanes (One lane in each direction)

3) Width

Roadway : 3.66m (Half Clear Roadway) x 2, Walkway 0.76 m x 2, Railing 0.30m x 2 (Based on Bridge Standard Clear Roadway of DPWH and same Clear Roadway width of the existing Hubangon Bridge width)

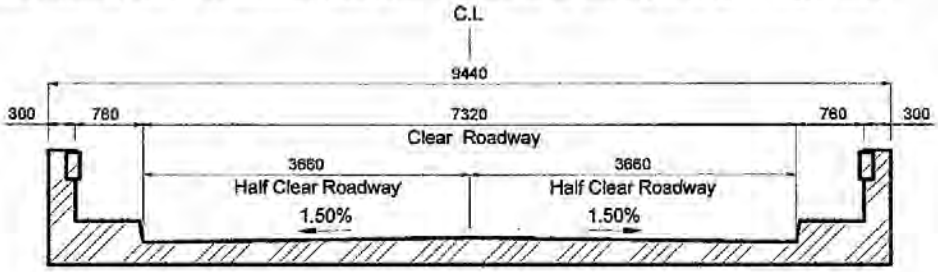


Figure 1 Typical Cross Section of Bridge

Approach Road : Carriageway 3.05 m x 2, Shoulder 1.50 m x 2

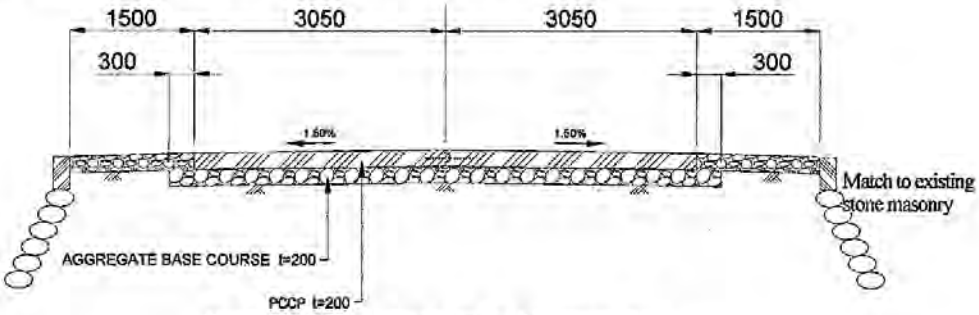


Figure 2 Typical Cross Section of Approach Road

4) Design loads
Live Load : AASHTO HS 20-44
Seismic Load : NSCP Acceleration Coefficient=0.4
Temperature Change : 20°C to 40°C for concrete

5) Freeboard
1.5 m (Minimum)

1-3 Type of Girder

Prestressed Concrete Girder or Steel Plate Girder will be applied. Philippine side requested the adoption of Prestressed Concrete Girder to the Team due to the reduction of import tax which Philippine side will bear.

1-4 Revetment for Riverbank Protection

Stone masonry/Grouted Riprap whichever is applicable.

1-5 Pavement Structure of Approach Road

PCCP : t=20 cm (Refer to Figure 2)
Base course : t=20 cm (Refer to Figure 2)

1-6 Structure of Slope Protection of Approach Roads

Stone masonry/Grouted Riprap whichever is applicable.

1-7 Temporary Works

1) Detour
Detour road shall be constructed at the upstream side with 6m width (2 lanes) of gravel surface pavement. The one lane (4m width) temporary bridge or culvert pipe will be installed at the location of river or irrigation channel.
The land affected by the Project shall be undertaken by Philippine side. The detour road will be restored to its original condition by Japan side after completion of the Project.

2) Construction yard
Philippine side will assist in securing the land at the left riverbank of upstream side as construction yard.

2. Construction of Sabo Dams

2-1 Location of Sabo Dam

Two sabo dams will be constructed on Pontod River. Locations of two dams are shown in Figure 3.

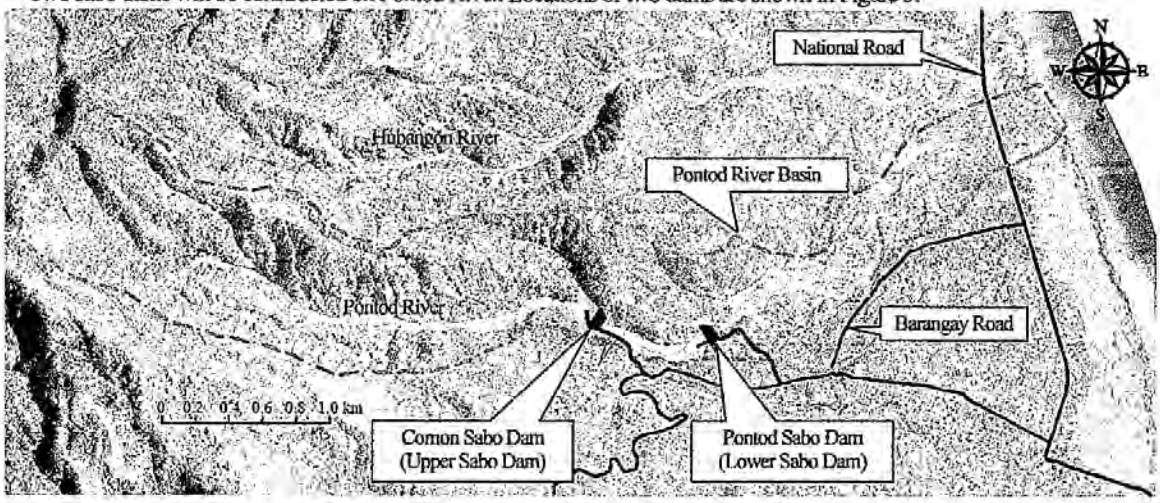


Figure 3 Location of Sabo Dam

2-2 Codes, Standards, Guidelines and Manuals

The following codes, standards, guidelines and manuals are principally used in establishing design conditions of structures:

- Technical Standards and Guidelines for planning and Design, Volume III: Sabo (Erosion and Sediment Movement Control) Works, March 2002, DPWH, JICA
- Technical Standards and Guidelines for planning and Design, Volume IV: Natural Slope Failure Countermeasures, March 2002, DPWH, JICA
- Technical Standards for River and Sabo Works, River Association of Japan
- Manual of Technical Standards for Establishing Sabo Master Plan for Debris Flow and Driftwood, March 2007, Erosion and Sediment Control Division, Research Center for Disaster Risk Management
- Manual of Technical Standards for Designing Sabo Facilities against Debris Flow and Driftwood, March 2007, Erosion and Sediment Control Division, Research Center for Disaster Risk Management
- American Association of State Highways Officials (AASHTO) Standard Specifications for Highway Bridges, 17th Edition, 2002

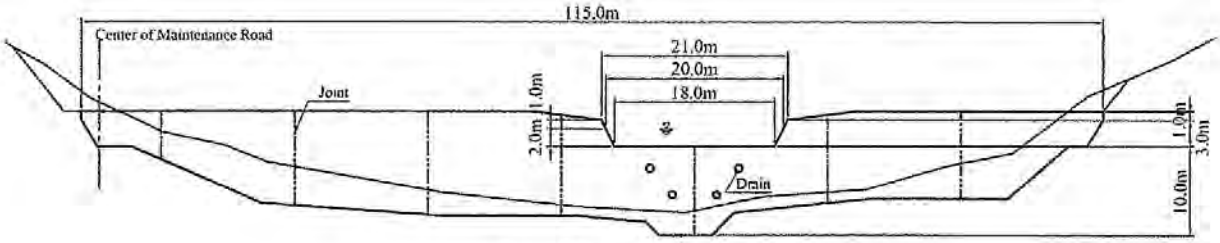
2-3 Preliminary Design Features of Sabo Dam

The preliminary design features of two sabo dams are given as follows:

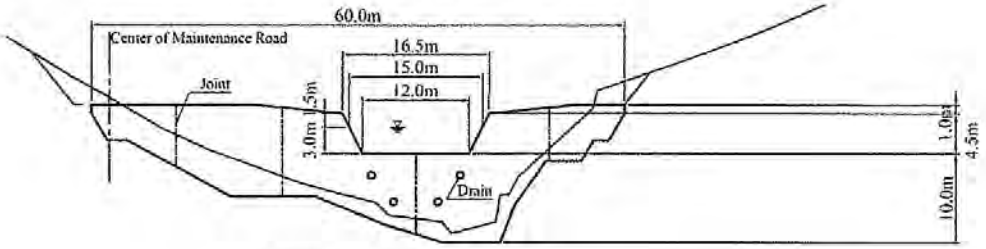
Table 1 Preliminary Design Features of Sabo Dams

Item	Comon Sabo Dam (Upper Sabo Dam)	Pontod Sabo Dam (Lower Sabo Dam)
Dam Type	Concrete Gravity (without Slit)	Concrete Gravity (without Slit)
Height of Dam	10 m	10 m
Length of Dam	115 m	60 m
Crest Width	4.0 m	4.5 m
Over Flow Width	18.0 m	12.0 m
Over Flow Depth	2.0 m	3.0 m
Freeboard	1.0 m	1.5 m

* These features will be reviewed based on the results of hydrological, hydraulic analysis, survey works and geological investigations.

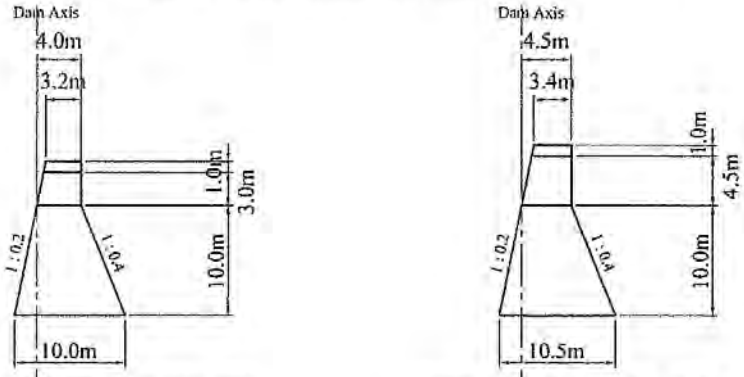


Comon Sabo Dam (Upper Sabo Dam)



Pontod Sabo Dam (Lower Sabo Dam)

Figure 4 Downstream View of Sabo Dam



Comon Sabo Dam (Upper Sabo Dam) Pontod Sabo Dam (Lower Sabo Dam)

Figure 5 Typical Cross Section of Sabo Dam

2-4 Concrete Aggregates

About 10,000 m^3 of concrete aggregates for sabo dam can be used from crushing plant in Camiguin Island.

2-5 Design Conditions of Access/Maintenance Road

The design conditions of access/maintenance road are given as follows:

Table 2 Design Features of Access/Maintenance Road

Item	Comon Sabo Dam (Upper Sabo Dam)	Pontod Sabo Dam (Lower Sabo Dam)
Number of Lanes	One Lane	
Width	Roadway: 4.0 m, Shoulder: 1.0 m x 2 = 2.0 m	
Maximum Longitudinal Gradient	12 %~ 14 %	
Minimum Radius of Curvature	20.0 m	
Pavement	Gravel (Crusher Run) Pavement: t = 150 mm (Longitudinal Gradient less than 7%, Materials from Camiguin Island) Cement Concrete Pavement: t = 150 mm (Longitudinal Gradient 7% or more, Materials from Camiguin Island)	
Base Course	Aggregate Base Course: t = 150 mm (Materials from Camiguin Island)	
Length	Approx. 600 m	Approx. 750 m

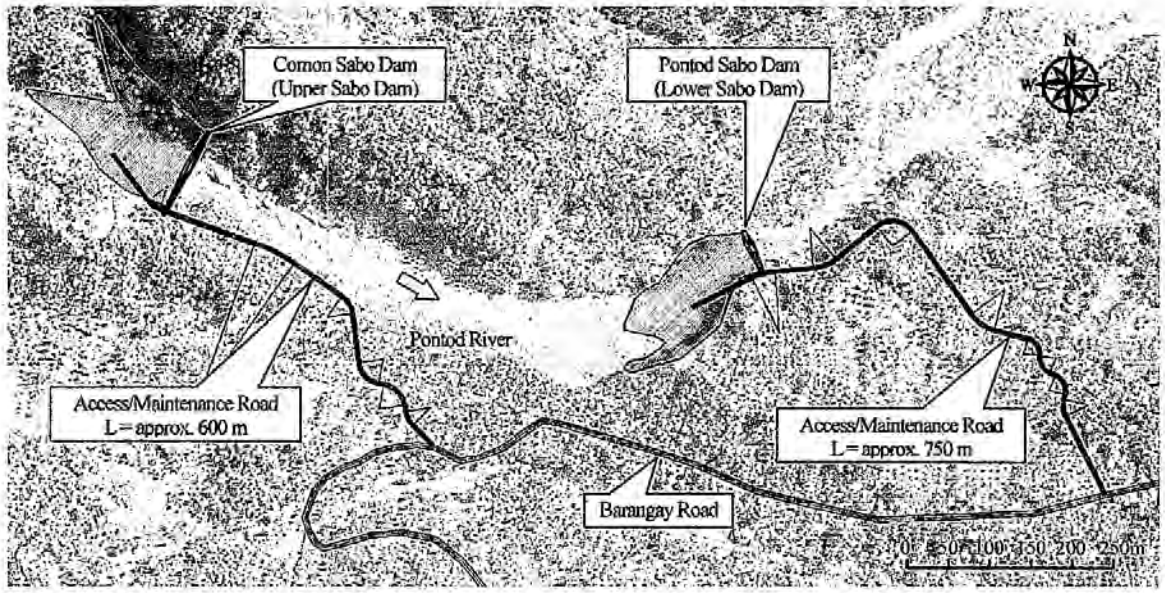
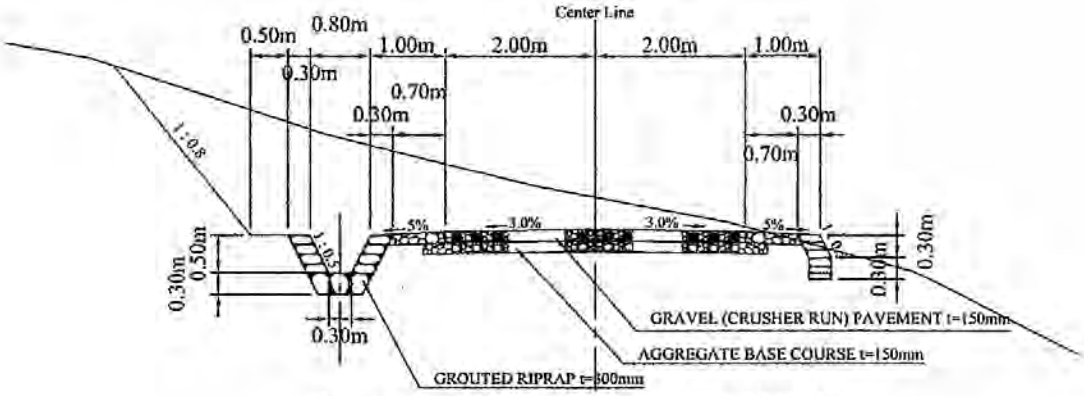
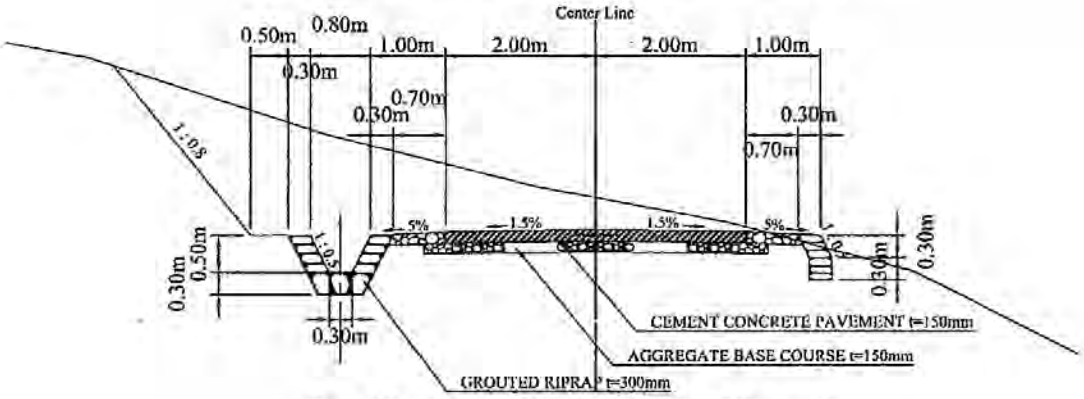


Figure 6 Layout Plan of Access/Maintenance Road



Typical Cross Section (Longitudinal Gradient less than 7 %)



Typical Cross Section (Longitudinal Gradient 7 % or more)

Figure 7 Typical Cross Section of Access/Maintenance Road

2-6 Temporary Works

As a construction yard, Philippine side will assist in securing the land at the riverbank of each damsite.

3. Others

1) Temporary office yard
Philippine side will assist in securing permit to use the vacant lot with an area of about 550m^2 located at left riverbank of upstream side as a site for Temporary Office for construction works and accommodation for the parties concerned during project implementation.

2) Disposal site
The waste materials such as excavated surplus soil, concrete debris etc. shall be dumped at designated disposal site near Benoni Port as suggested by DPWH District Engineering Office (DPWH-DEO). The demolished steel girders of existing bridge will be transported to material stockyard of concerned DPWH-DEO.

3) Embankment material
DPWH-DEO informed and advised the Team that the embankment material can be secured through the authorized quarry site in Camiguin Island due to the environmental restriction.

Manila, 11 September 2008

Maria Catalina E. Cabral, Ph..D.
Assistant Secretary for Planning
Department of Public Works and Highways

Mr. Yoshiharu MATSUMOTO
Chief Engineer
Basic Design Study Team

Mr. Resito V. David
Project Director
PMO - Flood Control and Sabo Engineering Center

5. 事業事前計画表（基本設計時）

1. 案件名
フィリピン共和国　カミギン島防災復旧計画
2. 要請の背景（協力の必要性・位置付け）
フィリピン国は、過去 10 年に 100 回以上の自然災害を観測するなど、国連による「国際防災の 10 年（1990-2000）」の最終報告においては、世界で最も災害にさらされている国として位置付けられている。このような状況の下、アロヨ政権における中期国家開発計画（2006-2010 年）では、「貧困撲滅」に向け、社会の安定につながる防災分野に高い優先度を与えている。 本プロジェクトの対象地域であるカミギン島は、フィリピン国南部ミンダナオ島とビサヤ諸島に挟まれたミンダナオ海に浮かぶ火山島である。島全体が北ミンダナオ地方（Northern Mindanao, Region X）に属するカミギン州（Province of Camiguin）となっており、人口約 7.4 万人（2000 年）、面積約 238km^2 で、農業および漁業を主要産業としている。「フィ」国で最も美しい島「Virtual Paradise」と称され、観光開発の高いポテンシャルを有している。また、カミギン島は、中期国家開発計画において「インフラ整備等による地方分散化促進」として位置づけられる 3 つの重要度の高い湾岸高速道路（Strong Republic Nautical Highway、略称 SRNH）の内の中央湾岸高速道路のルート上にある。この高速道路を利用した SRNH-RORO システムは、ミンダナオ島を含む諸島経済と首都圏マニラを連結し新たな経済機会を広げる物流網として大きな期待が寄せられている。 一方、同島では 2001 年 11 月の台風ナナンによる豪雨により、島内の多くの山地斜面が崩壊、土石流や鉄砲水が発生し死者･行方不明者約 250 名、インフラ、家屋、農業施設に総額約 5 億円の被害を被った。災害後、日本の支援（在外基礎調査 2003 年等）により、他の地域に先駆けて警報非難訓練、防災教育などのソフト対策に関する基本計画を策定し、防災体制の強化を図ってきている。しかしながら、特に被害の大きかったフバンゴン川、ポントド川流域では、災害後に特段の防災施設対策は行われておらず、被災した橋梁施設の復旧も行われていない。河道を不安定堆積物が厚く覆っており、今後の豪雨により同様の災害が発生する危険性をはらんでいる。
3. プロジェクト全体計画概要
(1) プロジェクト全体計画の目標（裨益対象の範囲及び規模） フィリピン国カミギン島（カミギン州）における土砂災害による被害が軽減され、住民生活水準の維持向上および持続的な経済成長が確保される。 直接裨益対象の範囲及び規模： 【砂防ダム】フィリピン国カミギン州マヒノグ市のフバンゴン川、ポントド川流域を含む七つのバランガイ住民（計 5,006 人：2007 年 8 月時点） 【橋梁】　フィリピン国カミギン州住民（81,293 人：2007 年 8 月時点） （間接裨益対象の範囲及び規模：カミギン州（81,293 人：2007 年 8 月時点）、および観光客（193,012 人：2007 年度）） **(2) プロジェクト全体計画の成果** カミギン島の土砂災害危険度が高い河川流域において、砂防ダムの建設および被災した橋梁の改修が行われる。 **(3) プロジェクト全体計画の主要活動** ア　フバンゴン橋及びその取付道路の改修、砂防ダム（2 基）およびその維持管理用道路を建設する イ　上記施設を適切に運営・維持管理し、その安全性を確保する

(4) 投入

ア　日本側：無償資金協力 11.40 億円

イ　相手国側

（ア）　必要な人員：維持管理要員（橋梁：68 人/年、砂防ダム：106 人/年）

（イ）　建設資機材：小型トラック、スコップ、ハンマー、草刈機等

（ウ）　施設の運営・維持管理に係る経費
：（橋梁：191 千ペソ/年、砂防ダム：341 千ペソ/年）

(5) 実施体制

主管官庁及び実施機関：公共事業道路省

4.　無償資金協力案件の内容

(1) サイト

フィリピン国カミギン州マヒノグ市

(2) 概要

フバンゴン橋の改修（橋長 40.9m、取付道路延長 20.9m）、
上流側砂防ダムおよび維持管理用道路の建設（ダム高 10m、堤頂長 115m、道路延長 525m）、
下流側砂防ダムおよび維持管理用道路の建設（ダム高 12m、堤頂長 70m、道路延長 657m）

(3) 相手国側負担事項

①建設用地の確保、②建設のための仮設用地（仮設ヤード、資材置場、現場事務所、迂回路等）の確保、③工事に必要な接続道路の整備、④工事の支障となる電柱、水道管の移設、⑤ゲート設置（各砂防ダム維持管理用道路の入口）

(4) 概算事業費

概算事業費 11.45 億円（無償資金協力 11.40 億円、「フィ」国側負担 0.05 億円）

(5) 工期

詳細設計・入札期間を含め 25.5 ヶ月（予定）

(6) 貧困、ジェンダー、環境及び社会面の配慮

住民移転が少ない（対象１軒）ルートを選定することにより、社会環境へ与える負の影響を最小とした。

5.　外部要因リスク（プロジェクト全体計画の目標の達成に関するもの）

想定外の災害（100 年超過確率降雨時の土砂流出量以上を想定）が起きないこと。

6.　過去の類似案件からの教訓の活用

特になし。

7. プロジェクト全体計画の事後評価に係る提案

(1) プロジェクト全体計画の目標達成を示す成果指標

現状と問題点	現状の数値 (2008 年)	目標年における計画値 (目標年：2012 年)
1. 橋梁通行速度 台風ナナン以降、フバンゴン橋梁は片側交互通行で車両規制している。	5～10km/時	50km/時 (設計速度)
2. 土石流災害に対する安全度 2001 年 11 月台風ナナン以降は、大きな土砂災害は発生していない。ただし、災害後に対策施設は建設されておらず、土砂災害に対する十分な安全度は確保されていない。	土砂災害あり	100 年超過確率以下の降雨による土砂災害はない。 100 年超過確率以上の降雨による土砂災害を軽減する。

(2) その他の成果指標

(交通量の増加)

① 土砂災害による被害の低減により、主要都市および主要港湾施設間のアクセスが向上、また誘発交通が発生し、対象地域での交通量の増加が期待される。(2008 年におけるフバンゴン橋梁付近の上下線日平均交通量は 1,193 台、DPWH カミギン地方事務所)

(生活物資物価の安定)

② 周辺の農地～市場へのアクセスが安定することにより、物資の通年安定輸送が確保され、輸送コストが低減される結果、物価の安定に寄与する。(2006 年、2007 年のカミギン州消費者物価指数は 135.4、140.0 (2001 年＝100)、カミギン州統計局)

(観光地としてのイメージ向上)

③ 土砂災害による人命、家屋等の資産、農地および灌漑施設、国道、橋梁等の被害の軽減により、安全で快適な観光を提供できるようになり、災害対策が行き届いた観光地としてのイメージが向上する。(なお、2007 年のカミギン島総観光客数は 193,012 人、カミギン州政府事務所)

(総合防災モデルとしての波及効果)

④ カミギン島において、土石流に対するリスク評価が AA (非常に高い) とされている河川はフバンゴン川、ポントド川以外に、2 河川 (バイラオ川、トゥプサン川) ある。これらの河川については JICA の支援でソフト対策 (防災計画策定、避難訓練、防災教育) が整備されており、将来、総合防災モデル事業として波及する可能性がある。

(3) 評価のタイミング

2012 年以降 (施設完成後 1 年経過後)

6. 参考資料／入手資料リスト

調査名　フィリピン国カミギン島防災復旧計画基本設計調査

番号	名　　称	形態 （図書・ビデオ・ 地図・写真等）	オリジナル ・コピー	発行機関	発行年
	質問票の回答				
Annex-A-1	Questionnaire and Answer	印刷	コピー	DPWH- Flood Control and Sabo Engineering Center	2008
Annex-A-2	Medium Term Development Plan 2005-2010	印刷	コピー	DPWH	2007
Annex-A-3	The Medium Term Philippines Development Plan 2004-2010 (Chapter 6)	印刷	コピー	DPWH	-
Annex-A-4	The Medium Term Philippines Development Plan 2004-2010 (Chapter 6) Draft as of 07 January 2008	印刷	コピー	DPWH	2008.1
Annex-A-5	List of GOJ Assisted Project (1971- Present)	印刷	コピー	DPWH	-
Annex-A-6	List of Completed, on-going, Committed and Proposed DPWH Projects	印刷	コピー	DPWH	-
Annex-A-7	List of completed, on-going and committed projects with assistance of other donors	印刷	コピー	DPWH	-
Annex-A-8	Organization Chart of DPWH	印刷	コピー	DPWH	2008
Annex-A-9	Regional Profile	印刷	オリジナル	DPWH Region-X	2008
Annex-A-10	Break Down of Budget and Expenditure	印刷	コピー	DPWH Region-X	2008
Annex-A-11	Organization Chart of DPWH DEO	印刷	コピー	DPWH DEO	2008
Annex-A-12	Traffic date at Proposed Bridge Site in Camiguin Island	印刷	コピー	DPWH DEO	2008
Annex-A-13	Break Down of Budget and Expenditure	印刷	コピー	DPWH DEO	2008
Annex-A-14	Questionnaire and Answer	印刷	オリジナル	Provincial Planning & Development Office, Camiguin	2008
Annex-A-15	Data of Municipality Mahinog (Income, Livelihood, Total households)	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008
Annex-A-16	Disaster Prevention Actions for Debris Flow and Flash Flood	パンフレット	オリジナル	Province of Camiguin, JICA	2005.1
Annex-A-17	Organization Chart of Provincial Engineer Office	印刷	コピー	Provincial Enginner Office, Camiguin	2008.2
Annex-A-18	Provincial Organization Chart	印刷	コピー	Provincial Office	2008

番号	名　　称	形態 （図書・ビデオ・地図・写真等）	オリジナル・コピー	発行機関	発行年
Annex-A-19	Organization Chart of Provincial Planning and Development Coordinator	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008
Annex-A-20	Break Down of Budget and Expenditure	印刷	コピー	Provincial Office	2008
Annex-A-21	Minutes of the stakeholders consultation for the proposed project on disaster prevention & reconstruction for Camiguin Island (Frbruary 2, 2008 at フバンゴン Chapel)	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008.2
Annex-A-22	Questionnaire and Answer	印刷	オリジナル	DENR, Camiguin	2008
Annex-A-23	Questionnaire and Answer	印刷	オリジナル	DPWH PMO MFCP-II	2008
Annex-A-24	Medium – Term Public Investment Program (2005-2010)	印刷	コピー	DPWH	2008.3
Annex-A-25	Break Down of Budget and Expenditure	印刷	コピー	DPWH	2008
Annex-A-26	IROW Procedural Manual(Appendix B1, B2)	印刷	コピー	Republic of the Philippines Congress of the Philippines Metro Manila	-
Annex-A-27	Design Guidelines Criteria and Standards	印刷	コピー	DPWH, JICA	2004.3

番号	名　　称	形態 （図書・ビデオ・地図・写真等）	オリジナル・コピー	発行機関	発行年
	共通資料				
A-1	Profile of SABO Structures in the Philippines	図書	オリジナル	DPWH, JICA	2008.5
A-2	Endorsing the Disaster Prevention and Reconstruction Project for Camiguin Island	レター	コピー	Regional Development Council	2008
A-3	VAT 申請関連	印刷	コピー	DPWH PMO	2008
A-4	Pricelist of Construction Materials	印刷	コピー	DPWH DEO	2008
A-5	Monthly Salary Schedule Effective July 1, 2008	印刷	コピー	DPWH PMO	2008
A-6	Gross Regional Domestic Product in Philippine	印刷	コピー	National Statistical Coordination Board	1993~2007
A-7	DPWH Completed and On-going Projects	印刷	コピー	DPWH	2008.8
A-8	2007 Philippine Statistical Yearbook	図書	オリジナル	National Statistical Coordination Board	2007
A-9	Economic Indicators	図書	オリジナル	National Statistical Coordination Board	2008.6
A-10	Economic Indicators	図書	オリジナル	National Statistical Coordination Board	2008.7

番号	名　　称	形態 （図書・ビデオ・ 地図・写真等）	オリジナル ・コピー	発行機関	発行年
	カミギン州関連資料				
B-1	導流堤設計図面	印刷	コピー	DPWH DEO	2008
B-2	導流堤工事計画書（工程表、積算資料）	印刷	コピー	DPWH DEO	2008
B-3	TOURIST ARRIVAL – CAMIGUIN COMPARATIVE DATA FOR 2005, 2006, 2007	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008
B-4	Trainers Guide for Flash Flood and Debris Flow Non-Structural Disaster Prevention Course	印刷	コピー	Province of Camiguin, JICA, DPWH	2005.1
B-5	Consumer Price Index in Camiguin	印刷	コピー	National Statistics Office in Camiguin	2008
B-6	Schedule of Base Unit Value for Agricultural Land	印刷	コピー	Provincial Assessor Office	2008
B-7	Minutes of Meeting on 11 August, 2008	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008
B-8	Comparative Schedule of Market Values and Unit Costs for Each Class of Real Property	印刷	コピー	Provincial Assessor Office	-
B-9	Monthly Report of Traffic Accidents in Camiguin Island	印刷	コピー	DPWH DEO	2006-2008
B-10	List of Motor Vehicles Registered from 2003 to 2007	印刷	コピー	Land Transportation Office in Camiguin	2003-2007
B-11	Summary Shipping Statistics from 2003 to July 2008	印刷	コピー	Philippines Ports Authority PMO- Cagayan de Oro	2003-2008

番号	名　　称	形態 （図書・ビデオ・ 地図・写真等）	オリジナル ・コピー	発行機関	発行年
	ステークホルダー会議関連資料				
C-1	Questionnaire for Environmental and Social Consideration Survey(英語、ビサヤ語併記)	印刷	オリジナル	Provincial Planning & Development Office, Camiguin	2008
C-2	会議プログラム	印刷	オリジナル	Provincial Planning & Development Office, Camiguin	2008
C-3	質問表に対する回答(各バランガイより)	印刷	オリジナル	Provincial Planning & Development Office, Camiguin	2008
C-4	Stakeholder Consultation Meeting Attendance Sheet	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008
C-5	Minutes of Stakeholder Consultation Meeting	印刷	コピー	Provincial Planning & Development Office, Camiguin	2008