

## 資料 1 調査団員・氏名

## 資料

### 1. 調査団員氏名・所属

氏名	担当業務	所属先
大嶋 一成	総括	独立行政法人 国際協力機構 コンサルタント
古川 直人	計画管理	独立行政法人 国際協力機構 産業開発・公共政策部
清水 満	業務主任/電力・運営保守 管理計画/施工計画	東電設計株式会社
宮本 幸男	水力発電計画 A	東電設計株式会社
小林 博	水力発電計画 B	東電設計株式会社
足立 雪雄	電気/機械設備計画 /保護・制御計画	東電設計株式会社
市川 福夫	送変電設備計画	東京電力株式会社
吉田 憲一	資機材調達計画/積算	JEM株式会社
林 のぶき	環境社会配慮	東電設計株式会社
柳瀬 崇	経済財務分析	東京電力株式会社
中俣 公德	自然条件調査	東設土木コンサルタント

## 資料 2 調査行程(第一次調査～第三次調査)

2. 調査行程

(1) 第一次調査行程

第1次現地調査行程表

日付 (暫定)			調査団								
			業務主任	水力発電A	環境	水力発電B	調達・積算	自然条件	経済財務	電機	送変電
			清水	宮本	林	小林	吉田	中俣	柳瀬	足立	市川
1	7月29日	日	移動(東京～マニラ)								
2	7月30日	月	JICAマニラ・大使館・DOE他表敬訪問、I/R提出								
3	7月31日	火	キックオフ・ミーティング(DOE-REMB) 無償説明・プロジェクト説明								
4	8月1日	水	プロジェクト実施体制・イサバラ地点対象地点確認 現地調査工程等に関する調整								
5	8月2日	木	情報収集(他ドナー動向、IEE必要性、NIA情報、現地委託先)								
6	8月3日	金									
7	8月4日	土	団内会議			移動(東京～マニラ)					
8	8月5日	日	移動(マニラ～イフガオ)								
9	8月6日	月	イフガオ州関係表敬訪問(州議会)／無償説明・プロジェクト説明								
10	8月7日	火	ステーク・ホルダー会議／申請手続き調整			既設発電所(アンパンガル調査:施工条件・運転状況確認)					
11	8月8日	水	住民説明会／イサバラ移動								
12	8月9日	木	イサバラ州関係表敬訪問／無償説明・プロジェクト説明→現地確認								
13	8月10日	金	現地確認調査			現地再委託見積依頼					
14	8月11日	土	団内会議								
15	8月12日	日	資料整理								
16	8月13日	月	現地確認調査	現地確認調査	実施主体調査	施設計画調査 電力需給状況 機材調達調査	調達条件調査	自然状況調査 流量資料等			
17	8月14日	火	再委託契約	施設計画状況	再委託契約						
18	8月15日	水	イサバラ～イフガオ移動／資料収集								
19	8月16日	木	運転保守調査	施設計画調査	法手続・土地収用	イサバラ～イフガオ移動					
20	8月17日	金	据付条件調査								
21	8月18日	土	団内会議								
22	8月19日	日	資料整理								
23	8月20日	月	施工条件調査 据付条件調査 連系条件	施設計画調査 電力需給状況 機材調達調査	実施主体能力 環境関連調査	施設計画調査 電力需給状況 機材調達調査	調達条件調査	地表踏査			
24	8月21日	火									
25	8月22日	水									
26	8月23日	木									
27	8月24日	金	団内会議								
28	8月25日	土	資料整理								
29	8月26日	日	東京～マニラ								
30	8月27日	月	マニラ～イフガオ移動								
31	8月28日	火	施工条件調査 据付条件調査 連系条件	施設計画調査 電力需給状況 機材調達調査	法手続・土地収用	施設計画調査 電力需給状況 機材調達調査	調達条件調査	地質踏査	イフガオ財務状況		
32	8月29日	水									
33	8月30日	木	移動(イフガオ～イサバラ)								
34	8月31日	金	イサバラ追加情報収集								
35	9月1日	土	イサバラ財務状況								
36	9月2日	日	移動((イサバラ～マニラ)								
37	9月3日	月	資料整理								
38	9月4日	火	マニラ追加情報調査			現地調査結果 報告書(案)作成	マニラ追加情報調査	現地調査結果 報告書(案)作成	DOE,ERC		
39	9月5日	水				マニラ～東京		マニラ～東京	NIA		
40	9月6日	木					現地調査結果 報告書(案)作成				
41	9月7日	金	現地調査結果 報告書(案)作成								
42	9月8日	土									
43	9月9日	日									
44	9月10日	月	現地調査結果報告				現地調査結果報告				
45	9月11日	火	移動(マニラ～東京)				移動(マニラ～東京)				
合計			45	45	45	39	39	33	12	0	0

(2) 第二次調査行程

第2次現地調査行程表

日付(暫定)			調査団								
			業務主任	水力発電A	環境	水力発電B	自然条件	調達・積算	送変電	経済財務	電機
			清水	宮本	林	小林	中俣	吉田	市川	柳瀬	足立
1	9月30日	日	移動(東京～成田)								
2	10月1日	月	プロジェクト内容の説明 (JICAマニラ、DOE-REMB、NIA)			移動(東京～成田)					
3	10月2日	火	移動(マニラ～イサバラ)			移動(マニラ～イサバラ)					
4	10月3日	水	ステークホルダー会議 (懸案事項確認、概要説明)			ステークホルダー会議 (懸案事項確認、概要説明)			東京～成田		
5	10月4日	木	追加調査 (余裕高、設計妥当性確認)			追加調査 (余裕高、設計妥当性確認)			DOE,NIA		
6	10月5日	金	移動(イサバラ～イフガオ)			移動(イサバラ～イフガオ)			NEDA		
7	10月6日	土	団内ミーティング		移動(東京～成田)	団内ミーティング		移動(東京～成田)		資料整理	
8	10月7日	日	資料整理		移動(マニラ～イフガオ)	資料整理		移動(マニラ～イフガオ)			
9	10月8日	月	ステークホルダー会議 (土地収用・法手続き状況確認、概要説明)					追加積算資料の収集 単価整合性調査 施工単価の積算	IFELCOとの調整 (技術・売電契約等)		
10	10月9日	火	住民説明会 (土地収用・法手続き状況確認、概要説明)						連系線ルート確認他	IFELCOとの調整 (売電契約条件)	
11	10月10日	水	施工計画妥当性確認 ワークスルー	設計内容妥当性確認 設計修正(適宜) 工事数量の確認 量水標移設・測水	土地収用状況確認 法手続き状況確認 ワークスルー	移動 (イフガオ～イサバラ)	設計・施工内容妥当 性確認(地質) 量水標移設・測水	移動 (イフガオ～イサバラ)			
12	10月11日	木				追加積算資料の収集 単価整合性調査 施工単価の積算		ISELCOとの調整 (連系条件・売電契約)			
13	10月12日	金									
14	10月13日	土	移動(イフガオ/イサバラ～マニラ)								
15	10月14日	日	セミナー資料準備				移動(マニラ～成田)				
16	10月15日	月	NIAセミナー開催:灌漑設備を利用した小水力開発								
17	10月16日	火	マニラ調達施工機械 等 調査	水圧管路等調査(運 搬含む)	ERC認可関係進捗状 況確認他	マニラ調達機材調査 (運搬含む)					
18	10月17日	水	第二次現地調査結果報告書(現地説明用)作成								
19	10月18日	木									
20	10月19日	金									
20	10月19日	金	現地調査結果の説明(JICA,DOE,NIA)								
21	10月20日	土	移動(マニラ～東京)								
合計			21	21	15	20	14	9	9	12	0

(3) 第三次調査行程

第3次現地調査行程

日時			JICA		調査団									
			総括	計画管理	業務主任	水力発電B	環境社会配慮	水力発電A	自然条件調査	資機材調達積算	送配電	経済財務	電気	
			大嶋	古川	清水	小林	林	宮本	中俣	吉田	市川	柳瀬	足立	
1	12月2日	日			移動(東京～マニラ)									
2	12月3日	月			DOE-REMB打合せ									
3	12月4日	火			NIA-CO打合せ									
4	12月5日	水			移動(マニラ～イサベラ)									
5	12月6日	木			ラテラルB調査									
6	12月7日	金			マリス打合せ									
7	12月8日	土			移動(イサベラ～イフガオ)		Move to Manila							
8	12月9日	日			資料整理		Move to Ifugao							
9	12月10日	月			ステークホルダー協議									
10	12月11日	火			現地追加調査									
11	12月12日	水			現地追加調査									
12	12月13日	木			住民説明会									
13	12月14日	金			移動(イフガオ～マニラ)									
14	12月15日	土			資料整理									
15	12月16日	日	移動(東京～マニラ)		資料整理									
16	12月17日	月	DOE-REMB, NIA-CO打合せ		DOE-REMB, NIA-CO打合せ									
17	12月18日	火	NIA-CO打合せ		NIA-CO打合せ									
18	12月19日	水	同上(予備日)		追加調査									
19	12月20日	木	MD署名DOE-REMB, NIA-CO		追加調査									
20	12月21日	金	移動(マニラ～東京)		追加調査									
21	12月22日	土			移動(マニラ～東京)									
Total			7	7	21	21	15							

### 資料3 関係者（面会者）リスト

### 3. 相手国関係者リスト

Name of Organization	Division	Name
NATIONAL		
Department of Energy (DOE)	Undersecretary	Atty. Jose M. Layug, Jr.
DOE	Director of Renewable Energy Management Bureau (REMB)	Mr. Mario C. Marasigan
DOE	Division chief of Hydropower & Ocean Energy Management Division (HOEMD)	Mr. Ronnie N. Sargento
DOE	HOEMD	Mr. Epifanio E. Gacusan Jr.
DOE	HOEMD	Mr. Rey Salvania
DOE	HOEMD	Mr. Jowil Rodrigues
National Irrigation Administration (NIA)	Administrator	Mr. Antonio S. Nangel
NIA	Engineering & Operation Sector, Operations Department, Irrigation Engineering Center	Mr. B.S. Labiano
NIA	同上	Ms. Eden P. Bulatao
NIA	同上	Mr. Roneo F. Solis
在フィリピン日本国大使館	商務官	是枝憲一郎
JICA フィリピン事務所	次長	伊藤 晋
JICA フィリピン事務所	所員	濱口 勝匡
JICA フィリピン事務所	所員	松田 博幸
JICA フィリピン事務所	Program Manager	Mr. Floro O. Adviento
JICA フィリピン事務所	Program Officer	Mr Juan Paulo M. Fajardo
IFUGAO		
Provincial Government of Ifugao (PGI)	Governor	Mr. Eugene M. Balitang
PGI	Vice Governor	Mr. Pedro Mayam-o
PGI	PPDO	Ms. Camelita Buyuccan
PGI	PPDO	Ms. Nancy
PGI	PPDO	Ms. Kristine
PGI	PPDO	Ms. Gema



PGI	PAssO	Mr. Pedro Namingit
PGI	PLO	Mr. Gary Guyguyon
PGI	PAENRO	Mr. Julita Bahingawan
Municipality of Asipulo	Mayor	Mr. Hon. Eladio
Municipality of Asipulo	Vice Mayor	Mr. Toma Pulupul
Municipality of Asipulo	Executive Assistant of Mayor	Mr. Raymundo A. Binbinon
Municipality of Asipulo	MPDO	Mr. Arnold G. Guyguyon
Municipality of Asipulo	MAssO	Mr. Robert Pinkihan
Barangay Haliap	BRGY Captain	Mr. Roger manghi
Barangay Haliap	BRGY Captain since Nov.2012	Mr. Basilio B. Bayaona
Barangay Haliap	BRGY Kagawad	Ms. Nancy Addangna
Barangay Haliap	BRGY Kagawad	Ms. Maria Lad-ao

## 資料 4 討議議事録(M/D)及び MOA

- (1) M/D 8 月
- (2) M/D 12 月
- (3) エネルギー省とイフガオ州政府の合意書(MOA)

**Minutes of Discussions  
on the Preparatory Survey  
for Mini-Hydropower Development Project  
in the Philippines  
(for Mini-Hydropower Project in the Province of Ifugao)**

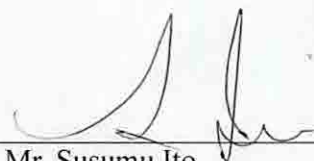
In response to the request from the Government of the Republic of the Philippines, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), in consultation with the Government of Japan, decided to conduct a Preparatory Survey (hereinafter referred to as "the Survey") for two project ("Mini-Hydropower Project in the Province of Ifugao", and "Micro/Mini Hydropower Development Project on Irrigation Canal"). This minutes of Discussions is agreed for the Mini-Hydropower Project in the Province of Ifugao (hereinafter referred to as "the Project").

JICA sent to the Republic of the Philippines the Preparatory Survey Team (hereinafter referred to as "the Team"), headed by Mr. Kazunari OSHIMA, In-house consultant of Electric Power Division, Natural Resources and Energy Group, Industrial Development and Public Policy Department, JICA. The Team is scheduled to stay in the country for 1<sup>st</sup> mission from July 29 to September 11<sup>th</sup>, 2012.

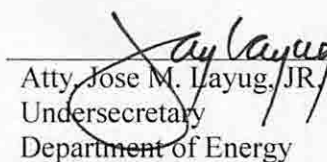
Both sides agreed that the final terms and agreements necessary to implement the Project shall be subject to full government authorization and consent of appropriate government signatories. Finally, upon obtaining requisite final authorities therefor, both sides agree that they shall cooperate fully and do all such further acts and things and execute and deliver any further documents that may be necessary to give effect to the transactions contemplated under the Project.

The Team held discussions with the officials of concerned authorities in the Philippines (hereinafter referred to as "the Philippines side"). In the course of the discussions, both sides have confirmed the main items described in the sheets attached hereto.

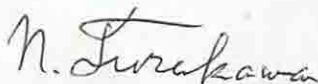
Makati, August 3rd, 2012



Mr. Susumu Ito  
Senior Representative  
Japan International Cooperation Agency



Atty. Jose M. Layug, JR.  
Undersecretary  
Department of Energy



Mr. Naoto Furukawa  
Deputy Assistant Director  
Japan International Cooperation Agency



Mr. Marlo C. Marasigan  
Director  
Department of Energy – Renewable  
Energy Management Bureau



## ATTACHMENT

The Team explained that the Project will be conducted under the Japanese Grant Aid Program aiming at promoting "Green Growth", which the Government of Japan puts stress on, by introducing mini-hydropower plant with elaborated technologies of Japan.

### 1. Objective of the Project

The objective of the Project is to sustain Rice Terrace Conservation Fund, to contribute to energy diversity, to CO<sub>2</sub> reduction, and to enhance electrification with mini-hydro power generation in Ifugao province.

### 2. Selection of Locations of Projects

The project site is located in Ifugao province as shown in Annex-1.

### 3. Responsible and Implementing Organizations

- (1) The responsible organization is Department of Energy (DoE).
- (2) The implementing organization is provincial government of Ifugao (PGI).

The Organization Structures of DoE is shown in Annex-2.

As for the other organizations such as owner of mini-hydropower plant, and operation and maintenance, the Philippines side has responsible for taking MoA with organizations in charge. The Team requested the Philippines side that the MoA shall be given to the Team by September 10<sup>th</sup>, 2012.

### 4. Component of the Project

- (1) Items originally requested by the Philippines Side are as follows.
  - a) Construction and installation of Likud mini-hydropower plant
  - b) Connecting power system to 13.8kV distribution lines
  - c) Overseas study tour and training for HOEMD
- (2) Based on discussion, Both side confirmed requested components as follows.
  - a) Construction and installation of Likud mini-hydropower plant
  - b) Connecting power system to 13.8kV distribution lines
  - c) Training in Philippines

The Team explained that the requested components are considered as candidate components to be implemented. However, the items of the components might be adjusted due to the budget frameworks of the Japanese side and result of the survey.

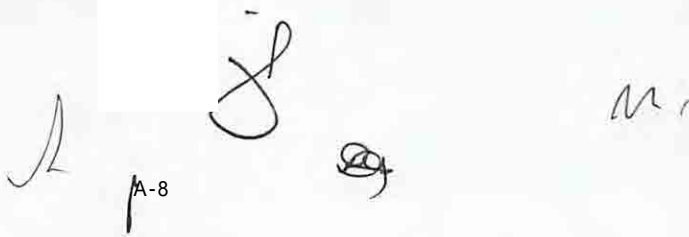
### 5. Japan's Grant Aid Scheme

- (1) JICA confirmed that the Philippines side understood Japan's Grant Aid Scheme explained by the Team as described in Annex-3 and 4.
- (2) The Philippines side will take the necessary measures, as described in Annex-5, for smooth implementation of the Project as prerequisites for the Japan's Grant Aid to be implemented.

### 6. Schedule of the Survey

The Team will continue the Survey in Philippines until September 11<sup>th</sup>, 2012.

A-8



## 7. Environmental and Social Considerations

- (1) The Philippines side agreed to comply with the JICA Guidelines for Environmental and Social Considerations (hereinafter referred to as "JICA Guidelines") as well as laws and regulations in the Philippines, and was requested to prepare Environmental Checklist and Monitoring Form which are designated by JICA Guidelines for an outline design.
- (2) The Philippines side agreed to make necessary arrangements with concerned governmental organizations in order to secure funding for and execution of the above environmental matters in a schedule as required for smooth execution of the Project.

## 8. Other Relevant Issues

### (1) Status of the Survey

The Team explained that the purpose of the Survey is to collect information and data necessary for the outline design and cost estimation of the Project components which are confirmed through the Survey and the analysis in Japan.

### (2) Progress of preparatory works for the Project

The Philippines side agreed to undertake preparatory works necessary for the Project including land use permission. The preparatory works shall be completed no later than six months from the conclusion of Grant Agreement (G/A).

### (3) Enhancement of structure for operation and maintenance

The Team emphasized that the establishment of an operation and maintenance structure with the allocation of enough number of qualified engineers and skilled technicians who will be in charge of operating and maintaining the new facilities is a crucial factor for implementation of the Project. The Philippines side understood its importance and agreed to formulate the operation and maintenance structure and submit the plan to JICA by November 2012.

### (4) Budget for operation and maintenance

The Team emphasized that it is essential for the Philippines side to secure the necessary budget for operation and maintenance based on periodical overhaul and preventive maintenance program including major overhauls of equipment to be procured under the Project in order to ensure long-term stable power supply. To secure the cost for maintenance and repair of the project site, the Team recommended allocation of revenue from electricity sales properly. The Philippines side has fully understood and committed to secure budget allocation especially until the plant operation starts.

### (5) Counterpart personnel

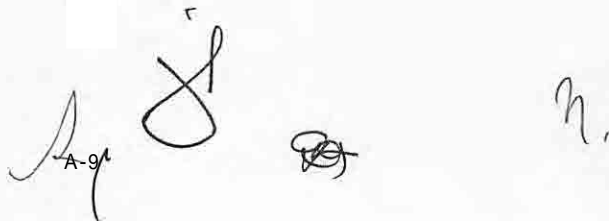
The Team requested the Philippines side that the necessary number of counterpart personnel shall be assigned to the Team and necessary arrangements with related organizations shall be made during the Survey in Philippines. The Philippines side agreed to support the Team based on the request.

### (6) Questionnaires

The Team requested the Philippines side that the answers to the questionnaires which the Team had already submitted to the Philippines side shall be given to the Team by September 10<sup>th</sup>, 2012.

### (7) Customs and tax exemption

The Philippines side understands that it shall be fully responsible on exemption of taxes, custom duties and any other levies imposed in the Republic of Philippines, in case the



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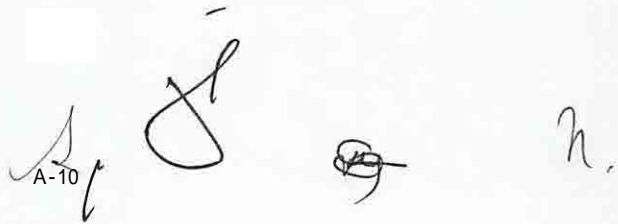
Project is implemented.

(8) Operation of the Rice Terraces Conservation Fund (RTCF)

The Philippines side explained that the proposed project aims at i) stable supply of electricity, and ii) promotion of preservation activities of the rice terrace through RTCF by raising power sales profit. In this context, both sides agreed that the study will cover the issues regarding the operation of the RTCF.

(End)

- Annex-1 Project Site
- Annex-2 Organization Chart of DoE
- Annex-3 Japan's Grant Aid
- Annex-4 Flow Chart of Japan's Grant Aid Procedures
- Annex-5 Major Undertakings to be taken by Each Government

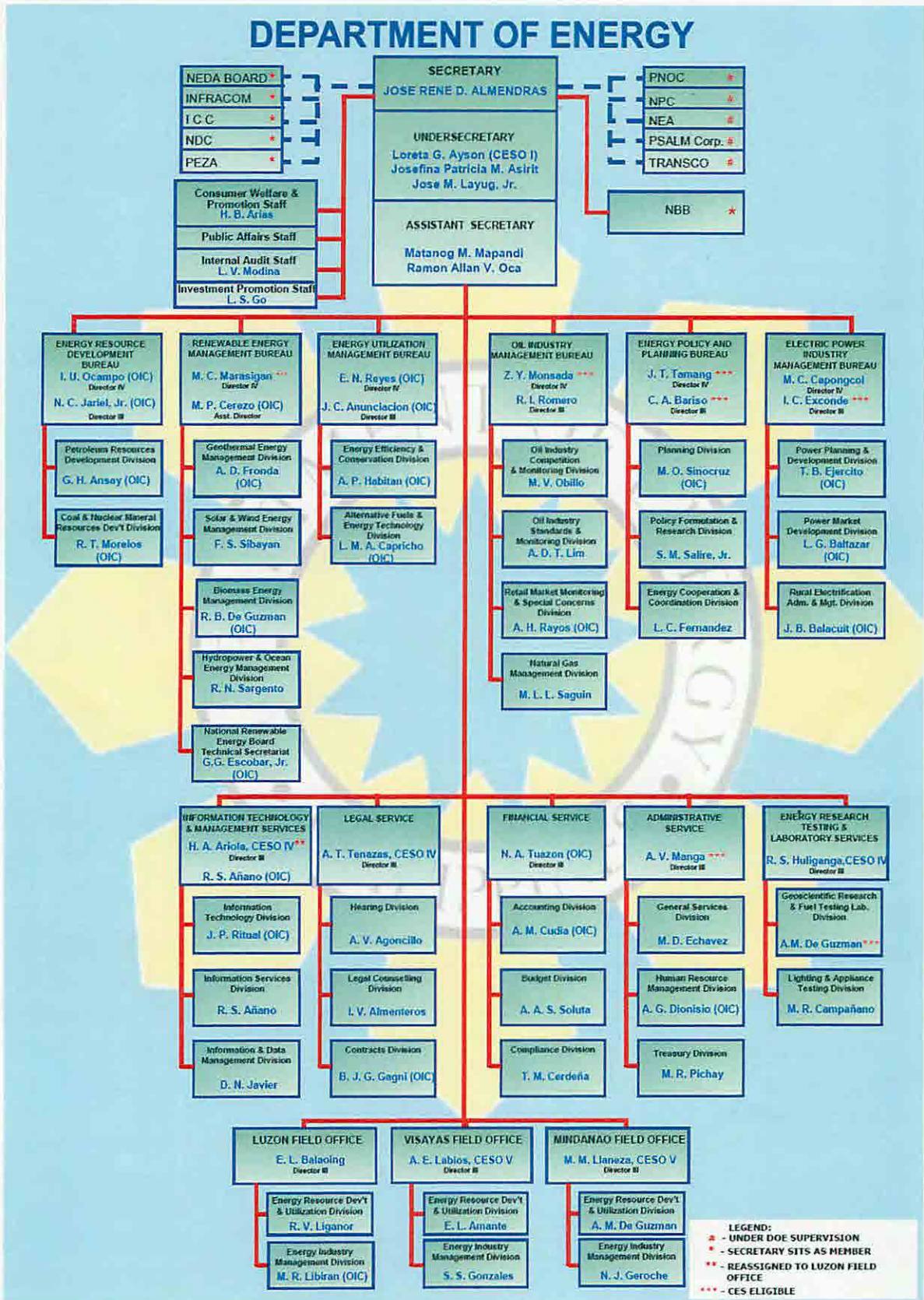
A-10 

Project Site



A-11 [Signature] [Signature] [Signature] [Signature]

Organization Chart of DoE





## Japan's Grant Aid

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

The Grant Aid is non-reimbursable fund provided to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for its economic and social development 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**

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
- The Survey conducted by JICA
- Appraisal & Approval
- Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
- The Notes exchanged between the GOJ and the recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
- Agreement concluded between JICA and a recipient country
- Implementation
- Implementation of the Project on the basis of the G/A

### **2. Preparatory Survey**

#### **(1) Contents of the Survey**

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

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

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

JICA requests the Government of the recipient country to take whatever measures necessary to achieve 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 of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.



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(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

### 3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the proposed Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project implementation after the E/N and G/A are signed by both sides.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport of materials or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services from a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to fulfill 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 shown in Annex-5.

(6) "Proper Use"



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

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or 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

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account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA 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 JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

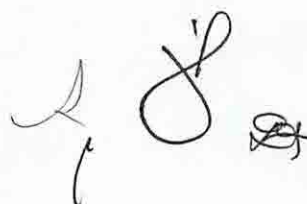
(9) Authorization to Pay (A/P)

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

(10) Social and Environmental Considerations

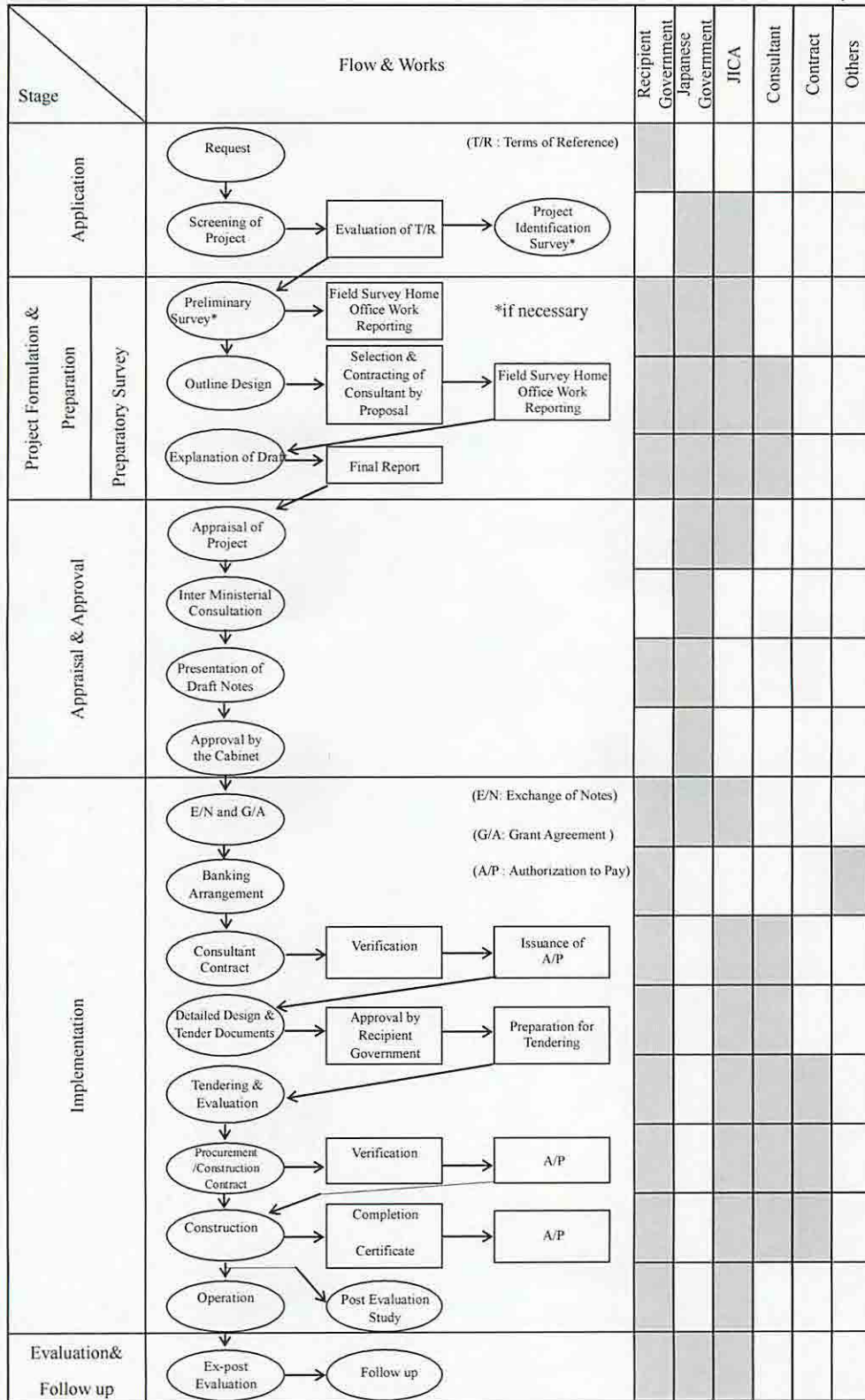
A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA guidelines for Environmental and Social Considerations.

(End)

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**Flow Chart of Japan's Grant Aid Procedures**



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## 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 [a lot] / [lots] of land necessary for the implementation of the Project and to clear the [site] / [sites];		●
2	To construct the following facilities		
	1) The building	●	
	2) The gates and fences in and around the site		●
	3) The parking lot	●	
	4) The road within the site	●	
	5) The road outside the site		●
3	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the [site] / [sites]		
	1) Electricity		
	a. The distributing power line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm sewer and others to the site)		●
	b. The drainage system (for toilet sewer, common waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
4	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products		
	1) Marine (Air) transportation of the Products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the Products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services [ be exempted ] / [be borne by the Authority without using the Grant]		●
6	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
7	To ensure that [the Facilities and the products] / [the Facilities] / [the products] be maintained and used properly and effectively for the implementation of the Project		●
8	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
10	To give due environmental and social consideration in the implementation of the Project.		●

\*1 B/A : Banking Arrangement, A/P : Authorization to pay) \*2 If the environmental screening category is C, No. 10 is unnecessary

**Minutes of Discussions  
on the Preparatory Survey  
for Mini-Hydropower Development Project  
in the Philippines  
(for Mini-Hydropower Project in the Province of Ifugao)  
(Explanation on Draft Final Report)**

In response to the request from the Government of the Republic of the Philippines, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), in consultation with the Government of Japan, decided to conduct a Preparatory Survey (hereinafter referred to as "the Survey") for two projects ("Mini-Hydropower Project in the Province of Ifugao", and "Micro/Mini Hydropower Development Project on Irrigation Canal"). This minutes of Discussions is agreed for the Mini-Hydropower Project in the Province of Ifugao (hereinafter referred to as "the Project").

JICA conducted a first field survey from July 29 to September 11, 2012. Second field survey was conducted from September 30 to October 20, 2012. Through discussions, field surveys and with the result of technical examination in Japan, JICA prepared a Draft Final Report of the Survey.

In order to explain and to consult with the officials of concerned authorities in the Philippines (hereinafter referred to as "the Philippines side") on the contents of the Draft Final Report, JICA dispatched to the Philippines the Preparatory Survey Team for Draft Final Report Explanation (hereinafter referred to as "the Team"), which is headed by Mr. Kazunari OSHIMA, In-house consultant of Energy and Mining Division I, Natural Resources and Energy Group, Industrial Development and Public Policy Department, JICA. The Team is scheduled to stay in the Philippines from December 2 to 22, 2012.

Both sides agreed that the final terms and agreements necessary to implement the Project shall be subject to full government authorization and consent of appropriate signatories. Finally, upon obtaining requisite final authorities therefor, both sides agree that they shall cooperate fully and do all such further acts and things and execute and deliver any further documents that may be necessary to give effect to the transactions contemplated under the Project.

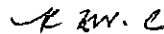
The Team held discussions with the officials of concerned authorities in the Philippines side. In the course of the discussions, both sides have confirmed the main items described in the sheets attached hereto.

Makati, December 20, 2012



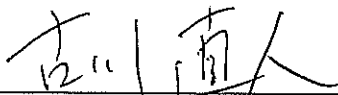

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Mr. Susumu Ito  
Senior Representative  
Japan International Cooperation Agency



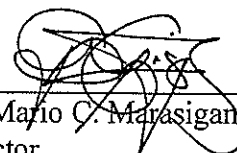

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Mr. Ramon Allan V. Oca  
Undersecretary  
Department of Energy




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Mr. Naoto Furukawa  
Deputy Assistant Director  
Japan International Cooperation Agency




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Mr. Mario C. Marasigan  
Director  
Department of Energy – Renewable  
Energy Management Bureau

## ATTACHMENT

The Philippines side has recognized, as the Embassy of Japan in the Philippines explained, that the Project will be conducted in accordance with the "Green Growth" policy by the Government of Japan, which emphasizes on utilization of the elaborated products, such as hydro turbines, fabricated by Japanese small, medium scale enterprise.

### 1. Objectives of the Project

The objectives of the Project are to sustain Rice Terrace Conservation Fund, to contribute to energy diversity, to CO<sub>2</sub> reduction, and to enhance electrification with mini-hydro power generation in Ifugao province.

### 2. Selection of Locations of Projects

The project site is located in Ifugao province as shown in Annex-1.

### 3. Contents of the Draft Final Report

The Philippines side agreed and accepted in principle the contents of the Draft Final Report and the Draft Technical Specifications for the Project explained by the Team.

### 4. Responsible and Implementing Organizations

- (1) The responsible organization is Department of Energy (DoE).
- (2) The implementing organization is provincial government of Ifugao (PGI).

The Organization Structures of DoE and PGI are shown in Annex-2, and Annex-3.

As for the other organizations such as owner of mini-hydropower plant, and for operation and maintenance, the Philippines side has responsible for taking (Memorandum of Agreement) MoA with organizations in charge. The Team strongly requested the Philippines side that the signed MoA shall be given to the Team within January, 2013.

### 5. Components of the Project

The following are selected as the Project Components.

- (1) Construction and installation of Likud mini-hydropower plant (2x410kW)
- (2) Connecting power system to 13.8kV distribution lines
- (3) Training in Philippines

### 6. Confidentiality of the Project

#### (1) Project Cost

The Team explained the estimated cost of the Project as described in Annex-4. The Philippines side also agreed that the cost for the Project contains procurement cost of equipment, construction cost of facility, transportation cost up to the Project site, installation cost and the Consultant fees.

The Philippines side agreed that the cost for the Project should not exceed the amount agreed in the Exchange of Notes (E/N) to be signed between the governments. The Philippines side understood that the estimated cost for the Project attached as Annex-4 is not the final and is subject to change as a result of the detailed design to be implemented after the E/N.

#### (2) Detailed specifications of the Facilities and Equipment

Both sides agreed that all information related to the Project including estimated cost, detailed drawings and specifications of the facilities and equipment, and other technical information shall not be disclosed to any outside parties (i.e. outside of JICA and the Philippines side) before the conclusion of all contract(s) for the Project.

## **7. Possibility of Change in Scope, Schedule and Cost of the Project**

The Team stressed that scope, schedule, and cost for the Project are tentative and subject to change due to the domestic circumstances in Japan and in the Philippines. The Philippines side understood it.

## **8. Japan's Grant Aid Scheme**

- (1) JICA confirmed that the Philippines side understood Japan's Grant Aid Scheme explained by the Team as described in Annex-5 and 6.
- (2) The Philippines side will take the necessary measures, as described in Annex-6, for smooth implementation of the Project as prerequisites for the Japan's Grant Aid to be implemented.

## **9. Environmental and Social Considerations**

- (1) The Philippines side agreed to comply with JICA Guidelines for Environmental and Social Considerations (April 2010) (hereinafter referred to as "JICA Guidelines") as well as laws and regulations in the Philippines, and was requested to prepare Environmental Checklist and Monitoring Form which are designated by JICA Guidelines for an outline design.
- (2) The Philippines side agreed to make necessary arrangements with concerned governmental organizations in order to secure funding for and execution of the above environmental matters in a schedule as required for smooth execution of the Project.
- (3) The Philippines side agreed that JICA may disclose (the part of) the monitoring results conducted by the Philippines side. JICA explained that JICA may disclose further information, when third parties request, subject to approval of the Philippines side.

## **10. Other Relevant Issues**

- (1) Progress of preparatory works for the Project

The Philippines side agreed to undertake preparatory works necessary for the Project including land use permission, and any authorization procedure. The preparatory works shall be completed no later than six months from the conclusion of Grant Agreement (G/A).

- (2) Budget for operation and maintenance

The Team explained estimated cost of operation and maintenance for micro/mini hydropower pilot plant, which is written in Draft Final Report. In addition, the Team emphasized that it is essential for the Philippines side to secure the necessary budget for operation and maintenance based on periodical inspection and preventive maintenance program including major overhauls of equipment to be procured under the Project in order to ensure long-term stable power supply. The Philippines side has fully understood and committed to secure budget allocation including necessary cost until the plant operation starts.

- (3) Enhancement of structure for operation and maintenance

Through the Survey, both side (DoE, PGI, and JICA) agreed power plant operation and maintenance setup as written in Draft Final Report. The Team emphasized that the establishment of an operation and maintenance structure with the allocation of enough number of qualified engineers and skilled technicians who will be in charge of operating and maintaining the new facilities is a crucial factor for implementation of the Project. The Philippines side understood its importance.

- (4) Counterpart personnel

The Team requested the Philippines side that the necessary number of counterpart personnel shall be assigned to the Team and the necessary arrangements with related organizations be made during implementing stage in the Philippines. The Philippines side



has agreed to accept the request.

(5) Customs and tax exemption

The Philippines side understands that it shall be fully responsible on exemption of taxes, custom duties and any other levies imposed in the Republic of Philippines, in case the Project is implemented.

(6) Operation of the Rice Terraces Conservation Fund (RTCF)

The Philippines side explained that the proposed project aims at i) stable supply of electricity, and ii) promotion of preservation activities of the rice terraces through RTCF by raising power sales profit. In this context, both sides agreed that the Project will cover the issues regarding the operation of the RTCF.

(End)

- Annex-1 Project Site
- Annex-2 Organization Chart of DoE
- Annex-3 Organization Chart of PGI
- Annex-4 Estimated Project Cost (Confidential)
- Annex-5 Japan's Grant Aid
- Annex-6 Flow Chart of Japan's Grant Aid Procedures
- Annex-7 Major Undertakings to be taken by Each Government



## MEMORANDUM OF AGREEMENT

### KNOW ALL MEN BY THESE PRESENTS:

This Memorandum of Agreement herein referred to as the "Agreement" made and entered into by and between:

The **DEPARTMENT OF ENERGY**, an agency of the Republic of the Philippines created under Republic Act No. 7638 with principal office address at Energy Center, Rizal Drive, Bonifacio Global City, Taguig City, Metro Manila, represented herein by its Secretary, **Hon. CARLOS JERICO L. PETILLA**, hereinafter referred to as "**DOE**";

and

The **PROVINCIAL GOVERNMENT OF IFUGAO**, a local government unit with principal office address at Provincial Capitol, Poblacion South, Lagawe, Ifugao, represented herein by its Governor, **Hon. EUGENE M. BALITANG**, through Sanggunian Panlalawigan Resolution No. 2013-598, hereinafter referred to as "**PGI**";

The **DOE** and **PGI** collectively hereinafter referred to as "**Parties**" and individually as "**Party**".

### WITNESSETH: That

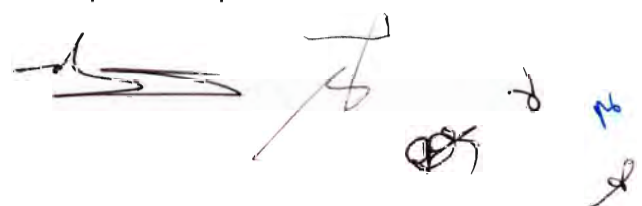
WHEREAS, the DOE is tasked to formulate policies and programs for the accelerated development of renewable energy systems and the promotion and commercialization on its applications;

WHEREAS, in fulfillment of the abovementioned task, the DOE implements the provisions of Republic Act No. 9513 or the Renewable Energy Act of 2008;

WHEREAS, the DOE submitted a proposal for Grant-Aid Project to Japan International Cooperation Agency (JICA) for Mini-hydropower Development in the Philippines;

WHEREAS, in response to the aforementioned proposal, the Government of Japan through JICA has conducted Preparatory Survey as part of Japan's Grant-Aid Program for the Likud Mini-hydropower Project (hereinafter referred to as the "Project" or the "Mini-hydro Project") located in the Municipality of Asipulo, Ifugao Province;

WHEREAS, the Likud Mini-hydro Project shall consist of the construction and installation of a mini-hydropower demonstration plant together with its transmission facilities that can provide an alternative source of electricity and partially address the energy requirements of Ifugao province under a cooperation period due to end



upon the completion of the implementation process. (Annex 1 – Overall Project Schedule);

WHEREAS, DOE shall establish institutional arrangements and coordination with local government units and other government and private agencies/entities that would be involved in the Project, including the provision of technical assistance;

WHEREAS, in accordance with the coordination and negotiation of the DOE with prospective agencies that may be involved in the Project implementation, the PGI have been identified by the DOE to cooperate and collaborate in the Project and PGI have agreed to be the recipient of the ownership of the mini-hydro demonstration plant including its transmission facilities;

WHEREAS, PGI through its Sanggunian Panlalawigan passed and approved several Resolutions/Executive Orders in support of the Likud Mini-hydro Project development initiative by the DOE and JICA;

WHEREAS, PGI is committed and supports the promotion of sustainable energy projects to provide socio-economic and environmental benefits to the people of Ifugao Province;

WHEREAS, the revenue that can be collected from the operations of the Likud Mini-hydro Project shall be deposited in a trust account to be managed by the PGI and to be used for the following; a) operation and maintenance of the Likud Mini-hydropower Plant, b) rehabilitation of the rice terraces, and c) research and development of hydropower resources in Ifugao Province.

NOW, THEREFORE, in view of the foregoing premises, the DOE and PGI hereby stipulate and agree as follows:

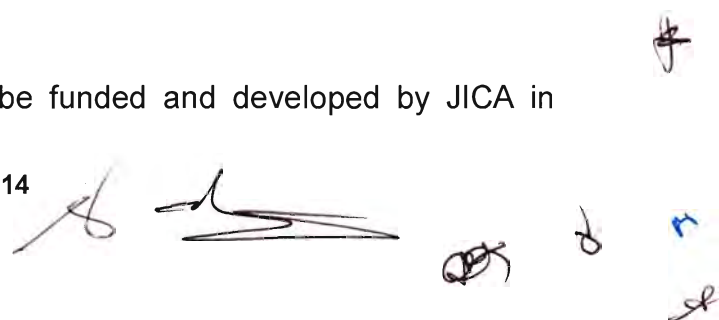
- To mobilize resources appropriate to each of the **Parties** and bear each **Party's** own costs incurred in the performance of this Agreement;
- To ensure the success of the Project implementation phase, including construction, operation and maintenance, fund disbursements and monitoring;
- To provide positive socio-economic and environmental benefits to the people of Ifugao Province in general; and
- To maximize the impacts of the Likud Mini-hydro Project in terms of efficient energy generation.

The Parties hereby agree on, respect, and submit to the following Terms of Reference:

## TERMS OF REFERENCE:

### 1. Purposes of the Project

The Mini-hydro Project that is expected to be funded and developed by JICA in



cooperation with DOE and PGI aims to contribute to diversifying energy and reduction of gas emissions by utilizing domestic renewable energy by developing untapped hydropower potentials in the Province. The Project also aims to maintain and improve the quality of life of the local people engaged in rice terraces farming.

The JICA plans to develop the Likud Mini-hydro Project in Asipulo, Ifugao to secure funds that will be used for conservation activities supporting the Ifugao Rice Terraces protection and preservation program.

## 2. Scope of the Project

The JICA, with the support of DOE and PGI, will provide financial and technical assistance in the construction of a grid connected mini-hydro power generation facility in Municipality of Asipulo, Ifugao, and help set up an operation scheme for a sustainable energy development. The PGI under the supervision of the DOE will take full responsibility for the operation and maintenance of the facilities when they are transferred by DOE.

## 3. Project Organization

To ensure the smooth flow of activities and performance of the Project, DOE and PGI shall be responsible for organizing their own systems of execution, including the cooperative support to be accorded by any other concerned organizations.

## 4. Conditions for Cooperation

The specific activities under this Agreement is mutually agreed upon by the **Parties**, documented and defined as follows:

### 4.1 Duties and Responsibilities of the DOE

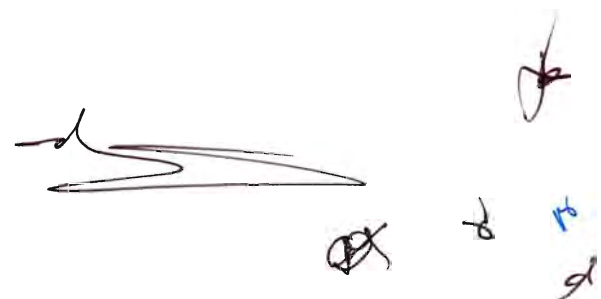
- a. Support the development of the Likud Mini-hydro Project in partnership with JICA and the PGI;
- b. Supervise and assist the PGI in the preparation of documents and acquisition/negotiation for permits and licenses for the implementation of the Likud Mini-hydro Project;
- c. Review the detailed feasibility study, engineering design plans and drawings, etc. in coordination with JICA and PGI;
- d. Facilitate the issuance of necessary endorsement for duties and tax exemption of imported or locally fabricated equipment and shoulder Value-Added Tax of locally procured materials for the implementation of the Likud Mini-hydro Project;
- e. Any assistance within the capability of the DOE to provide that which is necessary to implement the Likud Mini-hydro Project, including securing public consent among the residents and local communities of the site;
- f. Receive all the assets and facilities of the Likud Mini-hydro Project at the end

of construction period and transfer to the PGI or its assigns at the end of the cooperation period;

- g. Issue a Certificate of Acceptance upon completion of the construction period and continuously monitor, supervise, and extend assistance in the operation and maintenance and in the utilization of the generated power after the turnover of the Project;
- h. Act as counterpart agency to JICA and as a coordinating body in relation with other governmental and non-governmental organizations concerned with the smooth implementation of the Project; and
- i. Provide counterpart personnel and necessary funds in the fulfillment of its responsibilities and undertakings.

#### **4.2 Duties and Responsibilities of the PGI**

- a. Provide assistance to the DOE and JICA in the preparation and formulation of the Likud Mini-hydro Project, particularly in the coordination with other governmental agencies, communities and private agencies to ensure the smooth implementation and success of the Project;
- b. Provide counterpart personnel and funds to cover the expenses for the application of hydropower service contract with DOE, permits, licenses and certifications for the Likud Mini-hydro Project;
- c. Prepare documentation and secure/negotiate necessary and appropriate permits and licenses for the construction and installation of the Likud Mini-hydro Project facilities, including acquisition of lands, rights of way and other real properties;
- d. Coordinate with the DOE in the selection and training of interim personnel and workers of the Likud Mini-hydro Project;
- e. Issue a Certificate of Acceptance after the turnover of the DOE of the Likud Mini-hydro Project to the PGI;
- f. Assume ownership, supervision, operation and control of the Likud Mini-hydro Project upon turnover by the DOE;
- g. Operate and maintain the Likud Mini-hydro Project and provide appropriate salaries and wages for the Project's personnel and workers;
- h. Administer and manage collection of fees and/or tariff for the utilization of electricity from the Mini-hydro Project;
- i. Ensure the safety and security of the DOE, JICA and the Contractor at all times;



- j. Restrict the use of funds generated from the Project to conservation activities supporting the Ifugao Rice Terraces protection and preservation program and make annual reports, for the first five years of operation, to JICA and DOE on how the funds are used;
- k. Procure a suitable place for the Project and warrant that construction and operation of the Mini-hydro Project at such place which has minimum impact to the environment;
- l. Sell available power from the Likud Mini-hydro Project during and after the cooperation period to Ifugao Electric Cooperative, Inc. (IFELCO) and/or any other customer at a reasonable rate as may be covered by a mutual energy sales agreement between the PGI and IFELCO; and
- m. Open a trust account for the flow of funds to be used in the operation and maintenance of the demonstration mini-hydro Project as well as for the conservation of rice terraces and other priority Projects as maybe identified by the PGI under its priorities.

## 5. Development Costs

"Development Costs" shall include any and all costs and expenses incurred or on behalf of the Parties in connection with the Likud Mini-hydro Project or the fulfilment of their respective responsibilities under Section 4 herein that are attributable to their respective internal organizations, employees, representatives, advisors, or agents, including the cost and travel of such agents. Each **Party** shall shoulder its own development costs.

## 6. Transfer of Title and Risk Loss

Title and risk loss shall pass from the JICA to the **DOE** upon the construction of the Likud Mini-hydro Project facilities and the **DOE** agrees to assume all liability for the facility on and after the date when the JICA sends a notice of completion of construction, and for the duration of the lifetime of the facility, or until its transfer to the ultimate owner, **PGI**;

## 7. Quality Assurance and Satisfaction

Duties and responsibilities to be undertaken by any **Party** shall be executed and completed in a reasonable manner that is acceptable and satisfactory to all Parties.

## 8. Force Majeure

Neither **Party** shall be liable for any delay or failure in the performance of its obligations under this Agreement if and to the extent such delay or failure in performance arises from any cause or causes beyond the reasonable control of the **Party** affected hereinafter referred to as "Force Majeure", shall include, but not limited to, the following:

- a) acts of God, including storm, earthquake, drought, flood or any other such

operation of the forces of nature that the **Party** affected could not reasonably foresee or provide against; and

- b) war (declared or undeclared), hostilities, invasion, act of any foreign enemy, threat of or preparation of war, riot, insurrection, civil commotion, rebellion, revolution, usurped power, civil war, and labor troubles or other industrial troubles, strikes, embargoes, blockades, and sabotage of labor.

## 9. Liability

Neither **Party** shall be held liable for any loss or damages sustained by the other **Party** as a result of act or omission by Third Parties, arising out of or in connection with the implementation of this Agreement. A **Party** to this Agreement shall not make any claims against the other Parties for any liabilities it has incurred as a result of any damages sustained by Third Parties from any causes whatsoever.

No **Party** shall be liable to the other **Parties** for any indirect, consequential, punitive or any other damages other than the actual, direct and foreseeable costs, losses and damages incurred by such **Party** as a result of a breach of this Agreement.

## 10. Confidentiality

10.1 Any data, document, plan, design or drawing, or information received by the other **Party** in connection with the Project shall not be disclosed to a Third Party or used other than for the purpose of this Project, without prior written consent of the disclosing **Party**.

Any data, document, plan, design or drawing, or information collected, developed or formulated during the course of implementing the Project, which may be mutually determined by the **Parties** as classified shall not be disclosed to a third party, unless with the other **Party's** prior written consent.

Notwithstanding the stipulation written above, a receiving **Party** may disclose the information to consultants or advisors who need to know such information for the purpose of implementation of this Agreement and who are legally bound to maintain confidentiality of the information.

The confidentiality obligations set forth in this Agreement shall terminate five (5) years or on the earlier date by mutual written agreement hereto.

10.2 The foregoing restriction shall not apply to:

- a) Information which at time of disclosure is generally available to the public;
- b) Information which after disclosure becomes generally available to the public through no fault of the receiving **Party**;
- c) Information which the receiving **Party** can show was in its possession prior to the disclosure and which was not acquired directly or indirectly from the other **Party**;

- d) Information which the receiving **Party** can show was received by it after the time of disclosure from the third party without any obligation of confidentiality and which was not acquired directly or indirectly from the other **Party**; and
- e) Information which is required to be disclosed pursuant to any applicable law, regulation, judicial or administrative order or decree, or request by the other regulatory organization having authority pursuant to the law.

Notwithstanding the foregoing, the **Parties** hereto shall not request from each other any fee, cost or consideration with regard to the disclosure of information.

### 11. Publication of Results

For the public interest and the mutual benefits of the **Parties**, without prejudice to the Section 10, the **Parties** agree to promote and give full credits to each **Party's** contributions for the Project and all outcomes resulting from the activities under this Agreement in any type of communication, written and oral, such as company report, conferences, papers or news media.

### 12. Intellectual Property Rights

It is understood and agreed that:

- 12.1 Notwithstanding the foregoing, any intellectual property rights, including copyright, trademark, patent or industrial design rights, resulting solely from joint activities under this Agreement shall be jointly owned by the **Parties** and each of the **Parties** shall be allowed to use such property for their own purposes with mutual agreement upon prior to its use; and
- 12.2 Any intellectual property rights contributed by one of the **Parties** shall remain the property of that Party.

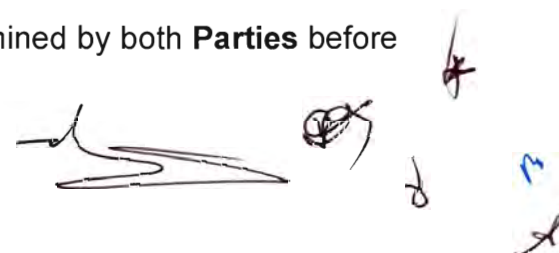
Termination of this Agreement for any reason shall not affect the rights and obligations of any parties under this Article.

### 13. Applicable Law

This Agreement shall be governed by and construed in accordance with the laws of the Republic of the Philippines.

### 14. Consultation and Settlement of Disputes

- 14.1 The **Parties** shall endeavour to resolve any difficulties or misunderstandings resulting from, or relating to the Project in the spirit of cooperation and mutual trust.
- 14.2 Any questions arising in connection with the interpretation or implementation of the provisions hereof or anything unspecified herein shall be promptly resolved or specified through discussion.
- 14.3 Detailed schedules and procedures shall be determined by both **Parties** before





the commencement of the Project.

If no such mutual and amicable agreement is attainable, the matter shall be subject to exclusive jurisdiction of the Court of Justice of the Philippines.

### 15. Withdrawal and Modification

Any **Party** can withdraw from this Agreement without any liabilities and costs by providing written notice to the other **Parties** at least sixty (60) days without prejudice. For the purpose of clarification, any **Party** who withdraws from this Agreement pursuant to this Article shall be liable for any costs and liabilities incurred by the Project before such withdrawal and shall not be liable after such withdrawal. The **Parties** agree that the terms of this Agreement may be modified upon mutual agreement. Each such modification shall be contained in an addendum, which shall form an integral part of this Agreement. Any variation or modification shall only be valid if produced in writing and signed by the **Party** hereto.

### 16. Working Language

The working language of the Project is English. If translation into English of any language is necessary (verbal or written), each party will bear its own costs. In event of a difference in meaning, English shall prevail.

### 17. Terms of Cooperation:

This Agreement shall become effective on the date and signing by the **Parties** and shall be effective through and to the end of the Likud Mini-hydro Project, which is planned for January 31<sup>st</sup>, 2015, or an earlier date by mutual written agreement hereto (Attached appendix: Schedule of Activities).

However, Section 9, 10, 12, 13 and 14 shall survive expiration or termination of this Agreement.

In case any **Party** breaches or defaults the performance of any provisions of this Agreement, and such breach or default is not cured within sixty (60) days after the breaching **Party** receives notification by the non-breaching **Party**, the non-breaching **Party** shall have the right to terminate this Agreement.

### 18. Miscellaneous

18.1 No **Party** may assign or otherwise transfer any of its rights or obligations under this Agreement without prior written consent of the other **Parties**.

18.2 Nothing hereto contained in this Agreement shall be construed to create between the Parties partnership, joint venture, agency relationship or other business entity.

18.3 The Parties hereby agree that, to the extent that it or any of its property may have or hereafter acquire (or may be attributed, whether or not claimed) any right of immunity (including, but not limited to sovereign immunity) from suit, court jurisdiction, execution, attachment prior to judgment, attachment in aid of



execution of a judgment, set-off or other legal process. It hereby irrevocably waives and agrees not to claim, to the fullest extent permitted by law, such right of immunity (other than immunity from bankruptcy and insolvency laws to which it is otherwise entitled) with respect to (a) its obligations under this Agreement, (b) any legal proceedings to enforce such obligations, and (c) any legal proceedings to enforce any judgment rendered in any proceedings to enforce such obligations.

18.4 This Agreement constitutes the entire agreement among the **Parties** and supersedes any prior written or oral agreement among the **Parties** concerning the subject matter. No modifications of this Agreement shall be binding unless executed in writing by all **Parties**.

18.5 In the event that a section of the present document was declared illegal or invalid, the other sections of the present document will be considered valid and will be in force.

#### 19. Final Provisions:

Notwithstanding to the contrary herein, any provisions of this Agreement shall not be construed as a guarantee for certain level of power production, timing of the completion of the Project or any other level of performances or services for the DOE and PGI.

#### 20. Notice

All notices or communication required or permitted to be given under this Agreement shall be written in English and shall be given to the address and persons shown below. Each **Party** may change the designated person at anytime by giving written notice to the other **Party**.

#### To the DOE:

**Hon. CARLOS JERICHO L. PETILLA**  
Secretary  
Department of Energy  
Energy Center, Rizal Drive, Bonifacio Global City  
Taguig City, Metro Manila, Philippines

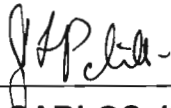
#### To the PGI:

**Hon. EUGENE M. BALITANG**  
Governor  
Provincial Capitol, Poblacion South, Lagawe,  
Ifugao, Philippines

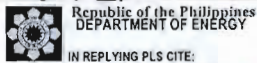
IN WITNESS WHEREOF, the **Parties** set their hands this FEB 11 2013 day of \_\_\_\_\_  
2013 at \_\_\_\_\_, Philippines.

**DEPARTMENT OF ENERGY**

By:

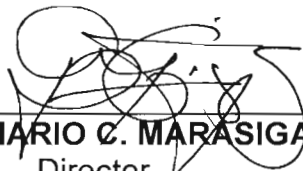


**HON. CARLOS JERICO L. PETILLA**  
Secretary



IN REPLYING PLS CITE:  
SOE-JLP-13000790

Witnessed by:



**MR. MARIO C. MARASIGAN**  
Director  
Renewable Energy Management Bureau

**PROVINCIAL GOVERNMENT  
OF IFUGAO**

By:



**HON. EUGENE M. BALITANG**  
Governor



**ATTY. VLADOBOYD T. NGIPOL**  
Legal Officer

*Handwritten marks and initials in the bottom right corner.*

**ACKNOWLEDGMENT**

REPUBLIC OF THE PHILIPPINES }  
MANILA CITY, METRO MANILA } S. S.

I, ATY. ISIDRO V. ALMENTEROS a Notary Public duly authorized in the city named above to take acknowledgments, certify that on this \_\_\_\_\_, personally appeared:

Name	Competent Evidence of Identity	Date and Place of Issuance
HON. CARLOS JERICO L. PETILLA	Passport No. EB4810205	27 February 2012 Tacloban City

known to be the same person described in the foregoing instrument, who acknowledged before me that his signature on the instrument was voluntarily affixed by him for the purposes stated therein, and who declared to me that he executed the instrument as his free and voluntary act and deed as well as the free and voluntary act and deed of the government agency herein represented.

This instrument which consists of fourteen (14) pages including this page on which the acknowledgment is written, is signed on each and every page thereof by the Party and his instrumental witness and sealed with my notarial seal, refers to a Memorandum of Agreement between DOE and the Provincial Government of Ifugao for the Likud Mini-hydro Project in Asipulo, Ifugao.

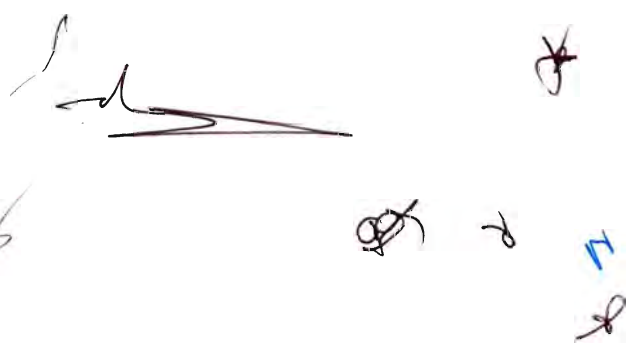
WITNESS MY HAND AND SEAL on FEB 11 2013 at MANILA.



NOTARY PUBLIC

**ATTY. ISIDRO V. ALMENTEROS**  
 Notary Public  
 Until December 31, 2014  
 IBP No. 878369/MLA/Oct.19, 2012  
 (Covers Calendar Years 2013 and 2014)  
 PTR (2013) No. 1413061/MLA/12-28-2012  
 MCLE Compliance No. III-0016394  
 Attorney's Roll No. 34272

Doc. No. 155 :  
 Page No. 12 :  
 Book No. 60 :  
 Series of 2013.



**ACKNOWLEDGMENT**

REPUBLIC OF THE PHILIPPINES }  
MANILA CITY, METRO MANILA } S. S.


I, ATY. ISIDRO V. ALMENTEROS, a Notary Public duly authorized in the city named above to take acknowledgments, certify that on this \_\_\_\_\_, personally appeared:

Name	Competent Evidence of Identity	Date and Place of Issuance
HON. EUGENE M. BALITANG	Passport No. EB4731594	17 February 2012 DFA Manila

known to be the same person described in the foregoing instrument, who acknowledged before me that his signature on the instrument was voluntarily affixed by him for the purposes stated therein, and who declared to me that he executed the instrument as his free and voluntary act and deed as well as the free and voluntary act and deed of the government agency herein represented.

This instrument which consists of fourteen (14) pages including this page on which the acknowledgment is written, is signed on each and every page thereof by the Party and his instrumental witness and sealed with my notarial seal, refers to a Memorandum of Agreement between DOE and the Provincial Government of Ifugao for the Likud Mini-hydro Project in Asipulo, Ifugao.

WITNESS MY HAND AND SEAL on FEB 11 2013 at MANILA.

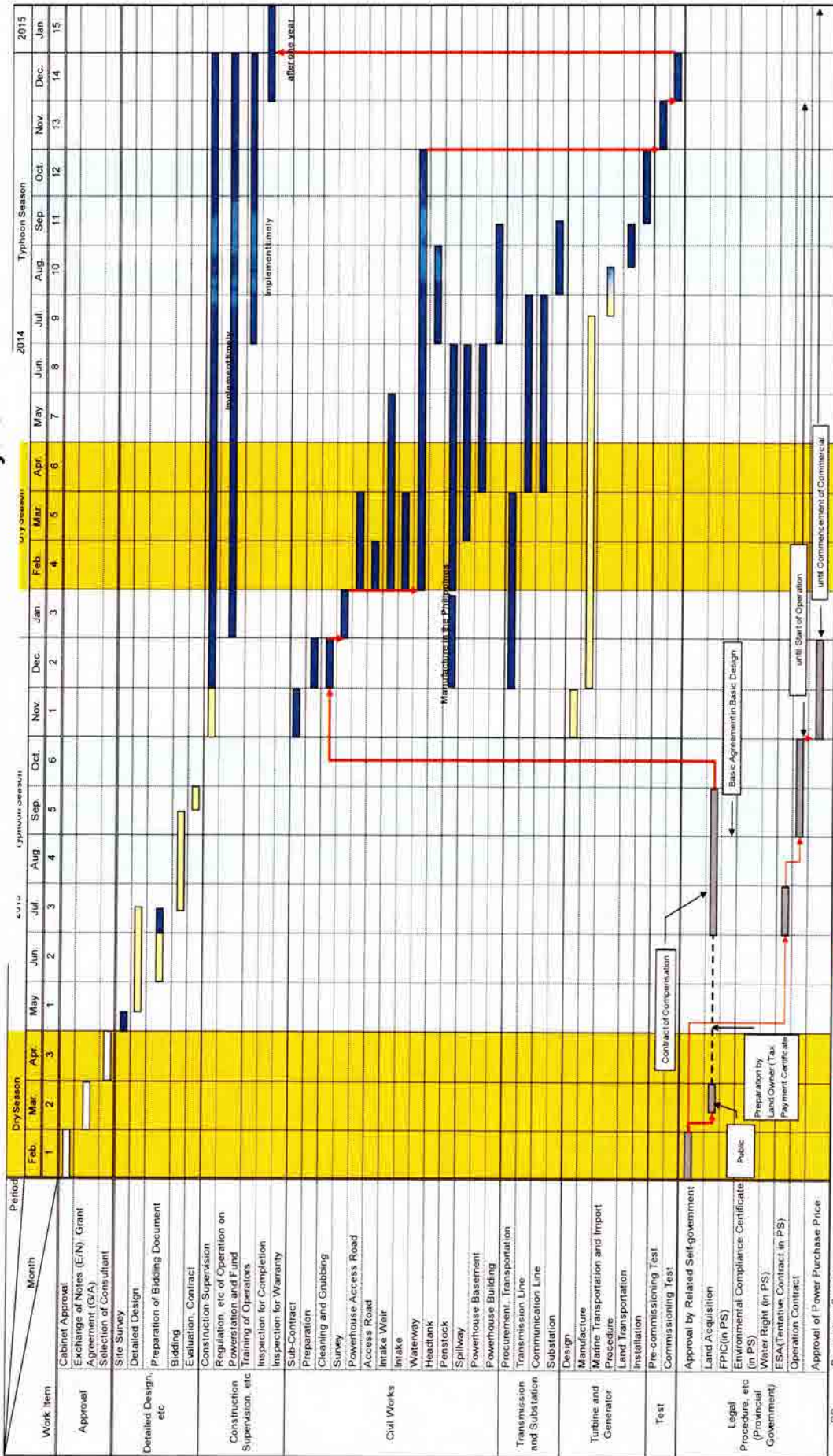
  
**ATTY. ISIDRO V. ALMENTEROS**  
Notary Public  
Until December 31, 2014  
IBP No. 876369/MLA/Oct. 19, 2012  
(Covers Calendar Years 2013 and 2014)  
PTR (2013) No. 1418061/MLA/12-23-2012  
MCLE Compliance No. III-0016394  
Attorney's Roli No. 34272

NOTARY PUBLIC

Doc. No. 155 :  
Page No. 23 :  
Book No. 60 :  
Series of 2013



# Annex – 1 Overall Schedule of Likud Mini-hydro



\* Iligao Provincial Government has started the legal procedure for Water Right and Environmental Compliance Certificate. Thus it can deal on only a modification if an alteration occurs in this survey.

*[Handwritten signatures and marks]*

## Annex – 1

Likud Mini-hydro Project Table of Work Activities and Responsibilities								
STAGE	WORK ITEMS	Financial Responsibilities			Activity Responsibilities			REMARKS
		JICA	DOE	PGI	JICA	DOE	PGI	
Before Implementation	1 Organize Management Body							◎ : Execution ○ : Review △ : Assist
	a. Establishment of the O&M Organization / Institution			◎		△	◎	
	b. Establishment of rice terrace fund management Organization / Institution			◎		△	◎	
	Acquisition of Rights and Permits							
	a. Environmental Compliance Certificate (ECC) from DENR			◎		△	◎	
	b. Water Rights Permit from NWRB			◎		△	◎	
	2 c. Right of Way	◎		◎		△	◎	
d. Free Prior Inform Consent (FPIC)			◎		△	◎		
e. PPA (tariff rate) approval from ERC			◎		△	◎		
f. Necessary Permits and Operating Contracts			◎		△	◎		
Implementation	1 Review the FS, Engineering Design Plan and Drawings	-	-	-	◎	○		
	2 Construction	◎			◎	△	△	
	3 Ocean / Inland Transportation	◎			◎			
	4 Exemption from Taxes, Duties	-	-	-		◎		
	5 Compensation during construction	◎				△	◎	
	6 Preparation of O&M Guide and Manual	◎			◎	△		
	7 Select training of personnel and workers of the mini-hydro Project	-	-	-		△	◎	
	8 Operator Training on O&M	◎			◎	△		
	9 Procure a suitable place for the Project and warrant that construction and Operation of the mini-hydro Project.	-	-	-			◎	
O&M	1 Operation and Maintenance of MHP			◎		△	◎	
	2 Power sale			◎		△	◎	
	3 Fund Management			◎		△	◎	
Monitoring	1 Inspect, Test, analyze and commission the Project facilities	◎			◎	△	△	
	2 Monitor the progress of the mini-hydro Project during the cooperation period	◎			◎	△	△	
	3 Supervision and assistance in O&M of the mini-hydro plant, including administration and management.		◎			◎		
	4 Restrict the use of funds generated from the Project for rice terraces conservation activities	-	-	-		△	◎	
	5 Continuously monitor, supervise, and extend assistance in the operation and maintenance of the power plant even after cooperation period		◎			◎		
	6 Documentation and Reporting		◎	◎		◎	◎	
Handover	1 Transfer the all assets (1st step)	-	-	-	◎	◎		
	2 Transfer the all assets (2nd step)	-	-	-		◎	◎	
	3 Issue a Certificate of Acceptance	-	-	-		◎	◎	
Others	1 Assume ownership, supervise, operation and control of the mini-hydro Project			◎			◎	
	2 Securing the safety and security of the DOE, e8 and the Contractor			◎			◎	







## 資料5 ソフトコンポーネント計画書



## ソフトコンポーネント計画書 (フィリピン国イフガオ小水力発電計画準備調査)

### 1. ソフトコンポーネントを計画する背景

2008年10月、フィリピン政府は東南アジア地域における最初の包括的再生可能エネルギー関連法規となる再生可能エネルギー法（Renewable Energy Act of 2008, RA.9315：以下「RE法」）を制定した。同法は「エネルギー自給率の向上」、「再生可能エネルギー開発を通じた中央及び地方政府の能力強化」、「経済成長と環境保護の両立」を目的とする。同法施行以降、水力開発が活発になっているものの、フィリピン国では小水力開発に関する適正技術が定着していないために、独立発電事業者(IPP：水力開発に経験のない急造会社、中国等の外国資本含む)による水力開発が、全体計画無しに無秩序に行われており、地域社会や生態系への環境影響緩和、河川単位の治水、灌漑用水確保などに十分配慮した適切な開発が求められている。

イフガオ州は山岳急斜面に展開する棚田群で有名であり、1995年にはUNESCOにより世界遺産に登録された。しかしながら、近年のグローバリゼーションの浸透を背景に荒廃が進み、2001年には世界遺産危機リスト<sup>1</sup>に加えられた。

現在、イフガオの棚田保全に関する責任は、国から州政府に移管されているものの、財政的支援は殆どなく、州政府は棚田保全に必要な資金を独自に確保しなければならない。棚田保全は単に物理的な維持補修だけが必要とされるのではなく、耕作する住民の安定的な生活が担保されて初めて達成出来るものである。イフガオ州の至近の試算によれば保全のための必要資金は年間60～100百万円となっている。これは州の年間開発予算(2009年時点で約155百万円/年)の40%～65%程度に相当し、実施上、開発予算の中から棚田保全のための費用を継続的に拠出することは困難である。

また、イフガオ州の主要産業は稲作を中心とする農業であるが、耕作条件が厳しく生産量が少ないために、殆どが自家消費され、州財政の改善には繋がらない。このように、現状において棚田保全のための資金確保は外部からの支援に頼らざるを得ない状況にある。

イフガオ棚田保全に関する国際支援として2010年1月、GSEP<sup>2</sup>（旧称 e8：以降本書中 e8で統一）は、アンバンガル（Ambangal）小水力発電所（200kW）を開発し、その売電収益に基づく棚田保全基金（Rice Terraces Conservation Fund、以下「RTCF」）を創出したが、同プロジェクトにより創出される基金は必要保全資金の10%程度を充当するに過ぎない。

かかる状況の下、2012年にフィリピン国政府より、地方電化の促進及び棚田保全のための財源確保を目的とした小水力発電設備の建設に関する我が国の無償資金協力支援への要請があった。

<sup>1</sup> 2012年6月の「第36回世界遺産委員会ロシア会議」において危機リストからの除外が決定された。

<sup>2</sup> Global Sustainable Electricity Partnership（旧称 e8）: G8 カントリーの主要電力10社から構成される再生可能エネルギーの普及を目的とした国際的 NPO であり、日本からは東京電力㈱、関西電力㈱が参加している。

本事業の小水力発電所(820kW)の運転維持管理及び同発電所運転より新たに追加される資金を含めた RTCF の運営管理は、イフガオ州政府により行われることとなる。DOE や州政府はアンバンガル小推力発電所の開発に際して、e8 スタッフとともに運転員養成や RTCF 運営規定の制定等を行った経験があり、先方政府等は本プロジェクトに関する体制整備や基金運用適正化を進めようとしている。しかしながら、本プロジェクトの目的である棚田保全事業への貢献は、小水力発電所の安定的な運転、RTCF の適正利用により初めて担保されるものであり、本プロジェクトの成否を左右する重要な課題であることから、先方政府等の実施する体制整備等をより確実かつ効果的なものとするための支援が必要である。

上記を背景として、要請元の DOE、実施主体となる州政府も運転・維持管理方法の指導、RTCF 改訂に関する指導等のソフトコンポーネントの実施を期待している。

## 2. ソフトコンポーネントの目標

本事業に係わるソフトコンポーネントは、RTCFの適正利用による棚田保全活動を推進するため、本事業により建設されるリクッド小水力発電所の安定的運転維持管理のための組織・人材育成及びRTCF運営の適正化を目標として実施するものである。

## 3. ソフトコンポーネントの成果

本ソフトコンポーネントの導入により、次のような成果が期待される。

- ① 発電所運転維持管理体制の確立
- ② 棚田保全基金運営の適正化

## 4. 成果達成度の確認方法

### (1) 発電所運転維持管理体制の確立に関する成果確認方法

発電所の維持管理体制の確立に関する成果は、本活動で作成される「運転管理マニュアル」、後述するステージ毎に実施する確認試験、最終選考試験結果（実際の運転維持管理作業に関する現地試験含む）により確認する。

### (2) 棚田保全基金運営の適正化に関する成果確認方法

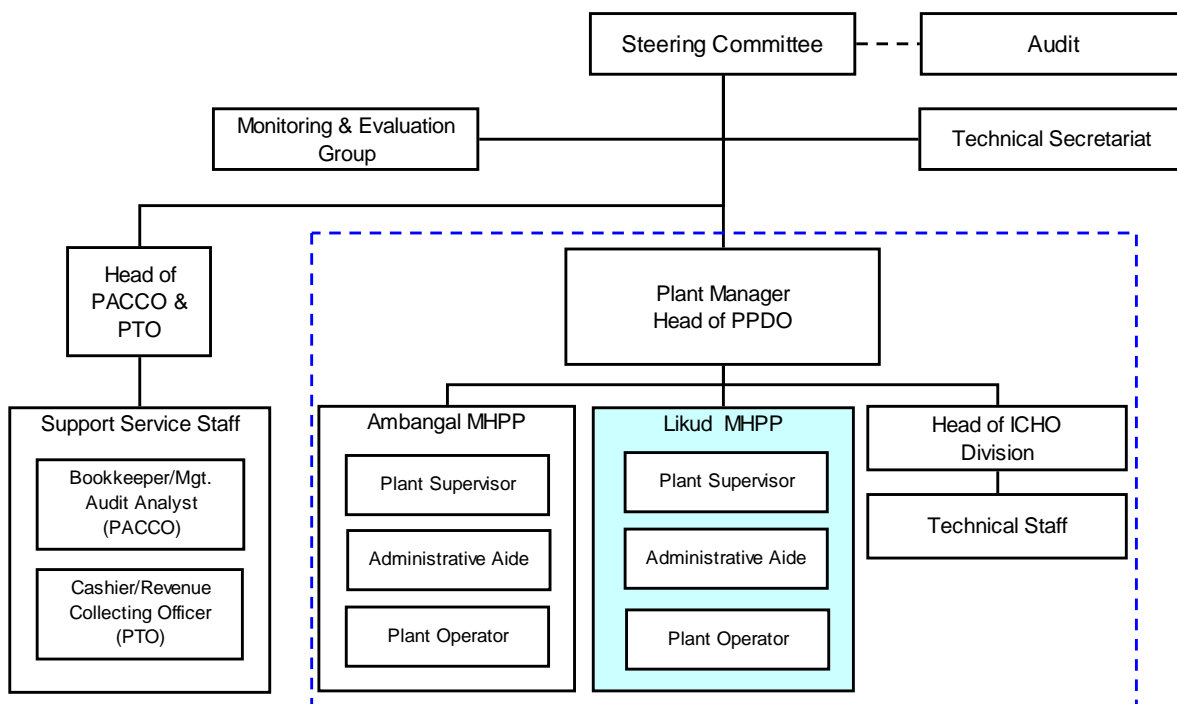
棚田保全基金運営の適正化に関する成果は、本活動の中で作成する改訂ガイドラインに関するステアリングコミッティ（州知事、州議会代表者、ホスト郡メイヤー、ホスト村長、NGO より構成される。図-1 参照）及び DOE の承認及び州議会承認をもって確認する。

## 5. ソフトコンポーネントの活動内容及び投入計画

### (1) プロジェクト管理体制

現在、既設アンバンガル発電所の運転維持管理及び RTCF 運営管理は図-1 に示す体制で実施されている。本事業によるリクッド小水力発電所の運転維持管理は、この体制の中に

組み入れられることとなる。なお、RTCF 管理体制については現行体制を基本とするが、本ソフトコンポーネント活動を通じて改善の必要性が認められた場合には、適宜、改訂するものとする。



PACCO : 州会計事務所  
 PTO : 州出納事務所  
 PPDO : 州計画開発事務所  
 ICHO : イフガオ文化遺産事務所

図-1 プロジェクト管理体制

## (2) 発電所運転維持管理体制の確立

e8 によるアンバンガル小水力発電開発においては、発電所運転維持管理に関するトレーニングが実施され、このトレーニングを通じて選定された運転維持管理要員は、運転開始から約3年間、特に不具合無く安定的な運転維持管理を行ってきている。

本ソフトコンポーネント計画は、e8 によるトレーニングを参考として策定したものである。

### 1) 発電所運営管理体制

発電所の運転維持管理体制については、本事業に係わる準備調査の中で、DOE、州政府との協議を通じて図-2 のとおりとすることが確認されている。各要員の役割は表-1 に示す通りである。

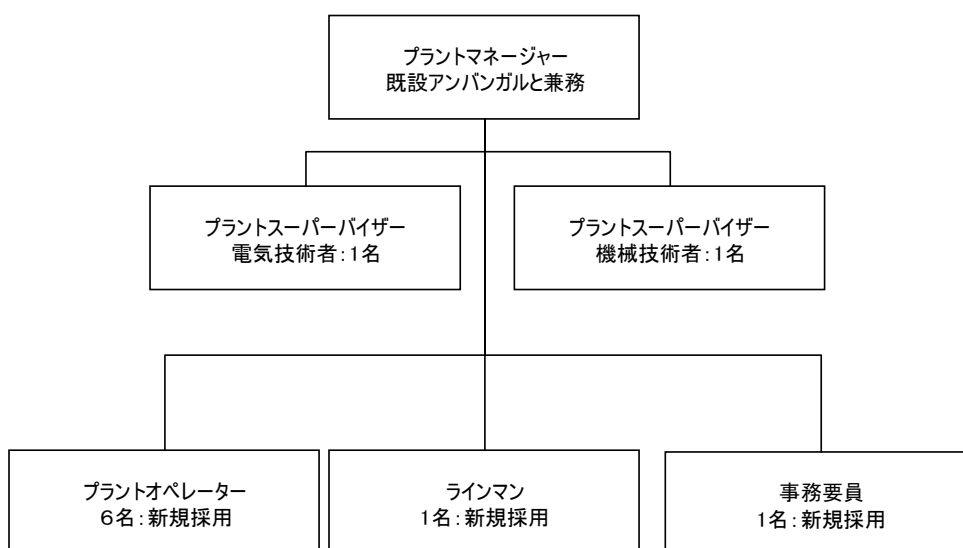


図-2 リクッド小水力発電所運転維持管理体制

表-1 水力発電所運営維持管理要員

職位	所属部署	役割
プラントマネージャー(1人)	州計画開発事務所長(PPDO)	発電所及び棚田保全基金の総合運営管理責任者(アンバンガル水力発電所と兼務)
プラントスーパーバイザー(2人:電気・機械)	州計画開発事務所職員(PPDO)	水力発電所の運営維持管理責任者 電気技術者及び機械技術者
プラントオペレーター(6人)	州計画開発事務所職員(PPDO)	水力発電所の運営維持管理。 2人組で8時間交代制シフト。 導水路・水槽・取水口設備のハトール、水車・発電機の定期点検。 発電量の記録
ラインマン(1名)	州計画開発事務所職員(PPDO)	連系線の巡回点検・保守
事務要員(1人)	州計画開発事務所職員(PPDO)	水力発電所に関わる収支管理。 イフェルコ配電会社へ売電請求。 棚田保全基金配分管理

上記、網掛部の要員が本ソフトコンポーネント活動の対象

## 2) トレーニング対象者

トレーニングは「運転員トレーニング」と「プラントスーパーバイザー教育」に大別して実施する。このうち運転員は基本的にプロジェクトサイト周辺の地域住民から希望者を募る。プラントスーパーバイザーは州政府から指名された者を選定し、トレーニング対象とする。

最終的に運転員は6名、ラインマン1名、プラントスーパーバイザー2名を選定するが、トレーニングはその3倍程度の人員（運転員及びラインマン18名、スーパーバイザー6名）を対象に実施する。運転員トレーニングの参加者は基本的に工業高校（電気・機械・土木）卒業者、プラントスーパーバイザーは電気・機械の技術者資格を有する者（あるいは準ずる者）とする。プラントスーパーバイザー候補者は運転員トレーニングのすべての過程に参加することを前提とする。

トレーナーは本邦技術者、DOE 職員の他、既設アンバンガル発電所の選手員他を活用する。

## 3) トレーニング実施時期及び実施概要

水力発電所の運転維持管理とは、単に水車発電機を操作するだけでなく、河川水量、気象状況、電力需要等を考慮して、土木設備＋機械設備＋電気設備＋制御設備＋配電設備の総合的な水力発電設備全体の運転維持管理を指している。本トレーニングでは一部メーカーの行う初期操作指導（水車・発電機・制御装置の機器の取り扱い方の指導）と連携して実施するものの、最終的には運転員等が、上記の総合的な運転維持管理を行えるよう指導するものであり、本計画では下記の内容で実施する。

トレーニング期間は基本的に現地工事開始から竣工検査前までの間を下記の4ステージに分けて実施する。なお、各ステージ終了時時点で習得内容を把握するための試験を実施し、最終選考に反映する。

### ① 第一ステージ: 工事開始直後(水力発電に関する基礎知識レクチャー)

工事開始直後にトレーニング対象者を選定する。

第一ステージは、対象者に水力発電に関する基礎知識醸成を図ることを目的として実施する。具体的な講義内容は下記の通りとする。()内はトレーナー

- a. フィリピン国における水力開発の現状と課題 (DOE 職員)
- b. 水力発電の仕組み (本邦技術者)
- c. 水力発電施設の機能と役割 (本邦技術者)
- d. 水力発電所の運転維持管理 (本邦技術者及びアンバンガル運転員&スーパーバイザー)

### ② 第二ステージ: 導水路コンクリート工事期間中(建設工事における OJT)

実際のリクッド水力発電所の建設工事に作業員として参加することにより、発電所建屋及び主要構造物並びにゲート等の主要補機等を確認・周知させて、運転開始後の修繕方法

等についての理解・習得を容易ならしめる。

③ 第三ステージ:第二ステージ後(既設アンバungal発電所における実地訓練)

既設アンバungal発電所の運転員をトレーナーとして、各員(プラントスーパーバイザー含む)に実際の運転維持管理作業の補助員として従事させる。

④ 第四ステージ:リクッド小水力発電所有水試験期間(基本運転操作の実地訓練)

リクッド発電所の機器据え付け後の有水試験期間中に運転操作の実地訓練を行う。

本ステージにおいては、水車・発電機・制御器の操作はメーカー技術者の行う初期操作指導として実施するが、河川水量、電力需要等を考慮した発電量の決定、土木設備と電気機械設備、送配電設備の総合的な操作方法等についてコンサルタント技術者が指導する。

なお、第四ステージ開始前に本邦技術者が運転管理マニュアルを作成し、同マニュアルに従った訓練を行う。

4) 最終選考方法

最終選考は①トレーニングへの参加状況、②トレーニング期間中の学習態度、③最終選考試験(筆記・面接)結果を総合的に判断する

5) 投入計画(詳細は表-4参照)

表-2 発電所運転維持管理体制の確立に関する投入計画

ステージ	日本側投入要員(MM)			DOE職員(MM)*3
	現地	国内	計	
第一ステージ	0.5x1名(水土木)	0.5x1名(土木)*1	1.0	0.4x1名(土木)
第二ステージ	0.5x1名(水土木)	0.5x1名(電気/機械)	1.0	0.4x1名(土木)
第三ステージ	0.5x1名(電気/機械)		0.5	0.4x1名(電気)
第四ステージ	0.5x1名(土木)	0.5x1名(土木)*2	2.5	0.4x1名(土木)
	1.0x1名(電気/機械)	0.5x1名(電気)		0.83x1名(電気)
計	3.0	2.0	5.0	4.03

国内作業内容

\*1: 講義資料の作成

\*2: 運転管理マニュアル作成

\*3: DOEは本プロジェクトの要請元であり、本投入に関する費用は発生しない。

(3) 棚田保全基金運営の適正化

1) 現行ガイドラインの改定のためのワーキンググループ設置

棚田保全基金については、e8により運営のガイドラインが整備されている。同ガイドラ

イン策定に当たっては、州知事・州議会代表を除くステアリング・コミッティメンバー（事務局 PPDO）から構成されるワーキンググループが組織された。

本活動においても同様にワーキンググループを組織し、このグループを中心としてガイドラインの改訂作業を行う。

## 2) ガイドライン改訂のための活動

ガイドライン改訂は、下記の段階で実施する。

### ① 現行ガイドラインの課題把握

現行のガイドラインに関する問題点について、ワーキンググループの中で明らかにし、対応策を検討する。なお、州政府は 2010 年 7 月に棚田保全活動強化のための青年協力隊派遣を日本政府に要請している。JICA は同派遣を準備中であり、派遣が実施された場合には可能な限り連携する。

### ② ガイドラインの改定作業

上記の問題点及び対応策を考慮した現行ガイドラインの改訂作業をワーキンググループ内で行う。

### ③ 改訂ガイドラインの承認

改訂ガイドラインはステアリング・コミッティの正式承認を受けると共に、現行州条例の改定に向けたロードマップを策定する。

改訂ガイドラインに沿った IEC(Information Education Campaign)を州関係機関と共同して実施する。

## 3) 投入計画（詳細は表-4参照）

表-3 棚田保全基金運営の適正化に関する投入計画

実施段階	日本側投入要員(MM)	現地要員	計
	現地作業のみ		
現行ガイドライン課題把握	0.5x1名(組織制度)	1.0	1.5
ガイドラインの改定作業	1.0x1名(組織制度)	1.0	2.0
改定ガイドライン承認	0.5x1名(組織制度)	1.0	1.5
計	2.0	3.0	5.0

## 6. ソフトコンポーネントの実施リソースの調達方法

イフガオ州においては、既設のアンバンガル小水力発電所が約 3 年間順調に稼働しており、運転員等の管理要員は発電所の運転維持管理作業にある程度精通してきている。また、

アンバンガル発電開発に伴う RTCF ガイドラインの策定作業に従事したワーキンググループ員の殆どは現在も州職員として勤務していることから、本ソフトコンポーネントの実施に関してはこれらのローカルリソースを最大限に活用することとする。

但し、本事業で建設されるリクッド小水力発電設備仕様は既設アンバンガル発電所の設備仕様と異なる部分（ex.水車発電機形式、運転制御方法、発電使用水量等）も多いこと、ガイドライン改訂に際しても、プロジェクト目標達成のための客観的判断による指導が必要であることから、本邦コンサルタントによる支援は不可欠である。なお、ガイドラインの改定や州条例化のための活動は、本邦コンサルタント要員滞在期間中だけでなく、州議会や州内担当部署（州会計事務所、州出納事務所、州計画開発事務所、イフガオ文化遺産事務所）との継続的な調整が必要である。このため、本邦コンサルタントを現地要員により、本邦コンサルタントの補間業務に当たらせることとする。なお、現地には EU 支援による農業振興のための NPO（現在は解散）職員として活動し、現地の棚田保全活動や文化に精通した人材もあり、e8 ではこれらの人材を雇用してガイドライン策定作業の支援を行っている。本ソフトコンポーネント実施においても、e8 で雇用した現地人材を雇用することを想定している。

## 7. ソフトコンポーネントの実施工程

ソフトコンポーネントの実施は建設工事の進捗にあわせ表-5 に示すとおりとする。



表-4 投入要員の活動内容

発電所運転維持管理体制の確立					棚田保全基金運営の適正化		
ステージ	日	水土木	電気/機械	DOE職員	段階	組織制度	現地要員
第1 ステージ	国内 作業	講義資料の作成:下記3項目 (各5日) ① 水力発電の仕組み(水力発電概論) ② 水力発電土木施設の機能と役割 ③ 水力発電所の運転管理 (必要性、作業内容等)					
	第1日目	移動(東京～マニラ)			第1回 現地活動 (課題把握)	移動(東京～マニラ)	
	第2日目	DOEとの事前調整				DOEとの事前調整	
	第3日目	移動(マニラ～イフガオ)				移動(マニラ～イフガオ)	
	第4日目	トレーニーの選定及び履歴把握					
	第5日目	トレーニング計画の説明				WG開催(現状の問題点)	
	第6日目	室内講義					
	第7日目	確認試験問題等作成				WG結果整理	本邦コンサルタントと同行動 (休日除く)計8日間
	第8日目						
	第9日目	室内講義		本邦コンサルタントと同行動		既往RTCF利用プロジェクト実態調査(3 サイト)	
	第10日目	オンサイトレクチャー				WG(問題点の整理、アクションプラン作 成)	
	第11日目						
	第12日目	オンサイトレクチャー					
	第13日目	修得確認試験及び結果講評					
	第14日目	移動(イフガオ～マニラ)				移動(イフガオ～マニラ)	以降、実態調査、アクションプランフォロー アップ、ガイドライン草稿作成(WGと共同 作業)
第15日目	移動(マニラ～東京)			移動(マニラ～東京)		22日間	
第2 ステージ	国内 作業		講義資料の作成(15日) 発・送・変各設備を組み合わせた制御 方法等、実務的な運営維持管理技術				
	第1日目	移動(東京～マニラ)			第2回 現地活動 (改訂作業)	移動(東京～マニラ)	
	第2日目	DOEとの事前調整				DOEとの事前調整	
	第3日目	移動(マニラ～イフガオ)				移動(マニラ～イフガオ)	
	第4日目						
	第5日目	建設工事現場での指導 (第1グループ)				WG(ガイドライン改定作業)	本邦コンサルタントと同行動 (休日除く)計18日
	第6日目			本邦コンサルタントと同行動		WG結果整理	
	第7日目	確認試験問題等作成					
	第8日目						
	第9日目	建設工事現場での指導 (第2グループ)				WG(ガイドライン改定作業)	
	第10日目						
	第11日目						
	第12日目	結果講評				WG結果整理	
	第13日目	確認試験					
	第14日目	移動(イフガオ～マニラ)					
第15日目	移動(マニラ～東京)		移動(東京～マニラ)				
第3 ステージ	第2日目		移動(マニラ～イフガオ)		本邦コンサルタントと同行動 (休日除く)計18日		
	第3日目						
	第4日目		室内講義 ①～④:各1日			改定ガイドラインに関する関係機関との 調整	
	第5日目						
	第6日目						
	第7日目		確認試験問題等作成			調整結果の整理	
	第8日目			本邦コンサルタントと同行動		WG(調整結果の反映)	
	第9日目					正式承認に向けた州議会との調整	
	第10日目		既設アンバンガル発電所における模擬運 転			WG(アクションプラン作成等)	
	第11日目						
	第12日目						
	第13日目		確認試験				
	第14日目		移動(イフガオ～マニラ)			移動(イフガオ～マニラ)	以降、州議会調整等フォローアップ(12日 間)
	第15日目		移動(マニラ～東京)			移動(マニラ～東京)	
	第4 ステージ	国内 作業	運転維持管理マニュアルの作成(15日間)				
第1日目		移動(東京～マニラ)			第3回 現地活動 (承認等)	移動(東京～マニラ)	
第2日目		DOEとの事前調整				DOEとの事前調整	
第3日目		移動(マニラ～イフガオ)				移動(マニラ～イフガオ)	
第4日目							
第5日目		有水試験時の実務訓練(河川水量、電力需要等を考慮した発電量の決定、土 木設備と電気機械設備、送配電設備の総合的な操作方法等)				WG(DFガイドライン確認)	本邦コンサルタントと同行動 (休日除く)計8日
第6日目						ステアリング・コミティ開催	
第7日目		最終選考試験問題等準備				WG結果整理	
第8日目						州議会への説明	
第9日目		運転維持管理マニュアル説講義(第1G)				コミュニティにおけるIEC	
第10日目		運転維持管理マニュアル説講義(第2G)					
第11日目		土木関係選考試験(第1グループ)	有水試験時の運転操作訓練				
第12日目		土木関係選考試験(第2グループ)					
第13日目		選考試験結果の評価					
第14日目		移動(イフガオ～マニラ)				移動(イフガオ～マニラ)	以降、州条例制定及びIECの フォローアップ 計22日
第15日目		移動(マニラ～東京)	資料整理	本邦コンサルタントと同行動		移動(マニラ～東京)	
第16日目							
第17日目							
第18日目			運転維持管理マニュアル の講義(電気/機械)				
第19日目							
第20日目							
第21日目							
第22日目			資料整理				
第23日目			Wrapup講義				
第24日目			電気機械選考試験				
第25日目			最終選考				
第26日目			最終選考				
第27日目			最終選考結果の公表				
第28日目			移動(イフガオ～マニラ)				
第29日目			資料整理				
第30日目		関係機関報告/帰国					

表-5 ソフトコンポーネント実施工程表

			2013					2014															
			10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4		
Classify rainy / dry season																							
Construction Supervision	Civil Worked	Preparation Work including Center Line	[Work in JPN]																				
		Clearing and Grubbing	[Work in JPN]																				
		Intake Weir	Diversion	[Work in the Philippines]																			
			Concrete	[Work in JPN]																			
		Intake Gate, Settling Basin	Excavation	[Work in the Philippines]																			
			Concrete	[Work in JPN]																			
		Headrace	Excavation	[Work in the Philippines]																			
			Concrete	[Work in JPN]																			
		Head-Tank	Excavation	[Work in the Philippines]																			
			Concrete	[Work in JPN]																			
		Spillway	Excavation	[Work in the Philippines]																			
			Concrete	[Work in JPN]																			
		Penstock	Excavation	[Work in the Philippines]																			
	Installation		[Work in JPN]																				
	Power house, Tail race	Access road	[Work in JPN]																				
		Excavation	[Work in the Philippines]																				
	Clean up	Building	[Work in JPN]																				
			[Work in JPN]																				
	Electrical & Mechanical	Turbine/Generator Design	-	[Work in JPN]																			
		Manufacture	-	[Work in JPN]																			
Import/Custom clearance		-	[Work in JPN]																				
Land Transportation		-	[Work in JPN]																				
Installation		-	[Work in JPN]																				
Commissioning Test (w/o water)		-	[Work in JPN]																				
Distribution Line	Preparation Work	-	[Work in JPN]																				
	Construction 22kV line	-	[Work in JPN]																				
	Construction 400V line	-	[Work in JPN]																				
Soft Component	Training on O&M Management	1st stage	[Work in JPN]																	0.5	0.5		
		2nd stage	[Work in JPN]																	0.5	0.5		
		3rd stage	[Work in JPN]																	0.5			
		4th stage	[Work in JPN]																	0.5	0.5		
	Strengthen the RTCF management	Identify issue/problem on the existing RTCF regulation	Institution set-up	[Work in JPN]																	0.5		
		Revise/improve the RTCF regulation	Local Consul.	[Work in JPN]																			1.0
			Institution set-up	[Work in JPN]																	1.0		
		Approval of revised/improved RTCF	Local Consul.	[Work in JPN]																			1.0
			Institution set-up	[Work in JPN]																	0.5		
		Total																				7.0	

## 8. ソフトコンポーネントの成果品

### (1) 発電所運転維持管理体制の確立

- ① 組織体制表を含む規約
- ② 各ステージの習熟度試験結果
- ③ 最終選考結果
- ④ 運転維持管理マニュアル

### (2) 棚田保全基金運営の適正化

- ① RTCF 運営に関する改訂ガイドライン
- ② ステアリング・コミッティメンバー及び州議会承認書

## 9. ソフトコンポーネントの概略事業費

ソフトコンポーネントに係わる概略事業費は、下表のとおり。

表-6 ソフトコンポーネント概略事業費

項目	金額(円)	備考
直接人件費	5,390,000	
直接経費	5,428,900	
間接費	6,899,200	
合計	17,717,100	

## 10. 相手国の責務

本計画で建設された設備を継続的に適正かつ効果的な使用と維持管理を行っていくために、相手国実施機関であるDOE/州政府Mは以下の事項の責務を負う必要がある。

<ソフトコンポーネント実施中>

- A) 本ソフトコンポーネント実施に必要なDOE/州政府側の予算の確保（トレーニー日当等）
- B) 運営組織の規約作成ならびに新規雇用の適切な実施
- C) トレーニング会場の提供
- D) RTCF利用に関する広報活動

<ソフトコンポーネント実施後>

- E) 運営組織の規約遵守
- F) RTCFの継続的な透明性確保
- G) マニュアル・ガイドラインの継続的な活用と定着化
- H) 技術を習得したローカルスタッフの継続的な雇用
- D) RTCF利用のモニタリング及び広報活動の継続

## 資料6 その他資料・情報

- (1) PO No.2010-019 州条例及び棚田保全基金運用ガイドライン
- (2) モニタリング実施の合意(DOE&PGI)
- (3) 2011年度ステークホルダー及び住民協議議事録
- (4) 2012年度ステークホルダー及び住民協議議事録
- (5) イフガオ族の生活・文化への影響について
- (6) イフガオ族の文化継承者の証言

ORDINANCE PRESCRIBING THE ORGANIZATIONAL STRUCTURE AND THE POLICIES AND SYSTEMS GOVERNING THE OPERATION, MAINTENANCE AND MANAGEMENT OF THE AMBANGAL MINI-HYDRO POWER PLANT AND THE RICE TERRACES CONSERVATION FUND


EXPLANATORY NOTE

With the completion of the Ambangal Mini-Hydro Power Plant (AMHPP), through a grant from the e8 Group through the effort of the Tokyo Electric Power Company (TEPCO) and with the cooperation of the Department of Energy (DOE), a dream became a reality.

Pursuant to our aspiration of harnessing and developing the water resources of the province for beneficial use as embodied under Provincial Ordinance No. 2007-045, and to sustain that "reality" a success story, it becomes necessary to pass a legislative measure prescribing the organizational structure and the policies and systems that will govern the operation, maintenance and management of the Ambangal Mini-Hydro Power Plant and the rice terraces conservation fund.

The approval of this Ordinance will pave the way for the efficient and reliable commercial operation of the AMHPP, and for the proper and effective utilization and management of the revenue generated from its commercial operation, which is necessary in the realization of the purposes of the project.

In our sincere desire that this "demonstration project" be a success, this Ordinance is being proposed.

  
ROBERT K. HUMIWAT  
Author

*R*



Republic of the Philippines  
**PROVINCE OF IFUGAO**  
**OFFICE OF THE SANGGUNIANG PANLALAWIGAN**

Capitol, Lagawe, Ifugao  
Tel./Fax No. (074) 382-2111



111<sup>th</sup> REGULAR SESSION  
18 January 2010

- PRESENT:** Hon. Jose T. Gullitiw, Member and Temporary Presiding Officer  
Hon. Robert K. Humiwat  
Hon. Joseph J. Odan  
Hon. Lucio D. Ayahao, Jr.  
Hon. Rodolfo T. Dulnuan  
Hon. Clemente T. Bongtiwon  
Hon. Aldrin B. Guingayan  
Hon. Martin L. Habawel, Jr.  
Hon. Allan P. Cutiyog  
Hon. Jomar A. Buyuccan
- ABSENT:** Hon. Hon. Nora D. Dinamlig, Vice-Governor  
Hon. Samson T. Atluna - on leave

**PROVINCIAL ORDINANCE NO. 2010-019**

(Author: Hon. Robert K. Humiwat)

**ORDINANCE PRESCRIBING THE ORGANIZATIONAL STRUCTURE AND THE POLICIES AND SYSTEMS GOVERNING THE OPERATION, MAINTENANCE AND MANAGEMENT OF THE AMBANGAL MINI-HYDRO POWER PLANT AND THE RICE TERRACES CONSERVATION FUND**

**SECTION 1. TITLE.** - This Ordinance shall be known as the "Ambangal Mini-Hydro Power Plant and Conservation Management Ordinance."

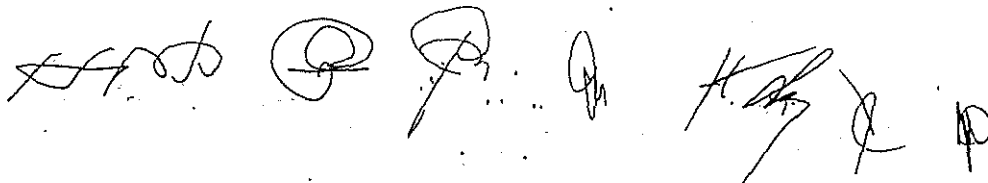
**SECTION 2. PURPOSES.** - This Ordinance is enacted for the following purposes:

- a.) To prescribe the organizational structure of the Ambangal Mini-Hydro Power Plant (AMHPP) including the functions and compensation of each office/position for the efficient and reliable operation, maintenance and management of the plant;
- b.) To prescribe the policies and systems that would govern the operation, maintenance and management of the AMHPP with due consideration to pertinent laws, rules and regulations affecting the technical, financial and administrative aspect of the plant operation, maintenance and management of the plant.
- c.) To prescribe the policies and systems governing the treatment, management and utilization of the Rice Terraces Conservation Fund with strict observance of the purpose/s of the fund and commitments of the Provincial Government of Ifugao to the e8 and other stakeholders.

**SECTION 3. DEFINITION OF TERMS.** - As used in this Ordinance, the following terms/abbreviations shall be defined as:

- a.) AMHPP - Ambangal Mini-Hydro Power Plant
- b.) AMHPPPO - Ambangal Mini-Hydro Power Plant Office
- c.) Admin. - Administration/Administrative
- d.) AWOL - Absent Without Official Leave
- e.) CDA - Cooperative Development Authority
- f.) CIS - Communal Irrigation System
- g.) COA - Commission on Audit
- h.) Com. - Committee

- i.) DOE - Department of Energy
- j.) DOLE - Department of Labor and Employment
- k.) DS - Deposit Slip
- l.) DTI - Department of Trade and Industry
- m.) e8 - e8 group of electric utility companies
- n.) EO - Executive Order
- o.) E-NGAs - Electronic-New Government Accounting System
- p.) Gov't - Government
- q.) HRMO - Human Resource Management Office
- r.) ICHO - Ifugao Cultural Heritage Office
- s.) IFELCO - Ifugao Electric Cooperative
- t.) JEV - Journal Entry Voucher
- u.) MEG - Monitoring and Evaluation Group
- v.) MOA - Memorandum of Agreement
- w.) MOU - Memorandum of Understanding
- x.) MOOE - Maintenance and Other Operating Expenses
- y.) MBO - Management by Contract
- z.) NGO - Non-Government Organization
- aa.) No. - Number
- ab.) O & M - Operation and Maintenance
- ac.) OJT - On-the-Job Training
- ad.) ORs - Official Receipts
- ae.) PACCÓ - Provincial Accounting Office
- af.) PAdmO - Provincial Administrator's Office
- ag.) PAENRO - Provincial Environment and Natural Resources Office
- ah.) PEO - Provincial Engineering Office
- ai.) PGI - Provincial Government of Ifugao
- aj.) PGO - Provincial Governor's Office
- ak.) PLO - Provincial Legal Office
- al.) POW - Program of Work
- am.) PPDO - Provincial Planning and Development Office
- an.) Prov'l - Provincial
- ao.) PTO - Provincial Treasury Office
- ap.) RAAF - Report of Accountability for Accountable Forms
- aq.) RCD - Reports of Collection and Deposit
- ar.) RCI - Reports of Checks Issued
- as.) Reha. - Rehabilitation
- at.) REMB - Renewable Energy Management Bureau
- au.) SC - Steering Committee
- av.) SEC - Securities and Exchange Commission
- aw.) SITMO - Save the Ifugao Terraces Movement
- ax.) SP - Sangguniang Panlalawigan
- ay.) Tech - Technician/Technology
- az.) TSG - Technical Secretariat Group
- aaa.) WFP - Work and Financial Plan



**SECTION 4. AMHPP ORGANIZATIONAL STRUCTURE.** - The AMHPP organizational structure, as shown in Annex "A" and made as an integral part of this ordinance, shall be composed of the Steering Committee, Plant Manager, Plant Supervisor, five (5) Plant Operators, Provincial Accounting Office, Provincial Budget Office and Provincial Treasury Office.

a.) The Steering Committee shall be headed by the Provincial Governor as Chairman, with the Chairman of the Sangguniang Panlalawigan Committee on Public Works and Utilities, the Municipal Mayor of Kiangon, the Sanggunian Bayan of Kiangon Chairman of the Committee on Energy, Barangay Captains of the host barangays (Ambabag, Pindongan and Mungayang), Representative/s from e8 and DOE for the duration of the cooperation period, Municipal Mayors of the Rice Terraces Heritage Sites, and one (1) representative from a local NGO to be selected by the Steering Committee as members.

b.) The five (5) plant operators shall be hired through a job order appointment and they must be residents of the host barangays. The other positions or offices shall come from the existing organic personnel of the Provincial Government.

**SECTION 5: FUNCTIONS, DUTIES AND COMPENSATION.** - The different offices/positions shall have the following functions, duties and compensation:

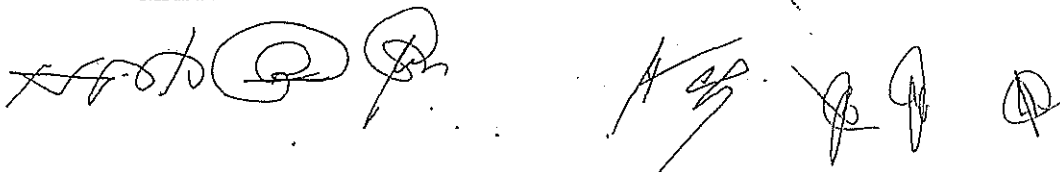
a.) The Steering Committee has the primary function of over-all supervision relative to the operation, maintenance and management of the AMHPP ~~including the management of the AMHPP~~ including the management of the conservation fund and the implementation of the projects funded from the conservation fund upon approval by the Sangguniang Panlalawigan. The Steering Committee shall be responsible in the review of the AMHPP budgets and development plans and recommends the projects to be funded from the conservation fund prior to submission to the SP for the required appropriation ordinance.

The Members of the Steering Committee are not entitled to any compensation. However, any member from the private sector shall be entitled to actual traveling, accommodation and miscellaneous expenses subject to the availability of funds provided for in the approved appropriation ordinance for the AMHPP.

b.) Plant Manager - It has the primary function to supervise regularly the operation, maintenance and management of the AMHPP including the implementation of the projects funded from the conservation fund.

The Plant Manager shall come from the organic personnel of the Provincial Government. The PPDO Head shall be designated as the Plant Manager of the AMHPP in addition to her regular functions.

The PPDO Head shall not be entitled to any increase in salary or salary grade due to the additional duties and responsibilities. However, the Plant Manager shall be entitled to an honorarium, the amount of which shall be determined and provided for in the annual or supplemental appropriation ordinance for the AMHPP.





- c.) Plant Supervisor - It has the primary function to supervise the day-to-day operation, maintenance and management of the AMHPP. The Plant Supervisor shall be responsible in the preparation of the shifting schedule, preventive and corrective maintenance schedule, monthly power bill and other technical reports, and responsible in the monthly reading of the tariff meter, and in the supervision of the operators.

The Plant Supervisor shall not be entitled to any increase in salary or salary grade due to the additional duties and responsibilities. However, the Plant Supervisor shall be entitled to an honorarium, the amount of which shall be determined and provided for in the approved annual or supplemental appropriation ordinance for the AMHPP.

- d.) Operators - They have the primary function to efficiently operate and maintain the equipment and devices in the power plant and to maintain the continuous and unhampered flow of water from the intake weir to the power plant.

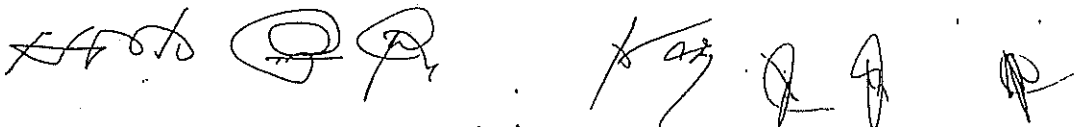
The Operators are responsible for the hourly reading of statistical meters and instruments, and perform established standard operating procedures and regular preventive maintenance as well as minor corrective maintenance work and plant housekeeping. They shall be responsible for the daily inspection and cleaning/clearing of the waterways from the intake weir to the penstock.

The Operators shall be entitled to wages and other benefits based on the feasibility study or the approved appropriation ordinance.

- e.) The Bookkeeper/Management Audit Analyst and Cashier/Revenue Collecting Officer shall be designated from the organic personnel of the Provincial Accounting Office and Provincial Treasurer's Office, respectively. They shall not be entitled to any increase in salary or salary grade due to the additional duties and responsibilities. However, they shall be entitled to an honorarium, the amount of which shall be determined and provided for in the approved annual or supplemental appropriation ordinance for the AMHPP.

**SECTION 6. POLICIES AND SYSTEMS IN THE OPERATION, MAINTENANCE AND MANAGEMENT OF AMHPP.** - The following policies and systems shall be observed in the operation, maintenance and management of the AMHPP:

- a.) The operation, maintenance and management of the AMHPP shall be treated as economic enterprise of the Provincial Government. **There shall be a separate set of books as a Special Account in the General Fund in conformity to Section 313 of the Local Government Code of 1991 and the prescribed government accounting and auditing rules and regulations. All revenues from the operation of the AMHPP shall be used exclusively for the operation, maintenance and management of the AMHPP, for the conservation and development of the Ifugao Rice Terraces, and for the fulfillment of the commitments of the PG as stipulated in the various MOAs with the different stakeholders.**



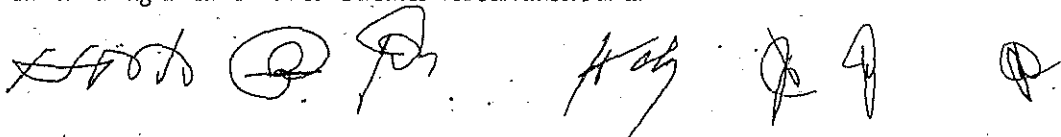
- b.) The annual budget for the operation, maintenance and management of the AMHPP shall be prepared by the Plant Manager for review and consideration by the Steering Committee. The Steering Committee shall submit the annual budget on or before October 16 of the preceding year to the Sangguniang Panlalawigan for legislative authorization through an appropriation ordinance. The approved annual budget or any supplemental budget for the operation, maintenance and management of the AMHPP is not subject to any higher review and shall immediately be made operative upon authorization by the Sangguniang Panlalawigan through an appropriation ordinance and upon approval and signature by the Provincial Governor or due to inaction of the Provincial Governor within fifteen (15) days from date of receipt. However, applicable provisions of Sections (313), (315), (319), (320), (321), (322), (323), (324) and (325) of Article 1, Chapter 3, Title V, Book II of the Local Government Code and its implementing rules and regulations shall be observed in the budgeting process.
- c.) In case of any veto by the local chief executive, Section 55, Chapter 3, Title II, Book 1 of the Local Government Code and its implementing rules and regulations shall apply.
- d.) The operation and maintenance of the AMHPP shall be initially done by the Provincial Government. However, consistent with the present industry practice of outsourcing expertise of other entity for a better result and to insulate the Provincial Government from future personnel and financial problems related to the operation and maintenance of the AMHPP, the operation and maintenance of the AMHPP shall be contracted out to competent private or government organization or individual at the earliest possible time, but in no case shall it be beyond the cooperation period.

The AMHPP management shall prepare the terms of reference in contracting out the operation and maintenance of the AMHPP, subject to approval of the Steering Committee and legislative authorization by the SP.

- e.) Other related policies, systems and procedures necessary for the safe, efficient and other reliable operation, maintenance and management of AMHPP shall be formulated and established by the AMHPP management, but in no case shall it be contrary to existing industry standards, rules and regulations as well as the terms and conditions set forth in the memoranda of agreement with the different stakeholders and the provisions of this Ordinance. Any operation, maintenance and management policies, systems and procedures shall be approved by the Steering Committee prior to implementation, but subject to review and amendment by the Sangguniang Panlalawigan through a legislative measure/s.

**SECTION 7. RICE TERRACES CONSERVATION FUND.** - There shall be a rice terraces conservation fund to be established from the proceeds of the operation of the AMHPP to be used exclusively in the conservation and development of the Ifugao Rice Terraces.

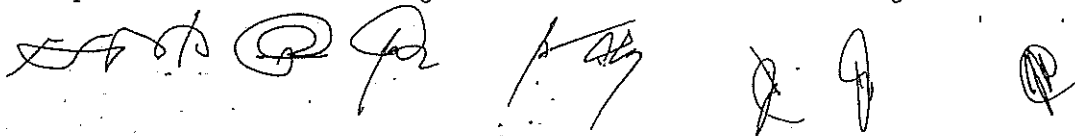
**SECTION 8. POLICIES AND SYSTEMS IN THE MANAGEMENT OF THE RICE TERRACES CONSERVATION FUND.** - The following policies and systems shall be observed in the management of the Rice Terraces Conservation Fund:



- a.) The net profit from the operation of the AMHPP shall be treated as a Special Account in the General Fund of the Provincial Government, but shall be used exclusively for the conservation and development of the Ifugao Rice Terraces and to satisfy the commitment of the Provincial Government as stipulated in various Memoranda of Agreement duly entered into by the Provincial Government with the different stakeholders. A separate set of books shall be established by the Provincial Government in conformity with the prescribed government accounting and auditing rules and regulations.
- b.) The net profit from the operation of the AMHPP shall be determined every December 31<sup>st</sup>. The net profit shall be applied to satisfy the commitment of the Provincial Government as stipulated in various MOAs entered into by the PG with the different stakeholders and the remainder shall be appropriated for the conservation and development of the Ifugao Rice Terraces based on an approved annual rice terraces conservation and development plan.
- c.) Upon determination of the annual net profit generated from the operation of the AMHPP, the management of the AMHPP shall immediately prepare an annual budget indicating therein the available annual net profit together with the annual rice terraces conservation and development plan for the review by the Steering Committee. The Steering Committee, upon review, shall endorse the annual budget together with the annual rice terraces conservation and development plan to the SP for legislative authorization of the annual budget through an appropriation ordinance and approval of the annual rice terraces conservation and development plan on or before the 15<sup>th</sup> February of the year.  

The approved annual rice terraces conservation and development plan and annual budget is not subject to any higher review and shall be implemented and disbursed in conformity with existing and pertinent laws, rules and regulations and ordinances.
- d.) In case of any veto by the local chief executive, Section 55, Chapter 3, Title II, Book 1 of the Local Government Code and its implementing rules and regulations shall apply.
- e.) Policies, systems, procedures and criteria necessary for the efficient and effective management of the Conservation Fund shall be formulated and established by the AMHPP management taking into consideration the project objectives as envisioned by e8, the terms and conditions set forth in the memoranda of agreement with the different stakeholders, provisions of this Ordinance and existing and pertinent rules and regulations. However, any policies, systems, procedures and criteria shall be approved by the Steering Committee prior to implementation but subject to review and amendment by the Sangguniang Panlalawigan through a legislative measure.

**SECTION 9. TRANSITION PERIOD.** - All expenses related to the commercial operation of the AMHPP for the period of one (1) year shall be funded from the annual budget of the Provincial Government. For the second year and subsequent years of commercial operation, the budget for the operation, maintenance and management of AMHPP shall be from its revenue generated.



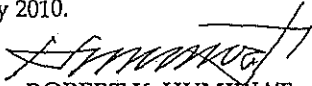
SECTION 10. PENAL CLAUSE - Without prejudice to the provision of the LGC and other existing laws, any public officer found administratively guilty of violating the provisions of this Ordinance shall be suspended for one (1) month for the first offense, six (6) months for the second offense, and dismissal for the third offense.

SECTION 11. REPEALING CLAUSE - All ordinances, executive orders or issuances and policies of the Provincial Government of Ifugao contrary or inconsistent with this Ordinance are deemed repealed.

SECTION 12. SEPARABILITY CLAUSE - Should any part of this Ordinance be declared unconstitutional or invalid by proper authority, other parts or provisions hereof which are not affected shall continue to be in full force and effect.

SECTION 13. EFFECTIVITY CLAUSE - This Ordinance shall take effect upon approval and publication for three (3) consecutive days in newspaper of local circulation. However, where there are no newspapers of local circulation, the same may be posted in at least two (2) conspicuous and public accessible places and shall take effect after ten (10) days from the date a copy thereof was posted.

APPROVED and ENACTED by the Sangguniang Panlalawigan of Ifugao this 18th day of January 2010.



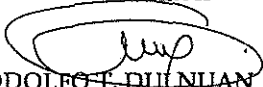
ROBERT K. HUMIWAT  
Member



JOSEPH J. ODAN  
Member



LUCIO B. AYAHAO, JR.  
Member



RODOLFO T. DULNUAN  
Member

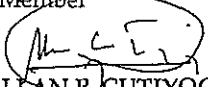


CLEMENTE T. BONGTIWON  
Member



ALDRIN B. GUINGAYAN  
Member

MARTIN L. HABAWEL, JR.  
Member




ALLAN P. CUTIYOG  
Member



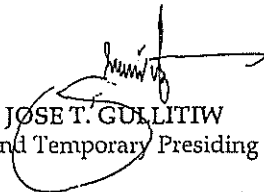
JOMARA BUYUCCAN  
Member

CERTIFIED CORRECT:



LOURDES T. MANGACCAT, Sr.  
Board Secretary II and  
Acting Sanggunian Secretary

ATTESTED:



JOSE T. GULLITIW  
Member and Temporary Presiding Officer

APPROVED:



TEODORO B. BAGUILAT, JR.  
Provincial Governor

Date: \_\_\_\_\_

**Guideline**  
**On**  
**The Operation and Management**  
**Of**  
**The Ambangal Hydropower Power Plant (AHPP)**  
**And**  
**Rice Terraces Conservation Fund (RTCF)**

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## **Chapter 1 Management of the Rice Terraces Conservation Fund**

### **Section 1 The Rice Terraces Conservation Fund**

The Rice Terraces Conservation Fund is the net profit of the power sale of the Ambangal Hydropower Plant. In other words, all the necessary costs of the operation and maintenance for the Ambangal Hydropower plant are deducted from the gross income becomes the Rice Terrace Conservation Fund. The monthly revenue is not always same amount because of water volume, which is the source of power generation in Ambangal River.

The fund shall be used / allocated/ released in accordance with the Provincial Ordinance and IRR and this guideline.

### **Section 2 Basic Principles**

- 1) Ownership – to foster clients’ ownership of the projects, participation should start already in the preparation of a Barangay Development Plan that will contain a terrace conservation plan and in project planning and implementation.
- 2) Participation– Clients participate all throughout the project cycle. Participation may come in terms of attending planning sessions, provision of counterpart, and maintenance of the completed project.
- 3) LGU Support – Provision of counterpart in terms of funds and personnel who will assist and provide technical assistance in the planning, supervision and monitoring of projects. During Information Education Campaign (IEC), ICHO develop the support mechanism with MLGU, BLGU and NGO.

### **Section 3 Area Coverage**

The 1<sup>st</sup> year of the budget for the Rice Terraces Conservation Fund is very limited because the operation of power plant has just started and the Fund is not enough to utilize, so the fund utilization in the 1<sup>st</sup> year is focus the area as follows.

- a. 3 host Barangays of Ambabag, Mugayang, and Pindungan
- b. One Barangay of Municipality Kiangan
- c. 3 Barangay is selected from 4 Heritage Municipalities

The number of project related the Rice Terraces Conservation activity can be increased from the 2<sup>nd</sup> year by and by.



Table-1 The implementation Plan of the Rice Terraces Conservation Utilization

	Area	Year 0	Year 1				Year 2				Year 3			
		4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Brgy. Nacacadan	Kiangan	1st IEC	Follow up IEC	Prepare proposal	Start implementation	Completion								
3 Host Brgys	Kiangan		1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion							
Brgy A	1 Brgy is selected from 4 Heritage Municipalities				1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion					
Brgy B	1 Brgy is selected from 4 Heritage Municipalities					1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion				
Brgy C	1 Brgy is selected from 4 Heritage Municipalities						1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion			
Brgy D	1 Brgy is selected from the other Municipalities							1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion		
Brgy E	1 Brgy is selected from the other Municipalities								1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion	
Brgy F	1 Brgy is selected from the other Municipalities									1st IEC	Follow up IEC	Prepare Proposal	Start implementation	Completion

- 1) 3 Host Barangays (Ambabag, Pindungan and Mungayang)
  - a. Three host Barangays receive the five (5) % of share
  - b. Make long term and short term terrace conservation plan for the certain period of years
  - c. The proposal submitted by community proponent shall be listed in the Barangay Development Plan and/or the terrace conservation plan
  - d. Based on the plan, each client makes own proposal and submits to ICHO through Barangay LGU attached its endorsement
  - e. If the budget of the three host Brgys are not enough, they can also access the allocation of Municipality of Kiangan
  
- 2) Municipality of Kiangan
  - a. Municipality of Kiangan has forty (40)% of share forever.
  - b. Municipality of Kiangan shall make a strategic plan how and from which Barangay start, and when the fund is utilized. (Make 5 years master plan) (ICHO conducts IEC for consulting with Municipality of Kiangan, SB members and Brgy Captain and council members and gather the needs)
  - c. Based on the plan, community proponent makes own proposal and submits to ICHO through MLGU attached its endorsement
  - d. As for the 1<sup>st</sup> year, since the fund has not enough collected, one project, which is not

- large amount of budget, is implemented as pilot projects.
- e. From the 2<sup>nd</sup> year, the number of the project is to increased subject to the availability of the fund
- 3) Other Municipalities which are included in the Ifugao Rice Terraces Master Plan
    - a. Other Municipalities have forty (40)% of share forever.
    - b. Make a master plan per Municipality for a Terrace Conservation Plan  
(ICHO conducts IEC for consulting with each MLGU, Mayor, SB members, Brgy Captain and council members and gather the needs)
    - c. Based on the plan, each community proponent makes own proposal and submits to ICHO through MLGU attached the endorsement
    - d. As for the 1<sup>st</sup> year, since the fund has not enough collected, two projects, which are not large amount of budget, are implemented as pilot projects.  
The projects are selected from the 3 heritage municipalities of Banaue, Mayoyao, Hunduan. From which municipal is implemented is depending on the consultation with ICHO and each musicality.
    - f. From the 2<sup>nd</sup> year, the number of the implementing project is to increased subject to the availability of the fund

#### **Section 4 Approach**

The basic approach to be adopted in the implementation of the Rice Terraces Conservation Fund will be community-based using the community organizing process where community participation will be highlighted. This is to instill sense of ownership on the part of the project clients and other stakeholders.

#### **Community organizing process (4 cycles)**

Phase 1: Information and Orientation (1<sup>st</sup> quarter)

- ✓ Conduct Information Education Campaign (IEC) to gain proper understanding and support
- ✓ Community consultation / Focus group discussion/ Data gathering / Initial community profile

Phase 2: Planning (2<sup>nd</sup> quarter)

- ✓ Conduct planning workshop to come with the terraces conservation plan (long term, integrated plan) of the community and annual investment plan includes individual project and time frame

Phase 3: Implementation and Monitoring (3<sup>rd</sup> quarter, project duration depends on the type of

projects)

- ✓ Based on the above-mentioned plan, each proponent makes his or her own proposal. ICHO staff assists the proponent how to make proposal when they conduct pre-implementing meeting.
- ✓ Once the fund release, the proponent starts to implement a project. And ICHO conducts monitoring.

Phase 4: Completion (4h quarter)

- ✓ ICHO conducts final inspection. If it completes, the proponent makes a operation and maintenance plan, and sign of certificate of acceptance

### **Information Education Campaign (IEC)**

IEC is implemented quarterly basis based on an action plan of ICHO as ICHO's regular activity.

Ifugao Cultural Heritage Office (ICHO) conducts Information Education Campaign (IEC) in each municipality invites the Mayor, Municipal Planning Development Office (MPDO), SB members, Brgy. Captain, Brgy Council members and some NGO, which are interested in rice terraces conservation activities. And ICHO gets the needs and plans related terrace conservation. If there is no plan, ICHO assists them to make a long-term, short-term plans include financial, technical assistance from each MLGU during IEC.

1) Purpose of IEC:

To inform the community on Rice Terraces Conservation Program

To get the support of the communities

2) Target Participants

Municipal LGU (Mayor, MPDC, SB council members)

Brgy LGU (Brgy Captain, Council members)

Organizations in the communities

Council of Elders

3) Contents

- a. Nature of the Rice Terraces Conservation Fund: Definition, Source
- b. Objective of the Fund in the context of the Provincial Master Plan for the Rice Terraces Conservation
- c. Allocation, Fund management, Utilization,
- d. Accessing the fund
  - what projects are eligible for funding?
  - what are the requirement?

Beneficiaries Participation  
Application Procedure  
Approval and Funding  
Implementation and Completion  
Participatory Monitoring and Evaluation  
Project Termination/withdrawal  
Start of submission of proposal

- e. Action Plan for the preparation of the community Rice Terraces Conservation Plan
  - f. Statement of commitment
- 4) Strategy
- Community meetings
- Preparatory activities (ground working activities); meetings with the Mayor, SB, Key officers of the MLGU (MA, MPDC, ME), Brgy Officials, Key Leaders
- 5) Campaign Materials
- a. Brochure of RTC
  - b. Visuals
- 6) Conduct IEC
- 7) IEC evaluation meeting for next IECs

### **Section 5 Eligible Projects**

The following are the priority projects to be funded under the Rice Terraces Conservation Fund:

- 1) Rehabilitation of damaged/abandoned rice terraces and/or restoration of rice terraces to full productive capacity thus contributing to the implementation of the terraces conservation program of the province in general.
- 2) Rehabilitation of communal irrigation systems (CIS) to ensure adequate and continuous water supply for rice production.
- 3) Support to existing enterprise development projects in the form of capability building activities.
- 4) Reforestation projects:
  - ◆ Muyong enrichment to support watershed
  - ◆ Agro-forestry- planting of other forest and fruit tree varieties in the “pinugo” that may provide raw materials for livelihood projects.
  - ◆ Establishment of nursery- the procurement and propagation of endemic trees, quality and fast growing trees and water bearing trees but the preference of beneficiaries on the determination of species to

be procured must also be considered.

5) Cultural Enhancement

- ◆ Assistance to cultural events that are related to the rice production cycle.
- ◆ Research and documentation of undocumented Ifugao oral tradition related to rice production cycle.

6) Organic Agricultural Input Production

- ◆ Production and promotion of organic base agricultural inputs.
- ◆ Seed production or seed assistance

<b>Project Classification</b>	<b>Maximum Project Period (Duration)</b>
1. Rice Terrace Restoration	6 months
2. Community Irrigation System (CIS)	6 months
3. Support to Enterprises	6 months
4. Rice Terrace Watershed enhancement	2 years
5. Cultural Enhancement	6 months
6. Organic Agriculture Input Production	6 months

**Section 6 Criteria in Selecting Projects**

- 1) The proposed project must be one of the priority projects identified in the community rice terraces conservation plan or Brgy Development Plan.
- 2) Projects sites must be located in the heritage sites or community with rice terraces.
- 3) There should be a significant number of beneficiaries to be served.
- 4) Project beneficiaries are willing to provide counterpart of not less than 25% of the total project cost for CIS, livelihood and reforestation project, and 40-50% for stone and mud walling and muyong enrichment projects.
- 5) Project must be environment and culture friendly
- 6) It must be taken into consideration that soil, rock particles and solid waste must not cause damages and siltation at the terraces areas and water bodies especially downstream, and project must conform with existing customs and traditions (muyong, organic farming and communal irrigation etc.)
- 7) Identified projects must directly contribute to the conservation and preservation of the rice terraces to sustain and increase production and profitability of the Tinawon and other improved traditional rice varieties.

- 8) Necessity (Is the project in line with the needs of the proponent?)
- 9) Urgency
- 10) Sustainability (Is a sense of ownership towards the project at the proponent sufficiently secured?)
- 11) Output (the result of project implementation) is highly public rather than individual person
- 12) Cost performance (how many persons benefit per 10,000pesos of project cost?)

<b>Project Classification</b>	<b>Priority</b>
1. Rice Terrace Restoration	High
2. Community Irrigation System (CIS)	High
3. Support to Enterprises	Low
4. Rice Terrace Watershed enhancement	High
5. Cultural Enhancement	Medium
6. Organic Agriculture Input Production	Medium

### **Section 7 Qualified Proponents/Clients**

- ◆ Local Government Units
- ◆ Rice Terraces Farmer's Organizations, Associations and Federations
- ◆ Women's Organization
- ◆ LGU assisted and accredited People's Organizations
- ◆ Primary or Community-based Cooperative

For proponents of enterprise development project they must meet the following criteria.

- ◆ Organization is registered with authorized and appropriate Government agency like the SEC, CDA, DTI, DOLE and Municipal Government.
- ◆ Organization must be active with a track record of one (1) year of good standing as validated by evaluation committee of ICHO.

### **Section 8 Application Procedure**

- 1) Secure application and project proposal form at PPDO/ICHO.
- 2) Fill up form and attach necessary supporting papers:
  - ◆ For New Project Proposals  
Certificate of registration/Accreditation by M/PLGU,CDA,DOLE,SEC,  
Endorsement by M/BLGU,  
Bank Account Number

List of Brgy Development plan and/or the investment plan

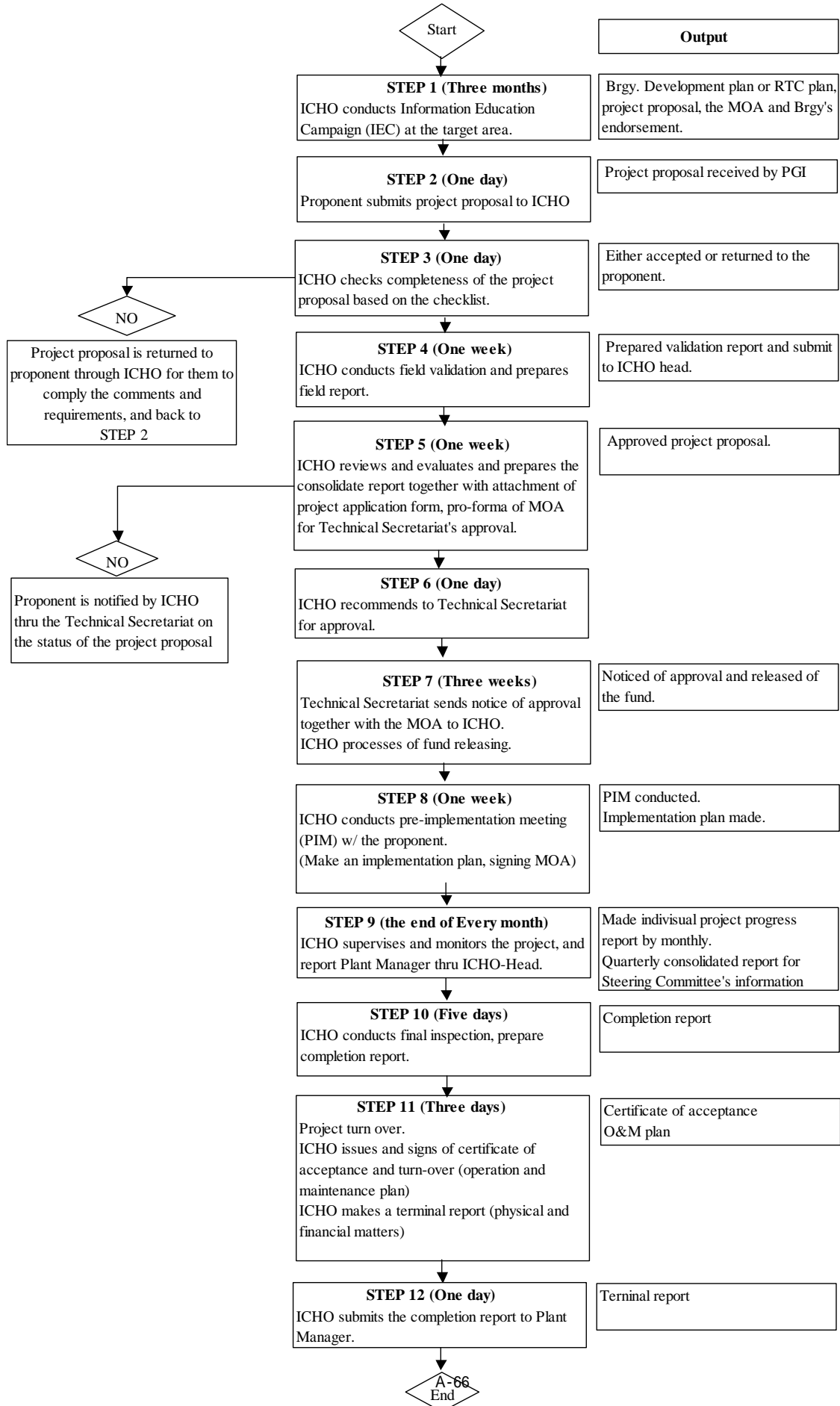
◆ For Continuing Projects

Program or Project Status Report or Terminal Report,  
Financial Statement

Project implementation plan for the following year

- 3) Submit accomplished form to the Ifugao Cultural Heritage Office for the Approval Processing
- 4) Wait for notice on the result of proposal processing

## Section 9 Project approval, implementation and fund utilization Flow





### Section 10 Project Implementation and Completion Procedure

Office Representative	Activity	Time Frame
PPDO-ICHO	Schedule and Conduct pre-implementation meeting <ul style="list-style-type: none"> <li>• Presentation of approved project proposal with POW(Program of Work), schedule and plan of activities</li> <li>• MOA signing</li> </ul> * Implementation plan and MOA as the Output	One day
ICHO-MEG	Implementation Proper <ul style="list-style-type: none"> <li>• Mobilization of funds</li> <li>• Supervision and monitoring visits</li> <li>• Prepare certificate of completion</li> </ul>	Depends on the nature of project
PPDO-ICHO/ Inspectorate team	Conduct post implementation activities <ul style="list-style-type: none"> <li>• Inspection</li> <li>• Signing and issuance of certificate of acceptance and turn-over</li> </ul>	One day
	<ul style="list-style-type: none"> <li>• Payment of balances of the project costs</li> </ul>	2 weeks
PPDO-ICHO	Preparation of project completion report	One week
Clients	Project maintenance	Continues

### Section 11 Funding Level

Project Classification	Fund Ceiling (PhP)	Proponent's Counterpart in (%)
1. Rice Terrace Restoration	100, 000	50
2. Community Irrigation System (CIS)	100, 000	25
3. Support to Enterprises	25,000	10
4. Rice Terrace Watershed enhancement	50,000	10
5. Cultural Enhancement	25,000	10
6. Organic Agriculture Input Production	50,000	10

### Section 12 Funding Mode

- Approved proposals are funded in a yearly basis subject to the availability of fund

- If the fund is exhausted, any other approved proposals will be considered for the next fiscal year

### **Section 13 Ineligible Project Proposals**

- Project proposals with overlapping funding from other sources
- Project proposals from blacklisted proponents
- Project proposals from proponents without legal identity
- Project proposals requiring funds more than the fund ceiling set per program type
- Project proposal of the same content submitted by two proponents within the same area

### **Section 14 Project Proposal Application Format**

#### 1) Identifying Information

- Project Title
- Project Location
- Project Proponent
- Project Beneficiaries
- Total Project Cost
- Fund Sources
- Budget Requested
- Contact Person/s
- Address
- Contact Number/s
- Bank Account Name and Number
- Type of Registration and Number

#### 2) Background:

- Project Area/Coverage:** (describe the needs and potentials of the project)
- Rationale:** (why is there a need to undertake the proposed project)
- Objectives:** (what do the project aims to achieve?)
- Project Description:** (describe the proposed project and include project proponents if there are)
- Project Activities:** (activity plan to be undertaken to achieve the project objectives)
- Budgetary Requirements/Breakdown**
- Signature of Proponents**

### **Section 15 Violations**

Any action undertaken not in accordance with the approved project proposal shall be considered

a violation and may warrant sanction against the proponent. Violations such as the following:

- a. Diversion of project funds
- b. Misuse or re-alignment of funds
- c. Unaccounted project funds
- d. Discontinuation of project within the implementation period
- e. Substandard quality of project output

## **Section 16 Formats**

## **Chapter 2 Monitoring and Evaluation**

It is the first attempt to realize the project which the Provincial Local Government Unit operates and maintains the Ambangal Hydropower plant as well as utilize of revenues from the proceeds of the hydro plant's power sales for the Rice Terrace Conservation Fund.

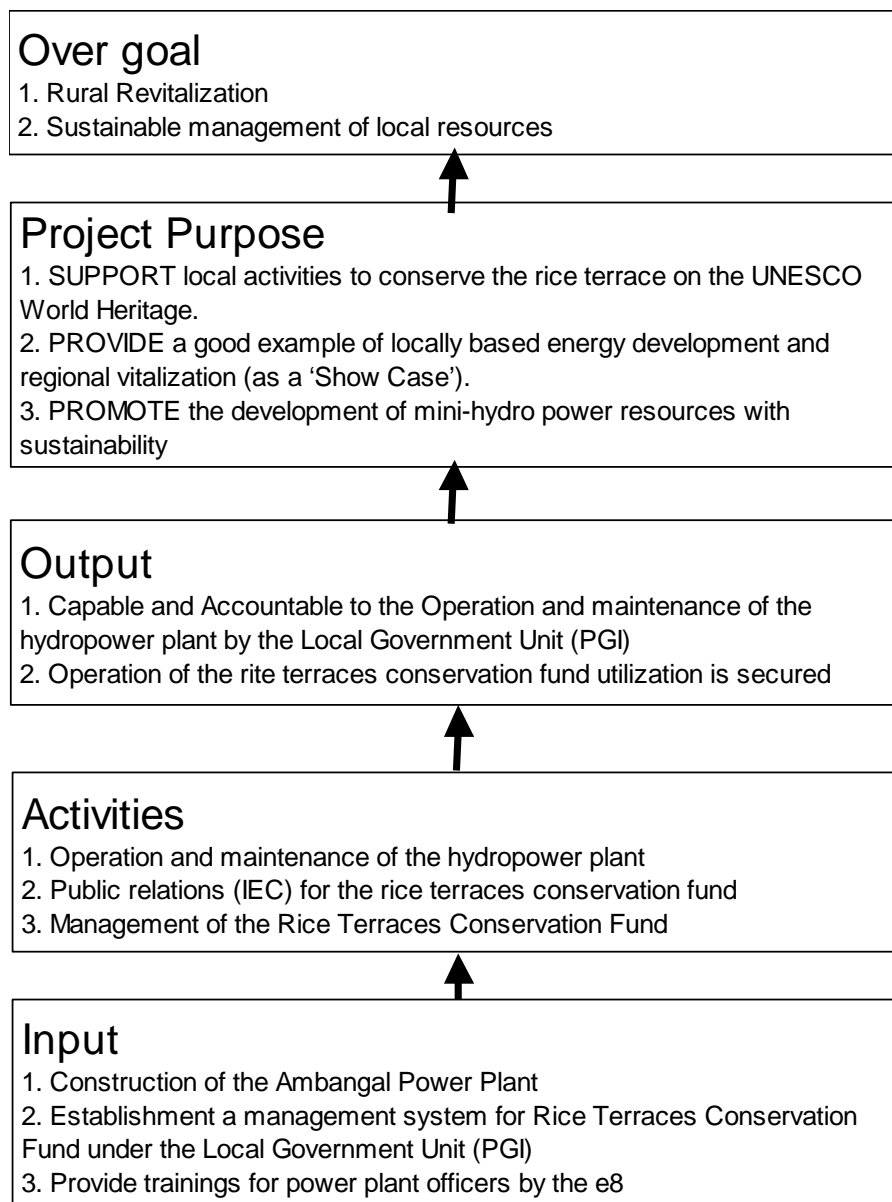
Monitoring is routine work. After the Ambangal power plant begins, monitoring checks whether activities are performed and output produced as planned, and makes adjustments if needed. Monitoring is a pillar of management work, managing the objectives initially established in the plan and revising activities and output in response to the various changes during implementation. Monitoring carefully keeps track of the actual situation of the implementation process. Monitoring helps to consider whether the activities should be continued as planned, whether there are prospects that the objective will be achieved.

And the purpose of evaluation is to verify whether the operation of the Ambangal power plant and management of the Rice Terraces Conservation Fund have been implemented smoothly and are on their way to produce effects. Evaluations contribute to and improvement of the operation contents. Evaluation provides a very good opportunity to revise the operations. The actual social conditions and various internal and external factors required for the success of the operations often become clearer after the start of the activities. Based on this, it is important to verify once more whether the operation strategy is fine as it is, whether anything should be added to the activities in order to produce an effect, or whether the timing and quality of the input are sufficient. It is further important to implement concrete improvement measures and give recommendations.

There are two levels of monitoring to be periodically conducted. One is the overall monitoring to check the operation and maintenance and the management of the Ambangal power plant and the management of the Rice Terraces Conservation Fund, and the other one is the project monitoring to check each project that the fund is released.

The figure below shows the logical framework for operation and management of the Ambangal power plant and the rice terraces conservation fund.

Figure - Logical Framework for operation and management of the Ambangal power plant and the rice terraces conservation fund.



### Section 1 Overall Monitoring and Evaluation

The overall monitoring and evaluation of the power plant operation and maintenance and the utilization of the rice terraces conservation fund are undertaken by the Monitoring and Evaluation Group (MEG) which shall be composed of;

- ✧ The Provincial Engineering Office (PEO) –Lead office,
- ✧ The Provincial Governor’s Office (PGO),

- ✧ The Provincial Agriculture Environment and Natural Resources Office (PAENRO)
- ✧ Save the Ifugao Terraces Movement (SITMO)

The concerned offices identify permanent members and designation orders are issued to document their legal membership to the Monitoring and Evaluation Group.

Monitoring and Evaluation by the MEG is quarterly basis. The report shall be submitted to the Steering Committee within the first fifteen (15) days of the first month of the succeeding quarter.

Monitoring and evaluation items are as follows.

1) The Ambangal power plant

Visual inspection of all civil structures and electrical mechanical system of the power plant and substation (functionality of the systems)

- ✓ The performance of the power plant officers
- ✓ The record of daily power generation, the daily patrol & inspection of the power plant and other equipments, written reports of meetings, working time record

2) Financial Status (Balance sheet of income and expenses of the Ambangal Hydropower plant operation & maintenance and management of the rice terraces conservation fund)

- ✓ Monthly Income of the Ambangal power sale record and other income related to the Ambangal (ex. penalty fee)
- ✓ Monthly Disbursement of the Ambangal power plant and ICHO
- ✓ Monthly Petty Cash of the Ambangal power plant
- ✓ Monthly Record of handling the rice terraces conservation fund (Get and outlay, and releasing the fund)
- ✓ Monthly record of the bank account (check the bank book of the trust fund)

3) Utilization of the Rice Terraces Conservation Fund

- ✓ Activities and implementation process (No of submitted proposal, No. of approved proposal, No. of fund release, No. of implementing projects, and No. of completion projects, type of project fund release)
- ✓ The implementation of the decisions and plans agreed upon the steering committee
- ✓ Effectiveness and efficiency of the fund

Main checkpoints in Monitoring

Monitoring Item	Main Checkpoints of Monitoring
Performance	<input type="checkbox"/> How is the operation of the Ambangal power plant

	and utilization of the Rice Terraces Conservation Fund
Activities and implementation process	<input type="checkbox"/> Are activities implemented as planned? <input type="checkbox"/> If activities are not as planned, what factor impeded the activities? <input type="checkbox"/> Is there sufficient communication within the PGI <input type="checkbox"/> Is there sufficient communication between PGI, the power plant, IFELCO for the operation and management of the Ambangal power plant? <input type="checkbox"/> Is there sufficient communication between PGI and MLGUs for the utilization of rice terraces conservation fund? <input type="checkbox"/> Does the operation and management of the power plant and utilization of the fund have a high recognition in Executive office? <input type="checkbox"/> Is there strong sense of ownership? <input type="checkbox"/> Is the degree of participation of the target group (proponent) in the activities of the rice terraces conservation high? <input type="checkbox"/> Is the recognition with respect of the PGI's staff and the power plant officers to the operation and management high?
Input	<input type="checkbox"/> Is the fund utilization performed as planned? <input type="checkbox"/> Is there no problem in quality, quantity and timing of the fund utilization? <input type="checkbox"/> If there is a problem, what is the impeding factor?
Necessity of adjustments	<p>(Considered based on the results of monitoring the items above)</p> <input type="checkbox"/> Is an achievement of the conservation of the rice terraces possible in the current condition (changes in the process of fund utilization, rule & regulation and guideline)? <input type="checkbox"/> Are there any new important assumptions that influence the operation and management of the power plant and fund utilization? <input type="checkbox"/> What issues must be remembered for the future?

## Evaluation Checkpoint

Evaluation Item	Evaluation Checkpoint
Verification of performance	<input type="checkbox"/> Is the operation and management of the Ambangal Power plant and the fund utilization implemented as planned? <input type="checkbox"/> As securing the rice terraces conservation fund as planned? <input type="checkbox"/> Are there prospects that the PGI's objective of supporting conserves the rice terraces will be achieved?
Verification of implementation of process	<input type="checkbox"/> Are the activities implemented as planned? <input type="checkbox"/> Are there no problems in the operation and management system (decision-making process, function of the related office, communication mechanisms within the related agencies)? <input type="checkbox"/> Are the suitable officers assigned? <input type="checkbox"/> Is the degree of participation of the target group (proponent) in the activities of the rice terraces conservation high? <input type="checkbox"/> Did any other problems occur during the process of implementing the project? What is the cause?
Relevance	<p>Necessity</p> <input type="checkbox"/> Is the area coverage of fund releasing in line with the needs of the target area and group?
Effectiveness	<p>Priority</p> <input type="checkbox"/> Is the fund utilization consistent with Barangay Development Fund of the target group?
	<p>Suitability as a means</p> <input type="checkbox"/> Is the selection of proposals, which are submitted by the proponents of target area appropriate? <input type="checkbox"/> Are there any ripple effects beyond the target group and area? <input type="checkbox"/> Are the benefits of the effect and the burden of the costs fairly distributed?



	<input type="checkbox"/> Looking at the operation and management of the Ambangal power plant and the rice terrace conservation fund is likely achieved? <input type="checkbox"/> Are there any factors that inhibit the achievement of the PGI's objective? Causal relationship <input type="checkbox"/> Is the output sufficient to achieve the PGI's objective?
Efficiency	<input type="checkbox"/> Is the output achievement level adequate? (Compare performance with targets) <input type="checkbox"/> Are there any factors that inhibited the achievement of the output? <input type="checkbox"/> Were the fund utilization of RTC sufficient to produce the output? <input type="checkbox"/> Timing: was the RTCF management of an adequate quantity and quality performed in the right time to conduct the activities as planned? Is it being implemented?
Impact	<input type="checkbox"/> Are the PGI's overall goal and the objective consistent? <input type="checkbox"/> Are any effects or influences beyond the overall goal assumed? <input type="checkbox"/> Are measures taken to ease particularly negative influences? Influence on the establishment of policies and the laws, systems.
Sustainability	<input type="checkbox"/> Is there sufficient organizational capacity to implement activities to produce effects? (Assignment of human resources, decision-making process and so on.) <input type="checkbox"/> Is a sense of ownership towards the project at the proponent sufficiently secured? <input type="checkbox"/> Is the budget for RTCF secured?

## Section 2 Project Monitoring and Evaluation

The project monitoring and evaluation is lodged at the Ifugao Cultural Heritage Office (ICHO), one of the divisions of the Provincial Planning and Development Office (PPDO). The project monitoring and evaluation cater to the monitoring of projects funded and implemented under the rice terraces conservation fund. It is on a per project basis unlike the overall monitoring that

focuses on a higher level. The monitoring and evaluation schedule is monthly for agriculture, reforestation, enterprise development, culture related projects and bi-monthly for infrastructure projects.

Technical assistance of the appropriate offices of the Provincial Government is tapped as the need arises.

The output of the monitoring visits of ICHO which comes in terms of the Project Status Report (PSR) is submitted within seven (7) days after the conduct of the monitoring and evaluation visit to the Plant Manager for reference and appropriate action.

Monitoring and evaluation items are as follows

- ✓ Progress of each fund released project (both activity and financial status)
- ✓ Accomplishment of the released project
- ✓ Efficiency and Effectiveness of the fund releasing (setting the ceiling of fund, timing of releasing fund, allocation by installments)

1) Measures for monitoring

a. Before the conduct of the monitoring, the team of ICHO shall secure the following documents for their reference:

- ✓ Approved project proposal
- ✓ Program work
- ✓ Previous project status report

b. Scheduling and coordination with implementers, LGUs, other partner offices and agencies

c. Conduct of actual monitoring visits

d. Document its findings and observations using the prescribed form

e. Submit report to the Plant Manager through the head of ICHO and give feed back to the implementers

2) Reporting

The project monitoring reports serve as feedback for project implementers and PGI staff on the status of the projects and on the problems and issues being encountered during project implementation.

The report is consolidated and submitted to the MEG through the Plant Manager.

3) Monitoring Checklist

I. Agriculture Related Projects	What To Monitor and Document
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<ul style="list-style-type: none"> <li>• Seed Production or seed assistance</li> </ul>	<ul style="list-style-type: none"> <li>• Project accomplishment to date</li> <li>• No. of clients</li> <li>• Expenditure for the period</li> <li>• Counterpart of stakeholders if fulfilled</li> <li>• General assessment if project is on track per planned schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Observations &amp; findings</li> <li>• Problems/Issues</li> <li>• Recommendations</li> </ul>
<ul style="list-style-type: none"> <li>• Pest Control &amp; Soil Fertility Project</li> </ul>	<ul style="list-style-type: none"> <li>• Project accomplishment to date</li> <li>• No. of clients</li> <li>• Expenditure for the period</li> <li>• Counterpart of stakeholders if fulfilled</li> <li>• General assessment if project is on track per planned schedule</li> </ul>	
<p>II. Environmental Related Projects</p>		
<ul style="list-style-type: none"> <li>• Nursery establishment Project</li> </ul>	<ul style="list-style-type: none"> <li>• Project accomplishment to date</li> <li>• Expenditure for the period</li> <li>• No. of workers</li> <li>• No. of customers</li> <li>• No. of potted seedlings</li> <li>• Survival and Mortality Rates</li> <li>• Counterpart of stakeholders if fulfilled</li> <li>• General assessment if project is on track per planned activity and schedule</li> </ul>	

<ul style="list-style-type: none"> <li>• Forest Enrichment Project</li> </ul>	<ul style="list-style-type: none"> <li>• Project accomplishment to date</li> <li>• Expenditure for the period</li> <li>• No. of clients</li> <li>• Area planted</li> <li>• Kinds and no. of forest trees planted</li> <li>• No. of surviving trees</li> <li>• Mortality Rate</li> <li>• Counterpart of stakeholders if fulfilled</li> <li>• General assessment if area planted is maintained</li> <li>• General assessment if project is on track per planned activity and schedule</li> </ul>	
<ul style="list-style-type: none"> <li>• Agro-forestry Project</li> </ul>	<ul style="list-style-type: none"> <li>• Project accomplishment to date</li> <li>• No. of clients</li> <li>• Area Planted</li> <li>• Kinds and no. of forest trees planted</li> <li>• No. of surviving trees</li> <li>• Mortality Rate</li> <li>• Counterpart of stakeholders if fulfilled</li> <li>• General assessment if area planted is maintained</li> <li>• General assessment if project is on track per planned activity and schedule</li> </ul>	
<p>III. Culture Projects</p>		<ul style="list-style-type: none"> <li>• Observations &amp; findings</li> </ul>

<ul style="list-style-type: none"> <li>Assistance to cultural events Project</li> </ul>	<ul style="list-style-type: none"> <li>Project accomplishment to date</li> <li>No. of clients</li> <li>General assessment if project is on track per planned activity and schedule</li> </ul>	<ul style="list-style-type: none"> <li>Problems/Issues</li> <li>Recommendations</li> </ul>
<ul style="list-style-type: none"> <li>Research &amp; Documentation Project</li> </ul>	<ul style="list-style-type: none"> <li>Project accomplishment to date</li> <li>No. of researchers involved in the project</li> <li>No. of Output</li> <li>Counterpart of stakeholders if fulfilled</li> <li>General assessment if project is on track per planned activity and schedule</li> </ul>	
IV. Infrastructure Projects		
<ul style="list-style-type: none"> <li>Rehabilitation of damaged rice terraces Projects, Communal Irrigation System</li> </ul>	<ul style="list-style-type: none"> <li>Project accomplishment to date</li> <li>Expenditure for the period</li> <li>No. of clients</li> <li>Service area</li> <li>Counterpart of stakeholders if fulfilled</li> <li>General assessment if project is on track per planned activity and schedule</li> </ul>	
V. Livelihood Projects	<ul style="list-style-type: none"> <li>Project Status</li> <li>Expenditure to date</li> <li>No. of Clients</li> <li>Project Output</li> <li>Sales</li> </ul>	

	<ul style="list-style-type: none"> <li>• Income</li> <li>• General assessment if project is on track per planned activity and schedule</li> <li>• Networking &amp; linking activities</li> </ul>	
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### Chapter 3 Reports

The Status of the Ambangal power plant operation, maintenance and management and the Utilization of the Rice Terraces Conservation Fund shall be reported to e8/TEPCO through Department of Energy (DOE) **by monthly** during the cooperation period. Please see the list of reports and formats.

#### 1) Report of The Ambangal Hydropower Plant

Format-1: Monthly record of;

- ✓ Generation time
- ✓ Total generated electricity (kWh)
- ✓ Electricity consumption of the Ambangal power house
- ✓ Total outage causality

Format-2: Monthly patrol and inspection report

Format-3: Quarterly regular patrol and inspection

Format-4: Monthly income, Monthly disbursement, and Monthly petty cash

#### 2) Report of the Rice Terraces Conservation Fund

Format-4: Monthly record of the total Rice Terraces Conservation Fund (Monthly Net Profit) and the total amount of the released fund to the project proponent

Hard copy of bankbook of the bank account for the trust fund (RTCF)

Format-5: Monthly conservation fund activities (No.of; proposal, approved project, implementing project and released fund)

Format-6: Quarterly report of monitoring and evaluation for the Rice Terraces Conservation fund management

## **Chapter 4 Administration Services**

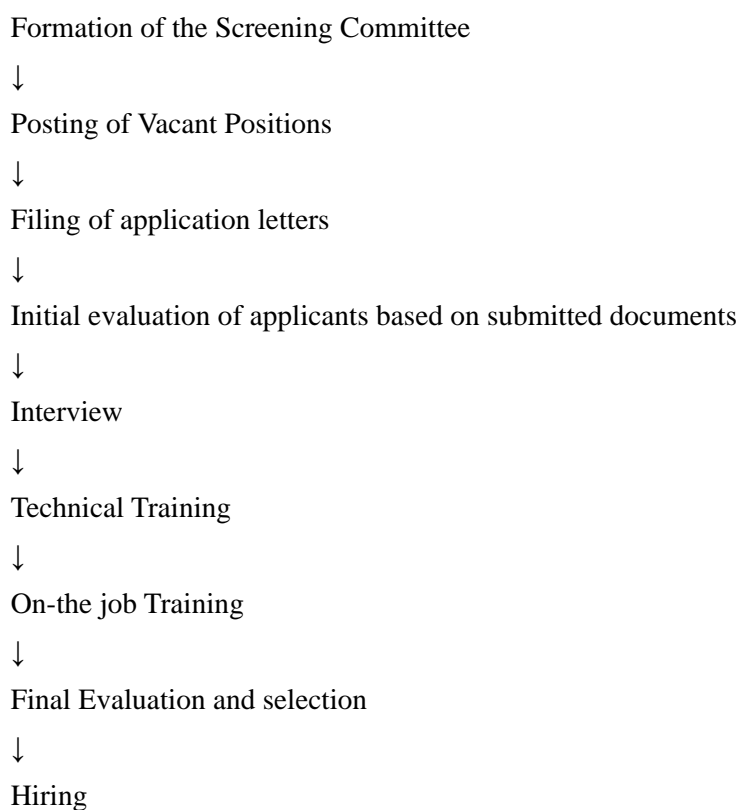
The administrative Services (AS) is mandated to formulate and implement policies, plan, programs and regulations on human resource, treasury and fund management, and general administrative services.

The AS for the Ambangal Hydropower plant and the Management of the Rice Terraces Conservation Fund is basically followed by the government rules and regulations.

Since the first public enterprise, which the provincial government of Ifugao manages the hydropower plant, if anything unspecified which is not prescribed in the government law shall be promptly resolved or specified through discussion with the concerned agencies.

### **Section 1 Selection/Hiring Process of Operator and Water Guard**

#### **1) SELECTION FLOW:**



#### **2) POLICIES, CRITERIA & REFERENCE:**

##### **a. Pool of Applicants**

To ensure publicity of vacancies, the vacant positions shall be posted in seven conspicuous places in the Province together with the qualification standards and requirements.

b. Factors to be rated

CRITERIA	PERCENTAGE
Education	35
Experience	10
Technical Training & OJT	30
Psycho-Social Attributes & Personality Traits & Potentials	10
Oral communication skills	10
Meritorious awards/outstanding accomplishments	05
GRAND TOTAL	100

c. References/Details of the Factors to be rated:

**Education 35%**

- ◆ This shall include the educational background of the applicant its relevance to the vacant position.
- ◆ To determine the relevance of the education, reference should be based on the duties and responsibilities of the operators and water guard. The indicator for relevance is the closeness, similarity and relatedness or functional relationship of the major functions: skills, abilities and knowledge required of the position.
- ◆ The basis for the evaluation shall be the documents submitted with the application letter on or before the deadline. Hence, the application letter should include all supporting documents that would prove the merit, fitness and qualification of the applicant and should be included for submission on or before the set deadline. Documents submitted after the deadline shall not be considered or accepted for evaluation.
- ◆ All proof of merit, fitness, competence and qualifications should be covered by proper documents. All photocopies should be duly certified /authenticated by authorized staff.
- ◆ Applicants who meet the minimum basic education qualification will be given a full rating of 30%. No additional points will be given to any applicant with a higher educational level.

**Experience 10%**

- ◆ Refers to the skills or knowledge gained or acquired by an individual in a previous employment in a public or private organization which would enable the applicant to perform his job better.
- ◆ Relevant experience is an appropriate knowledge and skill acquired from previous employment and designations, which has significant closeness and functional relationship with the qualification requirement and duties and responsibilities of the position to be filled



up.

### **Technical Training and on the Job-Training 30%**

- ◆ As part of the selection process, the qualified and short listed applicants who will be notified to join trainings will be appraised on their performance during the technical training and on-the-job-training. Grossly, the basis will be the applicant's attitude, knowledge and skills observed and gained. Evaluation mechanisms like pre and post tests etc will be prepared by the trainers and administered as appropriate.

### **Psycho-Social Attributes & Personality Traits and Potentials: 10%**

- ◆ This refers to the characteristics or traits of a person, which involves both psychological and social aspects. Psychological includes the way he/she perceives things, ideas and beliefs.
- ◆ Points for this factor will be determined through an interview and the applicants will be assessed on the following points:

No.	Factors to be Rated	Weighted % Points
1	POTENTIALS (knowledge, skills acquired which have relevance to the position to be filled up)	3.0
2	WORK STANDARDS (refers to how an applicant assesses himself in terms of work output)	2.0
3	SERVICE ORIENTATION (how an applicant views government service/work)	1.0
4	STRESS TOLERANCE (ability to work effectively and efficiently even under pressure)	1.0
5	COURTESY (the manner in which the applicant responds to different people of different status politeness, kindness, respect)	2.0
6	PHYSICAL FITNESS/GENERAL APPEARANCE (this refers to the general health status of the applicant in relation to the work for the effective and efficient delivery of services)	1.0
	Total	10.0

### **Oral Communication Skills 10%**

- ◆ Oral communication skills shall be assessed during the interview and the following factors shall be considered:

No.	Factors to be Rated	Weighted % Points
1	ALERTNESS (ability to grasp ideas or questions asked)	3.0
2	PRESENTATION (the manner on how an applicant discusses or presents ideas in creative or logical way)	3.0
3	CONFIDENCE (composure in discussing or presenting ideas, the manner an applicant presents his ideas with ease, (self-confidence)	2.0
4	VERSATILITY (ability to speak fluently in English, Tagalog or vernacular)	2.0
	Total	10

**Meritorious Awards/Outstanding Accomplishments 5%**

- ◆ A rate of five percent (5%) will be given to meritorious awards or outstanding accomplishment of the applicant provided relevant to the position applied for.

d. Process in Evaluating Applicants

The selection and hiring of the AHPPO staff could be facilitated through the following process:

- ◆ Application letters addressed to the Local Chief Executive will be submitted and received at the HRMD
- ◆ Applicants shall initially be screened at the HRMD to determine if they meet the set minimum qualification standards. The basis for initial evaluation shall be the documents submitted on or before the set deadline of submission. It is required that all applicants must submit all the necessary documents to support or prove their fitness, merit, competence and qualifications on or before the lapse of application as basis for evaluation. All proofs of merit should be properly documented and as much as possibly, duly certified by HRMD.
- ◆ The HRMD shall act as secretariat to the screening committee.
- ◆ Applicants found qualified shall be included in the selection line-up or list of qualified applicants and shall be consolidated in the Comparative Assessment Form with their initial ratings.
- ◆ Those initially found qualified shall be notified to undergo further assessment such as: interview, skills test, written examination and others. Notices shall be sent through mail or through other channels that ensures fast and efficient delivery.
- ◆ The HRMD prepares a list of qualified candidates or a selection line-up and submit the same to the screening committee for deliberation.

- ◆ Oral communication skills and physical characteristics/personality traits and potentials shall be assessed through an in-depth interview by the screening committee. Otherwise, the screening committee may at its discretion constitute itself into a panel and interview the applicants.
- ◆ Applicants will also be evaluated on their performance during the technical training and on-the-job-training.
- ◆ After the interview, technical and on-the-job trainings, a deliberation follows whereby all actions will be evaluated by the screening committee. Summary of their ratings including the overall rating shall be reflected in the Comparative Assessment Form as basis for the screening committee to recommend and the LCE for action.

e. Composition of the Screening Committee

The composition of the Screening Committee shall be as follows:

Chairman:	LCE		
Members :		HRMO	: 1
		PEO	: 1
		PPDO	: 1
		Plant Manager	: 1
		GSO	: 1

f. Qualification Standards:

Position	Qualifications
Water Guard	<ol style="list-style-type: none"> <li>1. Physically &amp; mentally fit as certified by a Government physician</li> <li>2. Willing to be assigned on field</li> <li>3. At least finished two years college education</li> <li>4. Experience on electrical and mechanical works will be an advantage</li> <li>5. Willing to undergo trainings</li> <li>6. Preferably 18-40 years old, (male or female)</li> <li>7. Preferably resident of the 3 host barangays</li> </ol>
Operators (4)	<ol style="list-style-type: none"> <li>1. Physically &amp; mentally fit as certified by Government physician</li> <li>2. Willing to work anytime of the day (Monday –Sunday)</li> <li>3. Willing to undergo training</li> <li>4. At least finished 2 years college education, technical/vocational course related to electrical/ or mechanical</li> <li>5. Preferably 18-40 years old</li> <li>6. Preferably resident of the 3 host barangays</li> </ol>

**g. Job Description of Operator and Water Guard**

Position	Duties & Responsibilities
Operator and Water guard	<p>Monitors &amp; records the power generation data</p> <p>Operates and maintains the power plant</p> <p>Ensures the power plant is clean and safe.</p> <p>Maintains the record book for visitors.</p> <p>Conducts regular maintenance of the power plant</p> <p>Checks and clean obstruction on water ways</p> <p>Conducts daily patrol/check of the water ways (intake, settling basin, headrace channel, fore bay)</p> <p>Monitors and records the daily flow at the intake</p>

3) Action Plan:

No.	ACTIVITY	OFFICE/PERSON RESPONSIBLE	TIME FRAME
1	Formation of the Screening Committee	HRMD	
2	Posting of Vacant Positions	HRMD	
3	Filing of application letters	Applicants	
4	Initial evaluation of applicants based on submitted documents Notify qualified applicants for the interview	HRMD	
5	Interview  Consolidation & preparation of Comparative Assessment for the short listing of applicants Notify qualified applicants for the technical training	HRMD to organize & coordinate the interview  HRMD	
6	Technical Training	'e8 - Trainers	EO Sept. 4 <sup>th</sup> week Nov. 1 <sup>st</sup> & 2 <sup>nd</sup> week Dec. 4 <sup>th</sup> week
7	On-the job Training	'e8 - Trainers	Oct. 4 <sup>th</sup> week
8	Final Evaluation and selection	HRMD	
9	Hiring Preparation and submission of hiring		

	documents		
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**Section 2 Selection/Hiring Process of Plant Manager, Plant Supervisor and Admin Aide**

1) Admin Aide

- This position is hired in accordance with the government law.

Position	Qualifications
Admin aide 11	1. At least 2 years college preferably secretarial & other related courses 2. Computer literate 3. Willing to do occasional field work 4. 1 year relevant experience 6. Preferably 18 – 40 years old, (male or female) 7. Preferably resident of the 3 host barangays

2) Plant Manager and Plant Supervisor

- The Plant Manager and the Plant Supervisor are to be assigned from the Provincial Government Officer (PGI Staff) for the first six (6) months.
- Once the fund which is utilized for the operation and maintenance cost is saved enough, that is the time these position will be hired from outside to ensure the plant management.
- If the first six months operation is no good and/or very difficult for the PGI’s staff, the PGI will contract out the management of the power plant by the reliable organization/company.

Position	Qualifications
Plant Manager	1. Degree holder preferably BSEE, BSME, BSCE, & other related courses 2. 120 hours of relevant training 3. 5 years’ experience in managerial & supervisory work 4. Experience in networking and linkaging 5. RA 1080 or Civil Service professional eligible
Plant Supervisor	1. Degree holder preferably BSEE, BSME, BSCE, & other related courses 2. 80 hours of relevant training 3. 3 years’ experience in supervisory work

	4. RA 1080 or Civil Service professional eligible
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**Section 3 Training / On-the-Job-Training of Personnel**

The first top ten qualified applicants will be the priority to attend the technical training

The ten qualified applicants will undergo one month intensive training

The Post Evaluation Results of the one-month intensive training will be the basis in hiring the 4 operators, 1 water guard, 1 technician. The remaining 3 trainees will be treated, as reserve staff in case there will be vacancies later.

The Plant Supervisor will join the one-month intensive training.

**Section 4 Working Hours/Work Place of the Ambangal Hydropower Plant**

**Option 1,2 and 3 are prepared.**

**Section 5 Performance Evaluation of Personnel**

Performance evaluation of personnel will be done twice a year hence a semestral evaluation scheme will be utilized. This will be the basis for renewal or non-renewal of contract of services of employees.

- 1) A semestral evaluation form will be designed for this purpose

**Section 6 Leaves/Absences of Personnel**

Leaves

Leave/s is allowed once a month but it should be filed using prescribe application leave form 2 - 3 days ahead. Leave is without pay.

Absences

In case of absence, staff should inform the Plant Supervisor through any means of communication.

**Section 7 Criminal Sanctions of Personnel**

Grounds for admin./criminal sanction	Sanction
1. Habitual Absenteeism (Pls. refer to HRMO)	1 <sup>st</sup> offense - warning 2 <sup>nd</sup> offense - one month suspension 3 <sup>rd</sup> offense - termination
2. Abandonment of posts	1 <sup>st</sup> offense - warning 2 <sup>nd</sup> offense - one month suspension 3 <sup>rd</sup> offense - termination
3. AWOL	1 <sup>st</sup> offense - warning

	2 <sup>nd</sup> offense - one month suspension 3 <sup>rd</sup> offense -termination
4. Substitution/ Neglect of duty	1 <sup>st</sup> offense - warning 2 <sup>nd</sup> offense - one month suspension 3 <sup>rd</sup> offense -termination
5. Below satisfactory performance (FAIR & POOR)	1 <sup>st</sup> below satisfactory rating - warning twice below satisfactory rating – termination/non renewal of contract
6. Misbehavior a. Drunkenness b. Tardiness c. Discourtesy/disrespect d. Insubordination	1 <sup>st</sup> offense - warning 2 <sup>nd</sup> offense - one month suspension 3 <sup>rd</sup> offense -termination

### Section 8 Termination of Personnel

In case of termination of personnel, management should inform the concerned employee 30 days ahead of time

A termination letter should be issued to the concerned employee for documentation purposes

### Section 9 Formats

## Chapter 5 Financial Services

The Financial Services (FS) are mandated to formulate and implement fiscal policies, programs and regulations, monitor the utilization of government-administered funds, and provide staff support services pertaining to budget and accounting.

The FS for the Ambangal Hydropower plant and the Management of the Rice Terraces Conservation Fund are basically followed by the government rules and regulations.

Since the first public enterprise, which the provincial government of Ifugao manages the hydropower plant, if anything unspecified which is not prescribed in the government law shall be promptly resolved or specified through discussion with the concerned agencies.

### Section 1 Running Cost

#### A. Personnel Wage

Table number 1) and 2) shows the necessary operation cost by monthly basis. These costs shall be utilized from the monthly income of power sale except the 1<sup>st</sup> month of operation.

(Peso)

Name	Monthly salary	Philhealth	TEV	SSS	Technical Services	Honorarium Per Month
Plant Manager (grade 15)						
Plant Supervisor (grade 10)						
Water guard						
Admin aide 11						
Operators (4)						
PACCO (3 staff)						
PTO (3 staff)						
Total						

#### B. Operation and Maintenance Cost

This will be included in the annual work plan and budget of PPDO.

(Peso)

Expenses Items	Items	Monthly	Remarks
Maintenance*1	Repair, Spare parts	60,783	Annual necessary



			cost Php 730,000
Auditor fee		1,200	For COA
Water Right fee		645	Annual necessary cost Php 7,735
Tax & Escalation	Income Tax Corporate Tax	19,000	It is necessary from the 7 <sup>th</sup> year
General Administrative Expenses		2,000	
Monthly Total		83,628	

\*1 Maintenance cost: it is computed by 2% of total construction cost (P36, 470,000pesos x 0.2). This cost should be reserved for future's repair fee, replacement of parts, on-call fee for technician and so on. So, this amount shall be deducted from the monthly income and keep in the bank.

## Section 2 Financial Management

### 1) Transition

Meanwhile that the project is not yet in full operation funds for the start-up operation for at least three (3) months shall be source out from the Provincial Government. The fund provided and sourced out for its initial operation shall be treated as a trust fund. A separate bank account shall be opened with PNB-Lagawe Branch for the purpose. Disbursements shall follow the usual accounting and auditing rules and regulation.

### 2) Economic Enterprise

Once the Ambangal power plant is fully operational and starts to collect fees/income, the same shall be treated as an economic enterprise of the Province. It shall maintain its separate set of books as prescribed by government accounting and auditing rules and regulations.

### 3) Reporting

Separate set of financial reports such as the Trial Balance, Balance Sheet, Income Statement, Cash Flow Statement and Bank Reconciliation Statement shall be prepared on a monthly basis and at the end of the year to be submitted to the COA donor agency and such other authorities of the Provincial Government.

### 4) Auditorial visits

Books of accounts and all the other pertinent records shall be made available for inquiry, verification and audit purposes to the COA, donor agency auditor and other authorities.

5) Work and financial plan

An annual WFP divided into four quarters shall be prepared as basis for procurements and disbursements.

6) Procurement

All procurements shall be in accordance to the provision of RA 9184.

7) Forms

All forms to be used shall be those prescribed by government.

8) Petty Cash Fund

**Section 3 Transaction**

1) Income /Collections

Transaction	Document	Office
1. Sale	Official Receipts	Ambangal power plant
2. Booking-up	Report of Collection Cash Receipts Journal General and subsidiary Ledgers	Ambangal power plant
3. Reporting	Trial Balance Financial Statements	Ambangal power plant

2) Disbursements

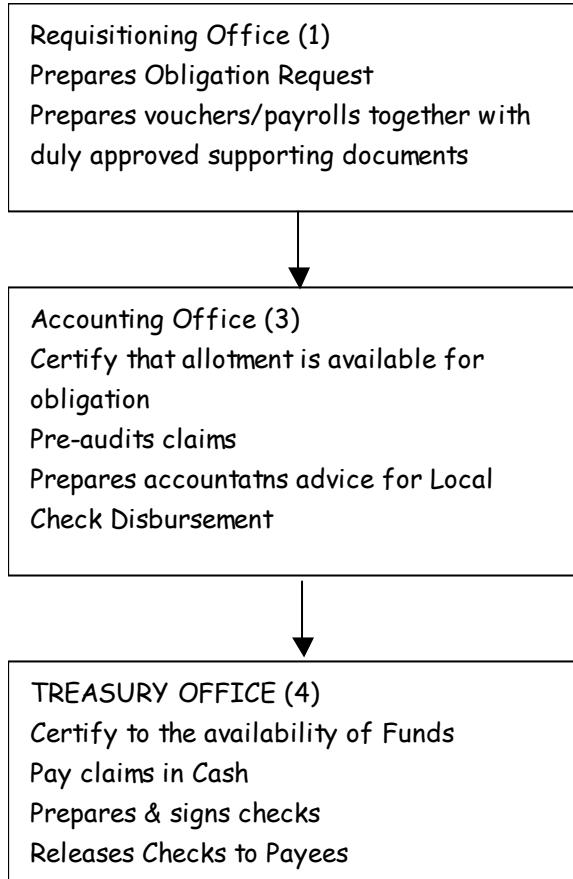
Transaction	Document	Office
1. Expense	Voucher/payroll	Ambangal power plant
2. Booking-up	Report of Disbursements Report of checks issued Report of Disbursements General Subsidiary Ledger Trial Balance/F/S	Ambangal power plant

3) Petty cash

Transaction	Document	Office
1. Expense	Cash advance	Ambangal power plant
2. Booking-up	Report of Disbursements	Ambangal

	Report of cash	power plant
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**Section 4 Flow Chart of Financial Transaction (Trust Fund)**



## Section 5 Workflow of Income

Responsible Person/Office	Activity
<p>Ambangal MHPP</p> <ul style="list-style-type: none"> <li>• Operator</li> <li>• Admin Aide</li> <li>• Supervisor</li> <li>• Admin Aide</li> </ul>	<ul style="list-style-type: none"> <li>• Daily recording of Power generated/sales and make appropriate reports to the Plant Supervisor</li> <li>• Prepares monthly bill statement based on the power generation record and submits to plant supervisor for signing</li> <li>• Signs the bill</li> <li>• Sends the bill to IFELCO</li> </ul>
IFELCO	<ul style="list-style-type: none"> <li>• Receives bill and pay to the Provincial Treasury Office</li> </ul>
<p>PTO</p> <ul style="list-style-type: none"> <li>• Collecting Officer</li> <li>• Liquidating Officer</li> <li>• Provincial Treasurer</li> <li>• Liquidating Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives cash/check from IFELCO</li> <li>• Issue Official Receipt to acknowledge receipt of cash/check</li> <li>• Records collection in the Cash Book- Cash In Treasury</li> <li>• Prepares deposit slip in Three copies</li> <li>• Deposit collection with authorized depository Bank (PNB)</li> <li>• Prepares Report of Collections &amp; Deposits (RCD) in 4 copies with attached 2<sup>nd</sup> copy of the ORs and Deposit Slips (DS) and submits to Liquidating officer or Treasurer for review &amp; signature</li> <li>• Checks remittances and verify accountable forms of collector.</li> <li>• Reviews and signs the RCD</li> <li>• Forwards original &amp; 2<sup>nd</sup> copy of RCD with attached OR's &amp; validated DS's to the Provincial Accounting Office</li> <li>• Files the 2<sup>nd</sup> copy of the RCD with the 3<sup>rd</sup> copy of the ORs &amp; DSs.</li> <li>• Copy furnish the AMHP with the RCD (4th copy)</li> </ul>
<p>Provincial Accounting Office</p> <ul style="list-style-type: none"> <li>• Bookkeeper</li> <li>• Head of bookkeeping</li> </ul>	<ul style="list-style-type: none"> <li>• Receives the RCD with attachments</li> <li>• Reviews and prepares Journal Entry Voucher (JEV) at</li> </ul>

section/Provincial Accountant <ul style="list-style-type: none"> <li>• Bookkeeper</li> </ul>	the E-NGAS <ul style="list-style-type: none"> <li>• Reviews and approves the prepared JEV in the E-NGAS</li> <li>• Generation and printing of financial statements from the E-NGAS</li> </ul>
<ul style="list-style-type: none"> <li>• Depository Bank</li> </ul>	<ul style="list-style-type: none"> <li>• Furnishes the Accounting Office with the monthly Bank Statement of the AMHPP fund</li> </ul>
<ul style="list-style-type: none"> <li>• Provincial Accounting Office</li> <li>• Bookkeeper</li> <li>• Provincial Accountant</li> </ul>	<ul style="list-style-type: none"> <li>• Receives the Bank Statement of the fund and prepares the Bank Reconciliation Statement</li> <li>• Submits all prepared and generated financial reports to the Provincial accountant for review and signature</li> <li>• Reviews &amp; signs the Financial Statements</li> </ul>

**Section 6 Workflow of Disbursements**

Responsible Office/Person	Activity	Time frame	Forms
AMHPP <ul style="list-style-type: none"> <li>• Admin Aide</li> </ul>	<ul style="list-style-type: none"> <li>• Prepares vouchers/payrolls together with duly approved supporting documents and records in control book of the project</li> <li>• Submits to PPDO for recording and notation</li> </ul>		
PPDO <ul style="list-style-type: none"> <li>• Receiving clerk</li> <li>• PPDO</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives, records vouchers/Payrolls</li> <li>• Signs notation</li> <li>• Submits to PACCO</li> </ul>		

<p>PACCO</p> <ul style="list-style-type: none"> <li>• Receiving clerk</li> <li>• Management Audit Analyst</li> <li>• Provincial Accountant</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives vouchers/payrolls with supporting documents and put number the voucher</li> <li>• Pre-audits claims</li> <li>• Records in the control book</li> <li>• Certifies to the completeness and propriety of supporting documents and existence of fund held in trust</li> <li>• Forwards to PTO</li> </ul>		
<p>PTO</p> <ul style="list-style-type: none"> <li>• Receiving Clerk</li> <li>• Provincial Treasurer</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives the vouchers/payrolls and enter to logbook</li> <li>• Forwards to Provincial Treasurer for certification on the cash availability.</li> <li>• Certifies the availability of fund.</li> <li>• Forwards the vouchers/payrolls to PGO/PAdmin</li> </ul>		
<p>PGO/Admin</p> <ul style="list-style-type: none"> <li>• Receiving clerk</li> <li>• Prov'l Governor/Prov'l Administrator</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives and enter to logbook</li> <li>• Forwards to the Provincial Governor for approval of the voucher/payroll</li> <li>• Approves the voucher/payroll</li> <li>• Forwards the approved vouchers/payrolls to PTO for payment</li> </ul>		
<p>PTO</p> <ul style="list-style-type: none"> <li>• Cashier</li> <li>• Prov'l Treasurer</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives approved vouchers/payrolls for payment</li> <li>• Prepares check, initials it and submits to Prov'l Treasurer for signature</li> <li>• Signs the check</li> <li>• Records in the logbook and forwards to PGO/PAdmin for counter signature of the check</li> </ul>		

<ul style="list-style-type: none"> <li>• PGO/PAdmin</li> <li>• Receiving clerk</li> <li>• Prov'l Governor/Prov'l Administrator</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives check, enter into logbook and forwards to the Prov'l Governor/Prov'l Administrator</li> <li>• Countersigns the check</li> <li>• Submits the approved check to PACCO</li> </ul>		
<p>PACCO</p> <ul style="list-style-type: none"> <li>• Receiving clerk</li> <li>• Prov'l Accountant</li> <li>• Liaison Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Receives check, enter to logbook</li> <li>• Prepares Accountants Advice of Local Check Disbursement and submits to Prov'l Accountant</li> <li>• Certifies to the correctness of the prepared advice</li> <li>• Forwards Advised checks to the cashier at the PTO</li> <li>• Deliver Accountants Advice to depository bank</li> </ul>		
<p>PTO</p> <ul style="list-style-type: none"> <li>• Cashier</li> </ul>	<ul style="list-style-type: none"> <li>• Receives checks for release</li> <li>• Records checks to the Check Register Book</li> <li>• Release checks to claimants</li> <li>• Record to Cash In Bank Book</li> <li>• Prepares Report of Checks Issued(RCI)</li> <li>• Submits RCI with the vouchers/payrolls to the PACCO</li> <li>• Files receiving copy of RCIs.</li> <li>• Prepares Report of Accountability for Accountable Forms (RAAF)</li> </ul>		
<p>PACCO</p> <ul style="list-style-type: none"> <li>• Bookkeeper</li> </ul>	<ul style="list-style-type: none"> <li>• Receives the RCIs with vouchers/payrolls &amp; duplicate copy of checks attached</li> <li>• Reviews and prepares Journal</li> </ul>		

<ul style="list-style-type: none"> <li>• Head of bookkeeping section/Prov'l Accountant</li> <li>• Bookkeeper</li> </ul>	<p>Entry Voucher (JEV) of each disbursement at the E-NGAS</p> <ul style="list-style-type: none"> <li>• Reviews and approves the prepared JEV in the E-NGAS</li> <li>• Generation and printing of financial statements from the E-NGAS</li> <li>• Submits financial reports to COA, copy furnished the AMHPP</li> </ul>		
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**Section 7 Workflow of Disbursements (Petty Cash)**

Responsible Office/Person	Activity	Time frame	Official Forms
<p>PTO</p> <ul style="list-style-type: none"> <li>• Cashier</li> <li>• AMHPP Plant Supervisor</li> <li>• AMHPP Admin Aide</li> <li>• Cashier</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Establishment of the Petty cash fund (estimate amount: P20, 000.00)</b> <ol style="list-style-type: none"> <li>1. Prepares the cash advance voucher in her name with attached trust funding slip</li> <li>2. Submit to AMHPP</li> <li>3. Signs Trust Funding Slip</li> <li>4. Process in the usual accounting procedures</li> <li>5. Encash check and keep the cash in a safety vault</li> </ol> </li> </ul>		<p>Disbursement Voucher, Trust Funding Slip</p> <p>Commercial Check</p>
<p>AMHPP</p> <ul style="list-style-type: none"> <li>• Requesting Personnel</li> <li>• Plant Supervisor</li> <li>• Requesting Personnel</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Utilization of the Petty cash fund</b> <ol style="list-style-type: none"> <li>1. Accomplish Box A 'Requested by' portion of the PCV</li> <li>2. Signs Box A 'Approved by' portion of the PCV</li> <li>3. Submit the duly approved PCV to Cashier (Petty Cash Fund Custodian)</li> <li>4. Signs in Box B 'cash received'</li> </ol> </li> </ul>		<p>Petty Cash Voucher</p>



	by' portion of PCV and receives the desired amount of cash needed for emergency purchase.		
PTO • Cashier	<ol style="list-style-type: none"> <li>1. Signs Box B 'paid by' portion of PCV</li> <li>2. Issues the 2<sup>nd</sup> copy of the PCV to the requesting personnel</li> <li>3. Records paid PCVs in the CDR (Cash Disbursement Record). Fill up the following columns: date, reference, name of payee, nature of payment, amount in the credit column and cash advance balance.</li> <li>4. File the original copy of the PCV awaiting liquidation</li> </ol>		PCV, Cash Disbursement Record
AMHPP • Requesting Officer/Admin Aide	<ul style="list-style-type: none"> <li>• <b>Liquidation of Petty Cash Advance</b></li> </ul> <ol style="list-style-type: none"> <li>1. After the purpose for which it was given has been served, accomplish all the supporting documents in accordance with Government accounting requirements and submits to cashier together with the 2<sup>nd</sup> copy of the PCV.</li> </ol>		Trust funding Slip, Disbursement Voucher/payrolls, Purchase Request Canvass, Abstract of Bids, Purchase Order, acceptance & Inspection, Pre and Post Inspection, Travel Order, Certificates of Appearance, Official Receipts, Appendix A & B, Liquidation Report,



	<p>not equal to the amount paid, retrieve from file the CDR and record the necessary adjustments based on the liquidated PCV. Fill up the following columns: Date, reference, name of payee, and nature of payment, amount in the appropriate debit, credit and balance columns.</p>		
<p>PTO</p> <ul style="list-style-type: none"> <li>• Cashier</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Replenishment of Petty Cash Fund</b></li> </ul> <ol style="list-style-type: none"> <li>1. Retrieve from file the PCV together with the supporting documents. Check the completeness of all the PCVs for replenishment.</li> <li>2. Prepare the Petty Cash Replenishment Report (PCRR) in 2 copies based on the PCVs in numerical sequence and fills up the following columns: date, PCV Number, particulars &amp; amount. This is done when the Petty cash fund is about to be depleted.</li> <li>3. Signs in the 'Certified Correct by' porting of the PCRR.</li> <li>4. Based on the PCRR, prepare DV in 3 copies.</li> <li>5. Attached the PCRR &amp; PCVs to the Trust Funding Slip and Disbursement Voucher.</li> <li>6. Submit to AMHPP</li> </ol>		<p>PCRR</p> <p>Disbursement Voucher</p>
AMHPP			

<ul style="list-style-type: none"> <li>• Admin Aide</li> <li>• Plant Supervisor</li> <li>• Admin Aide</li> </ul>	<ol style="list-style-type: none"> <li>1. Receives documents and enter to logbook</li> <li>2. Signs in the Trust funding Slip</li> <li>3. Forwards documents to PACCO for the usual Government Accounting Procedure.</li> </ol>		
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**Section 8 Service Coverage**

Budget preparation

Cash advances for local travels

Cash advances for special projects and events

Clearances from property accountabilities

Disposal of unserviceable, obsolete and excess properties

Grievances

Liquidations for special projects and events (with or without refund)

Liquidations on local or local travels (with or without refund)

Liquidations on local travels (with reimbursement)

Liquidations and replenishment of petty cash

Mailing

Processing of;

Initial salaries

Monetization

Overtime services

Salary differentials

Payment of terminal leaves

Payment to service utility/contractors

Petty cash advances for outsourced emergency repairs

Petty cash advances for procurement of parts, supplies and materials

Personnel development

Nominations to study and non-study programs, conferences and workshops

Pre-travel documentation of foreign trainings/scholarship grants

Personnel movement/hiring

Daily time records

Details/reassignments

Hiring of applicants

Leave applications (less than 30 days)

Leave applications (30 days or more)

Promotional appointments/lateral transfers

Secondments

Terminal leaves

Procurement

Annual Procurement Program

Procurement request

Alternative methods

Public bidding

Requisitions for / Issuances of:

Equipment, furniture and fixtures (included in the APP)

Equipment, furniture and fixtures (not included in the APP)

Fuel withdrawals

In-house services

Supplies and Materials (included in the APP)

Supplies and Materials (not included in the APP)

Vehicle dispatch/Trip tickets

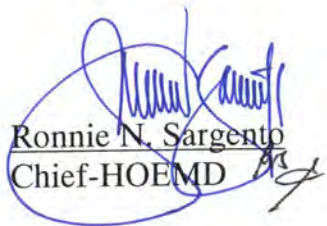
## **Section 9 Formats**

**MEMORANDUM OF UNDERSTANDING  
ON  
JICA ENVIRONMENTAL SOCIAL CONSIDERATION**

During the discussion, JICA Consultant Team (TEPSCO headed by Mr. Mitsuru Shimizu) provided the explanation to the Department of Energy (DOE), which is the responsible organization to implement the Likud Mini-hydropower Development Project, the necessity and importance of the Environmental Social Consideration and Environmental Monitoring to be conducted.

Hydropower and Ocean Energy Management Division (HOEMD) of the DOE understand the necessity as well as the importance of said Environmental Monitoring and agreed to conduct needed monitoring in conformity to the Environmental Monitoring Sheet provided by JICA.

December 20, 2012

  
Ronnie N. Sargento  
Chief-HOEMD

MEMORANDUM OF UNDERSTANDING

ON

ENVIRONMENTAL MONITORING

During the discussion, JICA Consultant Team (TEPSCO headed Mr. Mitsuru Shimizu) provided the explanation to the Provincial Planning Development Office (PPDO) of Ifugao Province, which is designated as the organization to operate and maintain Likud Mini Hydro Power Plant, the necessity and importance of the Environmental Monitoring to be conducted after the commencement of Likud Mini Hydro Power Plant operation.

PPDO understand the necessity as well as importance of said Environmental Monitoring and agreed to conduct needed monitoring in conformity to the Environmental Monitoring Sheet provided by JICA.

December 12, 2012 in Lagawe, Ifugao Province



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Engineer Carmelita B. Buyuccan

Provincial Planning and Development Coordinator, Ifugao Province