MINUTES OF MEETINGS

BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY

AND

AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE SOCIALIST REPUBLIC OF VIETNAM ON JAPANESE TECHNICAL COOPERATION PROJECT

FOR

"THE PROJECT ON HUMAN RESOURCES DEVELOPMENT FOR WATER SECTOR IN THE MIDDLE REGION OF VIETNAM"

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and Vietnamese authorities of the Socialist Republic of Vietnam concerned (hereinafter referred to as "Vietnamese side") had a series of meetings for the purpose of working out the details of the technical cooperation program concerning Project for "The Project on Human Resources Development for Water Sector in the Middle Region of Vietnam" (hereinafter referred to as "the Project").

Both JICA and Vietnamese side agreed to make this Minutes of Meetings in order to confirm the mutual understandings reached through the discussions as attached hereto.

Mr. Hirochi SHIONO

Leader

Preparatory Study Team

Japan International Cooperation Agency

Japan

Thua Thien Hue, 18 October, 2006

Mr. Truong Cong Nam

Director

Thua Thien Hue Construction and Water Supply State-One Member Company Limited.

Vietnam

Witnessed by

Mr. Nguyen Ngoc Thien

Vice Chairman

People's Committee of Thua Thien Hue

Province

Vietnam

1. Title of the Project

The title of the Project would be "The Project on Human Resources Development for Water Sector in the Middle Region of Vietnam".

2. Implementing Organization

Thua Thien Hue Construction and Water Supply State-One Member Company Limited (hereinafter referred to as "COWASU") would be the implementing organization of the Project. The organization chart is shown in Annex I.

3. Counterpart Personnel

COWASU will prepare the counterpart personnel, of which list is shown in Annex II.

4. Project Area

Both side agreed that the Project area would be Thua Thien Hue province

5. Duration of the Project

The Vietnamese side requested that the duration of the Project will be three (3) years. During the meeting, the both side agreed that the duration of the Project will be two (2) years (twenty-four [24] months) from the date when Japanese experts of the Project arrive in Vietnam.

6. Project Design Matrix (PDM)

Project Design Matrix (hereinafter referred to as "PDM") as a tool for monitoring, evaluation and management of the activities of the Project is shown in Annex III. The PDM will be modified as needed during the Project implementation stage after mutual consultations between JICA and the Vietnamese side.

7. Tentative Plan of Operation

The Project will be carried out in accordance with the Tentative Plan of Operation (PO) shown in Annex IV. Detail input for the Project will be decided in the course of the first several months through detailed analysis in the Project. The schedule is tentative and subject to modification if such necessity should arise and mutually agreed by JICA and the Vietnamese side.

8. COWASU's ownership of the Project

Both sides confirmed that COWASU's ownership of the Project is indispensable for successful implementation of the Project. The Japanese technical cooperation would facilitate self-help efforts of COWASU with technical advice and collaborations, such as preparing seminar, workshop, and monitoring of the Project activities, etc.

9. Expansion of Outputs to other provinces

JICA explained the Project would benefit not only COWASU but also other water supply

lled

companies in the middle region of Vietnam.

Both side agreed to discuss the way how-to expand (ex; seminar, workshops and on-the-job training etc.) the outputs during the Project.

10. Necessary equipment for the Project activities

The Vietnamese side requested necessary equipment of the Project which list is shown in Annex V. JICA replied that the JICA study team will convey the request to JICA HQ and the provision equipment will be decided according to the activities of the Project and budget.

11. Application of Information Technology

The Vietnamese side requested to extend cooperation for application of Information Technology on water system management to COWASU. JICA explained that Japanese experts could advise on data collection and management.

12. Invitation of international experts

Both side agreed that invitation of international experts to seminars and workshops will be discussed later between COWASU and Japanese experts.

13. Joint Coordinating Committee

The joint coordinating committee will be formulated at the beginning of the Project and the meeting will be held at least once a year for the smooth implementation of the Project.

14. Draft of Record of Discussions

Both sides agreed to recommend to their respective governments the matters referred to in a draft of Record of Discussions (hereinafter referred to as "R/D") shown in Annex VI. The R/D would be signed between JICA and the Vietnamese sides after the Project is approved by JICA headquarters.

15.Others

This Minutes of Meetings is made in English and Vietnamese. In case of any debate arisen, the English version will be used as official.

Hal

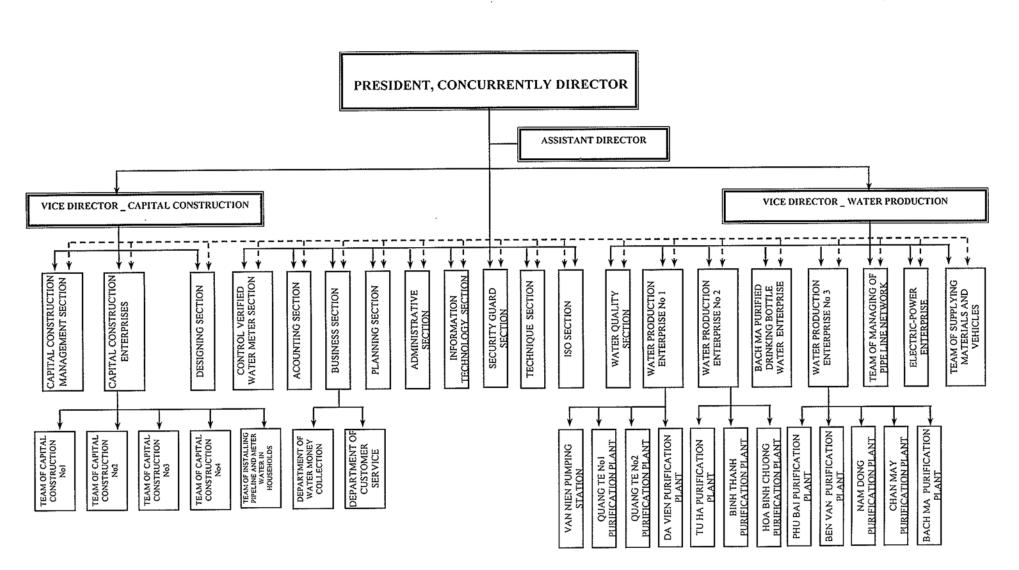
LIST OF ANNEX

CT
EL
RD)



ORGANIZATION CHART OF COWASU

* Fuctional relation:



ANNEXII

LIST OF COWASU_COUNTERPART PERSONNEL

No	Name	Position
1	Mr.Nguyen Khoa Hien	Chief of Planning Section
2	Ms.Tran Thi Minh Tam	Chief of Water quality Section
3	Mr.Truong Cong Thien	Chief of Team of Pipeline network management
4	Mr.Cao Huy Tuong Minh	Chief of Technical Section
5 Mr.Mai Duy Tuong Assistar		Assistant Director
6	Mr.Le Quang Khanh	Chief of Business Section



5

Project Title:

The Project on Human Resources Development for Water sector in the middle region of Vietnam

Target Area: Thua Thien Hue province, Vietnam

Target Group: Staff of COWASU

Final Beneficiaries: People in Thua Thien Hue province

Duration: FY 2006 ~FY 2008

Date: Oct 18, 2006

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal The capacity of COWASU on management and operation is improved.	Declaration of "safe drinking water" The results of questionnaire on the customer satisfaction.	1 Annual report	
Project Purpose			
The capacity of COWASU is improved for declaration of safe drinking water	1 Achievement of the action plan 2 Water pressure (more than 1.0 bal in urban and 0.5 bal in rural) 3 Residual chlorine (more than 0.3mg/l in urban and 0.1mg/l in rural)	Progress report on action plan Annual report	* The GOV's proposed water sector policy will not make drastically change to water supply companies. * Any change of development assistant policy by other donors in water supply sector will not give adversely affect to the Project Implementation.
Outputs			
1 The capacity of water quality management is improved.	1-1 Acquisition of ISO17025	Certificate of ISO17025	* The raw water source will not be
	1-2 Water analysis in line of MOH's standards	Report on water quality examination	contaminated seriously.
	1-3 Procedure guidance for water treatment and operation of the water facilities	Guidance for water treatment	
	1-4 Water quality management plan	Report of seminars and workshops	
	1-5 Number of seminars and workshops		
The capacity of water distribution network management is improved.	2-1 Water distribution network map(water pressure, water flow and residual chlorine etc.)	Water distribution network map	
	2-2 80% of participants to seminars have good understanding	Evaluation report	
3 The capacity of human resources development and	3-1 Certificate examination (more than 60%)	Result of examination	
personnel management are improved.	3-2 Personnel management regulation	COWASU company's management	
	3-3 Number of training materials	regulation Training materials	
4 The capacity to response to the customer's need is improved.	4-1 Number of materials for public relations	Publicity materials	
maproveu.	4-2 Reduction of complain from customers	Record of complain	
	4-3 Number of visitor to purification plant(more than 1,000)	Actual record	
	4-4 Number of events to improve public relations	Actual record	1/1



	Activities	Inp		
11	The capacity of water quality management is improved.	Japanese Side	Vietnamese Side	
1-1	Prepare an action plan for declaring "safe drinking	1 Experts	1 Counterparts	* Employees who received trainings by the
1-2	Advise on procedure for acquisition of ISO17025.	1-1 Chief Advisor (Water distribution network)		Project will continuously work for the COWASU.
1-3	Conduct training on water quality analysis for declaring "safe drinking water" and ISO17025.	1-2 Water quality control		* Personnel transfer of executive will not affect the implementation of the Project.
1-4	Advise on water treatment technology and operation of purification facilities .	1-3 Water treatment		
1-5	Advise on water quality management plan.	1-4 NRW reduction		
1-6	Hold seminars and workshops on water quality analysis and water treatment	1-5 Human resources development planning		
2	The capacity of water distribution network management is improved.	1-6 Customer service		
2-1	Advise to improve the management plan for water distribution network.			
2-2	Advise on monitoring of water distribution (water pressure, water flow and residual chlorine etc.).		-	
2-3	Advise on construction supervision.			
2-4	Conduct training on pipe laying work.		-	
2-5	Advise on reduction of Non-Revenue-Water(NRW).			
2-6	Conduct training on designing and modification of water distribution network			
2-7	Hold seminars and workshops on management of water distribution network and NRW			
3	The capacity of human resources development and personnel management are improved.	2 Equipment and materials	2 Office space and facilities for experts	
	Advise on human resources development plan.	3 Trainings	3 Equipment	Dra Conditions
<u> </u>	Advise on personnel management.	3 (raninings	2 Edmbusir	Pre-Conditions
ļ	Prepare training plan for technical staff and workers.	A		* Human resources development needs is
-	Prepare training plan for managerial staff.	4 Local cost	4 Necessary Information	considered important issue to improve COWASU's
3-5		4 Local cost	4 Necessary miormation	capacity.
3-6	personner management			
4	The capacity to response to the customer's need is improved.		5 Local cost	
4-1	Collect information on customer's needs.			
4-2	Analyze results of questionnaire survey on customer satisfaction.			
4-3	Prepare service improvement plan according to the results of activity(4-2).			
4-4	Hold seminars and workshops for improvement of customer service.			
4-5	Prepare public relation plan for COWASU.]		1/1
4-6	Carry out public relation activities.]		171



ANNEX IV

Tentative Plan of Operation

Project Name: The Project on Human Resources Development for Water sector in the middle region of Vietnam

Duration I January 2007~December 2008 (2vears)

Prepared on October 18, 2006

Duration:January 2007∼December 2008(2years)	1 0000	1 2007	Prepared on October 2008	2009
	2006	2007 2 1 2 1 3 1 4 1 5 1 6 1 7 1 8 1 9 1 10 11 11 12	2008 2 1 2 3 4 4 5 5 6 7 8 9 10 11 12	
1 The capacity of water quality management is improved.				
1-1 Prepare an action plan for declaring "safe drinking water"				
1-2 Advise on procedure for acquisition of ISO17025.				
1-3 Conduct training on water quality analysis for declaring "safe drinking water" and ISO17025.				The standard and
Advise on water treatment technology and operation of purification facilities .				Open to the second
1-5 Advise on water quality management plan.				
Hold seminars and workshops on water quality analysis and water treatment				ALEANTA LANGE
The capacity of water distribution network management is improved.				
Advise to improve the management plan for water distribution network.	111111111111111111111111111111111111111			
Advise on monitoring of water distribution (water pressure, water flow and residual chlorine etc.).				SSP MATERIAL
Advise on construction supervision.			(A)	
2-4 Conduct training on pipe laying work.				
Advise on reduction of Non-Revenue-Water(NRW).			\$ A12 A24 A24 A24 A24 A24 A24 A24 A24 A24 A2	
Conduct training on designing and modification of water distribution network				
Hold seminars and workshops on management of water distribution network and NRW				water to the same
The capacity of human resources development and personnel management are improved.				
Advise on human resources development plan.				
Advise on personnel management.				
Prepare training plan for technical staff and workers	•			
Prepare training plan for managerial staff.				
Advise on data collection and management				
Hold seminars and workshops on human resources and personnel management				
The capacity to response to the customer's need is improved.				



Tentative Plan of Operation
Project Name: The Project on Human Resources Development for Water sector in the middle region of Vietnam

Duration: January 2007~December 2008 (2years)

Prepared on October 18, 2006

		2006 2007 2008		2009						
		10:11:12	1:2	3 4 5 6 7 7 8 1	9 10 11 12	1:2:3	4:5:6:	7 8 9	10: 11: 12	1:2:3
, , , ,	Collect information on customer's needs.									
4-2	Analyze results of questionnaire survey on customer			100 E			1744 1744 1745	900 V Vene Vene		
4-3	Prepare service improvement plan according to the results of activity $(4-2)$.				1					
~ ~	Hold seminars and workshops for improvement of			35500 3770 3770	10.1V 20.00			200000 10000 10000 10000 10000	1000 1000 1000 1000	
4-5	Prepare public relation plan for COWASU.								17 (18) (18)	
4-6	Carry out public relation activities.		300 and			100 mm 100	10 10 10 10 10 10 10 10 10 10 10 10 10 1	200		



LIST OF OTHER EQUIPMENTS

No	Name						
1	Ultrasonic flow meter (Max size measurement DN800)						
2	Electronical pressure meter (with datalogger including)						
3	Water leakage detector "Correlator" (Ultra sound wave)						
4	Electromagnetic flow meter (with datalogge including)						
5	Bearing temperature measurement equipment						
	Bearing vibration measurement equipment						
6	Bearing heater equipment for bearing installation (Maximun bearing						
	inside diameter: 120 mm)						



5

LIST OF EQUIPMENT FOR LABOLATORY

1. Gas Chromatograph Mass Spectrometer (GC-MS)

Máy sắc ký khí khối phổ

2. High Performance Liquid Chromatograph (HPLC)

Máy sắc ký lỏng hiệu suất cao

3. Liquid Chromatograph Mass Spectrometer

Máy sắc ký lỏng khối phổ

4. Atomic Absorption Spectrometer (AAS)

Máy quang phổ hấp thụ nguyên tử

5. Continuous Turbidty meter

Máy đo độ đục liên tục

6. Continuous pH meter

Máy đo pH liên tục

7. Continuous Residual Chlorine meter

Máy đo clo liên tục

8. Water quality monitoring sytem by fish and shrimp sedimention.

Hệ thống giám sát chất lượng nước bởi cá, tôm

9. Portable Water Analysis Laboratories, COD, BOD Analysis Systems Bô thiết bi kiểm tra và phân tích COD, BOD

10. Electronic Microscopes

Kính hiển vi điện tử

11. Double Water Distiller

Máy cất nước 2 lần

12. Dissolved Oxygen Meter

Máy đo oxy hoà tan

13. Incubator

Tủ ấm

14. Conductivity Meter

Máy đo độ dẫn điện

15. Turbidty meter

Máy đo độ đục

16. pH meter

Máy đo pH

17. Residual Chlorine meter

Máy đo clo



PLAN OF ADDING CHEMICAL FOR ANALYSIS

N_0	ITEMS	UNIT	QUANTITY	CODE NUMBER	NOTE
I	Reagents of DR 2010 - Hach				
1	Ammonia 0-0,5mg/l	test	100	26531-99	
2	Nitrite 0-0,30mg/l	test	100	21071-69	
3	Nitrate 0-30mg/l	test	100	14034-99	
4	Manganese 0-0,7mg/l	test	50	26517-00	
5	Copper 0-0,21mg/l	test	100	26033-00	
6	Lead 0-0,160 mg/l	test	100	26087-99	
7	Nikel 0-1000mg/l	test	100	26516-00	
8	Cyanide 0-0,200mg/l	test	100	24302-00	
9	Fluoride	ml	1000	444-49	
10	Chromium 0-1,00mg/l	test	100	22423-00	
		test	100	22420-00	
11	Aluminum	25/pkg		14290-46	
	Alumnum	100/pkg		14577-99	
		100/pkg		14294-49	
12	Ferrover Iron Reagent	test	100	854-99	
	Formazin Stock Solution, 4000 NTU:	ml	500	2461-49	
	- Stablcal Solution <0,1 NTU	ml	500	26597-49	
13	- Stableal Solution 20 NTU	ml	500	26601-49	
	-Stableal Solution 200 NTU	ml	500	26604-49	
	- Stableal Solution 1000 NTU	ml	500	26606-49	
14	DPD Total/Free Chlorine Reagent	test	200	21056-69	
II	Chemical solution and powder			L-1,000	
15	HCl (pure)	liter	5		
16	H ₂ SO ₄	liter	5		
17	EDTA	Kg	0,5		
18	Amonia Acetat	Kg	3		
19	Amonia Water (pure)	liter	2		
20	Hydroxylamin	Gram	100		
21	Acid Acetic	liter	10		
22	Natriacetat	Kg	2		
23	Alcohol 90°	liter	5		
24	Orthotoluidin	Gram	50		
25	Acid Acetic (powder)	Kg	30		
26	Orthophenalthroline	Gram	100		
27	Bariclorua	Kg	2		
28	Clorua magie	Gram	500		
29	pH Standar 4 ,7,10	liter	3		
30	MnSO4 (PA)	Gram	500		
III	Medium				
29	Lactose Merck	Gram	1500		
30	BGBL	Gram	1000		



RECORD OF DISCUSSIONS

BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY

AND

AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE SOCIALIST REPUBLIC OF VIETNAM ON JAPANESE TECHNICAL COOPERATION PROJECT FOR

"THE PROJECT ON HUMAN RESOURCES DEVELOPMENT FOR WATER SECTOR IN THE MIDDLE REGION OF VIETNAM"

In response to the request of the Government of Vietnam, the Government of Japan has decided to implement Japan-Vietnam Technical Cooperation Project for "The Project on Human Resources Development for Water Sector in the Middle Region of Vietnam" (hereinafter referred to as "the Project") in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Vietnam, signed on October 20, 1998 (hereinafter referred to as "the Agreement") and the Embassy of Japan's note No. J. D. 41/2006 dated May 31, 2006.

Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation program of the Government of Japan, will cooperate with the authorities concerned of the Government of Vietnam for the Project.

JICA and the Vietnamese authorities concerned had a series of discussions on the framework of the project. As a result of the discussions, JICA, Thua Thien Hue Construction and Water Supply State One Member Company Limited.(hereinafter referred to as "COWASU"), agreed on the matters referred to in the document attached hereto.

Thua Thien Hue, 19 January 2007

Mr. Hiroaki Nakagawa

Resident Representative

Japan International Cooperation Agency,

Vietnam Office

Japan

. .

Witnessed by

Mr. Ho Quang Minh

Director General

Foreign Economic Relations

Department

Ministry of Planning and Investment

Vietnam

Mr. Nguyen Ngoc Thien

Mr. Truong Cong Nam

Vice Chairman

Thua Thien Hue Provincial People's

Thua Thien Hue Construction and Water

Supply State-One Member Company Limited.

Committee

Vietnam

Director

Vietnam

ATTACHED DOCUMENT

I. COOPERATION BETWEEN THE GOVERNMENT OF JAPAN (REPRESENTED BY JICA) AND THE GOVERNMENT OF THE SOCIALIST REPUBLIC OF VIETNAM

- 1. The Government of the Socialist Republic of Vietnam will implement the Project for "The Project on Human Resources Development for Water Sector in the Middle Region of Vietnam" (hereinafter referred to as "the Project") in cooperation with JICA.
- 2. The Project will be implemented in accordance with the Master Plan, which is given in Annex I.

IL MEASURES TO BE TAKEN BY JICA

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

1. DISPATCH OF JAPANESE EXPERTS

JICA will provide the services of the Japanese experts as listed in Annex II. The provision of Article III of the Agreement will be applied to the above-mentioned experts.

2. PROVISION OF MACHINERY AND EQUIPMENT

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

3. TRAINING OF VIETNAMESE PERSONNEL IN JAPAN

JICA will receive the Vietnamese personnel connected with the Project for technical training in Japan.

III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE SOCIALIST REPUBLIC OF VIETNAM

- 1. The Government of the Socialist Republic of Vietnam will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese technical cooperation, through full and active involvement in the Project by all related authorities, beneficiary groups and institutions.
- 2. The Government of the Socialist Republic of Vietnam will ensure that the technologies and knowledge acquired by the Vietnamese nationals as a result of Japanese technical cooperation will contribute to the economic and social development of the Socialist Republic of Vietnam.

4

Ml

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

IV. ADMINISTRATION OF THE PROJECT

- 1. Director of COWASU, as the Project Director, will bear overall responsibility for the administration and implementation of the Project.
- 2. Deputy Director of COWASU, as the Project Manager, will be responsible for the managerial and technical matters of the Project.
- 3. The Japanese Chief Advisor will provide necessary recommendations and advice to the Project Director and the Project Manager on any matters pertaining to the implementation of the Project.
- 4. The Japanese experts will give necessary technical guidance and advice to the Vietnamese

♥.

3 Wal

counterpart personnel on technical matters pertaining to the implementation of the Project.

5. For the effective and successful implementation of technical cooperation for the Project, a Joint Coordinating Committee will be established whose functions and composition are described in Annex - VI.

V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by JICA and the Vietnamese authorities concerned, during the last six months of the cooperation term in order to examine the level of achievement.

VI. CLAIMS AGAINST JAPANESE EXPERTS

In accordance with the provision of Article VII of the Agreement, the Government of the Socialist Republic of Vietnam undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Socialist Republic of Vietnam except for those arising from the willful misconduct or gross negligence of the Japanese experts.

VII. MUTUAL CONSULTATION

There will be mutual consultation between the JICA and the Government of the Socialist Republic of Vietnam on any major issues arising from, or in connection with this Attached Document.

VIII. MEASURES TO PROMOTE UNDERSTANDING AND SUPPORT FOR THE PROJECT

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

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be two (2) years from the dispatch date of the first experts.

9

4 Wal

LIST OF ANNEX

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

4

JUL 5

ANNEX - I MASTER PLAN

1. Project Title:

The Project on Human Resources Development for Water Sector in the Middle Region of Vietnam.

2. Objectives of the Project

- 1. Overall Goal: The capacity of COWASU on management and operation is improved.
- 2. Purpose of the Project: The capacity of COWASU is improved for declaration of safe drinking water.

3. Outputs of the Project

- 1. The capacity of water quality management is improved.
- 2. The capacity of water distribution network management is improved.
- 3. The capacity of human resources development and personnel management are improved.
- 4. The capacity to response to the customer's need is improved.

4. Activities of the Project

1-1	Determine the condition for declaring "safe water".
1-2	Prepare an action plan for declaring "safe water".
1-3	Advise on the procedure for acquisition of ISO17025.
1-4	Conduct training on water quality analysis for declaring "safe water" and ISO17025.
1-5	Advise on water treatment technology and operation of purification facilities.
1-6	Advise on water quality management plan.
1-7	Hold seminars and workshops on water quality analysis and water treatment
2-1	Prepare a management plan for water distribution network.
2-2	Advise on monitoring of water distribution (water pressure, water flow and residual chlorine etc.).
2-3	Advise on construction supervision.
2-4	Conduct training on pipe laying work.
2-5	Advise on reduction of Non-Revenue-Water (NRW).
2-6	Conduct training on designing and modification of water distribution network
2-7	Hold seminars and workshops on management of water distribution network and NRW
3-1	Advise on human resources development plan.
3-2	Advise on the personnel management.
3-3	Prepare training plan for technical staff and workers.
3-4	Prepare training plan for managerial staff.
3-5	Monitor the training(by COWASU) based on the training plan(3-3,3-4)
3-6	Advise on data collection and management
3-7	Hold seminars and workshops on human resources development personnel management
4-1	Collect information on customer's needs.
4-2	Analyze results of questionnaire survey on customer satisfaction.
4-3	Prepare the service improvement plan according to the results of activity(4-2).
4-4	Hold seminars and workshops for improvement of customer service.
4-5	Prepare the public relation plan for COWASU.
4-6	Carry out public relation activities.



6 Wel

ANNEX - II LIST OF JAPANESE EXPERTS

- 1. Short-term Experts
 - (1) Chief Adviser / Water distribution network/Reduction of NRW
 - (2) Water quality control
 - (3) Water treatment
 - (4) Human resources development planning
 - (5) Customer service
- 2. Other Experts in specific fields would be dispatched if necessary upon mutual agreement.

d

Val

ANNEX - III LIST OF MACHINERY AND EQUIPMENT

- 1. Machinery and equipment for the implementation of the project are as follows:
- General equipments for the project office
- Equipment for training activities.
- 2. Other machinery, equipments, tools, materials and their spare parts may be provided if necessary on the basis of mutual agreement.



Wal

ANNEX - IV LIST OF VIETNAMESE COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Counterpart:

The Vietnamese side will assign a sufficient number of counterpart officials, who are staff of COWASU.

2. Project Management Unit (PMU)

2.1 Functions

- 2.1.1 PMU is inter-organizational unit responsible for the management and coordination of the Project.
- 2.1.2 PMU holds meetings when necessity arises, in order to fulfill the followings:
 - (i) To supervise the working progress and adjust the working schedule of the Project if necessary
 - (ii) To review and exchange views on major issues arising from or in connection with the Project, and
 - (iii) To approve progress reports.

2.2 Composition (tentative)

- Director of COWASU
- Deputy Director of COWASU
- Head of Water Quality Control Division
- Head of Network Management Team
- Head of Technical Division
- Acting Head of Planning Division
- Head of Customer Service Division
- International Relations Officer
- Head of Huong Dien Water Supply Branch
- JICA Experts



llel

ANNEX - V LIST OF LAND, BUILDING AND FACILITIES

The following will be prepared by the Government of the Socialist Republic of Vietnam for the implementation of the Project.

- 1. The land, building and facilities necessary for the implementation of the Project, including electricity, water supply, telephones, furniture and air conditioning facilities. The principal facilities, which are necessary to implement the Project, are as follows:
 - 1-1. Project Offices/room/other necessary facilities for the Japanese experts in COWASU.
 - 1-2. Meeting room
 - 1-3. Rooms for the preservation of the provided equipment
 - 1-4. Other facilities mutually agreed upon as necessary



o Wal

ANNEX - VI JOINT COORDINATING COMMITTEE

1. Functions

The Joint Coordinating Committee will convene at least once a year and whenever necessity arises. The Joint Coordinating Committee shall function as follows:

- 1-1. To authorize an annual work plan of the Project based on the PO
- 1-2. To monitor and evaluate the progress of the Project and the results of the annual work plan
- 1-3. To discuss and advise on major issues those arise during the implementation period of the Project.

2. Compositions

The Joint Coordinating Committee shall be composed of;

- 2-1. Chairperson: Director of COWASU
- 2-2. Members:
- 2-2-1. Vietnamese side:

Deputy Director of COWASU

Director of Department of Construction of Thua Thien Hue province

Deputy Director of Department of Planing and Investment of Thua Thien Hue province

2-2-2. Japanese side:

- Project experts
- Resident Representative of JICA Vietnamese Office
- Personnel connected with the Project to be dispatched by JICA.

2-3. Observers:

- Embassy of Japan

(V).

Mel

MINUTES OF MEETINGS BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE SOCIALIST REPUBLIC OF VIETNAM ON THE JAPANESE TECHNICAL COOPERATION PROJECT ON HUMAN RESOURCES DEVELOPMENT FOR WATER SECTOR IN THE MIDDLE REGION OF VIETNAM

Representatives of the Japan International Cooperation Agency (hereinafter referred to as "JICA") Vietnam Office and of the Vietnamese authorities concerned (hereinafter referred to as "the Vietnamese side") had a series of meetings for the purpose of working out the details of the Technical Cooperation Project on "Human Resources Development for Water Sector in the Middle Region of Vietnam" (hereinafter referred to as the "Project").

As a result of the discussions, JICA and the Vietnamese side agreed to recommend to their respective Governments the matters referred to in the Record of Discussions (hereinafter referred to as "R/D") signed on January 19, 2007.

Both JICA and the Vietnamese side also agreed to make this Minutes of Meetings in order to confirm the mutual understanding reached through the discussions as attached hereto.

Thua Thien Hue, 19 January 2007

Mr. Hiroaki Nakagawa

Resident Representative

Japan International Cooperation Agency,

Vietnam Office

Japan

Mr. Truong Cong Nam

Director

Thua Thien Hue Construction and

Water Supply State-One Member

Company Limited

Vietnam

Mr. Ho Quang Minh

Director General

Foreign Economic Relations

Department, Ministry of Planning

and Investment

Vietnam

Mr. Nguyen Ngoc Thien

Vice Chairman

Thua Thien Hue Provincial

People's Committee

Vietnam

Witnessed

by

THE ATTACHED DOCUMENT

1. PROJECT DESIGN MATRIX (PDM)

As a result of the discussions, the both sides agreed to adopt the Project Design Matrix (hereinafter referred to as "PDM") shown in the APPENDIX 1 as the implementation guidelines of the project management. The PDM is commonly introduced to technical cooperation projects for the purpose of clear, efficient and effective management planning, implementation, monitoring, and evaluation of the Project. The PDM will be further reviewed as required and authorized by the Joint Coordinating Committee.

2. PLAN OF OPERATION (PO)

The tentative Plan of Operations (hereinafter referred to as "P/O") of the Project agreed by the both sides is shown in APPENDIX 2. Although it is ideal if the Project shall be implemented in accordance with the PDM and P/O without any amendment, they may be revised after the commencement of the Project within the framework of R/D through mutual discussions when necessity arises according to the progress of the Project.



Val

LIST OF APPENDICES

APPENDIX 1

PROJECT DESIGN MATRIX (PDM)

APPENDIX 2

PLAN OF OPERATION (PO)

A

Wal

Project Title:
The Project on Human Resources Development for Water sector in the middle region of Vietnam
Target Group: Staff of COWASU Target Area: Thua Thien Hue province, Vietnam

Final Beneficiaries : People in Thua Thien Hue province

Duration: February 2007 ~ January

2009

Date: January 19, 2007

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal The capacity of COWASU on management and operation is improved.	Declaration of "safe drinking water" The results of questionnaire on the customer	1 Annual report	
Project Purpose	satisfaction.		
The capacity of COWASU is improved for declaration of safe drinking water	1 Achievement of the action plan 2 Water pressure (more than 1.0 bal in urban and 0.5 bal in rural) 3 Residual chlorine (more than 0.3mg/l in urban and 0.1mg/l in rural)	Progress report on action plan Annual report	*The GOV's proposed water sector policy will not make drastically change to water supply companies. *Any change of development assistant policy by other donors in water supply sector will not give adversely affect to the Project Implementation.
Outputs			
1 The capacity of water quality management is improved.	1-1 Acquisition of ISO17025	Certificate of ISO17025	*The raw water source will not be contaminated seriously.
	1-2 Water analysis in line of MOH's standards	Report on water quality examination	,
	1-3 Procedure guidance for water treatment and operation of the water facilities	Guidance for water treatment	
	1-4 Water quality management plan	Report of seminars and workshops	
	1-5 Number of seminars and workshops		
The capacity of water distribution network management is improved.	2-1 Water distribution network map(water pressure, water flow and residual chlorine etc.)	Water distribution network map	
	2-2 80% of participants to seminars have good understanding	Evaluation report	
3 The capacity of human resources development and	3-1 Certificate examination (more than 60%)	Result of examination	
personnel management are improved.	3-2 Personnel management regulation	COWASU company's management regulation	
	3-3 Number of training materials	Training materials	
4 The capacity to response to the customer's need is	4-1 Number of materials for public relations	Publicity materials	
improved.	4-2 Reduction of complain from customers	Record of complain	
	4-3 Number of visitor to purification plant(more than 1,000)	Actual record	
	4-4 Number of events to improve public relations	Actual record	1/





Activities		Activities	Inputs		
	1	The capacity of water quality management is improved.	Japanese Side	Vietnamese Side	
. 1	i-1	Determine the condition for declaring "safe drinking	1 Experts	1 Counterparts	* Employees who received trainings by the Project will continuously work for the COWASU.
) -	-2	Prepare an action plan for declaring "safe drinking water".			
1	1-3	Advise on procedure for acquisition of ISO17025.	1-1 Chief Advisor/Water distribution network/ reduction of NRW		* Personnel transfer of executive will not affect the implementation of the Project.
1	1-4	Conduct training on water quality analysis for declaring "safe drinking water" and ISO17025.	1-2 Water quality control		
	l-5	Advise on water treatment technology and operation of purification facilities .	1-3 Water treatment		
-	1-6	Advise on water quality management plan.	1-4 Human resources development planning		
	1-7	Hold seminars and workshops on water quality analysis and water treatment	1-5 Customer service		
		The capacity of water distribution network management is improved.			
2	2-1	Advise to improve the management plan for water distribution network.			
2	2-2	Advise on monitoring of water distribution (water pressure, water flow and residual chlorine etc.).			
:	2-3	Advise on construction supervision.			
- 1	2-4	Conduct training on pipe laying work.			
- 1		Advise on reduction of Non-Revenue-Water(NRW).			
-		Conduct training on designing and modification of water distribution network			
	2-7	Hold seminars and workshops on management of water distribution network and NRW		2 Office space and facilities for experts	
	4	The capacity of human resources development and personnel management are improved.	2 Equipment and materials	2 Office space and facilities for exports	
		Advise on human resources development plan. Advise on personnel management.	3 Trainings	3 Equipment	Pre-Conditions
- 1		Prepare training plan for technical staff and workers.	·		
1		Prepare training plan for managerial staff.			* Human resources development needs is considered important issue to improve COWASU's
-	3-5	Monitor the training (by COWASU) based on the training plan (3-3, 3-4)			capacity.
\vdash	3-6	Advise on data collection and management	4 Local cost	4 Necessary Information	
F	3-7	Hold seminars and workshops on human resources and personnel management			
	4	The capacity to response to the customer's need is improved.		5 Local cost	
Ī	4-1	Collect information on customer's needs.			
	4-2	Analyze results of questionnaire survey on customer satisfaction.			
	4-3	Prepare service improvement plan according to the results of activity(4-2).			
	4-4	Hold seminars and workshops for improvement of customer service.			
		Prepare public relation plan for COWASU.			2/2
Г	4-6	Carry out public relation activities.			



Tentative Plan of Operation

Project/Name: The Project on Human Resources Development for Water sector in the middle region of Vietnam

Nuration: February 2007~January 2009 (2vears)

Ver.1 (January 19, 2007)

Duration: February 2007~January 2009 (2years) 2009 2008 2007 2006 The capacity of water quality management is improved. Determine the condition for declaring "safe drinking water" 1-1 Prepare an action plan for declaring "safe drinking water". 1-2 Advise on procedure for acquisition of ISO17025. 1-3 Conduct training on water quality analysis for declaring "safe 1-4 drinking water" and ISO17025. Advise on water treatment technology and operation of 1-5 purification facilities Advise on water quality management plan. 1-6 Hold seminars and workshops on water quality analysis and 1-7 water treatment The capacity of water distribution network management is 2 improved. Advise to improve the management plan for water distribution 2-1 network. Advise on monitoring of water distribution (water pressure, 2-2 water flow and residual chlorine etc.). Advise on construction supervision. 2-3 Conduct training on pipe laying work. 2-4 Advise on reduction of Non-Revenue-Water(NRW). 2-5 Conduct training on designing and modification of water 2-6 distribution network Hold seminars and workshops on management of water 2-7 distribution network and NRW The capacity of human resources development and personnel 3 management are improved. Advise on human resources development plan. 3-1 Advise on personnel management. 3-2 Prepare training plan for technical staff and workers. 3-3 Prepare training plan for managerial staff. 3-4 Monitor the training(by COWASU) based on the training 3-5 plan(3-3,3-4) Advise on data collection and management 3-6 Hold seminars and workshops on human resources and personnel 3-7 management The capacity to response to the customer's need is improved. 4 Collect information on customer's needs. 4-1 Analyze results of questionnaire survey on customer 4-2 Prepare service improvement plan according to the results of 4-3 activity(4-2). Hold seminars and workshops for improvement of customer 4-4 Prepare public relation plan for COWASU. 4-5 Carry out public relation activities. 4-6



llal

Project Design Matrix (PDM₀)

プロジェクト名:ベトナム中部地区水道事業人材育成

対象地域: Thua Thien Hue省 (ベトナム中部)

期間:2007年初め~2009年初め (2年間)

ターゲットグループ: Hue 水道公社(COWASU) 職員

裨益者グループ: Thua Thien Hue 省住民 作成日: 2006 年 10 月 18 日

プロジェクトの要約	指標	指標データの入手方法	外部条件
(上位目標) COWASUの運営、管理能力が向上する	1. 安全な水宣言 2. 顧客満足度アンケートの結果	1. 年間報告書	
(プロジェクト目標) 安全な水宣言に向けた COWASU の能力が向上する	 アクションプラン活動目標の達成 水圧(都市部で1.0bar以上、農村部で0.5bar以上) 残留塩素(都市部で0.3mg/I以上、農村部で0.1mg/I以上) 	1. アクションプラン実施進 捗報告書2. 年間報告書	1. 上水道分野における政府の政策が、水道事業体に著しい変化をもたらさない。 2. 他ドナーの上水道分野における政策変更が、プロジェクト実施に悪影響を与えない。
(成 果) 1. 水質管理能力が向上する	1-1 ISO 17025の取得 1-2 MOHの基準に準拠する水質分析 1-3 浄水処理・施設運転にかかる手順書 1-4 水質管理計画 1-5 セミナー、ワークショップの開催回数	ISO 認定書 水質検査報告書 浄水処理・施設運転手順書 セミナー、ワークショップ 成果報告書	1. 水源の著しい汚染が起こらない
2. 配水管網管理能力が向上する	2-1 配水管網マップ(水圧、水流、残塩、その他) 2-2 セミナー受講者の80%以上が研修内容を理解	配水管網マップ 研修成果評価報告書	
3. 人材育成・人事管理能力が向上する	3-1 能力検定試験 (60%以上) 3-2 人事管理規則 3-3 研修教材 (数)	能力検定試験結果 人事管理基準書 研修教材	
4. 顧客ニーズへの対応能力が向上する	4-1 広報・住民啓蒙にかかる発行資料の数 4-2 顧客からのクレーム件数の減少 4-3 浄水場見学者数(1000人以上) 4-4 広報・住民啓発活動の実施実績	広報・住民啓蒙資料 クレーム記録 見学者実績記録 広報・住民啓蒙活動記録	

1-1	X_0,X_1	投	1. 研修を受けた COWASU 職員 が離職しない。	
	ISO17025 取得のための助言を行う 安全な水宣言及び ISO17025 取得に必要な水質分析に	日本側	ベトナム側	2. COWASU の人事異動がプロ
	かかる研修を実施する	 1. 専門家派遣	1. カウンターパート配置	ジェクト実施に悪影響を与
1-4	浄水処理技術及び浄水施設の運転技術にかかる助言 を行う	 1.1 チーフアドバイザー(配水管網)		えない。
1-5	水質管理計画の策定のための助言を行う			
1-6	水質分析及び浄水にかかるセミナー及びワークショップ	1.2 水質管理		
	を開催する	1.3 浄水技術		
2-1	配水管網管理計画の改善のための助言を行う	1.4 無取水低減	2. 専門家用執務室、施設	
2-2	配水管網モニタリング(水圧、水流、残塩、その他)にか	 1.5 人材育成計画	 3. 機材	
2-3	かる助言を行う 施工管理技術にかかる助言を行う	1.6 顧客サービス		
2-4	配管敷設技術にかかる研修を実施する	1.6 順各サービス	4. 必要データ・資料	
	無取水(NRW)の低減にかかる助言を行う		5. 現地コスト	
2-6 2-7	配水管網の設計及び更新にかかる研修を実施する 配水管網及び無取水の管理にかかるセミナー及びワ	2. 機材供与		前提条件
2-7	一クショップを開催する	 3. 研修の実施		人材育成ニーズは COWASU の
				能力向上に重要なことであ
	人材育成計画にかかる助言を行う 人事管理にかかる助言を行う	4. 現地コスト		る。
	大争官はこかがる助言を行う 技術職及び技能職を対象とした研修計画を作成する			
	管理職を対象とした研修計画を作成する			
	データ収集・管理にかかる助言を行う			
3-6	人材育成及び人事管理にかかるセミナー及びワークショップを開催する			
	コノノで開催する			
	顧客ニーズにかかる情報を収集する			
	顧客満足度アンケートの結果を分析する			
	4-2 の結果を基にサービス向上計画を策定する カスタマーサービス向上にかかるセミナー及びワークシ			
7-4	ョップを開催する			
	COWASU の広報・住民啓蒙計画を策定する			
4-6	広報・住民啓蒙計画を実施する			

Tentative Plan of Operation

Project Name: The Project on Human Resources Development for Water sector in the middle region of Vietnam Duration: January 2007~December 2008 (2years)

Prepa Prepared on October 18, 2006
2008 2009 2006

		2	2 i		20	-		10:11	10	1 2	2	4 5	200	-	0 .	10 1	2009					
1	水質管理能力が向上する	11.12		2	3 .	4 3	0	7 0	9	10 11	12	1 2	3	4 5	0	1 0	9	10 11	12	1 2	3	
	1 - 1 安全な水宣言のためのアクションプランを作成する		T				T	П	\dagger		T				\top	\prod	T		Ť	П	T	П
•	1 - 2 IS017025取得のための助言を行う		\dagger		Ħ		ŀ		\dagger							\prod	t	H	+	П		\prod
-	1 - 3 安全な水宣言及びISO17025取得に必要な水質分析にかかる研修を 実施する																		Ī			
•	1 - 4 浄水処理技術及び浄水施設の運転技術にかかる助言を行う				П																	
-	1 - 5 水質管理計画の策定のための助言を行う		\dagger		Ħ		T		┪	H						П	T	П	T	П		П
	1-6 水質分析及び浄水処理にかかるセミナー及びワークショップを開催 する				П							П					T		T			
2	配水管網管理能力が向上する		T		Ħ												Ť		Ť			
	2 - 1 配水管網管理計画の改善のための助言を行う																		T			
•	2 - 2 配水管網モニタリング(水圧、水量、残塩、その他)にかかる助 言を行う					Ī																
-	2 - 3 施工管理技術にかかる助言を行う				П		Ī									П		П	T	П	П	
	2 - 4 配管敷設技術にかかる研修を実施する																					
-	2 - 5 無収水 (NRW) の低減にかかる助言を行う																		T			
•	2 - 6 配水管網の設計及び更新にかかる研修を実施する																					
	2 - 7 配水管網及び無取水の管理にかかるセミナー及びワークショップを 開催する																		Ī			
3	人材育成・人事管理能力が向上する																		T			
	3-1 人材育成計画にかかる助言を行う								T								Ī		T			
	3 - 2 人事管理にかかる助言を行う																Ī		T	П	П	
-	3 - 3 技術職及び技能職を対象とした研修計画を作成する																T		T			
=	3 - 4 管理職を対象とした研修計画を作成する				П		Ī		T								T		T			
	3 - 5 データ収集・管理にかかる助言を行う				П									П					Ī	П		
•	3 - 6 人材育成及び人事管理にかかるセミナー及びワークショップを開催する																					
4	顧客ニーズへの対応能力が向上する	Ħ			П			П	Ī	T							Ī		T	Ħ		
	4 - 1 顧客ニーズにかかる情報を収集する		Ī		П				İ													
	4 - 2 顧客満足度アンケートの結果を分析する	I			П	T													T			
•	4 - 3 4-2の結果を基にサービス向上計画を策定する																					
	4 - 4 カスタマーサービス向上にかかるセミナー及びワークショップを 開催する		T			T	Ī	П				П					Γ		T	П		
	4 - 5 COWASUの広報・住民啓蒙計画を策定する	П		ľ			Ī	П	1		Ī						Ī	П	T			
	4 - 6 広報・住民啓蒙計画を実施する	П	T																			

DANH SÁCH THAM DỰ HỘI THÀO VỀ QUẨN LÝ CHU TRÌNH DỰ ÁN (PCM)

(02 ngày, ngày 11 & 12 tháng 10 năm 2006)

		CHÚC VỤ	GHI CHÚ
STT		CÔNG TÁC	GHICHU
	CƠ QUAN HỢP TÁC QUỐC TẾ N	NHẬT BẢN	
1	Mr.SHIONO Hiroshi	Trưởng đoàn	
2	Mr. YAMANAKA Junichi	hụ trách về vận hành và bão dưỡi	ng
3	Mr.HIRANO Junichi	Phụ trách kế hoạch hợp tác	
4	Mr.MOCHIJUKI Seimi	Tư vấn	
5	Mr.MINAMI	Tư vấn	
6	Thông dịch viên Việt Nhật	Thông dịch viên	CALL IN ACTION OF THE PROPERTY
7	Thông dịch viên Việt Nhật	Thông dịch viên	
	SỞ KẾ HOẠCH VÀ ĐẦU TƯ		
8	Lê Đình Khánh	Phó giám đốc	
9	Nguyễn Thị ánh Tuyết	Chuyên viên	
	SỞ XÂY DỰNG		
10	Nguyễn Viết Tiến	Giám đốc	
and the latest section of the latest section	C.TY TNHH X.DUNG VÀ CẤP N	ƯỚC HUẾ	
11	Trương Công Nam	Giám đốc	
12	Nguyễn Văn Nhàn	Phó giám Đốc C.Ty	
13	Nguyễn Mạnh Tuấn	Phó giám Đốc C.Ty	
	Phòng QLCL Nước		
14	Trần Thị Minh Tâm	Trưởng Phòng	
	Phòng Kế hoạch		
15	Nguyễn Khoa Hiền	Trưởng Phòng	
16	Mai Duy Tường	Trợ lý	
	Phòng Vi tính		
17	Trần Phúc Tài	Trưởng Phòng	
	Phòng Kỹ thuật		
18	Cao Huy Tường Minh	Trưởng Phòng	
	Phòng Thiết kế		3411
19	Trần Trọng Lân	Trưởng Phòng	
	Phòng Kinh doanh		
20	Lê Quang Khánh	Trưởng Phòng	
	Phòng QL XDCB		
21	Lê Anh Kim	Trưởng phòng	
-	Phòng QL &Kiểm định Đồng hồ		
22	Nguyễn Viết Hỷ	Trưởng Phòng	-
	Đội QL Mạng đường ống		

Danh sách CBCNV 11/10/2006

Trang 1

	220 21) môy	CHÚC VỤ	GHI CHÚ
STT	Họ VÀ TÊN	CÔNG TÁC	GHICHU
23	Trương Công Thiện	Đội Trưởng	
	Phòng Tổ chức hành chính		
24	Nguyễn ái Thọ	Trưởng phòng	
25	Dương Quí Dương	Phó phòng	
	HỘI PHỤ NỮ		
26	Lê Thị Minh Hương	Chuyên viên	
	ĐOÀN THANH NIÊN		
27	Trần Đức Hợp	Chuyên viên	
	HỘI NÔNG DÂN		
28	Nguyễn Thị Chiểu	Chủ tịch	
29	Trương Công Phúc	Chuyên viên	
	TRUNG TÂM Y TẾ DỰ PHÒNG		
30	Hà Thế Vinh	Phó giám đốc	F1 () 2 () () () () () () () () (
31	Ngô Hữu Hoàng	Chuyên viên	
nodwo) ettermentory	ĐÀI TRT	^	
32	Đại Đề	Phóng viên	
33	Tuấn Anh	Phóng viên	
	ĐÀI HTV		
34	Vĩnh Yên	Phóng viên	
35	Thanh Bình	Phóng viên	
	BÁO THỪA THIÊN HUẾ		
36	Minh Giang	Phóng viên	
	KHÁCH SẠN HƯƠNG GIANG		
37			
38			
	KHÁCH SẠN MORIN		
39			
40		amataige arranga feedir (1984)A) en et menu menu pagan (1994)A (1994)A (1994)A (1994)A (1994)A (1994)A (1994)A	
	NHÀ MÁY BEER HUẾ		
41		DESCRIPTION OF THE PROPERTY OF	
42			
	TRUNG TÂM NƯỚC SẠCH VÀ N.THĆ	ÒN HUẾ	
43		amentanis, tripi di adalmentatan uning suma nganan angkin panaman uning senjut sendunan	
44		na aning a (bi) kani dina mulitaran a ka anji sa biri ka biriki anin naka daliki kalin ka ka muli ka sa muli m	
	SỞ TÀI NGUYÊN MÔI TRÙƠNG		
45			
46			
	Tổng cộng:		

^{*} Phục vụ 4 người

Danh sách CBCNV 11/10/2006

Trang 2

安全な水を安定的・持続的に供給する能力が不足

			水質管理体	本制が不十分				配水管理	が不十分		総合長期開発計画の策定能力が不十分							顧客管理能力が不十分											
川上流	での水源管 ない	理が十分では、	浄水処	理が不十分	水質試験室の能力が不十分		配水管網の区 分化管理が未 実施	適正でない古 い配管が多く 残っている。	配水管網が適 正に設計され ていない	配水管網の水 圧の管理・調 節が未整備	長期インフラ整備計画が不十分				長期人材 開発計画 が不足	長期投資資 金の確保計 画が不足		サービス	能力が不十分		顧客の満り	足度が低い							
水源保がない	·護計画	水源汚染を 発見する設 備がない。	浄水技術が 遅れている	水処理は手順 書の通りに行 われていない	水質分析設備 が不足	検査結果の 報告が定期 になってい ない	壊れた配管の 修理が即に行 えない	地域によって 配水管の圧力 に差異がある	水圧計算をし ないで配水管 網を設計して いる。	GISによる管 網管理能力が 不足	既存水源の 利用計画が 不十分	用計画が 津小場の更新・拡流計画だ		配水管網整備 計画が不十分			給水メーター の設置に係る サービスがよ くない	給水に係るトラ ブルの対応能力 が不足	顧客に対する マーケティング 能力が不足	メーターの取替 え・移動に長い 時間ががかかる	により不条理な								
	リスク くされて い		水処理施設 の自動化が 十分でない	使用が適正で	水質試験室の (空調等の) 環境整備が不 十分		配水管の洗浄 計画が未作成	水使用ピーク 時に水圧が非 常に低くなる	配水管網の設 計技術が不適 正	配水管網にお ける水圧増強 設備が未整備	新しい水源 開発計画が 不足	施設の計画 能力を正確 に計算され ない	導入すべき水 処理技術を確 定できない	詳細都市計画 図が未作成			テーター設直 の申し込みが 多いのに十分 に対応できて	問題になった配 管の処理に長い 時間がかかる	(支店・営業所がな いため)住民は COWASU事務所へ行く のに長い時間がかか ス	家から遠く離れ た場所にメー ターが設置され る場合が多い	住民が自らの義 務と権利を十分 に理解していな い	COWASU内部の活 動調整が不十分							
工場廃 質を管 機関が	E水の水 で理する		浄水場から の汚染水の 処理が不十 分		試薬の管理が 不十分		配水管網のメ ンテナンス体 制が不十分	塩素の匂いが 残る	フェ省の都市・ 農村基礎インフ ラ整備計画が不 明瞭	配水管網にお ける塩素補充 設備が未整備	水源の量と 質が不十分						メーター設置 までに長い時 間がかかる	メーター、水漏 れ等の修理に時 間がかかる	メーター検針担 当職員に対して の住民意見聴取 が未実施	メータの設置場 所は街の景観を 崩す場合がある	水道利用率が低い								
			機械設備の 定期点検が 不十分		連続水質検査能力が不足			時々水の濁度 が高くなる	配水管の布設 工事の管理が 不十分	水質管理マッ ブが未作成							メーター設置 料金が一般住 民の収入に比 べて高い	住民の細かい配 管工事リクエス トへの対応能力 が不足	水道料金が合理 的に設定されて いない		広報・住民啓蒙 活動が不十分								
					散在水採取現 場で水質を即 に分析する能 力がない			配管の質がよ くない	配管の布設工 事に係る技術 能力が不足	水圧管理マッ ブが未作成							道路工事許可 を得るのが難 しい	ピーク時に対応 する職員が不足	水垣水の使用車 が少ない商店で も高い水道料金 が設定されてい										
								細い配管が広 く使っている	配管布設の資 材の質が不適 切								住民を代行し て新規設置の 申請手続きを 行っていない												
									配管布設工事 担当者の技術 能力が不足								関係機関の連 携・協力が不 +分												
<u>.</u>									配水支管が少ない																				

配水管理が不十 分

配水管網の区分化 管理が未実施 適正でない古い 配管が多く残っ ている。

配水管網が適正に 設計されていない 配水管網の水圧 の管理・調節が 未整備

壊れた配管の修理 が即に行えない 地域によって配 水管の圧力に差 異がある 水圧計算をしない で配水管網を設計 している。

GISによる管網 管理能力が不足

配水管の洗浄計画 が未作成 水使用ピーク時 に水圧が非常に 低くなる

配水管網の設計技 術が不適正 配水管網におけ る水圧増強設備 が未整備

配水管網のメンテナンス体制が不十分

塩素の匂いが残 ス フェ省の都市・農村 基礎インフラ整備計 画が不明瞭 配水管網におけ る塩素補充設備 が未整備

時々水の濁度が 高くなる 配水管の布設工事 の管理が不十分 水質管理マップ が未作成

配管の質がよく ない 配管の布設工事に 係る技術能力が不 足

水圧管理マップ が未作成

細い配管が広く 使っている 配管布設の資材の 質が不適切 テレメトリーシ ステムが未整備

配管布設工事担当 者の技術能力が不 ロ

配水支管が少ない

総合開発計画が不十分

長期インフラ整備計画が不十分

長期人材開発 計画が不足 長期投資資金 の確保計画が 不足

既存水源の利用計 画が不十分

浄水場の更新・拡張計画が不十分

配水管網整備計 画が不十分

新しい水源開発計 画が不足 施設の計画能力 を正確に計算さ れない 導入すべき水処 理技術を確定で きない

詳細都市計画図 が未作成

水源の量と質が不 十分

カスタマー管理

	サービス	がよくない		顧客の満足原	度が低い
給水メーターの設置 に係るサービスがよ くない	給水に係るトラブ ルの対応能力が不 足	顧客に対するマーケ ティング能力が不足	メーターの取替え・ 移動に長い時間がが かかる	住民の意識不足により 不条理なクレームもあ る	住民からの情報 を処理すること に時間がかかる
メーター設置の申し 込みが多いのに十分 に対応できていない	問題になった配管 の処理に長い時間 がかかる	(支店・営業所がない ため)住民はCOWASU事 務所へ行くのに長い時 間がかかる	家から遠く離れた場 所にメーターが設置 される場合が多い	住民が自らの義務と権 利を十分に理解してい ない	COWASU内部の活 動調整が不十分
メーター設置までに 長い時間がかかる	メーター、水漏れ 等の修理に時間が かかる	メーター検針担当職 員に対しての住民意 見聴取が未実施	メータの設置場所は 街の景観を崩す場合 がある	水道利用率が低い	
メーター設置料金が一般住民の収入に比べて高い	住民の細かい配管 エ事リクエストへ	水道料金が合理的に 設定されていない		広報・住民啓蒙活動が 不十分	

水道水の使用量が少ない商店でも高い水 道料金が設定されて いる

道路工事許可を得る のが難しい ピーク時に対応す る職員が不足

関係機関の連携・協 力が不十分

COWASUの運営・管理能力の向上

	員採用制度 の改善												(2	職員の打	支術・	経営能	力の向	上														31	教員待遇	制度の改	t善
					水質	管理及び	净水処	里の能力	の向上						配水	K管網の	管理制	能力のロ	句上				人材育	成・人	事管理	の能力	の向.	Ŀ	顧客管	理能力	の向上				
		水源管理					析技術				水質検査・管理の設備機材の改善				能力の向上			モデル給水区域の実施 能力 理能力 向上 の向上			施工管 理能力 の向上	人材部の能 力向上		管理職員の能力 向上		能力	技能職の 職員の能 力向上								
採用試験の実施	人材育成・訓練機関との連携で職員 を選定する	担当職員の配置	水質分析技術向上のための研修計画 の作成	浄水処理担当職員の能力向上	浄水処理技術に係る知識の向上	自動計測装置に係る知識の向上	計器の維持管理能力の向上	水源の水質汚染化事故の早期発見装 置の整備	水質管理・検査に必要な設備機材の 整備	国の基準に適合する水質試験室の整 備	配管網での水質検査のためのテレメ トリーシステム導入	QuangTellでSCADAを試験的に導入	GISによる配水管網の管理システムの 強化	配水管網の区分化と管理担当職員の責任明確化	4		地域に流量計を設置	漏水発見技術能力の向上	配管修理・管理担当者能力向上	配水管網の設計・管理に係るソフト ウエルの導入	メーター設置・配管布設の技術能力 の向上	人材部の職員補充	人材部の職員の能力向上	各専門分野に関するセミナーの開催	国内外の人材育成・訓練機関との連 携強化により職員の研修促進	先進国の水道会社での研修の増強	専門技術に係る研修・訓練の増強	職員の技能検査試験の定期化	顧客サービスとコミュニケーション に係る能力向上研修の実施	顧客の希望(要望)調査の定期実施	広報・住民啓蒙に係る能力向上研修 の実施	技術を持った専門家の優遇政策	能力のある職員の抜擢	職員の精神面と生活面への配慮	職場の労働環境・条件の改善への配 虚
<u>.</u> 2													遠隔地ネットワーク管理技術の向上 配管管理ソフトの導入と研修																			給料の能力主義の強化	職員の知識・業務実績の評価制度の導 入	担当分野ごとに職員採用試験の導入	

ベトナム中部地区水道人材開発計画事前調査 帰国報告会 (2006年11月2日)

PCM ワークショップの概要・結果

南海泰平 (評価分析/人材育成)

PCM ワークショップは、本プロジェクト関係者の主体的な参加により PDM 案を作成 することを目的とし、2006 年 10 月 11 日~12 日の二日間、COWASU(フエ市上水道公社)の会議室で開催された。ワークショップの日程、方法は概ね次の通りである。

- 全体説明、参加者分析 11 日午前中..... 参加者全員
- 問題分析 グループ分け
- 目的分析、プロジェクト選択 12 日午前中..... グループ分け
- PDM 案作成.....参加者全員

参加者は計 31 名、その内訳は、COWASU 職員(15 名)、フエ省計画投資局 DPI(2 名)、フエ省建設局(1名)、フエ省婦人の会(1名)、フエ省青年の会(1名)、フ エ小農民の会(2名)、フエ省保健・予防医療センター(2名)、及び JICA 調査団員・ 通訳(7名)であった。

ワークショップ実施結果について概略に述べると次の通りである。

- ・ ワークショップの一日目には、COWASU 職員の他、PPC の関連行政機関職員、市民 団体の代表が多数参加し、その一部は PCM ワークショップの議論に積極的に参加 した。
- ・ 問題分析の結果、コーア・プロブレムとして「COWASU は安全な水を安定的・持続的に給水する能力の不足」、中心問題として「①水質管理体制が不十分、②配水管理が不十分、③総合長期開発計画の策定能力が不十分、④顧客管理能力が不十分」が取り上げられた。
- ・ ワークショップで作った問題ツリーは幅広いツリーであった。参加者は、かなり 詳細に問題意識を持っていることが推察できる。どのように整理すればよいか参 加者一同が悩んでいたが、その後、問題ツリーの中の「人材育成、能力強化」に 密に関係のある問題だけを取り上げて、問題ツリーを作り直し、そしてこれに基 づいて目的ツリーを作ることにした。
- ・ 時間の制約で、PDM 案の中の「指標データ入手手段」、「外部条件」及び「前提条件」について討議することができず、「プロジェクトの要約」及び「指標」だけがまとめられた。
- ・ COWASU の若い職員数人が特に活発的に討議に参加し、ワークショップを引率したが、中高齢の職員は消極的であったことが認められた。
- ・ ワークショップの二日目には、参加者がほとんど COWASU 職員であり、関連機関 や市民団体等からの参加者の姿が見えなかった。COWASU 局長は、「ワークショッ プは彼らに具体的な利益をもたらしていないから関心が薄い」と解釈した。