

MINUTES OF MEETINGS BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
AUTHORITIES CONCERNED OF THE ROYAL GOVERNMENT OF CAMBODIA  
ON  
THE JAPANESE TECHNICAL COOPERATION FOR THE PROJECT ON  
THE CAPACITY BUILDING FOR WATER SUPPLY SYSTEM IN CAMBODIA  
PHASE 2

Japan International Cooperation Agency (hereinafter referred to as "JICA") and authorities concerned of the Royal Government of Cambodia (hereinafter referred to as "RGC") had a series of meetings for the purpose of working out the details of the technical cooperation concerning the Project on Capacity Building for Water Supply System in Cambodia phase 2 (hereinafter referred to as "the Project").

Both JICA and Cambodian authorities concerned agreed to make this Minutes of Meetings regarding the Project, in order to confirm the mutual understandings reached through the discussions as attached hereto.

Phnom Penh, May 2, 2007



Mr. YONEDA Kazuhiro  
Resident Representative,  
Japan International Cooperation Agency (JICA)  
Cambodia Office



H.E. Phork Sovanrith  
Secretary of State  
Ministry of Industry, Mines and Energy (MIME)

## THE ATTACHED DOCUMENT

### I. PROJECT DESIGN MATRIX

The Project Design Matrix (hereinafter referred to as "PDM") is commonly used in Japanese technical cooperation in order to manage and implement projects efficiently and effectively. It will also be used as reference for monitoring and evaluating the projects.

As a result of discussions, both sides agreed to apply the PDM as shown in ANNEX 1 to the Project with the following understanding.

1. The PDM is a logically designed matrix that defines the initial understanding of the framework of technical cooperation for the Project and indicates the logical steps toward the achievement of the Project purpose.
2. The PDM is to be flexibly revised according to the progress and achievements of the Project, upon agreement on the Joint Coordinating Committee (hereinafter referred to as "JCC").

### II. PLAN OF OPERATION

The Plan of Operation (hereinafter referred to as "PO") has been tentatively formulated according to the Record of Discussions. The PO for the whole period is shown in ANNEX 2.

The Annual Work Plan is to be drafted by the Cambodian counterparts and the Japanese experts and is to be submitted to the JCC. The activities are subject to change within the scope of the Record of Discussions, if the necessary arises during the course of the Project implementation.

### III. IMPORTANT AGREEMENTS

1. To avoid confusion, the Project will use the word both "checking" and "maintenance". Each definition is described as follows.

Checking: To judge whether the condition of each facility is good or bad, and to identify its reason if it is in bad condition.

Maintenance: To check the condition of each facility and fix it if it is in bad condition. Calling the maker will be an option if it is in very bad condition for the water supply system staffs to repair.

2. MIME will assign the below staffs of their own and the staffs of Targeted Provincial Waterworks (hereinafter referred to as "TPW") as a member for Project Support Team (hereinafter referred to as "PST").

(1) Mr. Meng Saktheara, MIME	Project Director
(2) Mr. An Bunhak, MIME	Project Manager (Output Manager for Output 0)
(3) Mr. Im Sophal, MIME	Output Manager & Specialist for Output 1
(4) Mr. Tang Sochettra, MIME	Output Manager & Specialist for Output 2
(5) Mr. Som Kunthea, MIME	Output Manager & Specialist for Output 3 & 4
(6) Mr. En Dara, MIME	Specialist for Output 3 & 4

(7) Mr. Chiev Channy, MIME	Output Manager & Specialist for Output 5
(8) Mr. Mou Phan, MIME	Specialist for Output 5
(9) Mr. Hoy Sokpheap, MIME	Specialist for Output 5
(10) Mr. Meak Chhavannarey, MIME	Specialist for Output 5
(11) Mr. Bun Chankong, KAMPOT	Specialist for Output 5
(12) Mr. Vandy Sokandyka, MIME	Administrative Assistant for Output 0
(13) Mr. Sieng Seng Putea, PURSAT	Specialist for Output 1 & 2
(14) Ms. Tith Linda, BATTAMBONG	Specialist for Output 1 & 2
(15) Mr. Tuy Voeu, BATTAMBONG	Specialist for Output 5

3. JICA will bear the payment to Phnom Penh Water Supply Authority (hereinafter referred to as "PPWSA") for the training course at PPWSA.
4. Cambodian side will bear the payment of Per Diem, Accommodation, and Transportation Expenses for each trainee (Provincial Water Work staff) who participate the training course at PPWSA.
5. Cambodian side will bear the payment of Per Diem, Accommodation, and Transportation Expenses for each trainee (Provincial Water Work staff) when implementing Provincial Training and OJT.
6. MIME requested to JICA for the payment of Per Diem, Accommodation, and Transportation Expenses for MIME staffs when implementing Provincial Training and OJT. MIME also explained that once the Cambodia Water Work Association (CWWA) had been established, CWWA will bear all the payment.
7. It is expected that CWWA will be established during the first half of the Project.
8. Each manual will be made and finalized by Cambodian side. Both sides understand clearly that JICA experts' role is only to give some advice when making the manuals.
9. To ensure the sustainability in improving the water supply system in Cambodia towards the future, it is highly expected that Cambodian side consider the following 2 (two) options seriously and take the necessary action.
  - (1) Strengthen the cooperation among Department of Portable Water Supply (DPWS)/MIME, Phnom Penh Water Supply Authority (PPWSA), and the 8 TPWs with regulatory bases.
  - (2) Strengthen the function of the Management Assistant Team (MAT) that has already been established by the initiative of DPWS/MIME.

#### IV. STRUCTURE OF PROJECT IMPLEMENTATION

The Organization Chart of Project Implementation is given in ANNEX 3.

ANNEX 1	PROJECT DESIGN MATRIX (PDM)
ANNEX 2	PLAN OF OPERATION (PO)
ANNEX 3	ORGANIZATION CHART OF PROJECT IMPLEMENTATION

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ANNEX 1

Tentative PDM of the Project on Capacity Building for Water Supply S in Cambodia (Phase 2)

Executing Agency: Portable Water Supply Department (DPWS), Ministry of Industry, Mines and Energy (MIME), Government of Cambodia  
 Project Period: May 2007-April 2011  
 Project Beneficiaries: <Direct Beneficiaries> Technical staff of target provincial waterworks (TPWs) in Siem Riap (SIEM), Battambang (BTB), Shihanoukville (SHV), Kampot (KP), Kampong Cham (KCM), Kampong Thom (KTM), Pursat (PUR) and Svay Rieng (SVR)-88 persons in total (at the beginning of the Project), technical staff of PWSD of MIME -16 persons (at the beginning of the Project) <Indirect Beneficiaries> Local people living in the water supply districts of the 8 TPWs- approx. 260,000 persons (as per the year 2003)  
 Project Areas: SIEM, BTB, SHV, KP, KCM, KTM, PUR, SVR, and Phnom Penh (PP).

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p><b>Super Goal</b> Access to safe water will increase in urban area.</p>	<p>Access to safe water in urban area will increase to 80% by the year 2015.</p>	<p>Millennium Development Goals(MDGs) reports</p>	
<p><b>Overall Goal</b> Capacity to operate and maintain water supply facilities will be improved in urban areas of 14 cities, which participate in "National Conference on Public Water Utilities in the Kingdom of Cambodia</p>	<p>(a) Turbidity, pH, and residual chlorine of the treated water distributed by 8TPWs always satisfies the Cambodian National Drinking Water Quality Standard; and Iron of the treated water distributed by 3 TPWs (i.e. Siem Reap, Sihanoukville, Svay Rieng) always satisfies the Standard.                      (b) Turbidity and pH of the treated water distributed by the other 5 TPWs always satisfies the Cambodian National Drinking Water Quality Standard through technical support from Management Assistant Team (MAT) of DPWS/MIME, including the PST specialists of the Project.</p>	<p>(a) &amp; (b) Review of an annual report on the results of water quality analysis of each TPW</p>	<p>1. Basic national water policy will not change                      2. Necessary funds will be secured</p>
<p><b>Project Purpose</b> Capacity to operate and maintain water supply facilities will be improved in targeted provincial waterworks (TPWs), utilizing the experiences accumulated during the Phase 1 Project.</p>	<p>(a) Technical staff of 8 TPWs (88 persons in total at the beginning of the Project) able to operate and maintain their respective water supply facilities based on the manuals prepared and/or improved by the Project by the end of the Project.                      (b) Turbidity, pH, and residual chlorine of the treated water distributed by 8TPWs always satisfies the Cambodian National Drinking Water Quality Standard; and Iron of the treated water distributed by 3 TPWs (i.e. Siem Reap, Sihanoukville, Svay Rieng) always satisfies the Standard by the end of the Project.                      (c) Treated water produced in accordance with the production plan at each TPW daily by the end of the Project.                      (d) Optimum distributed pressure will always be kept at each TPW by the end of the Project.</p>	<p>(a)-(d)                      Review of baseline survey reports                      In addition:                      (a) Skill evaluation by PST                      (b)&amp;(c) Operation reports for treatment plant at each TPW</p>	<p>1. Government support for Management Assistant Team (MAT) will not be changed                      2. Neither the Project Staff nor PST specialists will not leave the office                      3. Contamination of original sources of water will not take place                      4. Severe natural disaster will not occur                      5. Necessary funds will be secured</p>

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Tentative PDM of the Project on Capacity Building for Water Supply System in Cambodia (Phase 2)

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<p><b>Output 1:</b> Capacity to analyze the water quality will be improved in the TPWs</p>	<p>1a: Items for analysis necessary for each TPW analyzed at their prescribed frequency, using the manual prepared by the Project. 1b: The results of water quality analysis integrated into an annual report to MIMÉ (in Khmer) 1c: All the relevant staff at each TPW will be able to analyze water quality based on the manuals at each TPW (13 persons in total at the beginning of the Project)</p> <p>2a: A report of water treatment prepared daily in a prescribed format at each TPW 2b: Target value for turbidity of the unfiltered settled water set by each TPW always satisfied after the end of OJT at each TPW 2c: Target value for residual chlorine of the treated water set by each TPW always satisfied after the end of OJT at each TPW 2d: The filter of each TPW operated with the target values for filtration speed and resistance set by each TPW always satisfied after the end of OJT at each TPW 2e: A manual on water treatment, including five kinds of individual manuals, prepared at each TPW by the end of the Project 2f: All the relevant staff at each TPW will become able to carry out activities related to water treatment based on the manuals by the end of the Project (42 persons in total at the beginning of the Project)</p>	<p>1a: Review of Project Reports and manuals, skill evaluation by Japanese Experts 1b: Review of Project Reports and Annual Reports 1c: Skill evaluation by PST 2a-2d: Review of Project Reports 2e: Review of manuals 2f: Skill evaluation by PST</p>	<p>1. Project Staff from TPWs will not leave the office 2. Contamination of original sources of water will not take place 3. Severe natural disaster will not occur</p>
<p><b>Output 3:</b> Capacity for operation and routine maintenance of electrical facilities will be improved in the TPWs</p>	<p>3a: A manual on operation and routine maintenance of electric facilities, including four kinds of individual manuals, prepared at each TPW by the end of the Project. 3b: Electric facilities operated based on the manual at each TPW. 3c: Regular check of electric facilities conducted based on the manual at each TPW. 3d: At least one relevant staff able to detect out-of-ordinary cases and to identify their causes at each TPW 3e: Contact with the relevant manufacturer established at each TPW 3f: All the relevant staff at each TPW will be able to carry out activities related to operation and routine maintenance based on the manuals (19 persons in total at the beginning of the Project)</p>	<p>3a: Review of manuals 3b: Review of project reports 3c: Review of project reports, checking sheet, and record of routine maintenance 3d: Skill evaluation by Japanese Experts 3e: Review of list of relevant manufacturers 3f: Skill evaluation by PST 4a: Review of manuals 4b: Review of project reports 4c: Review of project reports, checking sheet, and record of routine maintenance 4d: Skill evaluation by Japanese Experts 4e: Review of contact list of relevant manufacturers at each TPW 4f: Skill evaluation by PST 5a-5e: Review of Project Reports</p>	
<p><b>Output 4:</b> Capacity for routine maintenance of mechanical facilities will be improved in the TPWs</p>	<p>4a: A manual on routine maintenance of mechanical facilities, including three kinds of individual manuals, prepared at each TPW by the end of the Project. 4b: Mechanical facilities operated based on the manual at each TPW. 4c: Results of regular check recorded based on the manual at each TPW. 4d: At least one relevant staff able to detect out-of-ordinary cases and to identify their causes at each TPW 4e: Contact with the relevant manufacturer established at each TPW 4f: All the relevant staff at each TPW will be able to carry out activities related to operation and routine maintenance based on the manuals (38 persons in total at the beginning of the Project)</p>		
<p><b>Output 5:</b> Capacity to maintain water distribution facilities will be improved in the TPWs</p>	<p>5a: A replacement plan for old distribution pipes (including service pipes and water meter) prepared for each TPW 5b: One-kilometer of pipeline constructed at each TPW 5c: Pipeline constructed at the exact location (<math>\pm 10\%</math>) as per the construction drawing at each TPW and its water-resistant pressure always stands at 7.5kgf/cm<sup>2</sup> 5d: A leakage survey carried out twice a year and the number of detected cases increased as compared to the one before the Project 5e: A illegal connection survey carried out twice a year and the number of detected cases increased as compared to the one before the Project 5f: All the relevant staff at each TPW will be able to carry out activities related to maintenance by themselves (26 persons in total at the beginning of the Project)</p>	<p>In addition 5a: Review of replacement plans 5c: Comparison of design and completion drawings, review of a report on pressure test at each TPW 5d: Review of a report on leakage survey at each TPW 5e: Review of a report on illegal connection survey at each TPW 5f: Skill evaluation by PST 0a-0e</p>	
<p><b>Output 0:</b> The Project will be managed appropriately by the Project Support Team (PST)</p>	<p>0a: PST established at the beginning of the Project 0b: A baseline survey report prepared within X months after the commencement of the Project 0c: Tentative PDM and Tentative PO reviewed and finalized within X months after the commencement of the Project 0d: Overall APO as well as APOs for TPWs prepared within X months after the commencement of the Project 0e: Progress of the Project monitored based on the PO/APO (through PST-general meeting, PST-general meeting, Project meeting, and JCC)</p>	<p>Review of project reports</p>	

Project Support Team (the PST) consists of Specialists (i.e. Project Manager, Output Managers, and selected technical staff of DPWS/MIME) as well as selected technical staff of TPWs, who are also members of Management Assistant Team of MIMÉ) and Japanese Advisors (i.e. Japanese Experts and Cambodian Experts from PPWSA). For a tentative organization chart of PST, see ANNEX 3

Tentative PDM of the  Project on Capacity Building for Water Supply System in Cambodia (Phase 2)

Activities	Inputs	Project staff from TPWs will not leave the office
<p>1.1 Organize a general training program at PPWSA and three types (for ADB, JPN, WB facilities) of provincial training programs regarding water quality analysis for the relevant staff of the TPWs annually</p> <p>1.2 Carry out water quality analysis at each TPW, using the manuals prepared or improved in Activity 1.1</p> <p>1.3 Prepare an annual report on the results of water quality analysis at each TPW for submission to DPWS/MIME</p> <p>2.1 Introduce or improve a daily report of water treatment at each TPW</p> <p>2.2 Introduce or improve water production based on the water demand at each TPW</p> <p>2.3 Introduce or improve techniques concerning chemical dosing to control turbidity and pH at 6 TPW (i.e. PUR, BTB, SHV, KPT, KTM, and SIEM).</p> <p>2.4 Improve chlorination control in the water treatment process at each TPW</p> <p>2.5 Improve filter operation and maintenance at 7 TPWs, where filters exist (i.e. PUR, BTB, SHV, KPT, KTM, SIEM and SVR)</p> <p>2.6 Improve sedimentation basin maintenance at 6TPWs, where sedimentation basins exist (i.e. PUR, BTB, SHV, KPT, KTM, and SIEM).</p> <p>2.7 Improve operation of pumping system at each TPW</p> <p>2.8 Prepare a manual on water treatment at each TPW, integrating 5 kinds of manuals prepared or improved through Activities 2.3-2.7</p> <p>3.1 Organize group training programs regarding operation and routine maintenance of electric facilities (i.e. generator, power receiving and distribution installment, motor unit, instrumentation equipment) at PPWSA for the relevant staff of the TPWs</p> <p>3.2 Prepare simple drawings for electric system</p> <p>3.3 Introduce or improve operation of the electrical facilities at each TPW (Note: The electrical facilities covered by the Activity 3.3 are only generator and power receiving and distribution installment)</p> <p>3.4 Introduce or improve routine maintenance of the electrical facilities at each TPW</p> <p>3.5 Prepare a manual on operation and routine maintenance of the electrical facilities at each TPW, integrating 4 kinds of manuals prepared or improved through Activities 3.3 and 3.4</p> <p>4.1 Organize group training programs regarding routine maintenance of mechanical facilities (i.e. facilities for chlorine dosing, chemical dosing, and pumping system) at PPWSA for the relevant staff of the TPWs</p> <p>4.2 Introduce or improve routine maintenance of the mechanical facilities at each TPW</p> <p>4.3 Prepare a manual on routine maintenance of the mechanical facilities for each TPW, integrating 3 kinds of manuals prepared or improved through Activity 4.2</p> <p>5.1 Develop a plan for pipeline replacement (including identification of a pilot zone) for each TPW.</p> <p>5.2 Organize a group training program regarding management of pipe replacement work at PPWSA for the relevant staff of the TPWs annually</p> <p>5.3 Carry out pipe replacement works in the pilot zone of each TPW</p> <p>5.4 Organize a group training program regarding measures against UFW at PPWSA for the relevant staff of the TPWs annually</p> <p>5.5 Introduce or improve measures against UFW at each TPW</p> <p>0.1 Establish the Project Support Team (PST)</p> <p>0.2 Conduct a monitoring (baseline) survey to assess current capacity of 8 TPWs for operation and maintenance of their water facilities, including information related to the Objectively Verifiable Indicators</p> <p>0.3 Manage the Project based on the PDM and the PO</p> <p>0.4 Strengthen coordination with the relevant organizations, including NGOs</p> <p>0.5 Carry out an end line survey, as needed</p>	<p>&lt;Japanese side&gt;</p> <p>(1) Dispatch of Japanese Experts</p> <p>(a) Long-term experts in the fields of Chief Advisor and Water Treatment</p> <p>(b) Short-term experts in the fields of Water Quality Analysis, Water Treatment, Electrical Facilities, Mechanical Facilities, and Water Distribution Facilities</p> <p>(2) Provision of Training of Cambodian personnel in Japan in the fields of Water Quality Analysis, Electrical Facilities, Mechanical Facilities, and Water Distribution Facilities</p> <p>(3) Provision of Machinery and Equipment</p> <p>Necessary items will be provided (See ANNEXIII of R/D)</p> <p>(4) Overseas Activity Cost</p> <p>(a) Expenses related to Cambodian short-term experts for provincial group training in the fields of Water Quality Analysis</p> <p>(b) Expenses related to organization of training at PPWSA</p> <p>(c) Expenses related to Technical Assistants</p> <p>(d) Other necessary expenses</p> <p>&lt;Cambodian side&gt;</p> <p>(1) Allocation of Project Personnel</p> <p>(a) Project Director (1 person) from MIME</p> <p>(b) Specialists for PST selected from MAT (16 in total)</p> <p>1) Project Manager from MIME(1)</p> <p>2) Output Managers cum specialists from MIME (4 in total); Output 1(1), Output 2(1), Output 3&amp;4 (1), and Output 5 (1)</p> <p>3) Other specialists from MIME (6 in total); Output 3 &amp;4 (1), Output 5(5)</p> <p>4) Short-term specialists from TPWs (4 in total); Output 1&amp;2 (2) and Output 5 (2)</p> <p>5) Administrative Assistant from MIME (1)</p> <p>(c) Project staff from TPWs in the fields of Water Quality Analysis, Water Treatment, Electrical &amp; Mechanical Facilities, and Water Distribution Facilities</p> <p>(2) Provision of land and buildings and facilities necessary for the Project Activities, including office space for the Chief Advisor</p> <p>(3) Local cost necessary for implementation of the Activities</p>	<p>1. Project staff from TPWs will not leave the office</p> <p>2. Contamination of original sources of water will not take place</p> <p>3. Severe natural disaster will not occur</p> <p><b>Pre-Conditions</b></p> <p>1. Cambodian Project Personnel is appointed</p> <p>2. MOU between JICA and PPWSA regarding Cambodian Experts and training at PPWSA is signed</p>

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Tentative PO

Activity items	Expected outcome	Schedule												Person in charge	Implementers	Other major inputs		Remarks	
		CY 2007		CY 2008		CY 2009		CY 2010		CY 2011		Japanese side	Cambodian side						
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct					Nov	Dec		
1.2 Carry out water quality analysis at each TPW, using the manual prepared or improved in the Activity 1.1																			Activity 1.2 at each TPW would be monitored by PST specialists (WQA) and LE(WT) as needed
1.2.1 Carry out water quality analysis based on the manual at each TPW	WQA conducted based on the manuals at each TPW																		PST-MIME-WQA
1.2.2 Modify the manual as needed at each TPW	Manual modified as needed																		PST-TPW sp <WQA>
1.3 Prepare an annual report on the results of WQA at each TPW for submission to DPWS/MIME	Annual report submitted to MIME for each TPW																		LE(WT)
<b>Output 2: Capacity to treat water will be improved in the TPWs</b>																			ditto
2.1 Introduce or improve a daily report of water treatment at each TPW																			TPW staff <WQA>
2.1.1 Develop or improve a format for the report for each TPW	(a) A format prepared at X TPWs (???) (b) A format improved at X TPWs (???)																		ditto
2.1.2 Prepare a daily report based on the above format at each TPW	A daily report prepared in a prescribed format at each TPW																		TPW staff <WT>
2.2 Introduce or improve water production based on the water demand at each TPW																			ditto
2.2.1 Decide hours of production for each TPW based on water demand and capacity of the facilities at each TPW	Hours of production decided at each TPW																		LE<WT>
2.2.2 Decide a model for water intake and supply plan corresponding to water demand and the hours of water production at each TPW	Model procedure sheet prepared at each TPW																		ditto
2.2.3 Decide a rotating shift system based on the above model at each TPW	A rotating shift system decided at each TPW																		TPW staff <WT>
2.2.4 Prepare a daily plan for water intake and supply based on the water demand every morning	A daily plan prepared at each TPW																		ditto
2.2.5 Produce water in accordance with the plan daily	Water produced in accordance with the plan at each TPW																		ditto

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Tentative PO

Activity items	Expected solutions	Schedule												Person in charge	Implementation	Other major inputs		Remarks	
		CY 2007		CY 2008		CY 2009		CY 2010		CY 2011		Japanese side	Cambodian side						
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct					Nov	Dec		
3.5	A manual for operation and routine maintenance prepared for each TPW																		
Output 4: Capacity for operation and routine maintenance of mechanical facilities will be improved in the TPWs																			
4.1	Organize group training programs regarding routine maintenance of mechanical facilities (i.e. facilities for chlorine dosing, chemical dosing, and pumping system) for the relevant staff of the TPWs																		
4.1.1	Prepare a training program for each OJT																		
4.1.2	Prepare training materials																		
4.1.3	Implement a training program at PPWSA																		
4.1.4	Evaluate the training program																		
4.2	Prepare or improve the technical materials necessary for operation and routine maintenance of the electric facilities at each TPW																		
4.2.1	Prepare or improve a piping diagram for each TPW																		
4.2.2	Prepare or improve specifications for the equipment and facilities																		
4.3	Introduce or improve routine maintenance of mechanical facilities at each TPW																		
4.3.1	Acquire appropriate methods for routine maintenance through OJT at each TPW																		

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Tentative PO

Activity Items	Expected outcome	Schedule												Person in charge	Implementers	Other major inputs		Remarks	
		CY 2007		CY 2008		CY 2009		CY 2010		CY 2011		Substitute aids	Construction aids						
		Apr- Jun	Jul- Sep	Oct- Dec	Jan- Mar	Apr- Jun	Jul- Sep	Oct- Dec	Jan- Mar	Apr- Jun	Jul- Sep					Oct- Dec	Jan- Mar		
5.2.1 Prepare a plan for training program for each OJT	A one-week training program prepared annually	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	SE <Plan>Pipe & UFW Training *OAC for group training at PPWSA	*Group training would be subcontracted to PPWSA *Target trainees for each training would be the ones from TPWs, where OJT is scheduled subsequently
5.2.2 Prepare training materials	Training materials prepared before the training implemented	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	ditto	ditto
5.2.3 Implement a training program at PPWSA	A program implemented prior to the scheduled construction for pipe replacement	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	ditto	Travel cost and per diem for trainees
5.2.4 Evaluate the training program	An evaluation report prepared for each training	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	ditto	ditto
5.3 Carry out pipe replacement works in the pilot zone of each TPW	/	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	PSTsp-MIME <Pipe>	/	/
5.3.1 Apply for a permit for road excavation of PZ	A permit obtained by the end of calendar year	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	TPW Director	*TPW staff <Pipe>	/
5.3.2 Carry out construction for pipe replacement at PZ of each TPW	One kilometer of pipes replaced in the PZ of each TPW	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	PSTsp-MIME <Pipe>	ditto	*SE <Plan>Pipe & UFW Training *OAC for PPWSA-E <Pipe> *PSTsp-MIME (Pipe) *Heavy machine, pipe materials
5.4 Organize a group training program regarding measures against UFW for the relevant staff of the TPWs annually	/	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	PSTsp-MIME <UFW>	/	/
5.4.1 Prepare a general training program annually	A one-week general training program prepared annually	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	*PSTsp-MIME <UFW>	*SE <Pipe Replacement> UFW Training *OAC for group training at PPWSA
5.4.2 Prepare training materials	Training materials prepared before the training implemented	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	ditto	ditto
5.4.3 Implement a training program annually	A program implemented at PPWSA annually	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	ditto	Travel cost and per diem for trainees
5.4.4 Evaluate the training program	An evaluation report prepared for each training	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ditto	ditto	ditto
5.5 Introduce or improve measures against UFW at each TPW	/	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	PSTsp-MIME <UFW>	/	/

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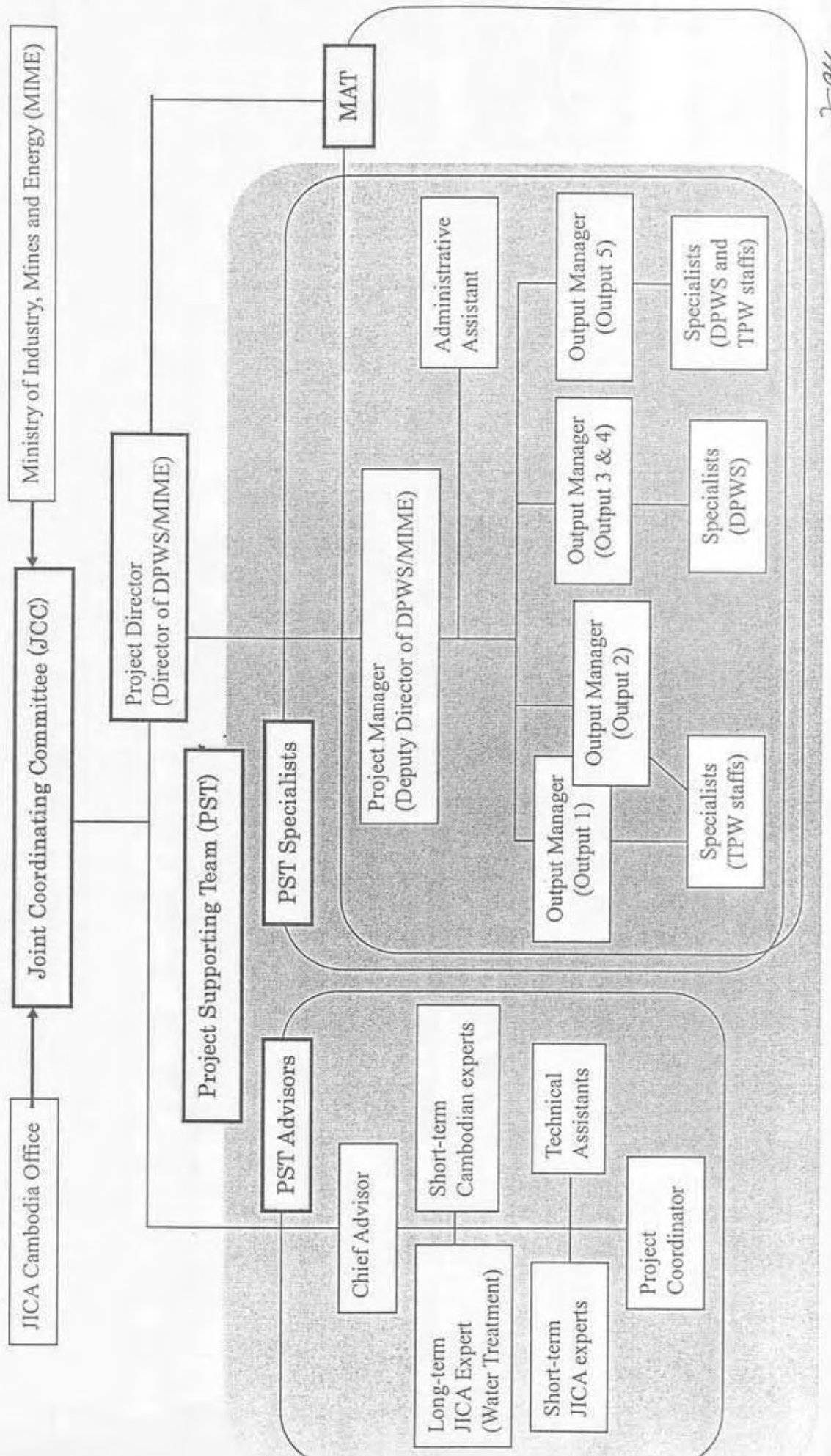
Tentative PO

Activity Items	Expected outcome	Schedule												Person in charge	Implementors	Other major inputs		Remarks	
		CY 2007		CY 2008		CY 2009		CY 2010		CY 2011		Japanese side	Cambodian side						
		Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep					Oct-Dec			
c) Organize a Project Meeting, consisting of PST members and TPW Directors, regularly	(a) A meeting held quarterly (b) Minutes prepared for each meeting (c) Issues identified and addressed	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	PST advisors		
d) Prepare a quarterly progress report to NIME and JICA (in English)	A quarterly report submitted to NIME and JICA in time	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	ditto		
e) Prepare an Annual Report (in English) for review by JCC	An annual report prepared at least X weeks before each JCC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	ditto		
f) Prepare a draft APO for the coming year	A draft APO prepared at least X weeks before each JCC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	ditto		
g) Prepare a plan for modification of PDM and/or PO as needed	A plan prepared and submitted to JCC for review as needed	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	ditto		
h) Organize a JCC meeting at least once a year	(a) JCC consulted in the first quarter of the 1st year. (b) A JCC meeting held at least once a year	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Project Manager		
i) Prepare for Mid-term and Terminal Joint Evaluation	Relevant documents prepared in advance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Project Manager		
0.4 Strengthen coordination with other relevant organizations, including NGOs	(a) A list of relevant organizations developed (b) Contact with these organizations established	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Project Manager		
0.5 Carry out an end line survey, as needed		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Project Manager		The need and TOR of an end line survey would be discussed during the Mid-term Evaluation

AN

ANNEX 3

ORGANIZATION CHART OF THE PROJECT IMPLEMENTATION



AW

2007年2月8日（月）9:30～ EK SONN CHAN PPWSA 総裁との面談メモ

場所：PPWSA 総裁室

参加者：EK SONN CHAN 総裁、VISOTH 総裁補佐、久保田専門家、小野

当方より、別紙に基づき、フェーズ 2 プロジェクトの準備状況と本日の面談の主旨について説明した。以下、その後の議論を記す。

#### MOU の署名者について

先方) PPWSA は公社 (autonomous body) なので、MIME による witness は不要。JICA との間で署名した後に、情報提供として、MIME に対してコピーを送付すれば十分。

当方) 了解した。

#### PPWSA スタッフの JICA プロジェクトへの投入について

先方) 分野については問題ない。各スタッフの TOR については、久保田専門家に任せる。

1 週間程度の研修であるとの説明だったが、なぜ数ヶ月の派遣期間が必要となるのか？

当方) 研修の準備と研修後の評価も含めての期間でそのくらい必要と考えている。

先方) 派遣期間については、了解。支払いについては、フェーズ 1 終了間際に久保田専門家と話したことを覚えている。その金額が PPWSA 側から JICA 側へのプロポーザルだ。

当方) 一つの参考例が、シェムリアップ水道に VISOTH 総裁補佐がアドバイザーとして派遣されたときの PPWSA とシェムリアップ水道との間での契約金額だ (毎月 2 週間の派遣期間で 1,500US\$)。しかし、今回投入して頂くスタッフは VISOTH 氏ほどのレベルではないので、同等の金額は支払えないことを了解してほしい。

先方) 了解した。いずれにせよ、JICA 側からの提示額を待つことにする。

#### 世銀との関係について

先方) 10 億 Riel 以上の予算要求については、閣僚評議会 (COM) の承認を得る必要がある。PPWSA が必要な機材購入 (管路等) は全てその上限額を超えてしまう。しかし、COM の承認などを待っていては何もできなくなる。よって、国内の原則に縛られないということで、世銀からの資金提供を活用している。

当方) 世銀から提供された資金が地方水道への協力に使われることはあるのか？

先方) 今のところ、それはない。しかし、PPWSA は頼まれれば地方水道に対して必要な資金提供 (低利子で) はいつでも行える状況にある。ただ、地方水道や MIME が PPWSA を頼ってこないだけだ。彼らは最近、中国の借款を多用しているので心配している。

最後に、「我々は JICA の良きパートナーとしてフェーズ 2 プロジェクトに関わると決めているので、そんなに心配するな」との言葉を頂いた。 以上

2007年2月12日(月) 10:50～

PORTHONG コンボン・トム水道局長他2名との面談メモ

場所：コンボン・トム水道局(ADBによる協力) 局長室

参加者：PORTHONG 局長他2名、VIBOL、小野(文責)

当方より、本日の浄水場訪問の目的を別紙の通り説明した。

次の点について確認を行い、先方より以下の回答を得た。

Q1. コンボン・トムにおける DIME の役割や如何に？

A1. 基本的に当浄水場の全ての出費について、DIME の承認を必要とする。ただし、operation & production に関する緊急的な修理については、事後報告も許されている。

Q2. 浄水場のパソコン及びカメラ(デジカメ)の保有状況や如何に？

A2. パソコン計4台、デジカメを計1台、保有している。設置場所は以下の通り。

局長室 パソコン1台、デジカメ1台

Accounting パソコン1台

Billing パソコン1台(毎月の請求書管理用)

Workshop (New Connection) パソコン1台(新規接続の契約(receipt)用)

Q3. そうすると、技術スタッフはパソコンを日常は使用していないということか？

A3. その通り。

Q4. 何か現在までに運転上の問題点は起こっているか？

A4. ADB の協力により供与された機材をスタッフが使いこなしていない。請負者研修が行われたが、研修期間が短かった上にその内容にスタッフが付いていけなかった。マニュアルは、英語とクメール語が入り混じったものが作成されている。自分のスタッフの低い能力も研修効果が十分に現れていない一因であると思っている。

面談後、各施設を視察した(写真は別紙の通り)。また、浄水場で処理された水を DPD 法により検査してみたが、残塩は検出されなかった。PORTHONG 局長によると、住民から塩素の匂いに対するクレームが殺到し、投入量を減らした経緯があるとのこと。

以上

2007年2月12日(月) 14:30～

SOMBATH コンボン・トム DIME 局長との面談メモ

場所：コンボン・トム水道局 (ADBによる協力) 局長室

参加者：SOMBATH コンボン・トム DIME 局長、PORTHONG 水道局長、VIBOL、小野

当方より、DIME との面談の主旨について説明した。

以下、その後の議論を記す。

#### 他の2浄水場について

先方) コンボン・トムには浄水場が他に2つある。ICSが郡(district)に建設している。1つは既に完成して運転を開始しており、もう1つは建設中である。JICAによるCapacity Buildingはぜひこれらもう2つの浄水場についても行ってほしい。ICSの専門家が派遣されてはいるが、能力不足のようだ。いずれにせよ、各浄水場スタッフの人材不足は重大な問題と認識している。

当方) JICAプロジェクトはICSの建設した浄水場については、ターゲットとして想定していなかった。どのようなことが可能か、専門家とも相談してみたい。多くは望まないでほしい。

先方) 了解した。多少の手助けで結構だ。

#### DIMEの権限について

コンボン・トム水道が独自で徴収した分の使い道については、とやかく言うつもりはない。

DIMEの仕事は、その承認の書類作成ということである。

以前は、Provinceの収入は全てMEFに吸い上げられ、使用したい金額についていちいちMEFに対して申請していた。しかし、現在は、MEFにProvinceの収入分の金額を書類に書いて送るだけでよく、金はProvinceに留まり、Provinceの活動に使用している。

#### 水道職員の給与値上げについて

水道局の運営が上手くいき、利益が上がれば、職員の給与を増やすことも考えたい。

以上

