

ANNEX 23
PCM WORKSHOP
FOR TECHNOLOGY TRANSFER

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1 Objective of PCM Workshop for Technology Transfer

As one of the objectives of the study, technology transfer to the counterpart organizations is given a great concern. For the formulation of a plan for technology transfer, the PCM (Project Cycle Management) methodology is utilized. The objective of the PCM workshop is to develop a plan for technology transfer under the study, identifying and analyzing current problems and the needs of the counterpart organizations in a participatory manner. Through the participatory analysis, the plan for technology transfer is further developed in a project format called the Project Design Matrix (PDM), which shows the objectives, activities, inputs and other components of the plan, together with their logical interrelations.

2 The First PCM Workshop

2.1 Date and Venue of PCM Workshop

The first PCM workshop was held on 21st March 2003 in the meeting room of the MCTPC after the explanation of the Inception Report by the study.

22 staff members from counterpart organizations and other relevant stakeholders participated in the workshop, as well as 6 study team members, 1 JICA expert, and 1 JICA-Laos Office staff member.

2.2 Procedure of PCM Workshop and Outcomes

The PCM workshop was facilitated by the JICA study team member, in collaboration with a Lao sub-facilitator. The PCM in planning normally consists of 5 steps: 1) stakeholder analysis, 2) problem analysis, 3) objective analysis, 4) selection of approach, and 5) preparation of the PDM. However, the workshop, 1) stakeholder analysis, which identifies the target group and analyzes its weaknesses, strengths, potential, and others, was omitted since the target group was clearly identified as the counterparts of WASA and NPVC. In the other workshops, Lao and English were both used as the languages to exchange ideas to maximize participation from both the Lao and the Japanese participants.

A brief explanation of the PCM methodology for planning, and the major steps of the workshop was given to the participants. Also, a framework for the discussions in the workshop was confirmed so that all the issues should be related to technology and management skills of counterpart organizations, as shown in Figure 2-1.

2.3 Problem Analysis

Problems relating to the technology and management skills of counterpart organizations were identified and analyzed in the form of a problem tree, as shown in Figure 2-1. In this session, 11-core problem areas were identified as follows, and each core problem was analyzed.

Core problems identified.

- (1) There is no public awareness campaign for communities to fix leakages.
- (2) Tariff is not high enough to cover the operation and maintenance costs.
- (3) Customer relations are not good enough.
- (4) Staff skills for pipeline network management are not high enough.
- (5) There are few training opportunities.
- (6) Tariff collection is difficult to collect from government organizations who are often late making their payments.
- (7) Skills of electricians and mechanics are not high enough for designing motor pumps.
- (8) There is no overall management strategy
- (9) The skills and abilities of technicians in water quality control are not high enough.
- (10) Skills for assets management have not improved.
- (11) Knowledge and skills for project management is limited.

2.4 Approach Selection

From the problem tree developed by the participants, the areas of problems where the technology transfer was provided, was selected with selection criteria of: 1) needs for counterpart is high, 2) to be achieved by the end of the study period (Mid Nov. 2003), and 3) to be micro-level. The selection was made by 3-voting method by participants, later discussed with JICA Study Team for agreement. The problem areas selected were as follows, shown in Figure 2-2.

Figure 2-1 Framework of Discussion

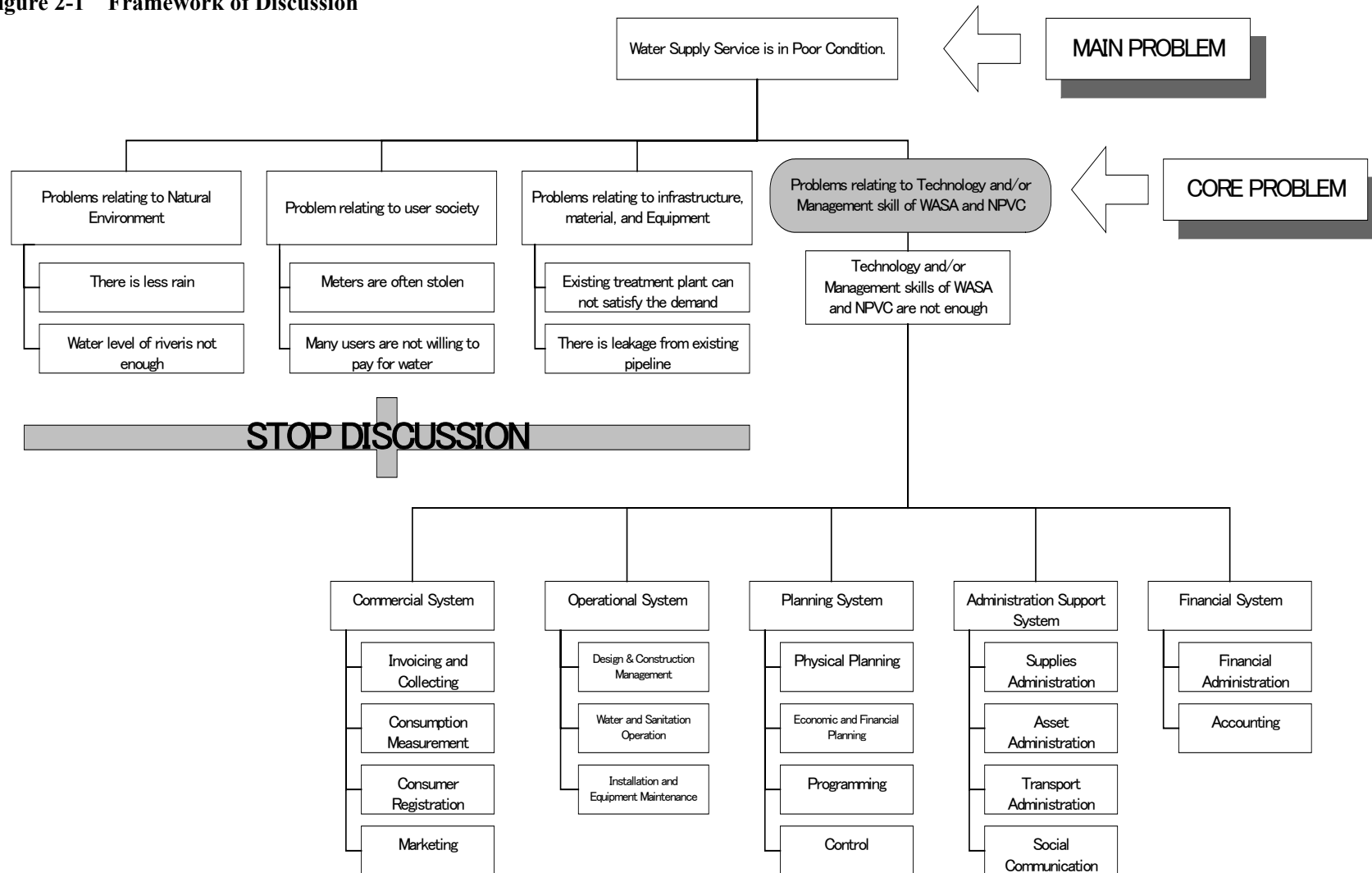


Figure 2-2 Problem Tree 1/2

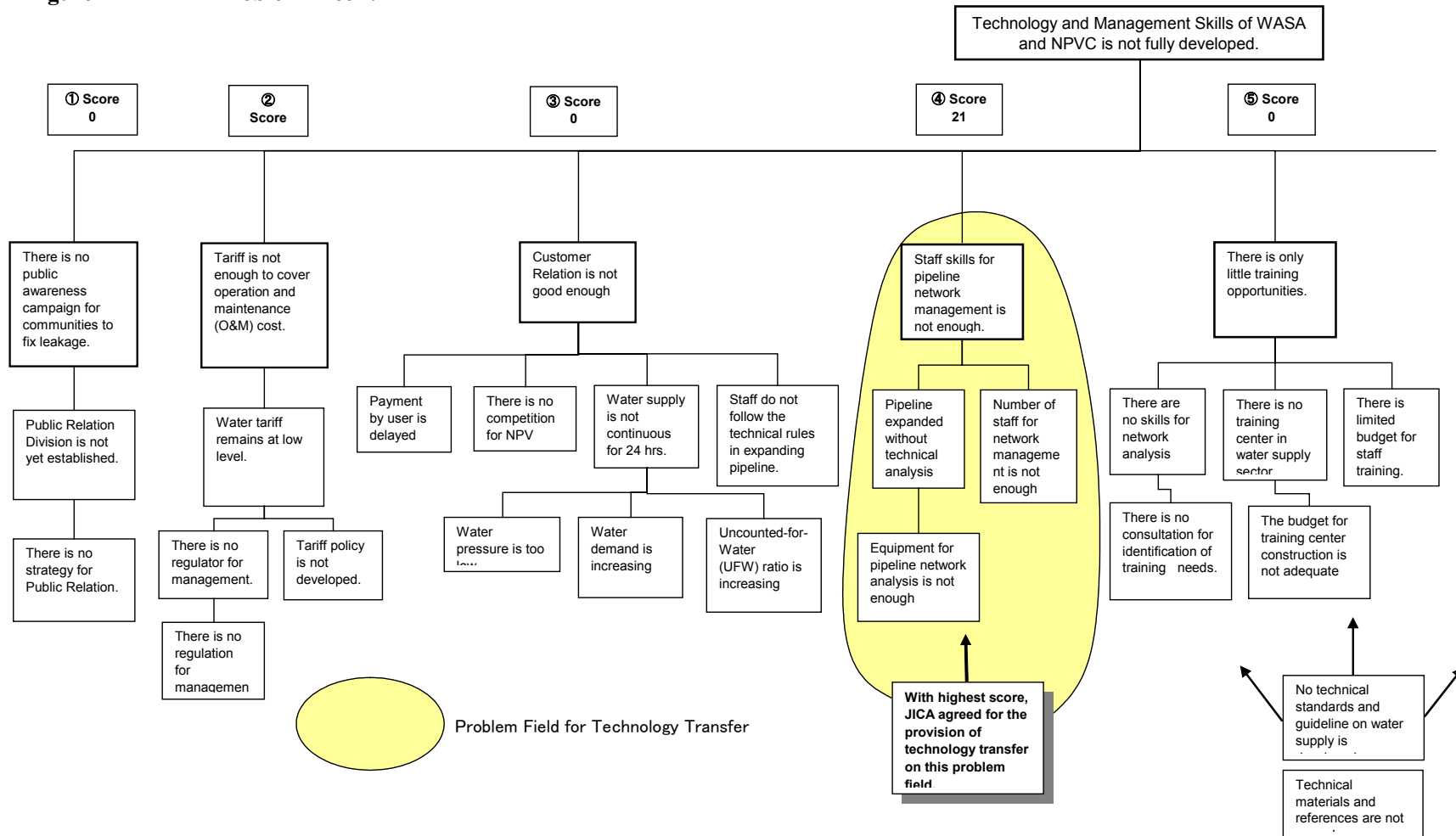
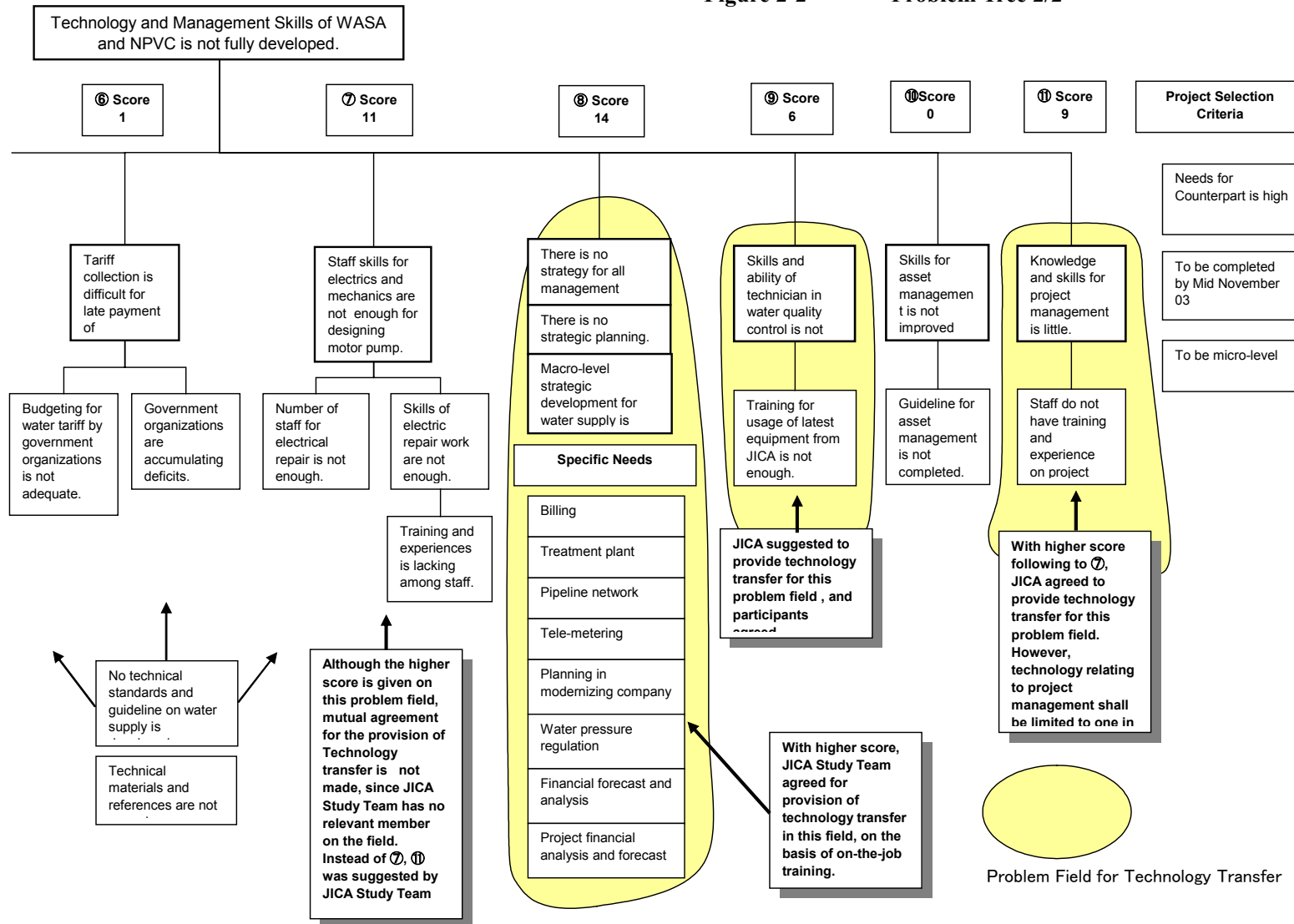


Figure 2-2 Problem Tree 2/2



Selected problem areas:

- (4) Staff skills for pipeline network management are not high enough.
- (8) There is no overall management strategy.
- (9) Skills and abilities of technicians in water quality control is not high enough.
- (10) Knowledge and skills for project management is limited.

2.5 Preparation of Project Design Matrix (PDM)

Task force members for the preparation of the Project Design Matrix (PDM) were selected (3 staff each from WASA and NPVC), and a meeting was held on 24th March 2003. The PDM was developed from the problem areas selected in the workshop, as shown in Table 2-1. The narrative summary of the PDM is described as follows.

Overall Goal:

Water supply conditions in Vientiane Capital City need to be improved.

Project Objective:

Technology and management skills of WASA and NPVC need to be improved in the problem areas identified, and selected in the PCM workshop.

Output:

1. Staff skills for pipeline network management is improved
2. Skills and abilities of counterparts and technicians in water quality management is improved.
3. Knowledge and skills for project management involved in planning is improved.
4. Skills and knowledge for the staff involved in the development of strategic plans is improved.

In particular, in the field of 1) Billing, 2) Treatment plants, 3) Pipeline networks, 4) Planning the modernizing of the company, 5) Water pressure regulation, 6) Financial forecasts and analysis, 7) Project financial analysis and forecasts

Activities:

[For Output 1]

1-1. Decide criteria for network analysis

1-2. Provide OJT for network analysis process for counterparts and technicians

[For Output 2]

2-1. Provide OJT for counterparts concerned with water quality control, in particular, heavy metal management.

2-2. Conduct water quality analysis in conjunction with the JICA study team and counterparts/technicians.

[For Output 3]

3-1. Provide OJT on project management for counterparts and project managers of WASA and DHUP, in particular, the areas of study-planning methods and reporting.

3-2. Provide training for the counterparts concerned in the PCM method

[For Output 4]

4. Preparation of the Master Plan, together with the JICA and counterparts

[General]

5-1. Ensure frequent communications between each member of the JICA study team and relevant counterparts by conducting weekly progress meetings with the JICA study team and counterparts (NPVC).

5-2. Conduct monthly progress meetings with the WASA and DHUP

6. Conduct Monitoring and Evaluation in the technology transfer program (PCM workshop)

2.6. Monitoring and Evaluation

It is planned to conduct further PCM workshops for monitoring and evaluation purposes at the time of the submission of each report (at the submission of the Progress Report, the Interim Report, and the Draft Final Report), prepared by the JICA study team.

Table2-1 Project Design Matrix (PDM)

Program Title: **Technology Transfer** under JICA Study on Vientiane Water Supply Development Project
 Implementation Period: March 2003 –Mid November 2003 Target Group: NPVC, WASA, DHUP
 Date: March 2002 Version: 1-0

Description	Verifiable Indicator	Means of Verification	Important Assumption
[Overall Goal] <input type="checkbox"/> Water supply conditions in Vientiane Capital City are improved.	<input type="checkbox"/> All Indicator set in master plan prepared by JICA study team is achieved in 2020.	<input type="checkbox"/> Post-Project evaluation	
[Project Objective] <input type="checkbox"/> Technology and management skills of WASA and NPVC are improved in the problem field identified and selected in PCM workshop.	<input type="checkbox"/> All indicator set for outputs below achieved.	<input type="checkbox"/> All cross apply to means set for outputs	
[Output] 1. Staff Skills for pipeline network management is improved 2. Skills and ability of counterpart and technician in water quality management is improved. 3. Knowledge and skills for project management in planning is improved. 4. Staff skills and knowledge for development of strategic plan is improved. In particular, in the field of 1) billing, 2) treatment plant, 3) pipeline network, 4) Planning in modernizing company, 5) Water pressure regulation, 6) Financial forecast and analysis, 7) Project financial analysis and forecast	1. Counterpart in collaboration with JICA Study Team does pipeline network analysis by middle of Nov 03. 2. After provision of OJT, counterpart can analyse heavy metals by themselves by middle of November 03. 3-1. Counterpart facilitate PCM workshop by middle of November 03. 3-2. At least one (1) project report is prepared by Counterpart till middle of November 03. 5. Master Plan is prepared in collaboration with JICA Study Team, ensuring each counterpart understand methodology/strategy of his/her part concerned	1. Completed report / data for network analysis 2. Analysis report prepared by counterpart 3-1. Report on PCM workshop 3-2. Project report prepared by counterpart 4. Master Plan	Technology and management skills transferred can be taken root to the counterpart organizations
[Activity] 1-1. Decide criteria for network analysis 1-2. Provide OJT for network analysis process for counterpart concerned. 2-1. Provide OJT for counterpart and technician concerned in water quality Control, in particular, heavy metal management. 2-2. Conduct water quality analysis together with JICA Study Team and Counterpart/Technician. 3-1. Provide OJT on project management for counterpart and Project Manager of WASA and DHUP concerned, in particular on study-planning methods and reporting. 3-2. Provide Training for counterpart concerned in PCM method 4. Prepare Master Plan together with JICA and counterparts 5-1. Ensure frequent communication between each member of JICA Study Team and counterpart concerned, by conducting weekly progress meeting with JICA Study Team and Counterpart (NPVC) 5-2. Conduct monthly progress meeting with WASA and DHUP 6. Conduct Monitoring and Evaluation on technology transfer program (PCM workshop)	[Input] Japanese Side <u>Human resources:</u> JICA Study Team <u>Fund:</u> Japanese ODA Lao Side <u>Human Resources:</u> Counterpart staff of implementing agency (WASA, NPVC, DHUP) <u>Fund:</u> Fund from Lao Government	[Pre-condition]	

3 The Second PCM workshop

In March 2003, a second PCM workshop was conducted to identify and analyze current problems, and also to assess the needs of the counterpart organizations in technology transfer. A Project Design Matrix (PDM) was developed later on. This second workshop was organized, with the aim of monitoring the progress of the technology transfer.

3.1 Date and Venue of the Workshop

The workshop was conducted on May 2, 2003 at the meeting room of the MCTPC after the presentation of the Progress Report prepared by the JICA study team.

A similar group of participants in the previous PCM workshop was invited to this workshop. There were 33 participants in the morning session, of which 24 participants were from the counterpart organizations, 7 JICA study team members and 2 foreign experts from the AFD and ADB.

3.2 Procedure of the Workshop and the Outcomes

Similarly to the previous PCM workshop, this workshop was held in a highly participatory manner with the support of 2 Lao facilitators. The language of the workshop was Lao and English. The monitoring session started in the afternoon after the presentation of the Progress Report.

(1) Reviewing the outcomes of the previous workshop and introducing the PDM task force

The workshop started with 11 direct causes of the main problem related to the technology and management skills of the counterpart organizations, as well as the four areas selected for technology transfer. The four areas are (1) Staff skills for pipeline network management are not high enough; (2) There is no overall management strategies; (3) Skills and abilities of technicians in water quality control is not high enough and finally, (4) Knowledge and skills for project management is limited.

(2) Presenting PDM for technology transfer

Before going into the content of the PDM, its structure was explained clearly to the participants so that they had a better understanding about the whole project. Three of the seven members of the task force were introduced so that they, together with the JICA study team could give clarification

to questions concerning the project plan. It was agreed that the statement “Funding from the Lao government” in the project input was added.

(3) Monitoring achievement of output and progress of activity implementation

Since all four outputs were planned to be achieved by November 2003, and this monitoring workshop was organized only 1 and a half-months after the formulation of the PDM, it was obvious that most activities have only been recently started. The defined activities in the PDM were also open for discussion, improvement, revision, addition or even exclusion.

The Monitoring Chart below shows the progress of the activity implementation and the recommendations for a more effective implementation.

MONITORING CHART OF TECHNOLOGY TRANSFER PROJECT

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 1. Staff skills for pipeline network management is improved	1.Counterpart in collaboration with JICA Study team does pipeline network analysis by middle of Nov 03				
Activities					
1.1 Decide criteria for network analysis		Data for network analysis were collected			<ul style="list-style-type: none"> • Data on water pressure from the Lao side required • Give priority to activity
1.2 Provide OJT for network analysis process for counterpart concerned				✓	

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 2. Skills and ability of counterpart and technicians in water quality management is improved	2. After provision of OJT, counterpart can analyze heavy metals by themselves by middle of Nov 03				
Activities					
2.1 Provide OJT for counterpart and technicians concerned in water quality control, in particular, heavy metal management		Data collected and Report was submitted			<ul style="list-style-type: none"> ▪ Weekly work plan required in advance ▪ Lao side expects to be able to analyze more types of heavy metals. The study team agreed to do their best but not promised due to the fact that the lab equipment was not from Japan but the US
2.2 Conduct water quality analysis together with JICA Study Team and Counterpart /Technicians				✓	

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 3. Knowledge and skills for project management in planning is improved	3.1 Counterpart facilitate PCM workshop by middle of November 03				
	3.2 At least one project report is prepared by Counterpart till middle of Nov 03				
Activities					
3.1 Provide OJT on project management for counterpart and Project Manager of WASA and DHUP concerned, in particular on study-planning methods and reporting		Start from 2 workshops (the 1 st one on Inception Report of the Study and PCM for technology transfer (TT), the 2 nd one on Progress Report and monitoring of TT			Explanation on not only particular job such as data collection but also the overall procedure of Master Plan formulation is expected by Lao side
3.2 Provide training for counterpart concerned in PCM method					

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 4. Staff skills and knowledge for development of strategic plan is improved, in particular (1) billing; (2) treatment plant; (3) pipeline network; (4) planning in modernizing company; (5) water pressure regulation; (6) financial forecast and analysis; (7) project financial forecast and analysis	4. Master Plan is prepared in collaboration with JICA Study Team, ensuring each counterpart understand methodology/strategy of his/her part concerned				
Activities					
4. Prepare Master Plan together with JICA and counterparts				✓ (Start next week after the completion of data collection)	Explanation of not only particular jobs such as data collection but also the overall procedure of Master Plan formulation is expected by Lao side
5.1 Ensuring frequent communication between each member of JICA Study Team and counterpart concerned, by conducting weekly progress meeting with JICA Study Team and Counterpart (NPVC)		✓			A qualified translator is required for electrical and financial counterparts.
5.2 Conduct monthly progress meeting with WASA and DHUP			✓ (current workshop)		
6. Conduct M+E on technology transfer program (PCM workshop)			✓ (current workshop)		

Underlying recommendation for further implementation of the PDM:

- Since the Lao counterpart staff works with other projects besides their daily responsibilities and the JICA study team is also busy with the study, a Work Plan should be prepared and shared between the Lao and Japanese in advance, preferably weekly so that both sides can plan their working time accordingly.
- The above-mentioned plan shall be submitted to the higher authorities within the organization for information and follow-up.

In response to the comments raised during the 2nd PCM Workshop, the JICA study team prepared the “Technology Transfer Work Schedule”, as shown in Figure 3-1 for the Phase II study period.

Figure 3-1 Technology Transfer Work Schedule

Day		JICA Study Team Members						Counterparts										
		Mamiya	Ishii	Oga	Hamano	Saito	Tashino	Kato	Mr. Vorashith	Mr. Saisamone	Mr. Nay Many	Mr. Veingthouay	Mr. Phouay	Mr. Kampheui	Mrs. Phisavang	Mr. Bouakeo	Mr. Phom	Mr. Anouong
May 5	Mon																	
May 6	Tue																	
May 7	Wed			Act.1-1 9:00 - 11:00 Discussion on Design Criteria for Network Analysis, Pressure Regulation														
May 8	Thu	Act.3-1 & Act.4 9:00 - 11:00 Discussion on Population and Water Demand Forecast																
May 9	Fri					Act.4 9:00 - 11:00 Discussion on Training Practices												
May 10	Sat																	
May 11	Sun																	
May 12	Mon		Act.4 9:00 - 11:00 Discussion on Treatment Facilities for Comparative Study of Alternatives(1)															
May 13	Tue					Act.3-1 & Act.4 14:00 - 15:30 Discussion on Methodology of Economic Evaluation and Financial Plan in Master Plan		◎	◎									
May 14	Wed						Act.4 9:00 - 11:00 Discussion on Standard Unit Prices for Public Works											
May 15	Thu																	
May 16	Fri	Act.3-1 & Act.4 9:00 - 11:00 Discussion on Contents of Interim Report																
May 17	Sat																	
May 18	Sun																	
May 19	Mon																	
May 20	Tue	Act.3-1 & Act.4 9:00 - 11:00 Discussion on Comparative Study of Alternatives																
May 21	Wed																	
May 22	Thu					Act.4 9:00 - 11:00 Discussion on Training Practices												
May 23	Fri		Act.4 9:00 - 11:00 Discussion on Treatment Facilities for Comparative Study of Alternatives(2)															
May 24	Sat																	
May 25	Sun																	
May 26	Mon																	
May 27	Tue					Act.3-1 & Act.4 14:00 - 15:30 Discussion on Results of Economic Evaluation and Financial Plan in Master Plan		◎	◎									
May 28	Wed																	
May 29	Thu			Act.1-2 9:00 - 12:00 Network Analysis using WaterCAD, Introduction - How to use WaterCAD								◎	◎					
May 30	Fri			Act.1-2 9:00 - 12:00 Network Analysis using WaterCAD, Introduction - How to use WaterCAD								◎	◎					
May 31	Sat																	

Note: Place of each activity will be meeting room of the JICA Study Team Office, except for Mr. Saito and Mr. Kampheui
 Act. 1-2 is Activity Number which is shown on Project Design Matrix (PDM) developed as results of the 1st PCM Workshop
 When counterpart personnel can not attend, please inform corresponding JICA Study Team member beforehand and discuss alternation of the schedule.

4 The Third PCM Workshop

4.1 Date and Venue of the Workshop

The third workshop was conducted on 5 June 2003 from 9.00 am to 12.00 am (with 20 minutes break) at the meeting room of the MCTPC. The aim of the meeting was for the monitoring of the technology transfer during the JICA Study.

4.2 Participants of the Workshop

A similar group of participants to the previous PCM workshops participated in this, the third workshop. At this workshop, there was 27 people (the previous one had 33 participants), of which 20 participants were from the counterpart organizations, and 7 Japanese study team members. It appeared that there were approximately five participants that had not participated in the previous monitoring workshops, while some others had not participated in the first PCM for PDM formulation workshop.

4.3 Agenda of the Workshop

Similarly to the previous PCM workshops, this workshop was held in a highly participatory manner with the support of two Lao facilitators. The language used in the workshop was Lao and English. The workshop proceeded according to the following agenda.

Time	Activities
9.00 – 10.00	Opening
	Introduction: objective, agenda
	Overview of previous workshop: Logframe, Monitoring Chart 1
10.00 – 10.15	Break
10.15 – 12.00	Progress in responding to the recommendations of the previous workshop's monitoring chart
	Monitoring Chart 2: Progress of the activities' implementations so far

4.4 Outcomes of the Workshop

(1) Overview of the previous workshop

Prior to the overview of the previous workshop Dr. Somphone Dethoudom, Director General of the WASA, honourably gave an opening speech, which basically encouraged all participants to actively participate in the workshop and to bring up their real experiences from the implementation of the project to the discussion in order to ensure a more effective implementation of the activities in the future.

The facilitator then briefed the workshop on the agenda, followed by an overview of the Log frame and monitoring chart (monitoring chart 1) from the previous monitoring workshop. Since there were some participants who had not participated in the previous PCM workshop, there were some clarifications necessary, especially those related to the background of the PCM workshop. In fact, in the revision session, one of the participants actually explained the background of a series of PCM workshop including the objectives, outcomes and proceedings; and another participant reported on the outcomes of the previous monitoring workshop, especially the progress of activities within their responsibilities. In addition to this, the facilitator briefly went through the structure of the PDM and the monitoring chart.

(2) Progress in responding to the recommendations of the previous workshop's monitoring chart

The facilitator went through each recommendation and responses associated with the activities and outputs as follows:

Output 1. Staff skills for pipeline network management is improved

Activity 1.1 Decide criteria for network analysis

1.2 Provide on the job training for the network analysis process for the counterparts concerned

Recommendations:

1. Data on water pressure from the Lao side required
2. Give priority to activity

Responses:

1. Lao counterpart provided data needed
2. Network analysis is considered one of the priority tasks of the project

Note: There was also the discussion about “on the job training”. One of the participants suggested that the training should be implemented as soon as possible. The JICA study team agreed with this, but for this particular output (1), the training must be step by step which means that once activity 1 is completed, then activity 2 concerning on the job training can follow.

Output 2. Skills and ability of counterpart and technicians in water quality management are improved

Activity 2.1 Provide OJT for counterpart and technicians concerned in water quality control, in particular, heavy metal management

Recommendations:

1. Weekly work plan required in advance
2. Lao side expects to be able to analyze more types of heavy metals. The study team agreed to do their best but have not promised anything due to the fact that the lab equipment is not from Japan, but the USA.

Responses:

1. JICA study team has provided a weekly plan in advance

Note: The weekly plan has been followed by both sides even though there were some postponements, which were due to a variety of factors. There was a discussion concerning the second recommendation. It was later been taken into account for having a more specific indicators for this output.

Output 3. Knowledge and skills for project management in planning is improved

Activity 3.1 Provide OJT on project management for counterparts and the project managers of WASA and DHUP, in particular, on study-planning methods and reporting

Recommendations:

1. Explanation on not only particular jobs such as data collection but also the overall procedure of the Master Plan formulation is expected by Lao side

Output 4. Staff skills and knowledge for development of strategic plan is improved, in particular (1) billing; (2) treatment plants; (3) pipeline networks; (4) planning in modernizing the company; (5) water pressure regulation; (6) financial forecast

and

analysis; (7) project financial forecasts and analysis

Activity 4.1 Preparation of the Master Plan together with JICA and counterparts

- 4.2 Ensure frequent communication between each member of the JICA study team and their relevant counterparts by conducting weekly progress meetings between JICA study team and the counterparts (NPVC)

Recommendations:

1. Explanation on not only particular jobs such as data collection but also the overall procedure of Master Plan formulation is expected by Lao side.
2. A qualified translator is required for the counterparts employed in the areas of the electrical and financial departments.

Responses:

2. There were translators provided.

Note: In responding to the recommendation number 1 for output 3 and 4, JICA's expert side has in fact explained to the Lao counterparts about how to prepare the Master Plan during the formulation process. However, the Lao counterparts were not confident at this stage. The workshop also discussed aspects of the formulation the Lao counterparts want to specifically focus on for improvement, for example, report planning and writing skills.

During this session the facilitators also distributed the revised PDM which now included "contribution from the Lao government" under the Input column of the PDM; and the weekly work plan prepared by the JICA study team, all of which responded to the recommendations of the first monitoring workshop.

(3) Monitoring chart 2: Progress of the activities implementation so far

In this session the participants worked in four small groups according to their areas of responsibility. They discussed the progress of activities, and recommendations needed and visualized them on the monitoring chart. It is now approximately two and half months since the PDM has been created. Many of the activities associated with the outputs are on going as planned. However, there were recommendations especially from the counterpart organizations aiming at a more effective implementation of the activities that would ultimately lead to achievement of expected project's outputs. See details in Monitoring Chart below.

MONITORING CHART OF TECHNOLOGY TRANSFER PROJECT

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 1. Staff skills for pipeline network management is improved	1. Counterpart in collaboration with JICA Study team does pipeline network analysis by middle of Nov 03				
Activities					
1.1 Decide criteria for network analysis		Continue with the data collection to be used for network analysis			Lao counterpart needs to learn not only what data to collect but also an explanation from JICA experts about all aspects related to the analysis so that they can have a bigger picture of the network
1.2 Provide OJT for network analysis process for counterpart concerned		-Introduction to the WATERCAD software -Distribution of the network analysis manual			Continue this activity with the actual practice of the software

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 2. Skills and ability of counterpart and technicians in water quality management is improved	2. After provision of OJT, counterpart can analyze heavy metals by themselves by middle of Nov 03				
Activities					
2.1 Provide OJT for counterpart and technicians concerned in water quality control, in particular, heavy metal management		Ongoing			
2.2 Conduct water quality analysis together with JICA Study Team and Counterpart /Technicians		-Three samples of water were collected (2 from Nam Ngum river--Thangone and 1 from Mekong river--Kaolieo) -Analyzed heavy metals for Nam Ngum : Fe, Mn, CN, pb, Cd, Po4, CL, Cr. Ca. Cu, Hg. -Analyzed raw water pH Turbidity Analyzed quality of water at Kaolieo water treatment plant for pH, Turbidity, CL.			Both JICA and Lao counterparts should work out together how many types of heavy metals they want to be focused on and used as specific indicators of Output 2

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 3. Knowledge and skills for project management in planning is improved	3.1 Counterpart facilitate PCM workshop by middle of November 03				
	3.2 At least one project report is prepared by Counterpart till middle of Nov 03				
Activities					
3.1 Provide OJT on project management for counterpart and Project Manager of WASA and DHUP concerned, in particular on study-planning methods and reporting		Start from 3 workshops (the 1 st one on inception report of the study and PCM for technology transfer (TT), the 2 nd and one on progress report and monitoring of TT and the 3 rd PCM on monitoring	-Data collected and wrote report on: (1) socio-economic, (2) Industrial development plan, (3) VTE development plan--Industrial zone and infrastructure development		OJT via not only explanation on particular jobs such as data collection, but transfer of overall planning skills and methods for Master Plan formulation process is expected by Lao side
3.2 Provide training for counterpart concerned in PCM method					There should be a practical session on the moderation of the PCM workshop prior to the actual one in November

Summary	Indicator	Started and on going	Completed (How many times?)	Not yet started	Recommendation for further implementation
Output 4. Staff skills and knowledge for development of strategic plan is improved, in particular (1) billing; (2) treatment plant; (3) pipeline network; (4) planning in modernizing company; (5) water pressure regulation; (6) financial forecast and analysis; (7) project financial forecast and analysis	4. Master Plan is prepared in collaboration with JICA Study Team, ensuring each counterpart understands the methodology/strategy of his/her part concerned				
Activities					
4. 1Prepare Master Plan together with JICA and counterparts		On going			
4.2 Ensuring frequent communication between each member of JICA Study Team and counterpart concerned, by conducting weekly progress meeting with JICA Study Team and Counterpart (NPVC)		On going			Translator for electrical counterpart is not so good (need to change the new one?). Translator for financial counterpart is good.
4.3 Conduct monthly progress meeting with WASA and DHUP			Completed		
4.4 Conduct M+E on technology transfer program (PCM workshop)			Completed (including current workshop)		

5 The Forth PCM Workshop

5.1 Date and Venue of the Workshop

The forth and final PCM workshop for technology transfer was held on 28th October 2003 from 9:00 am to 12:00 am (with 10 minutes break) at the meeting room of the MCTPC. The aim of the workshop was to make the final assessment on the achievement made as planned in the form of Project Design Matrix (PDM) for technology transfer, just before the completion of the Study period.

5.2 Participants of the Workshop

A similar group of participants to the consecutive series of previous workshops participated in the forth workshop. At this workshop, there were 21 persons, of which 15 staff were from counterpart organizations and other relevant stakeholders, as well as 5 study team members, 1 JICA expert.

The workshop was facilitated by two (2) moderators nominated from counterpart organizations with support of Lao local consultant and JICA study member.

5.3 Agenda of the Workshop

Similarly to the consecutive series of previous PCM workshops, this workshop was held in a highly participatory manner with the support of two moderators from counterpart organizations. In the workshop, Lao and English were both used as the languages to exchange ideas to maximize participation from both the Lao and the Japanese participants. The workshop proceeded according to the following agenda.

Time	Activities
9.00 – 10.15	Opening
	Introduction: objective, agenda
	Review of the previous workshops
10.15 – 10.30	Break
10.30 – 12.00	Assessment on the achievement made and prospect of achievement by the completion of the Study period.

5.4 Outcomes of the Workshop

(1) Review of the previous workshops

Prior to the review of the previous workshops, Dr. Somphone Dethoudom, Director General of WASA gave opening remarks, putting emphasis on the significance of technology transfer to counterpart staff in the Study and the participatory assessment in this workshop to assure the achievement as planned and expected as the study period is nearly completed.

The moderators then briefed the workshop on the agenda, followed by a review of the PDM and monitoring chart from the consecutive series of previous monitoring workshops. In the review session, one of the moderators actually explained the background of a series of PCM workshop including the objectives, outcomes and proceedings; and another moderator reported on the outcomes of the previous monitoring workshop, especially the progress of activities within their responsibilities. In addition to this, the facilitator briefly went through the structure of the PDM, the monitoring chart, and work schedule for the technology transfer.

(2) Assessment on the achievement of the program and the prospect of the achievement by the completion of the Study period

In this session, the participants assessed each output, indicator, and progress of activities set in Project Design Matrix, and the results are visualized on the assessment chart attached (see attachment). All of expected outputs, indicators, and activities were evaluated as “achieved” or “achievable by the middle of November 2003”. In this section, featuring issues in the workshop is described for each expected output.

		Assessment
Output 1	Staff skill for pipeline network management is improved	It can be achieved by the middle of November 2003.
Indicator	Counterpart in collaboration with JICA study team does pipeline network analysis by middle of November 2003.	It is achievable by the middle of November 2003.
Activity	1-1) Decide criteria for network analysis 1-2) Provide OJT for counterpart process for counterpart concerned.	1-1) It was completed. 1-2) It is on-going, and to be completed by Mid Nov. Frequency and contents of the training is well fine.

With completion of Activity 1-1), provision of OJT is still continued until middle of November 2003 by holding 2hrs-training sessions three (3) times in the week. It is assessed by the counterparts concerned that basis knowledge for pipeline network analysis was improved by Activities. It is assumed that expected output (i.e. improvement of staff skills for pipeline network management) is achieved with provision of continuous training sessions by middle of November 2003, thus, assuring the indicator of “Counterpart in collaboration with JICA study team does pipeline network analysis by middle of November 2003”. Frequency and contents of the training session are also assessed as well fine to assure the achievement.

It shall be noted that a clarification was given in this session on one of the expected outputs of “Staff skills for pipeline network management is improved” and its indicator of “Counterpart in collaboration with JICA study team does pipeline network analysis by middle of November 2003”. Higher expectation on the improvement of skills in pipeline network analysis was expressed by the counterparts with application of the improved skill into the more complicated analysis in a whole city. Reviewing expected output and indicator in PDM associated with the issue, however, it is confirmed and agreed among the participants that the original target by the technology transfer program is an improvement of basic skills for pipeline network analysis to a degree that analysis are made in collaboration of JICA study team. Thus, it is assessed that expected output originally targeted can be achieved. The consensus was also made that an application of the basic knowledge transferred to the more complicated analysis is responsibility of counterpart organization.

		Assessment
Output 2	Skills and ability of counterpart and technician in water quality management is improved.	Counterpart and technicians had been well equipped with better skills in water quality management
Indicator	After provision of OJT, counterpart can analyze heavy metals by themselves by middle of November 2003.	It had been achieved.
Activity	2-1) Provide OJT for counterpart and technician concerned in water quality control, in particular, heavy metal management. 2-2) Conduct water quality analysis together with JICA study team and counterpart / technician	2-1) Counterpart and technicians are well equipped with better skills in water quality management 2-2) It was completed.

It was found that, during conducting Activity 2-2) (i.e. Conduct water quality analysis together with JICA study team and counterpart / technician), counterpart concerned, who was newly replaced by the one who participated in the planning for technology transfer, had been well equipped with

improved knowledge in water quality analysis as well as heavy metal management. It meant obviously the expected output had been realized with achievement of indicator set.

		Assessment
Output 3	Knowledge and skills for project management in planning is improved	It can be achieved by the middle of November 2003.
Indicator	3-1) Counterpart facilitate PCM workshop by middle of November 2003. 3-2) At least one (1) project report is prepared by counterpart till middle of November 2003.	3-1) This workshop is facilitated by counterparts. 3-2) It can be prepared by the middle of November 2003.
Activity	Provide OJT on project management for counterparts and the project managers of WASA and DHUP, in particular, on study-planning methods and reporting.	It is on-going and to be completed by middle of November 2003.

OJT and meeting for improvement of knowledge and skills in project management is constantly provided for counterparts and the project managers of WASA and DHUP, in particular, on study-planning methods and reporting. Referring to the indicator set for the output, the workshop in concern was facilitated by the counterparts, and the preparation of report, “NPVC’s Challenge for Water Conservation and Water Demand Control”, is nearly completed. Thus, it is assessed that the achievement of output is expected by the middle of November 2003.

		Assessment
Output 4	Staff skills and knowledge for development of strategic plan is improved. In particular, in the field of 1) billing, 2) treatment plant, 3) pipeline network, 4) planning in modernizing company, 5) water pressure regulation, 6) financial forecast and analysis, 7) project financial analysis and forecast.	It can be achieved by the middle of November 2003.
Indicator	Master Plan is prepared in collaboration with JICA study team, ensuring each counterpart understand methodology / strategy of his/her part concerned.	It is in a process, and can be completed by middle of November 2003.
Activity	Prepare Master Plan together with JICA and counterparts	It is in a process, and can be completed soon. The frequency of the meeting is reasonable.

On the contrary to the opinion expressed in the previous workshop, the counterparts were confident in achievement of the output of “Staff skills and knowledge for development of strategic plan is improved”. It is obvious that the frequent meetings, explanations, and discussions on Master Plan increased understanding of counterparts in development of strategic plan. It is also assessed that frequency and contents of meeting is reasonable for counterparts.

		Assessment
General Activities	5-1) Ensure frequent communication between member of JICA study team and counterpart concerned, by conducting weekly progress meetings with JICA study team and counterpart of NPVC.	5-1) It is on-going, and to be completed by Mid November 2003
	5-2) Conduct monthly progress meeting with WASA and DHUP.	5-2) It was completed.
	6) Conduct monitoring and evaluation on technology transfer program (PCM workshop)	5-3) It was completed

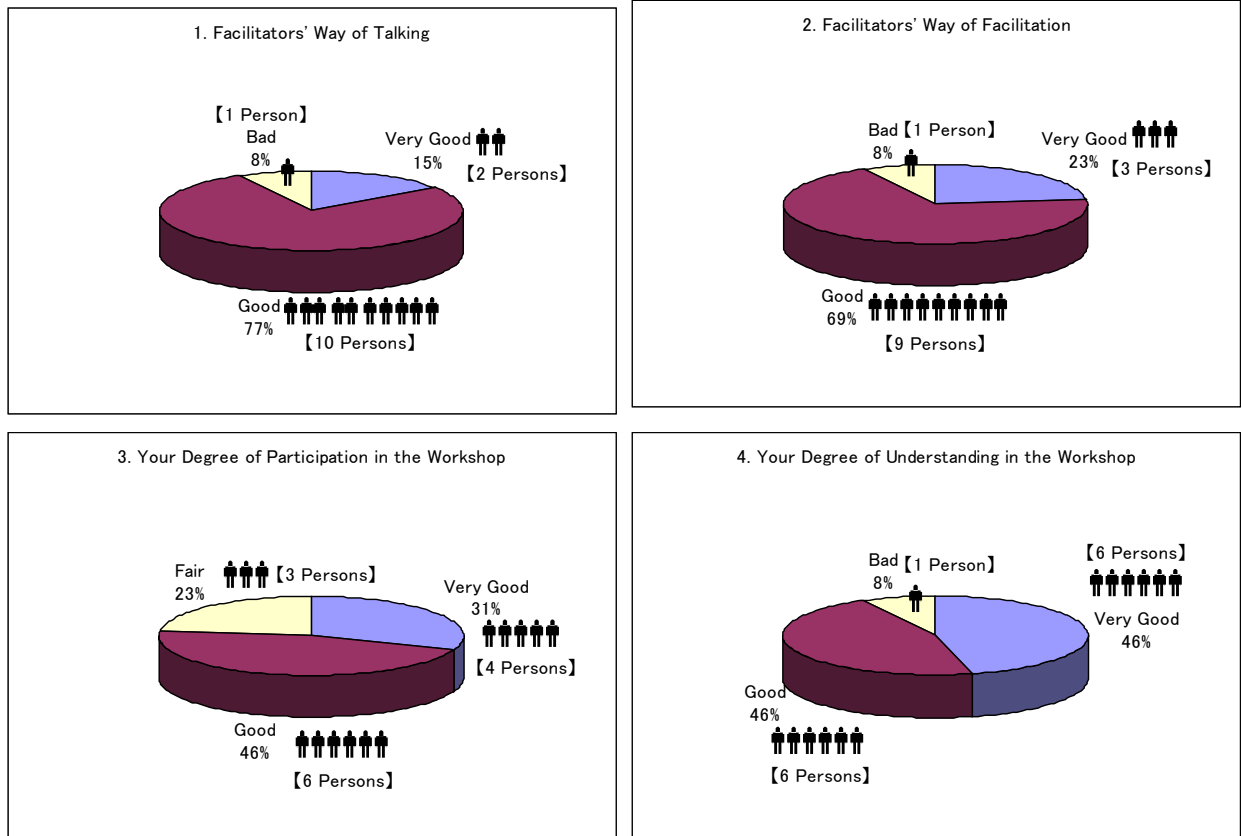
An assessment was given also on the overall and general activities planned for the achievement of four (4) expected outputs described prior in this section. It is assessed that, in Activity 5-1), better communication is ensured by subsequent meetings which will be continued by the middle of November 2003. Recommendation was given in this session that extra meeting is required for understanding on the contents of Feasibility Study Report. It was agreed that JICA study team provide the meetings and counterparts translate the summary of report into Lao for better understanding of counterpart organizations.

For Activity 5-2), after the workshop, clarification was given that all the required meetings were completed.

Activity 6) was also completed by this PCM workshop. It was suggested to evaluate the Lao moderators of counterpart organizations, who facilitated the workshop for the first time in this workshop, for improvement of their skills in future. Thus, the questionnaire for assessment on Lao moderator of counterpart organizations were distributed and collected. The questionnaires were distributed to and collected from all participants except JICA study team (i.e. collected only from Lao participants and JICA Expert) to assure the fair view in the assessment. In total, 13 questionnaires distributed were collected.

The assessment was made in the way that asking: 1) Lao Facilitators’ way of talking, 2) Lao Facilitators’ way of facilitation, 3) Participant’s degree of participation in the workshop, and 4)

Participant’s degree of understanding in the workshop. Participants assessed for each question above by scoring 1 as “very good”, 2 as “good”, 3 as “fair”, 4 as “bad”, and 5 as “very bad”, of which results are described below.



As it is observed from the charts above, the most of participants responded “very good” and “good” for each question, except one (1) respondent having negative assessment for the most of questions on Lao facilitators. However, it can be said those Lao facilitators selected from counterpart organization has excellent potentials and capabilities in facilitation skills, considering better valuation by participant instead of their first time facilitation in the workshop. The collected questionnaires are attached in the report.

ASSESSMENT CHART OF TECHNOLOGY TRANSFER PROJECT

Summary	Indicator	Achievable by Mid November 2003	Completed Achieved	Not yet started	Recommendation and Notes
Output 1. Staff skills for pipeline network management is improved	1. Counterpart in collaboration with JICA Study team does pipeline network analysis by middle of Nov 03	Basic knowledge for pipeline network management was improved. It is achievable by the middle of November 2003.			Continuation of raining is required till Mid November 2003. Frequency and contents of training is good.
Activities					
1.1 Decide criteria for network analysis			It is completed		
1.2 Provide OJT for network analysis process for counterpart concerned		It is on-going and to be completed by Mid November 2003.			

Summary	Indicator	Achievable by Mid November 2003	Completed Achieved	Not yet started	Recommendation and Notes
Output 2. Skills and ability of counterpart and technicians in water quality management is improved	2. After provision of OJT, counterpart can analyze heavy metals by themselves by middle of Nov 03		Counterparts and technician has been well equipped with better skills in water quality management		
Activities					
2.1 Provide OJT for counterpart and technicians concerned in water quality control, in particular, heavy metal management			It had been achieved		
2.2 Conduct water quality analysis together with JICA Study Team and Counterpart /Technicians			It was completed.		

Summary	Indicator	Achievable by Mid November 2003	Completed Achieved	Not yet started	Recommendation and Notes
Output 3. Knowledge and skills for project management in planning is improved	3.1 Counterpart facilitate PCM workshop by middle of November 03		It was completed by this workshop		
	3.2 At least one project report is prepared by Counterpart till middle of Nov 03	Preparation of report is on-going, and to be completed by Mid November 2003.			
Activities					
3.1 Provide OJT on project management for counterpart and Project Manager of WASA and DHUP concerned, in particular on study-planning methods and reporting		Preparation of report is on-going, and to be completed by Mid November 2003.			
3.2 Provide training for counterpart concerned in PCM method			It was completed by this workshop		

General Activities

Summary	Indicator	Achievable by Mid November 2003	Completed Achieved	Not yet started	Recommendation and Notes
Output 4. Staff skills and knowledge for development of strategic plan is improved, in particular (1) billing; (2) treatment plant; (3) pipeline network; (4) planning in modernizing company; (5) water pressure regulation; (6) financial forecast and analysis; (7) project financial forecast and analysis	4. Master Plan is prepared in collaboration with JICA Study Team, ensuring each counterpart understands the methodology/strategy of his/her part concerned	It is on-going, and to be achieved by Mid November 2003.			
Activities					
4. 1Prepare Master Plan together with JICA and counterparts		It is on-going, and to be prepared by Mid November 2003.			

Summary	Indicator	Achievable by Mid November 2003	Completed Achieved	Not yet started	Recommendation and Notes
5.1 Ensuring frequent communication between each member of JICA Study Team and counterpart concerned, by conducting weekly progress meeting with JICA Study Team and Counterpart (NPVC)		It is on-going, and to be completed by Mid November 2003			Extra meeting for discussion and explanation for Feasibility Study is required. Summary of Feasibility Study is translated by counterparts. Frequency of meeting is reasonable.
5.2 Conduct monthly progress meeting with WASA and DHUP			Completed		
5.3 Conduct M+E on technology transfer program (PCM workshop)			Completed (including current workshop)		Skills of Lao facilitator in this last workshop shall be assessed by Questionnaire

Comments of Questionnaire for Workshop Participants

FRONT 11, 16A/MSH/11/04

FRX NO. 1666-21-452527

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4. when present shouldn't read, should explain and give
specific example between theory and real work.

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good - Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

Was this workshop for Technology Transfer or PCM?
I wanted to know the substance of Technology Transfer more.

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good - Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

1) ການສອນ, ຈຳນວນສະຫຼຸບສະຫຼັບ ຈຳນວນ
ທີ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ
2) ການສອນ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ
3) ການສອນ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ ບໍ່ມີ

1. In presentation should use modern implement such as power point...
for moderator and audience convenience.
2. If it is necessary to use plastic, should write bigger capital letter for audience convenience.

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good - Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

① + ຫລາຍຄຳສອນ ທີ່ມີຄວາມໝາຍ ທີ່ຊັບຊ້ອນ
 ② + ມາສູ່: ບາງຄັ້ງ ບໍ່ໄດ້ ສອນ ດ້ານ (ບໍ່ ເປັນ ທີ່ ສອນ) -
 ທີ່ ບາງ ທີ່ ສອນ
 ③ + ບາງ ທີ່ ສອນ
 ④ + ບາງ ທີ່ ສອນ ບາງ ທີ່ ສອນ = ບາງ ທີ່ ສອນ
 1. Before presentation, should prepare document and give it to participants
 2. Don't read document when explain. (speak only) because audience is boring
 3. Workshop has short time.
 4. Choose the suitable venue of the meeting for attendees

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good - Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good – Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	The explanation of the differences phases of themes were not clarified in order.
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good – Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good – Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1 ✓	2	3	4	5	
2. Facilitators' Way of Facilitation	1 ✓	2	3	4	5	
3. Your Degree of Participation in the Workshop	1 ✓	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1 ✓	2	3	4	5	

General Comments:

Questionnaire for Workshop Participants
4th Workshop for Technology Transfer (28th October 2003)

Question	Please assess the following issues by ticking 1-5 ratings (Very Good – Very Bad)					Comments
	Very Good	Fair	Bad	Very Bad		
1. Facilitators' Way of Talking	1	2	3	4	5	
2. Facilitators' Way of Facilitation	1	2	3	4	5	
3. Your Degree of Participation in the Workshop	1	2	3	4	5	
4. Your Degree of Understanding in the Workshop	1	2	3	4	5	

General Comments:

This workshop is very good point for brainstorming together how to success all of the works that would be finished.

