

SECTION 1 PROJECT BACKGROUND

(1) Background and Particulars on the Request of Technical Assistance from Japan

In the water and sewerage sector of the Philippines, improvements of drinking water access have been provided under the assistance from various donors from the beginning of 1980s.

The Government of the Philippines placed an emphasis on the improvement of water supply in the local area as pointed out in the Presidential Ten Point Agenda and presented as priority work in “New Medium Term Development Plan (2004-2010)”. Furthermore, Presidential Executive order No. 279 was signed on February 2004, instituting reforms in the financing Policies for the water supply sector.

However, there are still a lot of small water districts (referred to as WDs) to be required for self-sufficient and achieving viable growth under financial crisis of the Philippine Government. Problems and issues faced by small water districts range from lack of financial resource, weakness in technical, institutional and management capacity, inadequate supply, poor water quality and high non-revenue water, etc. These water districts have been encountering reduction of beneficiaries as a result of deterioration of facilities without adequate O&M mainly affected by heavy arrears caused by the initial stage investment of the WDs.

Under the above conditions, implementation of Technical Cooperation Project was agreed between Philippine and Japanese governments targeting small-scale and less creditworthy water districts for their service and management improvements. In April 2005, Record of Discussions (R/D) was exchanged between the two governments to start “Small Water Districts Improvement Project” through technical assistance from Japanese side.

(2) Present Status on Water Districts

Based on the Medium-Term Philippine Development Plan 2001-2004, the Philippine government put forth its target to serving 89.6% (20.3 million) of the total local cities population with potable water by year 2004 from 88.1% (18.4 million) in the year 2000.

In the local areas the development, operation and delivery of potable water is the responsibility of various government agencies and water utilities. Among them service population under the water districts was planned to be increased at 11.4 million from 10.1 million.

At the present time, 447 water districts are under operation among those established in the last 30 years. However, about 80% of these WDs need to make them self-sufficient and achieve viable growth.

Figure 1.1 presents current issues and problems on the operation of water districts. Generally, the

number of water connections has been reduced caused by natural, geographic and economical conditions, inadequate raw water quality, lack of management capability, request of users on higher water quality and low recognition of users on the appropriate level of water charges. The reduction of income makes it difficult for the WDs to improve services without continuous investment as well as non-recovery of initial investment capital for the facilities.

These problematic WDs are mainly categorized as small-scale WDs with a total population of about 3.1 million (about 28% of overall service population by WDs). Furthermore, these WDs belong to less credit worthy category and are located mainly in Visayas and Mindanao areas.

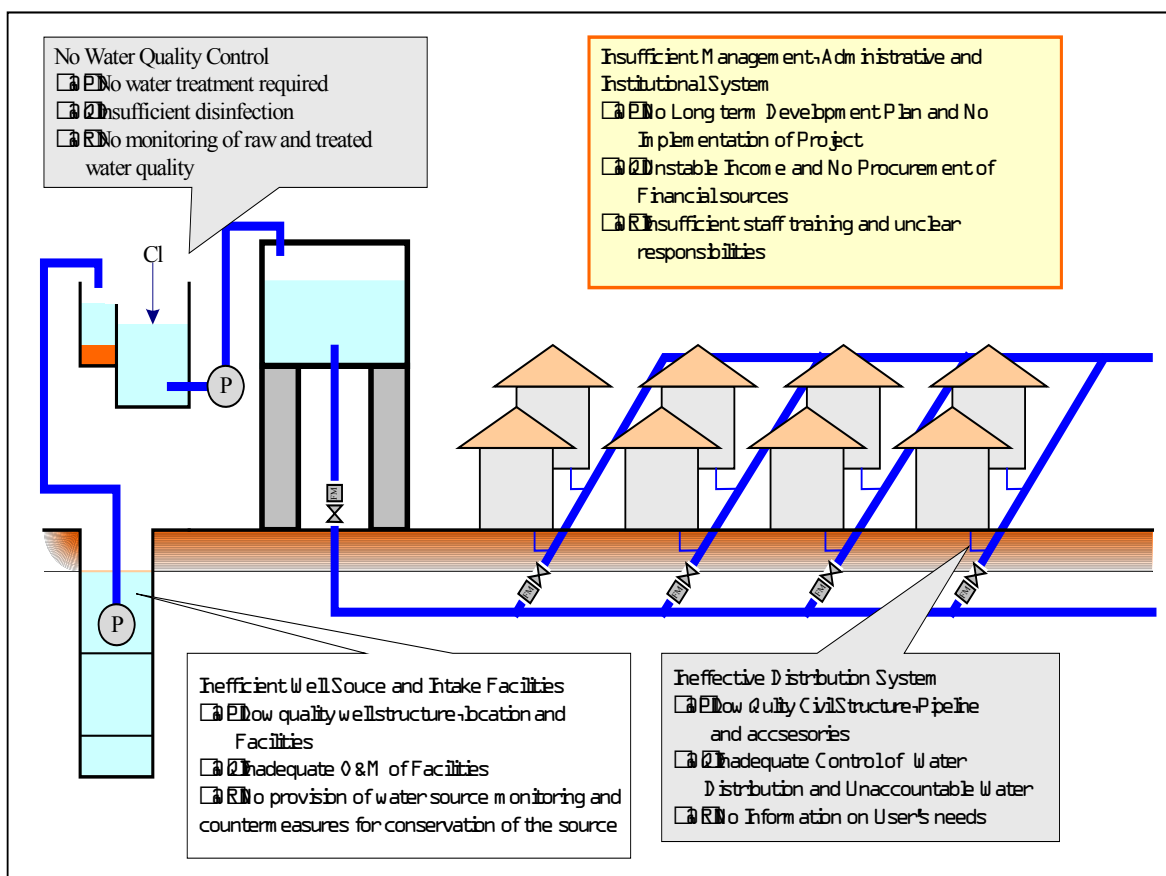


Figure 1.1 Issues and Problems Common to Small-size WDs

(3) Relationship between LWUA and Water Districts in the Past

In the last 30 years LWUA and WDs are financing agency and borrowers, respectively. LWUA was a solo financial source for the WDs as the policy of Philippine Government. However, every WD was entitled, upon the issuance of EO279 in February 2004, to have access to any financial sources and to select procurement of technical services. The role of LWUA is re-defined to invest the WDs that have encountered the difficulty to access financial sources in general market.

Technical services to the WDs by LWUA shall also be provided with pay. At the present time, LWUA is under preparation of required investment policy, development plan for the WDs and financial improvement plan for LWUA itself to play its role effectively and efficiently according to the requirements in EO279.

SECTION 2 PROJECT OBJECTIVES AND SCOPE OF WORK

2.1 Project Objectives

This project was designed to initially assist small-size water districts for the promotion of self-reliance and sustainable operation of water supply systems in terms of strengthening capacity building and at the same time improvement of facilities that are major control factor to improve management of the water districts. Through the improvement of the water districts, the final target is established for access to safe and sufficient drinking water for the people.

The specific targets of the project are enumerated below.

- 1) Realization of the improvement in services and management of the 20 water districts selected by established criteria among 60 subject water districts
- 2) Enhancement of overall management capacity and services in the selected 40 water districts out of 60 water districts
- 3) Improvement of knowledge of LWUA for effective improvement of the management of water districts through technology transfer to counter part staff of LWUA

2.2 Subject Area of the Project

The subject area for the project covers those service areas of sixty (60) water districts all over the country (refer to location map)

2.3 Scope of Technical Cooperation

The scope of the work for technical cooperation is enumerated below.

- 1) The work will be conducted based on M/M exchanged in February 14, 2005 and R/D in April 18, 2005. The JICA technical team will undertake the tasks shown in Table 2.1.
- 2) Required reports as shown in Work Plan will be prepared and submitted after explanation/discussions with concerned parties in the Philippines.

Table 2.1 Major Scope of Work

Major Tasks
1) Selection of subject Water Districts (60 WDs)
2) Managerial and functional diagnosis of the WDs and preparation of profile of each WD
3) Preparation of Improvement Guideline for subject WDs and selection of those WDs for the provision of improvement work
4) Guidance to the 20 WDs for preparation of improvement plan in terms of management and services
5) Preparation of facility improvement design for the selected WDs, bidding and construction supervision
6) OJT, monitoring and follow-up/assistance to the WDs after improvement of facilities
7) Provision of training program to subject WDs
8) Provision of feed-back and wrap-up seminar

SECTION 3 GENERAL APPROACH AND METHODOLOGIES

3.1 General Approach

3.1.1 Countermeasures to Ensure Sustainable Development of Small-size Water Districts

A total of five basic requirements are established focusing on small-size WDs to form the bases of sustainable growth of the WDs through the future (refer to Table 3.1). Figure 3.1 presents manner of technology transfer to LWUA CP and local Consultants staff.

Table 3.1 Basic Requirements/Tactics for Project Implementation

Basic Tactics for Project Implementation
1) Promotion of participation in water supply work by the beneficiaries in provision of direct benefits of the project to them
2) Establishment of project implementation plan in application of participatory approach by the WDs and beneficiaries
3) Effective commencement of water supply work to ensure self-reliance by the WDs in provision of assistance for improvement of water supply facilities
4) Enhancement of soft component for sustainable management of WDs in the long term
5) Promotion of continuous improvement of WDs through the sufficient monitoring and follow-up

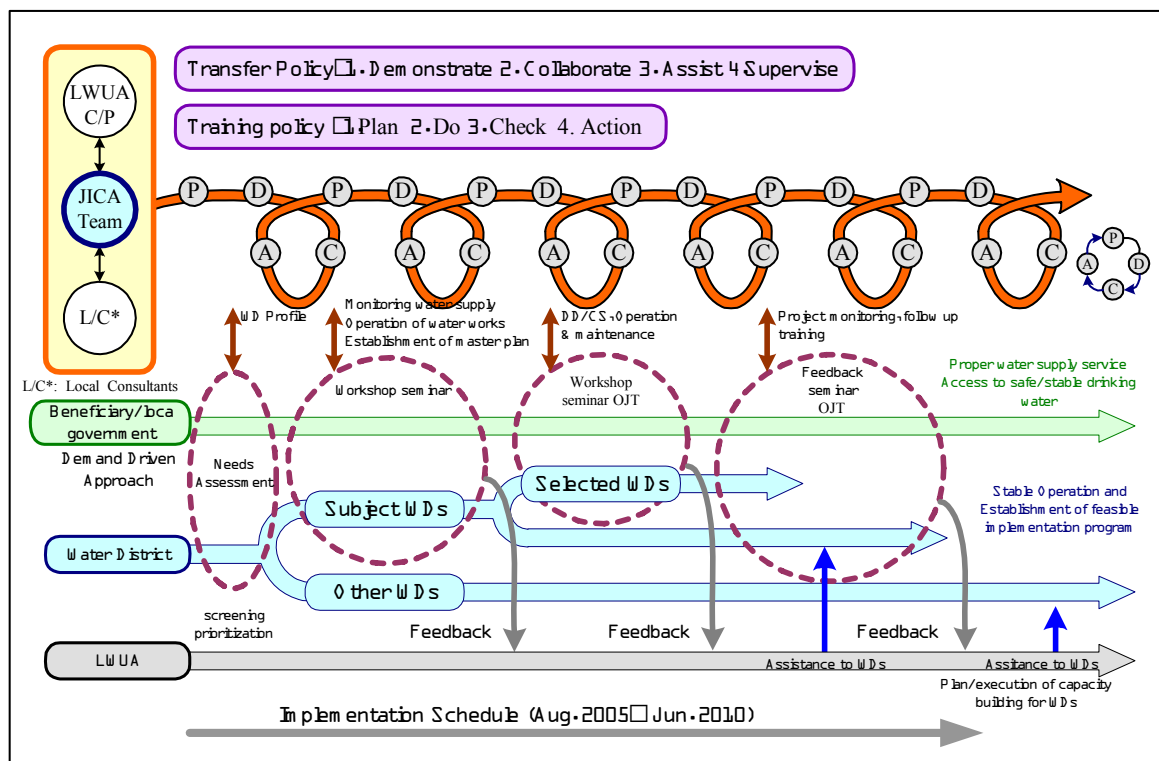


Figure 3.1 Manner of Technology Transfer to CP and Local Consultants

The following are basic approach to be adopted by JICA Team through the implementation of the technical cooperation.

- (1) Technical cooperation will be done to promote ownership by concerned parties in application of participatory approach by stakeholders through sufficient communications in the fields from initial stage of the project.
- (2) JICA Team will collaborate with LWUA counter part staff to complete required work on time and achieve technology transfer sufficiently. Each major work will be implemented in application of a cycle approach, training, assistance and follow-up and evaluation /feedback.
- (2) Design and supervision for improvement of facilities will be collaborated with local Consultants. In this regard training , follow-up and guidance will be provided for L/C to ensure technology transfer directly to the WDs.

The following are proposed approaches to major components.

3.1.2 Selection of Subject Water Districts and Target Water Districts

(1) Selection of Subject WDs

Philippines is geographically sub-divided into three areas, Luzon, Visayas and Mindanao areas. These areas have different characteristics in their geography, economical situation as well as water supply conditions. In this connection, distribution of 60 WDs in the country may be arranged in consideration of characteristics of the areas. It is suggested to distribute more number of WDs to Visayas and Mindanao areas than average number for the three areas.

Absolute and relative criteria were established (refer to Figure3.2) for the selection of subject WDs with some additions to those described in the R/D.

- Absolute Criteria□

- 1) Small –size and Less-Credit Worthy WDs (in case of insufficient information available, the condition may be limited to small-size WD) in the classification of WDs
- 2) WDs without any experience and future plan on ODA assistance
- 3) WDs without any plan on dispersion and merging

- Relative Criteria□

- 1) Weighted distribution: higher weight to Visayas and Mindanao areas
- 2) Limited LWUA arrears, lager number of service population and smaller arrears per service population

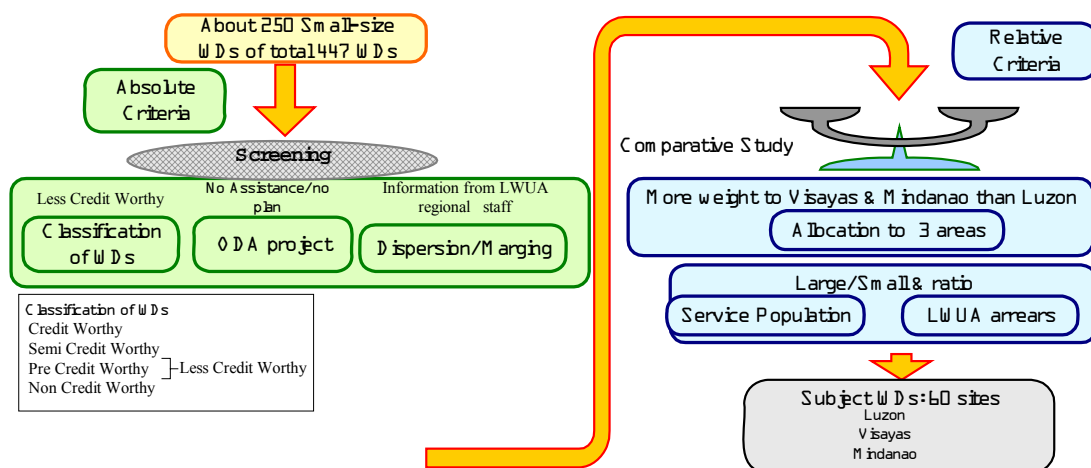


Figure 3.2 Selection Criteria for Subject WDs

(2) Manner of preparation of the Profile of Subject WDs

The profiles of WDs are essential as the base information for the project. This profile is used for the selection of target WDs, as the base information for the implementation of training program and as a model for LWUA to make actions to WDs for improvement of the management collecting relevant information from them.

The profile documents consist of data base and analog (drawings) forms. The following are to be considered for completion of the profiles.

- 1) Allotted period for the collection of information and preparation of profiles is limited to 5 months.
- 2) Since local Consultants staff (LWUA's counterpart staff will also join) are planned to conduct field work for collection of information, sufficient training to them is a requisite through the collaboration with JICA Team entailing OJT in application of PCM method.
- 3) Data shall be objective and quantitative for the fair evaluation. However, check list may be prepared to evaluate willingness to participate in the project and performance of WDs.

(3) Needs Investigation

The investigation will be conducted by local staff (contract out). Random sampling will be made both in the service area and surrounding area without services with respective population percentage of about 10%. The results of investigation will be reflected in the profile of WDs and be used as the basis of the selection of target WDs.

(4) Selection of Target WDs (20WDs)

The target WDs (20 WDs) will be selected in application of the criteria shown in Figure 3.3. The basic requirements such as technical and economical aspects are examined at the first stage screening. Major items in the screening cover (1) effectiveness on the improvement of the WDs in provision of sub-projects and (2) water source availability.

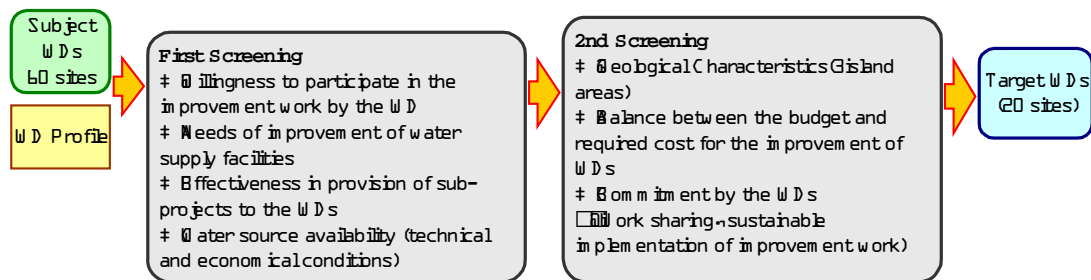


Figure 3.3 Selection Criteria for Target WDs

With regard to the grouping of target WDs, the first batch is recommended to include Luzon and part of Visayas areas, and remaining areas covering part of Visayas and Mindanao for second batch.

3.1.3 Promotion of Ownership to the Project by WDs

It is very important to guide WDs staff for promotion of their ownership. Starting from the occasion for preparation of profile of WDs entailing needs investigation, the actions shown in Figure 3.4 will be adopted provided by staged assistance by JICA Team.

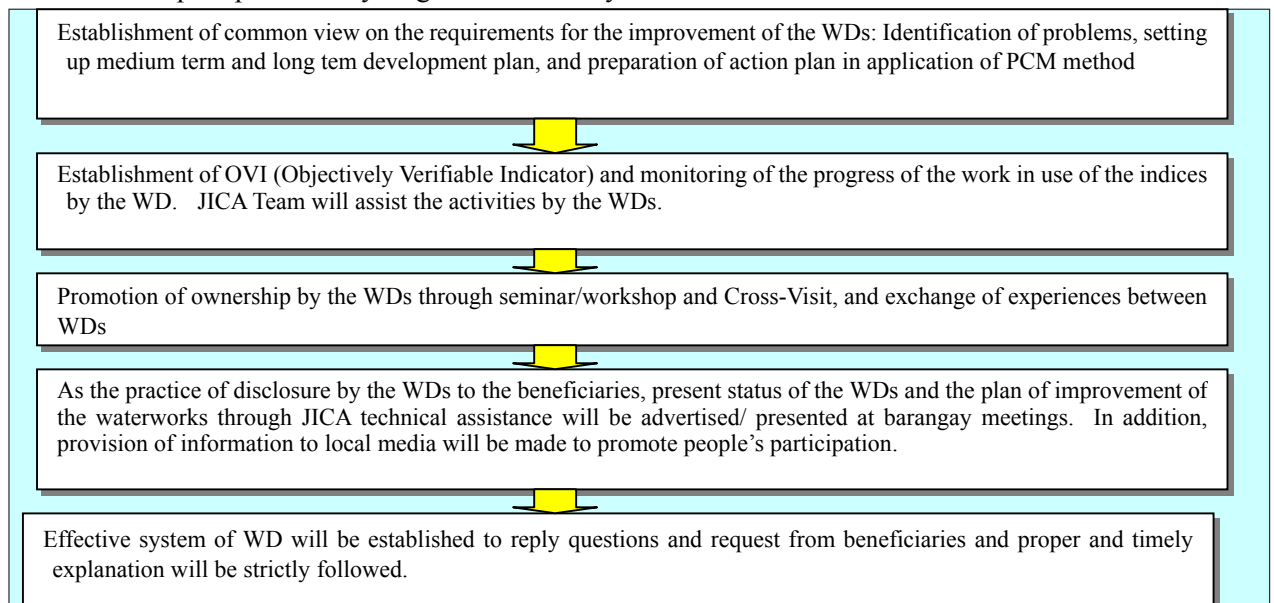


Figure 3.4 Promotion of Ownership to the Project by WDs

3.1.4 Promotion of Participatation by the Beneficiaries

Figure 3.5 presents the approach for promotion of participation by the beneficiaries starting from needs investigation. Participatory approach in PCM will be applied through the implementation of the project as represented in the work for preparation of WD profile.

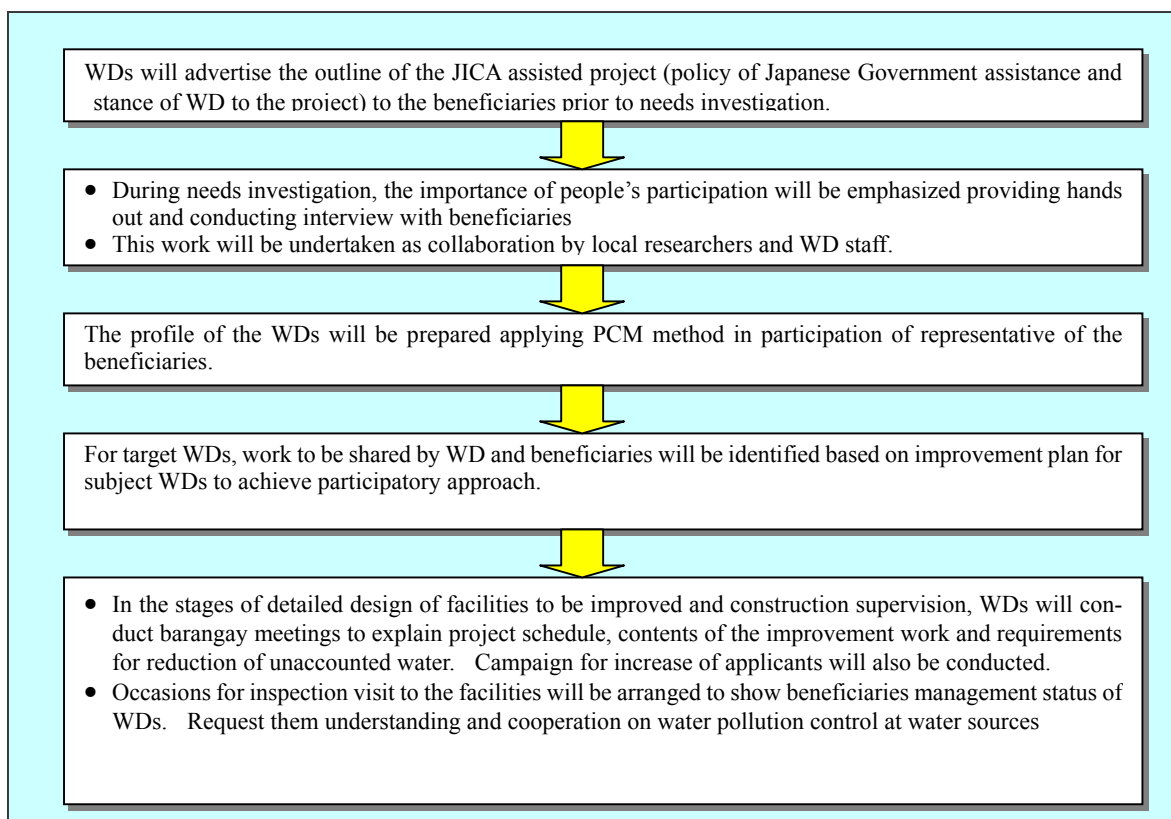


Figure 3.5 Promotion of Participatory Approach by the Beneficiaries

3.1.5 Preparation of Facility Improvement Plan for Subject WDs

Based on the profile prepared for subject WDs, guidelines for improvement of subject WDs will be prepared.

In the preparation of the guideline, medium and long tem development concept/plan will be studied at first. Accordingly, immediate improvement plan will be presented with priorities to the requirements. Improvement plan will cover three aspects; (1) facility improvement, (2) enhancement of management/capacity building and (3) financial arrangement.

Based on the above studies, scope of the improvement required will be summarized in the guideline covering project size, management needs, adequate technology and materials/equipment and financial arrangement.

3.1.6 Basic Approach for Improvement of Facilities

The average budget for the improvement of facilities at each target WD is assumed to be about ten million yen. The scope of work for each target WD will be studied in application of the following conditions.

- (1) Based on the proposed facility improvement plan in “Plan for the Improvement of Management and Service of the WD”, the scope of the work to be covered by this JICA assistance project will be determined. The work will be categorized into water source, water treatment (mainly disinfection) and transmission/distribution facilities. Sub-projects will also be confirmed to be cost effective and self-completion type of work.
- (2) The proposed sub-projects shall have consistency with the improvement plan of respective WDs for the medium-term requirements, which shall be implemented by self efforts of the WD.
- (3) Major scope of work to be provided by JICA assistance will focus on (1) increase of water supply capacity providing rehabilitation of pump units and transmission/distribution pipelines and (2) provision of water meter to measure transmission water amount and water consumption by each household. Improvement of accounting system will also be one of the requirements for rationalization from meter reading to issuance of invoice and water charge collection.

3.1.7 Sustainable Management in the long-term operation of WDs

- (1) Required action for long-term sustainable management of WDs

For the self-reliance after completion of facility improvement, it is important for the WDs to establish water charge system to meet self-support and beneficiaries pay principle, rationalize accounting system in application of personal computer and upgrade service level ensuring depreciation of facilities. Technical assistance will be extended to the WDs as shown in Figure 3.6.

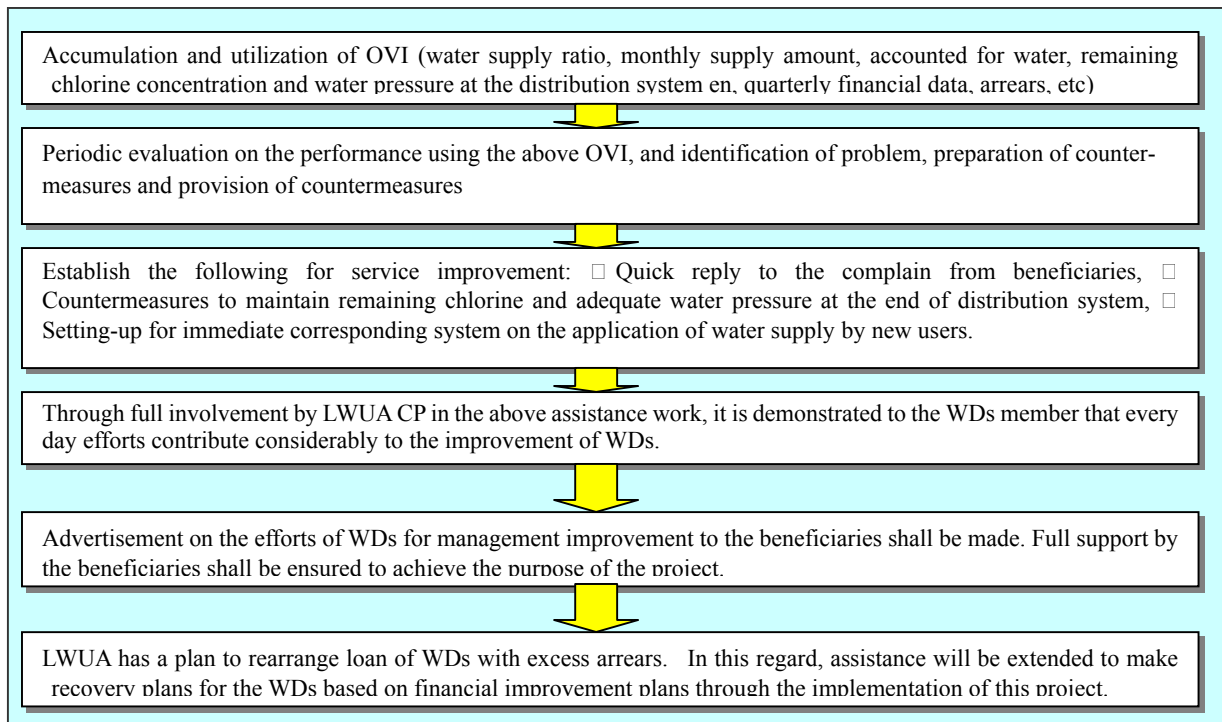


Figure 3.6 Preparation of Improvement Plan Applying Beneficiaries Participation

(2) Assistance to achieve Financial Self-reliance

With regard to financial sustainability for the less creditworthy WDs, it seems to be difficult at the present time to procure loan from private financial sources. In this connection, the utilization of MWLFI (Municipal Water Loan Financing Initiatives) in the Environmental Infrastructure Support Credit Program will be considered. This program (lower interest of ODA and assurance of guarantee) is operated by DBP as 2-step loan of JBIC, which was initiated by the joint efforts of JBIC and USAID.

3.1.8 Sustainable Water treatment Technology

Majority of the WDs for this project depend on their water sources to deep wells and water is delivered to the service areas after chlorine disinfection. Under the condition, main water quality problems with the WDs are categorized as (1) salt water intrusion as the result of excess intake of groundwater, (2) high concentrations of iron and manganese and (3) humic acid related color.

The major reason of salt water intrusion is caused by excess intake of groundwater. There are a lot of treatment technologies for desalination, but they are costly and require sophisticated technology, which are not recommendable for local small-size water supply. Therefore, the subject treatment of water may be limited to those for removal of iron and manganese, and humic acid related color.

3.1.9 Transfer of Improvement Experience to Other WDs

The achieved technology transfer to target 20WDs shall be referred to as the model for other WDs through the following activities.

- 1) The staff of target WDs shall make presentation on the plan and performance for the improvement of the WDs to other subject WDs at training program scheduled by region/ province.
- 2) Exchange of experiences on the improvement of the WDs shall be planned entailing mutual visit in the training program. The comparison between before and after improvement of the WDs will help understand/ follow the fruitful countermeasures by other WDs.
- 3) LWUA counterpart shall be responsible for summarization of activities on the improvement work by WD, which shall be broken down into common and specific items. The experience/results shall be transferred to other WDs by LWUA area operation staff through conduct of workshop.
- 4) Assistance for re-arrangement of loan of WDs will be provided for reduction of arrears in case any assistance would be provided to the WDs.

3.1.10 General Approach in Managerial Aspect for Implementation of the Project

(1) Adequate Design of Facilities to suite for the Locality

Majority of small-size WDs depend on deep well as the water source. The water is delivered by means of submergible/turbine pump either by directly or through elevated tank to households. Under these compositions of the water supply system, standardization of construction plan of facilities will be made for the three categories; water intake facility, water treatment facility and transmission/distribution facility.

(2) Commitment by WDs

Target WDs need to commit requirements prior to implementation of rehabilitation work. The agreement between JICA Team and WDs will be presented to not only LWUA but also to concerned LGU and beneficiaries. The following are requirements for the commitment.

- 1) Procedural set-up with scheduling for land acquisition and right of way for pipeline construction
- 2) Assignment of personnel in charge in the facility construction stage as well as the person for accounting improvement
- 3) Required activities with supervising/evaluation factors for management improvement by the WDs after rehabilitation of facilities

4) Manner of implementation for saving up of depression cost using business profit, continuous rehabilitation/expansion of facilities utilizing loan from financial sources and re-scheduling of repayment plan with LWUA

(3) Major Meetings

During the course of the project implementation, major meetings will be held as shown in Table 3.2.

Table 3.2 Major Meetings during Implementation of the Project

Meeting	Timing
Discussions on Inception Report	Upon start of the Project
Annual progress of the work and implementation approach and work plan for new year	Every year
Summarization of the Project at the final year	Before completion of the Project

(4) Local Contract-out

Investigations on needs of people will be conducted through local contract. The investigation for 60 subject WDs must be completed within 5 months. Detailed methodology with scheduling is a requisite.

(5) Intermediate Project Evaluation

Intermediate evaluation of the project is scheduled on January 2008. Relevant basic data/ information for the evaluation will be prepared considering performances to planned activities, objective achievement, project outputs, issues and problems, etc.

(6) Final Project Evaluation

Required data/information will be collected for the final evaluation of the project, which is scheduled on January 2010.

(7) Advertisement of the Project

Effective advertisement on the project will be made for proper understanding by the people both in the Philippines and Japan by means of internet and distribution of hands-out. The contents include the intention of Japanese Government cooperation, planned activities and project achievements.

For the implementation of the rehabilitation work, land acquisition and right of way may be requisites as well as cooperation need by the beneficiaries for setting up of appropriate level of water charges. The advertisement shall effectively used for these purposes.

(8) Establishment of Project Supervising Committee

Joint Coordination Committee (JCC) will be established consisting of those representatives from LWUA, NEDA and relevant organization in the Philippines and JICA Philippine Office for proper operation and administration. The JCC will approve annual activity plan for the project, conduct evaluation of monitoring results and study on the issues and problems with reference to project implementation. Quarterly project management conference will be held for effective and smooth implementation of the project. Exchange of information with concerned sector agencies in the Philippines will also be considered.

(9) Monitoring and Evaluation

A periodic review of monitoring items (activities, achievements, project purpose in use of Objectively Verifiable Indicator) to check the progress of the project will be made for provision of appropriate countermeasures as required. Information obtained from this activity will be timely informed to JCC and concerned parties for proper operation of the project.

(10) Consideration on Security

During the implementation of the project close communication among concerned agencies in the Philippines will be ensured for security purpose.

3.2 Methodology

Figure 3.7 presents work flow chart according to 3.1 General Approach.

3.2.1 First fiscal year July 2005 - March 2006

Preparatory Work in Japan

(1) Preparation of Inception Report

General approach and methodology, implementation organization and work schedule are summarized in the Inception Report. In addition, requests to and confirmation with LWUA at the initial stage will be put in order including communication system with WDs nationwide, responsibility of CP, office set-up in Manila, etc.

Field Work in the Philippines

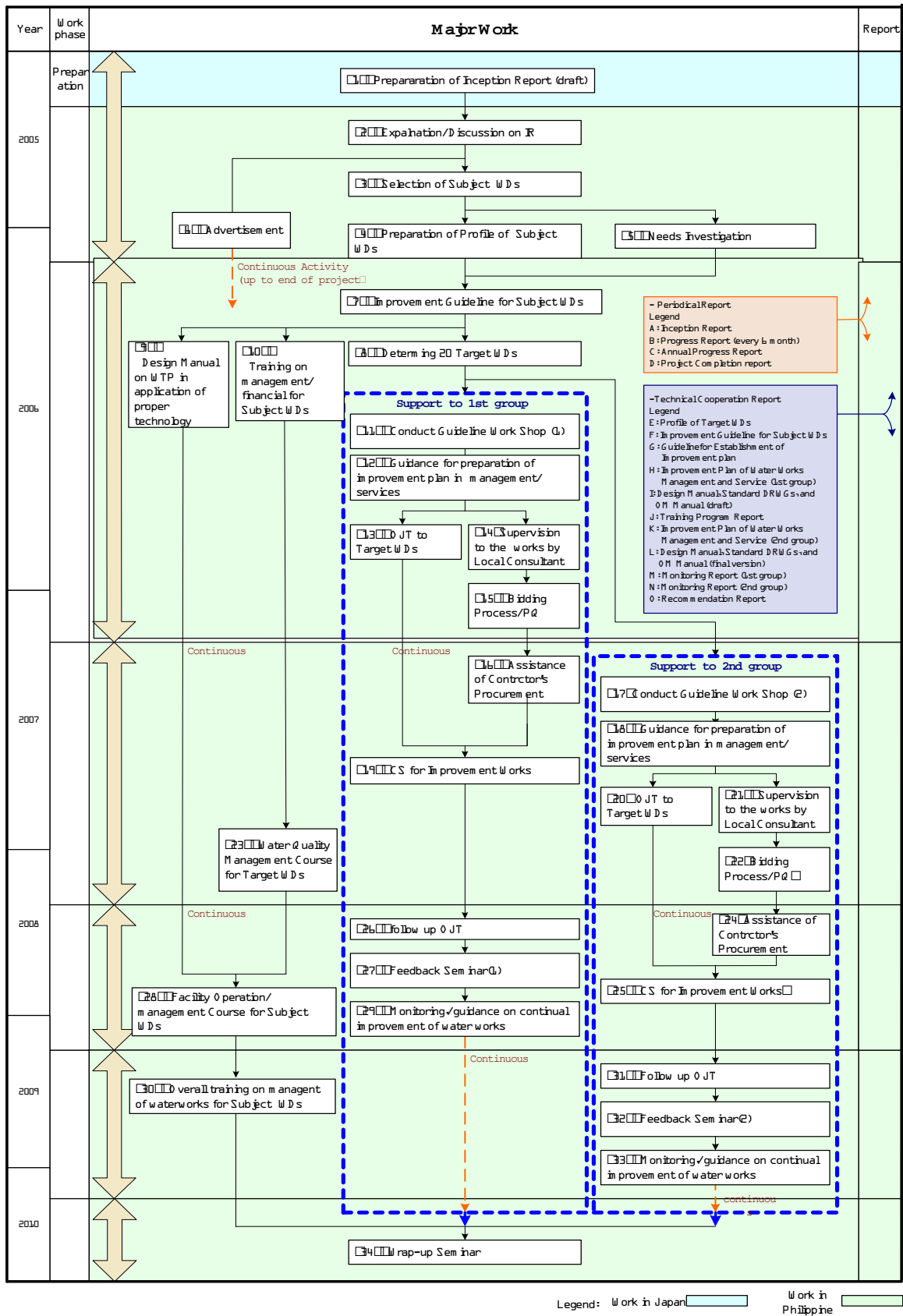


Figure 3.7 Work Flow Chart for Project Implementation

(2) Explanation/Discussion on Inception Report

Inception Report will be finalized through discussions with JICA Philippine Office. Then, JCC meeting will be arranged to get concurrence and confirm the following:

- 1) LWUA's provision to JICA Team, which was agreed in the preliminary Study
- 2) Nomination status of CP by LWUA and present status of WDs

(3) Selection of subject WDs

A total of 60 WDs will be selected after collection and study of the data/information enumerated below. The subject WDs will be explained to JCC for its concurrence.

- Classification of WDs □ Credit Worthy: CW, Semi-CW, Pre-CW, Non-CW, Unclassified (If information would be limited on financial categorization, small-size is absolute condition)
- ODA related information □ Information on KfW and other donor's assistance
- Formation change □ Merging with LGU/other WDs, etc.
- Service population □ Number of applicants by service level, estimated service population, Population in planned service area
- LWUA arrears □ Total loan amount, arrears, repayment deadline, etc.

Selection of subject WDs will be made in two stages as enumerated below.

- Absolute/Minimum Criteria □ Less CW and Unclassified WDs (if sufficient information is not available, small-size is absolute condition); No ODA experience, ; No plan of merging by LGUs and other WDs
- Relative Criteria □ Adequate service population, arrears from LWUA are manageable and appropriate aerial distribution to 3 island areas

(4) Preparation of Profiles for Subject WDs

1) Manner of profile preparation and careful points

Investigations for subject WDs consist of field work by local Consultants staff (together with CP) and needs investigation to be conducted through local contract. The profile comprises data base information and analogue information. Technical transfer to local Consultants staff and CP is planned prior to field investigation by them as shown in Figure 3.8.

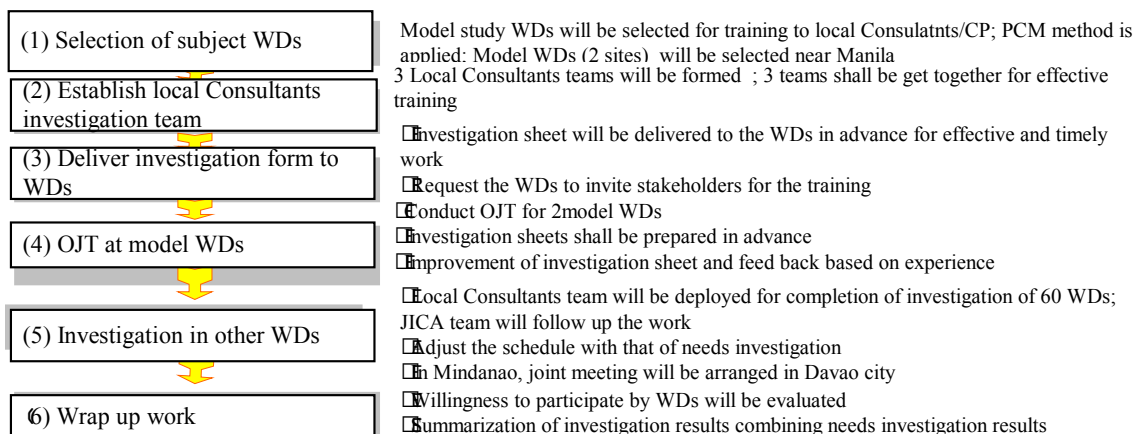


Figure 3.8 Manner of Profile Preparation and Remarks

Model WDs shall be selected near Manila for technology transfer to local Consultants staff /CP by JICA Team. Uniform performance by the three teams shall be ensured and modification of investigation forms will be made through the activity.

2) Investigations by Local Consultants staff/ C P

Each staff of Local Consultants will undertake Luzon, Visayas and Mindanao areas, respectively. JICA Team will follow them up during the field work. Figure 3.9 shows investigation schedule.

Activities	Year 2005					Year 2006		
	8	9	10	11	12	1	2	3
Selection of subject WDs	█	█						
Preparation of investigation form		█						
Selection of model WDs		█						
Field work at model WDs		█						
Field work by L/C Teams			█	█	█	█	█	
Wrap up task by L/C						█		
Finalization by JICA Team								█

Figure 3.9 Implementation Schedule for the Field Work by Local Consultants Staff/ CP Teams

3) The contents of the profile for subject WDs

The standardized profile will be prepared based on the results of the field work and needs investigation by the middle of March, 2006. The profile consists of findings and evaluation results as shown in Table 3.3.

Table 3.3 Contents of Profile for Subject WDs

Composition	Item	Contents □DB or Analogue Information □
Findings	WD Outline	facilities, service area, service population(DB)
	Existing Facilities	facility drawings, specification of equipment
	Current Water supply	water quantity control □DB □, water quality control □DB □, water distribution control(DB □
	Organization	organization, number of staff □DB □, O&M conditions, technical staff level
	Financial status	water charge system □DB □, financial status □DB □, LWUA arrears, water meter reading-charge collection system
	Needs Investigation	water needs □DB □, water charges □DB □, Cooperation to improvement of the water works, willingness to participate in the project
	LGU classification	average income level in the LGU; classification □DB □
Evaluation Results	Willingness to improve WD	willingness to participate in the improvement work by LGU and WD □DB □
	Facility evaluation	problem analysis results on facility, staff and financial conditions □DB □
	Improvement work	SW of medium term and short term improvement of the WD □DB □, required cost for immediate improvement work (DB □
	Effectiveness by the Project	projection of short term financial improvement in provision of the project □DB □
	Judgment on needs	evaluation results of the needs investigation □DB □

(5) Needs Investigation

Needs investigation will be conducted through local contract out as follows:

- 1) Subject area: Subject 60 WDs
- 2) No. of households □ each about 10% of those in the served area and planned service area without services at present
- 3) Manner of Survey: Interview survey will be made by researcher and support staff (to be employed in the WD area)
- 4) Survey period: beginning of September, 2005 – end of January, 2006

The contents of questionnaire shall be designed applying as many selection method as possible and easy statistical handling. Table 3.4 presents questionnaire form for the households with services at present. While, for the unserved households, water source type and water quality, intake amount in dry season, water consumption rate, willingness to connect to water supply system with pay, etc. will be confirmed. Information on water related diseases will be collected from nearby barangay

health center.

Table 3.4 Needs Investigation (Households with service connection)

1. Location: _____		Interviewed by <input type="checkbox"/> _____ <input type="checkbox"/>	
Date <input type="checkbox"/> _____	Investigation block <input type="checkbox"/> _____		
Household Name <input type="checkbox"/> _____			
Items	Specific		
(1) Household			
Composition: _____			
Number <input type="checkbox"/> _____			
Annual Income <input type="checkbox"/> _____ Peso Financial source <input type="checkbox"/> Agriculture <input type="checkbox"/> Industry <input type="checkbox"/> Merchant <input type="checkbox"/> Tourisms <input type="checkbox"/> fishery Forest			
Expenditure <input type="checkbox"/> _____ Peso Water charge & expe. For drinking water _____ Peso			
(2) Water Supply status			
Supply type <input type="checkbox"/> private/public, tap communal faucet			
Supply time period <input type="checkbox"/> _____ time/day/week			
Water quality <input type="checkbox"/> <input type="checkbox"/> No problem <input type="checkbox"/> <input type="checkbox"/> color <input type="checkbox"/> taste <input type="checkbox"/> <input type="checkbox"/> () smell problem			
Water pressure <input type="checkbox"/> <input type="checkbox"/> very low <input type="checkbox"/> <input type="checkbox"/> 1m <input type="checkbox"/> <input type="checkbox"/> low <input type="checkbox"/> 1-10m <input type="checkbox"/> () average <input type="checkbox"/> <input type="checkbox"/> 10m			
Satisfaction <input type="checkbox"/> <input type="checkbox"/> satisfy unsatisfied on _____ <input type="checkbox"/> <input type="checkbox"/> Need of water supply <input type="checkbox"/> <input type="checkbox"/> no need of water supply			
Cooperation on water saving <input type="checkbox"/> <input type="checkbox"/> willing to cooperate <input type="checkbox"/> <input type="checkbox"/> maybe cooperate <input type="checkbox"/> <input type="checkbox"/> No cooperation			
(3) Satisfaction on water supply			
Need <input type="checkbox"/> <input type="checkbox"/> need of water supply <input type="checkbox"/> <input type="checkbox"/> no need of water supply <input type="checkbox"/> <input type="checkbox"/> If there is water source, no need			
Satisfaction <input type="checkbox"/> () satisfied <input type="checkbox"/> <input type="checkbox"/> no complain <input type="checkbox"/> <input type="checkbox"/> unsatisfactory			
In case of unsatisfactory <input type="checkbox"/> <input type="checkbox"/> supply time <input type="checkbox"/> <input type="checkbox"/> water quality <input type="checkbox"/> <input type="checkbox"/> water pressure <input type="checkbox"/> <input type="checkbox"/> complain about water charge			
(4) Improvement request			
Supply type <input type="checkbox"/> _____			
Supply status <input type="checkbox"/> <input type="checkbox"/> supply time period <input type="checkbox"/> <input type="checkbox"/> water quality <input type="checkbox"/> <input type="checkbox"/> water pressure			
Others <input type="checkbox"/> _____			
Effectiveness of improvement <input type="checkbox"/> If _____ is improved, effective in _____			
(5) Water charge			
Present supply amount <input type="checkbox"/> Water supply _____ m ³ /month <input type="checkbox"/> (_____ l/person <input type="checkbox"/> day)			
water charge <input type="checkbox"/> _____ p/month Load to HH finance: <input type="checkbox"/> <input type="checkbox"/> heavy <input type="checkbox"/> <input type="checkbox"/> average <input type="checkbox"/> <input type="checkbox"/> light			
Present water charge: <input type="checkbox"/> <input type="checkbox"/> satisfy <input type="checkbox"/> <input type="checkbox"/> acceptable <input type="checkbox"/> <input type="checkbox"/> not acceptable			
In case improvement be made <input type="checkbox"/> If _____ is improved, _____ P/month may be paid			
(6) In case improvement work would be realized <input type="checkbox"/> are you willing to cooperate <input type="checkbox"/>			
() cooperate; () not cooperate; () object			

(6) Advertisement

Information on this project will be distributed as public relations not only to directly concerned parties but also to the people in the Philippines and Japan. Furthermore, the performance by the WDs on the improvement of waterworks will be periodically presented as the lessons for establishment of common understanding and cooperation among WDs.

The activity will play a role as public information to the stakeholders in the target WDs. Table 3.5 shows temporally schedule for public information.

Table 3.5 Public Information Activities

Major Tasks	Work period/ Frequency	Work Contents
Discussions with concerned parties	8-9, 2005	Strategy for public information activity, Rough work scheduling, responsibility/work sharing
Design of HP and trial operation	9-11, 2005	Local contract out
Operation of HP	1, 2006□	Article shall be presented in LWUA and JICA HP; update the contents every quarter
Contribution to JICA public information	Later half of year 2005□	Information on the progress of the work will be contributed to JICA every half a year .
Public information through WDs	10, 2005□	Information will be provided to beneficiaries and LGU Delivery of information to the people through LGU conferences and barangay meetings Local media shall be used for news release through WDs.

3.2.2 Second Fiscal Year April, 2006 – March, 2007

Field work

(7) Preparation of Guideline for the Improvement of Subject WDs

Prior to preparation of the guideline, studies on technical, institutional and financial aspects will be done as shown in Table 3.6.

Table 3.6 Manner of Study for Preparation of Improvement Guideline

Improvement Aspect	Technical	Institutional/ Management	Financial
Manner of Study	<ol style="list-style-type: none"> 1) Comparison between water supply capacity and water demand in the next 5 years 2) If water source is insufficient, priority work will be given to water source development. 3) The capacity of transmission and distribution facilities will be evaluated for peak flow to find urgent improvement required 4) Installation of water meter will be emphasized for the improvement of unaccounted water. 	<ol style="list-style-type: none"> 1) Identify present capability of WDs in its work implementation and administration 2) Target management system of the WD will be visualized considering facility improvement. 3) Concrete countermeasures will be proposed to urgent improvement required. 4) Appeal the public services by WD to the people. 	<ol style="list-style-type: none"> 1) Financial evaluation will be made identifying arrears and income 2) Identify possible extent of the improvement by self-reliance of the WD. 3) Consider various financial procurement including those guaranteed by LGU, application to the 2-step loan, etc.

Based on above studies, improvement guideline will be prepared considering □ work size, □ operation and management, □ appropriate technology, and materials/equipment and □ management and finance. Major contents of the guideline are summarized in Table 3.7.

Table 3.7 Major Points in Improvement Guideline

Components		Main Subjects	Improvement Policy
Project size	1)Medium-long term improvement plan	<ul style="list-style-type: none"> ▸ Planned service area ▸ Water consumption rate and planned supply amount 	<ul style="list-style-type: none"> ▸ Referring to medium term development plan of the LGU, medium-long term water supply plan will be established.
	2) Immediate improvement plan		<ul style="list-style-type: none"> ▸ The framework for immediate improvement plan will be prepared.
Operation & Management	1) Organization and staff	<ul style="list-style-type: none"> ▸ Staff assignment and responsibilities ▸ Personnel management 	<ul style="list-style-type: none"> ▸ Organizational set up and assignment of staff to meet needs ▸ Standardization of routine work and clear work sharing
	2)Objective based management	<ul style="list-style-type: none"> ▸ Establish management indices and their operation ▸ Information disclosure and countermeasures to the people 	<ul style="list-style-type: none"> ▸ Information provision on management indices to WD staff ▸ Periodic evaluation and countermeasures (monthly, quarterly and annual)
	3)Service to beneficiaries		<ul style="list-style-type: none"> ▸ Public information and public hearing ▸ Measures to new applicants ▸ Information provision to the people on temporary stop of water supply
	4)Effective and rational work	<ul style="list-style-type: none"> ▸ Water meter reading and charge collection ▸ Measures to complain 	<ul style="list-style-type: none"> ▸ Rationalization of water meter reading and charge collection ▸ Analysis on the complain and evaluation of experiences ▸ Quick response measures to the request from beneficiaries
Appropriate technology, Materials & Equipment	1)Appropriate technology	<ul style="list-style-type: none"> ▸ Experience and capability of staff ▸ Knowledge and skill required for improvement of services 	<ul style="list-style-type: none"> ▸ Manner of staff training ▸ Effective and rational measures to the work ▸ Countermeasures to leakage and stolen water ▸ Water quality control
	2)Materials/equipment and facilities	<ul style="list-style-type: none"> ▸ Number and function of existing equipment ▸ Additional requirements for service improvements 	<ul style="list-style-type: none"> ▸ Adequate stock control ▸ Staged improvement plan
Management & Finance	1)Finance	<ul style="list-style-type: none"> ▸ Water charge standard and improvement of collection ratio of water charges ▸ Management of arrears ▸ depreciation 	<ul style="list-style-type: none"> ▸ arrangement of financial documents, periodic reporting and auditing ▸ Establishment of improved water charge system for self-reliance by WD ▸ Re-arrangement of loan from LWUA
	1)Cost control	<ul style="list-style-type: none"> ▸ Setting up of management indices and adoption of them 	<ul style="list-style-type: none"> ▸ Loan arrangement for medium-long tem improvement □ 2-Step Loan, etc □

(8) Determination of Target WDs

1)Manner of screening

Referring to the profiles of subject WDs, screening of WDs will be made. After first screening on the basic requirements, second screening will be made to determine priority 20 WDs considering aerial distribution and balance with the budget. The selection criteria may be adjusted after evaluation of the profiles of WDs and target WDs will be finally approved by the JCC.

Table 3.8 Selection Criteria for Target WDs

First Screening	1) High willingness to participate in the improvement work	<ul style="list-style-type: none"> • Participation in the preparation of profile by the WD • Experience on self-reliance in the improvement of water works by the WD • Willingness to participate in the improvement work for the WD • Assistance status by LGU to the WD (concrete measures)
	2) High needs of the people for the improvement of water supply services	<ul style="list-style-type: none"> • Reflection from Needs Investigation • Data on water born/related diseases • Service ratio, water pressure, supply time and water quality • Exist or not in alternative water sources
	3) Possibility for financial arrangements for future improvement/expansion of the system through self-support (effectiveness in financial improvement)	<ul style="list-style-type: none"> • Projection of financial improvement in provision of JICA assisted project with reference to arrears • Future prospect on the financial support to the WD by the LGU • Possibility of application of 2-Step Loan(JBIC-USAID assistance)
	4) Technical and financial feasibility to ensure water sources	<ul style="list-style-type: none"> • Need of water treatment facilities and projected cost due to raw water quality problem • Need of new water sources and required cost due to limited intake water amount • Stableness of water quality and intake amount at water sources
Second Screening	5) Features of the area □ poverty area, difficult area in the access to water source, etc.□	<ul style="list-style-type: none"> • Existing conditions on water supply (behind in the investment for water supply) • Aerial distribution (with weight to Visayas and Mindanao)
	6)Balance between budget and required cost	Overall cost required shall meet the budget.
	7) Commitment by WDs	<ul style="list-style-type: none"> • WDs shall commit the requirements including land acquisition, right of way, etc.

2) Grouping of Target WDs

The first group may be those WDs in Luzon area and part of Visayas area. The second group consists of those remaining WDs in Visayas area and Mindanao area.

At the present time for Mindanao area, Davao city is assumed to be base station for JICA Team. Accordingly, workshop and meetings with WDs will be held in Davao city. During the activities for first group WDs, required information from Mindanao area will be collected through advanced contact with target WDs.

(9) Preparation of Guideline for Adequate Water Treatment

1) Preparation of Design manual and standard drawings

a) Iron and manganize removal

For iron and manganese removal, iron–bacteria method will be given the priority.

b) Humic acid removal

For removal of humic acid related color, (1) chemical coagulation and sedimentation, and rapid sand filter method and (2) carrier biological filter method may be adopted. Based on examination on different water volume and color, standard design will be developed.

2) Preparation of O&M manual

O&M manual for the treatment of iron and manganese will be prepared referring to those used in the Philippines.

(10) Training for subject WDs in management and financial aspects

1) Contents and implementation method

Table 3.9 presents training subjects on management and financial aspects. Through this training, minimum requirements will be transferred to concerned people. Common understanding on issues and problems is also important for improvement of WDs in application of PCM method. The moderator will be undertaken by JICA expert at the initial stage, and the role will be transferred to C.P gradually.

2) Venues for the training

At present time, the venues for the training are assumed in Manila for Luzon, Cebu city for Visayas and Davao city in Mindanao area.

Table 3.9 Training Program and Implementation Method

Training subject	Implementation method
1) Identification of common subjects to small-size WDs	<ul style="list-style-type: none"> • Present common issues and problems based on analysis and evaluation of WD profile (including the results of needs investigation)
2) Fundamentals for management and financial arrangements	<ul style="list-style-type: none"> • Understanding on management and financial control factors/financial documents as the tool for rational operation of every day management of WDs • Approach to service improvement in use of control indices • Manner of managerial and financial arrangements
3) Examples for the solution of problems	<ul style="list-style-type: none"> • Present current policy of LWUA for the assistance to WDs entailing experiences • Introduction of applicable loan systems; MFC loan which is provided by DOF, DBP loan using 2-step loan from JBIC and USAID
4) Presentation on the lessons at target WDs	<ul style="list-style-type: none"> • Target WDs present to subject WDs improvement plan, implementation status and, issues and problems.
5) Problem analysis and plan of countermeasures in application of PCM method	<ul style="list-style-type: none"> • Issues and problems encountered by participating WDs will be identified/ summarized through discussions. • The problems will be categorized into those possibly solved in the WD and needed to have assistance from outside organizations. • Proposal by the WD shall be made to the problems through small group discussions • Basic policy/approach shall be planned referring to proposed countermeasures.
6) Exchange of visit to WDs	<ul style="list-style-type: none"> • Exchange of experience and mutual support visiting WDs accessible from training place

(11) Guideline Workshop (1) for first group target WDs

Guideline workshop will be held to assist WDs for preparation of respective improvement plans for their services and managements. Table 3.10 presents implementation arrangements. The same method will be adopted for second group.

Table 3.10 Implementation Manner for Guideline Workshop

Item	Contents
1) Participants	<ul style="list-style-type: none"> • GM □ chairman □ O&M personnel and accountant: □ persons each of WDs • LWUAC/P(6 persons) and LWUA staff in Area Operation department • JICA experts
2) contents	<ul style="list-style-type: none"> • Discussions on “Improvement Guideline for Subject WDs” • Establish common view on problems and countermeasures thereto in use of PCM method/participatory approach
3) Venue	<ul style="list-style-type: none"> • Manila
4) Period	<ul style="list-style-type: none"> • 2 days

(12) Assistance to prepare plans for improvement of waterworks management and services (first group WDs)

Assistance to management staff of WDs will be made by JICA experts applying PCM method based on guideline workshop for this purpose. A total of 6 C/P will be responsible for 2 each WDs and they will be dispatched to the field in coordination with JICA experts. The outline of the plan is shown in Table 3.11.

Table 3.11 Outline of Improvement Plan of Management and Services

Contents	Major Subjects	Improvement Methods
Project size	▸ Planned service area and population	▸ Establish medium-long tem water supply plan
	▸ Planned unit water consumption rate and water demand projection	▸ Establish framework of immediate improvement plan
Management and Operation	▸ Organization and responsibility	▸ Setting up organization, staff assignment and responsibilities to meet needs
	▸ Personnel management	▸ Establish routine work and work sharing ▸ Inform WD staff of management indices
	▸ Establishment and operation of management indices	▸ Periodic evaluation and improvement □ monthly, quarterly, annually □
	▸ Information disclosure and management of the people	▸ Advertisement and hearing ▸ Quick reply to new applicants ▸ Timely and appropriate information provision to beneficiaries on the stop of water supply
	▸ Water meter reading and water charge collection	▸ Rationalization of the work for water meter reading and charge collection
	▸ Countermeasures to the complain	▸ Analysis on the complain and evaluation of previous experience ▸ Immediate response to the beneficiaries in use of prepared manual
O&M of Facilities	▸ Experience and capability of staff	▸ Subjects for staff training and manner of implementation
	▸ Knowledge and technology required for service improvement	▸ Effective and rational work ▸ Countermeasures to leakage and stolen water

	<ul style="list-style-type: none"> ▸ No and function of existing materials/ equipment ▸ Additional materials/equipment and facilities for service improvement 	<ul style="list-style-type: none"> ▸ Appropriate stock management ▸ Staged improvement plan
management & Finance	<ul style="list-style-type: none"> ▸ Improvement of water charge level and collection ratio 	<ul style="list-style-type: none"> ▸ Preparation of financial documents and periodic reporting and auditing ▸ Establish water charge system for self-reliance and repayment of arrears
	<ul style="list-style-type: none"> ▸ Arrears management 	<ul style="list-style-type: none"> ▸ Rearrange loan from LWUA
	<ul style="list-style-type: none"> ▸ Depreciation 	<ul style="list-style-type: none"> ▸ Introduction of loan for medium term improvement □ 2-Step Loan, etc. □
	<ul style="list-style-type: none"> ▸ Establishment of management indices and their operation 	<ul style="list-style-type: none"> ▸ Periodic review and inspection on target figures according to the progress of the project

(13) OJT to Subject WDs (First Group)

The OJT to management and other staff of WDs will be conducted. Requirements for the supervision of improvement work from preliminary survey to construction will be included.

(14) Supervision on the work undertaken by local Consultants(First group WDs)

JICA experts will supervise the work to be undertaken by local Consultants with reference to detailed design of facilities for immediate improvement requirements, bidding and construction supervision. In the stage of second group WDs, lessons from first group work will be reflected to make shorten the work. Table 3.12 shows careful points for preparation of construction plan, cost estimates and bid documents.

Table 3.12 Important Points for Preparation of Construction Plan, Cost Estimates and Bid Documents

Documents/ drawings	Item	Careful points
Construction Plan	Organization/methods	Contractor's representative shall stay at the sites; Standard construction manual of LWUA will be used.
	Const. supervision system/method	Intermittent support by L/C; Engineer of the WD supervise through the implementation of the work.
	Bidding method	One lot for each group
Cost Estimates	Work plan	Outline of the work with general plan
	Construction plan	Construction method, procurement plan and scheduling
	Conditions for estimates	Standard fro cost estimates, unit cost, taxes
Bid Documents	Procedure	Invitation, Instruction to bidders, bidding date, Applicants' conditions
	Standard form	Application form, contract documents
	SW	General conditions, Specific conditions, Technical specifications and drawings

(15) Bid procedure and Pre-qualification of Applicants(first group WDs)

Local Consultants will conduct PQ under supervision by JICA experts. The results will be informed to JCC for final concurrence

3.2.3 Third Fiscal Year April, 2007- March, 2008

Field work

(16) Assistance to select the Contractor (First group WDs)

Under the supervision of JICA experts, L/C will conduct bidding procedure, evaluation of application, contract negotiation and preparation of contract documents.

(17) Guideline workshop (2) (second group WDs)

The same workshop conducted for first group will be provided for second group WDs. The venue may be in Cebu city, since project area is Visayas and Mindanao areas.

(18) Assistance for preparation of improvement plan for waterworks management and services (second group WDs)

Assistance to the WDs will be extended as planned for the first group.

(19) Construction supervision for the Project(First group WDs)

Organization for construction supervision is shown in Figure 3.10.

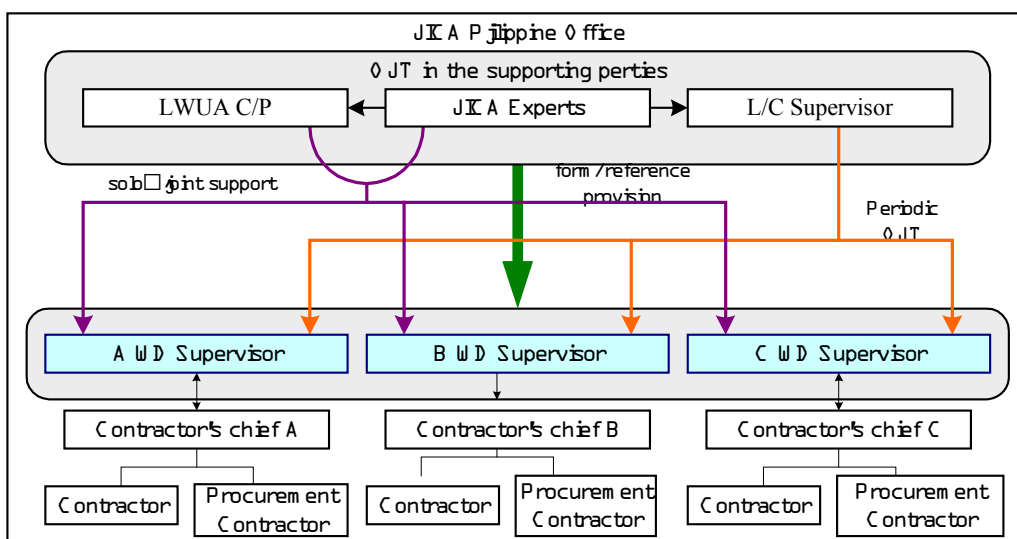


Figure 3.10 Organization for Construction Supervision

(20) OJT for Target WDs (second group WDs)

The OJT follows that shown in (13) for first group.

(21) Supervision of the work by Local Consultants (second group)

Follow item (14) shown in first group.

(22) Bidding procedure and PQ arrangements (second group)

Follow item (15) shown in first group.

(23) Training on water quality for subject WDs

Table 3.13 presents training contents for water quality control. Implementation manner is same as that for management and financial course.

Table 3.13 Contents of Training on Water Quality Control

Training Subject	Contents
1) Presentation on common problems to small-size WDs	<ul style="list-style-type: none"> • Common issues and problems identified through evaluation and analysis of WD profile (including needs investigation results)
2) Fundamentals on water quality management	<ul style="list-style-type: none"> • Drinking water quality standard • Water quality control indices by water source type • Frequency of examination by item and daily water quality management
3) Presentation of sample measures to subject problems	<ul style="list-style-type: none"> • Examples on water quality problems and countermeasures (contamination at water sources, iron and manganese, humid acid, etc) • Chlorine resume
4) Presentation of countermeasures applied at target WDs	<ul style="list-style-type: none"> • Staff of target WDs will present their improvement plan, provided countermeasures and future issues /problems.
5) Problem analysis and countermeasure plan in application of PCM method	<ul style="list-style-type: none"> • Summarize issues and problems of the participating WDs through discussions • The problems will be categorized for solution either within WDs or need of assistance from outside • Group discussion by subject problem will be made to find solution from view point of WDs • Basic policy and strategy will be presented for the improvement based on the discussion results.
6) Cross-visit between WDs	<ul style="list-style-type: none"> • Exchange of information and mutual support will be made visiting WDs near training place.

3.2.4 Forth Fiscal Year April, 2008- March, 2009

Field work

(24) Assistance for the selection of the contractor (second group)

Follow item (16).

(25) Construction supervision for the improvement work (second group WDs)

Follow item (19).

(26) Follow up OJT(First group WDs)

In continuation of OJT conducted in the previous year, follow up assistance will be made for financial and O&M of facilities after improvement work. Table 3.14 shows major items for follow up OJT.

Table 3.14 Major Items for Follow up OJT

Major Work		Manner of Implementation
Financial management	1)Progress review on the implementation of management/financial improvement plan	<ul style="list-style-type: none"> • Evaluation of achievement status in use of monitoring factors for the improvement work • Review of input status by the WD to each improvement item • Review of encountered problems and provided solution by the WD • Find solution and required support to the WD
	2)Problems encountered by the WD aside from improvement plan	<ul style="list-style-type: none"> • Support the study to establish solution after identifying causes of the problems • Support countermeasures through follow up
O & M of Facilities	1)Overall evaluation	<ul style="list-style-type: none"> • Review performances using major management factors which are shown in daily operation records and monthly reports • Complain from users on water supply services, if any and provided countermeasures
	2)Water quality	<ul style="list-style-type: none"> • Existence of chlorine at the end of distribution system • Improvement status on water quality problem (iron, manganese, humid acid related color, etc.)
	3)Water quantity and pressure	<ul style="list-style-type: none"> • Remaining water pressure at the end of distribution system • Supply stop accidents with causes and provided countermeasures
	4)Countermeasures to leakage and stolen water	<ul style="list-style-type: none"> • No of points where countermeasures were provided and the scope of work • Comparative study between transmitted/distributed amount and accounted for water

(27) Training on O & M of Facilities for subject WDs

Training contents for appropriate O & M of facilities are shown in Table 3.15. Manner of training follows that for management and financial improvement.

(28) Feed back seminar (1)

Manner of feed back seminar is shown in Table 3.16. Major contents of the seminar are those included in “Improvement guideline for subject WDs” and “Improvement plan for management and services” for the first group of the target WDs. A series of explanation and discussions follow Table 3.1.

Table 3.15 Training for Appropriate O&M of Facilities

Training items	Contents
1) Present common problems for small-size WDs	<ul style="list-style-type: none"> • Identify common subjects through analysis of WD profile□including the results of needs investigation□
2) Fundamentals for adequate O&M of facilities	<ul style="list-style-type: none"> • Outline of O&M of facilities□facility, water quality and , water supply amount management; countermeasures to disaster/accidents and leakage/stolen water□ • Organization for O&M□management factors, monitoring and staff assignment□ • Relevant laws and regulations • O&M manual used by LWUA
3) Examples on the countermeasures to subject problems	<ul style="list-style-type: none"> • Examples at other WDs□before and after improvement□
4) Examples on the improvements at target WDs	<ul style="list-style-type: none"> • Presentation by WD staff on improvement plan, implementation status and future issues and problems for exchange of information between WDs
5) Problem analysis and countermeasure in application of PCM	<ul style="list-style-type: none"> • Summarize common problems of WDs through discussions by all participants. • Problems shall be categorized into those to be solved by WD itself and to be supported from outside of WDs. • Propose by WDs after small –group discussions by problem • Action plan by WD shall be prepared based on identified solutions by group

6) Cross-visit by WDs staff	<ul style="list-style-type: none"> • Exchange of information between WDs shall be made inspecting nearby WDs from training place (before and after improvement work)
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Table 3.16 Manner of Feedback Seminar

Item	Contents
1) Participants to Workshop	<ul style="list-style-type: none"> • GM , chairman of board, personnel in charge for O&M (4 persons from each WD) • LWUA □/□and Area Operation staff • JICA experts
2) Contents	<ul style="list-style-type: none"> • Refer to Table 3.17
3) Venue	<ul style="list-style-type: none"> • Manila
4) Time	<ul style="list-style-type: none"> • 2 days

Table 3.17 Contents of Feedback Seminar

Seminar steps	Explanation/ discussion
1) Purpose of technical cooperation, Overall schedule; Cooperation items	<ul style="list-style-type: none"> • All participants shall review project objectives, overall schedule, cooperation contents, which are included in Inception Report.
2) WD Profile	<ul style="list-style-type: none"> • Confirmation of common problems and their causes in small WDs
3) Improvement guideline for subject WDs	<ul style="list-style-type: none"> • Confirm the guideline which is prepared based on the analysis of WD profile • Importance of management factors
4) Improvement plan for management and services of target WDs	<ul style="list-style-type: none"> • Contents of activities for improvement of soft and hard fields and management factors
5) Improvement status in target WDs	<ul style="list-style-type: none"> • Achievement status based on management factors in management and services • Presentation on the experience by WDs and plan for further improvement with schedule • Status on information disclosure to the public by the WDs • Improvement status on people's participation and ownership
6) Problems and countermeasures to medium term improvement in management and services	<ul style="list-style-type: none"> • Self-reliance by WDs • Support by LWUA • Introduction of additional finance for improvement work • Possibility of out sourcing in the management of WDs
7) Summarization	<ul style="list-style-type: none"> • Overall effectiveness as a result of technical cooperation • Transfer method in the achievements from target WDs to subject WDs • Supporting policy to subject WDs excepting target WDs • Request to JICA,LWUA and WDs

3.2.5 Fifth Fiscal Year April, 2009- March , 2010

Field work

(29) Follow up OJT for Target WDs (second group)

For the OJT of second group WDs, lessons obtained in the first group will be fully reflected aside from core problems of second group WDs. Major items and manner of implementation are same as those in first group.

(30) Training on management , finance, water quality control and adequate O&M for subject WDs

Referring to the experience in first group, training for second group WDs will be conducted.

(31) Feed back Seminar (2)

This seminar will be held to sum up the two group activities for subject WDs.

3.2.6 Sixth Fiscal Year April, 2010 – June, 2010

Field work

(32) Follow up OJT to Target WDs

Same work will be done as provided for first group WDs.

(33) Wrap up Seminar

Wrap up seminar will be held based on feed back seminar.

SECTION 4 WORK PLAN

The project will start in the middle of August and complete after about 60 months (refer to Figure 4.1).

4.1 Work Schedule

(1) First Fiscal Year □ August, 2005 – March, 2006

“Preparatory work in Japan”

1) Preparation of draft Inception report

“Field work”

2) Explanation and discussions on Inception Report

3) Selection of about 60 subject WDs

4) Preparation of WD profile for subject WDs

5) Preparation of improvement guideline for subject WDs

(2) Second Fiscal Year □ April, 2006 - March, 2007

“Field work”

5) Completion of Improvement guideline for subject WDs

6) Determination of 20 target WDs

7) Guideline workshop(1): first group, 10 WDs

8) Assistance to prepare improvement plan for management and services of the WD □ First group; 10 target WDs □

9) D/D of facilities to be improved and preparatory work for bidding (first group, 10 WDs)

10) OJT for target 10 WDs □ first group □ Identify current status with problems in financial arrangements and facilities, plan for improvement of management and services, and management for the improvement work

11 □ Training program for subject WDs (management and financial course)

(3) Third Fiscal Year: April, 2007- March, 2008

“Field work”

- 12) Assistance for selection of the Contractor for first group, 10 WDs
- 13) Guideline Workshop (2): 10 WDs for second group
- 14) Assistance to prepare improvement plan for management and services of the WD □second group; 10 target WDs □
- 15) D/D of facilities to be improved and preparatory work for bidding (second group, 10 WDs)
- 16) OJT for target 10 WDs □second group □□ Identify current status with problems in financial arrangements and facilities, plan for improvement of management and services, and management for the improvement work
- 17) Training program for subject WDs □water quality control course □

(4) Forth Fiscal Year April, 2008 – March, 2009

“Field work”

- 18) Assistance for selection of Contractor □10WDs for second group □
- 19) Construction supervision for the improvement work (10WDs for second group)
- 20) OJT for target WDs □First group □ After facility improvement, financial management, O&M of facilities; second group: financial, facility problems, plan of improvement of management and services, construction management, etc. □
- 21) Training program for subject WDs (Adequate O&M course)

(5) Fifth Fiscal Year April, 2009 – March, 2010

“Field work”

- 23) OJT for 20 target WDs: Financial management after improvement work and follow up in O&M of facilities
- 24) Training program for subject WDs □management/finance, water quality control and adequate operation course □
- 25) Feed back seminar (2) for target WDs

(6) Sixth fiscal Year: April, 2010 – June, 2010

“Field work”

26) OJT for target WDs □ Follow-up on financial management, operation of facilities and maintenance after improvement work □

27) Wrap up Seminar

The work plan is shown in Figure 4.1.

4.2 Outputs

(1) Periodical Report

1) Inception Report □ Upon commencement of the field work

First fiscal year □ Middle of September, 2005; After 2nd fiscal year - middle of April every year

2) Project Progress Report □ every 6 months after commencement of the project

First fiscal year □ middle of January, 2006; After 2nd fiscal year - middle of June and December

3) Project completion Report □ Before completion of contract every year

First fiscal year □ end of March, 2006; from 2nd to 5th fiscal year □ -end of March every year

4) Project completion report: Before completion of the project, end of June, 2010

(2) Technical Outputs

1) Profile for subject WDs □ end of March, 2006

2) Improvement guideline for subject WDs □ middle of April, 2006

3) Guideline for preparation of plan for improvement of management and services of the WD □ middle of May, 2006

4) Improvement Plan for management and services (20 target WDs)

□ First group □ middle of July, 2006

□ Second group □ middle of July, 2007

5) Report related to improvement work □ detailed design drawings, cost estimates, PQ evaluation report, bid documents and monthly report in construction supervision □

□ First group □ end of March, 2007

□ Second group □ end of March, 2008

6) Report related construction □ Final acceptance report, test run report, construction completion

report□

□First group□end of March,2008

□Second group□end of March,2009

7) Design manual and standard drawings for adequate water treatment, and O&M manual: end of March,2007 : end of March,2007

8) Report on monitoring and training□Before feed back seminar commencement

9) Seminar Report□after completion of each seminar

10) Training result report□after completion of training

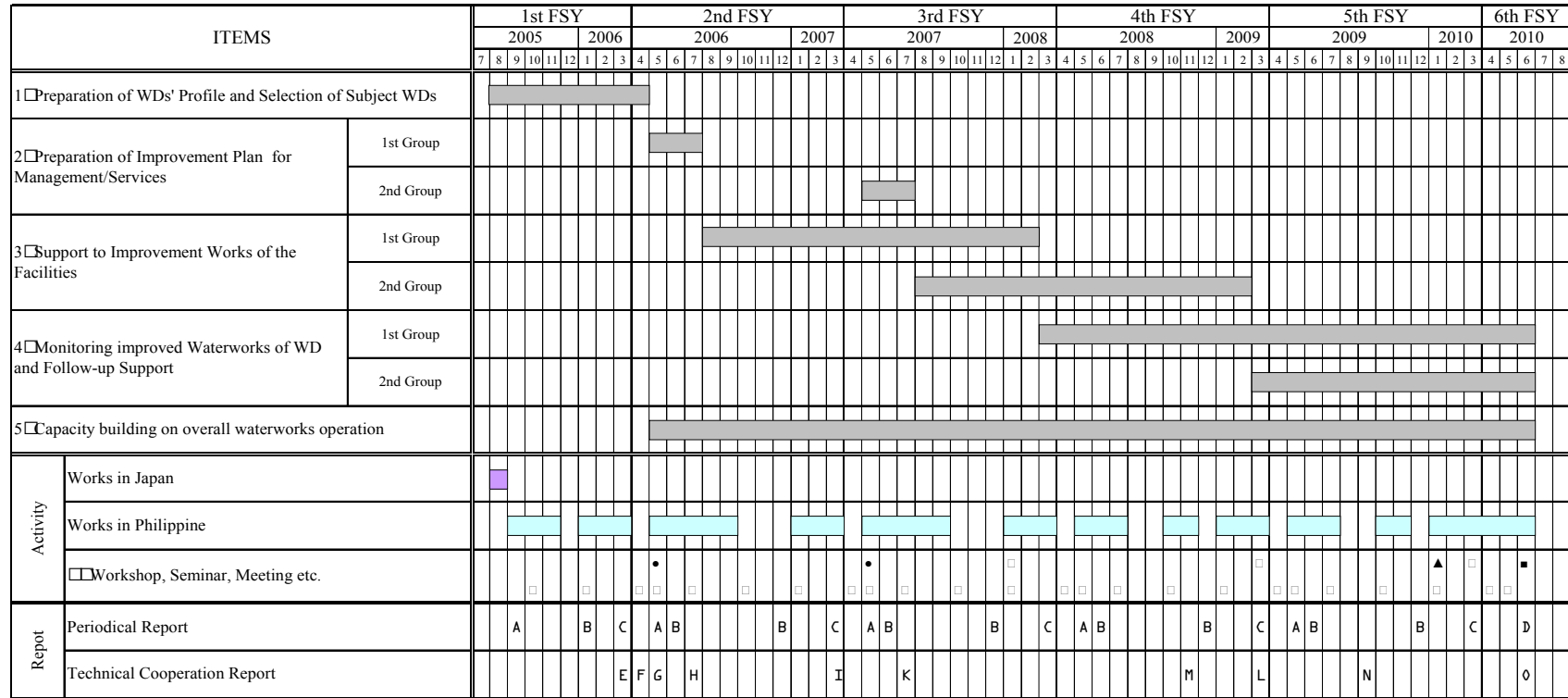
11) Recommendation report□before wrap up seminar

(3) Other outputs

1) Outputs on the investigations contracted out to local Consultants

2) Collected reference data

Figure 4.1 WORK PLAN



- Legend**
- Workshop, Seminar Meeting etc. □
 - □ Guideline Workshop
 - Feedback Seminar
 - □ Wrap-up Seminar
 - Interim Evaluation Survey for Project
 - ▲ □ Final Evaluation Survey for Project
 - Project Steering Meeting
 - □ Joint Coordination Committee □ □ Meeting
 - Periodical Report □
 - A □ Inception Report □ □ / R □
 - B □ Project Progress Report
 - C □ Annual Completion Report
 - D □ Project Completion Report
 - Technical Cooperation report □
 - E □ Profile of Subject Water Districts (WDs)
 - F □ Overall Improvement Guideline for Subject WDs
 - G □ Guideline of Improvement Plan for Target WDs
 - H □ Improvement Plan for Waterworks Management and Service (1st group)
 - I □ Design Manual, Typical Drawings and OM manual (Draft)
 - J □ Training Program Report (no specified on the figure)
 - K □ Improvement Plan for Waterworks Management and Service (2nd group)
 - L □ Design Manual, Typical Drawings and OM manual (Final)
 - M □ Monitoring report (1st group)
 - N □ Monitoring report (2nd group)
 - O □ Recommendation Report

SECTION 5 STAFFING AND WORK SCHEDULE

The mobilization plan of JICA experts is shown in Figure 5.1 and the Plan of Operation is shown in Figure 5.2.

Year and Month
Profile Preparation & Selection of Target WDs
(1) Explanation/Discussion on IC/R
(2) Selection of Subject WDs
(4) Preparation of Profile of Subject WDs
(5) Needs Survey
(6) Publicity Activity
(7) Overall Guideline on Improvement of Subject WDs
(8) Selection of Target WDs
Training on Waterworks Management and Preparation of Design and O/M Manual
(9) Appropriate Design Manual of WTP
(10) Management/Finance Course for Subject WDs
(23) Water Quality Management Course for Subject WDs
(24) Facility Operation and Management Course for Subject WDs

5-3

Figure 5.2 Plan of Operation

SECTION 6 PROVISION OF CONVENIENCE TO JICA EXPERTS BY PHILIPPINE GOVERNMENT

The following convenience shall be provided by the Philippine Government.

- (1) Countermeasures to ensure safety of JICA experts
- (2) Provision of office in Manila for project operation
- (3) Assignment of counterpart staff (6 persons)
- (4) Tax exemption for JICA experts in export and import of equipment for project use
- (5) Provision of convenience in carrying cash into the Philippines and remittance of required money.
- (6) Provision of data/information required for project implementation and required arrangements with concerned agencies
- (7) Permission on export of local data
- (8) Tax exemption to JICA experts for implementation of the project and exemption on registration of foreigner
- (9) Required arrangements for the survey in private premises and prohibited area