

## **CHAPTER 4**

### **ISSUES ON WATER MANAGEMENT**

#### **4.1 Issues Identified through the Grasp of Present Condition**

Issues and requirements identified by the study in each sector are as discussed in Chapter 3. They are summarized as follows:

##### **Water Use**

- Water shortage for various purposes (irrigation, livestock, aquaculture, daily life, domestic, industry) especially in dry season
- Long distance to water source
- Absence/lack of water use facilities and deterioration of existing facilities
- Low water quality
- Conflict in water allocation in different purposes
- River sedimentation and raise of riverbed

##### **Environment**

- Difficulty in implementation of spatial plan
- Destruction of forest (illegal logging and encroachment)
- Deteriorated water quality
- Affect in social environment due to drought

##### **Flood and Inundation**

- Flood and inundation in low lying areas
- Flush floods in mountainous areas
- Sedimentation that raise riverbed
- Riverbank erosion

##### **Institution**

- Necessity of strengthening in related institutions
- Necessity of capacity building
- Necessity in organizational coordination

## 4.2 Public Consultation Meetings

PCMs were originally planned in the Inception Report for two times, namely, at the end of the first field work and also at the end of the second field work. In the Steering Committee Meeting on the Inception Report, it was agreed that Pre-PCMs would be held in the course of the field reconnaissance at three places which represent a lower, middle and upper area of Musi River Basin respectively.

Major objectives of each PCM are as follows:

- **Pre-PCM:** Collection of opinions on water management, and collection of basic information for the identification of environmental issues in the Musi River Basin in the early stage of the Study.
- **PCM (1):** Clarification of issues on the results of identification concerning formulation of the Comprehensive Water Management Plan for Musi River Basin in the stage of compiling the Progress Report.
- **PCM (2):** Explanation of the Musi River Basin Water Management Plan to the local inhabitants, stakeholders, etc., and building a consensus on project implementation.

### 4.2.1 Pre-PCMs

#### (1) Outlines of Pre-PCMs

Pre-PCM was held for three times in September in the course of the field reconnaissance. Outline of each Pre-PCM is shown below: The preparation for the Pre-PCMs was done by a discussion in a joint meeting of the Coordinating/Supervising Team and the Counterpart Team with the JICA Study Team.

**Table 4.2.1 Outlines of Pre-PCMs**

	Lower Area	Middle Area	Upper Area
Date	September 16, 2002	September 20, 2002	September 18, 2002
Place	Sekayu	Muara Enim	Lubuk Linggau
Related Regions/Districts	Palembang, Banyuasin, Musi Banyuasin (MUBA), Ogan Komering Ilir (OKI)	Muara Enim, Prabumulih, Ogan Komering Ulu (OKU)	Musi Rawas (MURA), Lubuk Linggau, Lahat, Pagar Alam
Invited Persons	- Representatives of social groups - Local government officials of related services		
Number of Attendants	42	33	48

#### (2) Main Results of Pre-PCMs

The Pre-PCM consisted of two parts, namely, group discussions of respective regions/districts and a general discussion of all the participants. Lots of issues

were presented by the participants in group discussions. Such issues were presented and a Q&A session was held in a general discussion.

Results of the three Pre-PCMs can be summarized in the following manner.

- (a) Issues presented by the participants are related each other even if those issues belong to different sectors. For example, sedimentation not only affects floods conditions but also water usage. Therefore, problems should be solved comprehensively.
- (b) Effects are often also causes of other problems. The number of problems will increase in the manner of chain reaction as time elapses. Thus, problems should be solved timely.
- (c) There can be found some common issues in the three Pre-PCMs, namely, water shortage (for drinking and irrigation), sedimentation and water quality deterioration. So, local governments can cooperate each other for treating those issues efficiently.
- (d) Capacity building problems concerning planning sections of local governments and WUAs were also presented. Capacity building matters should be considered significantly on formulating the Master Plan

The results of the Pre-PCMs are summarized in a cause-effect tree as presented in **Figure 4.2.1**.

## **4.2.2 Results of Public Consultation Meeting (1)**

### **(1) Outline of PCM (1)**

PCM (1) was held with the following outline:

**Table 4.2.2 Outline of PCM (1)**

Date	Monday, November 25, 2002		
Place	Palembang (Operation room of Cipta Karya, South Sumatra Province)		
Related Districts/Municipalities	Upper Area	Middle Area	Lower Area
	Musirawas (MURA), Lubuklinggau, Lahat, Pagaralam	Muaraenim, Perabumulih, Ogan Komering Ulu (OKU)	Palembang, Banyuasin, Musibanyuasin (MUBA), Ogan Komering Ilir (OKI)
Objectives	<ul style="list-style-type: none"> <li>- Confirmation of issues on water management which have been presented in the Pre-PCMs</li> <li>- Identification of stakeholders</li> </ul>		
Invited Persons	<ul style="list-style-type: none"> <li>- Expected clientele (for each main issue)</li> <li>- Local government officials of related services</li> </ul>		
Number of Attendants	78		

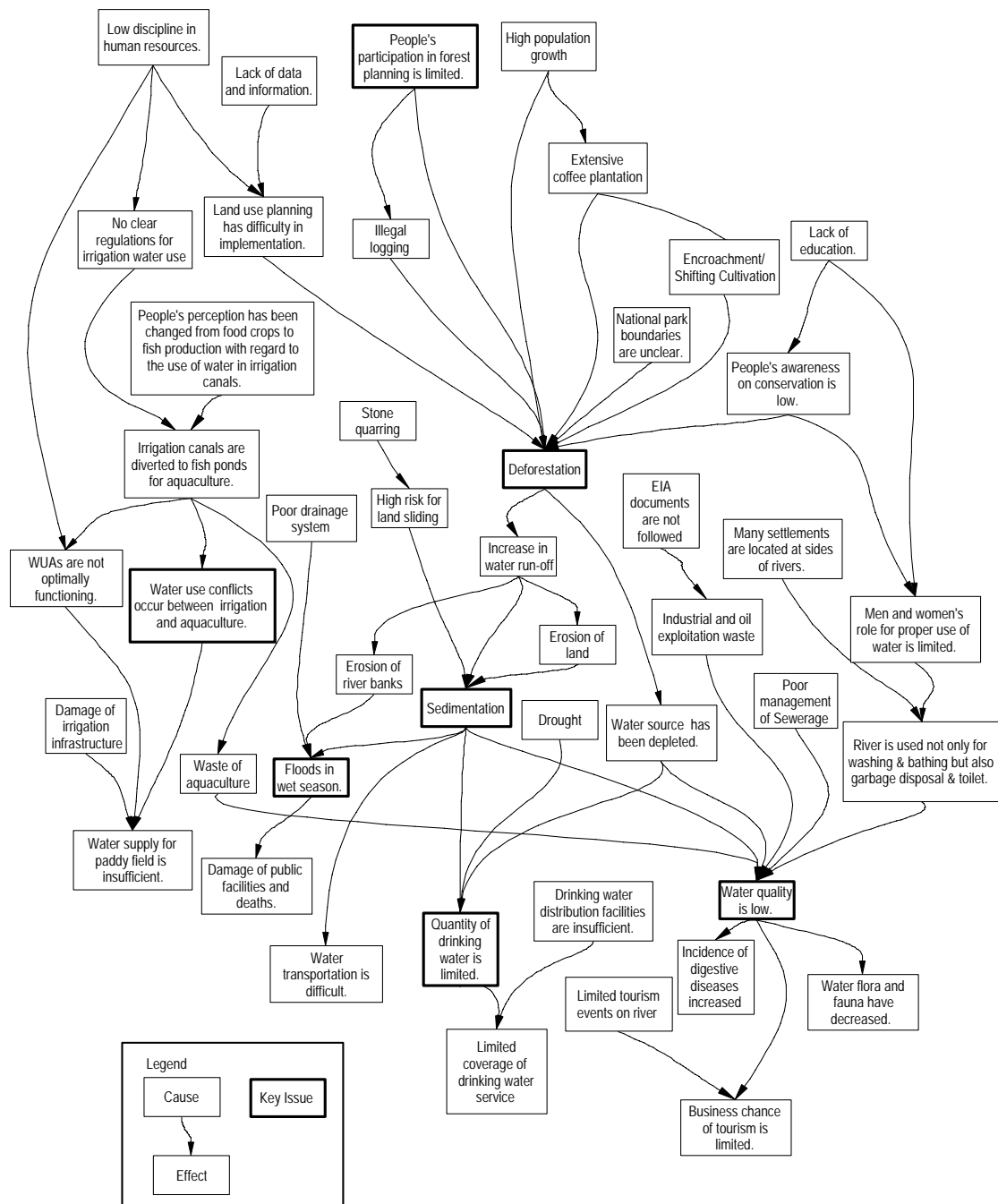


Figure 4.2.1 Summary of Pre-PCM Results

## **(2) Confirmation of Issues**

Issues of each area (Upper, Middle, Lower) were confirmed in the group discussions with using the tool of Logical Framework. Participants developed a Cause-Effect Tree and an Objectives Tree in each group, based on the issues discussed in the Pre-PCMs.

## **(3) Identification of Stakeholders**

Stakeholders are identified with several items including their needs, demands, absorptive capacity, gender issue, and potential adverse impacts of an expected countermeasure. A questionnaire was distributed to and fulfilled by the participants. The main results are as follows:

- Almost all the needs and demands fall in issues identified Pre-PCMs. It seems very difficult for the people to point out adverse effects because no concrete projects are identified in this stage of the Study.
- Respondents think their community has certain extent of absorptive capacity for the program/activities to solve the major problem.
- Respondents think male has a power in the decision of important matters in household. Note that almost all the respondents are male. Concerning the financial matter, however, they think female has a power to some extent.

## **(4) Main Results of PCM (1)**

Discussions in the Group Session (2), where each group presented its results, can be summarized as follows:

The core issues of the Middle Area are: Drought; Shortage of drinking water; River contamination; Poor city drainage system; Rice self-sufficiency has not been achieved; River is currently used for bathing, washing, and toilet.

The core issues of the Upper Area are: Water-use conflict between paddy field and fishpond. District regulation regarding water-use has been proposed, District Office of Water Resource is in the process of developing the criteria for water-use; and, Illegal logging.

The core issues of the Lower Area are: Sedimentation; Industrial waste; Shortage and low quality of drinking water; and, Flood in rainy season.

In the process of discussion among groups, several programs have been identified to apply to the cross upper-middle-lower areas, which are: Reforestation; Improvement of river as means for bathing, washing, and toilet; Provision of drinking water in quantity as well as quality; River contamination

reduction and prevention; Improvement of waste treatment; and, Improvement of drainage.

**(5) Postmortem of PCM (1)**

Several points can be itemized for improving future public consultation meetings with the results of PCM (1).

- (a) Preparation was not necessarily enough. Although the PCM Working Group started about one month before, which is not late, Indonesian members had to join 5-day training of another project one or two weeks before the PCM (1). As a result, communication between members and preparation were not carried out enough.
- (b) The number of clientele participants was only 13, which is very low compared with the invitation, 52. Invitation to clientele was made through related District/Municipality Governments. Because they were very busy for their daily routine works, some of them cannot spare enough time to work for invitation of proper persons who were designated by the PCM Working Group.
- (c) More simulation sessions are required for smooth application of Logical Framework. Working Group members understood the method well, but experience of some facilitator is not necessarily enough. It caused some confusion in the process of the group session.

**4.2.3 Results of Public Consultation Meeting (2)**

**(1) Outline of PCM (2)**

PCM (2) was held with the following set-up:

**Table 4.2.3 Outline of PCM (2)**

Date	Tuesday, February 25, 2003
Place	Palembang (Operation room of Cipta Karya, South Sumatra Province)
Objectives	- Collection of opinions on the proposed Musi River Basin Water Management Plan from the meeting participants - Promotion of active cooperation in the water management proposed in the Study
Attendants	98

Sessions of PCM (2) consists of general session and group session. Details are as follows: In the general session, explanation of the Draft Master Plan including priority programs and implementation plan was made, and discussions were held. Group Discussions were made with applying the method called "Alternative Analysis" in four groups, namely Water Use, Environment, Floods,

and Organization & Institution, which were formulated by the background of participants.

## **(2) Results of PCM (2)**

The followings are priority programs selected in the group discussions:

### **Water Use**

- Irrigation Development Program
- Swamp Area Development Program
- Water Supply to Tidal Swamp Area
- Water management for transportation (group's proposal)
- Raw water (river) development (group's proposal)

### **Natural Environment**

- Enforcement of environmental regulations
- Management of River Environment
- Control of river water pollution

### **Floods**

- Improvement of flood warning system
- Reforestation of the upstream area (group's proposal)
- Drainage system restoration (group's proposal)

### **Organization & Institution**

- Establishment of PTPA/PPTPA
- Establishment of the system for compensation from downstream to upstream for conservation (group's proposal)
- Establishment of Water Resources Data and Information

## **(3) Postmortem of PCM (2)**

- The number of total attendants as well as non-governmental increased considerably from 78 and 13 respectively in PCM (1) to 98 and 29 in PCM (2) because the staff of Dinas PU Pengairang sent invitation letters directly to the participants with explaining significance and objectives of PCM (2).
- It is still open to question whether the participatory approach is effective for asking opinions on matters which are abstract or whose influences are

indirect to participants such as "master plans" and "management" instead on matters which are concrete or whose influences are direct such as "construction projects" located adjacent to them. In PCM (2), participants were asked to discuss not the Master Plan itself but programs which are more concrete based on the priority proposed by the JICA Study Team in order to activate discussions. It still seems difficult for them to discuss those programs which are not recognized "related to them."

- On the other hand, it is effective for the second objective "promotion of active cooperation in the water management proposed in the Study" with increasing mutual understanding between stakeholders that people come from various areas to discuss the same issue together. It can be justified, however, only when the discussion topics of the group they belong coincide with their interests. In this context, it may be preferable that the participants formulate programs by themselves as required by the Logical Framework and Project Cycle Management.

### **4.3 Issues on Water Management**

Based on the above studies, issues on water management have been identified as follows:

- (1) Water Use: Lack of water; Deficit in water balance in the future; Water imbalance by tributary; Sectorwise conflict; Navigation trouble due to sedimentation.
- (2) Environment: Water quality deterioration (urban and rural areas); Devastation of watershed; Severe life condition in migration sites in tidal swamp.
- (3) Flood: Deterioration of river regime (extreme draught); Bank erosion and sedimentation; Flush flood damage; Rain inundation in urban areas.
- (4) Institution: Improper information dissemination; Lack of guidelines for law enforcement; Lack of capacity in human resources; Lack of coordination between organizations.