Appendix-B

PCM WORKSHOP

THE STUDY
ON
CRITICAL LAND
AND
PROTECTION FOREST REHABILITATION
AT TONDANO WATERSHED
IN
THE REPUBLIC OF INDONESIA

Volume-II

APPENDIX-B

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Table of Contents

List of Table

List of Figures

THE STUDY
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AND
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THE REPUBLIC OF INDONESIA

Volume-II
APPENDIX-B

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CHAPTER 1 INTRODUCTION

This Appendix consists of 4 chapters. Chapter 1 presents summary of description mentioned in this Appendix, aiming at easy understanding of background, objectives, methodology and results of PCM Workshop.

In Chapter 2, it is stated that objectives of PCM Workshop are to identify problems in the Tondano watershed, to identify desirable conditions and means to achieve the conditions, to specify the scope of the Watershed Conservation Plan on “Critical Land and Protection Forest Rehabilitation at Tondano Watershed “ and to formulate tentative framework for the Plan.

Chapter 3 relates how to approach to the PCM Workshop. In this case, the taken steps are 4 steps of problem analysis, objective analysis, project selection and formulation of PDM (Project Design Matrix).

In Chapter 4, the results of PCM Workshop are presented by dividing them into the said steps, namely problem analysis, objective analysis, project selection, and formulation of PDM. In this case, PDM means the tentative framework.

CHAPTER 2 GENERAL INFORMATION

2.1 General

One of the main objectives of the Study was to formulate a Master Plan for the Tondano watershed conservation. Along with the regular consultation meetings with the counterpart agencies whereby the results of the Phase I Study had been shared, a Project Cycle Management (PCM) workshop was conducted to systematically formulate the tentative framework of the Master Plan. PCM is a planning method through which the opinions and ideas of the representatives from related groups are organized in the form of project design matrix. PCM is employed for the designing of the Master Plan because of its effectiveness as a planning tool.

2.2 Objectives

A PCM workshop was conducted in order to:

- Identify problems in the Tondano watershed.
- Identify desirable conditions and means to achieve the conditions.
- Specify the scope of the Watershed Conservation Plan on "Critical Land and Protection Forest Rehabilitation at Tondano Watershed in the Republic of Indonesia"
- Formulate a framework for the plan.

The results of the workshop were to be used for the identification of components of the Watershed Conservation Plan.

2.3 Schedule and Participants

The workshop was conducted at BRLKT Tomohon office from 10:00 am to 5:30 pm on April 17 (Mon), 2000. Eighteen representatives from related organizations and institutions participated as follows:

- BRLKT Provincial Office (1no.)
- BRLKT District Office of Minahasa (2nos.)
- District Forestry Service of Minahasa (Dinas Kehutanan II) (4nos.)
- BAPPEDA Provincial Office (1no.)
- BAPPEDA District Office (2nos.)
- District Public Works Service (1no.)
- Provincial Office of Environmental (1no.)
- Impact Management Agency (BAPEDALDA) (1no.)

- University of Sam Ratulangi (1no.)
- JICA Study Team (6nos.)

CHAPTER 3 METHODOLOGY

3.1 General

The workshop was conducted in accordance with the PCM method developed by a Japanese international aid organization. A Japanese expert with the cooperation of an Indonesian counterpart facilitated the workshop. The major instruction was English and Indonesian. Simple visual aid was utilized as an important tool for active participation.

A PCM workshop consists of 6 steps, of which the facilitator used following 4 steps for the workshop in Tomohon (2 steps were omitted due to the time constraints).

- Introduction 10:00-10:30
- Problem Analysis 10:30-14:00
- Objective Analysis 14:00-15:30
- Project Selection 15:30-16:30
- Formulation of PDM (Project Design Matrix) 16:30-17:30

3.2 Problem Analysis

Participants were asked to select Core Problem, which was the most critical and significant problem within the watershed area. Participants then identified Direct Causes of the Core Problem and develop “Problems Tree,” which illustrated “the cause and effect” relationship of problems.

3.3 Objective Analysis

After the completion of Problem Tree, participants identified desirable conditions in which the problems identified during Problem Analysis would be solved respectively. Core Problem was transformed into Core Objective, and Direct Causes will be translated into Direct Means that were stated in a positive manner. Participants completed Objective Tree at the end of this step.

3.4 Project Selection

Participants selected the groups of means (objectives) from Objective Tree based on criteria, including organizational, physical, and contextual constraints and priorities.

3.5 Formulation of Project Design Matrix (Tentative Framework)

Based on the selected groups of objectives above, participants formulated a logical framework of a project, called Project Design Matrix (PDM: in this case, tentative framework). The framework has 4 vertical and horizontal columns as shown below:

Project Title: Target Area and Population:

Duration: Implementers:

	Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal				
Project Purpose				
Output				
Activities		Inputs		
				Precondition

Due to the time constraints put upon the workshop, participants concentrated on the completion of shadowed areas only for this workshop.

The definitions of terminologies on PDM are shown below:

Terms	Definition
Overall Goal	It is an ultimate goal to be achieved a few years after the completion of project. It should be reach as a result of the achievement of "Project Purpose."
Project Purpose	It is a chief objective that is to be achieved at the end of the project. It should be reached as a result of attained "Outputs."
Outputs	They are concrete results of "Activities."
Activities	They are a series of major actions to attain Outputs.
Narrative Summary	It is a brief description of Overall Goal, Project Purpose, Outputs, and Activities
Objectively Verifiable Indicators	It is a list of indicators to quantitatively and qualitatively measures the achievement of Overall Goal, Project Purpose, and Outputs.
Means of Verification	It is a list of sources from which the indicators will be collected.
Important Assumptions	They are external conditions necessary for Project Purpose, Outputs, and Activities to be reached as a result of achievement of lower objectives.
Preconditions	They are external conditions necessary to start the project.
Inputs	They are physical, financial and personnel inputs needed for carrying out Activities.

CHAPTER 4 RESULTS

4.1 Problem Analysis

During Problem Analysis, participants had a stimulating discussion on the core problems and causes of the problems. Two major groups of problem cards represented the Tree developed through the activity; namely water quality soil erosion/sedimentation concerns. Thus the Tree seemed to have 2 core problems: "water pollution at Lake Tondano and rivers" and "soil erosion." The result of Problem Analysis (Problem Tree) is shown in Figure B.4.1.

For soil erosion, participants identified one direct cause, which was "difficulties in applying appropriate conservation technology." Other causes, such as the erosive soil quality or heavy rain were deserted because they were uncontrollable. In accordance with the PCM method, the solo direct cause was deemed as a core problem. The reason for the solo direct cause being considered the core problem was that the direct cause describes the process of soil erosion, while soil erosion was the name for the process. Thus, the process and name of phenomenon illustrate the same matter, and there was no cause and effect relation between the two.

4.2 Objective Analysis

During Objective Analysis, participants transformed Problem Tree into Objective Tree. The core objectives were: "improved water quality," low soil erosion" and "establishment of proper conservation." The result of Objective Analysis (Objective Tree) is shown in Figure B.4.2.

Given the ways they were stated, the relationship between the establishment of proper conservation and low soil erosion should be understood as an objective (former) and an indicator (latter). However, soil erosion was discerned as more tangible than the establishment of proper conservation, the two cards were put separately during the workshop. Participants agreed that there was a direct cause and effect relationship between "reduced critical land" and "establishment of proper conservation."

4.3 Project Selection

Participants selected a group of objectives as shown in the circled area on the Objective Tree in the following page. During the project selection activities, participants considered BRLKT as a central implementer, which was one of the

major criteria for the selection. Participants also considered, as a contextual criterion, other projects and watershed conservation plans existing in the area. There was an extensive discussion on whether the creation of new job opportunities should be included in the scope of project. It was excluded due mainly to the organizational constraints put upon BRLKT. The discussion also extended to the implementation of the project. The staff members of JICA Study Team and BRLKT explained the purpose of this project, which was to design a plan and conduct feasibility study, not to implement a plan.

4.4 Formulation of Tentative Framework

The facilitator developed and completed the Tentative Framework shown in Table B.4.1 based on the discussion during the formulation activities on the workshop. As it was planned, participants only concentrated the Narrative Summary identifying the means and ends relationships among the different levels of objectives (Overall Goal, Project Purpose, Outputs and Activities). For Project Purpose, the word “technology” was attached at the end of the sentence, which ought to change the relationship between Project Purpose and Activities. However, the relationship was intact because participants understood the Project Purpose as “a condition that proper conservation measures and activities are widely practiced.” For this, the two overall goals “low sedimentation and minimized sedimentation increase” and “reduced critical land” can be renowned as indicators for the Project Purpose. The matter remained unsolved during the workshop.

Tables

Table B.4.1 Tentative Framework

Title: **Critical Land and Protection Forest Rehabilitation at Tondano Watershed in the Republic of Indonesia**

Target Area: **Tondano Watershed**

	Narrative Summary	
Overall Goal	● Low soil erosion and minimized sedimentation increase ● Reduced critical land	
Project Purpose	● Establishment of proper conservation technology	
Outputs		Major Activities
1. Prevention of deforestation		● To establish a watershed conservation plan and implement forest protection ● To raise awareness of people for forest protection
2. Afforestation		● To establish a watershed conservation plan and implement afforestation ● To raise awareness of people for afforestation
3. Promotion of agricultural watershed conservation technology		● To establish a watershed conservation plan and promote appropriate farming technology ● To raise awareness of people for farming technology that preserves watershed
4. Promotion of appropriate construction technology for watershed conservation facility		● To establish a watershed conservation plan and introduce appropriate construction technology
5. Active participation of people for watershed conservation		● To establish a watershed conservation plan that encourages people's participation in watershed conservation activities ● To raise awareness of people for watershed conservation

Figures

Figure B.4.1 Problem Tree

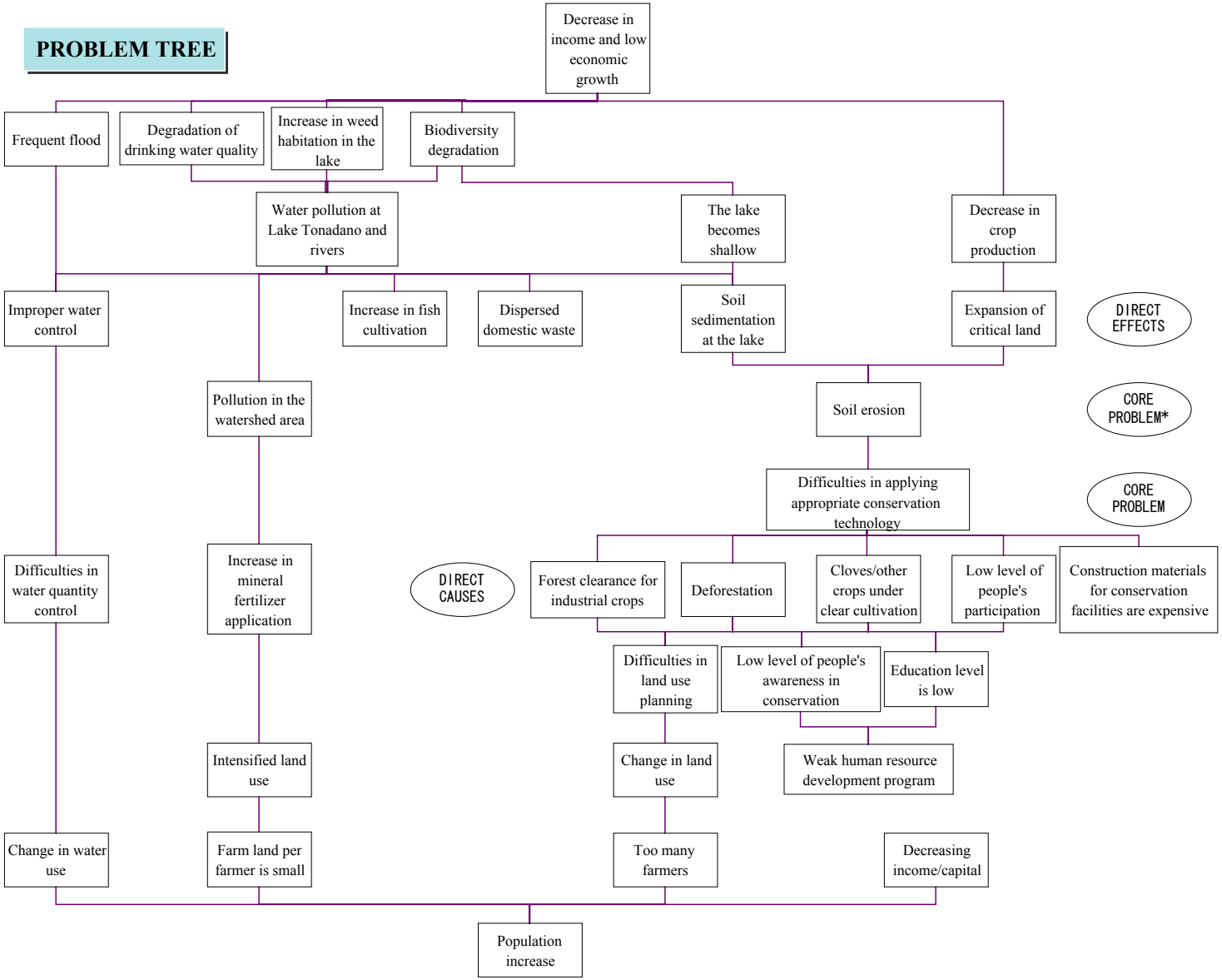

Figure B.4.2 Objective Tree