

# Field Notebook on



August 2012

Capacity Development for the Promotion of Irrigation  
Scheme Development under DADPs  
**TANCAID**

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## Introduction

Who needs the training? The training needs assessment which is dealt with in this field notebook can be answerable for this question.

In order to conduct proper Operation and Maintenance (O&M) of irrigation facilities, the training should be conducted by the demand-driven approach to satisfy the users of the irrigation facilities who are closely working on irrigation farming. In some cases, the trainings for O&M are delivered in the supply-driven approach instead of demand-driven which does not meet actual needs of trainees.

There are several methods of the training needs assessment to conduct trainings to address problems encountered in irrigation projects and this is one of the simplest but effective methods among them.

The process adopted in this method starts from the problem analysis followed by the training needs analysis and the training prioritization. It is recommended that all process be carried out by all members of stakeholders but due to time, financial and personal limitation it can be done by some representatives of the stakeholders.

Another important aspect of this training needs assessment is that all activities are linked with the *Comprehensive Guidelines (CGL)*. As *CGL* has been established to promote and improve district irrigation projects in line with the results of National Irrigation Master Plan (NIMP) study, the contents and steps of *CGL* should be taken into consideration.

The Powerpoint file called "Training Needs Assessment" is available for the trainers to conduct the training on the training needs assessment for the scheme facilitators.

## 1. Preparation

In order to conduct the training needs assessment, the following materials are required for smooth implementation.

- a) A4 size cards (used A4 paper is OK)
- b) Marker pens
- c) Masking tape (to post on the wall or board)
- d) Large size of papers or flip charts (to summarize the results)
- e) Ruler



A4 size cards  
(papers)



Marker pens



Masking tape



Large size of paper  
and ruler

## 2. Time allocation

A half day to a day

## 3. Target groups

All members, Committee members (Central committee, O&M sub-committee, Financial sub-committee etc.) and/or selected members, it depends on the type of problems to be addressed by who.

## 4. How to use this field notebook

This field notebook aims to assist the DIDT members (facilitators) to identify the training needs of Irrigators Organizations (IOs) at the irrigation schemes. It was compiled in line with the steps (Step-1 to Step-6) explained in the chapter of O&M, Comprehensive Guidelines (CGL).

The facilitators just follow the procedure described in the slide of each exercise and "Explanation" of each exercise explains how to conduct in detail.

It is very much appreciated if the facilitators modify this notebook based on actual conditions of the irrigation schemes then utilize.

## Relation between O&M steps and Assessment

- \* Training needs assessment should link with Step-1 to Step-6 in the chapter of O&M of Comprehensive Guidelines.
- \* For example, Step-1 covers **Determination of organization, Determination of rules and Basic O&M planning.**
- \* Training needs assessment should be carried out in each item above.



### Explanation:

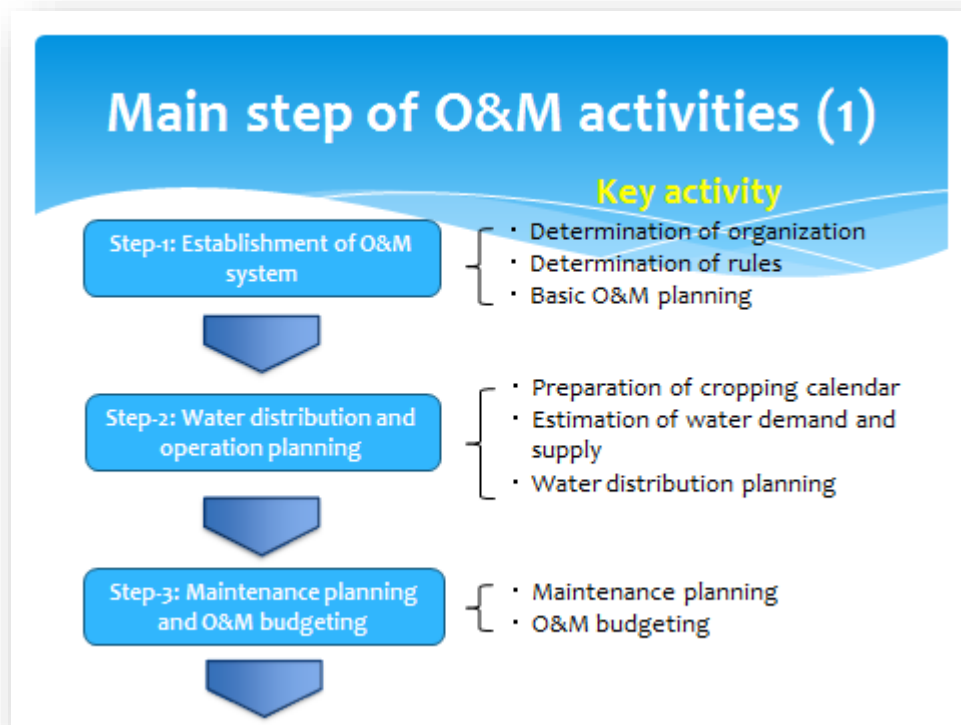
CGL explains 6 steps in the chapter of O&M and main activities in each step. At first the facilitator should closely check these steps and related activities (Key activity) one by one.

For example, the Step-1 covers Determination of organization, Determination of rules and Basic O&M planning.

Determination of organization means conditions of the organization such as "Irrigator Organization (IO) is registered" or "IO has an organization structure" and so on. Determination of rules is related to the Constitution and By-laws. Basic O&M planning is related to the establishment of Operation plan and Maintenance plan.

# PROCEDURE

## Main step of O&M activities (1)



### Explanation:

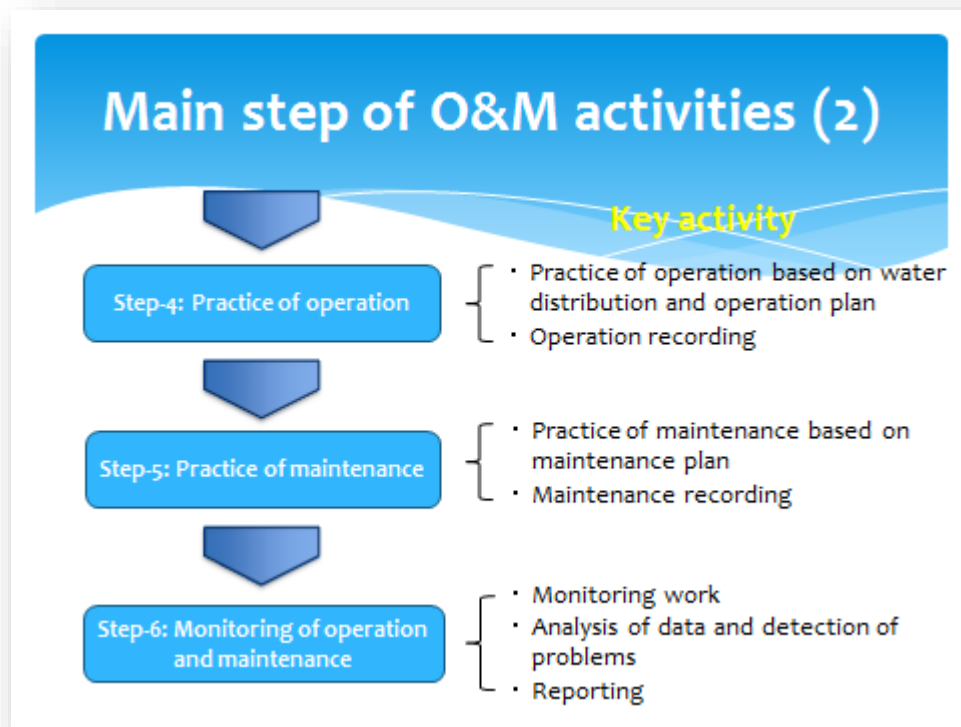
The facilitator writes the steps of O&M activities described in CGL on a large size of paper to show the participants like the slide above.

In Step-1 Establishment of O&M system, there are 3 key activities such as Determination of organization, Determination of rules and Basic O&M planning and each of them has some problems need to be solved to achieve successful results. Also Step-2 has the same.

So now the facilitator explains the key activities Step by Step to get common images among the participants.

These Steps are a series of O&M activities in the irrigation project. Even though there may be other issues related to O&M, this training needs assessment should concentrate on CGL as explained above.

## Main step of O&M activities (2)



### Explanation:

The facilitator continues to write another group of the steps with Key activity. In the slide, Step-4: Practice of Operation, Step-5: Practice of Maintenance and Step-6: Monitoring of Operation and Maintenance depend on the progress of irrigation management by IO. If IO needs improvement in these steps or has willingness to learn about these steps now, the facilitator continues the same explanation until Step-6.



## Step-1: Problem identification

Step-1TANCAID

Constitution is not established yet.

### Problem identification

1. Organize the problem finding tour by all participants.
2. Determine an item such as determination of organization and Basic O&M planning.
3. Write problem on a card and post them a board to be seen by all participants.
4. One problem per card
5. Make consensus among the participants.
6. Sort out the problems by similarity.



### Explanation:

At first, the facilitator organizes the problem finding tour of the irrigation scheme to identify and recognize current problems with note books. This activity is important before Problem identification exercise starts. In some cases, participants misunderstand problems which are not currently encountered or assume unreal problems which are not particularly occurring in the irrigation scheme. The tour takes 2 hours maximum for mainly checking the function of irrigation facilities and maintenance situation.

After finishing the tour, the facilitator asks the participants for selection of the Key activity of each step then ask about problems of the Key activity they are facing now through the problem finding tour and their current activities related to O&M such as the IO management and the financial management.

For example, if the participants have problems on the determination of organization, they may mention "weak leadership", lack of the organization

structure", "IO has not registered" which are related to the organization.

The facilitator provides a piece of card (A4 size is reasonable size) with marker pens for participants to write a problem on a card and post it on the board. The facilitator encourages all participants as many as possible to express their opinions and stop them to write at the time when reasonable number of opinion was posted then leads to make consensus of each of problems among them.

After that, the facilitator categorizes the similar problems into groups.

The participants are required to write a problem on a card not many problems on a card.



A facilitator is asking a consensus among the participants.



Problems were categorized into groups by similarity.

## Rules of problem identification

- \* Write existing problems
- \* Do not criticize others' opinions when consensus is needed.
- \* Problems related to the training should not be posted because this activity is to find Training Needs like;
  - The training programme is not established → N.G.**
  - The contents of trainings are not adequate → N.G.**



### Explanation:

The first rule is "Write existing problems" that is a very important rule to avoid unnecessary training findings. The problems should not be anticipated, that may occur in the future or imaginary. So problem finding process is essential. If time allows, the observation tour should be organized for all participants to investigate current conditions of O&M in the irrigation scheme.

The second rule is "Do not criticize others' opinions when consensus needed" During this activity, the rules are strictly observed to avoid possible conflict among the participants therefore warning of "Do not criticize others' opinions" should be mentioned in advance. Especially when consensus is needed, the facilitator does not allow them to say like "You do not anything", "You make this problem" and "This is not my problem".

Another important rule is "Do not write a problem related to the training". Of

course, the training is an essential factor related to problems on O&M but it should be noticed that this assessment is simple and not time consuming. The facilitator should understand this activity is to find training needs. Discussion on the training needs shall be done in Step-4 Expected training to solve the problems.

Anyway the facilitator should explain the rules to the participants before the problem identification exercise starts and encourage active discussion and let them to follow the rules to make a better circumstance.

## Step-2: Core problem identification

Step-2TANCAID

### Core problem identification

1. The largest number of problem may become the core problem in each item.
2. The core problem may be influential one which has a lot of causes and effects.
3. All participants agree the core problem.



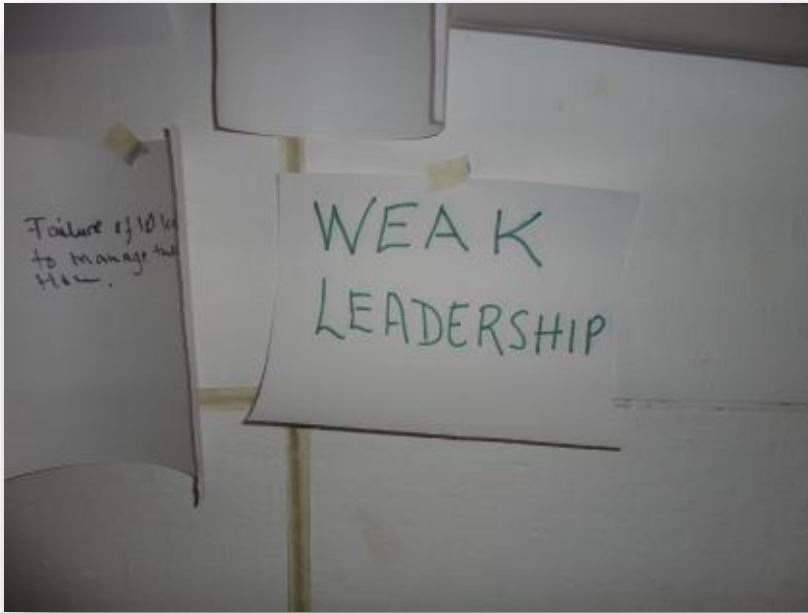
### Explanation:

The next step is to identify a core problem from the candidates to develop related problems in relationship between cause and effect.

An easier way of determination of a core problem is identifying the problem which many participants wrote on the cards.

Another way is to select a problem having a lot of causes and effects as a core problem. This means the problem is a core which creates a lot of problems if the solution is not taken.

The facilitator asks the participants to identify a core problem in consideration of the ways mentioned above and sometimes can lead them to identify based on own experiences. But do not be serious about this step, Step-3 Cause and Effect Development can cover major problems. The most important thing is consensus among the participants.



An example of Core Problem agreed by the participants

## Step-3: Cause-Effect development

### Step-3

**TANCAID**

### Cause - Effect development

1. Write causes and effects of the core problem on a card and post them on a board.
2. One cause per card
3. One effect per card
4. Make a consensus among the participants.
5. Categorize causes and effects by similarity.

Members are not unified

↑ Effect

Constitution is not established yet

↑ Cause

Members do not know what the constitution is



### Explanation:

Once the core problem was determined, the facilitator asks the participants to write a problem on a card which can be cause or effect of the core problem.

For example, if the core problem is "Constitution is not established", a cause is "Members do not know what the constitution is" therefore they are not able to establish a constitution while an effect is "Members are not unified" because the constitution is not established.

The facilitator asks the participants to develop more problems related to the core problem and make consensus among the participants following the rules. Finally the facilitator categorizes them into the same groups.

Normally the Cause and Effect Development is expanding far ends according to the cause and effect relationship but the facilitator should stop at a certain level.



**TIPS:**

The purpose of the Cause and Effect Development is to identify more detailed problems based on the core problem. Those problems are more influential ones to O&M of the irrigation scheme. Basically it can help to establish more concrete training curriculum (see Step-4).

The step of Cause and Effect Development can be ignored if the number of problems identified in Step-2 seems to be enough. The facilitator determines this looking at the results in Step-2.



**A facilitator is asking the participants whether this card is cause or effect.**

## Step-4: Expected training to solve problems

Step-4TANCAID

Training for how to determine the contents of the constitution

### Expected training to solve problems

1. Write necessary trainings based on problems developed and post them on a board.
2. More concrete training contents are required e.g. ~~training of the constitution~~ the contents of the constitution, procedure of constitution making, to create more effective training curriculum.
3. One training per card
4. Make a consensus among the participants.
5. Categorize the trainings presented by similarity.



### Explanation:

After identifying and categorizing the problems through the previous step, the facilitator asks the participants to write necessary trainings for each category on a card and post it on the board.

In order to establish more effective training, more concrete information of training is required. Just like "Training of the constitution" should be avoided. Because knowing detailed issues concerning the constitution is very important to assess the training needs. The facilitator occasionally may go back to the previous step so that the participants can list up more concrete training contents from the problems identified.

Same as other activities, consensus among the participants is required to categorize and determine the trainings.

## Step-5: Prioritizing and timing of the training (training schedule)

### Step-5

Training	Timing
Determination of organization	First
Basic O&M planning	Second
Water distribution planning	Before season

### Prioritizing and timing of the trainings (training schedule)

1. Prioritize the trainings sorted out in Step-4.
2. Determine the timing of the trainings e.g. training for Determination of organization comes first, training for O&M Planning before the cropping season and training for Participatory M&E during the cropping season etc.



### Explanation:

When the training is better to be conducted is also important to create the effective training. The facilitator asks the participants to prioritize the trainings based on their farming practices and O&M activities.

For example, if IO needs modification of the constitution, the training related to the constitution comes first because the constitution is a kind of law to direct the members or to implement the proper management of the irrigation scheme above all. But it however depends on the needs of the participants.

It is recommended the facilitator should suggest the timing of training to the participants to make the training more effective in line with the cropping calendar.

The schedule of trainings should be drawn up on a large size of paper as a result of the training needs assessment.

## Step-6: Expected future changes (Optional)

**Step-6**  
(optional)TANCAID

All members follow the constitution

### Expected future changes

1. Write expected changes on a card based on the trainings categorized and post them on a board.
2. One change per card
3. Make a consensus among the participants.
4. Categorize the changes by similarity.
5. Consensus among the participants is needed.



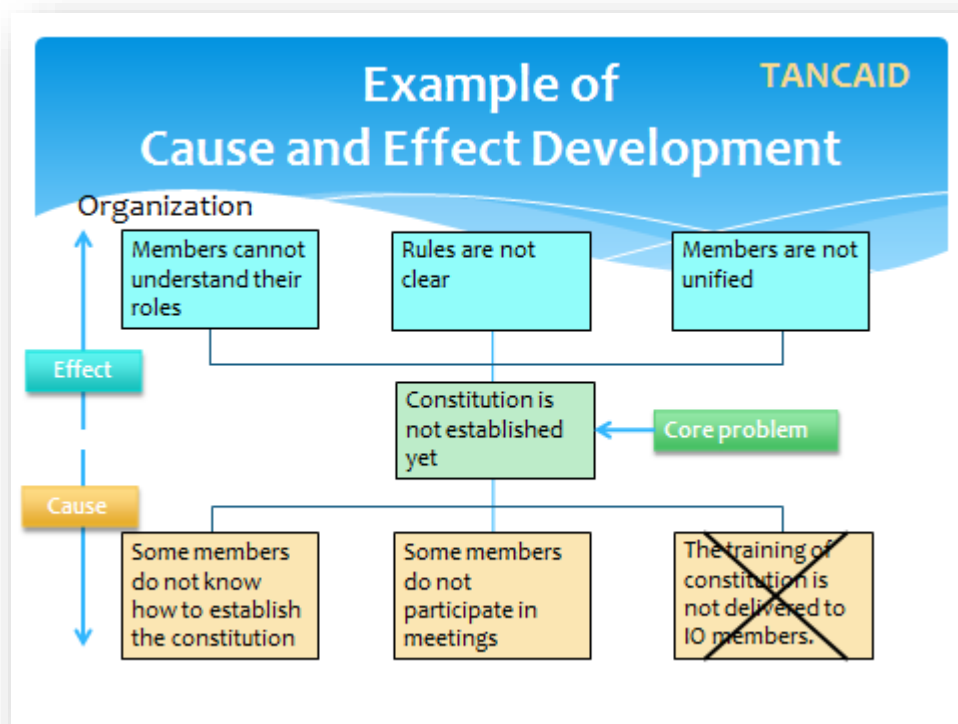
### **Explanation:**

This is an optional step to remind why the training needs assessment is important. Do not forget the training is just a tool to achieve an objective in order to improve the irrigation scheme after obtaining knowledge and technologies. So an image of future changes can motivate the participants to participate in the trainings scheduled by them.

The facilitator asks the participants to write a future change on a card they expect after the training.

If the facilitator reminds them of the expectation of future changes before stating the each training, more active participation may be attained.

## Example of Cause and Effect Development



### Explanation:

An example of Cause and Effect Development based on the core problem "Constitution is not established yet" is shown in the slide. A layer or the first level development above and below the core problem is enough to analyze problems for the training needs assessment otherwise it may take longer time.

For example, a card of "Members are not interested in the constitution" can be a cause of "Some members do not know how to establish the constitution" but it may appear at the same level (layer) of "Some members do not know how to establish the constitution".

"The training of constitution not delivered to IO members" is not acceptable because this is the training needs assessment.

In the actual Training Needs Assessment, the facilitator has very important roles to draw out participants' ideas and make consensus among the participants.

