

**REPUBLIC OF YEMEN**  
MINISTRY OF AGRICULTURE AND IRRIGATION

**IRRIGATION IMPROVEMENT PROJECT**  
(IDA Credit No. 3412 – YEM)

**Main Technical Assistance Package for IIP**

**WORKING PAPER 11**

**Training Report 3**  
PIM Extensionists Zabid

February 2003

 **ARCADIS** EUROCONSULT

IN ASSOCIATION WITH





**YEMENI ENGINEERING GROUP**

# CONTENTS

<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>2</b>	<b>REFRESHER TRAINING FOR PIM EXTENSIONISTS</b>	<b>2</b>

# LIST OF APPENDICES

- A. AGENDA OF ONE-DAY TRAINING**
- B. TRAINING SHEET COMMUNITY AWARENESS CAMPAIGN (STEP 2)**
- C. OVERHEAD SHEETS**
- D. FLIP CHART ON COMMUNITY AWARENESS CAMPAIGN (ENGLISH AND ARABIC)**
- E. IIP – PIM BROCHURE**
- F. TENTATIVE TIME SCHEDULE FOR 6 PILOT SPATE IRRIGATION SYSTEMS**

## ABBREVIATIONS AND ACRONYMS

ACA	Agricultural Co-operatives Association
AE	Agricultural Extensionists (RAO)
APL	Adaptable Programme Lending (approach by IDA)
AREA	Agricultural Research and Extension Authority
CV	Curriculum Vitae (Bio-data, or summary of experience of proposed staff)
CWR	Crop Water Requirement
DIMSSA	Institutional assessment approach: Diagnosis-Mission-Strategy-Structure-Action
EC	Executive Council of WUA
EDI	Economic Development Institute of the World Bank
FAO	Food and Agricultural Organisation of the UN
FCA	Facilitator / Change Agent
GDI	General Directorate of Irrigation
GoY	Government of Yemen
IC	Irrigation Council
IDA	International Development Association
IE	Irrigation Extensionists (RAO)
IEI	Irrigation Engineering Institute
IIP	Irrigation Improvement Project
IMT	Irrigation management Transfer
ISF	Irrigation Service Fee
iSIS	Hydro-dynamic modelling software
IWMI	International Water Management Institute
LRAO	Lahej Regional Agricultural Office
LWCP	Land and Water Conservation Project
M&E	Monitoring and Evaluation
MAI	Ministry of Agriculture & Irrigation
MCM	Million Cubic Metres
MIS	Management Information System
NGO	Non-Governmental Organisation
NWRA	National Water Resources Authority
O&M	Operation and Maintenance
OED	Operations Evaluation Department of the World Bank
ogma	(traditional) earthen diversion weir
PIM	Participatory Irrigation Management
PIP	Project Implementation Plan
PIU	Project Implementation Unit
PMU	Project Management Unit
PPR	Project Preparation Report
PPU	Project Preparation Unit
PY	Project Year
RAO	Regional Agricultural Office of MAI
RDA	Regional Development Authority of MAI
RIA	Regional Irrigation Agency
RID	Regional Irrigation Department
RoY	Republic of Yemen
SC	Steering Committee

SIIP	Spate Irrigation Improvement Project (original name for IIP)
SLHIDP	Saturation and Localised High Impact Demonstration Programme (agricultural extension)
SMC	Scheme Management Council/-> SWUF
SMM	Spate Management Model
SMU	Scheme Management Unit
SRADP	Southern Rural Agricultural Development Project
SSHARDA	Sana'a/Sadah/Hajja Development Authority
SWUF	Scheme Water User Federation
TA	Technical Assistance
TDA	Tihama Development Authority of MAI
ToR	Terms of Reference
UNDP	United Nations Development Programme
WBI	World Bank Institute
WIS	Water Institutions Specialist
WM	Water Master (appointed by RAO - paid?)
WSP	Water Service Provider
WUA	Water User Association
WUG	Water User Group
YR	Yemeni Rials

## WORKING PAPERS

- **WP 1 – Water Management in Wadi Tuban & Wadi Zabid**  
Alan Clark
- **WP 2 – Concept Paper Management Information Systems**  
Thomas R. E. Chidley
- **WP 3 – Training Report No.1 – Orientation Workshops**  
Olaf Verheijen
- **WP-4 – Procedure Manual on Participatory Irrigation Management**  
Olaf Verheijen
- **WP 5 – Concept Paper for Flood Warning System**  
John Windebank
- **WP 6 – Hydrological Analysis**  
David T. Plinston
- **WP 7 – Community Awareness Campaigns**  
Darryl Kuhnle
- **WP 8 – Gates Assessment – Interim Report**  
David A. R. Wood
- **WP 9 – Initial Roads Study**  
Abbas A. Abu Taleb
- **WP 10 – Training Report 2 – PIM Extensionists Tuban**  
Olaf Verheijen

# 1 INTRODUCTION

On 5 February 2003, an one-day Refresher Training for the PIM Extensionists in Wadi Zabid was conducted. The main reason for conducting this training session was to refresh the knowledge of the PIM Extensionists as well as their communication and presentation skills.

Prior to the implementation of the training activities, the PIM Training Specialist in collaboration with the PMU Institutional Specialist as well as the Training Expert and PIM Specialist of the PIU Office in Wadi Zabid have undertaken the following activities:

- Preparation of agenda for the one-day training session (see Annex A);
- Amendment of existing Flip Chart to be used during Awareness Meetings (see Annex D);
- Copying of IIP-PIM Brochure for distribution during awareness meetings (see Annex E); and
- Preparation of tentative time schedule for implementation of PIM approach for pilot spate irrigation systems (see Annex F).

## 2 REFRESHER TRAINING FOR PIM EXTENSIONISTS

Details about the one-day Refresher Training for PIM Extensionists in Wadi Zabid are presented in the following table:

Name of Training Session:	Refresher Training for PIM Extensionists
Date(s) of Training Session:	5 February 2003
Location of Training Session:	Training room of TDA Office in Zabid
Duration of Training Session:	one day
Number of Participants:	12 PIM Extensionists, PIU Agronomist and 3 female extension workers from TDA
Trainer(s)/Moderator(s):	Mr Abdul Baki Saif M. Al-Hadad – Training Expert (PIU) Mr Adel Al-Sakaf – PIM Specialist (PIU) Mr Mohammed Barakat – Institutional Specialist (PMU) Mr Ahmed Kassim – Agronomist (PIU) Mr Olaf Verheijen – PIM Training Specialist (TA Team)
Purposes of Training Session:	Introduction of main aspects of IIP Introduction and review of 21 steps of PIM approach as well as tentative time schedule for pilot spate irrigation systems Introduction and review of purposes, guidelines and structure of Community Awareness Campaign (PIM Step 2) Introduction of main purposes of utilisation of Flip Chart as well as practising the use of flip charts as extension tool
Learning/Training Techniques:	Presentation Plenary and small group discussion Demonstration Practising
Training Equipment:	Overhead projector + screen Flip chart tripod
Training Materials:	Prepared and blank overhead sheets A-1 sheets + markers Handouts

### Comments

The one-day training session was conducted in the Training Room of the TDA Office. Due to problems with the generator, it was not always possible to use the overhead projector, which had a negative impact on the training.

Another logistic problem is the absence of a photocopier for the PIU Office. Copies of all handouts had to be made in the town of Zabid.

The presence of three female extension workers during the entire training session is very encouraging and they seem to be very interested to become involved in the IIP to undertake activities with village women.

# LIST OF APPENDICES

- A. AGENDA OF ONE-DAY TRAINING**
- B. TRAINING SHEET COMMUNITY AWARENESS CAMPAIGN (STEP 2)**
- C. OVERHEAD SHEETS**
- D. FLIP CHART ON COMMUNITY AWARENESS CAMPAIGN (ENGLISH AND ARABIC)**
- E. IIP – PIM BROCHURE**
- F. TENTATIVE TIME SCHEDULE FOR 6 PILOT SPATE IRRIGATION SYSTEMS**



## A. AGENDA FOR ONE DAY TRAINING

### **Wednesday (5 February 2003)**

- 8.30 – 8.45 Introduction (Mr Baki)
- 8.45 – 9.45 Main Aspects of IIP (Mr Adel)
- assessment of PIM Extensionists' knowledge (3 groups)
  - presentation
  - discussion
- 9.45 – 10.45 PIM Approach and Time Schedule (Mr Barakat)
- assessment of PIM Extensionists' knowledge (3 groups)
  - presentation
  - discussion
- 10.45 – 11.00 Tea break
- 11.00 – 11.30 ToR of PIM Extensionists (Mr Ahmed)
- assessment of PIM Extensionists' knowledge (plenary inventory)
  - presentation
  - discussion
- 11.30 – 12.30 Community Awareness Campaign (PIM Step 2) (Mr Baki)
- assessment of PIM Extensionists' knowledge (3 groups)
  - presentation
  - discussion
- 12.30 – 13.30 Use of Flip Chart (Mr Barakat)
- assessment of PIM Extensionists' knowledge (plenary inventory)
  - demonstration
  - practising

## B. TRAINING SHEETS COMMUNITY AWARENESS CAMPAIGN (STEP 2)

### B1 PRACTICAL DETAILS

**Objective(s):**

- To enhance the skills of PIM Extensionists to prepare and conduct Community Awareness Campaign in the scheme villages

**Expected Output(s):**

- The trainees know how to plan and prepare the Community Awareness Campaign
- The trainees understand how to conduct a Community Awareness meeting, including a presentation for a large audience
- The trainees know how to prepare and use Flip Charts

**Target Group(s):**

- PIM Extensionists

**Expected Number of Participants:**

- 12-15

**Timing:**

- Just before the implementation of Step 2 of the PIM Programme

**Estimated Time Required:**

- Half a day

**Location:**

- PIU Office

**Training/Learning Techniques:**

- Presentation
- Plenary Discussion
- Demonstration and Trial
- Exercise

**Preparations Required:**

- Preparation of overhead sheets with main points/keywords of Community Awareness Campaign

**Materials Required:**

- Large (A-1 size) sheets and markers
- Copies of IIP Brochure

## B2 EXPLANATORY NOTES

### **Purposes of Community Awareness Campaign**

*Question: What are the purposes of the Community Awareness Campaign?*

The purposes of the Community Awareness Campaign are:

- Introduction of PIU staff.
- Briefing the concerned farmers about the main aspects of the IIP and the PIM Programme as the implementation approach.
- Assessment of interest among concerned farmers to participate in development of PIM Programme.

The main purpose of the Community Awareness Campaign is to inform all villagers in general and the farmers, including landowners, tenants and sharecroppers, in particular about the major aspects of the PIM Programme. These include, first of all its main principles, approach and components. Secondly, it includes the expected role and responsibilities of the farmers during the different stages of the formation of WUGs and WUAs. Thirdly, design and construction of the scheme and the management of the irrigation system, and fourthly the assessment and collection of water charges to pay for the O&M of the irrigation infrastructure.

The Community Awareness Meeting is also an opportunity to introduce the concerned PIU staff, who will work very closely with the farmers during all phases of the PIM Programme. In addition, staff of supporting agencies present during the meeting should be introduced to the attending farmers and other villagers as well.

It is important to invite representatives from all agencies that will be directly and indirectly involved in the implementation of the PIM Programme, including the TDA and Lahej RAO.

### **Guidelines for Preparation and Implementation of Community Awareness Meetings**

*Basic Guidelines for Conducting Community Awareness Meeting:*

- A Community Awareness Meeting should be conducted at least in each main village of the command area of the primary canal system.
- The PIM Extensionist should arrive at least 30 minutes before the agreed time at the agreed venue to prepare the Community Awareness Meeting and to check if the Village Sheikh/Local Council has informed the farmers in his village. If not, the PIM Extensionist should request the Village Sheikh/Local Council to do so.
- The duration of each Community Awareness Meeting should not be longer than 1½ hours. The presentation given by the PIM Extensionist should not last longer than 30 to 45 minutes giving the farmers sufficient time to ask questions following the presentation.
- To ensure that the attending farmers fully understand the information given during the presentation, it is crucial that the PIM Extensionist uses simple language. Furthermore, the PIM Extensionist should speak slowly, clearly and loudly enough so that all attending farmers can hear him/her.
- To ensure that the attending farmers fully understand the presentation, it is very important that the PIM Extensionist does not use too many technical terms that are not familiar to all farmers. The PIM Extensionist should avoid the use of English words or expressions that are difficult to understand for farmers. Use the terminology related to irrigation and agriculture, which are commonly used by the farmers.

- Before the start of the Community Awareness Meeting, all names of all attending farmers should be registered.
- It is not recommended to register the names of the attending farmers during the presentation and subsequent discussions, as it would distract the attention of the attending farmers.
- At the end of the Community Awareness Meeting, a copy of the IIP Brochure should be handed out to the attending farmers and the staff of any supporting agencies invited for the meeting.
- About ten to fifteen copies of the IIP Brochure should also be given to the Village Sheikh/Local Council, which they should distribute among other farmers who could not attend the Community Awareness Meeting.

*Basic Guidelines for Planning Community Awareness Meeting:*

- At least one week before the planned Community Awareness Meeting, the PIM Extensionist shall visit the concerned village to contact the Village Sheikh/Local Council in order to plan and agree upon the date, time and venue of this village meeting that is most convenient for the concerned farmers.
- It is very crucial that a convenient place is selected where all the farmers from the village(s) can come easily and speak freely and where the meeting could be conducted quietly and undisturbed. An ideal place would be a village school, mosque or the village meeting room, if there is one.
- To ensure that the Community Awareness Meeting can be carried out quietly and undisturbed, places along busy roads with heavy traffic or at places with many passer-byes, such as shops and market places, should be avoided.
- The PIM Extensionist should contact the concerned Village Sheikh/Local Council one or two days before the planned Community Awareness Meeting to confirm if the villagers have been informed about the date, time and venue of the meeting, so that the planned meeting can be conducted.
- To inform as many farmers in the concerned village about the planned Community Awareness Meetings, it is recommended that PIM Extensionist should distribute a notice and/or use banners mentioning the date, time and venue of the planned Community Awareness Meetings.

### **Structure of Community Awareness Meeting**

*Question: How should the Community Awareness Meeting be structured to ensure that the meeting is effective?*

To conduct the Community Awareness Meeting effectively, it is important that it is structured as follows:

*Introduction:* The Community Awareness Meeting should start with an introduction, during which the PIM Extensionist should welcome all farmers and other villagers who have come to the meeting and thank the Village Sheikh/Local Council for organising the meeting. Following the welcome, the other staff of the PIU and any other supporting agencies present at the meeting should be introduced briefly to the attending farmers and other villagers. Before starting with the presentation, the main purpose as well as major subjects and the expected duration of the meeting should be told to the participants.

*Presentation:* The presentation should be given by the responsible PIM Extensionist. However, the total length of the presentation should not exceed 40 minutes in order to keep the attention of the audience. The presentation should cover the following topics:

- Main objectives and activities of the IIP;
- Main actors involved in implementation of the IIP;
- Main conditions for implementation of the IIP;
- Main principles of the PIM approach, including active participation of farmers in all stages of the PIM Programme, principle of partnership between the farmers and the IIP during the implementation of the PIM Programme, formal approval of all major decisions by farmers;
- Village women will be informed and consulted throughout the entire PIM Programme;
- Formation and strengthening of WUOs at different levels to ensure effective O&M of irrigation infrastructure following transfer of the O&M responsibility;
- Expected farmers' participation during all steps of the PIM Programme;
- Expected farmers' contributions towards capital costs of rehabilitation works and the O&M of the irrigation structures following the transfer of the O&M responsibility;
- Provision of support and training to ensure that all WUOs have the necessary skills and knowledge to participate effectively in design, supervision and execution of rehabilitation works and to take over the O&M responsibility for the transferred irrigation infrastructure, including agricultural extension to assist farmers to improve their irrigated agriculture; and
- Expected benefits for the farmers.

*Questions and Discussion:* Following the presentation, the attending farmers and other villagers should have the opportunity to ask questions about the IIP and the PIM Programme.

As the farmers are the main target group for the Community Awareness Campaign, they should ask the questions and participate in any discussions. If other persons than the farmers tend to dominate the discussions, the PIM Extensionist should intervene in order to allow the attending farmers to ask their questions.

At the end of the questions and discussion, it would be useful if the PIM Extensionist could give a summary of the major issues discussed as well as any conclusions and decisions made during the session.

*Assessment of Farmers' Interest:* At the end of the Community Awareness Meeting, the PIM Extensionist should assess if the farmers, who have attended the meeting, are enthusiastic and willing to participate actively in the rehabilitation of their irrigation scheme, including contributions to the capital costs, and to take up the O&M responsibility for the transferred irrigation infrastructure, including the payment of the O&M costs.

*Closure:* The PIM Extensionist should wrap up the meeting by thanking all the attending farmers and staff of supporting agencies for their attention and participation.

### **Utilisation of Extension Materials**

During the presentation of the main aspects of the IIP and PIM approach, it is recommended that the PIM Extensionist uses Flip Charts.

Flip Charts are large (A-1 size) sheets, on which the main topics of the training/extension session (i.e. all major aspects of the IIP and PIM approach) are summarised by using key words. As participants/trainees should be able to read the text on the Flip Chart, large letters (10cm high) must be used. Where possible, illustrations should also be used.

*Question: What are the main advantages of using Flip Charts during a presentation?*

The main advantages of using a Flip Chart are:

- To structure the presentation as the PIM Extensionist gives his/her presentation by following the key words written down on the Flip Chart;
- To present all the necessary information as the PIM Extensionist cannot miss any subject if he/she follows all the key words on the Flip Chart; and
- To attract and keep the attention of the participants/trainees by referring actively to the key words and illustrations on the Flip Chart.

For the preparation of the Flip Chart for the Community Awareness Campaign, the IIP Brochure should be used as it contains all important information about the IIP and the PIM approach.

### **Demonstration and Trial**

#### *Preparation of Flip Chart*

As Flip Charts have to be used during different steps of the PIM Programme, the PIM Extensionists should be able to prepare their own set of Flip Charts by conducting the following activities:

- Before the trainees can try themselves to prepare a Flip Chart, they should be given a Demonstration, during which the basic rules for the preparation of a Flip Chart are explained.
- Following the Demonstration, each trainee should try him/herself to prepare one Flip Chart sheet. The results should be reviewed and discussed plenary in order to learn from each other.

#### *Implementation of Presentation*

The Community Awareness Meetings will probably be the first opportunity for the PIM Extensionists to conduct a presentation to a large audience. To ensure that their presentations during the Community Awareness Meetings and subsequent steps of the PIM Programme are effective, the PIM Extensionists shall acquire some basic skills by conducting the following activities:

- Brief explanation of the main guidelines for conducting a presentation, which are:
  - Presentation should not be longer than 30 to 45 minutes;
  - Speak slowly, clearly and loudly enough so that all attendants can hear the presenter;
  - Avoid the use of difficult technical and/or English terms by using simple language and terminology familiar to the attendants;
  - Use the Flip Chart actively in order to keep the attention of the audience;
  - Do not direct the presentation to one person or group but talk in all directions;
  - Walk slowly in front of the audience; and
  - Use proverbs and/or clear examples.
- Demonstration of a presentation by using either overhead sheets or an example of prepared Flip Chart;
- Each trainee should conduct a short presentation, which should be reviewed by the other trainees.

## C. OVERHEAD SHEETS

**MAIN ASPECTS OF IRRIGATION IMPROVEMENT PROJECT**

**COMMUNITY AWARENESS CAMPAIGN (STEP 2)**

## **MAIN ASPECTS OF THE IRRIGATION IMPROVEMENT PROJECT**

### **Phase I Project Objectives**

- Sustainable and efficient distribution and use of water in spate irrigation schemes of Wadi Tuban and Wadi Zabid through rehabilitation and improvement of irrigation infrastructure and implementation of Participatory Irrigation Management
- Increase in agricultural productivity and smallholder income in both spate irrigation schemes through implementation of intensive agricultural extension and demonstration programme

### **Main Project Activities**

- Promotion of effective participation of all farmers in planning, design, rehabilitation and management of spate irrigation systems
- Formation and strengthening of autonomous and financially self-sufficient water user's organisations at different levels within both spate irrigation systems
- Gradual transfer of responsibility for management of spate irrigation schemes, including financing of O&M costs, to water users' organisations
- Rehabilitation and improvement of headworks, canals and control structures as well as construction of flood protection works and rehabilitation of roads
- Agricultural extension and demonstration programme in both spate irrigation schemes to introduce new varieties and improved agricultural and water management practices
- Support to Government and its irrigation institutions to facilitate change of Government's role in management of spate irrigation schemes.

### **Main Implementation Principles**

- Effective participation of all farmers in all stages of planning, design, rehabilitation and management of both spate irrigation schemes
- Cost-sharing, whereby farmers shall contribute to capital costs of rehabilitation works Either through cash payment or execution of direct labour contract
- Execution of any rehabilitation works is conditional upon prior formation of WUAs at primary canal level
- Farmers shall gradually become responsible for paying full costs for operating and maintaining all irrigation infrastructures, except diversion weirs
- Implementation of Project shall be considered a partnership between all concerned farmers organised in WUAs and Ministry of Agriculture and Irrigation

### **Main Actors in Project Implementation**

- Landowners, sharecroppers and tenants owning and/or cultivating land in command areas of both spate irrigation systems
- Ministry of Agriculture and Irrigation through PMU in Sana'a and PIUs in Zabid and Lahej
- TDA in Wadi Zabid and Lahej Regional Agriculture Office in Wadi Tuban
- Main Technical Assistance Team comprising foreign and Yemeni consultants

### **Main Role and Responsibilities of Government Agencies and Consultants**

- To ensure effective participation of all concerned farmers in planning, design and execution of rehabilitation works



- To assist farmers with formation and strengthening of their WUGs and WUAs
- To ensure design, tender and execution of main rehabilitation works
- To facilitate gradual transfer of responsibility for O&M of spate irrigation systems to farmers

#### **Main Role and Responsibilities of Farmers**

- To participate directly or through elected representatives in all steps of planning, design and execution of rehabilitation works on their spate irrigation systems
- To participate in formation of WUGs and WUAs, including elections
- To contribute to capital costs of rehabilitation works either in labour or cash:
  - Contribution of \_\_\_% of civil works costs or about YR\_\_\_\_\_ per faddan/maad during implementation of rehabilitation works, either in labour or cash
  - Annual cash repayment of about YR\_\_\_\_\_ per faddan/maad, starting 5 years after completion of rehabilitation works over 20-year period
- To take over gradually the responsibility for O&M of entire irrigation canal network through their WUAs
- To pay annual Irrigation Service Fee to their WUAs to cover gradually the full costs for O&M of all irrigation canals estimated at YR\_\_\_\_\_ per faddan/maad

#### **Expected Main Benefits for Farmers From Implementation of Rehabilitation Works and Agricultural Extension Activities**

- Improved availability, distribution and use of spate flows
- Decreased risks of damage from flood events
- Possible increase of groundwater recharge through deep percolation from spate irrigated fields
- Savings in transportation cost after rehabilitation of rural roads
- Increased incomes and improved food security due to improved production of various crops, including sorghum, cotton and vegetables

#### **Expected Benefits for Farmers from Effective Participation in Design and Execution of Rehabilitation Works and Irrigation Management Transfer**

- Control over quality of rehabilitation works, which reflect farmers' preferences
- Full control over scope and quality of maintenance works
- Control over allocation and distribution of spate water between primary canals along Wadi
- Full control over distribution of spate water along primary canal system
- Full control over own O&M staff
- Full control over collection and utilisation of Irrigation Service Fees
- Improved communication and less conflicts over water distribution

## **COMMUNITY AWARENESS CAMPAIGN (STEP 2)**

### **Purposes of the Community Awareness Campaign are:**

- Introduction of PIU staff
- Briefing farmers on main aspects of IIP and PIM Programme
- Assessment of interest among farmers to participate IIP.

### **Basic Guidelines for Conducting Community Awareness Meeting:**

- Community Awareness Meetings in all main village of command area of each primary canal system
- Community Awareness Meeting should not last longer than 1½ hours
- PIM Extensionist uses simple language as well as speak slowly, clearly and loudly enough
- PIM Extensionist does not use too many technical terms and he should avoid use of English words

### **Basic Guidelines for Planning Community Awareness Meeting:**

- At least one week before planned Community Awareness Meeting, PIM Extensionist shall visit village to contact the Village Sheikh/Local Council to plan and agree upon the date, time and venue for meeting
- Convenient place is selected where all farmers can come easily and speak freely and where meeting could be conducted quietly and undisturbed
- PIM Extensionist should contact Village Sheikh/Local Council one or two days before planned Community Awareness Meeting to confirm date, time and venue
- PIM Extensionist should assist Village Sheikh/Local Council by promoting distribution of notices and use of banners mentioning the date, time and venue of planned Community Awareness Meeting.

### **Basic Guidelines for Implementation of Community Awareness Meeting:**

- Before start of the Community Awareness Meeting, names of all attending farmers should be registered.
- At end of Community Awareness Meeting, copy of IIP Brochure be distributed among all farmers

### **Structure of Community Awareness Meeting:**

#### *Introduction:*

- Welcome all farmers and other villagers
- Thank Village Sheikh/Local Council for organising meeting
- Main purpose, major subjects and expected duration of the meeting

#### *Presentation:*

- Main objectives and activities of the IIP;
- Main actors involved in implementation of the IIP;
- Main conditions for implementation of the IIP;
- Main principles of the PIM approach

- Village women will be informed and consulted throughout entire PIM Programme;
- Formation and strengthening of WUOs at different levels to ensure effective O&M of irrigation infrastructure following transfer of the O&M responsibility;
- Expected farmers' participation during all steps of PIM Programme;
- Expected farmers' contributions towards capital costs of rehabilitation works and O&M of irrigation structures following transfer of O&M responsibility;
- Provision of support and training to all WUOs; and
- Expected benefits for farmers.

*Questions and Discussion:*

- Attending farmers have the opportunity to ask questions about IIP and PIM Programme.

Assessment of Farmers' Interest:

- PIM Extensionist should assess if farmers, who have attended the meeting, are enthusiastic and willing to participate actively in rehabilitation of their irrigation scheme, including contributions to the capital costs, and to take up O&M responsibility for transferred irrigation infrastructure, including the payment of the O&M costs.

*Closure:*

- PIM Extensionist should finish meeting by thanking all attending farmers and staff of supporting agencies for their attention and participation.

**Utilisation of Extension Materials:**

- Flip Charts are large (A-1 size) sheets, on which main topics of training/extension session are summarised by using key words.
- As participants/trainees should be able to read the text on the Flip Chart, large letters (10cm high) must be used

*The main advantages of using Flip Charts are:*

- To structure presentation as PIM Extensionist gives his/her presentation by following key works written down on the Flip Charts;
- To present all necessary information as PIM Extensionist cannot miss any subject if he/she follows all key words on the Flip Charts; and
- To attract and keep attention of participants/trainees by referring actively to key words and illustrations on Flip Charts.

## D. TEXT OF FLIP CHART ON COMMUNITY AWARENESS CAMPAIGN (ENGLISH AND ARABIC)

### **Name of Project:**

- Irrigation Improvement Project

### **Duration:**

- 10 years
- Phase I: 5 years

### **Phase I Objectives:**

- To ensure sustainable and efficient distribution of spate water
- To ensure an increase in agricultural productivity and farmers' income

### **Main Activities**

- Promotion of farmers' participation in planning, design, rehabilitation and management of spate irrigation systems
- Formation and strengthening of WUOs at different levels of spate irrigation system
- Rehabilitation of irrigation infrastructure and roads and construction of flood protection works
- Transfer of O&M responsibility for spate irrigation systems to WUOs, including financing of O&M costs
- Agricultural extension and demonstration programme

### **Financing:**

- Government of Yemen
- World Bank
- Farmers

### **Main Actors in Phase I Implementation:**

- Farmers through their WUGs and WUAs
- Ministry of Agriculture and Irrigation through its PMU and PIUs in cooperation with TDA and Lahej RAO
- Main Technical Assistance Team (National and International Consultants)

### **Implementation Conditions:**

- Effective farmers' participation in all stages of rehabilitation and management of spate irrigation system
- Cost-sharing, whereby farmers contribute to capital costs of rehabilitation works
- Formation of WUAs prior to start of rehabilitation works
- Farmers shall gradually become responsible for paying full O&M costs, except for modern diversion weirs

### **Participatory Irrigation Management (PIM) Approach:**

- Implementation of the IIP is a partnership between concerned farmers and MAI

- All concerned farmers are involved in design, rehabilitation and management of spate irrigation system
- All decisions require approval of WUA
- Women are informed and consulted during separate meetings throughout entire PIM approach
- Following WUOs will be formed at different levels:
  - WUGs at level of tertiary canal or ma'aqem
  - WUAs at level of primary canals
  - SWUFs at level of (sub-)Wadi
  - Irrigation Council at level of Wadi

**Main Steps of PIM Approach:**

- Community Awareness Campaign
- Formation of WUGs
- Participatory Planning and Design of Rehabilitation Works
- Formation of WUA
- Signing of Works and Support Agreement between WUA and MAI
- Execution of Rehabilitation Works
- Formation of Federation of WUAs and Irrigation Council at Wadi level
- Training of WUGs, WUAs and Federation of WUAs
- Participatory Planning and Implementation of Agricultural Extension Programme
- Formulation of Water Management Plans at Wadi and primary canal levels
- Signing of Agreement for formal transfer of O&M responsibility for canals to WUA
- Support Programme for WUA and annual audits/inspections

**Tentative Time Schedule:**

- Formation of WUGs completed: April 2003
- Formation and Registration of WUA completed: June 2003
- Signing of Works and Support Agreement: July 2003 OR November 2003
- Start of Rehabilitation Works: October 2003 OR October 2004
- Completion of Rehabilitation Works: March 2004 OR March 2005
- Signing of Irrigation Management Transfer Agreement: April 2004 OR April 2005

**Farmers' Contributions:**

- Contribution to capital costs of rehabilitation of canals and flood protection structures of:
  - 10% of total costs either in cash or labour (i.e. executing part of rehabilitation through direct contract against reduced price) during execution of rehabilitation works
  - An annual cash repayment of about 25% of the civil works expenditures, starting 5 years after completion of the civil works, over a 20-year period
- Payment of Irrigation Service Fee to WUA that will gradually increase over 7-year period following completion of rehabilitation so that all O&M costs are fully recovered

IIP will entirely finance the rehabilitation of diversion weirs.

**Training and Support:**

- Formation and management of WUAs and SWUF, including accounting and conflict resolution

- Planning, design, supervision and execution of rehabilitation works
- Preparation and execution of annual O&M plans, including water allocation and distribution plan
- Development of irrigated agriculture through extension and demonstration activities

**Expected Benefits for Farmers:**

- Scheme rehabilitation reflecting farmers' preferences
- Control over quality of rehabilitation works
- Full control over scope and quality of O&M of scheme, including water distribution
- Full control over employment and dismissal of O&M staff
- Full control over assessment, collection and utilisation of Irrigation Service Fees
- Improved communication and less conflicts
- Improved availability, distribution and use of spate water
- Decreased risk of flood damage
- Improved agricultural production and incomes

## E. IIP – PIM BROCHURE

## F. TENTATIVE TIME SCHEDULE FOR 6 PILOT SPATE IRRIGATION SYSTEMS

<b>PIM STEP</b>	<b>IMPLEMENTATION PERIOD</b>
2 Community Awareness Campaign	Mid-February – mid-April 2003
3 Agro-Economic, Environmental, Social and Gender Studies	Mid-February – June 2003
4 Assessment of Deferred Maintenance and Rehabilitation Requirements	Mid-February – May 2003
5 Assessment of Existing Water Management and O&M Practices	January – June 2003
6 Formation of WUGs	Mid-March – mid-June 2003
7 Participatory Planning and Design of Rehabilitation Works	Mid-April – mid-August 2003
8 Formation and Registration of WUAs	Mid-June – mid-August 2003
9 Preparation and Signing of Works and Support Agreements	August 2003
10 Tender and Execution of Main Works	September 2003 – March 2004 or July 2004 – March 2005
11 Execution of WUA Works	September 2003 – March 2004 or October 2004 – March 2005
12 Formation and Registration of SWUF(s)	June – July 2004
13 Technical and Institutional Strengthening of WUGs and WUAs	September 2003 – March 2004 or September 2003 – September 2004
14 Participatory Planning and Execution of Agricultural Extension Programme	Mid-April 2003 – September 2004
15 Establishment of Irrigation Council	August – October 2004
16 Final Inspections of Main and WUA Works	March – April 2004 or March – April 2005
17 Formulation of Wadi Water Management Plan	November 2004 – February 2005
18 Formulation and Approval of Primary Canal Water Management Plans	October 2003 – January 2004
19 Preparation and Signing of Irrigation Management Transfer Agreement	March – April 2004 or March – April 2005
20 Monitoring and Supporting of System O&M and Management of WUAs and SWUF(s)	April 2004 – December 2005 or April 2005 – December 2005
21 Annual Financial, Technical and Institutional Audit of WUAs and SWUF(s)	April 2004 – December 2005 or April 2005 – December 2005