

## **Part II**

### **Pilot Action Plans**



## **11. Selection Process of the Pilot Action Plans**

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### **11.1 Background and Objective**

There is a great potential to implement village development activities through the existing associations and co-operatives in the Study Area. However, their present activities were far from the expected activities such as group selling and purchasing, and learning agricultural technology. In fact, they have faced difficulties such as lack of vision (planning), limited activities, and poor management.

The capacity building of the village organizations is the first priority in the Study. It is quite important to encourage practical experience related to the capacity building with appropriate motivation and training courses. Thus, it is reasonable to combine the planning and implementation of the action plans with the capacity building of the village organizations at the present stage. In other words, the Study Team will substantially facilitate the village organizational development through the processes of determination and implementation for the pilot action plans. A village organization such as associations and co-operatives can be selected as an implementation agency for the pilot action plan.

There were two opportunities to select the pilot action plans in March and September 2001. Since only three organizations were selected for the first selection of the pilot action plans out of 21 village organizations in Munguine, Pateque and Maluana, there was a strong demand to select more organizations for the second selection of the pilot action plans. It was also expected that the second opportunity would encourage the remaining associations and co-operatives to improve their capacity (such as participatory discussions and decision-making, transparent accounting, realistic planning and cost estimate, self-help efforts, negotiation skill, etc.). Thus, the second selection of the pilot action plans was carried out in September 2001.

### **11.2 Methodology**

The first and the second selection of the pilot action plans were conducted by the following criteria in order to encourage the fair competition among the village organizations and the small-scale village development projects which can be managed and sustained by the villagers:

- A small-scale project using appropriate technology for local population
- Short-term impacts in the village can be expected within 6 months
- Only the minimum outside assistance is necessary, because it is designed as a self-help community project.
- Benefiting the disadvantaged people (such as widows, the poor, women, etc.)
- Long-term sustainability due to technical and financial feasibility
- Group members' willingness to participate in this project and share the cost of investment and maintenance
- Managerial and organizational capacity and the quality of leadership of the group

Village organizations to implement the pilot action plans were selected in the following five-step procedure:

- 1) To explain the selection process of the pilot action plans based on the quality of proposal, the villagers' willingness to participate, and the level of organizational capacity
- 2) To carry out an organizational development seminar, specifically aiming at creating awareness of the necessity of vision, step-by-step development, and importance of organizational development
- 3) To explain the necessary contents of the proposal to be prepared by the village organizations. If necessary, individual consulting to the village organizations was conducted. After that, the village organizations submitted their proposals for pilot action plans
- 4) To select several proposals based on the criteria such as the level of organizational capacity in the selection committee consisting of the counterpart and the Study Team, and inform the village organizations of the result.
- 5) To negotiate with the selected village organizations in order to decide the details of the pilot action plans, the percentage of cost sharing, and implementation schedule.

### **11.3 Selection Processes of the Pilot Action Plans**

There were basically four stages in the selection process of the pilot action plans: that is, (1) proposal preparation, (2) evaluation of the contents of the proposals, (3) selection of the village organizations, and (4) negotiation on cost sharing.

#### **(1) Proposal preparation**

The main purpose to ask village organizations to prepare the proposal for the pilot action plans is to encourage the villagers to understand the importance of good planning, realistic cost estimate for the inputs, and group utilization of the existing facilities and resources through practical experience to develop a proposal. A proposal is requested to include the following information:

##### Part 1. Description of the Group

- 1) Name of the Group
- 2) Name of the Contact Person
- 3) Location of the Group (Locality, Bairro, Célua)
- 4) Number of Group Members
- 5) Year of Establishment
- 6) Year of Registration in the Government
- 7) Status of Farm Land Registration (Year of Land Registration)
- 8) Current Major Activities of the Group
- 9) Current Management Team (President, Vice-President, Treasury, Accountant, etc.)
- 10) Membership Fee (Monthly or Annual)
- 11) Bank Account of the Group (Name of the Bank, Account No., Current Balance), if any

## Part 2. Description of the Proposed Small-Scale Self-Help Project

- 1) Name of the Project
- 2) Objectives
- 3) Targeted Beneficiaries (Number of Beneficiaries, What kind of people?)
- 4) Necessity of this Project
- 5) Duration (must be implemented within 6 months)
- 6) Planned Activities (Preparation Phase and Implementation Phase)
- 7) Schedule of Activities (Preparation Phase and Implementation Phase)
- 8) Group's Contribution for this Project
- 9) Minimal Areas where the Group Needs Outside Assistance (Technical and Material)
- 10) Possibility to Sustain the Project Results after this Project
- 11) Estimated Cost and the Group's Expected Financial Contribution (Percentage of Cost Sharing)

### **(2) Evaluation of the proposals**

Two associations and one co-operative have been selected by the Study Team and the counterpart in the first selection. One zonal union, four associations, and one co-operative have also been selected by the selective committee in the second selection.

While no village associations presented the schedule and the estimated cost in their proposals for the Phase 1 pilot action plans, 9 out of 14 organization which submitted the proposal for the second selection of the pilot action plans presented the schedule and the estimated cost in their proposals. The contents of the proposals for the second selection were also much better than those for the first selection of the pilot action plans, specifically in terms of financial and technical feasibility (see Table 11.1 and 11.2). This might be because the village organizations had learned lessons from the selection process of the first selection in terms of cost sharing and technical feasibility.

Still many village organizations had difficulty in estimating the cost and determining the schedule of the proposed pilot action plan, due to lack of cost information and experience. So the Study Team advised them on the probable cost and the typical schedule for each proposed pilot action plan during the consultation process. But it was often found that the village organizations need more time and experience in order to digest and effectively use the information provided by the Study Team.

### **(3) Selection of the village organizations**

In the first selection of the village organizations to implement the pilot action plans, three organizations were selected based on the following four criteria:

- having a bank account,
- strong participation by members (the number of members who attend in various meetings, women's participation),
- the quality of the proposal (financial and technical feasibility), and
- organizational capacity (leadership, transparent accounting, and democratic management).

**Table 11.1 List of the Proposed Pilot Action Plans for the First Selection (Phase 1)**

Name of Organization	No. of Members (No. of Women)	Agricultural Land /per Head (ha)	Proposed Contents of the Pilot Action Plan
Zonal Union of Associations and Co-operatives in Munguine			· spare parts for tractors with training
Co-operative Kenneth Kaunda	66 (54)	1.14	· 20 cattle for a revolving scheme
Co-operative Independence or Death	118 (106)	0.25	· 8 cattle and 10 pigs for a revolving scheme · improvement of dike and water gates
Association Ndhandhazi	172 (120)	0.47	· 5 sets of cattle with plow attachment and yokes · 5 cattle for a revolving scheme with technical advise · concrete pipes
Association Cubomo	116 (49)	0.37	· 1 tractor
Association Khokholwele	689 (408)	0.35	· 1 tractor
Co-operative Maguiguana	94 (79)	0.71	· 5 sets of cattle with plow attachment and yokes · 20 cattle and 10 pigs for a revolving scheme with technical advice · improved stove
Association Tehuri	104 (92)	0.10	· 2 sets of cattle with plow attachment and yokes · 6 goats for a revolving scheme
Association of Ex-Miners	18 (4)	1.94	· 4 sets of cattle with plow attachment and yokes · 6 pigs for a revolving scheme with technical advise
Association of Small Farmers in Munguine	31 (0)	0.90	· 3 sets of cattle with plow attachment and yokes · 6 cattle and 10 pigs for a revolving scheme
Co-operative 25 September	66 (19)	0.50	· 2 sets of cattle with plow attachment and yokes · water gate (after WFP)
Association Pembe	150 (134)	0.26	· 4 sets of cattle with plow attachment and yokes · 6 pigs for a revolving scheme with technical advice · water gate (after WFP)
Association Pfluxaxana	100 (55)	0.11	· 2 concrete pipes, water gates, and small bridge
Co-operative Pateque	47 (27)	0.55	· 4 sets of cattle with plow attachment and yokes · 2 cattle for a revolving scheme · water borehole
Association Pateque Block 1	14 (6)	2.71	· 2 sets of cattle with plow attachment and yokes
Association Pateque Block 2	104 (50)	0.21	· 4 sets of cattle with plow attachment and yokes · 12 goats for a revolving scheme
Association Pateque Block 3	97 (57)	0.25	· 3 sets of cattle with plow attachment and yokes · 4 cattle for a revolving scheme · Raincoats, Irrigation tools, and Wind Mill · Improved stoves
Co-operative Maluana	100 (70)	0.20	· 2 sets of cattle with plow attachment and yokes

Remarks: 1) Association Matchnihomo, Association Xipandzene, and Association of Small Farmers in Maluana did not submit proposals.

2) Size of agricultural land includes community land.

**Table 11.2 List of the Proposed Pilot Action Plans for the Second Selection (Phase 2)**

Name of Organization	No. of Members (No. of Women)	Agricultural Land/Member (ha)	Estimated Cost (,000 MT)	Cost Sharing (%)	Proposed Contents of the Pilot Action Plan
Zonal Union of Associations and Co-operatives in Munguine			43,800	9	community development (producing furniture for 15 young men and women)
Co-operative Kenneth Kaunda	66 (54)	1.14	?	?	4 cows and 2 oxen, sprayers, medicine, water cans and agro-techniques
Association Cubomo	116 (49)	0.06	1,500	2.3	chicken, cage, mash and medicine
Co-operative Maguiguana	94 (79)	0.71	?	?	swine breeding, construction of pigsty
Association of Tchuri	104 (92)	0.10	?	?	a set of 2 oxen, a plow, a harrow, and an ox-cart for animal traction
Association of Ex-Miners	18 (4)	1.94	10,000	10	commercial activities for single mothers
Co-operative 25 September	66 (19)	0.50	26,900	11	oxen, harrow, sweet potato, cassava, and banana
Association Pembe	150 (134)	0.26	27,800	14	a set of 2 oxen, a plow, a harrow, and an ox-cart for animal traction
Association Pfulcane Varimi	100 (55)	0.24	?	?	raising pigs
Association Pateque Block 1	15 (7)	2.71	?	?	a shop for construction material, brick
Association Pateque Block 2	104 (54)	0.21	?	10	a set of 2 oxen, a plow, a harrow, and an ox-cart for animal traction
Association Pateque Block 3	97 (57)	0.25	25,000	10	a set of 2 oxen, a plow, a harrow, and an ox-cart for animal traction
Co-operative Maluana	100 (70)	0.20	?	10~15	2 sets of 2 oxen, a plow, a harrow, and an ox-cart for animal traction
Association of Private Farmers in Maluana	72 (4)	1.14	?	10	agricultural infrastructure (irrigation channel, access road), vehicles, agricultural production (30 ha of banana, 10 ha of tomato, 10 ha of potato, 50 ha of maize)

Note: "?" in the above table means no information provided in the proposal.

In the second selection of the village organizations to implement the pilot action plans, six organizations were selected based on the previous criteria and the following two additional criteria:

- income generation projects can be introduced to the well-organized village organizations, and
- possibility of support to the less developed areas such as Pateque and Maluana rather than Munguine

It was expected that the selected village organizations for income generation projects in Phase 2 would become good models for other organizations in the Study Area, especially in terms of sustainable development and transparent management.

### In the first selection

#### 1) Association of Ex-Miners (Animal Traction Program and Low External Input Agriculture Program)

- Opened a bank account recently
- Very good leader
- Good willingness
- Relatively reasonable requirement

#### 2) Co-operative Maguiguana (Animal Traction Program and Low External Input Agriculture Program)

- Owns a bank account
- Honest leader
- Very good willingness
- Relatively reasonable requirement
- Women participation

#### 3) Association Pateque Block 1 (Animal Traction Program and Low External Input Agriculture Program)

- Opened a bank account recently
- Good leader
- Good willingness
- Relatively reasonable requirement

Fourteen village organizations submitted proposals for the second selection of the pilot action plans, although 18 organizations submitted for the first selection. It seemed that the weak organizations hesitated to submit their proposals due to the little chance to win. As a result, the following six village organizations were selected by the selection committee which consists of the representatives from the Department of Job Promotion, Ministry of Labor and the Study Team.

### In the second selection

#### 1) Zonal Union of associations and co-operatives in Munguine for community development (Sewing Training Program)

- Owns a bank account
- An honest and strong leader with a good secretary
- Income opportunity with training
- Low cost (utilizing 3 existing sewing machines)
- Technical feasibility

#### 2) Association Cubomo (Chicken Raising Program)

- Opened a bank account recently



- An honest and strong leader
- Income opportunity with training

3) Association of Ex-Miners (Food Shop Management Program for Single Mothers and Widows)

- Opened a bank account recently
- Honest leader
- Income opportunity for women

4) Association Pateque Block 2 (Animal Traction Program)

- Opened a bank account recently
- Relatively reasonable requirement
- Located in Pateque

5) Association Pateque Block 3 (Animal Traction Program)

- Opened a bank account recently
- Relatively reasonable requirement
- Located in Pateque

6) Co-operative Maluana (Animal Traction Program, and Low External Input Agriculture Program)

- Owns a bank account
- Relatively reasonable requirement

Seeing examples implemented by the peer village organizations was one of the best ways to change the awareness of the existing organizations. So it was expected that the selected village organizations for the pilot action plans would become good examples for the other organizations to understand the importance of improving organizational management as prerequisite for self-reliant development.

**(4) Negotiation on cost sharing**

After discussion with the selected village organizations, a set of two cattle with a plow attachment and a yoke was decided as the content for Animal Traction Program, and the idea of cost sharing was explained to these organizations. The importance of cost sharing was fully understood and accepted by all village organizations. The percentage of cost sharing was determined by the nature of the pilot action plans. For example, the percentage of cost sharing for income generation projects such as Chicken Raising Program and Food Shop Management Program was higher than one set of cattle for organizational development. The contract including cost sharing and operational management for Animal Traction Program was smoothly agreed with the selected village organizations.

#### **11.4 Monitoring of the Pilot Action Plans**

Monitoring of the pilot action plans was very important in order to understand the process of the capacity development of the village organizations: the village organizations might encounter some problems when implementing the pilot action plans, and how they cope with these problems was a good indicator for their organizational capacity as well as a good learning experience for them. For example, provision of a set of two cattle with a plow, a harrow and an ox-cart to the village organization was considered a test case to monitor how the village organization could operate animal traction and transport with a fee, not only for the members, but also for non-members. As a result from the monitoring in the first selection, Association of Ex-Miners was found to have properly implemented Animal Traction Program with the income generated, but Co-operative Maguiguana and Association Pateque Block I had some room for improvement in the operation of animal traction. Thus, Association of Ex-Miners was considered having a higher organizational capacity and was selected again for the second selection of the pilot action plan (Food Shop Management Program for Single Mothers and Widows).

#### **11.5 Lessons for the Master Plan**

It is important to develop organizational capacity in various ways. Organizational development can be achieved through practical experiences, discussions, and motivation. The pilot action plans were expected to provide the village organizations with the practical experiences and motivation. Discussions were also carried out through workshops and monitoring and evaluation.

As mentioned earlier, the objective of the Study is not to donate materials, nor to construct infrastructure, but to support organizational development in order to facilitate further self-development. The pilot action plans had to be carried out in line with this objective. In this regard, if some village organizations improve their capacity, they should be given opportunities to propose the pilot action plans. Since it is difficult to build organizational capacity without motivation, it was appropriate to provide another opportunity for the unselected village organizations to prepare the proposals for the pilot action plans. However, too many pilot action plans introduced in Phase 2 were found very difficult to be managed by the Study Team.

In addition, time was another constraint. The implementation of the pilot action plans was scheduled from May 2001 to February 2002, and this nine-month period was too short to observe the quantifiable impacts in the village by the pilot action plans.

## **12. Village Organization Development Program**

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### **12.1 Objectives**

The Village Organization Development Program had the following objectives:

- To facilitate the village organizations in order to develop the visions for the future and promote the self-reliant sustainable development by the local people themselves.
- To enhance the management and implementation capacity of the village organizations in Munguine, Maluana and Pateque for further activities.

### **12.2 Target Groups and Areas**

This program targeted all 21 villages organizations in the Study Area, that is, Munguine, Maluana and Pateque. (See Table 3.1, for a list of 21 village organizations.)

### **12.3 Main Features (Approaches and Strategies)**

The situation analysis conducted in 2000 revealed that village organizations have a potential to play a key role to initiate self-help development activities in the Study Area. But the self-help activities of these village organizations were very weak. In fact, most organizations had played only a limited role such as authorizing the members of the village organization to use the fertile land in the low land. There are many management problems in the village organizations, such as the problems of accountancy, democracy and leadership within the village organizations which could seriously limit the above potential of the village organizations. Thus the pilot action plan aimed at strengthening the management capacity of village organizations through a series of training seminars/workshops and study tours in order to develop village organizations into an engine for self-reliant sustainable community development.

This program also served as a foundation for all other village-level pilot action plans, because the village organizations were trained to assess their problems and needs, to develop the vision for the future, and to prepare the proposals for the pilot action plans in the first and the second selection. Due to the limitation of manpower, time, and budget in the Study, only the most capable village organizations were selected to implement the pilot action plans. However, it was expected that these selected village organizations would become development models for other village organizations in the Study Area.

Village Organization Development Program tried to respond to the real needs of the village organizations which implement the pilot action plans. In general, the organizational capacity must be developed from the basic and fundamental capacity such as transparent accounting and democratic decision-making, to the more complex capacity to plan and implement various activities. Transparent

accounting and democratic decision-making are considered the essential and fundamental capacity for the sound operation of village organizations. Any activity in village organizations cannot be properly implemented without transparent accounting and democratic decision-making. In other words, a relationship of mutual trust among the members is the important prerequisite for the organization to plan and implement various economic and social activities. Thus, one of the criteria for the selection of the village organizations for the pilot action plans was to own a bank account.

It was expected that the selected village organizations would develop their organizational capacity from the basic and fundamental capacity to the more complex capacity through the experience of implementation of the pilot action plans. An organizational development seminar which aimed at raising awareness for the need to formulate the common vision among the members, implement step-by-step development, and develop organizational managerial capacity was carried out on February 2001.

In the Participatory Evaluation Workshops held on February 22nd and 25th, 2002, the members of the village organizations participating in the pilot action plans unanimously expressed their view that transparent accounting and democratic management in their organization need to be improved and it is considered an urgent need for them. While the villagers in Participatory Evaluation Workshops reported many positive changes and impacts in their organization, it seems that it will need more time to realize the full-scale changes and impacts in the management of all village organizations in the Study Area.

#### **12.4 Organization for Implementation and Monitoring**

There are several NGOs in Mozambique which provide training seminars/workshops for village organizations. Peasants National Union (UNAC), Rural Association for Mutual Support (ORAM), and Kulima were selected for their good experiences in this field, and requested to submit a proposal for organizational management seminars/workshops for village organizations. As a result of evaluating their proposals, Kulima was selected as a partner to implement the second stage of the program.

It was difficult to monitor organizational development without concrete events such as the implementation of the pilot action plans, nor to monitor the activities by all village organizations in the Study Area. Therefore, the monitoring focused on the village organization which implement the pilot action plans, but at the same time, it was necessary to monitor the impacts of the pilot action plans on the other village organizations, although it may take a long time for these impacts to come out. The Study Team assigned a local villager as a monitoring staff.

The following indicators were selected to monitor the progress of the program:

- The range of activities conducted by village organizations
- Participation rate of the organization members in various activities testified by labor and cash contribution

- The transparency in accounting and democratic decision making observed by the organization members
- The trust towards the leaders of the village organizations observed by the organization members
- The village organization's capacity to develop the vision for the future and the good proposal for self-reliant community development activities
- The village organization's capacity to implement village development activities

### **12.5 Planned and Actual Activities**

As mentioned earlier, organizational development seminar as the first round in February 2001 was firstly carried out for encouraging the member of the village organizations to mainly recognize the meaning and necessity of vision and organizational development.

After Kulima was selected as a partner for the Study Team to implement the second and third rounds of organizational development seminars, Kulima carried out the quick survey of all 21 village organizations to understand their situation and training needs in July 2001. Kulima and the Study Team implemented the second round of seminars in August 2001 and the third round of seminars in November 2001. The seminars used participatory approaches as much as possible, for example, encouraging the participants' contributions on the topics as well as their evaluation of the seminar.

The following were the main topics covered in the first round of seminars in February 2001:

#### 1) Basic Organizational Management

- Concept regarding vision, mission, values, and norms
- Organizational structure and culture
- SWOT (strength, weakness, opportunity, and threat) analysis

The following were the main topics covered in the second round of seminars in August 2001:

#### 1) Organizational Management

- Concept regarding an association and a co-operative, membership, leadership, and organizational process
- Gender
- Relationship with the public institutions

#### 2) Village Development

- Animal traction and plowing
- Fertilizers and manure (ecological techniques)
- Environmental care (improved stoves, reforestation, waste management, fire burning etc.)
- Water supply (infrastructures and equipment installed locally, water pumps running and maintenance)

- Basic accountancy and financial management (rotational funds etc.)
- Micro credit (individual and collective, in-kind micro credit, solidarity group guarantee) and saving services (stamp-based system etc.)

According to the participants' opinions, the seminars in August 2001 were relatively theoretical arguments except some specific issues. The participants expected more practical seminars, particularly on agricultural management. Thus, agricultural management and financial and commercial management (including shop management) were identified as the topic in the second round of seminars in November 2001. The topic of shop management was selected to facilitate Association of Ex-miners to implement Food Shop Management Program for Single Mothers and Widows.

The following were the main topics covered in the third round of seminars in November 2001:

#### 1) Agricultural Management

- The concept of agricultural management
- Work plan (deciding what crops and vegetables to grow, conducting market survey including price survey, etc.)

#### 2) Financial and Commercial Management (including shop management)

- The concept of financial and commercial management
- Treasury management including cash control, and raising fund
- Shop management

These topics except shop management were selected through a participatory process: first the facilitators presented the possible ideas for the topics covered in the seminars, then the participants and the facilitators discussed and decided what topics are their most urgent needs. Shop management was a topic suggested by the Study Team, because Association of Ex-miners carried out Food Shop Management Program as a pilot action plan. The participants were very interested in agricultural management due to their daily agricultural activity. Through the seminar, the participants developed their own work plans on agricultural management. It was important to make a realistic work plan by finding the actual prices of agricultural inputs, and understanding the utilization of available resources and manpower, and the behaviors of the suppliers and the consumers, the natural condition of the area, the interests of the beneficiaries, and the political situation.

In the third round of the seminars, the following participants' needs were identified:

- Income generation projects
- Technical support, particularly for agricultural production and capacity building of village organization
- Periodical assistance on management of the project

The participants finally agreed the following points in the third round of the seminars:

- The efficient management is essential for organizational development.
- Transparency is also essential for organizational development.
- Appropriate production technologies such as low external input agriculture technologies are important for agricultural management.
- Good commercial management needs the rational utilization of available resources and manpower, and the high quality production with low cost as well as good marketing and sales strategies.

On the other hand, the topic of shop management was relatively unpopular due to no experience and less willingness to start shop business except the members of Association of Ex-miners. Thus the shop management workshop was conducted mainly for members of Association of Ex-Miners and Zonal Union of Associations and Co-operatives in Munguine which implements another income generation project, Sewing Training Program for Youth.

### **12.6 Results of Process Monitoring and Evaluation**

It is still too early to evaluate Village Organization Development Program. Regarding organizational development, the basic management of the village organizations cannot be improved without practical experiences in implementing development activities. In this regard, the process of planning, negotiating, implementing and monitoring of pilot action plans is essential for organizational development. However it will need a long time to realize the fruit of organizational development.

In the Participatory Evaluation Workshops held on 22nd and 25th February 2002, the participants agreed that organizational development through actual program implementation starts to give favorable results in general. But it is still too early and difficult to judge the real impacts of organizational development of village organizations. This is not only because organizational development takes time, but also because organizational development is the result of both seminars and operational experiences of pilot action plans. It might be said that the members of the target village organizations started to realize the importance of improving basic management such as transparent accounting and democratic decision-making. In other words, the villagers have just started to realize the need of organizational development in village organizations for further development.

### **12.7 Lessons for Master Plan**

Organizational development of village organizations is essential for rural development. While the main role of the village organizations in the Study Area is to provide villagers with the right to use low land, some village organizations which implemented pilot action plans started to show the improved management capacity and a potential to become a self-reliant development agent in the village. However, organizational development cannot be achieved in a short time. As mentioned earlier, frank and honest human relationship among members is the basic condition for democratic management by

the members. It may take a long time to realize the full potentials of the village organizations such as group purchases and sales, technical support to members, etc.

It is too early to draw lessons from Village Organization Development Program for the participatory village development model due to the short time of pilot action plans. However, it can be said that the organizational capacity has been developed by both seminars and practical experiences in implementing pilot action plans. It is impossible to develop the organizational capacity by providing only seminars, although the seminars can provide the participants with some useful knowledge. The village development occurs only when villagers' knowledge learned in the seminars is put into actual practice.

It is also said that the topics in various seminars should be flexible and changed in response to the targeted people's real needs in the implementing the pilot action plans. In fact, the seminars of organizational management, village development, agricultural management, and small business management were carried out based on their needs. The topics of vision planning, proposal preparation, leadership, and organizational management were discussed in the second round of seminars on organizational management and village development in August 2001. The management and accounting for agriculture programs such as Animal Traction Program, Low External Input Agriculture Program, as well as small income generation programs such as Chicken Raising Program, Food Shop Management Program, and Sewing Training Program were discussed in the third round of seminars on agricultural management and small business management. In other words, the topics in the seminars have shifted from the basic management skills to the more advanced management of agriculture and income generation programs.

As mentioned earlier, the capacity development of village organizations is essential for sustainable rural development, and is an indispensable part in the participatory village development model. It is quite important to enhance the capacity of village organization not only through seminars (knowledge development) but also through practical experiences in implementing programs (practice), and training seminars should be organized in a flexible manner which responds to the targeted groups' actual needs when implementing programs.



## 13. Animal Traction Program

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### 13.1 Objectives

Animal Traction Program had the following objectives:

- To make land cultivation easier through the provision of traction animals
- To facilitate marketing of agricultural produce through the provision of ox-carts as transportation means
- To improve the management capacity of village organizations through the experience of managing the traction animals and ox-carts
- To improve the long-term food security and safety net against natural disasters by increasing the number of livestock in the community

### 13.2 Target Groups and Areas

The criteria to select target groups were as follows:

- Well-established and stable organization
- Strong leadership
- Transparent accounting
- Well-managed organization

Additionally, the Study Team tried to choose organizations which have not received any support from other donors or locate in the remote area. Based on these criteria, two village organizations in Munguine (Association of Ex-Miners and Co-operative Maguiguana) and one village organization in Pateque (Association Pateque Block 1) were selected for Phase 1 implementation.

In Phase 2, the number of village organizations which wanted to join this program increased substantially compared with Phase 1, because many village organizations now understand the benefits of Animal Traction Program by observing the activities of the selected groups for Phase 1. Based on the same criteria with Phase 1, two village organizations in Pateque (Association Pateque Block 2 and Association Pateque Block 3) and one village organization in Maluana (Co-operative Maluana) were selected for Phase 2 implementation. The following are the descriptions of the selected village organizations:

#### (1) Association of Ex-Miners (Phase 1)

This association is compact and has a strong leadership. The number of the members is 18 persons (4 females) and they are ex-miners. The association has a bank account and the motivation to participate in this program was suitably high.

## **(2) Co-operative Maguiguana (Phase 1)**

Co-operative Maguiguana is rather large in size and the number of the members is 94 persons (79 females), of which 78 percent are widows and female-headed households. Since the majority of the members are women, this pilot action plan can be regarded as supporting women strongly. The leadership was felt a little bit weak when compared with other selected organizations. The co-operative has their bank account and the desire to participate in this program was suitable.

## **(3) Association Pateque Block 1 (Phase 1)**

The association has their bank account and the desire to participate in this program was suitable. The number of the members is only 14 persons (6 females) and the size of the association is small, but the association has a strong leadership and the members are really co-operative and active. Since the association is located in a remote area far from the main national road (EN1), they had not received any support from outside before.

## **(4) Association Pateque Block 2 (Phase 2)**

The association has their bank account and they were very eager to participate in this program. As the number of the members is 104 persons (50 females) and the size of the association is rather big, the leadership seemed to be a little bit weak. But the members are really co-operative and active. Furthermore, the association is located in a remote area far from the main national road (EN1), and they had not received enough assistance which they desire from outside.

## **(5) Association Pateque Block 3 (Phase 2)**

The association has their bank account and motivation to work according to the program was fairly high. The number of the members is 97 persons (57 females) and the association has a strong leadership with members' full support. Like other village organizations in Pateque area, the association is located in a remote area from the main national road (EN1), and they had received very little support from outside due to its remote location.

## **(6) Co-operative Maluana (Phase 2)**

The co-operative has their bank account, and showed their strong interest to participate in this program. The number of the members is 100 members (70 females). The average of the cultivated land is 0.20 ha per person. The majority of the members are women and female-headed householders who heavily needed to utilize animal traction, because the plowing by human power is too hard for women. The association is also far from the main national road (EN1) and hasn't got any satisfied level of assistance in the past.

### **13.3 Main Features (Approaches and Strategies)**

Animal Traction Program was selected as one of the pilot action plans because animal traction is considered as a more appropriate technology for the local population, compared with the tractor. The

local people already know how to train, use and take care of traction animals for land cultivation and transport, and the cattle is useful in the rural community not only for land cultivation and transportation, but also for the use of its dung as manure, natural fertilizer to the land, and its meat as a festive food.

On the contrary, the tractors, which were requested by some village organizations, were found too expensive for the local population to maintain and use. In Munguine, there are some tractors which were donated by other donors in the past, had broken down after a few years of use, and were abandoned due to the lack of fund for repair. Learning the lesson from the past donation of tractors, animal traction was selected as more appropriate means to improve agricultural productivity.

Even though animal traction is inexpensive to operate and maintain compared with tractors, it still needs some money to operate and maintain, so the village organization must show their financial capacity to raise enough fund to operate and maintain animal traction. In this sense, the Study Team requested village organizations to share the initial cost for animal traction and gradually bear the cost for maintenance. The initial cost sharing by the village organizations is about 5 to 10 percent of the total cost, and it was emphasized the cost sharing money must be paid before the provision of animals and equipment, in order to show their strong needs for animal traction and their capacity to operate and maintain the traction animals and equipment.

The policy of cost sharing was also found very effective to prevent the local people from demanding anything they want, and force them to think what is their priority and whether it is worth spending their own money for it or not. In this way, cost sharing certainly increases the sense of ownership among the local population, and they become serious to maintain the animals and equipment of which they shared the cost.

### **13.4 Organization for Implementation and Monitoring**

Each of three village organizations assigned the persons to take care of the provided cattle and equipment in order to operate Animal Traction Program smoothly. First, the veterinarian of the Study Team facilitated the start-up of Animal Traction Program and provided the participating village organizations with the initial training on how to prevent diseases of cattle. After he left for Japan, the local veterinarian of Association of Agro-Livestock Technicians (ATAP) living in Munguine was contracted to regularly monitor the health of animals and provide necessary veterinary care to the provided animals. The local veterinarian is requested to submit the monitoring report on animal health care twice a month.

For the utilization of the provided cattle and equipment by the three village organizations, the local extensionist living in Munguine was contracted to monitor these activities and provide advice to village organizations when the need arises. The local extensionist is requested to submit the monitoring report on animal traction operation and accounting twice a month.

### **13.5 Planned and Actual Activities**

The main activities in Animal Traction Program are as follows:

- Cattle breeding management (feeding, health care, etc.) to keep cattle healthy and plan to increase the number of cattle
- Fair operation of the animal traction and the ox-cart with a charge for members as well as non-members
- Accounting management (transparent record keeping of income and expenditure, and planning for all financial needs in future)

While most of the village organizations are operating their animal traction and ox-cart according to the plan, there are so many unexpected happenings to disturb its proper and effective utilization. Following are these unexpected happenings:

#### **(1) Association of Ex-Miners (Phase 1)**

After the cattle were provided and trained, the animal traction started in July 2001, but the frequency of the animal traction decreased after the rainy season started in November 2001. The ox-cart was hired once in August, but the opportunity to use the ox-cart increased during the harvesting time of the crops from the low land during October-November 2001.

Income from the animal traction and ox-cart is increasing and the association expanded their activities to other activities such as Food Shop Management for Single Mothers and Widows.

Transparency of accounting has been improved well and the association made a plan for future financial needs.

#### **(2) Co-operative Maguiguana (Phase 1)**

One ox died within one month from its delivery in June 2001 by mistakenly eating Magott, a poisonous insect, hidden in the leaves, so the Study Team provided another cattle to replace the dead cattle as promised in the contract. Since another cow was also found pregnant, the animal traction has not been conducted properly. They decided to use another cattle instead of pregnant one by renting from the president of the co-operative. Due to the poor experience of cattle management and animal traction, the co-operative couldn't properly utilize the animal traction until October. 2001.

When the president of the co-operative hired the animal traction for his own land plowing for a week, other members of the co-operative complained about the president unfair utilization of the animal traction, and the monitoring team advised the co-operative to hold a meeting to discuss and find the solution to the problem. Their conclusion was to rebuild a new committee for the animal traction. During the rainy season (November 2001 to March 2002), the animal traction has been interrupted. The leadership of the co-operative seemed to be rather weak, because the size of the co-operative is

rather large (94 members). The larger the size of the village organization is, the stronger leadership is required to manage the organization effectively.

**(3) Association Pateque Block 1 (Phase 1)**

After cattle delivery in June 2001, the animal traction and ox-cart operation has been conducted well, although one cow became pregnant. The president of the association changed cattle from pregnant one to another one. Because of the association is small and in a compact size, they have been managing the animal traction and ox-cart well with good mutual understanding and co-operation.

However, they have once had some misunderstanding which disturbed operation of animal traction: for example, when cattle became sick, ATAP veterinarian suggested not to use the sick cattle, but the president didn't explain the reason why the members could not operate the animal traction. Not only for this kind of small matter but also for each member's understanding, holding meetings frequently is very important in order to erase any suspicions and doubts among the members.

**(4) Association Pateque Block 2 (Phase 2)**

After the cattle delivery in September 2001, they started the training of animal traction. During the training, one cow showed a pregnancy sign, so the association decided not to use it for the animal traction. After its calving in November 2001, the cow got collapse of uterus, so they decided to slaughter it and sell beef meat at Bobole market. The meat was sold at US\$ 250, but it was not enough to buy another cattle, so they tried to find out the solution in the association's meeting. One member offered her cattle for the animal traction instead of a slaughtered one until the association's members deposit enough money to buy cattle. The agreement among them was to provide the animal traction for her farm free of charge.

**(5) Association Pateque Block 3 (Phase 2)**

After the cattle delivery in September 2001, they started the training of animal traction and began the animal traction and ox-cart operation. First one cattle which the village organization selected when buying was too small for animal traction, so the co-operative was unable to operate animal traction for some time. But since the cattle has now grown up, they started the animal traction in January 2002.

**(6) Co-operative Maluana (Phase 2)**

After the cattle delivery in September 2001, they started the training of animal traction, but the training of animal traction was suspended during the rainy season. While the co-operative utilized the ox-cart for some assignments, in general the animal traction and ox-cart were poorly utilized by the co-operative, due to the lack of a person in charge of cattle management. The co-operative held two meetings with the monitoring team and decided to pay one member to handle cattle. Now they are using animal traction at a full potential.

## **13.6 Results of Process Monitoring**

The following are some problems encountered during the implementation of Animal Traction Program.

### **(1) Cattle disease and accidents**

Cattle for the animal traction and the ox-cart are live animals, so diseases and death are inevitable. In the contract signed between the Study Team and the village organization before its handover, the agreement gives insurance for this inevitable accidents: if cattle dies within one month after delivery, the Study Team will provide another cattle to replace it. As with the cattle which collapsed of uterus after one month from delivery, the case was not covered by the contract, so the village organization (Association Pateque Block 2) decided to slaughter it, sell the meat and keep the money to buy another cattle in future. At the same time, they tried to find out alternative way to continue the animal traction and ox-cart operation by borrowing another cattle from one of members. In case of pregnant cows, they also took the same action to continue the animal traction and ox-cart operation.

### **(2) Weak leadership**

It is true that the activities of the village organizations heavily depend on the capacity of the leaders. Since many village organizations are still new to the area, the members of village organizations haven't possessed the same historical experiences. The co-operatives and associations were established mainly to give each member the usufruct right for fertile low land, and the members of the organization are not well united to organize collective activities which benefit all members. In this situation of the non-united members, the village organizations heavily depend on the capacity of leaders to realize the full potential of collective actions. Weak leaderships cannot guide the organization to the right direction and make members' powers concentrate into village development.

### **(3) Absence of the persons in charge of cattle handling**

Some village organizations did not assign the specific persons in charge of breeding, management of the animal traction and ox-cart. There are two reasons for this absence of the persons in charge of cattle handling: first, it is real absence from the beginning, and secondly, it is caused by the resign of the assigned persons or the village organization's ignorance for their roles and responsibilities. The monitoring team frequently visited and discussed the village organizations on the importance of assigning the persons in charge of cattle handling.

### **(4) Lack of record keeping on the decision-making and problem-solving process**

During monitoring, the monitoring team emphasized the importance of recording what happened in the program and how they discussed in order to solve the problems. Recording the process of implementing the development activities would be the base for village organization's administration for future improvement. Unfortunately, most village organizations had not understood the importance

of record keeping on the decision-making and problem-solving process, so the monitoring team had to explain it repeatedly until it becomes a routine practice for the village organizations.

**(5) Unfair operation of the animal traction and ox-cart**

When making schedules for the animal traction and ox-cart, the members of village organizations sometimes complained the unfair operational schedules which favor only particular persons such as the president. The unfair operations were caused by misunderstanding, selfishness, and the power gaps between the rich and the poor. The Study Team strongly advised to make a timetable to operate the animal traction and ox-cart fairly for all members who request the service.

**(6) Transparent accounting**

The balance between income and expenditure shows the economic situation of the village organizations. While accounting is the fundamental component for organizational management, some organizations are not keen to watch and record its dealing. Sometimes accounting is handled by only a few people, its use is decided by them without openly informing other members, which leads to the misuse of the public fund. It is important to educate the members to be aware of the importance of the transparent accounting the accounting should be monitored publicly by the members.

**(7) Poor utilization of the animal traction and ox-cart**

The monitoring team has frequently observed poor utilization of the animal traction and ox-cart. Whenever the team noticed poor utilization, village organizations were asked the reasons for it, and encouraged to discuss and solve the problems by holding a members' meeting.

**13.7 Results of Evaluation**

**(1) Participation**

According to the size of the village organizations, the frequency of utilizing the animal traction and ox-cart is very different. Members of large village organizations could not get many chances to use the animal traction and ox-cart, because many members requested the same service. So it is natural for them not to be so keen in participating in Animal Traction Program. On the other hand, the strong leadership of village organizations can make members participate in development activities very actively. If members can see the good capacity and the fair attitude of their leaders, they are more willing to participate.

In the beginning, many members had been suspicious of the benefits of participating in the pilot action plan, but they gradually realized the benefits of participation such as reduced labor work, more cultivated area, more harvest and income, etc. Pre-conditions for members to participate well can be: fairness in operation, acceptable reasons to work, clear purposes of the program, benefits for members, etc.

## **(2) Institutional development**

Once development is facilitated well by the village organizations, the good results would stimulate and promote the further development by them. This is a favorite cycle of institutional development. In a few village organizations, like Association of Ex-miners, the cycle of institutional development has led them to expand their activities for bigger benefits. On the contrary, if members cannot get any profit from their activities, there will be no chance for village organizations to expand activities. Village organizations which can give many advantages for members will be able to expand the activities and continue to develop the village.

Cattle and equipment provided by the Study Team through cost sharing have made possible for villagers to cultivate more land and improve their socio-economic situation. The Study Team has also improved the management of village organizations to respond better to the needs of each member. Stimulated by these inputs from the Study Team, the village organizations have now become more active and willing to change the socio-economic conditions in the village.

## **(3) Self-reliance and sustainability**

Self-reliance and sustainability can be achieved by the villagers themselves who become more active in working for village development through their participation in the village organizations. Only well-managed village organizations can organize the members to become the active agents for village development.

At present, however, the spirit of self-reliance and sustainability of development activities in the Study Area seemed to be a little bit weak, because not all village organizations have achieved the satisfactory level of profitable results for its members. But some village organizations have shown the possibility to develop them further by themselves led by their successful results at present.

## **(4) Replicability**

Through this pilot action plan, Association of Ex-Miners and Association Pateque Block 1 showed the higher capacity to manage and expand development activities than other village organizations. These organizations can become a replicable model for other organizations in the Study Area by arranging other organizations to visit these organizations for mutual learning.

## **13.8 Lessons for Master Plan**

Through the animal traction and ox-cart operation, the following are noticed as important factors to develop village organizations properly:

### **(1) Human resources**

For village development, human resources will play the key role. The lack of human resources with a high capacity would never produce any good result for the village, even if the infrastructure were



successfully constructed. This is because everything is done by human power, but not by materials. The key human resources for village development are leaders and extensionists.

1) leaders

- strong and committed leaders with clear visions for future, fair attitude to all members, rational judgment, trustworthiness, and a strong sense of responsibility

2) extensionists

- extensionists who transfer techniques and knowledge to village organizations and farmers based on their requests

**(2) Financial support**

Since village organizations and farmers suffered from lack of capitals, they were unable to start development actions. The financial support (such as micro credit) to the village organizations and farmers would be useful as a trigger device to promote the development activities.

Even in a livestock revolving scheme, the initial investment such as the original livestock is needed. The rate of cattle increase is very low, while the demand for cattle is high. The small number of the original cattle limits the rate of the increase of cattle. It would be useful to provide loan from the private or the official sector to purchase more cattle.

**(3) Technical support**

The farmers in the Study Area, especially older farmers, are not ignorant in animal traction operation, but just have not enough access to the cattle. Through Animal Traction Program, the farmer's access to the cattle has been improved substantially, and the younger farmers were able to learn how to operate cattle for traction from the older farmers. This farmer-to-farmer technical support or exchange is a very effective way to convey knowledge and technology from the older generation to the younger generation, as well as from one area to another area.

**(4) Increase of cattle (domestic animals)**

It is necessary to increase the number of cattle which decreased drastically during the civil war. The speed to increase the number of cattle will be initially very slow, due to low genetic reproductivity of cattle, inferior livestock management, poor quality of grass pasture, shortage of nutritious grass and etc.

The program to increase the number of cattle should include:

- a livestock revolving scheme
- special ranches for breeding (may be the base for a livestock revolving scheme)

- a research center on soil, grassland management, fodder crops, etc.
- improvement of livestock species (an animal breeding center)
- development of pasture with nutritious grass
- co-operation with universities or laboratories

## 14. Low External Input Agriculture Program

### 14.1 Objectives

Low External Input Agriculture Program was formulated with the following objectives:

- To improve the productivity of food crops, cash crops, vegetables and fruits by introducing appropriate practices/skills based on both indigenous farming and low external input farming in the model farms established in the Study Area, and
- To develop ecologically sound and sustainable food production system with low external input farming which is appropriate for small farmers in southern Mozambique.

### 14.2 Target Groups and Areas

The Program commenced in July 2001 with the objective of expanding low external input farming through demonstration in three model farms established in the lowland. Participants in the Program at the beginning were three village organizations, namely Co-operative Maguiguana, Association of Ex-Miners and Association of Pateque Block 1.

After the selection of second proposal for the pilot action plans in September 2001, one organization, Co-operative Maluana, joined the Program established in the highland model farm. Association of Pateque Block 1 also joined the activities in the highland in addition to the activities carried out in the lowland.

**Table 14.1 Village Organizations Participating in the Program**

Name of Organization		No. of Members	Summary of Model Farm			
			Location	Area (ha)	Soil Type	Work Day
From the Phase 1	Co-operative Maguiguana	94 (79)*	Lowland	0.30	Light clay soil	Monday
	Association of Ex-Miners	18 (4)		0.15	Light clay soil	Wednesday
	Association of Pateque Block 1	14 (6)		0.30	Heavy clay soil	Tuesday & Thursday
From the Phase 2	Co-operative Maluana	100 (70)	Highland	1.00	Sandy Soil	
				0.50	Sandy Soil	Friday

\*: Figures with a round bracket indicate the number of women.

### 14.3 Main Features (Approaches and Strategies)

Farming in the Study Area is basically performed for their self-sufficiency. Access to the lowland fields with fertile soil and high level of groundwater made it possible to cultivate the land throughout

the year, however, productivity of crops remains low. Although there were several limiting factors of low productivity, farmers were under the impression that low application of inputs for production was the main cause of low yields.

It was true that application of certified seed, fertilizer and chemicals might be a solution of this constrain. Instead, there was room to improve productivity through making the best use of indigenous farming skills and low external input farming practice, such as application of manure, application of natural enemy for pest & disease control etc. This farming was also recommendable for small-scale farmers from a viewpoint of farm economy.

Therefore, the Program aimed at introducing appropriate practices/skills based on both indigenous farming and low-input farming for the purpose of improving productivities of food and cash crops through demonstration activities at the model fields established in the Study Area. The policy of cost sharing was not applied to the Program. The Study Team provided the participants with farm inputs, mainly seeds. The participants were requested regularly to join community work in the model farm.

#### **14.4 Organization for Implementation and Monitoring**

The Study Team appointed a stationed field worker for a task of monitoring the Program during the Study period. The Study Team provided him with a motorbike in order to cover five program areas, which are scattered over the Study Area. He was joining every community work of each village organization to monitor their activities. During the absence of Farming and Marketing (B) expert, stationed field worker with sufficient experiences in training on natural farming skills in Zimbabwe gave some technical advice to the participants in place of Japanese expert.

The Study Team invited an expert from South Africa, who had a detailed knowledge of natural farming practices, twice during the Study period in order to support technical aspects of the Program. During his first visit in July 2001, prior to starting activities in the model farms, he facilitated two-days seminars on introduction of natural farming practice to the participants. The objective of second visit in February 2002 was to follow-up the Program in order to reveal the constraints of both technical and managing aspects for the sustainability of the Program.

#### **14.5 Planned and Actual Activities**

During the second fieldwork period, the plan of approach was prepared based on farmers' intention. Components and approaches of the Program were revised flexibly during the implementation period of the Program in accordance with the progress of the Program. Main differences between planned and actual activities are summarized with the reasons in Table 14.2.

**Table 14.2 Differences between Planned and Actual Activities**

Item	Planned Activity	Actual Activity	Reasons of Difference
Establishment of Model Farms	Two types of model farm are established.	A model farm was established in the lowland at the beginning, finally in the highland.	Considering the effectiveness of extension activities, only lowland field was targeted as the model farms. However, this approach eliminated villagers who couldn't access to the lowland field. Therefore, a model farm in the highland was established in the Phase 2.
Targeted Participant	One village organization and several villagers who have experience to work as extension staffs	Four village organizations	Considering collaboration with other programs, organizations, which were targeted for Animal Traction Program, were selected.
Soil Preparation	Introduction of manure	Introduction of liquid manure	It is difficult to gather enough cattle dung due to lack of heads of cattle in the Study Area. There are also some technical difficulties to produce manure.

## 14.6 Results of Process Monitoring

### (1) Difficulty in managing the Program

The Study Team tried to provide technical advice directly to all participants who joined community work at first. This method was effective to small village organizations, Association of Pateque Block I and Association of Ex-Miners. Meanwhile, community work in the model farms managed by Co-operative Maguiguana and Co-operative Maluana, which consist of 94 and 100 members respectively, brought difficulty in transmitting of advice to the participants. Greater or lesser degree of interest in the Program among the participants controls the contribution of community work. In order to improve the efficiency of the system of community work, another approach was applied to both Co-operative Maguiguana and Co-operative Maluana from the end of October.

All participants were divided into several groups with three to eight members, and group leaders who had well understandings of transferred skills were selected for each group. The Study Team focused on them to provide technical advice in expectation of transmission of the skills to group members via leader. This approach was expected to raise not only efficiency of community work but also consciousness of participation.

One of the original purposes of the Program was to promote appropriate farming skills to the villagers through demonstration in the model farms, however, their efforts were devoted to the management of the model farms in itself rather than the promotion of appropriate farming skills as the Program

progressed. During the absence of farming and marketing expert (B), the stationed extension worker should pay his attention to motivate the participants to manage the model farm. One village organization, Co-operative Maguiguana, expanded their model farm in order to maximize profits derived from the model farm. Returning to the right role of model farm, consideration should be given to determination of appropriate size of a model farm to be managed easily without burden to their daily work.

## **(2) Effectiveness of monitoring among farmers**

In the middle of November 2001, a study tour to a progressive farm near Maputo was carried out in order to motivate the participants. This farm was a good guide to the Program in three aspects: namely 1) diversified farming; 2) high-beds planting; and 3) farm arrangement. During a short stay, participants who had a strong will to join this activity, compared with usual community work, asked progressive farmers about their farming aggressively. This indicated that farmer-to-farmer approach was more effective rather than outsider-to-farmer approach depending on the time and circumstances.

Exchange visits to the model farms were also arranged between Co-operative Maguiguana and Association of Ex-Miners. Inspection of the model farm managed well by Association of Ex-Miners motivated group leaders of Co-operative Maguiguana who were confronted with difficulty to manage their model farm. This internal visiting brought them an immediate change of attitude forwards their community work. It was necessary to arouse a sprit of competition among the participants in a sense.

## **14.7 Results of Evaluation**

The Study Team organized two Participatory Evaluation Workshops both in Muguine and Pateque in order to evaluate the implemented Pilot Action Plans based on the voice of the Participants. Based on the result of workshops in addition to the result of monitoring activities, evaluation of the Program was attempted from eight view points: namely (1) participation, (2) institutional development, (3) self-reliance and sustainability, (4) possibility for future self-development, (5) socio-economic impacts, (6) replicability, (7) relation with the government, and (8) overall achievement of the original objectives.

### **(1) Participation**

Each village organization to participate the Program has different background such as number of member, the ratio of men and women, the location and the area of the field that is allocated in the lowland etc. These factors influenced their attitudes to the Program. Table 14.3 shows performance of community work of each organization during the Program period up to the end of January 2002.

**Table 14.3 Performance of Community Work during the Program**

Name of Organization	No. of Members	Performance of Community Work		
		No. of Community Work	Total No. of Participant	Average No. of Participant per Community Work
Co-operative Maguiguana	94	30	689	23 (24%)*
Association of Ex-Miners	18	23	244	11 (61%)
Association of Pateque Block 1	14	26	250	10 (71%)
Co-operative Maluana	100	10	164	17 (10%)

\*: Figures with a round bracket indicate the ratio of number of participants to number of whole member of organization.

Participants in community work ranged from none to 50 villagers depending on weather and/or their duties to attend another program or meeting. Every community work had around 15 participants on average. It may not be reasonable to evaluate the performance of the Program to the Program based on the percentage of attendance to community work, because the number of workers at a time was related to the size of the model farm. However, it was true that small-scaled organizations, Association of Ex-Miners and Association of Pateque Block 1, managed their fields well.

### **(2) Institutional development**

Before the commencement of the Program, some village organizations made a rule to work together in their communal land. They also lay down a rule to share the profits from the management of communal land among the members. Therefore, the Study Team allowed the organizations to manage their activities according to their rules without any institutional development. Apart from other Pilot Action Plans, the Program did not put the participants under the obligation to share the cost of inputs in cash, but labour forces and local materials were to be provided by the participants.

### **(3) Self-reliance and sustainability**

Information on the effectiveness of fertilizer and chemicals, which were brought from the outside, confused the villagers. They believed that low productivity was caused by their indigenous and traditional farming practice, and that fertilizer and chemicals should be applied for improvement of productivities. Through the Program, the Study Team focused on disseminating the importance of observation of the fields and crops through comparative trial of cultivation between their traditional skills and newly introduced skills.

As a result of the trial, they became aware of a possibility to increase productivity without fertilizer and chemical, and they sorted out suitable skills for their fields from the introduced skills. For example, they acquired knowledge that mulching to groundnut and maize was not effective. They are still

challenging new trials by their own efforts. As long as they progress through the Program, self-reliance and sustainability of the Program will be established to a certain extent.

#### **(4) Possibility for future self-development**

The Program contributed not only to provision of new farming practices for the participants but also to the villagers becoming aware of their ability and potential for agricultural development by using of resources available in the community. Judging from achievement of their capacity building, there is a possibility for future self-development.

The Program experienced only one season cropping in 2001/2002 with provision of several basic skills for the participants. Although mulching and high-bed skills expanded to the private fields, it was supposed that it took much time to extend these skills over the community. And also it is noted that the model farms were managed with assistance of the stationed extension worker. It requires further technical assistance for the extension of these farming skills until all participants gain appropriate skills.

#### **(5) Socio-economic impacts**

The villagers in the Study Area, especially in Pateque, had experiences of cultivating vegetables for marketing before commencement of the Program. Implementation of the Program had an impact on awareness of the villagers for marketing. Introduction of new vegetables with high value made the villagers possible to sell at reasonable price in the market. They learned which crops are profitable in the market through the Program.

However, the scale of model farms that were established at the communal land was too small to gain enough profits to be shared among the members of organization. As new farming skills for vegetables production expand, livelihood of the villagers will be improved through strengthening of marketing activities.

#### **(6) Replicability**

Several farming skills that were transferred to the villagers under the Program are basically applicable to any small-scaled farmers. It is evident that most participants answered that farming skills learned through the Program are applied to their private fields according to the baseline survey.

Low external input farming has a basic concept to use materials that can be supplied within the local community. For example, mulching to cover the ground in order to prevent the field from evaporation, weed and insects is made of residue of product or weed that are cut in the field. This farming practice is suitable for whoever has poor access to the credit source for procurement of inputs for production. On the occasion of replicating to other regions/communities, it is necessary to put to practical use of low external input farming in consideration of the actual situation of the field, climate and natural resource available in the community.



### **(7) Relation with the government**

The Program received neither any technical support nor financial cooperation from the government agencies related to agriculture development. The National Directorate of Rural Extension (DNER), in charge of extension services to the farmers under the Ministry of Agriculture and Rural Development, put priority on agricultural development through introduction of modernized farming technique which is symbolized as high external input farming. National Agricultural Investigation Institute (INIA) also focuses on researches by making use of high scientific technology. This may be general situation not only in Mozambique but also in other developing countries.

### **(8) Overall achievement of the original objectives**

Implementation of the Program for almost nine months produced a change of villagers' awareness on their farming and proved the effectiveness of low external input farming. They also realized the importance of farm management through careful observation of the growth of cultivated crops. Good results on these subjects were obtained to some extent before the completion of the Program.

On the other hand, it is still early to evaluate to what extent improvement of productivity will be achieved because of the short period of implementing of the Program. However, it is clear that new farming practices were accepted among the participants. It was confirmed that productivity of some crops was improved by introduction of new farming skills within the model farms, however, it is not possible yet to estimate the effects of new skills on the Study Area as a whole. It needs time before the villagers become aware of the effects of the Program, so monitoring of the Program should be continuously implemented after completion of the Study.

## **14.8 Lessons for Master Plan**

Low External Input Farming Program was implemented in order to prove the effectiveness of short-term objectives for agricultural development in the Study Area: "to promote adequate farming practice based on traditional techniques/skills." Judging from the outcomes of the Program mentioned above, it can be concluded that the approach was accepted. With the objective of preparing of a draft master plan for agricultural development in the Study Area to be formulated based on the result of the Phase 1 Study, lessons from the Program are described below.

### **(1) Validity of low external input farming skills**

It was impossible to evaluate the effectiveness of the low external input farming quantitatively due to the limitation of the duration of the Program. But it was true that the impact of this approach on production and productivity was very weak while the program obtained good result on improvement of villagers' awareness of this approach. For the purpose of dissemination of the low external input farming continuously, several technical matters that should be discussed are mentioned as follows:

#### **a) Achievement of self-sufficiency of maize**

Self-sufficiency of maize, which is a staple food crop, should be achieved firstly. Low productivity of maize at present is mainly caused by damage pest and disease. It is difficult to control pest and disease due to cultivation through the year. Although application of pesticide is the best way to control pest and disease, it should be avoided adopting costly measure in subsistence farming as much as possible. Control methods by using local materials such as ash and plant, which have been tested during the Program, will be a solution to the problem. Other measures to stabilize or improve productivity of maize to meet requirement of maize consumption for the population in the Study Area are:

- to keep appropriate cropping pattern strictly in order to prevent natural disaster such as flood and drought;
- to expand planted area in the lowland which has many uncultivated fields by using draft animal or introducing labour saving technique such as zero tillage farming in order to increase production as a whole; and
- to introduce genetic fixed variety with characteristics of high yielding, resistance to pest and disease and early maturity that require few input materials.

#### **b) Suitability of labor-intensive farming**

Low external input farming is generally more labor-intensive, however, this is not a problem in the developing country. Labor there is relatively inexpensive, while chemicals and mechanization are correspondingly expensive. However, introduction of labor saving technique such as zero tillage farming should be considered on condition that a shortage of labor caused by migrant works is marked.

#### **c) Usefulness of residue mulching as manure**

Mulching to cover with residue of crops and weed is effective in keeping moisture content in the soil, preventing weed growing and control of pest and disease, however, plowing mulch after harvesting has no effect on nitrogen fertilizers. Inversely, high carbon-nitrogen ratio of the residue causes nitrogen starvation which requires supplementary application of nitrogenous fertilizer rather than the antagonism to potassium or the synergy to phosphorus. Therefore organic manure which is fermented completely should be applied basically as a method of fertilizer application.

### **(2) Necessity for promoting farming practices suitable for the highland environment**

The Study Team emphasized the activities in the lowland with fertile soils at the initial stage. Model farms in the highland were established on the way of the Program in response of the request of the villagers. Improvement of farming in the highland is important for the villagers in the following aspects:

- Many villagers who have no access to the lowland fields make their livelihood by farming in the highland field, which is less productive compared with that of the lowland field.

- Even for the villagers who have access to the field in the lowland, going to the field for farming is a burden on their dairy life, resulting in less time to spend on farming.
- Although there is a potential for development of arbor crop culture that will be good income source in the highland, the villagers don't make the best use of that potential.
- It is necessary to establish adequate land use plans in the highland from the viewpoint of environmental conservation.

Diffusing farming practices suitable for the highland fields should be focused on. Considering the environment prevailing in the highland with sandy soil and difficulty in access to water, agroforestry, which is a kind of land use in combination with agriculture and forestry, is considered a suitable method for highland farming. This farming practice to cultivate various crops including arbor crops in a given field has the advantage of soil conservation as well as risk hedge against a natural calamity. Due to a long time to be ready for harvesting from arbor crops, appropriate continuous support will be required.

### **(3) Strengthening extension service system**

As the Program was implemented as a part of the Study, the system of demonstration farming in the model farm was applied to only a few village organizations. Although some farming skills are expanding to the private fields in the Study Area, it is difficult to say that these skills become established completely during the Study period. Through the implementation of the Program, a framework on the side of recipients of extension service was already prepared. In order to strengthen extension service system for the villagers, it is necessary to build a nation-wide network of extension workers with sufficient knowledge and experience on natural farming.

### **(4) Intervention of the government agencies**

Intervention of the Ministry of Agriculture and Rural Development in the project is inevitably necessitated to apply this approach widely to other regions/communities in Mozambique. Although modernized farming, High External Input Farming in other words, is effective for large-scaled farmers, it is obvious that this approach is not sustainable for small-scale farmers who are the majority in the Country. The importance of the participatory approaches as demonstrated through the implementation of the pilot action plans should be emphasized for successful village development.



## **15. Rural Water Supply and Water Users' Group Capacity Building Program**

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### **15.1 Objectives**

The Rural Water Supply Program aimed to:

- provide additional ground water supplies for local communities;
- develop communities' capacity to manage, operate, maintain and repair the water points;
- promote a sense of ownership of the water points by the communities; and
- promote hygienic practices among local communities.

Short-term pilot action plan interventions that address a) the lack of involvement of user communities and b) the need to improve the quality of water used by the communities were implemented and assessed to provide lessons for longer term development planning. The objectives were achieved through formation and training of Water Groups (WG), in basic bookkeeping and management skills, operations, maintenance and repair (OMR), ensuring all rehabilitated and new construction works have sealed headworks (aprons and drains), and users' awareness of water quality is raised through hygiene education and training.

### **15.2 Target Groups and Areas**

Two communities located in Munguine Bairro 2 and Maluana Bairro 1 that had negative results of rehabilitation of two non-operational boreholes selected alternative sites for the construction of new boreholes. In Maluana, this was close to the negative rehabilitation site, but not in Munguine, where the borehole site was located at southeastern margin of Bairro 2, serving a different section of the community to that which would have benefited from the rehabilitated borehole.

### **15.3 Main Features (Approaches and Strategies)**

The Water Supply Program construction and community capacity development activities covered three main areas:

- 1) a technical drilling and headworks construction component;
- 2) a community capacity development component focussing on water user groups; and
- 3) a participatory evaluation of the Water Supply Program activities.

Communities were prepared to participate in siting and construction activities. Contributions included cash to buy cement, skilled and unskilled labour to learn how to build the borehole headworks, and volunteers to be trained to manage and maintain/repair the new hand pumps and to carry out hygiene education among local communities. The JICA/GPE animator resident in Maluana facilitated this process supported by supervisors based in Maputo.

Three months after the end of construction, a review was carried out by the JICA/GPE animator together with participating communities on the the impact of inputs provided through the Water Supply Program.

#### **15.4 Organization for Implementation and Monitoring**

A drilling supervisor was responsible for liaison with the drilling company, the Study Team engineer and the animator, as well as for supervising and ensuring the quality control of the drilling and development of two boreholes. This technician was also responsible for supervising the installation of hand pumps by the animator and communities, and ensuring the construction of the headworks met national standards.

The animator resident in Maluana was responsible for carrying out community capacity development by training user-groups and assisting communities to adopt a participatory problem-solving approach to community and water point management. The animator also facilitated the participatory evaluation together with water-user communities. A field co-ordinator and the Rural Water Supply Specialist provided supervision and guidance to the animator.

Two boreholes were drilled by a private drilling company Mozagua, and Afridev hand pumps were installed through a collaborative effort of supervised participation of community members specifically prepared for this.

Community members were trained and organised into management, technical and health education oriented groups, namely, Water Groups (WGs), Maintenance and Repair Groups (MRGs), and Hygiene Education Promoters (HEPs).

Monitoring of activity progress was carried out through weekly reports by the animator designed so that community participation levels could be assessed, as well as the quality of activities carried out.

A participatory evaluation was carried out by the Study Team animator together with the trained Groups (WGs, MRGs and HEPs), other community members through house to house visits, and participatory workshops in Munguine and Pateque/Maluana.

## 15.5 Planned and Actual Activities

Planned:	Achieved Activities / Why
<p>a) Supervised sealing of the negative boreholes (August / September).</p>	<p>The negative borehole in Maluana was filled with sand and sealed with cement. The hand pump was removed, but the headworks were not destroyed.</p> <p>In Munguine the community refused to seal the negative borehole despite reasoning from the animator and technician. It is covered, dry (silted up) and should not present a danger of contamination to any aquifer.</p> <p>The District Director of Public Works and Housing in Manhica has the written report of negative rehabilitation of the two boreholes.</p>
<p>b) Community organisation, site confirmation, preparation of formal Community &amp; Project Agreements for further activities, of access routes for the drilling rig, identification of WGs, MRGs &amp; HEPs members and their training (merging the planned Phases 1 and 2) before the boreholes are drilled (September through to November).</p>	<p>Members of the community elected Water Group (WG) members. Their responsibilities and tasks are primarily managerial, and they constitute a decision-making and co-ordinating body responsible to the community leaders.</p> <p>Three men and two women were trained in Maluana and four men and two women were trained in Munguine as WG members.</p> <p>Maintenance and Repair Group (MRG) members were recommended for their skills in carrying out mechanical activities. The MRGs groups work in co-ordination with the WGs.</p> <p>Four men and two women were trained in Maluana and six men and two women were trained in Munguine as MRG members.</p> <p>Water Group members carried out community organisation and together with the communities, engineer and technical supervisor confirmed sites for the new boreholes. The proposed site in Maluana would serve a relatively high-density community of the Administrative Post headquarters where the number of hand pumps was insufficient. The proposed site in Munguine would serve a scattered community with potable water between 5 and 7 km away. Formal agreements that clarified the roles of each of the major actors according to the National Water Policy were designed and signed by each WG and the Study Team representatives. Communities cleared access routes to the proposed sites for the drilling equipment.</p> <p>The approach promoted the upgrading of existing skills among community members with experience and interest that would be likely to continue after the Study Team's exit.</p> <p>As part of the capacity building activities the Study Team provided a basic toolkit to each MRG and the first kit of spare parts for maintenance. A step-by-step manual on how to conduct routine maintenance was provided during training.</p> <p>In addition, the Study expanded the capacity building scheme into neighbouring <i>bairros</i> creating further opportunities for the trained MRGs to act as trainers. The MRGs of Maluana and Munguine were invited to train members of hand pump user-groups of three neighbouring communities in Maluana that also have boreholes equipped with Afridev hand pumps in basic maintenance and repair of Afridev pumps. In Munguine difficulties in obtaining adequate collaboration from the neighbourhood leaders hindered this training through to the end of the Study period.</p> <p>Members of the WGs and the MRGs visited Stenaks, the pump supplier in Maputo as well as the retailer of pump spare parts in Manhica, 15 kilometres north of the project area.</p> <p>Water points were handed over to the target communities in partnership with the local Administrative Post. Copies of all the technical reports on the water points were handed over to the WGs (as well as the local government and sector representatives at the district level).</p>

Planned:	Achieved Activities / Why
<p>c) Supervised borehole drilling and hand pump installation (final week of September/October).</p>	<p>The drilling company Mozagua was contracted as the offering the lowest cost with the best quality from a selection of solicited quotes. Six inch diameter drilling rods were used with nine inch drill bits. The boreholes were lined with four inch diameter PVC pipe of 2.8m lengths, with a filter screen size of 0.5mm. The gravel pack was composed of graded river sand of between 1.2 to 2.4 mm. The two boreholes were pump tested successfully and sealed. The Study Team later sent water samples to the laboratory for chemical and organic analysis. Aside from iron bacteria colouring the water in Maluana, and occasional turbidity due to suspensions of fine sand in Munguine, the boreholes both provide potable water.</p> <p>Hand pump installation: Community members of the WGs and MRGs were trained prior to pump installation so that they knew the parts of the pumps, the aims of routine maintenance, and fund collection and management. They learned how to install the hand pumps by installing them themselves at each site with the assistance of members from the other site. Follow-up training was also carried out since these initial exercises were insufficient to ensure capacity was built.</p> <p>Headworks construction: A skilled and experienced mason successfully trained community masons to construct the pump base, apron and drain at each site. The community purchased the cement used. Later, using their own cement the local masons carried out adjustments to the pump base in Munguine with no assistance.</p>
<p>d) Identification of volunteer Hygiene Education Promoters and their training facilitating the identification of hygiene and health behaviour indicators for monitoring together with the WGs and communities as a whole(October / November).</p>	<p>Communities at each water point elected a group of volunteer community hygiene education promoters (HEPs). It was intended that the upgrading of their skills would bring about behaviour changes at the water point and in the promoters' homes.</p> <p>Eight women volunteers were trained as health promoters in Maluana and one man and six women were trained in Munguine.</p> <p>The hygiene education Program was geared towards creating awareness among community members about the link between water, hygiene, sanitation and health, and developing the analytical skills necessary for community members to assess practices, identify threats to public health, and implement sustainable behaviour changes.</p> <p>Community leaders authorised initiation of the hygiene education Program through the training of promoters. Links between the promoters and government Health Units close to the participant communities were also established through collaboration in the training program.</p> <p>It was expected that the promoters would begin encouraging behaviour changes during the Study's lifetime and that this process would continue after its exit.</p>
<p>e) Participatory evaluation of community organisation for management of water points, of the technologies provided through the project, and of the hygiene education component (January / February).</p>	<p>Following a brief review with the communities of Maluana and Munguine to establish a plan of action for 2002, a participatory evaluation of community organisation was conducted.</p> <p>The participatory evaluation of WGs, MRGs &amp; HEPs of Maluana Bairro 1 and Munguine Bairro 2 consisted of:</p> <ul style="list-style-type: none"> <li>● Case study presentation assessed by participant WGs, MRGs &amp; HEPs.</li> <li>● Dismantling and installation of hand pumps.</li> <li>● Target groups becoming evaluators of neighbouring groups.</li> <li>● House to house surveys.</li> <li>● Participatory Workshops.</li> <li>● Feedback presentation of Preliminary Findings.</li> </ul>



## **15.6 Results of Process Monitoring**

The Study Team animator carried out an assessment of water user groups' participation throughout the participatory learning process facilitated by her. Results revealed that participation by larger numbers of group members occur in Maluana but participants in Munguine have greater interest in the subjects. In Munguine more than half of the health promoters participate irregularly. Reasons provided for lack of assiduity focused on the time of year with people spending most of their time in the fields.

Results of the process of identifying health risk behaviours resulted in almost immediate behavior change in some of the HEPs' homes. Observed changes included cleanliness of the domestic area, absence of rubbish, water containers being appropriately stored, covered and used. The HEPs appeared to rapidly acquire the skill to assess household level practices.

At the water point level, it was observed that as a result of the Hygiene Education Program, the pump in Munguine Community was kept clean at all times and that the previously observed stagnant water had been eliminated by extending the ditch that leads off from the water point's drain. Hand pump cleanliness in Maluana has been a continuously difficult issue to manage. The pump's proximity to the National Road, and the influx of outside family members as temporary water users, seemed to have an impact on the cleanliness of the site, as well as the lack of collaboration of small livestock owners.

## **15.7 Results of Evaluation**

### **(1) Approaches and Strategies**

#### **(a) Impact of Project Activities**

- The DRA process responded to proposals from the neediest people in providing support to the two water supply projects.
- For the first time Maluana Administrative Post has been involved in cost sharing for water supply, a very important factor in promoting a sense of ownership of the projects.
- At the initiative of the WG, neighbouring communities in Maluana joined Maluana Bairro 1 in adopting common management systems.
- In contrast, social schisms resulted from the location of the pilot water supply project in Munguine. Antagonism from the most influential people of Munguine has left the community isolated and its WG without any support to legitimise their efforts in creating systems to sustain their water point.
- The HEPs lacked legitimacy in relation to their fellow community members, and their initial facilitative role transformed into actually carrying out cleaning activities at their water points.

#### **(b) Relevance/Appropriateness of Project Input**

- The objective was to promote a sense of ownership by communities of their water points following the National Water Policy, but the sense of ownership is not widespread.

- All project activities have been carried out in close communication with the Administrative Post, which is in a good position to monitor and provide guidance to the different water user groups.

**(c) Self reliance and Sustainability**

- The evaluation appeared to show that the Study's approach has not been able to achieve its sustainability goal from the following findings:
- Not all users contribute towards OMR in both target communities,
- Lack of clarity / certainty on who the actual user groups are,
- The WG of Munguine expresses helplessness in the face of threats from water point users that refuse to contribute towards OMR,
- HEPs showed a progressive lack of interest in the Program as a whole,
- Leaders in Maluana allow their livestock (goats) to graze freely within the village, creating precedence for the rest of the villagers, and interfering with the HEPs' efforts.
- However, the final stage of the evaluation revealed that this sense of ownership has been attained among the members of the WGs, MRGs, and HEPs. Members of these groups have analysed the causes of the problems that they encounter and are already taking measures in order to overcome them.

**(d) Replicability**

- The vision and efforts made by the two WGs and the acceptance of other water users in Maluana to create effective management systems for neighbouring water points, indicate that the communities are engaged in a continuing process of self-development.
- The WG, MRG, and HEP from Munguine Bairro 2 plan to seek the help of higher level authorities to get their area leaders' collaboration. If this is pursued, it is possible that Munguine develops a comprehensive management system for all three pumps in the area.

**(2) Technology for Rural Water Supply**

**(a) Impact of Project Activities**

- The costs of effective operation of the Afridev pump are within target communities' capacity to pay.
- The main benefits gained by target groups are related to the additional time now available to women and children for other productive activities and to the amount of water available to them.
- Water quality is considered a secondary benefit.
- Munguine water point contains suspended fine sand particles. Experiences in similar areas of the country indicate that this infiltration is temporary. It has no adverse effects for human health.
- The iron bacteria in the Maluana borehole water causing discolouration when water dries on an impermeable surface, although unsightly is not harmful to health.

### **(b) Relevance/Appropriateness of Project Input**

- The drilling of boreholes and installation of Afridev pumps in the pilot action plans resulted from villagers' choice of technology for water supply.
- The hand pumps installed on the constructed boreholes are simple village level operation and maintenance (VLOM) Afridevs.
- The pumps are located relatively close to sources of spare parts in Maputo and Manhica.

### **(c) Self reliance and Sustainability**

- The Afridev pump is designed according to principles allowing the community to conduct its maintenance and repair easily and at affordable costs. Munguine and Maluana have an adequate number of users to cover maintenance costs and the pumps are installed within their design specifications. The chances of serious repairs being required within the first three years of their use are low.
- The irregular turbidity of the water in Munguine is thought to be due to the uneven settling of the gravel pack around the borehole, and is considered a temporary situation that will not hinder the borehole's technical sustainability.
- Access to spare parts and the already established link between the community members and the Afridev pump distributor Stenaks further supports the conditions for technical sustainability of the hand pumps in the area.

### **(d) Replicability**

- The replacement and repair costs of borehole technology are high. Community fund contributions are unlikely to cover the cost of replacement of a borehole, but could cover substitution of major parts of the hand pump.
- Many villages in the Administrative Post had heard that a financial contribution was a pre-requisite for assistance, and had the money ready for the event.

## **(3) Community Capacity Building Program**

### **(a) Impact of Project Activities**

- Ensuring contributions are made has been difficult due to the lack of support of bairro leaders.
- MRGs of both target communities are well equipped to face the technical issues regarding operations, maintenance, and minor repairs of their pumps.
- HEPs, WGs and MRGs, have developed a significant understanding of the link between water, hygiene, sanitation and health.
- Pressures from livelihood commitments reduced the HEPs capacity to participate in activities that were essentially Study Team driven.

### **(b) Relevance/Appropriateness of Project Input**

- Community and local government stakeholders are aware of the responsibilities they must assume in the developmental framework of the projects.
- Members of the WGs, MRG and HEPs recognised the value of the software component of the JICA/GPE water projects, and claim to be prepared to face up to the challenges ahead.

### **(c) Self reliance and Sustainability**

- The Study's support came to an end at the very moment when the community water point groups had to reflect on the realities they encountered and find solutions.
- The continued benefits of the pilot action plans are being put at risk by not fully applying the process of capacity development that requires longer-term low key support.
- Links were created between target communities, health post, and administrative post throughout the training process, to provide back-up networks.

### **(d) Replicability**

- The WGs and MRGs are capable of carrying out management and technical tasks, and they also have the capacity to mobilise and train other community groups.

## **15.8 Lessons for the Master Plan**

Water supply projects can, as was shown in Maluana and Munguine be very expensive. Future activities in this sector should focus on the lower risks to sustainability and replicability associated with **cheaper alternative technologies**.

**Community empowerment:** The experience in Munguine and Maluana shows target communities as a whole, need to be empowered to know about and to want to exert their rights and obligations in relation to water supply projects before proceeding with the constitution of water point groups (WGs, MRGs and HEPs). This lesson is especially relevant to the planning of water supply projects in which **adequate time and expertise is allocated to facilitating this awareness-raising process**.

The lack of legitimacy of the groups associated with the water supply pilot action plans is evident in Munguine where the leaders are part of the group contesting the right of the beneficiaries of the pilot action plan to have a new water point. WGs in Munguine and Maluana found themselves powerless to press for contributions to maintenance funds. HEPs and members of MGs could not gain support from the community and leaders to organise community responsibilities for cleanliness of water points. Empowerment should involve capacity development of target groups to manage such conflict situations.

A significant lesson learned is that **adequate time is required for follow-up and capacity building in complementary areas that contribute to the sustainability of introduced technologies**.

Interventions to assist family level hygiene and sanitation have an intrinsic value that was recognised by the communities involved in the pilot action plans. Experience in Maluana and Munguine showed that **more time for participatory Program development is required** at all phases of the intervention. Interventions to assist family and water point level hygiene and sanitation are required in both Maluana and Munguine to follow-up on ideas started by the pilot action plans.

Small-scale water supply, hygiene education and sanitation promotion activities implemented within a multi-sectoral project under the responsibility of a Ministry with no institutional links to the water sector are not easily integrated into provincial or district water sector plans without significant proactive effort from the project implementing agency. This means that Study communities risk a lack of follow-up support if they are not aware of the channels for ensuring this, and the sector may also remain unaware of a good example of one of the first occasions of testing the DRA approach in Maputo Province. **Consideration of institutional linkages, their benefits and the practical difficulties of intersectoral collaboration** should be made so that Masterplan design is not overly ambitious.

Although community development activities are best facilitated using a participatory approach which has the potential of responding to needs and building capacity for sustainable management of new interventions, the Study **focus at community level should be complemented with capacity development of the District level** personnel responsible for rural water supply. The initiation of a new and radically different approach such as DRA needs 'buy-in' at all levels for the system to function. As a pilot activity it was conclusively proven that the community in the Study Area is capable of participating in such an approach. What was not adequately tested was whether the District government and Provincial level water sector representatives in the Provincial Directorate for Public Works and Housing would be able to provide the kind of responsive support required.

In March 2002, the Provincial Government of Maputo made a public commitment to initiating full-scale implementation of water supply activities according to the National Water Policy, using DRA. In this respect, a few NGOs such as Helvetas (with 17 years of experience in the rural water sector in Cabo Delgado Province) have committed funds to support sector development in the Province. It is an appropriate moment to reinforce the gains made so far in the Pilot action plans and apply lessons from these and from other more experienced NGOs to developing a workable mechanism for implementation of DRA.



## **16. Improved Cooking Stove Program**

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### **16.1 Objectives**

Improved Cooking Stove Program had the following objectives through the demonstration and the introduction of improved cooking stoves for the rural households:

- To reduce the cooking time, so that women's work load for cooking can be lessened
- To reduce the amount of firewood necessary for cooking, so that the women need less time to collect firewood and can conserve the natural environment
- To make the boiling of the water easier and faster, so that the safe boiled water for drinking is always available for the family members

### **16.2 Target Groups**

This program primarily targeted the rural women in Munguine, Pateque and Maluana, who collect firewood and make cooking for their families.

### **16.3 Main Features (Approaches and Strategies)**

There are various types of improved cooking stoves which are currently under testing and experimentation in Mozambique under GTZ Regional Project on Biomass Energy Conservation in Southern Africa, which is implemented by National Directorate of Energy (DNE), Biomass Research Group in Faculty of Chemical Engineering, University of Eduardo Mondlane (UEM), and Kulima, a local NGO. GTZ Project mainly focuses on developing portable cooking stoves made of ceramic and metal which use firewood or charcoal (See Figure 16.1), and marketing them through the commercial channels.

But this Improved Cooking Stove Program emphasized the importance of developing low cost models (home-made models, if possible) of improved cooking stoves which are affordable for the majority of rural households who are currently using traditional three-stone type cooking stoves. In rural Kenya, home-made improved cooking stoves such as Enzaro Jiko (See Figure 16.2) have become popular, because these cooking stoves can be easily made by rural families themselves using locally available clay or sticky sands of ant hills. So this program also looked for the possibility of developing home-made improved cooking stoves using locally available materials (See Figure 16.3).



**Figure 16.1** Portable Cooking Stoves Under Experimentation in GTZ Project



**Figure 16.2** Home-made Enzaro Jiko in Kenya

The Study Team found that UNDP's Human Development Program at Local Level (HDPL) had constructed improved cooking stoves, fixed or portable, only with local materials such as grass, clay, anthill and mud of river (See Figure16.3). So, in cooperation with UNDP, the Study Team implemented seminars and monitoring on improved cooking stove program.



**Figure 16.3** Fixed Cooking Stove with Locally Available Materials



## 16.4 Organization for Implementation and Monitoring

The Study Team implemented and monitored this program in collaboration with a technician from UNDP and AMRU (Mozambican Association for Rural Women).

## 16.5 Planned and Actual Activities (including reasons for differences)

In three Organizational Development Seminars in Munguine and Pateque held in July 2001, Kulima introduced two types of portable improved cooking stoves (Figure 16.1), which are currently tested in GTZ Project.

The Study Team implemented some surveys and seminars on improved cooking stove during October - November 2001, as following:

**Table 16.1 Calendar and Objectives of the Survey and Seminars**

Survey / Seminar	Date	Venue	No. of Participants (Men / Women)	Objective
Preliminary Surveys	14th October	Munguine	4 women in each area as interviewees	● To know how is the actual situation of cooking and the use of cooking stove in rural households
	17th October	Maluana		
	19th October	Pateque		
Introductory Demonstration Seminars	5th November	Munguine	16 (0/ 16)	● To introduce the improved cooking stove in the villages ● To have villagers know and experience it
	8th November		13 (0/13)	
	6th November	Maluana	11 (3/ 8)	
	9th November		7 (1/ 6)	
	7th November	Pateque	12 (1/ 11)	
	9th November		5 (0/ 5)	
Practical Training Seminar	13th – 15th November	Munguine	16 (1/ 15) (through three days)	● To give the interested villagers more professional training on how to make the improved cooking stove
	19th – 21st November	Maluana /	14 (3/ 11)	
		Pateque	17 (2/ 15)	
			22 (2/ 20)	

### (1) Preliminary survey

In a preliminary survey, the interviews with three to four women were conducted in the three villages. As the result of this interview survey, the following facts were discovered:

- The majority of women have only traditional stoves with three stones. They like to get a portable stove which uses charcoal, but it is very difficult for them to purchase it, because it is expensive

for them. The women who have a portable stove for charcoal have to buy charcoal, and charcoal is not so cheap (about 50,000 MT per 20 kg sack in Munguine), they only use it in a very few days, such as rainy days, when firewood become wet and difficult to use for cooking. But these women are very satisfied with the function of the portable charcoal stove.

- In general, they make fire twice a day. The first time is to drink tea in the morning or in the afternoon, and the second time is to prepare dinner and boil water for shower in the afternoon.
- Consumption of firewood depends on each household, but if they use thick firewood, one or two firewood are necessary in one day.
- Collection of firewood is not generally difficult in this area. But in Pateque, some people say that there are no suitable trees for firewood near their house/farm and they feel a little difficulty to collect firewood. In the other areas, there is no such opinion and it seems that people can collect firewood in about 30 minutes.
- In many cases, people collect firewood after working in the farm, from their farm or bush near the farm. They know which tree is appropriate for firewood and choose good trees (e.g. cashew nut trees). Many people collect firewood every day.
- It takes more than two hours to make dinner. The interviewees, however, seem to think that it is not a long time.
- Usually they do not boil water for drinking, because they feel no necessity.
- They had many expectations of the improved cooking stoves and said that they were looking forward to the seminar. They hadn't seen a fixed stove yet, but were interested in knowing it, and were willing to introduce it, if it would help their life to be more comfortable.

## **(2) Introductory demonstration seminar**

These two-day seminars in three venues are primary and for demonstration which introduces the improved fixed cooking stove. The number of participants in each venue was about 15 persons including a few men.

The contents of this seminar are following:

### **1) Explanation:**

- Advantages and disadvantages of the improved cooking stove
- What to use as raw materials
- How to make the fixed clay cooking stove

### **2) Manufacture of a stove in practice:**

- Preparation of materials (e.g. cutting grass, crushing ant-hill, etc.)
- Formation of a stove
- Making cuts for vent holes into the stove
- Ash painting and putting a small fire

### **(3) Practical training seminars**

The Study Team conducted three-day seminars in two venues with the aim of giving more professional training to the participants. Although the contents are almost the same as the previous introductory demonstration seminars, they were more practical for the participants to make a stove without instructor's help or a manual. The number of participants per seminar was expected as about 10 persons, but because of villagers' big interest in this program, sometimes there were 15-20 participants. At the end of each seminar, the participants were required to take a simple comprehension test and only persons who passed it could get certification.

### **16.6 Result of Process Monitoring**

As to monitoring, the Study Team made interviews to each participant of the seminars, and visited the houses in order to observe the new stoves made after the seminar.

The followings were observed in the interview with the participants:

- Almost all the people told that the time of cooking and consumption of firewood decreased because of the improved cooking stove.
- The villagers' interest and willingness to make and use the improved cooking stove are very high. The stoves which were made during the seminars are all utilized and painted ash to be conserved well. After the seminars, they started to make one or two improved cooking stoves in their house and about 30 stoves were newly made in total in the three target areas. Moreover in Munguine, there are some people who try to make an applied bigger stove for a drum which makes local spirits.
- However, there is still some atmosphere that people make improved cooking stoves to demonstrate to others. Making the improved cooking stove is to improve their life and not to demonstrate. Therefore, it is necessary to continue monitoring in order to ensure the improved cooking stove to take root in the villages.
- In technical terms, there are some small mistakes, although they learned how to make a stove by heart. The major mistakes found are:
  - They cut vent holes badly. (They don't cut them deeply or forget to make them.)
  - The height of the stove is too high to get good thermal efficiency.. (especially in Pateque)

To remedy these mistakes, the technician from UNDP taught again what and how to do and solved them.

The monitoring until now didn't reach to observe how people utilize and conserve these improved cooking stoves, because it takes about 28 days to be able to use the stoves and most of the stoves were made recently. Therefore, it is necessary to continue monitoring on how the life of villagers has improved using the improved cooking stove.

## **16.7 Result of Evaluation**

It can be said that the objectives of this program were well achieved overall. From the voices of participants in Participatory Evaluation Workshop in Pateque/Maluana held on February 25th, 2002, it is certain that the improved cooking stove is very useful and helps the villagers' life to become easier, reducing the cooking time and the amount of firewood necessary for cooking. And the participation of villagers in this program is very active and people have strong willingness to make the improved cooking stoves.

Also we can observe the impact on income generation in this program. The villagers would like to make stoves for non-members of the village organization for some money, and asked to the Study Team whether it is allowed. The Study Team agreed with their idea and until the end of February 2002, two improved cooking stoves were sold in Maluana.

But the speed of spreading the improved cooking stove is slow and it can be said that the improved cooking stove is still not well known in the whole village. So, institutional arrangement for dissemination of the improved cooking stove is necessary for the improved cooking stove to take root in the target areas and then in the surrounding villages. Most probable institutions for dissemination are NGOs which promote other type of improved cooking stoves, such as Kulima. At the government level, National Directorate of Energy (DNE) has possibility to collaborate for large scale dissemination.

Therefore, with more efforts for information dissemination and training, many villagers in Mozambique will be able to develop the improved cooking stove by them in the future.

## **16.8 Lessons for Master Plan**

By the experiences in the pilot action plan, it is clear that making an improved cooking stove is not difficult for villagers. Now, it is necessary to think how the improved cooking stove can spread in the whole village and take root there. Although the participants of the seminars in November 2001 started to make improved cooking stoves for other people little by little, there are still a lot of villagers who don't know what the improved stove is or how it benefits them. It is better for the participants to teach other villagers how to make the improved cooking stove, because people who didn't participated in the seminars can not only experience it but also learn how to make it, and the persons who teach can also develop more skills about making the improved stove through teaching.

So, it is recommended to collaborate with other promoters such as NGOs to disseminate this improved cooking stove. Spread of the improved cooking stove in the target areas may take time, but it is necessary to be sustainable. NGOs generally have grassroots activities and directly communicate with the villagers, so they are expected to play an active part in promoting the improved cooking stove.

In the same time, it is also important to spread the improved cooking stove to other areas. Study tours can be planned between the target areas in this program and other villages. Villages near the target areas have easy access, but it is interesting to choose distant villages from the target area for study tours, because there may be some differences in natural and cultural environment.

Also it is important to collaborate with National Directorate of Energy (DNE) and other national government institutions in charge of energy, environment issues, and rural women. There are some villages which have the similar improved cooking stove program in Mozambique, so it will be useful to exchange ideas and experiences among these villages in co-operation with a national institution.



## **17. Chicken Raising Program**

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### **17.1 Objectives**

Chicken Raising Program had the following objectives:

- To improve the village organization's capacity to plan and implement an income generation project
- To improve the villagers' nutritious status by producing more chicken meat
- To improve the villagers' income level by selling chicken meat
- To promote self-reliant sustainable development by village organizations and villagers themselves.

### **17.2 Target Group and Area**

Association Cubomo in Munguine was selected to implement this program. Association Cubomo has 116 members (including 49 women), and 50 members desired to start broiler production. This Association had not received many supports from outside. Since the average size of the cultivated land in lowland was only 0.06 ha, the members had to find some alternative ways to make their living. The leader of the association was a woman with a strong leadership, a deep sense of responsibility to manage the poultry program and careful views for the future. Also, the members' attitudes for the leader were very co-operative and it was expected that they would overcome any trouble occurred during the poultry program.

### **17.3 Main Features (Approaches and Strategies)**

Chicken Raising Program was selected as a good test case for sustainable income generation projects which would improve not only the village organization's capacity to manage the income generation project, but also the villagers' income level and nutritious status.

### **17.4 Organization for Implementation and Monitoring**

#### **(1) Faculty of Veterinary, University Eduardo Mondlane**

Faculty of Veterinary, University Eduardo Mondlane has a high reputation for the practical research, training and dissemination functions for livestock raising including the chicken raising. The Dean of Faculty of Veterinary was really co-operative and promised full support for implementation and monitoring of Chicken Raising Program, including the initial training for villagers.

#### **(2) Association of Agro-Livestock Technicians (ATAP)**

Association of Agro-Livestock Technicians (ATAP) stationed a veterinary technician in the Study Area, so the technician of ATAP was contracted to take care of the poultry in this program.

## **17.5 Planned and Actual Activities**

The advantages and disadvantages of Chicken Raising Program are as follows:

### Advantages

- small initial investment
- easy management within a small land
- a short cycle from the beginning to the sale
- nutritious value of the meat
- chicken manure to be utilized as a good organic fertilizer to improve the soil

### Disadvantages

- low selling price of the chicken
- need of the concentrated food for the chickens
- need of the vaccination to prevent the diseases for the chickens

Main diseases of chicken including New Castle Disease can be controlled by giving the vaccine perfectly. Association Cubomo and its members had no previous experience in chicken raising, and no initial money to purchase chicks, vaccines and concentrated food for chickens.

#### **(1) Food preparation for chicken**

Although it is ideal for Association Cubomo to bear the whole cost for concentrated food and the vaccine for chickens, the Study Team assisted the association to buy concentrated food with 50 % cost sharing due to the following reason:

Cycling time of chicken raising in Mozambique is short. The body weight of a broiler chicken for sale is about 1 kg in Mozambique and this weight is rather light, compared with about 2 kg in other countries. In the first round of chicken raising, the raising period was expected for a month or a little bit more, and the profits from the first round sale was expected to be enough to invest again for the second round of chicken raising by themselves. Based on this expectation, the Study Team decided to assist them only in the first round purchase with 50 % cost sharing. This 50 % rate is much higher than the rate of cost sharing in Animal Traction Program where the Study Team charged 5 to 10 % cost sharing for cattle and equipment. This reflects the nature of the program as income generation, and the Study Team tries to promote self-independence through income generation projects.

#### **(2) Poultry training and practice**

No member had any experience in broiler chicken raising, hence the Study Team arranged the training and practice of chicken raising in collaboration with Faculty of Veterinary, University Eduardo Mondlane. Since training and practice for all 116 members at one time are impossible, Association Cubomo and the Study Team discussed and decided the following arrangement:



- separation of all members of Association Cubomo into two groups
- selection of ten trainees from each group
- the first group with higher educational background, and the second group with high enthusiasm for chicken raising
- observation and seminars on chicken house, chicken raising, hygiene management of chicken, accounting of chicken raising, etc.
- practice and training on chicken raising, feeding, cleaning, sterilization, disease control and vaccination, etc.

### **(3) Cost sharing and operational plan**

For mutual understanding on the program, Association Cubomo and the Study Team discussed the details of cost sharing and the operational plan.

### **(4) Chicken raising training and practice in the university**

The university held one-day common lecture on general poultry management in Munguine, then training and practice for each of the group were held at the university once a week for four weeks.

### **(5) Chicken raising in Munguine**

The Study Team prepared 100 chickens for the first group and the first group started chicken raising. The members of the first group, who participated in training course, trained other members in order to transfer their learned techniques to other members through its operation. The first group discussed the timing and the price to sell chickens. About 40 days from the beginning, they sold all broiler chickens in the village, and they built the third poultry house by themselves to expand the scale of chicken raising.

The second group started their chicken raising after the first group started. Stimulated by the good results of the first group, the second group worked hard and was able to sell chicken in about 40 days. By the end of February 2002, third and fourth rounds of chicken raising were completed without any additional financial assistance from the Study Team.

## **17.6 Results of Process Monitoring**

Association Cubomo produced and sold nearly 400 chickens in three months after the program started. The chicken raising is still going on in Munguine and expected to continue in a larger scale in the future.

## **17.7 Results of Evaluation**

### **(1) Participation**

The attitude of participants for poultry was excellent and eager to participate in this program due to the expected benefits, and the positive results made them more active and willing to increase the number of chickens.

### **(2) Self-reliance and sustainability**

Chicken Raising Program was considered sustainable by the villagers themselves, because it can generate enough income to invest again. The members already expanded the scale of chicken raising by building the third poultry house by themselves in order to respond to the high demand for chicken in the village.

### **(3) Socio-economic impacts and replicability**

Clear socio-economic impacts of this program stimulated and accelerated the members to continue the program by themselves, and this result has influenced other village organizations which also became interested in chicken raising.

### **(4) Overall achievement of the original objectives**

The overall achievement of Chicken Raising Program was excellent. And the beneficial results from Chicken Raising Program are thought to be the model case for other village organizations to begin similar chicken raising program.

## **17.8 Lessons for Master Plan**

Chicken Raising Program showed the following important lessons:

### **(1) Necessity of assisting small initial investment**

Association Cubomo has been repeating its chicken raising many times by themselves, although 50 % of the first investment was provided by the Study Team. This means that other village organizations can start poultry operations, if they receive small initial investment from the government or the micro credit fund.

### **(2) Necessity of technical support**

In Munguine, the mortality of chickens and ducks are high because of epidemic diseases. In spite of this high mortality in the Study Area, the mortality rate of Association Cubomo was very low (3 % on average). This low mortality rate was due to the technical support from Faculty of Veterinary, University Eduardo Mondlane. If other village organizations can also acquire technical and practical support from Faculty of Veterinary, University Eduardo Mondlane before starting chicken raising, they will not suffer from the high mortality rate of chickens.

## **18. Food Shop Management Program for Widows and Single Mothers**

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### **18.1 Objectives**

Food Shop Management Program had the following objectives through planning, construction and operation and management of a small food shop for widows and single mothers in Munguine:

- To develop the villagers' business planning and management capacity through implementation of a small-scale income generation project
- To improve the lives of widows and single mothers in Munguine by providing employment and income generation opportunity for them
- To test the viability and sustainability of a business-oriented income generation project by villagers

### **18.2 Target Groups**

This program primarily targeted the widows and single mothers who belong to Association of Ex-Miners in Munguine, but also targeted Association of Ex-Miners as a whole, because Association of Ex-Miners was an implementing organization of this program, who was responsible for planning and management of the food shop.

### **18.3 Main Features (Approaches and Strategies)**

This program was a test case on how villagers can plan and implement a sustainable income generation project with a small initial investment. The Study Team emphasizes to develop villagers' capacity to plan and manage small businesses by providing a five-day business management seminar for villagers, which covered topics such as the enterprising behaviors, calculation of direct, indirect, and administrative costs, basic accountancy (book-keeping), etc.

### **18.4 Organization for Implementation and Monitoring**

The Study Team implemented business management training in this program in collaboration with CEFE, Training and Consulting Unit in Department of Job Promotion, Ministry of Labor. The Study Team also assigned one extension worker in Munguine to monitor the program.

### **18.5 Planned and Actual Activities**

The food shop management program started with the participatory construction of a food shop near the train station in Munguine in November 2001. Then, from 10th to 14th December, 2001, a five-day business management seminar was held, with 11 participants (eight from Association of Ex-Miners, and three from Zonal Union of Associations and Co-operatives in Munguine; out of 11 participants, eight are women). The objectives of the business management seminar were as follows:

- to provide the participants the skills to conduct an economic feasibility study for small businesses and enterprises such as a food shop;
- to identify the necessary resources such as material, financial, human, and technical resources for the food shop management;
- to train the participants in the management of small companies or business; and
- to select the employees of a food shop: a manager, an accountant, shop keepers (8 widows and single mothers will work in turn), and security guards.

The contents of the business management seminar were as follows:

#### 1) Enterprising Behaviors

- Business planning
- Definition of objectives for the business
- Knowledge and experiences in the field of the business
- Persistence in business and enterprise management
- Business control
- Self-control toward external pressure (parents and friends)
- Confidence in executing the service or work
- Quality and quantity of the product to sell or the service to provide

#### 2) Calculation of Costs and Expenditures for a Food Shop

- Direct costs (food items) and selling prices
- Indirect fixed costs (shop, shelf, freezer, registration machine, etc.) and monthly depreciation
- Administrative costs (transportation, telephone, license, publicity, salary, management fund, etc.)
- Calculation of monthly total fixed cost = monthly total depreciation + monthly total administration cost
- Calculation of unit total cost = unit total fixed cost (per hour and client) + unit cost (per food item)
- Calculation of selling price = unit total cost + profit margin (15%) + VAT (17%)

#### 3) Basic Accountancy (Book-keeping)

- Making registration of daily movements of cash desk (In, Out, and Balance)
- Making control and registration of the clients, debtors (purchasers) and creditors (suppliers)
- Making control and registration of the deposited money in the bank

After the seminar, Association of Ex-Miners prepared a draft business plan for a food shop and discussed with the Study Team on the feasibility and sustainability of the food shop. After both sides agreed on the revised business plan, Association of Ex-Miners purchased the food items with the assistance from the Study Team, and the food shop was finally opened on 19th February, 2002.

As for the cost sharing, Association of Ex-Miners contributed 2,040,000 MT for the construction of a food shop and 590,000 MT for purchase of food items for the shop.

### **18.6 Result of Process Monitoring and Evaluation**

Since the food shop started its activities from 19th February, 2002, it is too early to observe the impacts of this program, and it is necessary to continue monitoring for some time. However, the food shop represented a new business and an income generation opportunity for villagers, so it is expected to have some positive impacts in the near future.

### **18.7 Lessons for Master Plan**

Although the food shop started its operation with a big financial subsidy (90 %) from the Study Team in order to purchase the food items for the first time, it is ideal to purchase these items with the micro credit, not a subsidy. This is because the food shop is an income generating business, so it is important to operate in a commercially viable way without any financial subsidy or donation from the external donor. Even in Munguine area, there are some commercial shops especially near the train station, and they are competing for customers against each other. In such an environment, it is not fair to subsidize only one shop when it starts operation. If the food shop starts its operation with micro credit, it is expected to be able to repay the loan in six to 12 months, but because of the time limit of the pilot action plans which must end in March 2002, it is impossible to wait for repayment, so the Study Team decided to provide a subsidy instead of micro credit.

In future, it is important to explore the possibility to start this kind of small income generating businesses with micro credit, because the subsidy system cannot be sustained by the Government of Mozambique or by any donor. Financing small income generation projects with micro credit will give the best chance for the sustainable operation of the fund and the continuous support to villagers' effort to rise from the poverty by their own initiatives.



## **19. Sewing Training Program for Youth**

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### **19.1 Objectives**

The Zonal Union of Associations and Co-operatives in Munguine submitted a proposal for furniture production in the second phase of selection of pilot action plans. But, the economic feasibility of furniture production is considered very low due to the difficulties to purchase proper wooden materials for furniture and to access the market for its sale. There was also a request from the counterpart, the Department of Job Promotion (GPE) of the Ministry of Labor, to include the job training for youth in the pilot action plans. After discussions with the Study Team, the Zonal Union agreed to change the content of their proposal from furniture production to sewing training which can utilize the existing three sewing machines in the Zonal Union.

Two objectives of the sewing training program for youth are as follows:

- To develop the youth's capacity as tailors by providing practical sewing training in a tailor shop which is operated by the Zonal Union.
- To develop the Zonal Union's capacity regarding planning, operation, and management through the sustainable operation of a tailor shop and the implementation of sewing training courses.

### **19.2 Target Groups and Areas**

This program was implemented by the Zonal Union of Associations and Co-operatives in Munguine, which theoretically covers all associations and co-operatives in Munguine and Maluana localities including Pateque. But, in reality, the activities of the Zonal Union often focused on the associations and co-operatives in Munguine, due to its secretariat's geographical location in Munguine. The proposed tailor shop was established in the Zonal Union building in Munguine. Target groups and areas were as follows:

- Implementing agency: The Zonal Union of Associations and Co-operatives in Munguine:
- Target groups for training: Youth from the associations and co-operatives in Munguine
- Target area: Munguine

### **19.3 Main Features (Approaches and Strategies)**

The main strategy of the sewing training program for youth was to encourage the Zonal Union of Associations and Co-operatives in Munguine to plan, manage, and operate a tailor shop and the sewing training courses through discussion with the Study Team, if necessary. The Study Team organized Small Business Management and Accounting Seminar for all village organizations in Munguine, Pateque and Maluana in November 2001, and as a result, the Zonal Union of Associations and Co-operatives in Munguine became capable to draw a plan for the operational management of the tailor shop and the sewing training courses for the youth in a tailor shop.

Another strategy was to consider economic sustainability regarding management of a tailor shop. It was expected that the training in the future would be supported by the profit of the tailor shop or the villagers' donation. The Study Team assisted the program only at the early stage. After starting operation of a tailor shop, it was expected for the Zonal Union to sustain its operation and the sewing training courses by itself.

#### **19.4 Organization for Implementation and Monitoring**

The Zonal Union of Associations and Co-operatives in Munguine was an implementing agency in terms of management of the tailor shop and the sewing training courses. Monitoring for shop management and the sewing training courses was conducted mainly by a village monitor assigned by the Study Team.

#### **19.5 Planned and Actual Activities**

There were five steps in the tailor shop management and the sewing training courses as followings:

- 1) Planning
- 2) Preparation
- 3) Operation of a tailor shop
- 4) Sewing training courses
- 5) On-the-job training while working as apprentice tailors

The Zonal Union of Associations and Co-operatives in Munguine first submitted the general planning, for the tailor shop management, then the detailed planning, specifically planning of purchase of necessary inputs. Based on the purchase planning, cloth was bought, and the tailor shop opened. In November 2001, 719,000 MT was gained as sewing commissions and the sale of clothes, but there were some services provided by credit. The credit was available only for member of the associations and co-operatives. The credit period was two weeks, and was covered by family guarantee. The tailor shop gained 813,500 MT by the sale of clothes and sewing commissions in December 2001, and 504,500 MT in January 2002.

A professional tailor was employed for the tailor shop, and received a fixed monthly salary from the Zonal Union. The Study Team suggested the Zonal Union that the tailor should receive a certain percentage of the total sale and sewing commissions. This was simply because the total amount of sale and the commission was not stable. It was also suggested that the Zonal Union had to prepare the cost of clothes to be purchased in the future. The Zonal Union considered these suggestions seriously in order to improve the management of the tailor shop.

The Zonal Union conducted the sewing training courses for youth as follows:

- Calling the associations and co-operatives in Munguine to recommend young trainees



- Selecting the trainees
- Carrying out the 15-day sewing training course

The sewing training course actually started at the end of February 2002. It was informed that it was very difficult to select the trainees, because of many applicants. It took a long time to select three trainees (one woman, two men) out of them. After finishing the sewing training course, it was expected that some of them would be contracted as apprentice tailors and receive on-the-job training to develop their skills further. However, it was informed by the tailor that 15-day course was too short to train them, and at least 30 or 45 days were requested.

### **19.6 Result of Process Monitoring and Evaluation**

The objective of the sewing training program was to provide practical training for job creation in the Study Area. Since the sewing training has just started, it is too early to evaluate the impacts of the program, and to learn lessons from the experience. However, it was observed that the Union focused on the operation of the tailor shop rather than conducting sewing training for the youth. This was because the Union had to sustain the tailor shop first, then the training course would be financially supported by the profit of the tailor shop.

According to the shop account of January 2002, sale of clothes was the major income (89.1 %), followed by mending clothes (10.9 %). Dressmaking in the tailor shop could not generate good income due to the limited size of the market in the village. In addition, the trained youth were still premature in dressmaking techniques, so the continuous training of them will be necessary. The contents of the sewing training program also need to be reviewed and modified based on the reality in the village.



## **20. Local Administration Capacity Building Program**

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### **20.1 Objectives**

Local Administration Capacity Building Program had the following objectives:

- 1) To explore the existing training programs for local civil servants in Mozambique
- 2) To identify the training needs of local civil servants in Mozambique
- 3) To identify similar training programs in other sectors in Mozambique
- 4) To learn about other donors' involvement in this area
- 5) To develop and hold model training courses in Manhiça District

### **20.2 Target Groups**

The major target group of this program was the civil servants who are working within Manhiça District. The number of this target population was around 80 people.

After November 2001, due to the popularity of the first workshop that was conducted in August 2001, the target audience also extended to village leaders in Manhiça District. Also after the interviews and observations conducted in November 2001, the workshop was planned and carried out in March 2002 for instructors of IFAPA (Training Institute for Medium-level Civil Servants).

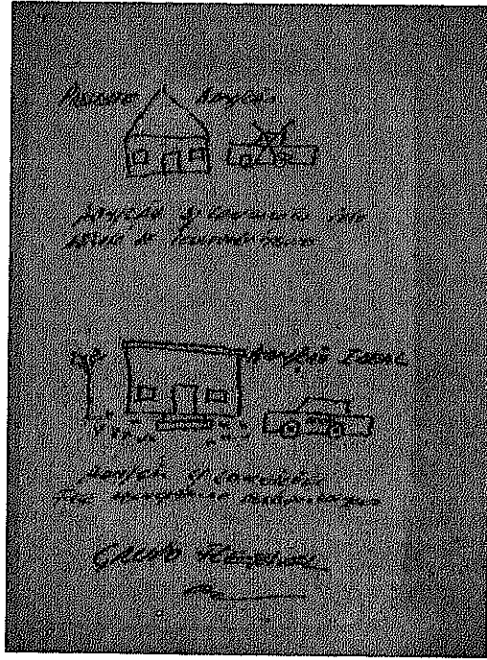
### **20.3 Approaches**

The basic approaches for this program were:

- to utilize what was available in the field of training (or adult learning) world-wide
- to find out the existing situations, real needs, and problems which local civil servants were facing in Mozambique, in order to design appropriate courses

### **20.4 First Workshop Conducted on August 30th, 2001**

- 1) A warm-up activity opened the session with participants taking a blind walk. It was quite important to do a warm-up or ice-breaking activity, especially the one participant was able to move around and meet other participants, at the beginning of any training session.
- 2) After this brief warm-up activity, participants were asked to think about a relationship between the present state and the ideal state of the district (see Figure 20.1). In this exercise, each person had to draw a diagram, then form a group of five or six people to develop a group's diagram, and finally, to select the best one by way of contesting.



**Figure 20.1 Sample Image of the Present and Ideal States of the District from the First Workshop**

Four problems were highlighted:

- Facilities and equipments that District Office and Administration Posts have are very basic. Main problems affecting these District Office and Administration Posts are lack of transport which contributes to delay in arriving at work.
- The second main problem affecting the communities that was depicted is school buildings. Many schools in the District operate under trees in an open air. In rainy season pupils simply can't attend classes.
- Third problem was housing. Most people in the district live in small huts without electricity.
- The fourth problem highlighted was the demand for water.

3) The second question dealt with the District Office/Administration Post personnel themselves. The objective was to think and reflect what their exact roles were, and what their major problems, issues and concerns were. In this exercise, they drew diagrams describing where they were in relation to other actors. Another leading question was 'what decentralization meant to them.' Answers were as follows:

- A district office/administrative post is a government appointed entity that represents the Central and Provincial Government in the local community.
- The activities of a district office/administrative post are to guarantee a good government representation and are overseeing the territory assigned to them. They must also make plans that meet with the socio-economic needs of the community as well as to conduct tax collection and land management and other essential duties.

- The main problems faced by the district office/administrative post are common in all communities, namely, lack of infrastructures, transportation to provide good services, and lack of technical equipment. There is also a great need for capacity building in the local government civil servants.
- In answer to the question on decentralization, participants unanimously affirmed that it was a sharing of power between the central and those under them. In other words, it is to allow decision-making done at grass-roots level. The community must decide what they want, thus, it is 'power to the people'.

4) The Japanese local government system was introduced in the hope of participants to become aware of what possibilities they might have in the future.

5) The next exercise was to brainstorm "qualities and skills needed/required by local civil servants" Participants listed the following list of skills to be developed in the future: academic and professional training; working experience; team work; capacity training; to be demanding; tolerant; discipline; knowledge of local language; acceptable age; physical aptitude; education level; civic and moral behavior; good and acceptable relationship; professional deontology; good manners; listen, talk and act; good organizer and planner.

After that, the list created by the Japanese local government officials was distributed and the participants were asked to mark the ones they already have and the ones they need or wish to have, then double circled the five most needed ones, and share in a small group. After this exercise, participants presented their needs:

- |  |                                     |
|--|-------------------------------------|
| ● Problem solving skills                   | ● Broad knowledge                   |
| ● Research skills                          | ● Planning skills                   |
| ● Management skills                        | ● High ethics                       |
| ● Carry out proceedings                    | ● Grasping needs of the residents   |
| ● Decision making skills                   | ● Capacity to identify the problems |
| ● Capacity of supporting / coaching skills |                                     |

6) Regarding the positive thinking exercise, a question was asked to the participants: "What do you think could be added to your services in order to make you more proficient and effective, and increase productivity?" They expressed needs in infrastructures, financial and material conditions, and continuous training.

7) Almost at the end of the workshop, the participants were asked to give a summary of what they had learned from the various activities that they did during the workshop. Although it was difficult to understand at first, the participants understood the meaning of the blind-walk. Technically, the person with open eyes was the leader but in practice, the blind was the leader because without his needs met the walk itself wouldn't be an enjoyable experience for neither of them. However, the public servants with open eyes also had to lead, as they were more aware of the effects of any steps

taken that affect the communities. Therefore, in a sense, shared leadership is something that both should aim for.

What did the participants learn by attending this workshop?

Almost at the end of the workshop, the participants were asked to give a summary of what they had learned from the various activities that they did during the workshop, including lessons learned from the blind-walk experience as well as the magic cube.

The responses were quite good. Though it was difficult to understand at first, the participants understood the meaning of the blind-walk. An idea is that those in leadership must let those under them to lead and not vice versa, as it happens in many places. Technically, the person with open eyes was the leader but in practice, the blind was the leader because without his needs met the walk itself won't be an enjoyable experience for neither of them. However, the public servants must also lead, because they are more aware of the effects of any steps taken that affect the communities. Therefore, in a sense, shared leadership is something that both should aim for.

From the magic cube, the lesson learned was that, what one saw as truth was not really the only way of looking at things, but in fact there are many different ways of looking at the same thing. We, therefore, need to broaden our horizons in thinking and in our perspectives.

Then some suggestions were made for future workshops. Participants suggested that in the future, seminars of this kind should extend to 15 days and must not involve only the leaders, but also the civil servants under them. They also requested a permanent capacity building program for State Civil Servants. Another suggestion supported by many was that future workshops should produce the written notes and guidance which can be used and applied to their work.

### **20.5 Second Workshop Conducted on November 21st and 22nd, 2001**

Based on the workshop in August, the follow-up workshop was conducted in the hope of promoting human capacity building at the district level.

#### **(1) First day on November 21st, 2001**

The Objective of this second workshop was to cover as many needs/qualities as possible that are listed by the participants in the August workshop, using the topic of "how to run meetings more effectively" as an example.

##### **1) How are meetings run?**

After doing warm-up activities, participants were asked how they are running their meetings: How often?, Who participate?, How many attend?, How long does it last?, and What are the problems? Participants gave following responses:

- Basically, on the average, two or three meetings a month are attended by 12 to 40 people depending on the agenda of meeting;
- The meetings do not start on time;
- Frequent telephone calls interrupt the meeting; and
- During the discussion some people often go off from the stated agenda and talk about things that are of little relevance.

## 2) Questionnaire about meetings

Then the participants were asked the following questions:

- Answer the 20 questions individually (see an annex to this chapter); and
- Select three questions which are the most important, and in group of three people, come up with most critical issues facing their meetings.

Their scores of the questionnaire were very high, which meant that they basically had no problems in running meetings (or, they did not understand the questions quite well). At least scores are much higher than those given by the Japanese civil servants. The majority selected the numbers 8, 10, and 13 of the questionnaire. All these items were to do with the atmosphere of the meeting. Because if a good atmosphere is not created, no one but the very few people who always speak are comfortably speaking and the rest has to play a role of listeners or spectators as usual. In order partly to confront this situation and to improve the remaining shortcomings of the meeting, a question number 20 was discussed, which is one of the most crucial factors in improving meetings. People continue to have many problems with meetings because they don't practice the number 20 which asks: Is there a time set aside to reflect the meeting?

Other problems that were raised by the participants are numbers 3 and 17. These were mainly to do with the leaders of the meeting. As for number 17, a person who receives telephone calls all the time needs to decide whether it is more important to attend and run a meeting or receive telephone calls. One cannot do both at the same time. As for the number 3, please see the discussion during the second day.

- 3) Using what was discussed in the morning, a theme of the meeting was selected and participants formed a group of four and planned for the meeting.

## 4) Participants reactions about how to run meetings

The participants, at the end, were still saying that running meetings were quite difficult, and they would like to learn more about it.

## 5) Final comments made by the moderator

Because civil servants have number of opportunities to attend and run meetings, the effectiveness and efficiency of the meetings are quite important (probably one of deciding factors for the overall success).

of their job). But almost no one thought about or reflected what we were doing at the meetings all the time. The self-diagnosis of meetings (20 questions) clearly indicated what were already satisfied and what were still lacking. We need to know what we need to improve. After knowing the problems, we can think about ways to improve. This idea can be adapted to many other areas.

One things that was stressed was the use of time: The meeting should not be too long (ideally less than 90 minutes); don't talk a lot (writing is often more efficient and effective); the meeting should not be interrupted; people must switch off their mobile phones during the meeting; start and finish on time; and keep the pace of meeting according to the agenda.

With regard to the issue of creating a good atmosphere, practical skills on arranging how people sit (question number 7), knowing many different ways for making people speak, discuss and come up with ideas (question number 14), and creating a mechanism to improve the presentation skill of the participants (question number 15) are important, and the workshops to develop these skills are necessary especially for the leaders of the meetings.

## **(2) Second day on November 22nd, 2001**

Because of the success of the first workshop in August, and based on the request of the district administrator, the workshop was also conducted for the selected village leaders in the district. On the second day, even though the participants were much older, they were more motivated to understand and answer attentively the questions asked and involved in discussions than the previous day.

But, only few people were speaking and often repeating the same thing. In order to overcome this situation, groups were formed to get everybody talk about the workshop agenda. Basically the agenda was the same as that of the first day.

The most critical problem regarding their meetings faced by the village leaders was the meeting does not start on time (question number 3). After some discussion, the participants came up with 15-minute rule, as no one wants to wait more than 15 minutes. They decided to make this 15-minute rule their habit. In order to deal with the problem of late coming of the facilitator, it is always wise to identify at least two people who will chair the meeting.

In the afternoon, by selecting "Building houses for the teachers" as their topic, the participants in groups developed meeting plans, as a practice.

## **(3) The moderator gave a chance to all participants to say something regarding the workshop (in writing): what they thought and what they learned in the workshop.**

Their answers were not very different in both days. Basically they all said that they liked the workshop very much and learned many things regarding the organization and planning of the meetings, because all activities were based on how to run meetings, how to identify and solve problems. This kind of workshops need to be held regularly, not only for a small portion of the district staff, but also for the



district staff in all areas of the district. This was a very good experience especially for village leaders and they are expected to disseminate what they have learned to their villages for implementation.

#### **(4) Reflection of the workshops by the moderator**

The exercise in the afternoons was easy enough in the extent of listing the agenda for the meeting. None of the groups was careful enough (or considerate enough) to think about how the meeting was carried out: seating arrangement, group arrangement, and techniques used for discussion. Everybody, unfortunately and automatically, was thinking in the framework of meeting which is a group-as-a-whole and run by a chairperson. No consideration what so ever was given to the effectiveness and/or efficiency of meetings (for example, at times, by braking into smaller groups for discussions in order for all the participants to be able to say what they want to express).

### **20.6 Third Workshop Conducted on February 28th, 2002**

The third workshop was organized between the Study Team and Manhiça District Administration, in the hope of achieving the following objectives:

- 1) To know about two village development projects run by the Study Team and ActionAid UK in the district, and compare/analyze the two projects,
- 2) To think about what roles local administration have/could have in village development, and how we can incorporate the lessons learned from two projects in the future work of district/administrative posts, including District Strategic Plan.

The District Administrator on his opening remark regretted the fact of late arrival of participants, which is becoming a habit in Mozambique. He appealed to all participants to accelerate the work in order to start and end the meetings on time.

- 1) Even though the reflection on “how to run meetings” (which was the theme of the workshops in November) was not included among the original objectives of this workshop, the moderator decided to spend some time for this purpose – flexibility is crucial when running training courses - partly because the workshops that were held in Munguine and Pateque the week before gave us something to think about. The moderators of those workshops were not flexible enough, when the villagers were coming late and most of the outsiders were already present, they could have asked those already present to go for the field trip (as there is basically no need for village people to visit the sites). Then, they could have started the meeting on time at 10 a.m., instead of waiting until 11 a.m. They did not even consider breaking participants into smaller groups, partly to avoid translation problem and in order to let more people participate in discussion.

After the primary session, the moderator asked the participants to form group of five people and come up with ideas to improve our meetings. Here are some of their ideas:

- Clear objective for all participants: three- or four-day advance notice is required.
- Start and end on time; keep to follow the timetable.

- Avoid having the same person to moderate all the time.
  - The participants' seating must meet the meeting objectives.
  - Don't rebuke the people by what they said.
  - The meeting must be participative; making small groups is quite effective in this regard.
- 2) After ten-minute break, participants were divided into two groups and each learned from Mr. Armando Zuana from Munugine and Ms. Ivone Pascoal from ActionAid UK respectively about their projects. (There are many ways to share information in this kind of meeting/training session. One orthodox way is to ask the speakers to talk to the whole audience in turn. In this case, however, the group was divided into half and they listened to one of the speakers. After hearing about one project, two new groups were formed by a half and a half from each of the former groups so that each participants had a chance to "tell" or "teach" about one project and "hear" or "learn" about another.)

According to Mr. Zuana, the pilot action plans implemented by the Study Team were basically co-participation (cost sharing) projects, or fundamentally community training projects to utilize available natural resources for residents' self-sustainability. The Study Team introduced Animal Traction Program, Improved Cooking Stove Program, Chicken Raising Program, Water Supply Program, and Low External Input Agriculture Program with new production techniques.

The ActionAid UK representative talked about their projects in Marracuene and Manhiça districts, which, after the floods of 2000, began with school rehabilitation projects at Manhiça, Taninga and 3 de Fevereiro. Building of one block of school building, which had four classrooms, four bathrooms, four wells and some teachers' houses, benefited 200 children and 140 families. ActionAid UK also developed community support projects on education, health, agriculture, water and public works. The population benefited with 350 animals of different species. In the future, ActionAid UK wishes to build more schools and teachers' houses.

After Mr. Zuana's and ActionAid UK's explanations, the moderator asked the participants to compose new groups to exchange what they found out, in order to compare and analyze experiences of the two projects in about 45 minutes and point at what they thought of positive (strengths) and negative (weaknesses) aspects of both projects.

#### Positive aspects

- a) Learning improved cooking stoves (which decreased women's suffering).
- b) Learning various methods for plant disease control (such as use of ash and chilli).
- c) Learning new and different techniques through the projects.
- d) Increasing the capacity to produce crops using local resources.
- e) Reducing the distance between home to a school.
- f) Introducing animal breeding.
- g) Inculcating the principle of self-reliance and discipline.

h) Developing principles of coordination, complementarities and solidarity.

Negative aspects

- a) Weak participation of the community in building schools.
- b) Lack of flexibility on projects alteration.
- c) Concentration of projects in the same areas.

3) When sharing the outcome of this list, the conversation automatically went into the role of local administration in rural development. So, the moderator asked the participants to form four groups (with new people) to come up with the list of local administration's roles in rural development. After each list was completed, the participants voted for their priorities:

Items that are voted by ten people:

- It's important to have coordination between state institutions at the higher level and the community level.
- Emphasize communities' priorities.

Items voted by seven people:

- The administration's role is to facilitate the NGO's programs, mobilizing the villagers to participate in the projects by explaining its advantages.

Items voted by six people:

- The administration has to accompany the projects' execution in order to be ready to support on conflicts resolution.
- The administration must orientate the NGOs according to projects' characteristics implemented in the area.

Even though the first item, "It's important to have coordination between state institutions at the higher level and the community level," received votes from ten people and it is quite important, it is considered difficult to make this happen in a short term. So this was deleted from the list and the groups were to select one from the above-mentioned four items and think about the ways to approach what they think is most important.

Three groups selected "The administration must orientate the NGOs according to projects' characteristics implemented in the area", and came up with following ideas:

- 1st Group:* Know the NGO's program and its action area.
- 2nd Group:* The person responsible within the local administration must know the projects' characteristics in its jurisdiction area.
- 3rd Group:* Know the general characteristics of the district.

The remaining group selected “The administration’s role is to facilitate the NGO’s programs, mobilizing the villagers to participate in the projects by explaining its advantages” and came up with a following idea:

The government must find community’s priorities according to projects’ characteristics and geographical distribution, and urges the population to participate in the projects.

The number of votes that each item received was the crucial factor in selecting what is important. However, those with only few votes are often just as important and should not be neglected. For example, “After the termination of the project implementation, the administration has to create a mechanism to continue the projects” should be considered one of the most important roles of local administration.

The meeting ended with the remarks of Manhiça’s Education Director. He emphasized that he was confused with the formation of small groups, but only at the end of the workshop he understood that the reason for working with small groups was to gather more ideas and to make the people participate and creative. The meeting was held between 9:40 and 15:45, with a lunch break between 12:30 and 13:30.

## **20.7 Workshop Conducted on March 9th, 2002 for the Instructors of IFAPA**

- 1) After the brief introduction (of the moderator himself and the objectives of today’s workshop which is how teachers can improve their instruction by incorporating learner-centered principles and practices), the first exercise was carried out by asking each participant to have an A4 size paper and answer the following questions:

“What do you consider most important when you are teaching?”

Some of the answers written by the participants were: making a plan; environment; appropriate teaching methods and objectives; communication between a teacher and learners; exercises; making the learners aware of the necessity of knowing more about the subject; concentration of learners; treating the learners as the subject of all learning and teaching process; existence of teaching means; the understanding of learners; knowing the initial level of the learners, and making sure that the learners are understanding the lessons and at the same time understand the learners’ points of view.

“I want you to think as a learner yourself this time. What are the conditions or environments that you learn best or very well?”

Some of the answers were: listening to classic music; silence; working in groups; playing; strict environment; working in the environment without seriousness; doing exercises; learning in a place where there are enough books and prepared teachers, and exchange impressions with other colleagues.

“If these are conditions and environments that we learn best or very well, are we providing those conditions to our students when we are teaching?”

- 2) In the United States in 1980, researchers found that in more than 1,000 classes that they observed, teachers talk for 85 % of the time and the students discuss for only remaining 15 % of the time - “It is a disaster!” They concluded that it is not possible to study in these conditions. The situations in Mozambique are not so different.

The moderator also mentioned that Lao Tzu, who lived more than 2,500 years ago in China, said:

- What you heard, you forgot;
- What you saw, you remember;
- What you experienced, you understand; and
- What you found out by yourself, you can do.

This was confirmed by an American researcher, who found that after one week, people remember

- 10 % of what they heard;
- 15 % of what they saw;
- 20 % of what they heard and saw;
- 40 % of what they discussed in the group; and
- 80 % of what they experienced.

The moderator made another question:

“Please think and discuss the way in which people can remember more than 80 %.”

The participants could not answer this question, so the moderator gave the answer. That is when you let the students teach. People remember 90 % of materials in this case. But when teachers teach, students remember only 10 %.

- 3) Next question the moderator asked was what teachers value when they are teaching. Answers that were provided by the participants were following:
- a) Good atmosphere between a teacher and students
  - b) Knowing why he/she is teaching
  - c) Giving choices
  - d) Collaboration
  - e) Relationship
  - f) Rapid response
  - g) Studying in small groups

The moderator handed out the variety of methods that teachers could use to cover above-mentioned qualities. To give an example of giving choices to students, collaborate and study in small groups, the technique of ranking was introduced. The moderator gave five factors that are

important in developing Mozambique, and asked the participants to rank them in order of importance, first individually, then in a pair or in a group of three.

- a) Rural development (participatory and integrated)
- b) Civil servants' skills and attitudes
- c) Education
- d) Health
- e) Training

The most groups came up with the following result: 1. Education, 2. Health, 3. Civil servants' skills and attitudes, 4. Training, and 5. Rural development (participatory and integrated).

This teaching technique utilized many aspects such as: thinking skills, decision-making skills, knowledge understanding and listening skills, explaining and presentation skills, negotiation skills, problem-solving skills among many other skills that are needed in the jobs of civil servants (and of ordinary citizens).

- 4) The last question the moderator asked was to write the impression of how useful it was to participate in this morning session. The kinds of things that they found interesting or anything that they want to emphasize after attending this workshop.

The participants wrote that: the workshop was a opportunity to make a reflection about how they teach; they learned how important is to let students teach; the workshop helped them to consolidate the methodologies; the workshop improved the quality of teaching; they realized the importance of meeting the needs of students; they learned how to use teaching methods for a good learning and make the lessons more participatory; among many other comments.

- 5) In the closing session, the moderator gave the last remark by asking what "an intelligent student" means.

All the participants said that it is those who understand the subjects easily. But the moderator said that there exist at least eight different types of intelligences which the students might have: Linguistic intelligence; Logical-Mathematical intelligence; Spacial intelligence; Body-Kinesthetic intelligence; Music intelligence; Interpersonal intelligence; Intrapersonal intelligence; and Ecological intelligence. And it is quite important as teachers to understand all these intelligences in the students, rather than just linguistic and logical-mathematical intelligences.

- 6) A reflection of this workshop: Even though the workshop was scheduled between 9:00 and 12:00, it didn't start until 9:45 and ended at 12:10. And, for tea break, more than 30 minutes were spent, which certainly was not in the moderator's original plan. So what actually was presented was almost less than a half of what the moderator originally planned to do within two hours and 45 minutes of the workshop time.

## Annex to Chapter 20. Self-Diagnosis of Meetings: 20 Questions on Meetings

Self-Diagnosis of Meetings		
1. Objective(s)/Goal(s) of having a meeting is clear.	Yes	No
2. Participants know the content of what they are meeting on.	Yes	No
3. Starts on time and finish on time.	Yes	No
4. The same person is chairing the meeting all the time.	No	Yes
5. Even there is a recorder, everyone is taking notes.	No	Yes
6. Besides a facilitator and a recorder, other roles are allocated to the participants.	Yes	No
7. Always sitting in a same format (such as a square and same place).	No	Yes
8. Few people always speak.	No	Yes
9. There are a number of people, who never speak up.	No	Yes
10. Some people are attacked later, as a result of things that they said in the meeting.	No	Yes
11. Because everybody participates actively in discussion, often go off the truck.	No	Yes
12. Because some people talk over the matter before the meeting and the outcome of the meeting is decided before hand, the meeting itself is only a formality.	No	Yes
13. People don't speak up, nor speak from heart during the meeting, but they start speaking after the meeting is over.	No	Yes
14. Knows many different ways for making people speak, discuss and come up with ideas.	Yes	No
15. There is a mechanism to improve the presentation skill of the participants.	Yes	No
16. Even though there are things to be decided at the meeting, it is customary to carry over the decision to the next meetings.	No	Yes
17. The meeting is interrupted often (by, for example, telephones).	No	Yes
18. Never hold a meeting that go over 90 minutes.	Yes	No
19. Before the closure of the meeting, verifying what was decided and who is responsible.	Yes	No
20. Time is allocated for the reflection of the meeting (for content as well as procedure).	Yes	No

Count the ticks on the left hand side (that means both Yes and No).

- If ticks are more than 16, you are already implementing very effective and efficient meetings. One more step to an ideal meeting.
- For ticks between 11 and 15, there are both satisfied and unsatisfied participants in the meetings you are attending. Thus, they are quite ordinary meetings. Some actions are needed to make it better meetings.
- For those between six and ten, the majority of the participants do not want to attend such meetings. They are bad meetings. There are lots to be fixed. But, don't lose any hope. You need to go over the basic rules of running meetings.
- For those five and less, oh!, well!, what can I say? May be, everything had to be turned upside-down. You may want to give this sheet to the boss and ask him to self-diagnose himself.

