

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF LABOR, THE GOVERNMENT OF MOZAMBIQUE

THE STUDY
ON
DEVELOPMENT OF THE RESETTLEMENT AREA
FOR
DEMOBILIZED SOLDIERS AND
MINE LABORERS FROM SOUTH AFRICA
IN THE REPUBLIC OF MOZAMBIQUE

FINAL REPORT
(SUMMARY)

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NOVEMBER 2002

INTERNATIONAL DEVELOPMENT CENTER OF JAPAN
SANYU CONSULTANTS INC.

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PREFACE

In response to the request from the Government of the Republic of Mozambique, the Government of Japan decided to conduct a Master Plan study on Development of the Resettlement Area for Demobilized Soldiers and Mine Laborers from South Africa and entrusted the study to the Japan International Cooperation Agency (JICA).

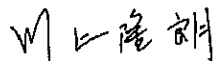
JICA sent to Mozambique a study team headed by Mr. Kiyofumi Tanaka, International Development Center of Japan, four times between August 2000 and October 2002.

The team held discussion with the officials concerned of the Government of the Republic of Mozambique, and conducted field surveys at the study area. After the team returned to Japan, further studies were made and the present report was prepared.

I hope that this report will contribute to the proportion of the project and to the enhancement of friendly relation between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Mozambique for their close cooperation extended to the Team.

November 2002



Takao Kawakami
President
Japan International Cooperation Agency



1194539 [1]

November 2002

Mr. Takao Kawakami
President
Japan International Cooperation Agency
Tokyo, Japan

Dear Mr. Kawakami;

Letter of Transmittal

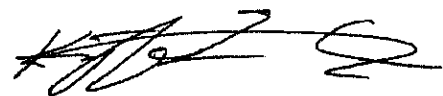
We are pleased to submit to you the final report for the Study on Development of the Resettlement Area for Demobilized Soldiers and Mine Laborers from South Africa in the Republic of Mozambique. This report summarizes the results of the study carried out by a consortium of the International Development Center of Japan and Sanyu Consultants, Inc.

The report is divided into three parts: 1) situation analysis of the study area; 2) description of nine pilot action plans, which were implemented from May 2001 to February 2002; and 3) a village development master plan for the study area and a model approach for self-reliant village development in Mozambique, both of which were formulated from our experiences of planning and implementing the pilot action plans in the study area.

We wish to take this opportunity to express our sincere gratitude to your Agency, Ministry of Foreign Affairs and Ministry of Agriculture, Forestry and Fisheries of the Government of Japan. We also wish to express our deep gratitude to the Department of Job Promotion (GPE) in the Ministry of Labor and other authorities concerned for their close cooperation and assistance extended to us during our study. Our appreciation also extends to the local villagers in the Study Area who actively participated in our pilot action plans.

We hope that this report will contribute to sustainable rural and agricultural development in Mozambique, and to further cooperation between Mozambique and Japan.

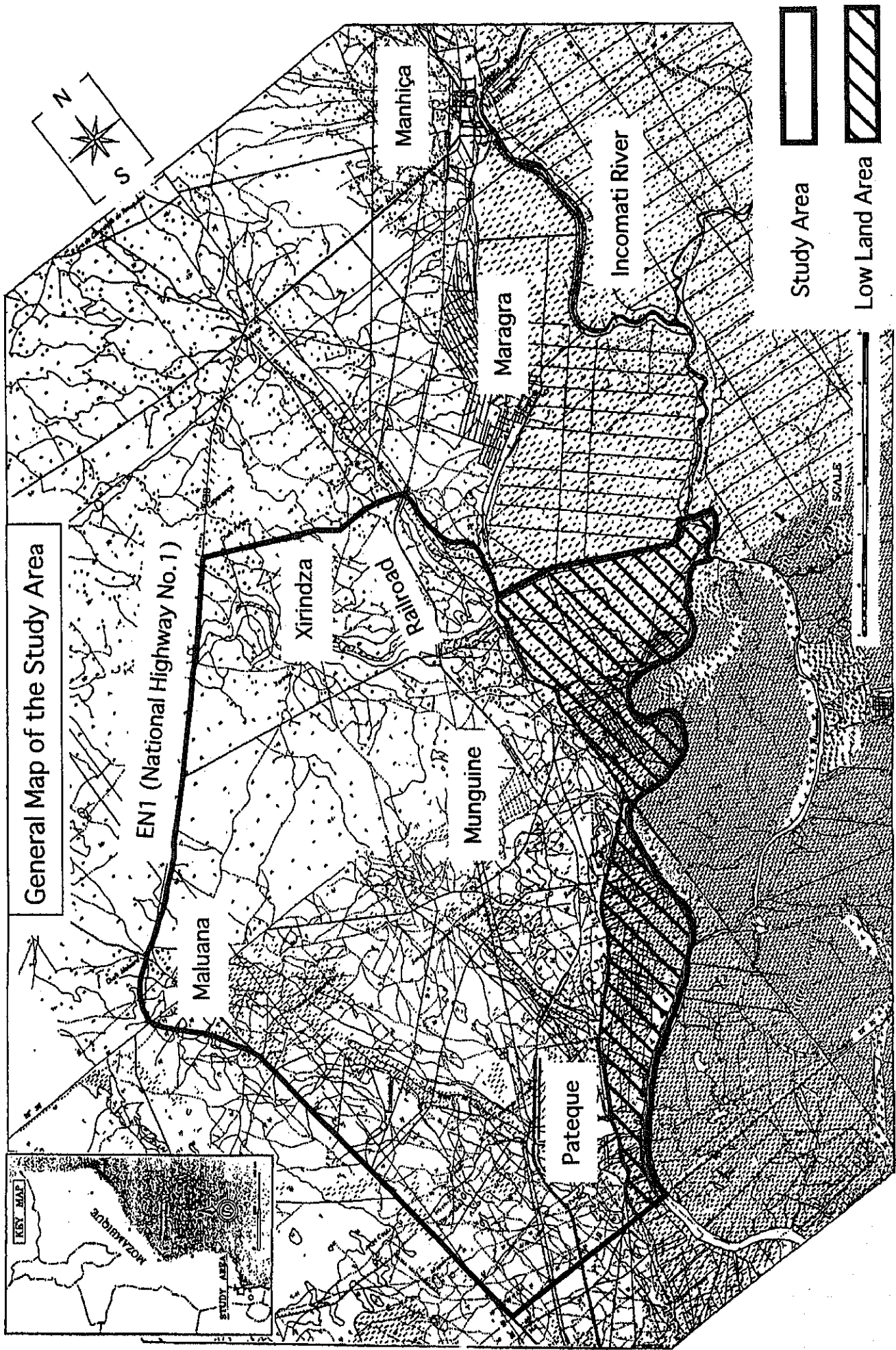
Very truly yours,



Kiyofumi Tanaka

Team Leader

The Study on Development of the Resettlement Area
for Demobilized Soldiers and Mine Laborers from South Africa
in the Republic of Mozambique



General Map of the Study Area

Study Area

Low Land Area

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1. Introduction

1.1 Background of the Study

In the Republic of Mozambique, the agriculture sector, which used to contribute more than 80% of the employment and 40-65% of GDP in 1980s, was seriously affected by the intensified civil war. The agricultural base and basic infrastructure such as roads and schools were destroyed or dilapidated during the civil war, so the productivity of the agriculture sector has fallen drastically. Even after the civil war was ceased in 1992, the agriculture sector has been occupying only around 30% of GDP. As a result, the rural villages cannot absorb the demobilized soldiers after the cease-fire and the former mine laborers from South Africa. Due to lack of employment opportunities, many demobilized soldiers and former mine laborers could not resettle in their home villages and tend to flow back into urban cities such as Maputo.

In order to remedy this situation, the Government of Mozambique plans to promote the resettlement of demobilized soldiers and mine laborers through agricultural and rural development in the rural area, which aims at:

- achieving food sufficiency through the increased agricultural production,
- creating employment opportunities such as processing of surplus agricultural produce, and ultimately
- realizing self-reliant village development by the local people.

From this background, the Government of Mozambique requested this Study to the Government of Japan, with the objective to formulate a model village development plan in the area near the capital city, where

- there are many poor people including the demobilized soldiers and former mine laborers from South Africa,
- the agricultural potential is high due to the location along the river,
- the marketing potential for agricultural produce is also high due to the close location to the capital city, and
- the self-reliant village development activities can be expected because village organizations have been already organized.

It is also expected that the Study Area can become a model case of participatory village development with the minimum external input, so the model can be easily replicated in other rural villages.

In addition, the Study Area was attacked by the large cyclones in February and March 2000, and the floods resulted by heavy rains had devastated the low land of the Study Area. Therefore it was decided to include emergency assistance for flood victims in this Study, in order to restore their living conditions at least up to the level before the floods.

1.2 Objectives of the Study

The objectives of the Study are as follows:

- 1) To formulate a village development plan with the target year of 2020 in the Study Area incorporating the following components, which ultimately aim at people-centered self-reliant development:
 - The achievement of food self-sufficiency with increased agricultural production
 - Livelihood improvement activities mainly targeting for women
 - Employment creation for the local population including demobilized soldiers and former mine laborers from South Africa
- 2) To provide necessary emergency assistance for the flood victims in the Study Area during the early stage of the Study
- 3) To implement the Study through the participatory process which involves the local administration and local people as much as possible, in order to facilitate themselves to plan village development plans and implement the pilot studies
- 4) To develop the appropriate methodology for formulation and implementation of small scale self-help village development activities with the minimum external input, and transfer this methodology to the counterpart in order to be utilized as a model for other areas

1.3 Study Area

The Study Area is Munguine Locality (Bairro 1, 2, 3, 4, 5, Machovane and Pateque) and Maluana Locality (Bairro 1, 2, 3, Xirindza, and Pafeni, excluding Macandzene which is located to the northwest of Maluana town), Manhiça District, Maputo Province in Mozambique. The Study Area includes the high land area as a living base, and the low land area as an agricultural production base.

1.4 Basic Approaches of the Study

The following are the basic approaches of the Study to achieve self-reliant village development in rural Mozambique:

- Use of the appropriate technologies which need low external input and make the maximum use of local resources for self-reliant village development (which aim at reducing the local population's dependency on the external assistance)
- Capacity building of the local people and local village organizations for sustainable development
- Empowerment of the disadvantaged people (such as women) through participatory development process
- Strengthening the Mozambican Government's capacity to work with the local population and local NGOs
- Collaboration and information/experience exchange with local and international NGOs and international donors, in order to develop a model for participatory self-help village development with the minimum external input

The foundation of these basic approaches is that the Study Team firmly believes in the resource-richness of the local population, and tried to build self-reliant development based on these strengths which the villagers already have. In the Study Area, local population had frequently received material assistance such as food, seeds, plows, water pumps and tractors after the civil war and the recent floods, but unfortunately most of the donated equipment has not well utilized due to lack of skill or lack of operation and maintenance budget. Some tractors in the Study Area are broken and not operational because there is no fund to buy expensive spare parts, and there are many water pumps are left unused on the ground and collecting rust in vain. If local population continue to assume that development comes from outside, village development will not happen at all. The important lesson for the villagers is that they have to realize they are the ones who must develop their village using whatever resources they already have. The Study experimented various low-cost appropriate technologies in pilot action plans, which the villagers already know how to use and can maintain easily without asking the donor for maintenance money. The Study successfully proved that the villagers were, in fact, empowered to initiate various self-reliant development activities, if they are trained and motivated in the right way.

1.5 Process of the Study

The Study was conducted through the steps illustrated in Figure 1.1.

After confirming the land-mine situation around the Study Area, the Study identified the problems and needs in the Study Area through the following surveys:

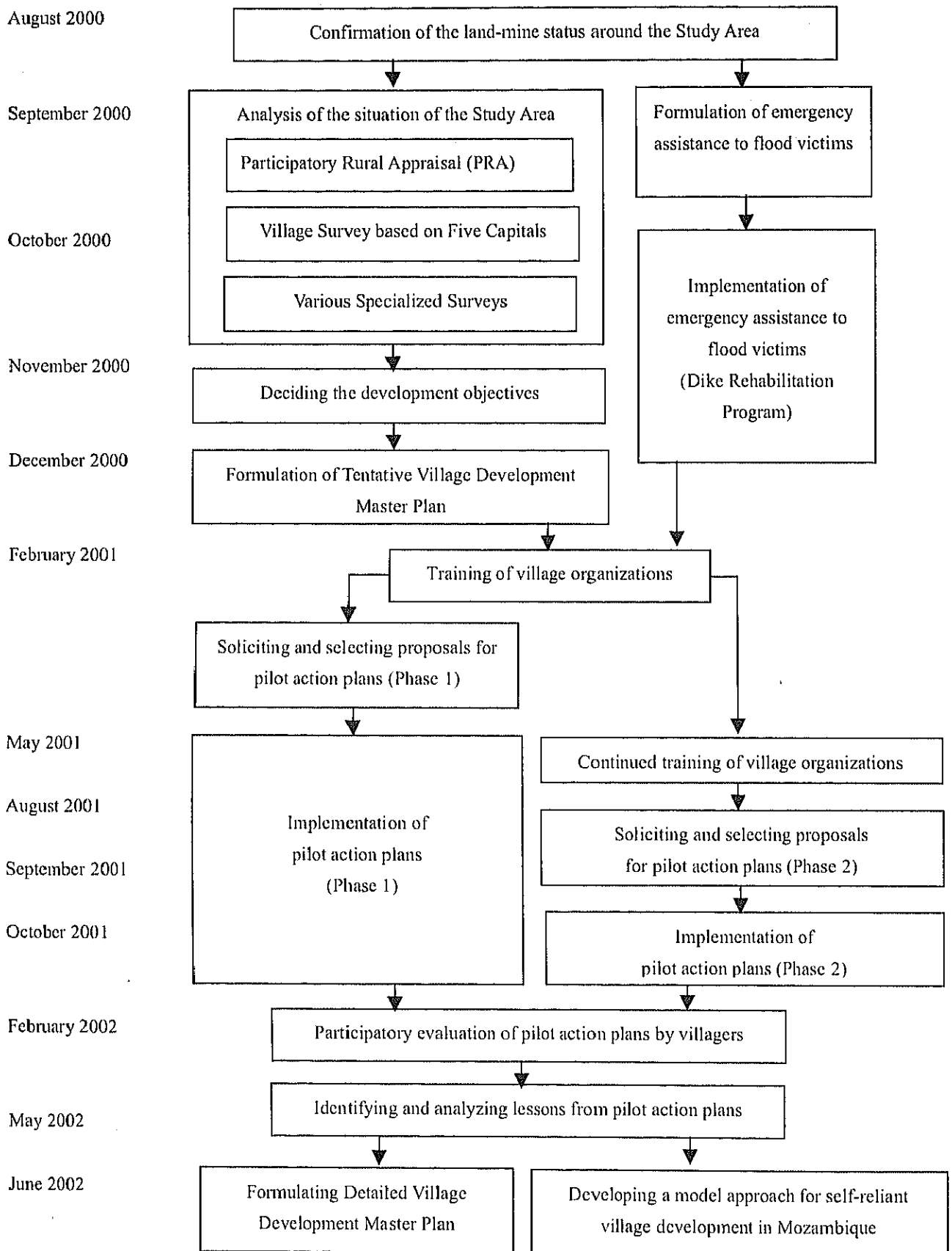
- through PRA (Participatory Rural Appraisal) conducted in mid-September to mid-October 2000 in the Study Area, and
- through the analysis of five capitals (natural capital, social capital, human capital, physical capital, and financial capital) in the Study Area.

In PRA, the villagers were involved in identifying the most urgent problems and needs for them. The analysis of five capitals was conducted as a more systematic and analytical exercise by the Study Team. The results of these two methods were consolidated into the following five basic development objectives as priority needs for the Study Area:

- 1) Stable and better agricultural and livestock production
- 2) Better satisfaction of basic human needs (water, education, health, road, electricity, etc.)
- 3) Income generation and self-employment creation
- 4) Conservation of the natural environment (especially in high land)
- 5) Capacity building of village organizations and the local government

After identifying the development objectives, the appropriate strategies to achieve each development objective were formulated, keeping in mind the villagers' as well as the government's capacity, and the action programs were designed based on these strategies. These development goals, strategies and action programs become the contents of the village development master plan. After developing the tentative village development master plan in December 2000, the villagers were explained about its contents and trained to prepare the proposals for the pilot action plans. The Study Team selected pilot action plans based on the contents of the proposal as well as the capacity of the village organizations. The pilot action plans were implemented by the villagers from May 2001 to February 2002, and the lessons learned from the implementation of the pilot action plans were integrated into the final master plan as well as the model approach for self-reliant village development.

Figure 1.1 Steps of the Study



PART I

Situation Analysis of the Study Area

2. Local Administration

2.1 Current Situation of the Administrative Post of Maluana, Manhiça District

There are eight Departments (plus Police/State Security) and six Administrative Posts in Manhiça District, serving some 135,000 people (depending on reports and statistics, it ranges between 124,761 and 180,000). Eight Departments are: (a) agriculture and fisheries, (b) industry, commerce and tourism, (c) public works and housing, (d) education, (e) health, (f) environment and social action, (g) women, and (h) sports and culture. Six Administrative Posts are: (a) Ilha Josina Machel, (b) Xinavane, (c) 3 de Fevereiro (Palmeira), (d) Maluana, (e) Calanga and (f) Manhiça.

The Study Area is located in the Administrative Post of Maluana. Within this Administrative Post, there are two localities (Maluana and Munguine) and estimated 16,884 people are living in 468 km² in 1999: 10,708 inhabitants in Maluana and 6,176 inhabitants in Munguine. There are eight primary schools and two secondary schools with 4,086 students with 47 teachers.

According to the Chief of the Administrative Post of Maluana, the major problems facing the area today were as follows:

- resettlement after the flood of 2000 (to combat absolute poverty and to provide housing)
- water sources are insufficient
- electricity (at the moment, people are cutting trees to make money)
- lack of cattle

In the Administrative Post of Maluana, there are nine villages in two localities. In each village, there are five community leaders: a secretary and four persons responsible for i) farmland, ii) coordination with the state, iii) health and sanitation, and iv) law, order and security. So, in Munguine, there are five villages with 25 staff; in Maluana, there are three villages with 15 staff; and in Xirindza, there is just one village with 5 staff. They are all non-paid staff.

In the Administrative Post of Maluana, there are six paid staff working. There should be one paid staff working in Munguine, but the lack of funds prevents from hiring one.

2.2 Effort for Decentralization in Mozambique

In Mozambique, there are ten Provinces and the capital Maputo City. Ten Provinces are sub-divided into 128 Districts and 394 Administrative Posts. Public administration in Mozambique has approximately 108,000 civil servants. The devolution of political and administrative powers to lower levels of government like Municipalities

has been undertaken for the purpose of decentralization. As a result, 33 out of the 139 existing cities and towns have become Municipalities since the 1998 local elections, and a second round of local election is planned for 2003 in the name of "bringing the government closer to the people". However, Municipalities hardly play a key role in development due to limited financial, human, and physical resources.

This decentralization effort is one of the several components of much larger effort for Public Sector Reform in Mozambique. It currently has five components: (1) rationalization and decentralization of the structures and processes for the provision of services, (2) improvement of the formulation and monitoring of public policies, (3) professionalization of public sector employees, (4) improvement of financial management and accounting, and (5) good governance and the fight against corruption.

2.3 National System for Training in Public Administration (SIFAP)

A national system for training in public administration (SIFAP) was created in 1994, in order to (1) upgrade the academic and technical level of civil servants that were under-qualified for the tasks they have to perform and (2) concentrate the manifold capacity building and training activities that are being organized under the umbrella of one official national system. The justification for the conception of such a system was the enormous capacity deficit in the civil service: 80% does not have medium (secondary) level and over 50% is under-qualified for their respective jobs. Only 1% of the managers have an university degree.

The first phase of the project included following activities:

- A detailed quantitative and qualitative profile of the target groups (including their territorial and institutional distribution) was prepared in 1999 and updated in 2001. The main source for this analysis was the Personnel Information System (SIP), a database on all civil servants.
- A diagnosis of training needs was carried out.
- An integrated modular framework for formal and non-formal training was designed.
- A system of credit points based on the modular structure was developed in order to link training to career progress.
- An assessment of the physical condition of the existing IMAP was done and subsequent rehabilitation and equipment within the limited means of the project. A separate assessment was done on the possibilities to create training institutes in Beira and Lichinga.
- The existing legal and organizational pre-requisites of training institutes were analyzed and a proposal for adjustments was prepared. As a result the existing IMAP was transformed into IFAPA.
- A careful selection of trainers (42; but 30 had actually selected/completed) and specialists (24; but 16 had selected/completed) was carried out within the civil service. The trainers received an intense 15 weeks course and the specialists were trained for 2 months.
- A feasibility study on distance education was carried out and an agreement has been reached with the Teacher Improvement Institute (IAP) on the conception of a distance training program based on their experience.
- Based on the general structure of SIFAP, specific modules were identified course materials and handbooks

drafted and didactic materials developed. A separate module was prepared to address the specific needs of the municipal staff. Four pilot courses were implemented to test module products.

Three most crucial aspects of SIFAP are: (1) two additional training centers in Beira and Lichinga, (2) training of trainers, and (3) development of module scheme for distance learning.

2.4 Funding Mechanism for District Level Development Projects

Multi-sectoral development is rarely practiced in Mozambique except within a project context where there is a mechanism (such as a project management unit) for co-ordinating the activities and use of funds. Only at District level does the possibility exist for the government to manage multi-sectoral activities co-ordinated by the District Administration and District Government.

Structurally the conflict lies between sector-defined funding mechanisms and the need for multi-sectoral participatory development initiatives at community level to guarantee sustainability and a more holistic approach to rural development. Access to funding from the bottom upwards, can only be transmitted to the District Administration and/or members of the District Government which have dual responsibilities to their respective sectors and to the District Administrator. Requests for funding may therefore pass through the appropriate sector's hierarchy to provincial or central level where fund allocations may be made in the long term, or additional funding allocated to support project development. The only possibility of a more immediate response is from a district level funding source, in the districts that have these.

It is recognised that one of the factors that most inhibits effective district level planning and development management is lack of access to funds for autonomous application. The Mozambican Government has demonstrated that it is prepared to move towards more participatory forms of administrative decentralisation (deconcentration) in the districts. In September 1998, the Ministry of Planning and Finance and the Ministry of State Administration issued a set of *Orientations (guidelines) for District Development Planning* to guide this process.

As part of the decentralisation process the Provincial Governments in Nampula, Inhambane, Niassa and other provinces are allocating funds from the provincial budget through the Provincial Directorate of Planning and Finance directly to districts. These are specifically for district development, to be disbursed according to community requests made as part of the participatory district planning process, and guided by the District Administrator and his government. Significant capacity must be built at district level to manage such funds, and the implementation contracts that accompany their use.

Maputo Province has not yet embarked on any kind of decentralised development planning or fund allocation. As such, it is still dependent on funds channelled via central and provincial sector directorates to cover the development of sectorally defined activities. Pooling of these funds is not an option, and co-operation to use

funds from different sectors to implement activities jointly is also very difficult in terms of accountability. Funds are allocated according to a five-year rolling plan. During the five year period the budgets are adjusted as new funds and new commitments appear, however, it is essential that in order to obtain a funding commitment from the Mozambican Government, that this becomes part of the plan of a given sector.

On the other hand, for projects operating at district level, one of the key sustainability requirements is the strengthening of links, confidence and collaboration between communities and the District Administration. State Administration is the only sector with the mandate for facilitating community development that has representation at local level that should be able to 'listen' to community needs. All other sectors (except for the social services of health and education) have policies that require that local level community development facilitators are outsourced. In addition the District Administrator as a member of the State Administration, is the head of the District Government, and actually represents the interests of any sectors not represented in the District Government by other personnel (Directors).

In the context of policy development that emphasises decentralised planning and financing, the unique position of the District Administrator and the proximity of his position and links with the local communities, means that the alternative financing mechanism with potentially greater flexibility of use for various community development activities, is through support to a district development fund. The planning horizon for the district level is an annual district development plan that should be developed in a participatory fashion and draw on capital investment funds from the Provincial Directorate of Planning and Finance. It is almost unknown for funds to exist at provincial level that can adequately support the fulfilment of any one district development plan in a given province. As a result of this, State Administration and the Ministry of Planning and Finance are finalising the design of the National Program for Decentralised Planning and Financing so that the reality of the need for District Development Funds can be supported in practice throughout the country.

3. Village Organizations, NGOs and Land Tenure

3.1 Village Organizations: Associations and Co-operatives

One characteristic in the Study Area is that there are many existing village organizations which are called associations or co-operatives. So it is natural to promote village development through these village organizations. This section describes the historical background of village organizations in Mozambique, the current status in the Study Area, and discusses their constraints and potentials for village development.

(1) Historical Background

The establishment of co-operatives and associations was encouraged by the seminar on co-operative and associative movement at Morrupa, Niassa Province in 1974. The number of co-operatives and associations increased from 70,000 in 1980 to 6,000,000 in 1990.

(2) Current Status of Village Organizations in Munguine and Maluana

There are 20 associations/co-operatives and one zonal union in Munguine and Maluana Localities as shown in Table 3.1. Each association/co-operative has its farmland in different places, namely in Munguine, Xerindza, Pateque, Maluana, Machovane, and Musutho.

(3) Constraints and potentials for associations and co-operatives

Village organizations in the Study Area are the good entry points for promoting village development, but their present activities are limited in allocation of agricultural land to the members (now no land available for new comers), land registration as a group, and arrangement of various activities requested by the Union. Their activities do not include the more sophisticated group activities such as group sale and purchase, financing, and technology transfer among the members, but there is a potential for the village organizations to expand their activities into those areas in the future.

In order to realize this potential, it is necessary to develop institutional capacity of the village organizations in the Study Area step by step. First, it is important to improve the basic management skills and accountability in village organizations through training in the areas such as transparent bookkeeping with the group money deposited in a bank account, democratic election of a management team, and participatory management and decision-making process. According to the interviews and Table 3.1, most of village organizations seem to be weak in terms of the basic management skills and accountability, because only seven out of 21 organizations have a bank account, and many organizations seldom informed the members about the collected group money and its use. Secondly, the current objectives, rules and activities of the village organizations should be reviewed by the members themselves, and revised, if necessary, to better respond to the new demands by the members. It is important to use participatory institutional building methodologies for exploring the needs, weakness, strengths and visions of the members of the village organizations.

Table 3.1 Overview of Village Organizations in Munguine and Maluana Localities

No.	Association/ Co-operative	Contact Person	Position	Established Year	Number of Members (Male-Female)	Farm Land (ha)	Cultivated Crops	Legal Registration	Bank Account	Annual Fee (MT)	Location
1	Zonal Union of Associations and Co-operatives in Munguine	Armando Zuana	President	1986	-	10	Banana	Yes	Yes	100,000	Munguine
2	Association Matchnkhomo	Ernesto Junior Mantha	President	1987	50-75	79	Banana, Maize Vegetables Cassava	Yes	No	24,000	Munguine
3	Co-operative Kenneth Kaunda	Armando Casimiro Tchambule	President	1978	12-54	75	Banana, Maize Sugarcane Vegetables	No	Yes	30,000	Munguine
4	Co-operative Independence or Death	Albino Chiau	President	1980	12-106	30	Cassava, Banana Sugarcane Vegetables	No	No	10,000	Munguine
5	Association Ndhandhazi	Aderito Cossa	President	1992	52-120	80	Banana, Maize Sweet Potato Vegetables	Yes	No	30,000	Munguine
6	Association Xipandzene	Carlota Ndzezo	Vice-President	1982	45-62	14	Maize, Sugarcane Sweet Potato	Yes	No	12,000	Munguine
7	Association Cubomo	Virginia Margarita J. Honwana	Supervisor	1996	67-49	43	Banana Maize, Cassava Vegetables	Yes	No	12,000	Munguine
8	Association Khokholwele	Alexandre Vicente Chissicco	Secretary	1992	281-408	241	Banana, Maize Vegetables Cassava	Yes	No	12,000	Munguine
9	Co-operative Maguiguann	Francisco Ngovene	Supervisor	1977	15-79	67	Maize, Banana Cassava Vegetables	Yes	Yes	25,000	Munguine
10	Association Tchuri	Felismina J. Chiridza	Member	1991	12-92	10	Maize, Cassava Sweet Potato	No	No	30,000	Munguine
11	Association of Ex-Miners	M. Zucueue	President	1992	14-4	35	Maize, Vegetables Cassava, Banana	No	No	60,000	Munguine
12	Association of Small Farmers in Munguine	Almerindo T. Honwana	Secretary	1991	31-0	28	Banana Vegetables Maize	Yes	Yes	20,000	Munguine
13	Co-operative 25 September	Alberto Tseco	Secretary	1983	47-19	33	Banana, Maize Vegetables Cassava	Yes	No	12,000	Munguine
14	Association Pembe	Juliao Mililane	Secretary	1991	16-134	39	Banana/Maize Cassava	Yes	No	12,000	Munguine
15	Co-operative Pateque	Miguel Savel	President	1978	20-27	26	Cassava, Banana Sugarcane Vegetables	No	Yes	5,000	Maluana
16	Association Pateque Block 1	Eduardo Samuel Mboane	President	1986	8-6	38	Cassava Maize, Banana Vegetables	Yes	No	14,000	Maluana
17	Association Pateque Block 2	Simiao S. Novela	Secretary	1989	50-54	22	Cassava Maize, Banana Vegetables	Yes	No	14,000	Maluana
18	Association Pateque Block 3	Tsavane	President	1986	40-57	24	Cassava Maize, Banana Vegetables	Yes	No	14,000	Maluana
19	Co-operative Maluana	Vasco Maconjo Mothula	President	1992	30-70	21	Cassava, Banana Sugarcane Vegetables	No	Yes	12,000	Maluana
20	Association Pfluxaxana Xerindza	Jose Catanino Massingue	Secretary	1992	45-55	10.5	Banana, Maize Mandioca Vegetables	Yes	No	12,000	Munguine
21	Association of Small Farmers in Maluana	Samuel J. Tomas	Secretary	2000	68-4	82.5	Banana Sugarcane Cassava	No	Yes	20,000	Maluana

It is worth noting that the strong motivation of each organization to improve its management is essential. It is not wise to automatically support all village organizations in the Study Area without considering their willingness to improve the management, nor other conditions such as their level of management, their visions, their voluntary contributions, and their leadership. These conditions should be assessed by themselves, and new activities should be started from simple ones, and gradually move to more complex ones.

Institutional capacity building of village organizations is a long process which must be supported and sustained by various key stakeholders such as the Study Team's counterparts, local government officials and the Union.

3.2 Non-government Organizations (NGOs)

According to *NGO Directory* (published by LINK in May 2000), there are more than 800 NGOs in Mozambique, including international NGOs. NGOs work in the various areas such as rural development, agriculture, education, health, etc., and many NGOs do not have e-mail communication. The right to constitute NGOs is legalized by the Law no.8/91 of 18 July 1991. According to the Law, there are two types of NGOs that are the financing NGO and the assisting NGO. The financing NGO is deal with a fund for programs. The assisting NGO is to support directly community activities including research and project formulation.

There are several NGOs working in the Study Area, namely Terre des Hommes Germany, ActionAid UK, ATAP (Association of Agro-Livestock Technicians), and so on. Terre des Hommes Germany has supported the construction of a primary school and a health post as well as agricultural production by providing seeds and agricultural equipment since 1987.

3.3 Land Tenure

The new Law of Land of 19/97 was approved on October 1997, and effective from January 1998. Under the new Law, the land is still owned by the State, but the right to use the land and users' duties are clearly stated. The new Law emphasizes individual lands (family lands) instead of community lands, and community lands can be then divided into individual land users. An oral testament can be as valid as a writing testament to claim the right to use the land. It is necessary for new land users to provide the government the planning of the exploration of the land, and its planning must be implemented within two years for foreigners or for five years for the Mozambican people. Otherwise they will lose their right to use the land.

As a result of the new Law, the private sector including those in neighboring countries such as South Africa and Zimbabwe has started to demand and register lands in urban and rural areas in Mozambique with a new socio-economic stability since the peace accord in 1992. The land registration has become crucial to legally protect the small farmers' right to use land. The Ministry of Agriculture and Rural Development recently introduced the national policy of agricultural land as follows:

- the management and registration of land should be done at local level starting from Locality to Province through District
- the procedure of registration land should be done in short time

4. Women

4.1 Introduction

In the Study Area, it is easily observed that there are more women than men, because some men died during the civil war and other men are out of the village working in South African mines or other cities or towns, or just looking for a job in the urban area. As a consequence, women in the Study Area are considered as the important agents for village development, and it is important to understand the realities the women are facing in daily village life.

4.2 Current Situation of Women in the Study Area

In the Study Area, it is estimated that more than 70% of women are illiterate, and women are heavily busy with housework such as cooking, water and firewood fetching, cleaning the house and clothes, caring children, and farming in the low land which is often far from the homestead. These conditions limit women's participation in political and economic activities not only within a family but also in village organizations and in a community.

This conversation with a woman in Munguine portrays a typical situation of poverty: a weak agricultural production structure, fragile environment, and a limited access to basic social services such as education, health, and safe water. Around 80% of village organization members are women, and most of them cannot earn enough income to secure an adequate diet for their family due to the low productivity of agriculture.

Apart from taking part in associations, co-operatives or religious groups, women in Munguine and Maluana do not have any other social groups. Sometimes women take leaderships in these groups, but these female leaders face many difficulties to exercise their power.

4.3 Collaboration with NGOs Working for Women

In Mozambique, NGOs are active in the implementation of various development programs, particularly with participatory methods. Therefore it is important to promote coordination and collaboration between the public sectors and NGOs in the community when designing and implementing development activities.

The following is a list of NGOs that have already carried out some community development activities in the Study Area and can be invited to take part in future community development activities in Munguine and Maluana:

- Terre des Hommes Germany working on children's health, adult literacy, education and training, and agriculture.
- ORAM (Rural Association for Mutual Support) working on registration of land for small farmers as well

as a cattle bank (revolving scheme) and micro credit.

- AMRU (Mozambican Association for Rural Women) working on micro credit, agriculture, livestock restocking, housing, and other local initiatives.
- AMODEFA (Mozambican Association for Family Development) working on family planning.

4.4 Planning for the Future

The importance of women's role in the economic development needs to be recognized adequately. If women's roles and needs are well recognized, the planning of development activities will involve women and the projects will be designed based on the needs of women. Women tend to understand their needs based on their family's daily practices, and look for means to make their family live better. When women meet these urgent practical needs, they are ready to pursue the long-term strategic needs which aim at improving women's status in the family as well as in the society.

To fully realize the productive capacity of women, it is necessary:

- to reduce the volume of women's work, for instance, through adequate location of water sources, supply of a grinding mill, and construction of improved cooking stoves.
- to improve women's health, for instance, through a first aid health post which supports family planning and safe and potable water supply.
- to improve social services to women, for instance, through construction of primary schools and improving road and housing.
- to increase income for women, for instance, through professional training, introduction of a group credit, and improved access to market.
- to improve education opportunities for women, for instance, through literacy campaign, increasing female teachers, and making textbooks that value women more.
- to improve women's access to the means of production such as land tenure, right to use common properties, and bank accounts.
- to improve women's participation in taking decisions, for instance, in local committees, in elections, in forming associations.
- to open equal employment opportunities for women, for instance, through recruitment of women for the post traditionally reserved to men, and providing equal salaries for men and women.
- to create conditions to enable the female members of associations/co-operatives to participate in more economic activities, which enable women to get more profit and income.
- to facilitate women's access to the means of production and other resources through micro credit, which allows the development of activities to generate wealth and employment.
- to animate women into new employment and self-employment opportunities by improving their productive capacity through training programs and education.

5. Rural Water Supply

The rural water supply component initiated its activities with a survey of groundwater resources to assess the potential for development in the Study Area.

The hydrogeology of the Study Area is divided into two types:

In the Inland dunes

Fine sand ----- phreatic aquifer (10-30m thick)
Clayey / silty sand ----- semi-pervious layer
Medium to coarse sand ----- deep aquifer
Limestone, clayey/calcareous sandstone ----- deep aquifer
(30-60m thick from 15m a.s.l. to 30 b.s.l.)

In the Incomati valley

Alluvial deposits (clayey, silty, sandy material) (40-50m thick)----- shallow phreatic aquifer
Limestone ----- deep aquifer

The Study Area has an important groundwater potential. With an annual recharge of about $16 \times 10^6 \text{ m}^3$, these renewable groundwater resources can easily sustain the domestic water demand for the next 20 years. Using the example of a standard Afridev hand pump, total demand in the Study Area can be expressed as a total of 64 water points equipped with hand pumps, that is, 42 more than exist operational today. In the Study Area, conductivity (salinity) measured at operational boreholes and hand-dug wells was found to be well within international standards.

Community water supply in the Study Area is obtained from boreholes and hand-dug wells. Almost all boreholes have village level operation and maintenance Afridev hand pumps installed on sealed headworks with an apron and drain and were implanted without community participation in site location. Owners of private water sources construct hand-dug wells to the best of their technical ability and the limit of their financial capacity. Community groups express a preference for borehole supplied water wherever possible.

Emergency interventions up to 1999 have created attitudes of dependency in the communities though income in the area should be enough to cover hand pump operation and maintenance costs. In terms of sanitation, although people claim latrines in the area were destroyed in the floods, habitually they use the bush for defecation. Some families are aware of the dangers of open-air defecation.

Bairros 4 and 5 in Munguine, the interior of Xerindza and part of Maluana, Barriga and Pateque village suffer

from a scarcity of water, water carriers spending 30-40% of their time in a day collecting water.

Technical recommendations include: boreholes drilled to tap the deep aquifer and appropriate hand-dug wells, although they present a higher risk of water contamination requiring hygiene education. It is not recommended to drill boreholes in the Incomati alluvial aquifer without a geophysical survey.

Communities must be encouraged assume responsibility for their water points: involvement in site selection, all major decisions, fund collection, use of bank accounts, acquisition of sets of spare parts for maintenance. A participatory appraisal is recommended prior to starting up any water supply project, as is capacity development of user groups and promoters to address the health risks of contaminated water, no latrines, dish racks and effective solid waste disposal.

6. Agricultural Production and Marketing

6.1 Agricultural Production

(1) Current Situation

Farming in the Study Area is based on production of food crops for home consumption. Major food crops cultivated are maize, cassava, sweet potato, beans (cowpea, groundnut) and vegetables (leafy cabbage, onion, tomato, squash). Food security in the Study Area can be barely achieved if there is no calamity such a flood or drought. As to cash crops, banana and sugarcane are main crops.

Both the lowland and the highland are utilized for agricultural production. The lowland along the Incomati River is covered with alluvium which is suitable for agriculture. Two harvests a year is available in the lowland due to its high contents of soil moisture fed with shallow groundwater. Co-operatives/associations manage the lowland fields except some private land. Each farmer can acquire a right to cultivate the land through Co-operatives/associations. Their farm sizes are around 0.5 ha on average. On the other hand, the highland is covered with topsoil of sandy loam which contains few organic matters. Farmers usually reclaim their fields with an area of 0.1 to 1.0 ha around their residences. In the highland, cultivation is inevitably limited to once a year during the rainy season.

Farming in the Study Area is extensive; input materials for production, such as fertilizer and chemical, are seldom used. It takes much time for land preparation among farming practices. It is a heavy burden for farmers, especially women, to plough their fields by using a hoe with small working edge. Farmers prefer intercropping to single cropping generally. Beans are planted with maize or cassava. Sweet potato and vegetables are planted in small plot. Banana and sugarcane which are perennial crops are planted on the boundary of the field.

Current yields are very low as compared to the genetic potential of the varieties which small farmers use, which may be due to lack of appropriate infrastructure, heavy soils in the lowland, poor soils in the highland, erratic rainfall, limited labour for farming, lack of capital to buy inputs and pests and diseases.

(2) Constrains and Potentials for Development

Although any fertilizers including manure are not applied, soil in the lowland is kept fertile because of organic matters delivered from upstream of the Incomati River, practice of mixed culture with leguminous crops and ploughing with residue of crops after harvesting. Shallow groundwater makes farming throughout the year possible even under rainfed condition except some fields which are not drained well.

Despite the existence of large farmland suited for farming in the lowland, only 30 to 40 % of the fields are under cultivation. This is caused by lack of labour for farming practices, especially for land preparation. If burden of land preparation can be eased, it is possible to achieve high cropping rate of the fields which leads to improve productivity in the Study Area. As a solution of this constrain, it can be considered to introduce revolving scheme of breeding cattle in order to increase the number of head of draft cattle.

With regard to introduction of high yielding varieties which require applying fertilizers and chemicals, systems of extension service and supply of materials should be established. Efforts to improve productivity per unit area should be done as a middle or long-term objective.

6.2 Agricultural Marketing

(1) Current Situation

Manhiça town which is a capital of Manhiça District is located around 13 km far from the center of Munguine. Although there is a public market in the town, agricultural products in the Study Area are seldom distributed to that market because scale of the market is small and most products is provided from Maputo City or Xai Xai and Chokwé. For this reason, Maputo City is a main target for marketing in the Study Area.

Banana and sugarcane are majour cash crops in the Study Area. Other crops, such as cassava, sweet potato and vegetables, are sold in case there is surplus or a need for cash income. These products are distributed through middlemen coming from Maputo City. Farmers trade with middlemen without any contract and don't have appointed middlemen. Farm-gate prices are 50 to 80 % lower than the retail prices. Co-operatives/associations don't promote group production and joint sale at present.

(2) Constrains and Potentials for Development

Despite having the advantage of location that the Study Area is situated within the rage of 60 km from Maputo, the Study Area cannot compete with neighbouring countries, such as South Africa and Swaziland, as well as some domestic production areas in respect of both the quality and the price of perishable crops. Consequently, the first consideration is to stabilize transaction of traditional cash crops, such as banana and sugarcane, and to establish system of group production and joint sale through cooperatives/associations.

Transportation equipment is indispensable to activate marketing activities in the Study Area, however, a train service is operated only twice-a day and there is no space to transport a large quantity of the product. Although it is imperative to rehabilitate access road to national road No. 1 and to introduce trucks in future, it should be given priority to establish transaction system with middlemen at a reasonable price for the present under the process of strengthening cooperatives/associations.

7. Agricultural Infrastructure

7.1 General

The Study Area could geographically be divided into two areas, namely lowland area and highland area. The lowland area with the ground elevation of around three to seven meters spreads on the right bank flood plain of the Incomati River. The lowland area is further divided into two sub areas for the study purpose: the upstream lowland area and the downstream lowland area. Most of the lowland area is utilized for farming. Gross farmland area is 1,920 hectares.

The highland area is situated in the western part of the Study Area being covered with clear forests and shrubs, and is used mainly as residential areas and small-scale farm land. Being located on the inland sand dune, the ground elevations vary from 20 to meters above mean sea level.

7.2 Existing Agricultural Infrastructure

Main agricultural infrastructure includes dikes, farm roads and canals as follows:

- (1) **Dike:** The dike construction was initiated during the colonial period to protect the plantations from floods of the Incomati River. In the Study Area, there are three dikes with a total length of 15.2 kilometers, which protect 1,010 ha of farm land in the upstream lowland area.
- (2) **Farm Road:** Twelve farm roads in the lowland area are identified that they are passable with 4WD vehicles in the dry season. The total length of farm roads in the lowland area is 18.4 kilometers. Due to high groundwater level and the lack of drains, road conditions are poor.
- (3) **Canal:** The field reconnaissance identified 18 main canals with a total length of 33.6 kilometers; all are of earth canal. Farmers dug many ditches and drains to intake the water to their farm plots and drain surplus water into the canal.

7.3 Current Irrigation and Drainage Practice

(1) Water Source for Irrigation

The water sources for irrigation are rainfall and groundwater charged in the highland and discharged in the lowland area. The average annual rainfall is around 1,200 mm. Eighty percent of the annual rainfalls concentrate in six month- period from October to March. Being covered with thick sandy soils, the highland allows the rain rapidly to infiltrate into the ground and about 100 of shallow wells are in use for domestic use.

(2) Irrigation

In the lowland area, the villagers grow crops relying on the soil moisture maintained with the shallow groundwater. Canals were constructed along the foot of hills to intercept the ground water discharged from the highland, and the water is distributed to farm fields through canal and ditch systems. In the highland, all farms are cultivated on rain-fed condition.

(3) Drainage

Drainage problems take place in the lowland area. The problems are caused by many factors, such as flat topography, heavy soils, shallow groundwater levels, depressions along the River, high water levels in the rainy season, and irrigation practices that make use of the soil moisture fed by the shallow groundwater.

7.4 Hydrograph of the Incomati River

The Study Area is bounded on east by the Incomati River, which is one of the largest international rivers running through the country. The observation of the water stage started in 1951. In February 2000, Mozambique and Southern Africa were struck by torrential rains. Floods overflowed the dikes, and consequently all the lowland area was inundated for more than two months.

The highest flood level ever recorded is 8.4 meters above mean sea level in 1983 followed by 6.79 meters in 1995. The peak flood level in the 2000 flood is not available due to the breakdown of gauging staff.

8. Livestock

8.1 Current Situation

Livestock raising is one of the components which can contribute to poverty alleviation and food security at the household level in the rural areas. During the civil war, the number of animals was drastically decreased. The number of animals in Mozambique, however, indicates significant increase in the recent years due to the livestock restocking programs supported by NGOs or by the beneficiary's own effort.

The livestock production system in the Study Area is not different from the other rural areas of Mozambique. Livestock is characterized by an extensive production system with little use of improved inputs like supplementary food. In Maluana and Munguine, animals raised are cattle, goat, swine and poultry. Sheep raising is a minor importance.

Cattle raising can be one of the main income sources for rural households, although goat and poultry are gaining the popularity among them. Most households raise poultry and some families keep cattle for animal draft for land preparation and transportation of agricultural produces.

In order to achieve food security in the Study Area, it is necessary to expand the cultivated land and the cattle can work as "a live tractor" for land preparation as well as transportation of agricultural produces. In this sense, the cattle play important roles to achieve its food security in the rural areas, where the local population cannot afford to buy or rent a tractor. However, the draft cattle can be used just for two hours a day, because that the nutritive quality of grass in pasture for grazing is really natural and poor.

8.2 Potentials and Constraints

8.2.1 Potentials

The expansion of land for cultivation is a serious issue in order to achieve food security at the household level in the Study Area. One of the reasons why they cannot expand land is the lack of labor power. In the rural areas, farmers in Mozambique commonly utilize cattle for animal traction, although the number of cattle decreased drastically during the civil war. So the increase of the number of cattle is regarded as the first priority for the rural households in the Study Area. The second priority is the pasture management or development for livestock in order to supply enough nutritious foddors. The use of appropriate by-products or biomass from agricultural activities as foddors can be experimented to increase the productivity of livestock. The third priority is a need for a fund to purchase livestock and relevant materials. The fourth priority is technical support to farmers by the faculty of veterinary, extension workers or the members of NGOs such as ATAP or ORAM, in the areas such as disease control and breeding management. Disease control is important to reduce the possibility of economical

loss of livestock, through appropriate sanitary management for livestock. Well-organized breeding management can contribute to increase productivity of livestock raising.

8.2.2 Constraints

The constraints for livestock development are as follows:

- Lack of funds to purchase livestock and concerning materials needed
- Lack of lands for cultivation and grazing pasture
- Lack of fodders for livestock
- Lack of veterinary assistance, vaccine, drugs, animal health care infrastructures
- Poor knowledge and skills to manage livestock
- Poor experience to raise livestock (extensive raising system)
- Lack of breeding stock

8.3 Planning for the Future

To erase the above-mentioned constraints and to accelerate agricultural productivities through livestock raising, the following activities can be planned for the future.

- Introduction of micro-credit fund or livestock revolving scheme
- Land expansion for cultivation and grazing pasture
- Fodders preparation for livestock
- Complete veterinary assistance, vaccine, drugs, animal health care infrastructures
- Gaining knowledge and skills to manage livestock
- Experience to raise livestock (extensive raising system)
- Increasing breeding stock

9. Land-mine Situation

Up-to-date information on land-mine situation in the study area was obtained from National Institute of Demining (IND), which coordinates all demining activities and holds GIS database on landmines in Mozambique. As of May 18, 2000, the following three land-mines have been found and not yet cleared in Maluana Locality. But they are clearly fenced or marked, so there is little possibility of danger to the local population.

ID No.	Place	Longitude	Latitude	Date of Report
80	about 2 km south of Maluana town., near EN1 road (west side of the road)	32.66	-25.51	August 5, 1996
170	about 500 m north of Maluana town (north side of EN1 road)	32.65	-25.48	April 19, 1996
193	in Pafeni between Maluana town and Esparança (north of EN1 road)	32.70	-25.43	August 17, 1994

In Munguine Locality, there has been no land-mine reported to IND. Since the battlefield during the civil war between FRELIMO and RENAMO was along the national road EN1 and many people escaped from the road side (Maluana Locality) to the eastward (Munguine and Pateque area), there is very little possibility of land-mine in Munguine and Pateque area.

As for the possibility of land-mines which may be flushed away from the upstream of Incomati River by the flood in February 2000, no such case has been reported in Incomati River area, according to IND (although one case was reported in Limpopo River area). So IND staff assured the Study Team that there is very little possibility of land-mine in the study area along Incomati River.

10. Assistance to Flood Victims

10.1 Introduction

An emergency assistance program to flood victims was planned and implemented with the participative approaches in order to enhance the local population's self-help efforts.

10.2 Flood Damages

The Low land areas of Incomati basin in Munguine and neighboring areas of Maragra to north, Pateque to south and Chilembene to east were completely inundated in February and March, 2000 due to the flood of Incomati river. The village economy was completely damaged.

10.3 Survey for Assistance to Flood Victims

JICA Study Team conducted a survey on flood victims' urgent needs. The following findings were obtained through interviews, Participatory Rural Appraisal (PRA) training, reconnaissance, and meetings with 300 villagers.

- (1) **Foodstuffs:** Even though villagers culture crops and participate the Food-for-work program, foodstuffs are not sufficient in the areas. However, in this recovering period, free food supply may negatively affect villagers' capacity building for development.
- (2) **Agricultural infrastructure:** It is required to rehabilitate the dikes in order to protect villagers' properties from inundation. For canal segment in lowlands, World Food Program (WFP) and Ministry of Labor implemented rehabilitation works under the Food-for-Work program.
- (3) **Agricultural production:** In the PRA training course, major problems identified were shortage of tractors, lack of seeds and plant diseases. ActionAid UK and Terre des Hommes Germany provided free plant seeds and seedlings.
- (4) **Safe drinking water:** There is a possibility of contamination of some wells with organic matters. There are increasing demands to construct boreholes in high lands instead of shallow wells located in lowlands. This program should be separately planned from this emergency relief, because their houses were not affected by the flood. About 200 people migrated to the Munguine village from the lowland. ActionAid UK in association with Terre de Hommes provided one borehole and materials for traditional types of houses.
- (5) **Housing:** All villagers are residing in high lands, and their houses were not affected by the flood. About 200 people migrated to the Munguine village from the lowland. ActionAid UK in association with Terre de Hommes provided one borehole and materials for traditional types of houses.

- (6) **Disease:** After the flood, the number of patients caused by drinking water increased.
- (7) **School:** After the flood, the school enrollment rate become lower.

10.4 Design and Implementation of Dike Rehabilitation Program

- (1) **Strategy and working method:** In order to enhance the villagers' ownership, the rehabilitation works have been planned to make better use of local resources available within the villages without using construction machinery in Food-for-Work strategy.
- (2) **Working volume for damages of dikes:** On the dike of Munguine, 11 sites were completely slashed out or partly slid. The total earthwork volume is estimated at 2,600 m³ and the total length is 267 m.
- (3) **Earth work performance:** The Study Team carried out a field test for work performance. As a result of the test, earth work performance is designed to be 0.4 /day/person, under the condition that one working group consists of ten workers in which women share 85 %.
- (4) **Delivery of foodstuffs, seeds and consumable goods:** The Study Team has provided alternatives depending on applicants' needs.
- (5) **Mobilization of workers:** In the dike rehabilitation program, 349 villagers in total participated. The first group consisted of 125 workers from 12 associations/co-operatives who registered their land use in the lowland of Munguine. Additionally 50 workers were registered at the union. The supervisor group consisted of one extension staff from the Ministry of Labor and five young leaders including one woman who got PRA training, three Bairro leaders, one tractor manager, two medical staff, etc. were also involved in this program.
- (6) **Registration card:** These were used for management of the distribution of goods for work.
- (7) **Work period:** In the program, the procedure was firstly identification of problem of the dike in August, preparation of the dike rehabilitation in September, and the implementation in October/November 2000.

10.5 Topics of Dike Rehabilitation

- (1) **Soil compaction:** Piled soils are always compacted by foot and hoes in the end of daily working.
- (2) **Usage of tractor:** Munguine Union possesses two units of working tractors. They were used for transportation of materials, wheelbarrows, drinking water, and soils from the union to working sites. They were also used as transportation to purchase available materials in Manhiça.

- (3) **Distribution result:** The number of distribution goods accounted for 439 sets in total; 194 sets for foodstuffs course, eight sets for seed course and 237 sets for consumable goods (blanket and soap) course.
- (4) **Target setting system and incentive:** To make the construction faster, the supervisors set a payment mechanism that is not based on how many days the workers work, but how much the workers could finish an amount of work. It gave the workers good incentive to work more.
- (5) **Working time and attendance call:** Working time was set from 6:00 a.m. to 10:00 a.m., and the attendance call was essential on the management of participant.
- (6) **Safety management and sickness:** In the beginning stage, some injury cases happened. By the rapid countermeasures, injuring cases were stopped happening any more. In cold wet season, the transportation to the medical post increased. In future, it was recommended that the union had better have a function of a drugstore for specific diseases like malaria.
- (7) **Malaria:** The increase of malaria patients from November was prevailed in all over the Maputo Province, and it was a very serious problem.
- (8) **Sick leave:** The patients were paid even during their absence of their work, because they were the people who got ill during the work.
- (9) **Lazy workers:** In the beginning of the work, there were some problems about lazy men, but it was solved by the supervisors' warning, etc.
- (10) **Increase of water level:** Because of this cold front, the area had heavy rain, and Patquenos Libombos discharged the dam water at the rate of 50-125 m³/sec on 19 November 2000. After three days, the water level of the river increased 60 cm in Munguine.

10.6 Impacts of the Program

The program of participatory dike rehabilitation work has enhanced the capacity of the villagers as well as the relationship between the villagers and the Study Team in the following ways:

- The capacity of younger villagers, who worked as supervisors in this program, to tackle public issues of the villages, has been strengthened through implementing this program.
- Collaborative and participatory work experiences in the dike rehabilitation program has contributed in creating the sense of ownership of the dikes among the villagers.
- Local people has become proud of their accomplishment of the program, in spite of the hard working condition including injuries, sickness, and heavy rain.
- Reliable relationship between the villagers and the Study Team was established through the face-to-face daily discussions responding to the villagers' requests such as delivery of drinking water, introduction of rubber boots rental system, and introduction of an incentive system.

Part II

Pilot Action Plans

11. Formulation and Selection Process of Pilot Action Plans

11.1 Background and Objective

The capacity of the village organization 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. There were two opportunities to select pilot action plans/programs in March and September 2001. The formulations and selection processes of the pilot action plans are also part of capacity building of village organizations.

11.2 Methodology

The first and the second selection of the pilot action plans/programs were conducted by the following criteria

- A small-scale project using appropriate technology for local population
- Short-term impacts in the village, if possible 6 months
- The minimal outside assistance is needed, because of a self-help community projects.
- 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

In order to achieve the objectives, there are six steps implemented by the JICA Study Team as follows:

- 1) To explain about the determination processes of pilot action plans/programs through quality of proposal, the villagers' willingness, and the level of organizational development
- 2) To carry out organizational development seminar particularly for necessary aiming awareness of the necessity of vision, step-by-step development, and importance of organizational development
- 3) To explain about the content of the proposal presented by the village organizations, if necessary individual consulting to the village organizations. The village organizations submit their proposals related to pilot action plans/programs
- 4) To carry out organizational development seminar with emphasis of organizational structure and management procedure.
- 5) To select several proposals by the criteria with the level of organizational development at the selective committee consisted of the counterpart and the JICA Study Team, and to inform them of the result.
- 6) To negotiate with selected village organizations for its planning, cost sharing, and schedule.

11.3 The Processes of Selection for the Pilot Action Plans

There are three stages related to the processes of determination for the pilot action plans, namely 1) proposal preparation, 2) evaluation of the contents of the proposals, and 3) selection of the village organizations.

The first selection of the pilot action plans were selected based on the following four criteria: i) having a bank account, ii) strong participation by members (the number of members who attend in various meetings, women's

participation), iii) the quality of the proposal (financial and technical feasibility), and iv) organizational capacity (leadership, transparent accounting, and democratic management). Three village organizations were selected in the first. In the selection of the second selection of the pilot action plans, two more criteria were added: v) income generation projects can be introduced for the well-organized village organizations, and vi) the support to the less developed areas such as Pateque compared with Munguine and Maluana. Six village organizations were selected in the second.

Monitoring of the pilot action plan is very important in order to understand the process of the capacity development of the village organizations: the village organizations may encounter some problems when implementing the pilot action plans, and how they cope with these problems is a good indicator for their organizational capacity as well as a good learning experience for them.

11.4 Lessons for the Master Plan

“A set of cattle with plough attachment and yoke” as Animal Traction Program is a pilot action plan with targeting the associations and the co-operative, particularly in building organizational development. Organizational development can be conducted by vision based on practical experience, discussion, and motivation. The pilot action plans must contribute to these practical experience and motivation. Discussion is mainly carried out through workshops and monitoring.

As mentioned earlier, the purpose of the JICA study is not to provide materials and construction, but to support organizational development as an engine for further development. The pilot action plans will have to be carried out in line of this purpose. In this regard, if some village organizations including spontaneous groups reach the selective criteria, they have opportunities to work with the pilot action plans supported by the JICA Study Team

12. Village Organization Development Program

12.1 Objectives

The Village Organization Development Program has the following objectives:

- To facilitate the village organizations to develop 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 targets all 21 villages organizations in the Study Area, that is, Munguine, Maluana and Pateque. (For a list of 21 village organizations, see Table 3.1.)

12.3 Main Features

A relationship of mutual trust among the members is the important prerequisite for the organization to plan and implement various economic and social activities. It is expected that the selected village organizations will 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.

12.4 Organization for Implementation and Monitoring

Kulima, a local NGO, was selected as a partner to implement the second stage of the program. It is quite difficult to monitor organizational development without concrete events such as the implementation of the pilot action plans, nor to monitor the activities by all associations and co-operatives in the Study Area. Therefore, the monitoring carried out by JICA Study Team needs to focus on the associations and co-operatives which implement the pilot action plans.

12.5 Planned and Actual Activities

The contents of the development program were determined as follows, considering the desire of people and problems found in implementing the pilot action plan.

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 treat) analysis

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

- 1) Organizational Management
 - Concept regarding association and co-operative, membership, leadership, and organizational process
 - Gender
 - Relationship with the public institutions
- 2) Village Development
 - Animal traction/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.)

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/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

12.6 Results of Process Monitoring and Evaluation

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. 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. It might be said that the villagers have just started to realize the need of organizational development in village organizations for further development.

12.7 Lessons for the Master Plan

It might be said that the organizational capacity has been developed by both seminars (knowledge development) and practical experiences in implementing pilot action plans. 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.

13 Animal Traction Program

13.1 Objectives

There are four objectives: 1) to make land cultivation easier through the provision of traction animals, 2) to facilitate marketing of agricultural products through the provision of ox-carts, 3) to improve the management capacity through the experience of managing the animal traction and ox-carts, and 4) to improve the long-term food security and safety net against natural disasters by increasing the number of livestock in the communities.

13.2 Target Groups and Areas

The criteria to select target groups were well-established and stable organization, strong leadership, transparent accounting and well-managed organization in the target area.

13.3 Main Features

The program was selected because this is considered more appropriate compared with tractors. Cost sharing policy was introduced as the initial cost for animal traction and thought very effective to let them think about their real needs.

13.4 Organization for Implementation and Monitoring

First, the veterinarian of JICA team facilitated the start-up the program and provided the initial training on how to prevent diseases. Later, the local ATAP veterinarian was contracted to regularly monitor the animal health and provide necessary veterinary care with monthly report twice a month. For the utilization of the cattle and equipment, the local extensionist was contracted to monitor these activities and provide advice with monthly report twice a month.

13.5 Planned and Actual Activities

Main activities in the program are cattle breeding management, plan to increase the number of cattle, fair operation of the animal traction and the ox-cart with a charge and accounting.

- (1) **Association of Ex-Miners:** Income is increasing and accounting transparency has been improved well, and they made a plan for future financial needs.

- (2) **Co-operative Maguiguana:** The animal traction hasn't been conducted properly because of cow's accidents. Due to the poor experience of cattle management and animal traction, they couldn't properly utilize the animal traction until October, 2001.

- (3) **Association Pateque Block 1:** The animal traction and ox-cart operation has been conducted well. They have been managing well with good mutual understanding.
- (4) **Association Pateque Block 2:** Since the cow got ill, a member offered her cattle for the animal traction until the association's members deposit enough money to buy cattle.
- (5) **Association Pateque Block 3 :** One cattle was too small for animal traction, so they couldn't operate animal traction. The cattle has grown up, they started the animal traction.
- (6) **Co-operative Maluana :** While they utilized the ox-cart for some assignments, in general, the animal traction and ox-cart were poorly utilized due to the lack of a person in charge .

13.6 Results of Process Monitoring

It indicated cattle disease and accidents, weak leadership, absence of the persons in charge of cattle handling, lack of record keeping on the decision-making and problem-solving process, unfair operation of the animal traction and ox-cart, opacity accounting and poor utilization of the animal traction and ox-cart.

13.7 Results of Evaluation

- (1) **Participation :** Although the frequency of utilizing the animal traction and ox-cart is very different up to the size of organizations, they realized the benefits of participation to reduced labor work, more cultivated area, more harvest and income, etc.
- (2) **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.
- (3) **Self-reliance and sustainability :** Self-reliance and sustainability can be achieved and they become more active in working .
- (4) **Socio-economic impacts and Replicability :** Some associations showed the higher capacity to manage and expand development activities so they became the model of other organizations.

13.8 Lessons for Master Plan

It is noticed as important factors to develop organizations properly such as human resources (leaders and extensionists), financial support as micro-credit and /or livestock revolving funds, technical support by extensionist and veterinarians and increasing the numbers of cattle.

14. Low External Input Agriculture Program

Low External Input Agriculture Program aims 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. JICA Study Team provided the participants with farm inputs, mainly seeds. The participants were requested regularly to join community work in the model farm.

The Program has commenced the activities 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.

Main activities of the Program are 1) demonstration farming in the model farms established both in the lowland and in the highland, 2) study tour and 3) monitoring and evaluation activities. Introduced techniques in the model farms are 1) Planning design of fields, 2) Mulching, 3) Forming beds, 4) Organic fertilizer (liquid manure) and 5) Planting in line. Components and approaches of the Program were revised flexibly during the implementation period of the Program in accordance with the progress of the Program.

JICA Study Team appointed a stationed field worker for a task of monitoring the Program during the Study period. He was joining every community work of each village organization to monitor their activity and to give some technical advices to the participants in place of Japanese expert. JICA Study Team also invited natural farming expert from South Africa twice during the Study period in order to support technical aspects of the Program.

Before termination of the Program, JICA 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 is attempted from eight viewpoints. The result of evaluation is summarized according to five-grade system.

Items	Evaluation	Basis of evaluation
(a) Participation	3	- Participants in community work range from none to 50 villagers depending weather and/or their duties to attend at another program or meeting.
(b) Institutional Development	2	- JICA Study Team allows the organizations to manage their activities according to their rules without any institutional development.
(c) Self-reliance and Sustainability	4	- They are challenging some new trials for improving productivity by their own efforts.
(d) Possibility for Future Self-development	3	- It requires further technical assistance for the extension of these farming skills until all participants gain correct skills.
(e) Socio-economic Impacts	2	- The scale of model farms that are established at the communal land was too small to gain enough profits to be shared among the members of organization.
(f) Replicability	5	- Low external input farming has a basic concept to use materials that can be supplied within the local community.
(g) Relation with the Government	1	- The Program has received neither any technical support nor financial cooperation from the government agencies related to agriculture development.
(h) Overall Achievement of the Original Objectives	4	- Implementation of the Program for almost nine months has produced a change of villagers' awareness on their farming and has proved the effectiveness of low external input farming. - It is not possible yet to estimate the effects of new skills on the Study Area as a whole.

Judging from the outcomes of the Program mentioned above, it might be concluded that the approach of the Program is acceptable. With the objective of revising of draft master plan for agricultural development in the Study Area to be formulated based on the result of the Phase I Study, lessons from the Program are described below.

(1) Necessity for promoting farming practices suitable for the highland environment

Considering there are many villagers who cannot access to the lowland fields, we should focus on diffusing farming practices suitable for the highland fields.

(2) Strengthening of extension service system

It is required for the villagers to build the institutional system of access to the organizations or extension workers with sufficient experience in natural farming.

(3) Intervention of the government agencies

Intervention of Ministry of Agriculture and Rural Development in the project is inevitably necessitated to apply this approach widely to other regions/communities in Mozambique.

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

15.1 Objective

The Rural Water Supply Program aims 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. Objectives are to be 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 raising users' awareness of water quality through hygiene education and training.

15.2 Main Features

Pilot projects reached two communities located in Munguine Bairro 2 and Maluana Bairro 1. The Water Supply Programme consisted of a technical drilling and headworks construction component; a community capacity development component focusing on water user groups; and a participatory evaluation of the Water Supply Programme activities. Communities were prepared to participate in siting and construction activities. Contributions included cash to buy cement, skilled and unskilled labour that learned how to build borehole headworks, and volunteers trained to manage and maintain/repair the new hand pumps and to carry out hygiene education among local communities.

15.3 Results of Evaluation

Three months after the end of construction, a review of immediate impacts was carried out by the JICA / GPE animator together with participating communities.

(1) Approaches and Strategies

- The pilot projects responded to proposals from the neediest people in providing support to the two water supply projects and 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.
- 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.
- The main benefits gained by community groups are the additional time available to women and children for other productive activities and the amount of water available to them.
- 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.

(2) Technology for Rural Water Supply

- 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 pumps are located relatively close to sources of spare parts in Maputo and Manhiça.
- 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.

(3) Community Capacity Building Programme

- Ensuring contributions are made has been difficult due to the lack of support of bairro leaders.
- Maintenance groups are well equipped to face the technical issues regarding operations, maintenance, and minor repairs of their pumps and they also have the capacity to mobilise and train other community groups.
- Pressures from livelihood commitments reduced the promoters' capacity to participate in activities that were essentially Study team driven.
- Community and local government stakeholders are aware of the responsibilities they must assume in the developmental framework of the projects.
- The continued benefits of the pilot projects are at risk due to not fully applying the process of capacity development that requires longer-term low key support.

15.4 Lessons for the Master Plan

- Future water supply activities should focus on cheaper alternative technologies.
- Planning of water supply projects must ensure adequate time and expertise is allocated to facilitating an awareness-raising process about responsibilities and cost implications of water supply projects.
- Empowerment should involve capacity development of target groups to manage conflict situations and other complementary areas.
- More time for participatory programme development is required at all phases of the hygiene and sanitation initiative development.
- Consideration of institutional linkages, their benefits and the practical difficulties of inter-sectoral collaboration should be made so that the master plan design is not overly ambitious.
- The Study focus at community level should be complemented with capacity development of District level personnel responsible for rural water supply.

16. Improved Cooking Stove Program

16.1 Objectives

Improved Cooking Stove Program has 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 targets 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, and marketing them through the commercial channels.

But this Improved Cooking Stove Program emphasizes 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 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 homemade improved cooking stoves using locally available materials.

JICA Study Team found that UNDP had the Human Development Program at Local Level (HDPL) and that they had constructed improved cooking stoves, fixed or portable, only with local materials such as grass, clay, anthill and mud of river (See Figure 16.1). So, in cooperation with UNDP, JICA Study Team implemented seminars and monitoring on improved cooking stove program.



Figure 16.1 Fixed Cooking Stove with Locally Available Materials

16.4 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 association/cooperative for some money, and asked to JICA Study Team whether it is allowed. JICA 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.

16.5 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

17.1 Objectives

Chicken Raising Program has the objectives of improvement of the village organization's capacity to plan and implement, the villagers' nutritious status, the villagers' income level by selling chicken and promotion of self-reliant sustainable development..

17.2 Target Group and Area

Association Cubomo in Munguine was selected to implement this program.

17.3 Main Features (Approaches and Strategies)

This program was selected as a good test case for sustainable income generation projects which would improve the village organization's capacity to manage the income generation project and the villagers' income level and nutritious status.

17.4 Organization for Implementation and Monitoring

It was done by the faculty of Veterinary, University Eduardo Mondlane and ATAP.

17.5 Planned and Actual Activities

The advantages are small initial investment within a small land, a short cycle from the beginning to the sale, nutritious value of the meat and manure production as a good organic fertilizer to improve the soil. Disadvantages are low selling price of the chicken and need of the concentrated food and vaccination.

- Food preparation for chicken
- Poultry Training and Practice
- Cost Sharing and Operational Plan
- Chicken Raising Training and Practice in the University
- Chicken Raising in Munguine

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 and expected to continue in a larger scale in future.

17.7 Results of Evaluation

(1) Participation

The participants for poultry are excellent and aggressive because of its benefits, and the positive results make

them more active and willing to expand the number of chickens.

(2) Self-reliance and sustainability

The Program is considered as sustainable by the villagers, because it can generate enough income to invest again. The members have already expanded the size and plan to construct more.

(3) Socio-economic impacts and replicability

Clear socio-economic impacts of the program stimulated members to expand its size and accelerates continuous their activities .

(4) Overall achievement of the original objectives

The overall achievement of the program is excellent. And the beneficial results from the program are thought to be the model case for other associations.

17.8 Lessons for Master Plan

- Necessity of assisting small initial investment
- Necessity of technical support

18. Food Shop Management Program for Widows and Single Mothers

18.1 Objectives

Food Shop Management Program has 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 targets the widows and single mothers who belong to Association of Ex-Miners in Munguine, but also targets Association of Ex-Miners as a whole, because Association of Ex-Miners is an implementing organization of this program, who is responsible for planning and management of the food shop.

18.3 Main Features (Approaches and Strategies)

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

18.4 Result of 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 represents a new business and an income generation opportunity for villagers, so it is hoped some positive impacts will be observed in future.

18.5 Lessons for Master Plan

Although the food shop started its operation with a big financial subsidy (90%) from JICA 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 6 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 JICA 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

19.1 Objectives

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

Target groups and areas are as follows:

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

19.3 Main Features

The main strategy of the sewing training program for youth is 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. Another strategy is to consider economic sustainability regarding management of a tailor shop. It is expected that the training in future will be supported by the profit of a tailor shop or the villagers' donation.

19.4 Organization for Implementation and Monitoring

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

19.5 Planned and Actual Activities

There are five steps in 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 sewing training course has actually started at the end of February 2002. It is informed that it is 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 is expected that some of them will 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 is very short to train them, and at least 30 or 45 days are requested. The Union informed that another sewing training course would start by the beginning of May 2002. The duration will be decided by the Union.

19.6 Result of Process Monitoring and Evaluation

The objective of the sewing training program is 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.

According to the shop account of January 2002, selling of cloths is major income (89.1%), following mending clothes (10.9%). Its success can be dependent mainly upon the assortment of cloths for the customer and proper management, although we simply understood that dressmaking is major income. Dressmaking is major income that is not realistic due to limited market in the villages. Thus, the dressmaking based on-the-job training is likely to be weak after the sewing training courses.

20. Local Administration Capacity Building Program

20.1 Objectives

Local Administration Capacity Building Program has 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 is the civil servants who are working within Manhiça District. The number of this target population is around 80 people.

After November 2001, due to the popularity of the first workshop that was conducted in August 2001, the target audience has also extended to village leaders in Manhiça District. Also after the interviews and observations conducted in November 2001, the workshop is planned and carried out in March 2002 for instructors of IFAPA, but due to a scheduling constraint, the workshop didn't take place for the teacher- trainers in Manhiça District.

20.3 Approaches

The basic approaches for this program are:

- to utilize what is 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 are facing in Mozambique, in order to design appropriate courses

20.4 First Workshop Conducted on August 30th, 2001

The objectives of holding this first workshop in Manhiça were:

- to identify problems local administration staffs are facing
- to see how they are seeing their roles are
- to present the Japanese local government system as a reference
- to identify qualities and skills needed by local administration staffs, participants came up with following list:

- | | |
|---------------------------|-------------------|
| - Solving problems skills | - Broad knowledge |
| - Research skills | - Planning skills |
| - Management skills | - High ethics |

- Carry out proceedings
- Decision making skills
- Capacity of supporting / coaching skills
- Grasping needs of the residents
- Capacity to identify the problems

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

The objective of this second workshops was to cover as many qualities/skills as possible that were listed by the participants in August workshop, using the topic of “how to run meetings more effectively” as an example. The workshops were conducted one for local administration staffs and another one for village leaders.

- (1) Reflection of meetings that participants are attending was conducted using a questionnaire. The problems the participants are facing are: (a) meetings do not start on time; (b) only few people always speak; (c) some people are attacked after the meeting; (d) people do not speak up, nor speak from heart during the meeting; (e) meetings are interrupted often by telephone calls; (f) time is not allocated for the reflection of the meeting, in order to improve the next meeting. After the identification of the major problems, there were discussion on how to overcome those problems.
- (2) Exercise to plan the meeting
- (3) Reflection of the workshops

Although the above exercise in the afternoons was easy enough in the extent of listing the agenda for the meeting, none of the groups were careful enough to think about how the meeting is carried out, i.e., seating arrangement, group arrangement, 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 chair-person. 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).

We are running and attending so many meetings without thinking about the effectiveness or efficiency of them. The effectiveness and efficiency of the meeting are the reflection of the organization as a whole. In other words, if the organization is effective and efficient, the meetings are also effective and efficient. If, that is not the case, meetings are run very poorly. And, one can judge the organization by looking/attending the meeting. If the meeting does not run efficiently and effectively, the organization too is not running efficiently and effectively.

20.6 Third Workshop Conducted on February 28th, 2002

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

- (1) to know about two village development projects run by JICA/GPE 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.

- 1) Participants were divided into two groups and each learned from Mr. Armando Zuana from JICA 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 workshop, 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 a-half-and-half from each of the former groups. So that each participants have a chance to “tell” or “teach” about one project and “hear” or “learn” about another. Because they need to “tell” and “teach” about one project, the way they listened to the speaker is quite different from listening to two speakers and having a no chance of telling/teaching other people.)
- 2) After JICA and ActionAid UK explanations, the moderator asked the participants to compose new groups to exchange what people had found out, in order to compare and analyze experiences of the two projects in about 45 minutes and point at what they think of positive (strengths) and negative (weaknesses) aspects of both projects.
- 3) When they shared the strengths and weaknesses of both projects, 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 role in rural development. After each list was completed, the participants voted for their priorities:
 - items that are voted by 10 people:
 - It’s important to have coordination between state institutions at superior level and the community level.
 - Emphasize communities’ priorities.
 - items voted by 7 people:
 - The administrative role is to facilitate the NGO’s programs, mobilizing the villagers to participate on the projects, explaining its advantages.
 - items voted by 6 people:
 - The administration has to accompany the projects’ execution in order to be ready to support on conflicts resolution
 - The administration must orientate the NGO’s according to projects’ characteristics implemented in the area.

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 mechanisms to continue the projects” should be considered as one of the most important roles of local administration.

Part III

Master Plan and a Model Approach

21. Process of Formulating Village Development Master Plan

21.1 Process of Formulating Village Development Master Plan

Village development master plan was formulated through the following four steps:

- 1) The identification of problems and needs
- 2) The translation of problems and needs into basic development objectives
- 3) The designing of the appropriate strategies to achieve the basic development objectives
- 4) The planning of the realistic action programs to implement the above-designed strategies

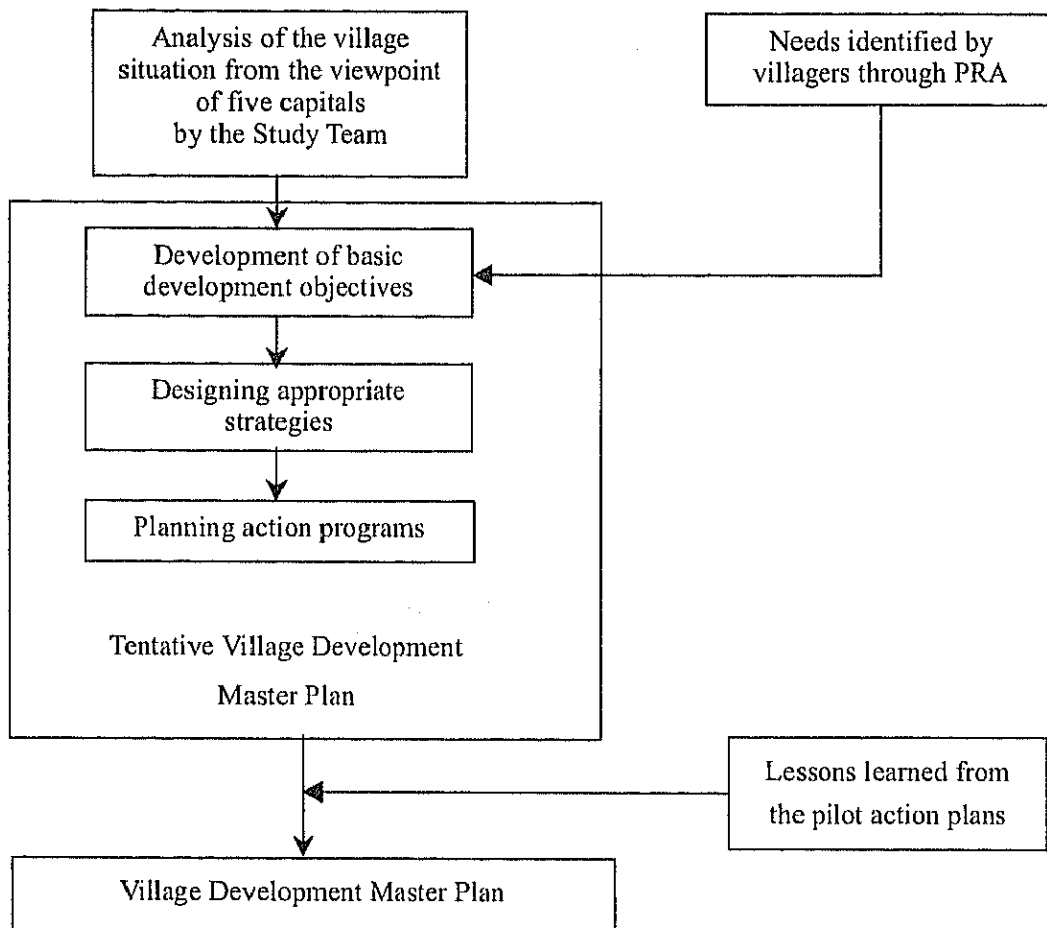
Identification of problems and needs was conducted in two ways in the Study: 1) through PRA (Participatory Rural Appraisal) conducted in mid-September to mid-October 2000 in the Study Area, and 2) through the analysis of five capitals (natural capital, social capital, human capital, physical capital, and financial capital) in the Study Area. In PRA, the villagers were involved in identifying the most urgent problems and needs for them. The analysis of five capitals was conducted as a more systematic and analytical exercise by the Study Team. The results of these two methods were consolidated into one result, which means that the needs and problems were translated into the common set of development objectives.

After identifying the development objectives, the appropriate strategies to achieve each of the development objectives were developed with keeping the villagers' capacity as well as the government's capacity in mind, and the action programs were designed in line of these strategies. These development goals, strategies and action programs are the contents of the village development master plan.

After developing the tentative village development master plan in December 2000, the pilot action plans were implemented by the villagers from May 2001 to February 2002. The lessons learned from the implementation of the pilot action plans were integrated into the final master plan, particularly by making the action programs more realistic ones in terms of the implementation capacity of the villagers and the government.

Figure 21.1 summarizes the process of how the village development master plan in the Study Area was formulated.

Figure 21.1 Process of Formulating Village Development Plan in the Study Area



21.2 Basic Development Objectives Based on Five Capitals

It is very useful to analyze the present conditions of the villages by using five capitals, namely natural capital, social capital, human capital, physical capital, and financial capital defined as follows:

- *Natural capital*: referring to the land, water and biological resources that are utilized by the local people to generate the means of survival. Sometimes named as environmental resources.
- *Social capital*: referring to reciprocity within communities and between households based on trust deriving from social ties.
- *Human capital*: referring to the labor available to the household; its education, skills, and health.
- *Physical capital*: referring to the physical means or infrastructure for economic production (such as buildings, irrigation canals, roads, tools, machines) and for human resources (such as schools, health centers).
- *Financial capital*: referring to stocks and credit of money to which the household has access.

The current situation of five capitals in the Study Area was analyzed by JICA Study Team as shown in Table 21.1, and problems and strategies to improve rural livelihood were identified mainly from the results of the first fieldwork (from July to December 2000) in Mozambique. The damage caused by the floods in February 2000

was considered as the first priority need, which should be repaired before the next rainy season. From a natural capital's point of views, there is a high agricultural potential in the fertile low land along the Incomati River.

Table 21.1 Strength, Weakness, Opportunity and Threat (SWOT) regarding Five Capitals

	Natural Capital	Social Capital	Human Capital	Physical Capital	Financial Capital
Strength	<ul style="list-style-type: none"> • good condition for agriculture 	<ul style="list-style-type: none"> • 21 village organizations • work sharing • women's network 	<ul style="list-style-type: none"> • economically active women 	<ul style="list-style-type: none"> • existing dikes and drainage • schools • health centers 	<ul style="list-style-type: none"> • banana and sugarcane as cash crops
Weakness	<ul style="list-style-type: none"> • flood • low soil fertility in high land • few livestock • few firewood 	<ul style="list-style-type: none"> • less traditional institutions • no women's groups • weak management of village organizations 	<ul style="list-style-type: none"> • high adult illiteracy • few adult men • health problems 	<ul style="list-style-type: none"> • poor roads • broken dikes by flood 	<ul style="list-style-type: none"> • few income generation activities • weak financial network
Opportunity	<ul style="list-style-type: none"> • high potential for agriculture 	<ul style="list-style-type: none"> • support for capacity building of village organizations 	<ul style="list-style-type: none"> • support for adult education 	<ul style="list-style-type: none"> • support for dike rehabilitation and cleaning irrigation channels 	<ul style="list-style-type: none"> • introduction of micro credit and saving club
Threat	<ul style="list-style-type: none"> • heavy flood • erratic rainfall 	<ul style="list-style-type: none"> • mismanagement of village organizations 	<ul style="list-style-type: none"> • migration • diseases 	<ul style="list-style-type: none"> • lack of maintenance 	<ul style="list-style-type: none"> • economic crisis

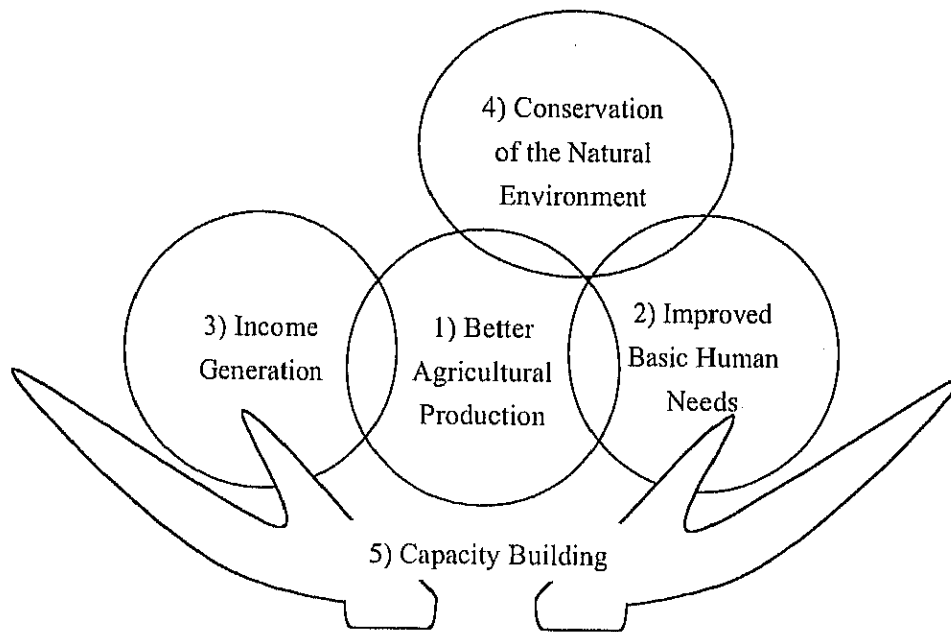
21.3 Village Development Master Plan

By asking "How to solve these weaknesses?," the various weaknesses of five capitals identified in Table 21.1 were translated into the following five basic development objectives:

- 1) Stable and better agricultural and livestock production
- 2) Better satisfaction of basic human needs (water, education, health, road, electricity, etc.)
- 3) Income generation and self-employment creation
- 4) Conservation of the natural environment (especially in high land)
- 5) Capacity building of village organizations and the local government

The result of the needs assessment by the villagers themselves in PRA basically coincided with the above five basic development objectives, so these five basic development objectives were used as the basis for the village development master plan in the Study Area.

Figure 21.2 Relationship among Five Development Objectives



The relationship among these five development objectives is illustrated in Figure 21.2, which shows capacity building component is supporting all other components. The need for capacity building of the village organizations and local administration was never mentioned during the PRA session, but it is an essential component in order to ensure the sustainability of village development and spread the successful model of participatory village development to other areas. The village organizations suffer from poor management, and local administration suffers from shortage of manpower and finance, so their capacity building needs to be implemented step by step by starting from the identification of problems through self-assessment of the organization, which can be one of the most effective measures for the capacity building of the organizations under the difficult circumstances. It is important to keep balance among agricultural production, basic human needs, income generation, and conservation of the natural environment.

The village development master plan is divided into three periods: that is, a short-term (from 2003 to 2005), a mid-term (from 2006 to 2010), and a long-term (from 2011 to 2020). Table 21.2 shows the development objectives in short-term, mid-term and long-term in each of sub-sectors classified under the five development objectives. In order to achieve these objectives in a short term, mid term and long term under each sub-sector, appropriate action programs are designed.

As explained in Chapter 11, the pilot action plans were proposed by the village organizations after explaining them about the tentative village development master plan, so the selected pilot action plans are closely related with the village development master plan as shown in Table 21.3. It can be said that the pilot action plans were selected and implemented as the first actions to achieve the short-term development objectives identified in the village development master plan.

Table 21.2 Short-, Mid- and Long-Term Objectives in Village Development Master Plan

Basic Development Objective	Sub-sectors	Short-Term (2003-2005)	Mid-Term (2006-2010)	Long-Term (2011-2020)
1) Stable and better agricultural and livestock production	1-1) Agriculture	<ul style="list-style-type: none"> to achieve food self-sufficiency (food security) 	<ul style="list-style-type: none"> to improve the agricultural production and productivity 	<ul style="list-style-type: none"> to establish strategic production and marketing system
	1-2) Agricultural Infrastructure	<ul style="list-style-type: none"> to protect against the flood and improve on-farm water management 	<ul style="list-style-type: none"> to continue to protect against the flood and improve on-farm water management 	<ul style="list-style-type: none"> to improve the canal and farm roads
	1-3) Livestock	<ul style="list-style-type: none"> to improve agricultural production through animal traction 	<ul style="list-style-type: none"> to increase income through better livestock production 	<ul style="list-style-type: none"> to further increase income through better livestock production
2) Better satisfaction of basic human needs	2-1) Education	<ul style="list-style-type: none"> to improve literacy rate especially among women 	<ul style="list-style-type: none"> to improve the access to the upper primary and secondary education 	<ul style="list-style-type: none"> to improve the access to the higher education
	2-2) Health	<ul style="list-style-type: none"> to improve the health of mothers and children 	<ul style="list-style-type: none"> to improve the quality of health services 	<ul style="list-style-type: none"> to establish sustainable and affordable health service for all villagers
	2-3) Water	<ul style="list-style-type: none"> to sustain water supply pilot action plan 	<ul style="list-style-type: none"> to rehabilitate or construct at least 10 water points 	<ul style="list-style-type: none"> to rehabilitate or construct at least 10 water points
	2-4) Road	<ul style="list-style-type: none"> to conduct a feasibility study for road improvement and implement two pilot activities 	<ul style="list-style-type: none"> to continue road improvement and maintenance 	<ul style="list-style-type: none"> to continue road improvement and maintenance
	2-5) Electricity	<ul style="list-style-type: none"> to conduct a feasibility study for rural electrification 	<ul style="list-style-type: none"> to implement small scale rural electrification pilot projects 	<ul style="list-style-type: none"> to scale up rural electrification projects
	2-6) Women	<ul style="list-style-type: none"> to reduce women's work burden 	<ul style="list-style-type: none"> to improve women's economic status 	<ul style="list-style-type: none"> to improve women's political status
3) Income generation and self-employment creation		<ul style="list-style-type: none"> to continue successful income generation pilot action plans 	<ul style="list-style-type: none"> to expand income generation and self-employment activities 	<ul style="list-style-type: none"> to disseminate experiences of income generation & self-employment creation
4) Conservation of the natural resource and environment		<ul style="list-style-type: none"> to plant fruit trees in high lands 	<ul style="list-style-type: none"> to cover the high lands with green 	<ul style="list-style-type: none"> to establish sustainable production system in high lands
5) Capacity building	5-1) Village Organizations	<ul style="list-style-type: none"> to continue village organization development pilot action plan 	<ul style="list-style-type: none"> to diversify activities of village organizations 	<ul style="list-style-type: none"> to disseminate experiences of village organization development
	5-2) Local Administration	<ul style="list-style-type: none"> to implement Village Development Program with Local Administration Component 	<ul style="list-style-type: none"> to improve District-level planning capacity 	<ul style="list-style-type: none"> to support National Public Servants Training System (SIFAP)

Table 21.3 Relationship between Village Development Master Plan and Pilot Action Plans

Development Objective	Short-Term Objective	Related Pilot Action Plans	Objective of Pilot Action Plan
(1) Better agricultural production	<ul style="list-style-type: none"> • Food self-sufficiency 	2) Animal Traction Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To expand cultivated land through the provision of traction animals • To facilitate marketing activities through the provision of ox-cart as transportation means • To improve farm economy through increasing agricultural production
		3) Low External Input Agriculture Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To stabilize agricultural production through crop diversification • To improve productivity through low external input farming • To improve farm economy through transaction of cash crops, especially vegetables
(2) Improved basic human needs	<ul style="list-style-type: none"> • Less illiteracy among women • Improvement of health & hygienic condition • Better access to safe water • Mitigation of women's burden of domestic work 	4) Rural Water Supply and Water User's Group Capacity Building Program (Phase 1 & 2)	<ul style="list-style-type: none"> • More access to safe water • Sustainable use of safe water • To improve health and hygienic condition through hygienic education
		5) Improved Cooking Stove Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To mitigate women's burden of domestic work • To prevent water-related diseases through a campaign of usage of boiled water
(3) Income generation	<ul style="list-style-type: none"> • Promotion of self-help micro projects 	5) Improved Cooking Stove Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To generate income for women through making and selling cooking stove to others
		6) Chicken Raising Program (Phase 2)	<ul style="list-style-type: none"> • To generate income through sustainable chicken raising
		7) Food Shop Management Program for Widows and Single Mothers (Phase 2)	<ul style="list-style-type: none"> • To generate income through sustainable food shop management • To generate employment for widows and single mothers
		8) Sewing Training Program for Youth (Phase 2)	<ul style="list-style-type: none"> • To generate income and self-employment for the youth through sewing shop management
(4) Conservation of the natural environment	<ul style="list-style-type: none"> • Conservation of the vegetation in the highland 	5) Improved Cooking Stove Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To conserve the vegetation in the highland through reducing the amount of firewood for cooking
		3) Low External Input Agriculture Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To accelerate afforestation through planting fruit trees in the highland
(5) Capacity building	<ul style="list-style-type: none"> • Capacity building of the village organization • Capacity building of local administration 	1) Village Organization Development Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To enhance the management and implementation capacity of the village organization
		9) Local Administrative Capacity Building Program (Phase 1 & 2)	<ul style="list-style-type: none"> • To enhance the management and implementation capacity of local administration
		10) All pilot action plans (Phase 1 & 2)	<ul style="list-style-type: none"> • To enhance the management capacity of village organizations through the implementation of pilot action plans

22. Major Lessons Learned from Pilot Action Plans

22.1 Strengths and Limits of the Pilot Action Plans

Table 22.1 summarizes the target groups and the major activities of each pilot action plan. The objectives of implementing the pilot action plans are not only to meet the urgent needs for the local population by implementing some of the priority action programs identified in the village development master plan, but also to test the appropriateness and effectiveness of the basic approaches of this Study which described in Chapter 1, as well as experiment the participatory implementation method of each pilot action plan.

It is important to analyze the strengths and limits of the pilot action plans in order to identify the major lessons from pilot action plans. As mentioned earlier, there are two types of the lessons, that is, lessons for the village development master plan in the Study Area, and lessons for the action programs, particularly on the participatory implementation methods of them. Both lessons can contribute to the formulation of the model for self-reliant village development in Mozambique. The strengths and limits of the pilot action plans were identified through direct observation, monitoring, and participatory evaluation, and the results are summarized in Table 22.2, which are in fact the lessons learned from the pilot action plans for Village Development Master Plan.

22.2 Major Lessons Learned for the Implementation Methods of Action Programs

As for the implementation methods of the action programs, the following five methods were identified as effective methods for the organizational capacity building of village organizations:

1) Competition-based selection of the proposals for the pilot action plan

All village organizations were given the opportunity to participate in the training workshops and prepare their own proposal for the pilot action plan, and this process facilitated the willing organizations to work hard to prepare their proposal and improve their planning capacity. There was some limitation: most organizations could not estimate the cost for their proposal, although the JICA Study Team provided some cost information.

2) Cost sharing

Requirement of cost sharing for the pilot action plans made the villagers to propose only what they really need, and cost sharing is considered as testifying their strong will to implement and maintain the pilot action plans. Percentage of cost sharing was varied by the nature of the pilot action plans, but it generally ranged from 5% (water project) or 10% (animal traction or agriculture projects) to 50% (income generation projects). It is important to understand how the villagers with different economic status are actually sharing the cost, which may reveal the voluntary help to the poorer members by the villagers.

Table 22.1 Target Groups and Major Activities of the Pilot Action Plans (1/2)

Pilot Action Plans	Target Groups and Budget	Major Activities
1. Village Organizations Development Program (Phase 1 &2)	<p>All village organizations in Munguine, pateque and Maluana (21 member organizations in Zonal Union of Associations and Co-operatives in Munguine)</p> <p>Total No. of Beneficiaries: 129 Budget: US\$ 25,400-</p>	<ul style="list-style-type: none"> • Village Organization Development Seminar (August 2001, 2-3 days x 3 places + 1 day common, 67 participants in total, collaboration with Kulima) • Agriculture Management Seminar (October – November 2001, 4 days x 2 places, 27 participants in total, collaboration with Kulima) • Small Business Management Seminar (November 2001, 3 days x 2 places, 27 participants, collaboration with Kulima) • Study Tour to Cumbene (October 2001, 8 participants, collaboration with ActionAid UK)
2. Animal Traction Program (Phase 1&2)	<p><u>Phase 1</u></p> <p>(1) Association of Ex-Miners (18 members) (2) Co-operative Maguiguana (94 members) (3) Association Pateque Block 1 (14 members)</p> <p><u>Phase 2 (in Pateque and Maluana)</u></p> <p>(4) Association Pateque Block 2 (104 members) (5) Association Pateque Block 3 (97 members) (6) Co-operative Maluana (100 members)</p> <p>Total No. of Beneficiaries: 427 Budget: US\$ 18,700-</p>	<ul style="list-style-type: none"> • Provision of Animal Traction Sets through Cost Sharing (1 set = 2 oxen, 1 plough, 1 harrow, 1 ox-cart) (Phase 1: June 2001, Phase 2: September 2001) • Monitoring how the village organizations were utilizing the animal traction set (how to charge and collect the fee from users, fairness in deciding the users, transparency in accounting, capacity to solve the problems when they occurred, etc.) (ATAP veterinarian collaborated to keep the oxen healthy.)
3. Low External Input Agriculture Program (Phase 1&2)	<p><u>Phase 1 (Low Land, Mainly Vegetables and Crops)</u></p> <p>(1) Association of Ex-Miners (2) Co-operative Maguiguana (3) Association Pateque Block 1</p> <p><u>Phase 2 (High Land, mainly Fruit Trees)</u></p> <p>(4) Association Pateque Block 1 (5) Co-operative Maluana</p> <p>Total No. of Beneficiaries: 427 Budget: US\$ 20,300-</p>	<ul style="list-style-type: none"> • Establishment and Management of Model Farms (Low Land : 0.15-0.30 ha x 3 Farms, High Land: 0.50-1.00 ha x 2 Farms, Using the Communal Lands where villagers voluntarily work 1-2 days per week) • Natural Farming Seminars by South African Permaculturist (July 2001, 2 days x 3 places; February-March 2002, 2 days x 5 places) • Study Tour to Maputo Central Market and Vegetable Farms near Maputo City (November 2001, 16 participants)
4. Rural Water Supply and Water User's Group Capacity Building Program (Phase 1&2)	<p>(1) Maluana Bairro 1 No. of users of the borehole: 73 households</p> <p>(2) Munguine Bairro 2 No. of users of the borehole: 116 households</p> <p>Total No. of Beneficiaries: 189 households Budget: US\$ 46,500-</p>	<ul style="list-style-type: none"> • Digging 2 Boreholes through Cost Sharing (September – October 2001) • Training of Water Group members (5 in Maluana, 6 in Munguine), Maintenance and Repair Groups (6 in Maluana, 8 in Munguine), Hygiene Education Promoters (8 in Maluana, 7 in Munguine, mainly female) • Hygiene Education in Schools and at Home • Charging Monthly Water Fee • Monitoring Maintenance Situation

Table 22.1 Target Groups and Major Activities of the Pilot Action Plans (2/2)

Pilot Action Plans	Target Groups and Cost	Major Activities
5. Improved Cooking Stove Program (Phase 1&2)	<p>(1) Women in Munguine (through Zonal Union of Associations and Co-operatives in Munguine)</p> <p>(2) Women in Maluana (through Co-operative Maluan)</p> <p>(3) Women in Pateque (through Association Pateque Block 1)</p> <p>Total No. of Beneficiaries: 77 Budget: US\$ 5,600-</p>	<ul style="list-style-type: none"> • Survey of Existing Cooking Stoves (October 2001, 1 day x 3 places) • Improved Cooking Stove Introductory Seminar (November 2001, 2 days x 3 places, 39 participants in total, collaboration with Tanzanian staff in UNDP) • Improved Cooking Stove Manufacturing Seminar (November 2001, 3 days x 2 places, 38 participants in total, collaboration with Tanzanian staff in UNDP) • Manufacturing and Dissemination of Improved Cooking Stove by Seminar Participants and Monitoring
6. Chicken Raising Program (Phase2)	<p>Association Cubomo (2 poultry groups were organized, and from each group, 10 core members were trained.)</p> <p>Total No. of Beneficiaries: 116 Budget: US\$ 6,200-</p>	<ul style="list-style-type: none"> • Chicken Raising Seminar (October – November 2001, 1 day common + 4 days per group, 20 participants in total, collaboration with University Eduardo Mondlane) • Implementation of First Round of Chicken Raising through Cost Sharing (November – December 2001, construction of 2 chicken houses, 100 chicks per group which can grow to enough size for sale in about 40 days) • Implementation of Second and Third Round of Chicken Raising using the Sales of First Round (December 2001 – March 2002)
7. Food Shop Management Program for Widows and Single Mothers (Phase 2)	<p>Association of Ex-Miners (8 single mothers and widows in particular)</p> <p>Total No. of Beneficiaries: 18 Budget: US\$ 4,900-</p>	<ul style="list-style-type: none"> • Construction of Food Shop near Munguine Railway Station through Cost Sharing (November 2001) • Small Shop Management Seminar (December 2001, 5 days, 11 participants, collaboration with Ministry of Labor's training and Consulting Unit, CEFÉ) • Selection of Employees for Food Shop (mainly single mothers and widows) • Operation and Management of Food Shop (from February 2002)
8. Sewing Training Program for Youth (Phase 2)	<p>Zonal Union of Associations and Co-operatives in Munguine (unemployed youth in particular)</p> <p>Total No. of Beneficiaries: 4 Budget: US\$ 160-</p>	<ul style="list-style-type: none"> • Repair of 3 sewing machines donated by NGO and purchase of cloths (November 2001) • Operation of Sewing Shop by Local Tailor (from November 2001) • Sewing Training of Youth by Local Tailor (February – March 2002, 15 days, 3 participants)
9. Local Administrative Capacity Building Program (Phase 1&2)	<p>Staff of Manhiça District Administration including Administrative Post of Maluana</p> <p>Total No. of Beneficiaries: 154 Budget: US\$ 5,100-</p>	<ul style="list-style-type: none"> • First Local Administration Workshop (August 2001, 1 day, 35 participants) • Second Local Administration Workshop (November 2001, 1 day x 2 places, 40 officials and 30 village leaders) • Third Local Administration Workshop (February 2002, 1 day, 25 participants, collaboration with ActionAid UK) • Workshop for IMAP trainers (March 2002, 1 day, 24 participants)

Table 22.2 Strengths and Limits of the Pilot Action Plans

Pilot Action Plans	Strengths	Limits
1. Village Organizations Development Program (Phase 1 &2)	<ul style="list-style-type: none"> • Flexible workshop design based on the villagers' needs and capacity. • Use of local facilitators and lecturers from local NGO. • Emphasis on practical experience on organizational management through implementation of pilot action plans 	<ul style="list-style-type: none"> • Limited number of participants from village organizations (mainly only leaders attended). • For some topics, mainly lectures were given, which were less practical to villagers.
2. Animal Traction Program (Phase 1&2)	<ul style="list-style-type: none"> • Increased cultivated land. • Utilizing elders' traditional knowledge for animal traction. • Managing animal traction was a good practical experience to improve organizational capacity 	<ul style="list-style-type: none"> • Limited number of village organizations participated. • In some organizations, leaders monopolized the use of oxen. • Strong demand for female cows to reproduce.
3. Low External Input Agriculture Program (Phase 1&2)	<ul style="list-style-type: none"> • Positive effects of some low external input techniques which use local resources without the cost. • Use of communal land for demonstration farms and use of communal work system • Income generation through vegetable growing 	<ul style="list-style-type: none"> • More time needed to show the effectiveness of organic agriculture • Difficulty to transfer agricultural techniques and knowledge to a large number of villagers through demonstration farms.
4. Rural Water Supply and Water User's Group Capacity Building Program (Phase 1&2)	<ul style="list-style-type: none"> • Responding to the villagers' strong need for new boreholes. • Practical training for water committees, maintenance groups, and hygiene education volunteers. • Community decision to share the initial cost of the borehole and collect monthly water fee. 	<ul style="list-style-type: none"> • High cost for digging a borehole. • Difficulty to collect water fee from the outsiders who live outside of the community but come to the borehole. • Difficulty to keep collecting the monthly water fee when there is no breakdown of the well.
5. Improved Cooking Stove Program (Phase 1&2)	<ul style="list-style-type: none"> • Effective demonstration on how to make improved cooking stoves. • Utilization of local material only with simple technology. • Income generation by constructing the stove for others. 	<ul style="list-style-type: none"> • Limited number of participants. • Weekly maintenance of the stove is necessary, although it is simple. • Need for the ceiling to protect the stove from the rain. • Need to cut the firewood to the appropriate sizes to put in the stove.
6. Chicken Raising Program (Phase2)	<ul style="list-style-type: none"> • Sustainable operation by using profit • Good management due to the strong leadership. • High incentive due to the profit. 	<ul style="list-style-type: none"> • Limited number of participants. • High cost for improved chicks and special feeds (modern technology). • Little use of local resources. • Market for chicken may become more competitive in the future.
7. Food Shop Management Program for Widows and Single Mothers (Phase 2)	<ul style="list-style-type: none"> • Sustainable operation by using profit • Women hired as shop keepers. 	<ul style="list-style-type: none"> • Men dominating in management and accountancy. • High competition with the similar food shops.
8. Sewing Training Program for Youth (Phase 2)	<ul style="list-style-type: none"> • Good operation of a sewing shop. 	<ul style="list-style-type: none"> • Limited number of the youth trained. • Market for sewing in the village may be not big enough.
9. Local Administrative Capacity Building Program (Phase 1&2)	<ul style="list-style-type: none"> • Participatory workshops were effective to motivate local administration staff for better work. 	<ul style="list-style-type: none"> • Limited budget and resources in local administration restrict the work of local administration staff.

3) *Farmer-to-farmer learning through study tours to other villages*

Study tours arranged by JICA Study Team were very effective to motivate the villagers, because ‘seeing is believing’ for villagers. Farmer-to-farmer knowledge and experience exchange was found a very effective way for learning new techniques and ideas such as agricultural techniques and the concept of self-reliant village development. Unfortunately the study tours were conducted in the latter part of the pilot action plans, but if it were conducted in the beginning of the pilot action plans, it would be more impacts on the villagers’ attitude and behaviors.

4) Importance of the monitoring

Since all pilot action plans aimed at improving the implementation capacity of the village organizations, the monitoring of the pilot action plans is essential to understand the process of the organizational development. JICA Study Team requested village organizations to keep records of discussions in the meetings, sometimes directly participated in the decision-making process in order to observe how the villagers reach to the consensus, and requested some village facilitators to write monthly monitoring reports. It is also important to feedback what learned from the monitoring to the villagers and share the lessons learned from the monitoring with all villagers.

5) Importance of flexibility

It is very difficult to clearly identify target groups and the contents of the pilot action plans in advance. For example, it was expected that drinking water drilled from borehole at Munguine is for the villagers at Munguine Bairro 2, but it was turned out that unexpectedly the neighboring villagers came to the borehole and used the water without paying monthly water charge. After discussions between the original beneficiaries and the neighboring villagers, the neighboring villagers agreed to pay water charge. The lesson learned from this case is that it is important to respond to the unexpected problems quickly, and the solution can be developed through participatory discussions and democratic decision-making process among the stakeholders.

22.3 Major Lessons Learned for Village Development Master Plan

From the strengths and limits of the pilot action plans in Table 22.2, the following lessons for the village development master plan were learned:

- Importance of integrating various action programs for the common purpose of capacity building of villagers
- Effective capacity development through “learning by doing,” that is, by combining the training seminars and workshops with the actual implementation of the projects
- Flexible design of the programs in order to respond to the changing needs and conditions in the village
- Importance of using simple and low cost technologies which villagers can afford
- Importance of utilizing local resources and traditional knowledge
- Promoting self-reliant village development by soliciting proposals from villagers, introducing cost sharing, and facilitating farmer-to-farmer learning through study tours
- Emphasis on the learning process rather than the short-term outcome of the projects

23. Village Development Master Plan for the Study Area

After deciding the short-, mid- and long-term development objectives for each sub-sector of the five basic development objectives as shown in Table 21.2, the short-, mid- and long-term action programs under each sub-sector were designed and the details of each action programs are described in the following sections. The implementation schedule of all action programs is shown in Table 23.1.

Based on the result of PRA (Participatory Rural Appraisal), the Study Area can be divided into two zones: the low land and the high land. The characteristics of each zone are described in Table 23.2. Table 23.3 indicates where is the target area for each of the action programs: the low land or/and the high land. The action programs which particularly target the high land are indicated by the double circles, while the other programs with single circles mean those implemented in the high lands. As shown in Table 23.3, the approach towards the high land is mainly to conserve the natural resource and environment.

Table 23.3 also indicates who are the target groups for each action program. The target groups are classified into three groups: above the middle class, poor, and very poor. The definitions of these categories are given in Table A.2.5.2-4 in Annex 2.5, and they are based on the local people's perceptions which were identified in Participatory Wealth Ranking exercise during Baseline Survey. The action programs which particularly target the very poor are indicated by the double circles in Table 23.3, which illustrates the major approach to the very poor people is through social development programs such as education and health.

Table 23.1 Implementation Schedule of Action Programs in Village Development Master Plan

Sector	Sub-sector	Action Program	Implementation Schedule		
			Short-term (2003-2005)	Mid-term (2006-2010)	Long-term (2011-2020)
1. Agriculture and Livestock	1.1 Agriculture	(1) Ecological Agriculture and Livestock Production Extension Program	○		
		(2) Group Marketing Program		○	
		(3) Agri-product Processing Program		○	
		(4) Strategic Marketing Promotion Program			○
	1.2 Agricultural Infrastructure	(1) Flood Protection Dike Program	○	○	
		(2) On-farm Water Management Program	○	○	
		(3) Canal Improvement Program	○	○	○
	1.3 Livestock	(1) Animal Traction Program	○		
		(2) Chicken Raising Program	○	○	
		(3) Livestock Revolving Program	○	○	
		(4) Intensive Livestock Development Program			○
	2. Basic Human Needs	2.1 Education	(1) Adult Literacy Program for Women	○	
(2) Educational Awareness Campaign			○		
(3) Primary School Teachers and Principals Capacity Building Program			○		
(4) Upper Primary and Secondary School Construction Program				○	
(5) Secondary School Teachers and Principals Capacity Building Program				○	
(6) Scholarship Revolving Fund Program					○
2.2 Health		(1) Nutrition Education Program	○		
		(2) Health Education and Immunization Program	○		
		(3) Health Personnel Capacity Building Program		○	
		(4) Traditional Health Practitioners Capacity Building Program		○	
		(5) Health Center Facility Expansion and Upgrading Program			○
		(6) Community Health Financing and Insurance Program			○
2.3 Water		(1) Demand-Responsive Rural Water Supply Program	○	○	○
2.4 Road		(1) Rural Road Program	○	○	○
2.5 Electricity		(1) Rural Electrification Program	○	○	○
2.6 Women		(1) Improved Cooking Stove Program	○		
		(2) Capacity Building Program for Rural Women		○	
		(3) Women Leadership Development Program			○
3. Income Generation and Self-Employment Creation		(1) Successful Income Generation Projects Expansion Program	○		
		(2) Community Development Micro Finance Program	○		
		(3) Scaling Up Income Generation and Self-Employment Program		○	
		(4) Community-Financed Income Generation and Self-Employment Program		○	
		(5) Village Self-Development Training School Program			○
4. Natural Resource and Environment		(1) High Land Fruit Tree Planting Program	○		
		(2) High Land Green Covering Program		○	
		(3) Integrated Agro-Pastoral Production Program			○
5. Capacity Building	5.1 Village Organizations	(1) Village Organization Capacity Building Program	○		
		(2) Model Village Organization and Social Equity Program		○	
		(3) Village Organization Capacity Development Dissemination Program			○
	5.2 Local Administration	(1) Village Development Program with Local Administration Component	○	○	○
		(2) District-Level Planning Capacity Building Program	○	○	○
		(3) National Public Servants Training System (SIFAP) Support Program	○	○	○

Table 23.2 Zoning of the Study Area Based on the Result of PRA

Zone	Locations	Major Characteristics	Major Development Needs
Low Land (along Incomati River)	Munguine Bairro 1, 2, 3 Xerindza	<ul style="list-style-type: none"> ● Population: around 7,500 ● History: Many residents came from inland area during the civil war. ● Farm: fertile low land ● Agricultural Infrastructure: comparably well developed ● 13 Village Organizations ● Good access to water ● Poor access to EN1 road ● Good access to railway ● 1 Health Post ● 1 Upper Primary, 2 Lower Primary and 2 Community Schools 	<ul style="list-style-type: none"> ● Agriculture ● Livestock ● Income generation ● Road ● Literacy education for women ● Capacity building of village organizations
	Munguine Bairro 4, 5 Pateque	<ul style="list-style-type: none"> ● Population: around 3,000 ● History: Many residents came from inland area during the civil war. ● Farm: fertile low land ● Agricultural Infrastructure: comparably less developed ● 6 Village Organizations ● Poor access to water ● Poor access to EN1 road ● Good access to railway ● 2 First Aid Posts ● 1 Lower Primary and 1 Community School 	<ul style="list-style-type: none"> ● Agricultural Infrastructure ● Water ● Health ● Income generation ● Road ● Literacy education for women ● Primary school ● Capacity building of village organizations
High Land (along EN 1)	Maluana Bairro 1, 2, 3 Musutho	<ul style="list-style-type: none"> ● Population: around 2,500 ● History: Many residents went near River Incomati during the civil war and came back after the war. ● Farm: dry high land ● Agricultural Infrastructure: almost none ● 2 Village Organizations ● Poor access to water ● Good access to EN1 road ● Poor access to railway ● 1 Health Center with Maternity Wards ● 2 Lower Primary Schools 	<ul style="list-style-type: none"> ● Income generation ● Dry land agriculture ● Afforestation ● Mobilization of the villagers into village organizations

Table 23.3 Target Area and Groups in Action Programs in Village Development Master Plan

Sector	Sub-sector	Action Program	Target Area		Main Target Groups			
			Lowland	Highland	Above Middle Class	Poor	Very Poor	
1. Agriculture and Livestock	1.1 Agriculture	(1) Ecological Agriculture and Livestock Production Extension Program	○	⊗	○	○		
		(2) Group Marketing Program	○	○	○	○		
		(3) Agri-product Processing Program	○	○	○	○		
		(4) Strategic Marketing Promotion Program	○		○	○		
	1.2 Agricultural Infrastructure	(1) Flood Protection Dike Program	○		○	○		
		(2) On-farm Water Management Program	○		○	○		
		(3) Canal Improvement Program	○		○	○		
	1.3 Livestock	(1) Animal Traction Program	○	○	○	○		
		(2) Chicken Raising Program		○	○	○		
		(3) Livestock Revolving Program		○	○	○		
		(4) Intensive Livestock Development Program		○	○	○		
	2. Basic Human Needs	2.1 Education	(1) Adult Literacy Program for Women		○		○	⊗
(2) Educational Awareness Campaign				○		○	⊗	
(3) Primary School Teachers and Principals Capacity Building Program				○		○	○	
(4) Upper Primary and Secondary School Construction Program				○	○	○	○	
(5) Secondary School Teachers and Principals Capacity Building Program				○	○	○	○	
(6) Scholarship Revolving Fund Program				○	○	○	○	
2.2 Health		(1) Nutrition Education Program		○		○	⊗	
		(2) Health Education and Immunization Program		○		○	⊗	
		(3) Health Personnel Capacity Building Program		○	○	○	○	
		(4) Traditional Health Practitioners Capacity Building Program		○		○	⊗	
		(5) Health Center Facility Expansion and Upgrading Program		○	○	○	○	
		(6) Community Health Financing and Insurance Program		○	○	○	⊗	
2.3 Water		(1) Demand-Responsive Rural Water Supply Program		○	○	○	○	
2.4 Road		(1) Rural Road Program		○	○	○	○	
2.5 Electricity		(1) Rural Electrification Program		○	○	○		
2.6 Women		(1) Improved Cooking Stove Programs		⊗	○	○	⊗	
		(2) Capacity Building Program for Rural Women		○	○	○	⊗	
		(3) Women Leadership Development Program		○	○	○	⊗	
3. Income Generation and Self-Employment Creation			(1) Successful Income Generation Projects Expansion Program		○	○	○	○
			(2) Community Development Micro Finance Program		○	○	○	⊗
			(3) Scaling Up Income Generation and Self-Employment Program		○	○	○	○
	(4) Community-Financed Income Generation and Self-Employment Program			○	○	○	○	
	(5) Village Self-Development Training School Program			○	○	○	○	
4. Natural Resource and Environment		(1) High Land Fruit Tree Planting Program		⊗	○	○	○	
		(2) High Land Green Covering Program		⊗	○	○	○	
		(3) Integrated Agro-Pastoral Production Program		⊗	○	○	○	
5. Capacity Building	5.1 Village Organizations	(1) Village Organization Capacity Building Program		○	○	○	○	
		(2) Model Village Organization and Social Equity Program		○	○	○	⊗	
		(3) Village Organization Capacity Development Dissemination Program		○	○	○	○	
	5.2 Local Administration	(1) Village Development Program with Local Administration Component						
		(2) District-Level Planning Capacity Building Program						
		(3) National Public Servants Training System (SIFAP) Support Program						

23.1 Agriculture and Livestock

23.1.1 Agriculture

Since agriculture is the most important economic activity in the Study Area, increase of agricultural productivity, which leads to improve farmers' livelihood, is given the first priority in the master plan.

Items	(1) Short-term Plan (2003-2005)	(2) Mid-term Plan (2006-2010)	(3) Long-term Plan (2011-2020)
a) Development Objectives	Food security in the Study Area should be achieved to maintain subsistence farming by increasing production of staple food crops through dissemination of appropriate practice and skills.	Secure livelihood will be established through improving production and productivity furthermore that contributes to generating income source.	Strategic production and marketing system will be established in order to maximize agricultural income and to meet food demand that corresponds to population increase in and around the Study Area.
b) Development Strategies	<ul style="list-style-type: none"> ● Low-input sustainable farming which requires few farm input such as inorganic fertilizer and chemical will be promoted in consideration of the topographic conditions in the Study Area ● Production and productivity of each crop will be increased by five percent on average. ● Usual transaction of banana and sugarcane should be stabilized. 	<ul style="list-style-type: none"> ● Area of cultivated fields in the lowland will be increased up to almost 80% of land by using of draft animal or introduction of labour saving practice such as zero tillage farming. ● Efforts to improve agricultural environment in the highland will be made continuously through planting fruit trees and useful tree crops. ● Surplus of crops derived from expanding cultivated field and improved productivity is transacted in the local market through village organizations. 	<ul style="list-style-type: none"> ● Quality of typical crops will be also improved in order to compete with products coming from South Africa and Swaziland. ● Paddy in the lowland will be promoted as a new cash crop. ● Urban periphery agriculture will be built through contract production with particular retailer and consumer, strategic marketing depending on price information in the domestic market.
c) Action Program	<ul style="list-style-type: none"> ● Extension Program for Ecological Agriculture and Livestock Production System 	<ul style="list-style-type: none"> ● Group Marketing Activity Program ● Agri-product Processing Program 	<ul style="list-style-type: none"> ● Strategic Marketing Activity Promotion Program

23.1.2 Agricultural Infrastructure

The agricultural infrastructure development plan has been formulated in due consideration of local traditions and local skills. When an irrigation and drainage system is planned, both economic and financial consideration should be given. The master plan is composed of flood protection project, on-farm water management project, canal improvement project and farm road improvement project as summarized below.

- 1) **Flood Protection Project:** Flood protection is a prerequisite for sustainable agriculture development in the Study area. In addition to the improvement works of the existing dikes of 4.2 kilometers, new construction of flood protection dike with a length of 12.1 kilometers is proposed to protect 670 ha of farmland from flooding.
- 2) **On-farm Water management Project:** With the objective of raising the farmers' awareness of the effect of on-farm water management on crop growth through on-the-site training at their own farm fields as demonstrated during the Study period.
- 3) **Canal Improvement Project:** The objectives of the project are to accelerate the improvement of on-farm water management, to improve drainage in the area, and to deliver the irrigation water to the farm fields. The proposed length of canals to be improved is 45 kilometers.

(1) Short-term Plan (2003-2005)

- 1) **Flood Protection Project:** In this period, the preparatory works will be completed including topographic survey, hydrological survey, geological investigation and soil analysis, feasibility study, detail design, cost estimate, preparation of bid documents, and so on to able to start the construction works in 2006.
- 2) **On-farm Water Management Project:** Preparatory works will be completed in 2003. The program will be implemented for 20 groups of farmers a year, totaling to 200 ha.
- 3) **Canal Improvement Project:** A feasibility study will be conducted in order to investigate appropriate low-cost methods and systems for irrigation in the lowland of the Study Area, so that the local population can easily operate and manage the irrigation systems not only technically, but also financially and institutionally.

(2) Mid-term Plan (2006-2010)

- 1) **Flood Protection Project:** Construction works (6.6 kilometers) will be started in the downstream area for the period of three years from 2006 to 2008. Then, the works will shift to the upstream lowland area for new construction and improvement. The works will be completed in 2010.
- 2) **On-farm Water Management Project:** The project will be implemented for the farmland of 1,500 hectares. In the year 2010 when the flood protection project is completed, the total farmland with this project will be 1,700 hectares.
- 3) **Canal Improvement Project:** In conformity with the progress of the flood protection project, the preparatory works will be started in 2008. The construction will be commenced in 2009.

(3) Long-term Plan (2011-2015)

- 1) **Canal Improvement Project:** The project will be implemented with the period of three years to complete in 2010.

23.1.3 Livestock

Dependence for livestock on keeping its lives of householders is very high rate in rural areas. Livestock in rural area play direct roles to produce foods such as milk, meat and eggs for self-consuming and sale. It has the important functions as live banks, insurance and food security in case of needs, draught and purchasing expensive materials. They are moreover utilized for the purpose as the power for animal traction and transportation, producers of organic fertilizers from its feces, exception of biomass after harvesting.

In recent years, the number and kinds of livestock are increasing although its number were decreased drastically during civil war. Householders and rural areas however have to increase numbers and species of livestock more and more to keep their lives for food security and increasing of incomes.

(1) Short-term Plan (2003-2005)

Short-term objectives for livestock development are as follows:

- 1) To improve agricultural production through animal traction and use of cattle dung as the organic fertilizer
- 2) To create self-employment and income through better agricultural production and livestock raising

In order to achieve the above development objectives, the following strategies are proposed:

- 1) To continue the successful pilot action plans such as Animal Traction Program and Chicken Raising Program
- 2) To reduce the cost for the livestock program by utilizing locally available resources
- 3) To increase the number of the livestock through the revolving scheme

(2) Mid-term Plan (2006-2010)

Mid-term objective for livestock development is as follows:

- 1) To improve the economic status through the increased productions and sales of livestock and livestock products

In order to achieve the above development objectives, the following strategies are proposed:

- 1) To continue and expand the successful programs to the wider population
- 2) To increase the number of livestock through livestock revolving program

(3) Long-term Plan (2011-2020)

Long-term objectives for livestock development are as follows:

- 1) To improve the economic status by selling more livestock products
- 2) To improve the nutritious status by consuming more livestock products

In order to achieve the above development objectives, the following strategy is proposed:

- 1) To expand the sales and consumption of livestock products by intensifying and scaling up the livestock raising

23.2 Basic Human Needs

23.2.1 Education

While the need assessment in PRA identified education as a high priority for the Study Area, education is not tackled in the pilot action plans because educational development such as school construction needs more time than the nine-month period allocated for the pilot action plans. PRA revealed the low status of educational background in the local population is one of the key constraints for village development, because it narrows local people's options for village development and seriously affects people's capacity to think about the sustainable future and collaborate together to realize it. So educational development is a must for long-term development in the Study Area.

(1) Short-term Plan (2003-2005)

A short-term goal for educational development is to improve literacy rate among the villagers, especially among women. Literacy rate in the Study Area is currently around 30% for all adult villagers, but only for about 15% for adult women. Since improving the literacy rate is the foundation for long-term village development, and it needs a long time to have an impact, it is important to start this program as soon as possible.

In order to improve the literacy rate in the Study Area, the following three strategies are proposed:

- to improve the literacy rate among the adult women by organizing adult literacy classes for women using REFLECT methodology
- to improve the literacy rate among the children by reducing the dropouts from the school through the educational awareness campaign for parents
- to improve the educational capacity of the primary school teachers and the management capacity of the primary school principals in order to make primary schools more interesting and useful learning centers for the children

(2) Mid-term Plan (2006-2010)

A mid-term goal for educational development is to improve the access to the second level primary education (EP2 schools for 6th and 7th grade) and the general secondary education (ESG1 schools for 8th to 10th grade) in the Study Area, because there are only one EP2 school and no ESG1 school in the Study Area.

In order to improve the access to the second level primary education and the general secondary education in the Study Area, the following three strategies are proposed:

- to construct a new EP2 school in Pateque area and a new ESG1 school in Munguine area
- to provide practical vocational skill development training for EP2 school graduates in order to promote self-employment among the unemployed youth
- to improve the educational capacity of the secondary school teachers and the management capacity of the secondary school principals in order to make secondary schools more interesting and useful learning centers for the students

(3) Long-term Plan (2011-2020)

A long-term goal for educational development is to improve the access to the higher education for villagers in order to develop the capacity of the village leadership.

In order to improve to the higher education for villagers in the Study Area, the following strategy is proposed:

- to establish a scholarship revolving fund which provides scholarship loans to the villagers who are selected in the village committee due to their past commitment and accomplishment in village development.

23.2.2 Health

Like education, health was also listed as one of the highest priority needs by the villagers in the Study Area during PRA. Local people appealed JICA Study Team the need to upgrade the health center in Munguine and the maternity health center in Maluana, but due to the expensive cost of the medical equipment as well as the need for the professional health personnel to operate it, the medical facility upgrading project was not included in the pilot action plan. In rural Mozambique, when the people become sick, it is still very common for them to go to the traditional healers before going to the health center or the hospital. The maternal and child health care service such as immunization and nutrition education is offered at the health centers, but most of women still give birth at home with the help of the relative or the traditional birth attendant. The most common diseases in the Study Area are malaria and diarrhea, but the preventive measures against malaria and diarrhea are poorly known to the local people and seldom practiced as a result. So there is a high need to educate the local population on health and nutrition issues.

(1) Short-term Plan (2003-2005)

A short-term goal for health development is to improve the health status of the mothers and children through better nutrition, health education and immunization.

In order to achieve the development objective, the following two strategies are proposed:

- to improve the nutrition status of the mothers and children through nutrition education at health centers, schools and home and home garden to grow nutritious vegetables
- to improve the health status of the mothers and children through health education and immunization at health centers and the use of health and hygiene education volunteers

(2) Mid-term Plan (2006-2010)

A mid-term goal for health development is to improve the quality of health services in the Study Area.

In order to improve the quality of health services in the Study Area, the following two strategies are proposed:

- to improve the quality of service at the health centers through the training of health personnel.
- to improve the linkage and collaboration between the western medicine and the traditional medicine through the training of the traditional healers and traditional birth attendants

(3) Long-term Plan (2011-2020)

A long-term goal for health development is to establish sustainable and affordable health service for all villagers.

In order to establish sustainable and affordable health service for all villagers in the Study Area, the following two strategies are proposed:

- to expand and upgrade the facility in the health centers in order to keep the good quality of health services
- to introduce cost sharing to promote community financing of health services, and health insurance scheme to make health services affordable for all villagers

23.2.3 Basic Infrastructure (Water, Roads, Electricity)

(1) Short-term Plan (2003-2005)

a) Development Objectives

- Guarantee the sustainability of two community water supply pilot projects.
- Promote family and community level improvements of water use, conservation, hygiene and sanitation and establish broad knowledge of the DRA process for community water supply.
- Identify a sustainable unclassified road improvement and participatory maintenance approach through pilot project activities in community prioritized areas.
- A feasibility study for rural electrification in the Project Area that facilitates initiation of pilot isolated system activities
- Evaluate activities & prepare a mid-term development plans.

b) Remarks for Implementation

- Organizations with relevant experience would provide community capacity development and follow-up for the pilot water supply projects, and develop District Administration capacity.
- The only pre-requisite to continuing with community water supply support activities is that funds should be identified and allocated prior to initiating an awareness-raising and DRA process.
- If funds cannot be confirmed, no DRA awareness raising should occur until such time as there are funds available.
- The short-term should focus on establishing effective community participation mechanisms, and linking the management and supervision of these to government representatives.
- A facilitating agency such as an NGO or private sector company with experience in community-based roads – electricity projects would be necessary.

A feasibility study and pilot activities must be undertaken to prove the viability of such activities.

(2) Mid-term Plan (2006-2010)

a) Development Objectives

- Institutionalize the DRA process for community water supply so that the results are sustainable.
- Rehabilitate or construct at least 10 water points.
- Scale-up the unclassified road improvement activities managed by the District / Local Administration.
- Establish the institutional basis for implementation of small-scale electrification projects.
- Monitor and evaluate projects and develop long term plans.

b) Remarks for Implementation

- The emphasis of the mid-term plan should be on passing responsibility for project management and supervision to the government.
- Government should have capacity developed to manage program, funds and contracts.
- A project management unit in the District Administration should contract capacity building inputs if a district development fund is made available

- Intersectoral collaboration should be promoted.
- Integrate water supply, hygiene and sanitation into other sector activities to promote sustainability.
- Project activities should link with the planned national District Planning & Decentralization Program, the regional Roads Administration & the representatives of DDOPH & DPOPH.
- Contracted NGOs or private sector companies with relevant experience should manage project implementation and community capacity development

(3) Long-term Plan (2011-2020)

a) Development Objectives

- Rehabilitate or construct and evaluate at least 10 community water points or very small systems using the established DRA process.
- Improve and evaluate unclassified roads developed in the Project area according to local demand and willingness to participate in upgrading and maintenance.
- Implement and evaluate a demand based rural electrification program.

b) Remarks for Implementation

- In the long term, the focus would be on dismantling the overall project management unit in the District Administration and decentralizing its responsibilities and tasks to permanent Administration staff.
- A district development fund should be established and regularly financed by this time to finance community requests for assistance with infrastructure development projects.
- The District Administration must have the capacity to manage funds, and contracts for specialists to provide capacity building when and where required.
- A process of institutional analysis and capacity assessment should be established within the District Administration to facilitate its identification of its needs.
- The District Administration should have established mechanisms for guaranteeing sector support from the water, energy and roads sectors.

23.2.4 Women

The majority of the population in the Study Area is women. It is also women who are very active and busy in agriculture in the farm, household chores such as fetching water and fuelwoods, processing and cooking food, washing dishes and clothes, and economic activities such as selling the harvested agricultural produces at the market, because many men are out of the rural villages and looking for employment in urban areas. So it is very important to improve women's life and improve their economic, political and social status in the family, community and the society.

(1) Short-term Plan (2003-2005)

A short-term goal for women's development is to reduce women's burden on household chores.

In order to achieve the development objective, the following two strategies are proposed:

- to reduce women's work burden on cooking and fuelwood fetching by introducing improved cooking stoves at home
- to reduce women's work burden on water fetching by digging new wells near the homestead

(2) Mid-term Plan (2006-2010)

A mid-term goal for women's development is to improve the women's economic status through income generation projects.

In order to achieve the development objective, the following two strategies are proposed:

- to conduct various income generation projects through women's groups
- to improve the capacity of rural women in planning and implementing various development projects

(3) Long-term Plan (2011-2020)

A long-term goal for women's development is to improve women's political status in the family, community and society.

In order to achieve the development objective, the following strategy is proposed:

- to train and develop women leaders in various sectors and promote women in management and leadership in various public as well as private organizations and official committees

23.3 Income Generation and Self-Employment Creation

The opportunities of income generation and self-employment must be closely related to villagers' daily life, namely livestock, housing construction, sewing, food shops, and so on. It is also important to use simple and low cost technologies. Chicken Raising Program, Food Shop Management Program, and Sewing Training Program selected as pilot action plans for income generation and self-employment creation.

(1) Short-term Plan (2003-2005)

The development objective in the short-term plan is to generate income generation and create self-employment in more village organizations in the Study Area by continuing and expanding successful activities from the three income generating pilot action plans through provision of appropriate training and micro credit.

The basic strategies to achieve the above development objective are as follows:

- to continue and expand the successful income generation activities from the pilot action plans.
- to establish a Community Development Revolving Fund in the Study Area in order to provide micro credit for village organizations to replicate the successful income generation activities.
- to organize training workshops and on-the job training utilizing the village trainers who implemented the successful income generation pilot action plans.

(2) Mid-term Plan (2006-2010)

The development objective in the mid-term plan is to establish the foundation for the long-term income generation and self-employment creation in the Study Area.

The basic strategies to achieve the above development objective are as follows:

- to formulate the vision, strategy and action programs to scale up income generation and self-employment creation in the Study Area, based on the lessons learned from the previous implementation of the income generation projects
- to implement the action plans identified in the above process, using micro credit from the Community Development Revolving Fund expanded by the saving promotion

(3) Long-term Plan (2011-2020)

The development objective in the long-term plan is to disseminate the appropriate technologies and know-how for the income generation and self-employment creation within and beyond the Study Area by establishing a village self-development training school in the Study Area.

The basic strategy to achieve the above development objective is to plan and implement a village self-development training school in the Study Area.

23.4 Natural Resource and Environment

Soil's moisture at high lands in study areas is lower than low lands. At present, led by lack of power such as the animal traction to cultivate high lands, most of high lands are rough with shrubs and used as grazing pasture. A few area of high lands is just utilized for cultivation. And the areas are covered with natural vegetation of low nutritive values for livestock.

High land with low moisture is possible to produce fodders for livestock, because that some grasses and fodder crops for livestock need less moisture than crops in low lands. As the number of livestock is increasing, the competition between agricultural cultivation and pasture grazing in high lands will be escalating gradually. In order to solve this problem in high lands, it is necessary to widen pasture for grazing with improved nutritive fodder grasses and to plant fodder crops for livestock.

(1) Short-term Plan (2003-2005)

The short-term development objective is to increase the green by continuing and expanding the fruit tree planting in high lands.

The basic strategy to achieve the above development objective is to plant more fruit trees in high land which can contribute not only for environmental conservation, but also for income generation.

(2) Mid-term Plan (2006-2010)

The mid-term development objective is to protect the vegetation in high lands against the increased number of livestock by covering the high lands with fodder crops or grasses.

The basic strategies to achieve the above development objective are as follows:

- 1) to cultivate more lands in high land areas through the animal traction
- 2) to plant fodder crops or grasses for livestock and increase grazing pasture in high land areas
- 3) to arrange the rotational grazing system for livestock

(3) Long-term Plan (2011-2020)

The long-term development objective is to establish the stable and sustainable food production system in high lands.

The basic strategy to achieve the above development objective is to experiment, develop and disseminate the ecological and sustainable agriculture and livestock production system in high lands.

23.5 Capacity Building

23.5.1 Village Organizations

There is a great potential for the existing village organizations in the Study Area to plan and implement various development activities, but still many organizations in the Study Area have a very limited capacity to do so. It is also noted that the capacity development of the village organizations is a difficult task, and will need a long time. It is also important to understand the different levels of capacity of the village organizations. Some village organizations are managed well and willing to expand their activities, but other village organizations are not so active and the members cannot trust the management of their organizations. It is expected that if some village organizations become successful models in the Study Area, other organizations might follow these successful organizations, if they are well informed and trained to do so.

(1) Short-term Plan (2003-2005)

The development objective for the short-term plan is to continue the capacity building of the village organizations through the voluntary continuation of the pilot action plans by the implementing organizations and the training of all village organizations in order to share and disseminate the appropriate technologies which found effective in the pilot action plans as well as other lessons learned from the pilot action plans.

The strategies to achieve the above development objective are as follows:

- to encourage the implementing organizations of the pilot action plans to voluntarily continue their development activities through monitoring and technical support
- to organize the training workshops for all village organizations in order to share and disseminate the appropriate technologies which found effective in the pilot action plans as well as other lessons learned from the pilot action plans.

(2) Mid-term Plan (2006-2010)

The development objective for the mid-term plan is to diversify the activities in village organizations in the Study Area into not only development activities, but also social welfare activities.

The strategy to achieve the above development objective is to assist the most successful village organizations to start more development and social welfare activities and become models for other village organizations.

(3) Long-term Plan (2011-2020)

The development objective for the long-term plan is to disseminate and expand know-how and skills on the capacity building of village organizations from the model organizations to other organizations in and outside the Study Area.

The strategy to achieve the above development objective is to use the model village organizations to disseminate and expand know-how and skills on the capacity building of village organizations to other village organizations in order to raise the level of all village organizations in the Study Area as well as other organizations in the nearby villages.

23.5.2 Local Administration

As for possible local administration capacity building programs that can be developed based on the findings and lessons learned during the Pilot Action Plan phase of this project (plus experiences prior to joining the Pilot Action Plan team, not only with various JICA's training programs that are conducted in Japan, but also training courses that were provided for local government officials, teachers and corporate employees in Japan), at least three different scenarios can be drawn. They range from:

- Scenario (1) making one important component of village development project,
- Scenario (2) learning from other donors, especially Dutch, building district level planning capacity to be the focus of the project, and
- Scenario (3) because extensive decentralization and professionalization of public sector is already underway, supporting SIFAP effort might be quite beneficial from the point of view of the Mozambique government.

The major beneficiaries of each scenario are:

- Scenario (1) village people and staffs at district and administrative posts
- Scenario (2) staffs at district and administrative posts and village people
- Scenario (3) staff involved in SIFAP at national level and those who take courses related to SIFAP

It must be emphasized that without capable specialists in training or capacity building, scenario (1) and (2), and even (3) will not work.

(1) Village Development Program with Local Administration Component

The problems which local administration is facing are basically the same as those of village people and organizations. That is lack of funding, infrastructure, materials, skills and knowledge. Through the Pilot Action Plan, it was proved that by providing some funding and materials with new knowledge and skills will work .

Basically the steps that will be taken will be similar to those of Pilot Action Plan. Staffs at Administrative Post and various departments within the district government will receive training in planning and budgeting. Some project will be selected based on stated criteria (i.e., feasibility, impact, sustainability, etc.). The projects will be carried out with support from outside experts if necessary. Then, the project will be evaluated by various actors including the beneficiaries and recommend suggestions for improvement. In short, the staffs responsible for the project will go through Plan-Do-See cycle, with necessary training courses and coaching.

(2) District-Level Planning Capacity Building Program

This is something that several donors, including Dutch, are already doing for the past several years. Much in depth study had to be carried out, in order to learn from their experiences. But, at least for the Dutch project, together with UNDP and MAE, it was recognized as successful project and funding are already decided to spread to other provinces, besides the original sites of several districts in Nampula.

It might be quite possible that what Dutch and other donors have been doing at district level is quite similar to what is proposed as Scenario 1) above. What is different in Dutch experience is that village level operation is conducted by Dutch NGO, SNV. Similarly, the project run by ActionAid UK in Manhiça District is quite

comparable to JICA's Pilot Action Plan. Considering the cost and expertise that NGOs have in this type of project, it might be quite sensible to involve Japanese NGO(s) or any international NGO(s), especially when continuation and spreading of this type of project is seriously considered.

(3) National Public Servants Training System (SIFAP) Support Program

Although this program does not have specific areas/regions as its target beneficiaries, its aim is certainly to upgrade the education level and professionalism of public servants throughout Mozambique. SIFAP has a number of components to achieve the above stated objectives. However, it is quite certain that (1) two additional training centers in Beira and Lichinga, in addition to the one already exists just outside of Maputo, (2) training of trainers, and (3) development of module scheme for distance learning, are the three most crucial aspects of SIFAP initiative.

As for additional centers in Beira and Lichinga, funding for building and equipments and securing the instructors are the major components. As for distance learning scheme, the key is the incentive to take such courses and existence of means of communication to sustain on-going learning and to be able to provide necessary advises and encouragement to continue learning. It is, unfortunately, quite likely that these will not be available until the next phase (2006-2010). One possible way to overcome this shortcoming is to establish groups of learners in each location, so that course takers can meet regularly and support each other.

24. Model for Self-Reliant Village Development in Mozambique

24.1 Common Situation of Rural Villages in Mozambique

Through the experiences of working with the rural communities in the Study Area, the Study Team has become aware of the following common problems which the most rural villages in Mozambique suffer from:

- Legacy of the civil war and loss of livestock and fruit trees.
- High mobility of the population and the weak collaboration among villagers.
- Low educational background of villagers.
- Caution against outsider.
- Dependency on outside assistance.

The structure of these problems is described in Figure 24.1.

24.2 Typical Steps for Self-Reliant Village Development

The situation described in the previous section is commonly observed in most of rural villages in Mozambique, and can be described as a state of the low social capital and human capital. So in order to remedy this situation, the Study Team developed a model approach whose typical steps are described in Figure 24.2. It is important to first enhance social and human capitals through discovery of existing resources and strengths (Step 1) as well as capacity building of the village organizations (Step 2). Then appropriate small-scale pilot projects should be developed together with the local population (Step 3) and implemented by the local population themselves (Step 4). Experiences of implementing the pilot projects should be evaluated to learn the lessons and disseminate these lessons to the government agencies, NGOs and other donors (Step 5).

Step 1: Discovery Stage -Participatory Survey and Study Tour

- Discovery of local resources and knowledge through participatory surveys.
- Peer-to-peer learning through study tours to visit other farmer.

Step 2: Capacity Building Stage

- Capacity building of local people and village organizations.
- Participatory and learning process to plan, implement and evaluate development activities.
- Developing the flexible and adaptive capacity to cope with the uncertainty.
- Capacity building of village organizations is a long-term process. (Table 24.1 shows the model process of capacity building of village organizations in Mozambique.)
- Participation from the Bottom vs. from the Top

Figure 24.1 Structure of the common problems in rural villages in Mozambique

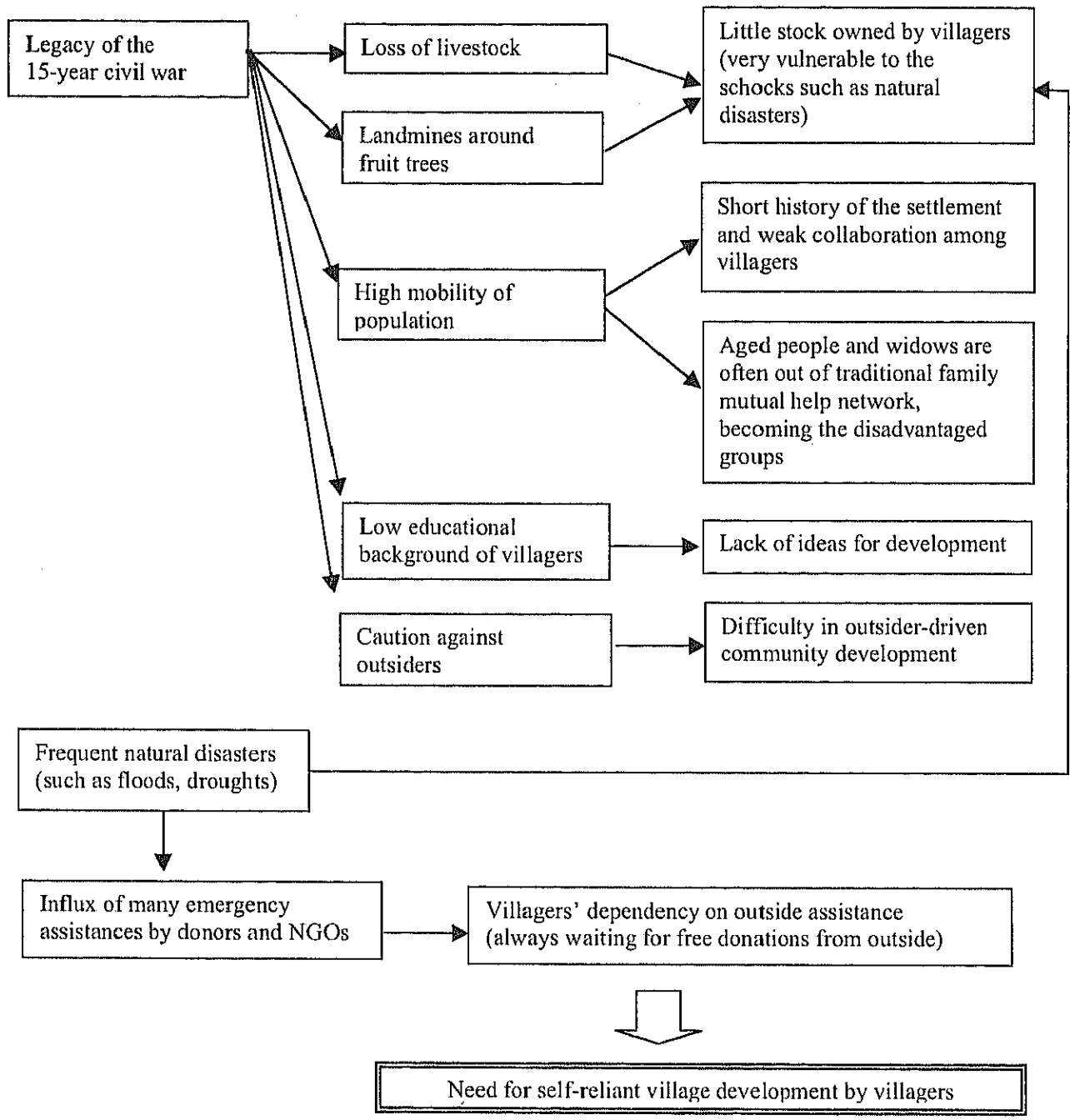


Figure 24.2 Typical Steps for Planning and Implementing Self-Reliant Village Development Programs

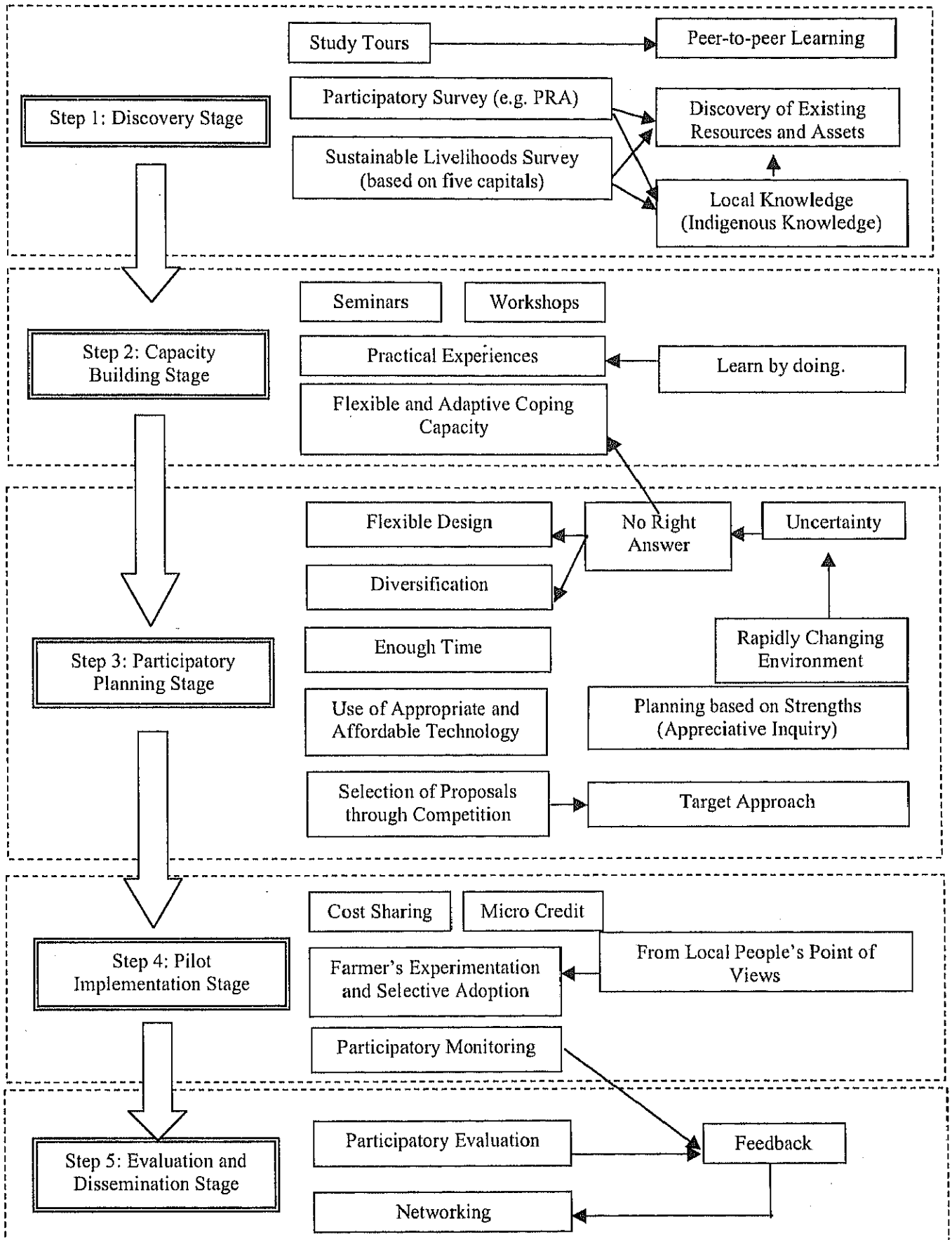


Table 24.1 Model Process of Capacity Building of Village Organizations

	Short-term (Low capacity)	Mid-term (Medium capacity)	Long-term (High capacity)
Cooperative Spirits among Members	<ul style="list-style-type: none"> ● Little cooperation among the members. ● Organizations are broken up by many factions. ● A few people are monopolizing important resources of the organization. 	<ul style="list-style-type: none"> ● Organizations are broken up by a small number of the factions. ● Factions in the organization are competing for leadership and resources. 	<ul style="list-style-type: none"> ● A lot of cooperation among the members. ● Organization has a common vision and goals shared by all members.
Leadership	<ul style="list-style-type: none"> ● Dominating and dictating leadership. ● A small number of people decide without participation of the majority of the members. 	<ul style="list-style-type: none"> ● Weak leadership often neglected by the members ● Indecisive and inconclusive discussion among the members. 	<ul style="list-style-type: none"> ● Strong, democratic and trusted leadership good at making consensus among the members.
Collective Action	<ul style="list-style-type: none"> ● No interest in collective actions among the members. 	<ul style="list-style-type: none"> ● Difficult to mobilize the members into collective actions. 	<ul style="list-style-type: none"> ● Willing to participate in collective actions.
Relation with External Organizations	<ul style="list-style-type: none"> ● No relation with the government and NGOs. 	<ul style="list-style-type: none"> ● Weak relation with the government and NGOs. 	<ul style="list-style-type: none"> ● Strong relation with the government and NGOs.
Mobilization of Local Resources (human, technical, financial, social resources)	<ul style="list-style-type: none"> ● Cannot mobilize local resources for the common purpose. 	<ul style="list-style-type: none"> ● Can mobilize only a small portion of local resources for the common purpose. 	<ul style="list-style-type: none"> ● Can mobilize local resources fully for the common purpose.
Organization	<ul style="list-style-type: none"> ● No regular meetings. ● Many members do not pay the membership fee by due date. ● No record keeping of the meetings and financial transactions. ● Poor communication among the members. 	<ul style="list-style-type: none"> ● Poor record keeping of the meeting and financial transactions, and these records are not open to all members. 	<ul style="list-style-type: none"> ● Regular meetings. ● Many members pay the membership fee by due date. ● Good record keeping of the meetings and financial transactions. ● Good communication among the members.

Step 3: Participatory Planning Stage

- Selection of the proposals for the pilot action plans through competition.
- Growth-oriented Approach versus Equity-oriented Approach.
- Use of appropriate and affordable technologies.
- Local people's view versus scientist's view.
- Food security through the diversification of the food production system.

Step 4: Implementation Stage

- "Think small and start now by yourself."
- Learn by doing.
- Cost sharing by local people.

Step 5: Evaluation and Dissemination Stage

- Participatory evaluation.
- Collaboration with other donors and NGOs.

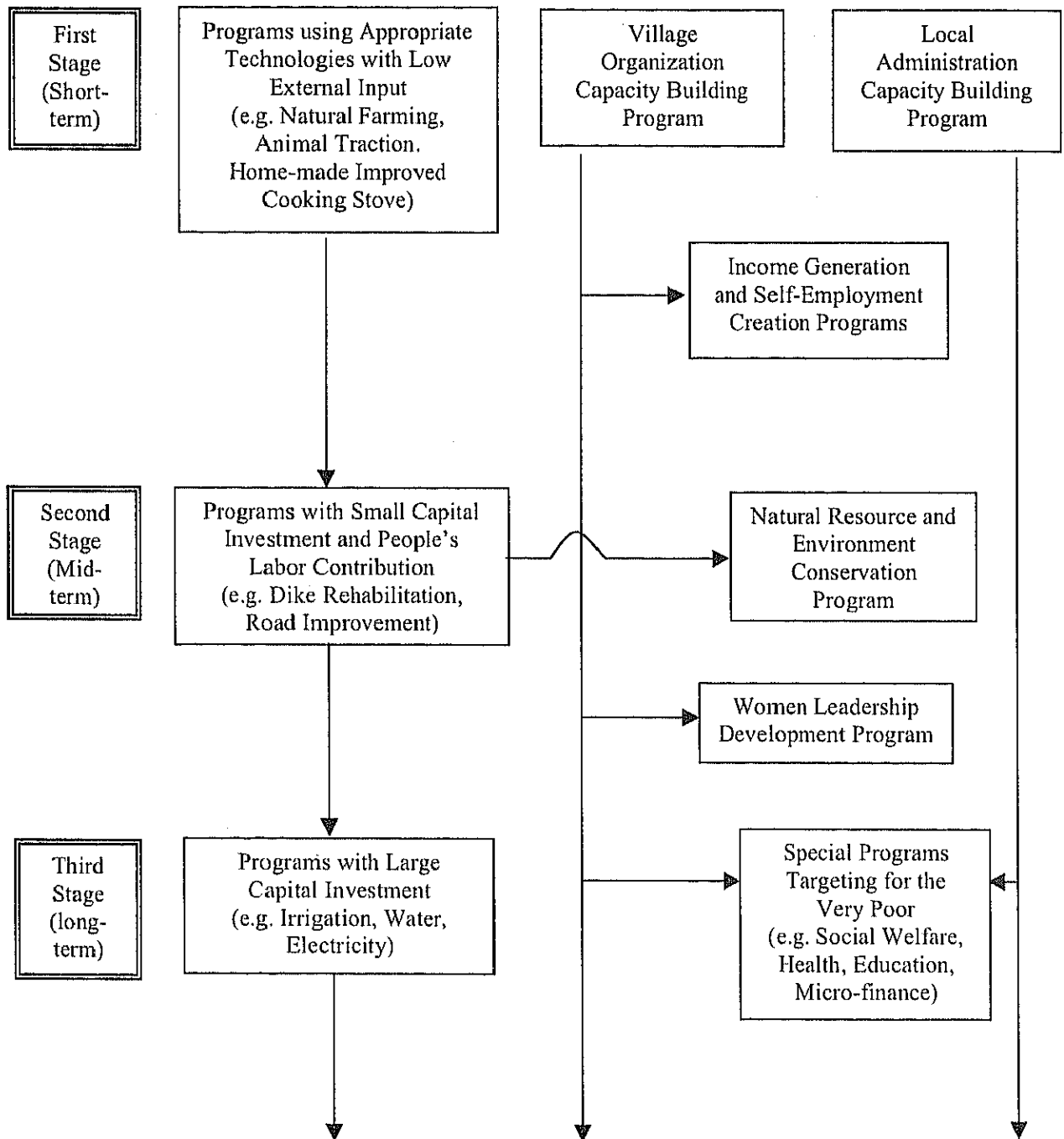
24.3 Example of Appropriate Programs for Self-Reliant Village Development

Based on the experiences of the pilot action plans, the Study Team can propose one example for how to implement the appropriate programs for self-reliant village development as shown in Figure 24.3. While this example might be considered as a typical selection and logical sequence of the action programs from the first stage (the short-term), through the second stage (the mid-term), and to the third stage (the long-term), but it is important to think flexibly according to the local people's needs and capacity.

What kind of the action programs can be implemented during the first stage (the short-term) can be determined using the following criteria which aim at encouraging the small-scale village development projects 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
- The minimal outside assistance is needed, because it is a self-help community projects.
- 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

Figure 24. 3 One Example of Appropriate Programs for Self-reliant Village Development



24.4 Possible Funding Mechanism for Village Development: Community Development

Revolving Fund

In general, the future local development initiatives should be directly funded by the District Government, because the District Government is much closer to the local population, so better situated to understand the local realities and needs than the Central and Provincial Governments. Even so, there is also the possibility to mobilize local financial resources through a community micro-finance scheme such as saving and credit clubs or village banks. Since some successful income generating activities (such as chicken raising) have already taken a root in the Study Area, the profit from these successful activities can be mobilized to start a small rotating fund for community development, even though the initial fund might be small. Remember that "Start small and expand slowly." By starting a small rotating fund, villagers will be able to mobilize and accumulate local financial resources step by step.

The Study Team proposed the local community of the Study Area to think the possibility of establishing the Community Development Revolving Fund to finance small scale self-help activities by the poor villagers, and asked the community to discuss, modify if necessary, and design the details of the implementing organization, the operational procedures and the rules and regulations for the Community Development Revolving Fund. If the community is interested in this idea, the community can prepare the counter-proposal, which describes how they are going to establish and manage the Community Development Revolving Fund in details (including the organization for managing the Fund and the various rules and procedures for the Fund operation).

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