



SELECTING APPROACHES FOR DEVELOPMENT OF THE COMMUNAL LANDS IN ZIMBABWE

Introduction

Mr. Peter Schneider, a regional officer of the XYZ Technical Cooperation (a donor agency), manages a project under the jurisdiction of the Agricultural Development Authority Provincial Planning Unit, Zimbabwe, and the XYZ Technical Cooperation. He is responsible for determining the planning that must be done before the project can begin and for analyzing the best way to develop and implement a preferred project.

A three-day workshop for the project has already been held among government officers in Zimbabwe, non-government organization (NGO) staffs, farmers, specialists in agriculture and animal husbandry, sociologists, anthropologists, specialists in environmental issues and Women in Development (WID), and staffs from the donor agencies. Many problems to which the project should be addressed were identified. Participants were also concerned with identifying the specific ways in which different approaches would solve these problems as a result, seven different approaches were proposed as possibly effective in resolving these problems: Crop development, Self-Help Garden, Livestock Development, Rabbit Self-Help, Village Water Supply, Blair Latrines, and Improved Chingwa Cookstove. The thrust of most of these approaches is on improving conditions for the poorer segments of rural society who are especially restricted with respect to access to services, implements, and inputs essential for making optimal use of their productive potential.

Background Information

Zimbabwe, formerly a colony of the Great Britain, has 11 million inhabitants and covers a total area of 390,345 square kilometers. It has a cool and dry season from May to August and then a hot season that peaks in October. The rainy season begins in the middle of

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November with stormy rainfalls. From February until May, it is very pleasant, dry, and warm.

Ninety-five percent of the inhabitants are black. The rest are white of Anglo-Saxon origin and immigrants from India. The official language is English with local languages also being spoken. Although free elections are held, the colonial influence on the economy and agriculture is still felt.

The security of a single black family is dependent on the next generation and is related to the number of children. The majority of farmers in the communal lands have never had the opportunity to accumulate capital in any form to fulfill their needs for social security. This situation did not change substantially with independence. On the contrary, a semiabsentee African landowning class gained the privileges of the former colonialists.

General Description of the Project Area

The degradation of agricultural lands is widely observed in Zimbabwe and particularly in the Masvingo District. The main causes include deforestation, soil erosion, disruption of water cycles, changes in the microclimate, etc., have been intensively discussed. The result has been a continuous decline in the rural standard of living over the past two decades. Farm incomes have decreased and many families cannot afford the necessary expenses for health care and education of their children. This is particularly true for the small-land farmers living in less fertile areas that own only limited acreage or who make their living as tenants. There are no alternative sources of income apart from agriculture for the rural population. An increase in rural-urban migration is evidence for this.

The economic and environmental situation in the communal lands of the Masvingo District is constantly deteriorating. Population pressure resulting in ecological and agricultural disequilibrium has set in motion a vicious cycle of low productivity and resource depletion. The government of Zimbabwe has asked for assistance in raising the productivity of small landholders in the District in order to improve the living conditions of the rural population in the communal lands.

Masvingo, one of the seven Districts in the Southern Province of Zimbabwe, covers an area of 7075 square kilometers and had a population of 200,000 in 1992. Most of the population lives in the communal farming area, which covers approximately half of the total area. The average population density in the communal area is about 50 persons/square kilometers. The population growth is about 3% per annum. The average family size in the communal lands is around 7 persons. Communal areas are those where farmers do not own land but have permanent rights of usage. Arable holdings are worked by individual farmers, while grazing is communal. The average farm size is around 10 ha, including arable and grazing lands, gardens, woodlots, etc.

The target group consists of the small-land farmers and their families living on the Communal Lands of Gutu District. These are 45,700 such households inhabiting an area totaling 351,165 ha.

Assignment

Your role is to select the most favorable set of approaches by comparing the seven approaches that have been proposed by the participants at the workshop. In particular, compare the seven approaches and select a set of two approaches from among them as being the project:

1. from an-environmental point of view;
2. from the WID (Women in Development) point of view;
3. from an economic point of view;
4. from the health care point of view.

Approach 1. Crop Development

1-1. Problems to be Resolved

Crop production in the communal lands is low because of low and erratic rainfall, infertile and shallow soils, and inappropriate farming techniques. These factors are aggravated by land scarcity and high population pressures. Low crop yields for the rural population require the farmers to cultivate more land. This land is taken from the grazing area where the soil is not suitable for growing crops. Since low crop yields for the farmer also mean lower yields for the cattle, cattle are poorly fed and cannot plough the land as well as it should be done. Poor food fed to livestock results in low-quality manure. But, because farmers have to feed their families, they cultivate the poor soil even more intensely. Thus, the soils become poorer, overworked and degraded and support even fewer people with the crops that can be grown in them. Yields decline further and the vicious cycle continue.

1-2. Rationale for the Approach

Farmers know that their lands are not giving them the returns that could be achieved. If they could only have healthy oxen to prepare the land in time and enough good manure and fertilizer for the land and crops, they could grow better crops with higher yields and also have plenty of feed stuff for their oxen. Strong and healthy oxen can work longer hours and will produce more and better manure for the lands, and even better yields will result. Farmers will have enough food for their families and a surplus to sell to buy next season's seed and fertilizer. They can then return some of the less suitable land to pasture and plant trees for feeding their draught oxen and milking cows. With better yields from crops, farmers do not need to plough unsuitable soils any more and can return the poorer soils to grazing.

1-3. Description of the Approach

Because farmers need to improve the productivity of their soils and the condition of their cattle, and to use better farming methods, they should find others in the village who have the same problems and who want to know how they can improve their situations. All small-land farmers should come together and discuss their common problems. They will then see that it is difficult for one farmer alone to solve his problems unless the others help. They should talk to the Village Development Committee and invite their co-op assistant and extension worker to address a meeting to discuss the advantages of forming a Group. Farmer groups must always have a common purpose. Therefore, all farmers who want to achieve a goal, such as improving their crop management, should become members of such a group.

Mutual assistance

Those who have draught oxen will lend them to members who have none against, for example, payment in fodder for the use of their animals.

Land-use planning

A land-use plan to help with land management can only be drawn up if all members in the Group agree and participate. This is especially necessary for all soil and water conservation, which benefits all farmers in the area.

Extension training

Because there are so many farmers and a limited extension staff, it is only in a group that all the farmers can be taught about better farming methods, including crop and livestock production, tillage, and conservation.

Credit and input supply through Co-ops, Service Units and Agricultural Finance Cooperation (AFC)

All farmers can easily obtain a loan for their seasonal seed and fertilizer needs if they act as a group. If they submit larger orders, materials should also be cheaper and available early in the season.

Appropriate methods

Crop production will enable all members to adjust to a GUTAI Group regardless of how much land they have, whether or not they have draught oxen, and regardless of how much experience they have as farmers.

Group work

Farmers will work together on projects, which are of interest and benefit to all

members of a GUTAI Group. In this way important conservation projects will be possible which no individual farmer could normally achieve on his own.

Participation

All members in a GUTAI Group have the right and duty to participate in all group events. It is very important that they all participate in decision making, reporting and, especially, in the feed back of results and how they were obtained.

Leadership training

To assist members of groups to become future leaders, general training will be given as part of the Program.

Reduced production risk

As a result of all these aspects the risk of failure for each farmer will be less than before.

Approach 2. Self-Help Garden

2-1. Problems to be Resolved

In rural areas vegetables are mainly grown for home consumption. Although consuming vegetables that are rich in vitamins and minerals is very healthy, existing consumption is not enough to insure an adequate diet.

2-2. Rationale for the Approach

Farmers can obtain vitamins and minerals from vegetables in the self-help garden near their houses. This will help improve their health conditions.

2-3. Description of the Approach

The people who started the idea in the village arranged a meeting with all people in the village, the Council Development Worker, the Extension Worker and the Health Worker. The Extension Workers are introducing the Taguta Program. The Taguta Program provides a Package that includes fencing material, insecticide, and seeds for one year. The Extension Worker will visit monthly to discuss how to grow vegetables and how to overcome any problems. The Health Worker will visit the wives of the peasants in order to demonstrate the preparation of vegetable dishes.

All the members of the group and the Extension Worker will visit the garden site and the Extension Worker will check the availability of water, the distance from the stream bank,

the suitability of the soil, the size of the garden and the number of members sharing the garden.

For the planning of the garden, the Extension Worker and the group leaders will draw a basic sketch and plan management activities. There are two systems of ownership:

- ownership by individuals. Each member will cultivate only a specific part of the garden;
- ownership by the whole group. Everyone in the group shares all the beds of the garden.

In order to establish the garden, people need tools such as an Ox plough, a wheelbarrow, hoes, picks, shovels, string and metric tapes. The fence is made by using the poles, pig-mesh, and barbed wire. The beds are prepared by using some of the tools. Vegetables, such as tomatoes, chilies and peppers, eggplants, onions and leeks, lettuces, and cabbages, are propagated in a nursery. From manuals, people can learn about transplanting the vegetable seedlings, sowing, cultivating, watering, fertilizing, crop production and harvesting.

Approach 3. Livestock Development

3-1. Problems to be Resolved

In the communal lands, livestock performance is very poor. There are many reasons, the most important ones being:

- limited grazing area for the cattle
- little fodder from grazing and crop lands
- poor management of grazing areas
- limited disease control, and
- lack of appropriate livestock management.

All these reasons combined lead to unhealthy animals and also affects cropping and land use. Most of the people in the communal lands are farmers, and almost all of the available cropland has already been given to the farmers. New families can only plough up the grazing land, which reduces the available grazing area for cattle. The cattle then do not have enough fodder and thus become too weak to work in the fields.

In addition, not only are weak and sick animals unable to plough the crop lands efficiently, they are also unable to produce enough manure to fertilize the croplands. Without manure, soils become poorer, and only very poor crops with low yields can be produced. Other crop residues are not always enough to feed the cattle. The cattle are kept on the grazing areas for too long, overgrazing the veld, resulting in serious soil degradation through erosion. So, cultivated and grazing land becomes poorer and poorer, and fewer people and livestock can be supported.

3-2. Rationale for the Approach

Farmers in the communal lands keep livestock for many reasons, like oxen for polishing; cows for milking; bulls and cows for breeding, as a source of savings, for traditional reasons like the Mudzimu bulls, for lobola and prestige; cattle, sheep and goats for the meat and for selling; oxen and donkeys for transport; and all the animals for the supply of manure-for the farmers' fields. If farmers could improve their livestock management and obtain more feed for their cattle, their livestock could become healthy and strong.

3-3. Description of the Approach

Farmers will find others in the village who have the same problems and who want to know more about what they can do. Those farmers in the village who have decided to work together in a Group should invite the Agritex EW to discuss the next steps that they should take.

--The Group of farmers, after registering, then needs to choose their Chairman and his assistants. They will be the Group's Leaders.

--Once the Group's Committee has been elected, it must work out the Rules for the Group. These Rules have to deal with: the Group's purpose, the Group's structure, the Committee's responsibilities and the members' responsibilities.

--In order to improve the management and productivity of the livestock, the farmers will need certain inputs and assistance.

--Extension workers and Veterinary assistants will receive training at National, Provincial and Regional levels.

--The Group must choose a regular meeting place at which they can hold Group meetings and receive extension messages and training. (This is normally near the cattle-handling facilities.)

--In order to handle cattle easily and safely, a cattle crush should be constructed.

--A properly constructed cattle kraal is equally as important as a cattle crush. There are many traditional and modern designs for kraals.

--One very important aspect in kraaling animals is the making and collecting of high-quality manure.

--Establishing cattle management routines includes calf rearing, dehorning and tipping, castrating, herding, feeding and breeding.

Approach 4. Rabbit Self-Help

4-1. Problems to be Resolved

Although people in the communal area like to eat meat, and also know that a balanced diet is very healthy, only a few villagers can, in fact, afford to eat meat regularly. Many of the villagers do not know how to keep rabbits properly, since they have never learned how.

4-2. Rationale for the Approach

Rabbits breed very quickly. Each doe can give birth to eight young rabbits every three months. Rabbits can be fed on maize, harvest remains, vegetable wastes, food leftovers and many different grasses, weeds and tree leaves, which are readily available in communal areas. When villagers see a well-established Rabbit Unit they also want to have one in their village. People can use the rabbit droppings as manure for their vegetable gardens and the skins for making such things as mats, baby blankets and handbags.

4-3. The Description of the Approach

The Rabbit Keeping Approaches are supported by Government Departments such as the Ministry of Health, the Ministry of Community Development and Women Affairs and Agritex.

The program provides a package for the establishment of a Rabbit Unit that includes: wire mesh, treated poles, cross pieces, nails and staples, rabbit cages, 1 male rabbit and 3 female rabbits, breeding records, and a Project Implementation Manual. Interested villagers must form a group, including the election of leaders and the establishment of rules.

Once the application has been approved, the group can go ahead with the election of a group committee. The committee leads the group in working out group rules.

Before planning the necessary management activities the chairman, accompanied by two other group members, attends a local workshop on the construction of a Unit. Once the Unit is constructed, the group prepares the Unit for production by making a platform of poles to carry the rabbit cages, and installing the nesting boxes for 3 doe's cages, waterers and feeders. The group then maintains the rabbits as instructed in the manual provided.

Approach 5. Village Water supply

5-1. Problems to be Resolved

Many villages in Zimbabwe still do not have their own water supply. In these places, woman and children have to walk long distances to collect water, which is then shared by every member of the family. Sometimes there is only enough water for drinking and cooking, and not enough for washing and cleaning the home, or for watering gardens so that people can grow their own food. Health problems such as diarrhea, sore eyes, skin infections and malnutrition are common in families that do not have an adequate water supply near their homes.

5-2. Rationale for the Approach

It is very important to promote a good understanding in the community about how these health problems occur. In this way groups will become better informed and motivated to take action to improve their traditional supplies. They will also be motivated to join projects to make new supplies. When combined with better hygiene, these efforts will also lead to improved health.

5-3. Description of the Approach

Progress will be much quicker if people can be encouraged by community workers to form groups to discuss their needs for water and to find out about how a project can be started in their area.

We can reach an underground water supply by digging wells or drilling holes with special machines. These wells are then lined and protected from pollution. A pump or a simple windlass is then fitted to raise the underground water to the surface. It is very important to choose a project site that will provide a good supply of underground water and benefit all the people in the group. Decisions to site village water supplies are not made by the individual but rather by the project group assisted by community-based workers. The group should also decide about the method that will be used to reach underground water. It is important to encourage them to adopt hygienic methods of raising water from their underground supply. This can be done by fitting a windlass, a hand pump or a lever pump. The building of a concrete drainage area around the water supply, in order to drain away waste water, makes the area easier to clean.

Approach 6. Blair Latrines

6-1. Problems to be Resolved

In the situation where there are unsanitary latrines or no latrines at all, the number of flies can easily increase. These flies carry diseases that can be transmitted to local inhabitants.

6-2. Rationale for the Approach

When latrines are properly constructed they do not smell or attract flies. The latrines are easy to maintain, safe for children to use, private, can be used near a hygienic bathing place, and are inexpensive to build. It is the wish of the Government that each family in the community should have its own latrine.

6-3. Description of the Approach

There are many people in the community who can share information about building latrines. To find out more, people should talk to health workers, community leaders, people who have already built latrines and read the manuals that contain information about building latrines. Also, people should ask about any helper organizations that offer assistance with latrine building projects. Groups can also assist in digging the hole for the latrine, in providing water for the building and some food for builders, in collecting sand and stones at the building site, in mixing the concrete and the mortar and in lifting the concrete slabs. The quantities of materials for building one latrine are: 3-5 bags cement, clean river sand, re-enforcing wire, flyscreen gauze and about 900 bricks. With assistance from the health worker, the family should choose a building site that is:

--downhill from the well so that waste from the latrine does not drain into the water supply

--near the house so that the latrine can be easily reached at night

--where the soil is firm so that the building will not collapse

--on slightly raised ground so that rain water can drain away easily, and

--in a space where there are not many trees so that air can flow more freely

Approach 7. Improved Chingwa Cookstove

7-1. Problems to be Resolved

Food must be cooked to be edible. For about 75% of the Zimbabwean population living in the communal area, firewood is as essential to survival as food itself.

The shortage of firewood is very serious. Unless adequate measures are taken, the wood fuel supply for the communal population will be so critical by the year 2000 that they will no longer be able to adequately cook their food on fuelwood unless fuelwood saving

methods are improved or other fuels are introduced. In addition, as more wood is cut, the wasteland will spread.

7-2. Rationale for the Approach

When using the three stone fire and the metal grate fire methods, the heat can't be utilized very efficiently as there is a great loss of energy. When there is a wind, the heat loss greatly increases. The extra air coming into the fuel bed tends to increase the rate of burning and, therefore, the amount of heat, but at the same time the wind blows the hot gases rising from the fire away from the pot. So an unshaded open fire under windy-conditions causes a greatly increased rate of fuel consumption and a reduced ability to heat the pot.

Deforestation leads to fewer plants covering the ground which means poor soil fertility and poor crop yields. This also causes severe soil erosion. Woodfuel shortages result in rural women spending valuable time looking for firewood. And then the women have to walk long distances carrying heavy loads. This also means that households have to reduce their cooking times. Less cooked food means malnutrition.

One of the easiest solutions to the problem of deforestation and woodfuel shortages is to use Improved Woodfuel-saving Cook-Stoves. An Improved Woodfuel-saving Cook-Stove is made out of local materials such as bricks and clay soil. It saves a large portion of wood otherwise consumed by open fires. This means fewer trees are cut down, and young trees get enough time to mature, restoring the good natural vegetation. This can be reinforced by planting appropriate trees on contours and woodlots. This will eventually allow for the quicker cooking of food, leaving housewives enough time for other household activities. It also considerably reduces the smoke from the kitchen and thereby reduces the risk of related eye diseases and bronchitis. It is therefore safer for the children and the user because they can't get burned so easily. In addition, the stored heat can provide indoor heating and can be used for food warming, water heating and baking. The kitchen becomes smart and clean.

7-3. Description of the Approach

Villagers should collect the required building materials, and select the appropriate position for the stove. They should then mark the shape of the stove on the wall and build the outer wall, fill up the inside of the stove with a mixture of clay soil and river sand, cut out the flue channel, and then mould buffers and depressions and fire-box. Reinforced "Chicken mesh" wire should be cut to size-and shaped and cast to a plate slab. A chimney hole should be opened through the kitchen wall, a chimney built, the chimney hole molded and the top plate placed onto the stove and plastered.