

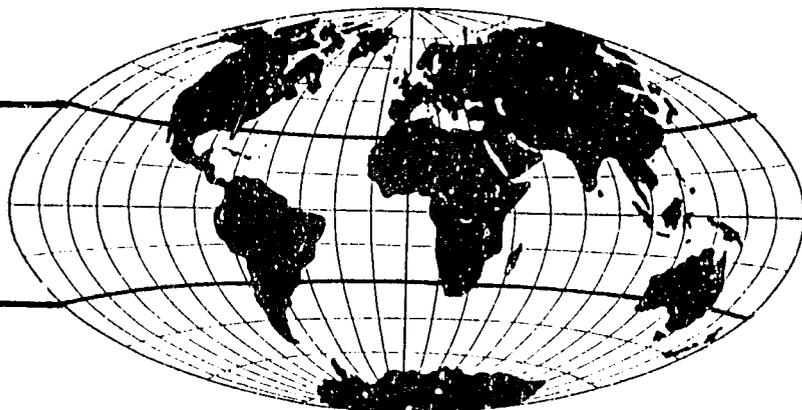
# COOPERATIVE AGREEMENT ON SETTLEMENT AND RESOURCE SYSTEMS ANALYSIS

AN ANALYSIS OF THE EXPERIENCES OF INSTITUTIONS  
INVOLVED IN THE DEVELOPMENT OF THE  
MIDDLE ZAMBEZI BASIN

by

John T. Milimo

June 1988



Clark University  
International Development Program  
950 Main Street  
Worcester, MA 01610

Institute for Development Anthropology  
99 Collier Street, Suite 302  
P.O. Box 2207  
Binghamton, NY 13902

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John T. Milimo

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## INTRODUCTION

This paper discusses the various institutions involved in the development efforts in the Middle Zambezi Valley. The area under discussion lies within the political and administrative boundary of the Gwembe District, the headquarters of which is presently at Gwembe on the plateau. Hence, Zambezi Valley and Gwembe Valley in this paper are synonymous.

The institutions working in the Middle Zambezi Valley can be put into three main categories. The first concerns those that have been initiated and run by the Zambian government; examples of these include the district council and the various government departments. The second category comprises those that have been initiated and are run by the local people themselves, sometimes with the help of government and/or donor agencies. Examples of these include the various chieftainships and primary cooperative societies. The third category of institutions are those that have been started and are run by various donor, and sometimes business, agencies.

### **The Middle Zambezi Basin and Its People**

The area under study lies mainly along the Kariba man-made lake. In the northeast, the study area continues beyond the Kariba Dam until the confluence of the Zambezi and Kafue rivers. On the western side, the area is surrounded by hills and escarpments which form the boundary between the plateau and the Zambezi Basin. There are three main routes which reach the valley from the plateau: the major road that connects Zambia with Zimbabwe through Chirundu and Siavonga/Kariba; the road that runs from Gwembe, the administrative headquarters, to the central part of the Middle Zambezi Valley; and the major road which connects the coal mine of Maamba and the rest of the country. Using a four-wheel-drive vehicle, it is possible to travel from Maamba in the south

through the valley to Siavonga in the north. This is, however, only possible during the dry season and when all the bridges have been repaired.

The Valley Tonga, who are ethnically similar to the larger Tonga grouping which covers most of Southern Zambia, inhabit the Zambezi Basin. In pre-colonial times, these people suffered a number of raids from the Ndebele of the present Zimbabwe. From around 1890, when the Rochner Concession was signed between the British South Africa Company and the Lozi paramount chief Lewanika, the Zambezi Tonga fell under colonial rule -- first by the British South Africa Company and then, from 1924, by the British government.

The creation of the Kariba Dam hydro-electric project has attracted attention to this region as the project is in many ways responsible for most of the subsequent events in the Middle Zambezi Basin. The indigenous valley inhabitants were forced to move out of their original homes along the Zambezi River, running away from the waters that were beginning to flood the present Lake Kariba. Most of them were resettled in areas away from their original homes, and this greatly disrupted their social and economic activities.

Another social upheaval that occurred toward the end of the 1970s and early 1980s was the Zimbabwe/Rhodesia liberation war, much of which was waged in the Zambezi Valley. Roads were mined, and it has taken several years to clear the mines and reopen the area to the outside world.

The droughts of the early 1980s which affected most of southern Africa were particularly severe on the Middle Zambezi Valley, which even in normal years has a very low rainfall. Food relief had to be organized and brought in.

### Social and Economic Organization

As stated earlier on, the inhabitants of the Middle Zambezi Basin are a subgroup of the Tonga peoples of Zambia who inhabit most of the country south of Lusaka. They are a matrilineal people and tend to have fairly large households, the average being 7.3, according to a recent survey (Halupepe 1987:33). The Middle Zambezi area has been ruled by seven traditional chiefs, the British colonial masters appointed from a large number of "cisi" or local leaders.

Subsistence crop farming mixed with livestock rearing, especially goats, has been the main economic activity of the peoples of the Middle Zambezi Valley. The main food crops have been sorghum, millet, and maize. In the past ten years, cash crops have been introduced, in particular, cotton and sunflower. Cash crops do much better than maize, presently the main food crop, during the recurrent drought periods.

Prior to the damming of Lake Kariba and to some extent even now, the following were the dominant land use patterns:

1. The zilili (drawdown) gardens are found along the fertile river plains. Here, they cultivated two separate crops in a year, maize, beans, tobacco, cucurbits, and hemp. In an area where droughts are a frequent phenomenon, the zilili gardens, which offered fertile cultivable land even in the dry season, were in very high demand. As a result, they were rather small.
2. Upland cultivation is carried on during the rainy season, between November and April, with maize, sorghum, millet, cotton, and sunflower as the main crops.
3. Irrigation schemes are slowly developing in the valley, with year-round cultivation.

Livestock-rearing is a very important activity in the Zambezi Valley. Cattle are important primarily as providers of farm power, then for prestige and social status, and lastly to fall back on in times of need, especially famine (Milimo and Siandwazi 1987:20f) which is a frequent occurrence. Goats

are valued, first as a source of meat, then as something to fall back on in times of need, then for killing at different social and ritual functions (ibid.). Pigs are rarely kept in the valley. A few donkeys are kept as draft animals, especially in southern parts of the basin.

While there is a lot of commercial fishing in Lake Kariba, most of this is done by fairly large-scale, private commercial fishing companies consisting predominantly of non-Zambians and non-Zambezi Valley locals. The latter do a bit of fishing for subsistence purposes. Out of one hundred households interviewed, thirty-seven indicated that they do some subsistence fishing (ibid., 33).

While the majority of the Zambezi Valley inhabitants are still trying to eke out a living from the land, of which the size and quality are gradually diminishing as a result of rapid population growth of both people and livestock, some have found formal wage employment. Some have migrated to the towns, and they often send remittances to their relatives in the villages to assist them with the exceptionally harsh economic conditions in the valley. A number of the valley inhabitants have found employment with the various institutions and private companies operating there. For instance, the newly established Gwembe Valley Development Company employs some 150 people on a regular basis, 90 percent of whom are locals. Based on verbal communications with company officials, the number of people employed by the company during peak periods rises to about one thousand. Other employers are the various fishing companies, the district council, Maamba Coal Mine, Kariba North Bank which produces electricity, and, of course, the proliferating aid agencies in the valley.

### **TRADITIONAL LEADERSHIP: CHIEFTAINSHIPS**

In the area under study, there are seven chieftainships. These are Sikongo, Simamba, Chipepo, Sinadambwe, Munyumbwe, Sinazongwe, and Senior Chief Mwemba. While a few of these chieftainships predate the advent of colonialism, the majority were created by the colonial rulers in their efforts to have indirect rule like the rest of the then Northern Rhodesia.

#### **Mandates of the Institution of Chieftainship**

The main functions of a chief in this part of the country is well described by the Tonga word "kulela" which means to rule, to nurse, to keep. In the land tenure system prevailing in Zambia today, the chief in conjunction with his village headmen are in charge of allocating land in the territory under their jurisdiction. He has the right to take away any piece of land from any resident who, in his eyes, has proven to be an unacceptable resident. The chief has also been involved in settling disputes among his people. There is no local court within easy reach of the majority of the people in the valley; hence, the chief and his assistants settle disputes in their areas.

The British government has used chiefs for their indirect rule policy, which they set up in the whole of British East and Central Africa. In the post-independence era, a House of Chief was established in an attempt to involve the traditional leadership in the modern political system. The House of Chiefs plays an advisory role to the ruling party and to government. In the spirit of involving traditional leadership in modern political life, Chief Munyumbwe has recently (July 1987) been made the District Governor, that is, the overall political leader of the area under study.

When the political authorities have wanted to bring in a project which in their eyes was going to bring development to the country at large, the chiefs have been the contact point between the authorities and the people. These projects have, more often than not, necessitated removal and resettlement of people. Chiefs were expected to grasp the need for such a project and, hence, the consequent resettlement. They were, therefore, expected to collaborate with the establishment in order to ensure smooth resettlements. In the majority of cases, however, the chiefs have been solidly behind their followers in resisting forced evacuation from their lands. In a few instances, like that of the Gwembe Valley Development Project, the chief of the area initially cooperated with those who were introducing the project. So did Chief Mwemba and Sinazongwe with regard to the introduction of the irrigation schemes in their areas. Involvement and backing of a chief ensures greater cooperation by the people, except of course when the people are totally against the project in question. Some of the chiefs, particularly Sinazongwe, Mwemba, and to an extent Munyumbwe, have been very active in trying to attract projects for their areas in an attempt to raise the living standard of their people.

### **Unexpected Events**

In 1978 the liberation war in Rhodesia intensified until the country attained independence two years later. The seven chiefs' areas under discussion in this paper were the battleground for much of this struggle. This prohibited developmental efforts on the part of either the national government or the international aid community. During these years, the chiefs and their peoples saw some of the infrastructure, such as roads and bridges, destroyed, thus, bringing to a standstill any effort at development.

As if the war was not enough, the years that immediately followed the Zimbabwe independence witnessed a severe spell of drought which further stunted development. Irrigation schemes in Chiefs Sinazongwe's and Mwemba's areas almost collapsed due to very low water levels in the lake.

These unforeseen problems explain why some of the chiefs, particularly Chief Sinazongwe, and to an extent, Senior Chief Mwemba, became very eager to accept assistance from any quarter that was being offered, as we shall see in a later section.

### **External Agencies**

Bilateral agencies have shown much interest in Chiefs Sinazongwe's and Mwemba's areas. These include: the Gossner Evangelical Mission of West Berlin, who have settled themselves in the area since the early 1970s; the West German KFW Bank, which has been carrying out feasibility studies since 1984; the German Technical Assistance Corporation (GTZ), which has indicated its intention to start an integrated rural development programme in the area; and the Gwembe Valley Development Company. All these agencies have raised hopes but have to date disappointed the people, especially the chiefs through whom they have sought cooperation in procuring both land, on which to base their development efforts, and people's cooperation. In some cases, particularly that of Chief Sinazongwe, who has been in the forefront in trying to develop his area, these intrusions by external agencies end up by disappointing and, in the eyes of the people, deceiving the chief and his people, thus, corroding the chief's power and influence over his subjects.

In short, the traditional chiefs, as the natural foci and rallying points of the local populations, attempt to attract development projects and

assistance into the areas. They try to rally the people around what they consider potential ventures which can bring development into their areas. In the majority of cases, however, these efforts on the part of the chiefs have not met with any measure of success. The factors that have led to these failures and disappointments will be discussed later in this paper.

### **DISTRICT COUNCIL**

The whole of the study area falls within the political and administrative district of Gwembe. The headquarters of the district, commonly called "BOMA" (British Overseas Military Administration), is located at Gwembe on the plateau on what is really Monze District. Gwembe District is subdivided into three subdistricts, that is, Gwembe North whose subboma is at Siavonga near the Kariba Dam, Gwembe Central administered from Munyumbwe east of Gwembe, and Gwembe South administered from Sinazongwe. The subdistricts are administered by a senior administrative officer while the district governor is the political head of the whole district and the district executive secretary heads the civil servants of the district. There is a strong desire on the part of all concerned to have three separate entities with full districts status.

### **Mandates of Gwembe District Council**

During the colonial days, districts were headed by a district commissioner assisted by a District Officer who, together with their messengers, were empowered to see to it that peace and order were kept and that people paid their hut and poll taxes.

In the post-colonial era, administration of Gwembe District, like that of all other districts in Zambia, has been placed into the hands of a district

council which consists primarily of elected ward councillors and the chiefs in the district. The district governor, who is appointed by the president of the Republic of Zambia as political head of the district, is the chairman of the district council, while the head of the civil service in the district, namely, the district executive secretary, is secretary.

At independence, the poll and hut taxes in Zambia were abolished; hence, the district council does not concern itself with this issue. Instead, it discusses issues relating to the life and development of the district. In particular, the 1980 Decentralisation Act of Parliament gave the district council as its prime mandate the mission to spearhead development in the district. According to the act, the district which is presently the smallest viable geographical unit in Zambia, should plan and finance development programs and projects. There is a district development committee which is charged with the prime responsibility of development in the district. The Gwembe District council, like the majority of councils in Zambia, still depends on the central national treasury for its revenue. The latter has, over the past decade, diminished considerably due to the economic crisis Zambia as a whole is undergoing.

The council runs three rest houses, one at Siavonga, one at Munyumbwe, and the third at Sinazeze in Gwembe South. It also runs a tavern and bar near Maamba Coal Mine in Gwembe South. It is currently constructing a fourth rest house next to the said bar. In addition, the council makes some kind of effort to collect levy from fishermen who operate on Kariba Lake. However, all these sources of income, even when put together, cannot support any meaningful program aimed at the social and economic development of the valley.

### **Unexpected Events**

Like the chiefs of the Middle Zambezi Valley discussed above, the Gwembe District council watched helplessly as the Zimbabwe - Rhodesian war of liberation waged on its territory, thus, hindering all development efforts. Roads and bridges were destroyed; some were mined. Grassroot development cadres like agricultural assistants, medical and veterinary personnel, as well as missionaries left their posts to seek safety outside the valley. Instead of planning and implementing, or at least encouraging development projects, the council watched helplessly as even the little development infrastructure it already had was being torn to pieces by the ravages of the liberation war.

Equally helpless was the council in the face of the droughts which persisted for four years after the attainment of independence in Zimbabwe. The few irrigation schemes in the district almost came to a standstill as the water levels of the Kariba Dam fell.

### **Bilateral and Multilateral Agencies**

Insufficient funding from both the Zambian government and the bilateral and multilateral agencies has characterized the life of the Middle Zambezi Valley which is being administered by the Gwembe District Council. There has been no major donor who has put in money into the council for the development of the district, as has been the case in many districts in other parts of Zambia, especially where integrated rural development programs operate. A number of feasibility studies have been carried out, especially in Gwembe South, but no major funding has materialized. The Gossner Evangelical Mission did come in, but as will be seen later in this paper, it was not been able to satisfy the needs of the whole valley. The World Bank has funded, through the

Food Agricultural Organisation of the United Nations, a program to assist the agricultural extension services in the Southern Province, including the study area. However, this assistance has been withdrawn following a World Bank decision not to fund any more projects in Zambia until it pays back its debts. Hence, the chronic shortage of funds and the inactivity of donors continue to paralyze the district council's development efforts.

### Performance of the District Council

It is not possible to measure the performance of the district council in quantifiable terms. A constraining factor against development is lack of good communication outlets. In order to go from one part of the valley to another, one has to travel out of the valley onto the plateau and back again to the valley.

Another major constraint that the council has faced in the 1970s and 1980s is lack of adequate funds to initiate and carry out development projects. A previous section mentioned the fact that Gwembe District Council depends on the central treasury for most of its funds. This is unlike the 1960s when the Council had a lot of its own money which it received as "compensation from the Federal Power Board for hardship inflicted by relocation . . ." (Scudder 1988:144).

It has also been mentioned that the current economic crisis has reduced national revenue, thereby diminishing budgetary allocations to the various developmental agencies. There is, however, another, and perhaps more serious, problem. This relates to structural arrangements, for on the one hand, there is talk, and indeed an act of parliament, on decentralization. On the other hand, day-to-day operations of the government are still very centralized.

Budgetary allocations are made to the central government ministries in Lusaka and not the district or even the provincial councils. The various ministries plan, implement, and fund development projects in the various districts. The bit of funding the district councils receive from Central Government are mostly spent on staff salaries, housing, and transport.

District-level personnel are also controlled by central government through their line ministries which pay them their salaries. The most this staff can do is to serve as professional and technical advisors to the district council.

A really fully-pledged decentralized system would, among other things, have only a handful of central ministries at the national headquarters. The rest would only operate at lower, ideally provincial levels. These levels would exercise a lot of power, especially in terms of economic decision-making. There would be the employer of the civil service working within their territories who would be responsible for budgetary allocations and expenditures.

Despite the act of parliament some eight years ago, decentralization has not really materialized, not even in Gwembe District which the National Commission for Development Planning wished to use as a pilot project for decentralized planning in the early 1980s. This came to light most vividly when the Gwembe Valley Development Company came into the area. The decision to let the company come in and establish its farm was made at a higher political level and without much consultation with the district.

A fully decentralized system of government will have far-reaching social and political implications which the country may presently not be prepared to support financially, politically, and administratively.

The above mentioned constraints have made it difficult for Gwembe District Council to have any marked impact on the social, economic, and cultural lives

of the people of the Middle Zambezi Basin, at least in the 1970s and 1980s when the council has had no funds of its own with which to operate.

### **GOVERNMENT AND PARASTATAL INSTITUTIONS**

This section discusses some of the main government ministries and departments as well as parastatal companies which are very active in promoting development in the Middle Zambezi Basin.

#### **Department of Agriculture**

The agricultural personnel are headed by the district agricultural officer (DAO) who is assisted by a number of subject matter specialists, especially the animal and the crop husbandry officers. At the subdistrict level, a block supervisor oversees all the activities of the agricultural personnel in the area. At most the block supervisor would be a three-year trained agriculturalist who holds a diploma. Agricultural assistants work at the grassroots level. These people who have spent two years training at an agricultural college do all the extension work. This is "basically to assist the Small-Scale farmers to be more productive by providing them with the necessary technical and managerial advice and skills" (Chisanga 1987:28).

#### **The Veterinary and Tsetse Control Department**

The organizational structure of this department is very similar to that of agriculture. After all, these two departments are both in the Ministry of Agriculture and Water Development. Hence, most of what has been said about agricultural extension work is applicable here, except, of course, the fact that the mandate of this department is different. The veterinary people look

after the health of the animals while the tsetse control section of the department is attempting to wipe out the tsetse fly in the few pickets, especially in Gwembe North where it continues to kill off animals.

General animal morbidity and mortality in the valley are not as serious a problem as they are in other parts of the country, especially on the plateau which is just next door to the valley.

### **Health**

The Government Ministry of Health is also represented in the valley. Currently, there are four hospitals operating in the district; one at Sinazongwe Subboma, another at Siavonga Subboma, the third run by Catholic missionaries towards the northern end of the study area, and the fourth at Gwembe, the District Headquarters, where it serves the Monze and not Gwembe District population. Besides these hospitals, whose staffing and stock of drugs leave much to be desired, there are a number of rural health centers scattered throughout the valley.

Health personnel, like those in veterinary and agriculture, have traditionally been answerable to the Ministry of Health. According to the Decentralisation Act, they should work more closely with the district council, especially the district social secretary. However, because decentralization has not fully been implemented, they are by and large still working with, taking orders from, and reporting to, their line ministry supervisors.

### **Education**

The Ministry of Education is another government agency which is heavily involved in the development effort in the Middle Zambezi Basin. There are many

primary schools dotted all along the lake, following population concentrations. Some of these schools were started by Christian missionaries during the colonial era. Examples of these are Kanchindu and Chaboboma.

Like other parts of Zambia, there are not enough schools in the valley to accommodate all children of school-going age. Shortage of schools is even more serious at secondary school level where for a very long time there has only been one such school at Chipepo in Gwembe Central. A second one has now been constructed near Maamba coal mine in Gwembe South. A third one is under construction on a self-help basis at the initiative and encouragement of Chief Zinazongwe. This is at Makonkoto on the main road to Maamba Coal Mine. Kunchindu and Lusitu secondary schools in Gwembe South and North have recently been opened.

#### **Lint Company of Zambia**

Cotton growing has become very popular in the Middle Zambezi Basin. Indeed, the basin is one of the three major cotton producing areas in Zambia. The Lint Company of Zambia which is generally referred to as LINTCO, is very active in the valley in promoting cotton growing. LINTCO provides a number of services to its farmers, mainly credit to purchase inputs, the inputs themselves, extension services to its farmers as well as purchasing the crop.

The organizational structure of LINTCO extension staff is identical to that of the agricultural personnel. There is a district cotton officer at the Gwembe Boma who is in charge of all the cotton extension staff in the district. At subdistrict level are other junior officers who supervise the field staff. All these have been trained at an agricultural college in the country.

### **Zambia Seed Company (ZAMSEED)**

This company, whose headquarters is in Lusaka, has the national duty of distributing certified seed to the farmers throughout the country. It contracts certain farmers to grow various types of seed. During the 1986/87 season, it contracted the Gwembe Valley Development Company to grow the much needed sorghum seed. After buying the seed from the farmers, the company certifies the seeds through the Seed Certifying Institute of the Agricultural Research Station at Mount Makulu near Lusaka and then resells the same seed to the farmers.

ZAMSEED does not have representatives or offices in the Gwemba Valley. Other organizations distribute distribution seeds for the company. These organizations include the Valley Self-Help Promotion Society, Primary Cooperative Societies, churches, and a number of donor aided programs.

### **Banks**

Lima Bank, which has succeeded the Agricultural Finance Company, is charged with providing credit to farmers. Like the Agricultural Finance Company before it, Lima Bank is not adequately represented in the Middle Zambezi Valley. Indeed, in the whole valley, there is only one bank, Barclays, which has a branch at Siavonga. By and large, this bank serves the tourists who visit Siavonga and not the farming community, which is some thirty kilometers away. A mobile bank visits Sinazeze twice a week.

The availability of banking facilities is a very important issue in any development efforts for, on the one hand, the availability of credit is a prerequisite for any development to take place. On the other hand, farmers and businessmen must have easily accessible banking facilities where they can

deposit their money and withdraw it when need arises. In recent years farmers earned sizable amounts of money from cotton growing. They received the money at one time, but for lack of banking facilities they spent it all in a short time. When famine came, because of the drought, which discouraged maize production while permitting cotton and sunflower, the people did not have any money to purchase food. Instead, they relied on food aid.

With regard to agricultural banks, whether Lima Bank or Agricultural Finance Company, the local headquarters of these institutions have been either at Mazabuka, Monze, or Choma which are district headquarters on the plateau. These districts have first to satisfy the needs of their populations before going out to the Zambezi Valley.

#### **Constraints Militating Against Government Institutions**

One of the biggest problems facing Zambian government departments throughout the country is shortage of funds since the nation is going through a big economic crisis. The Gwembe Valley is no exception. Biased budgetary allocation of existing funds in favor of urban areas and at the expense of rural districts exacerbates the situation. Because of this, no new capital projects can be initiated. Indeed, the civil service which includes agricultural, veterinary, health, and educational personnel at all levels is being cut down as people are being prematurely retired. The recurrent budget for the agricultural "extension services is far less than for personal emoluments" (Chisanga 1987:35). As a result, many people, especially agricultural extension personnel, receive their full salaries but do practically no work as there is no money for transport or maintenance allowance when they leave their stations. LINTCO extension workers are an exception since the company provides these

funds. Consequently, LINTCO's effectiveness is markedly superior to that of all other government and parastatal organizations.

Transport is another major problem government institutions face. This is particularly the case in the Zambezi Valley where roads are not properly maintained and some areas are not accessible due to the rugged nature of the terrain. More importantly, most of the government departments working in the valley have no vehicles for transport.

Lack of coordination among the various agencies is another bottleneck. The agricultural extension officers will, for instance, have advised farmers to perform certain activities during a given period of time while input delivery agencies will not have delivered their goods. The end result is that extension messages are not utilized and inputs, especially seeds and fertilizers, are delivered late, thus lowering production.

#### **THE GWEMBE SOUTH DEVELOPMENT PROJECT**

The Gwembe South Development Project, or GSDP as it is commonly referred to, is one of the major institutions which has been operating in the valley since 1970. Its broad objectives have been to assist the people of Gwembe South who have been relocated after the flooding of the Kariba Dam. The project's original aims were to introduce new income generating activities such as fishing, new agricultural techniques, and irrigation in order to improve the quality of life of the relocatees.

The South Development Project has been implemented under a bilateral agreement between the Gossner Evangelical Mission (GEM) and the Government of the Republic of Zambia (GRZ). The latter second staff to the project and also provides operational funds. Gossner Mission provides a team, the Gossner

Service Team, of technical staff to assist with the project. In recent years, when Government of Zambia's financial contributions have dwindled due to the national economic problems, Gossner Mission has assisted with funds as well. The mission, which is based in West Berlin, is guided by the philosophy which emphasizes the importance of earthly pursuits and happiness. These are regarded as the basis for spiritual bliss. Hence, the mission's deep involvement in the material progress of developing countries.

According to the agreement between Zambia and Gossner Evangelical Mission, the former appoints a coordinating committee for the project as well as the Project Coordinator. The Gossner Service Team do have their own team leader who looks after the welfare of the team members.

The rest of this section discusses the various GSDP activities, some of which are carried out by organizations which in themselves are approaching the status of institutions in their own right.

### **Irrigation Schemes**

#### **Origins and Mandates**

One of the most tangible ways by which the Gwembe South Development Project could assist the people who had been displaced by the flood waters of the Kariba Dam was to introduce irrigation schemes which would, to an extent, replace the drawdown cultivation which was a major characteristic of the pre-dam farming systems. The purpose of irrigation schemes is also to produce crops year-round and to ensure adequate vegetable supplies for the local households. The irrigation schemes were also meant to create additional cash income in the community as well as creating local nuclei of rural development in the area. In short, irrigation schemes were embarked upon with a view to assist in

improving the quality of life of the victims of resettlement which was necessitated by the construction of the Kariba Dam.

#### Siatwinda Pilot Irrigation Scheme

This was the first project undertaken by GSDP. Work started in 1970 and was completed two years later. There is a total of 32 hectares. Twenty-two hectares are reserved for crop production by the local small-scale farmers and four hectares for the Research Branch of the Ministry of Agriculture and Water Development. There is a total of 75 farmers and each one receives .2 ha. One of the primary purposes of the pilot scheme was to find out the crop or crops which were most suitable in the valley. Rice proved to be the most appropriate crop and in the early days of the scheme, it was the main crop grown there during the rainy season. As rice requires a lot of water, irrigation supplemented rain water. During the dry season, the crops shown in Table 1 are grown.

However, it is no longer possible to grow as much rice now (1986-88) due to insufficient supply of irrigation water. Despite the good rains in 1988, the water level in the lake has not risen enough to provide all the water needed for rice irrigation. Table 1 shows the main crops that were grown on the scheme in 1986 and 1987 together with the hectares devoted to them. These crops require much less water than rice does.

#### Nkandabwe Irrigation Schemes

This scheme draws its water from a reservoir above the now closed Nkandabwe coal pit. In 1972 GSDP started working on the dam to make it usable for irrigation purposes. A year later some farmers came to take up plots in the scheme. It has a total of eight hectares which are presently allocated to

TABLE 1

## CROPS CULTIVATED AT SIATWINDA IRRIGATION SCHEME

| Crop        | 1986 |     | 1987 |     |
|-------------|------|-----|------|-----|
|             | Ha   | %   | Ha   | %   |
| Okra        | 4.2  | 58  | 5.2  | 49  |
| Tomato      | 1.3  | 18  | 3.0  | 28  |
| Potato      | 0.9  | 12  | 0.8  | 8   |
| Onion       | 0.4  | 6   | 0.8  | 8   |
| Beans       | 0.2  | 3   | 0.1  | 1   |
| Leaf Veg.   | 0.1  | 1.5 | 0.6  | 6   |
| Green Maize | 0.1  | 1.5 | -    | -   |
| Totals      | 7.2  | 100 | 10.5 | 100 |

Source: Halupepe 1987:34.

assistant, who is located at the edge of the scheme, assists the farmers with improved farming techniques. So does the Gossner Evangelical Mission Agricultural Advisor.

The scheme, which operates on gravity irrigation, has not suffered from droughts as much as other similar schemes, except for 1987 when the water level in the dam fell so low that it failed to gravitate towards the scheme.

The major problem Nkandabwe faces is finding a market for its produce. Prior to 1980 ZAMHORT, a parastatal company, used to purchase horticultural products from farmers for sale in urban Zambia. In 1980, however, the government withdrew the marketing services of ZAMHORT, thus, making it extremely difficult for the farmers to dispose of their products. What is happening now is that middlemen, or rather middlewomen, have established themselves. They purchase farm produce from the farmers and resell them to motorists and other

passers-by who travel along the main road connecting Maamba Coal Mine and Sinazongwe subdistrict headquarters to the rest of the country.

#### Buleya Malima Irrigation Scheme

Although discussed under the GSDP, Buleya Malima Irrigation Scheme started in 1970 with the Projects Division of the then Ministry of Rural Development and was later taken over by the present Ministry of Agriculture and Water Development when the latter was created. In 1979, it was decided that GSDP should get involved with the scheme and a year later a GSDP Agricultural Advisor under the Gossner Evangelical Mission Technical Assistance Program was assigned to the scheme. To date, one such person is stationed and working at the scheme. The scheme has 25 hectares; 2.8 hectares is a government citrus orchard. The rest is subdivided among the farmers.

#### **Unexpected Events**

The severe droughts which hit the Middle Zambezi Valley during the early part of the 1980s adversely affected the irrigation schemes, particularly those of Siatwinda and Buleya Malima. The water levels had receded more than a kilometer away from where the water pumps had been positioned. This problem was compounded by frequent mechanical engine breakdowns. Siatwinda Irrigation Scheme was particularly hit by the droughts. All irrigation activity came to a standstill for some three years. At Buleya Malima, only the government citrus orchard was operational while the smallholder farmers could not get enough water to work on their plots. As already mentioned above, Nkandabwe Irrigation Scheme was operating throughout the first half of the 1980s. It came to a

standstill, however, in late 1987 due to the low water levels of the Nkandabwe Dam.

### **Planning and Decision Making**

The main agencies involved in the irrigation schemes are the Zambian Government, the Gossner Evangelical Mission, and the GSDP. However, planning and decision making are in the hands of the GSDP Executive Committee, the Technical Advisory Committee for the irrigation schemes, general meetings of farmers as well as farmers executive committees. The last mentioned are supposed to be immediately responsible for the administration of the schemes. They allocate plots to farmers; they also dispossess farmers who fail to properly utilize their plots. The Gossner Evangelical Mission provides the various schemes with specialized technical assistance while government seconds agricultural assistants to advise the farmers. Management of the irrigation schemes does not suffer from too many interested external or local agencies. If any improvements are to be realized, the farmers executive committees should be strengthened so that they will exercise real power. They should continue to collect some revenue for maintaining the machinery and running the schemes and even enlarging on the already prepared scheme areas.

### **Economic Efficiency**

These are relatively young schemes. The oldest of them, namely, the Siatwinda Irrigation Scheme, started operating in 1973, as expected, very slowly. For three consecutive years, the scheme had only 36 of the possible 110 farmers. It was only in 1978 that greater numbers of farmers began to join the scheme. The same year the first group of 14 women joined. The total hectareage under cultivation also increased during the late 1970s from about 2.5

to 5.6 during the 1978/79 farming season. Table 2 represents the financial flow of the Siatwinda pilot scheme.

TABLE 2  
FINANCIAL FLOW, SIATWINDA IRRIGATION SCHEME

| Source           | 1971                | 1973  | 1974 | 1975  | 1976  | 1977  | 1978  | 1979   | 1980   |
|------------------|---------------------|-------|------|-------|-------|-------|-------|--------|--------|
| GRZ <sup>a</sup> | 10,128 <sup>c</sup> | 4,944 | 6550 | 4,918 | 3,850 | 4,500 | 8,000 | 16,875 | 9,200  |
| GEM <sup>b</sup> |                     |       |      |       |       |       |       |        | 13,125 |
| TOTAL            |                     |       |      |       |       |       |       |        | 22,325 |

Source: M. Banda op. cit. p. 41 (Appendix)

<sup>a</sup> Government of the Republic of Zambia

<sup>b</sup> Gossner Evangelical Mission.

<sup>c</sup> Unit of currency is the Zambian Kwacha which in 1987/88 is equivalent to US\$ 0.125.

As can be seen from Table 3 on the next page, there was a gradual and steady increase in both hectarage and yields from the beginning of the scheme until the early 1980s when severe droughts came into the area. By 1983/84 hectarage, yields, and incomes stopped completely.

It is clear from the tables that the scheme was getting very popular and productive just before the drought years. When added up, the incomes that the small ploholders generate compare very well with the expenses incurred on the scheme as Tables 4 and 5 indicate.

It is obvious from Tables 4 and 5 that the amount of money generated by the scheme exceeds expenditure by K345,799. This figure would, however, be considerably lower if one was to include the wages of farmers on the scheme and of the two Gossner Service Team experts. What appears under salaries on

TABLE 3  
HECTARAGE, YIELDS, AND INCOMES FROM SIATWINDA IRRIGATION SCHEME (RICE)

|           | 76/77 | 77/78    | 78/79     | 79/80     | 80/81     | 81/82 | 82/83 | 83/84 | 94/85 | 85/86 | 86/87 |
|-----------|-------|----------|-----------|-----------|-----------|-------|-------|-------|-------|-------|-------|
| Hectarage | 2.5   | 5.0      | 5.6       | 4.0       | 4.2       | 2.0   | 2.3   | -     | -     | -     | 0.3   |
| Yields*   | 120   | 200      | 320       | 190       | 175       | 40    | 25    | -     | -     | -     | 6.0   |
| Incomes   |       | 5,254.10 | 19,201.14 | 10,373.40 | 12,273.00 |       |       |       |       |       |       |

Source: Constructed from M. Banda's material and GSDP Progress Report, 1988.

\*Yields in 80 kg of rice

TABLE 4

## SALES AND INCOMES OF CROPS GROWN AT SIATWINDA IRRIGATION SCHEME IN 1987

|                  | Amount Sold<br>in kg | Price<br>per kg | Amount of Money<br>Earned in Kwacha |
|------------------|----------------------|-----------------|-------------------------------------|
| Tomatoes         | 38,288               | K1.50           | 57,432.00                           |
| Okra             | 272,667              | K1.50           | 409,000.00                          |
| Potatoes         | 5,570                | K3.00           | 16,710.00                           |
| Onions           | 4,981                | K2.50           | 12,452.50                           |
| Leafy Vegetables | 640                  | K1.20           | 768.00                              |
| Beans            | 6                    | K2.00           | 12.00                               |
| <b>TOTAL</b>     |                      |                 | <b>496,374.50</b>                   |

Source: GSDP Progress Report, 1988:15.

TABLE 5

## SIATWINDA IRRIGATION SCHEME EXPENDITURE FOR 1987

|                                |                   |
|--------------------------------|-------------------|
| Irrigation equipment           | 32,518.00         |
| Other equipment                | 6,648.00          |
| Spare parts                    | 20,155.00         |
| Building and Fencing Materials | 20,463.00         |
| Workshop costs                 | 13,470.00         |
| Vehicle maintenance            | 19,029.00         |
| Salaries                       | 10,536.00         |
| Stationery                     | 1,320.00          |
| Miscellaneous                  | 17,436.00         |
| <b>TOTAL</b>                   | <b>141,575.00</b> |

Source: GSDP Progress Report, 1988:17.

Note: 70.4 percent of total expenditure is contributed by Gossner Evangelical Mission.

Table 5 refers only to the salaries and wages of the Zambian full-time employees of the scheme.

While the main crops grown on the irrigation schemes, namely, rice and vegetables, are not staples in the area, the schemes do contribute to food self-sufficiency for the area, at least for the few participating farmers. As Table 6 shows, a certain amount of rice is not sold but kept for household consumption.

TABLE 6

## PATTERNS OF RICE CONSUMPTIONS AMONG THE SIATWINDA IRRIGATION FARMERS

|                                       | 76/77 | 77/78 | 78/79 | 79/80 | 80/81 | 81/82 | 82/83 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| <u>Total Yields</u><br>(in 80kg bags) | 120   | 200   | 320   | 190   | 175   | 40    | 25    |
| Marketed                              | 48    | 150   | 254   | 177   | 156   | none  | none  |
| Consumed                              | 72    | 50    | 66    | 13    | 19    | 40    | 25    |

Source: Constructed from M. Banda's material, op. cit.  
Appendix p. 43 and GSDP Progress Report, 1988.

**Socioeconomic and Cultural Impacts**

Table 3 has shown that incomes do increase with increased participation in irrigation schemes. So does the availability of food. However, the schemes are still in their rudimentary and initial stages. Relatively few people have been able to participate, hence, the impacts these schemes have had on the local populations have been minimal. Rainfed agriculture and livestock are still the most important components of the economy of the Middle Zambezi Basin. The droughts of the early 1980s have gravely stunted the development of these

schemes and decreased the possible socioeconomic and cultural impacts they would otherwise have had on the local population.

The lack of managerial skills on the part of the farmers executive committees is a big bottleneck. They are not able to keep records and, hence, do not know when the scheme is making money or operating at a loss. This inadequacy on the part of the farmers executive committees prohibits them from developing into strong local organizations with the capability of running the schemes on their own.

#### **Other GSDP Activities**

Besides the irrigation schemes, GSDP is involved in a number of activities, all aimed at the development of the Gwembe South.

#### **GSDP Workshop**

This workshop which is based at the Nkandabwe Gossner Mission provides repair and maintenance services for equipment ranging from farm implements to domestic items. It also makes farm tools and spares which it distributes to the people of Gwembe South. The workshop supervisor who is a Zambian, together with his staff, are answerable to the GSDP project coordinator. The workshop provides an invaluable service to the people of Gwembe South as it provides services for which the local population would otherwise have had to travel more than one hundred kilometers to Choma on the Plateau.

#### **The Seed Program**

The Gwembe South Development Project operates a seed program whose objective is to make available the right type of seeds which suit the agricultural

and climatic conditions of the area. The most appropriate seed in the valley is one that is:

- (a) drought resistant,
- (b) early maturing,
- (c) tolerant to poor management practices,
- (d) stores well after harvest, and
- (e) satisfies local tastes.

In conjunction with Zambia Seed Company, the seed program attempts to satisfy the seed requirements of the Gwembe South farming community. In fact, it is the largest distributor of seed followed by the Valley Self-Help Promotion Society and then the churches.

#### Female Extension Work

Extension services to the female portion of the farming community in Zambia always leaves much to be desired (Phiri 1987:25). While women contribute the major part of agricultural labor, they rarely benefit from the extension services. In view of this, GSDP has initiated a specific Female Extension Program whose objectives are to:

- (a) Teach the women better methods of farming and preserving their food for future use;
- (b) Improve the standard of living by teaching women some income generation activities like handcrafts; and
- (c) Improve the nutritional standards of the local population.

In practical terms, this activity has so far concentrated on:

- (a) Cockerel exchange in an effort to improve the local breed of chickens;
- (b) Improving on the nutritional status of the people by supplying high protein foods like groundnuts, beans, and kapenta, a kind of small fish which is plentiful in Lake Kariba;

- (c) Producing cooking oils using local raw materials and simple technology; and
- (d) Running two clubs in which women are taught lessons in cookery, nutrition, sewing, and simple arithmetic.

#### Research Activities

The Gwembe Project has conducted surveys aimed at ascertaining the effectiveness of some of its major activities. Hence, an evaluation on "The Effectiveness of the Farmers' Executive Committees" at the three irrigation schemes was conducted by one of the Gossner Service TEam staff in 1987. The study came out with one important finding, that "The Farmers' Executive Committees are not able to manage their schemes and need training urgently." Appropriate training has, thereafter, commenced and it is hoped that this training will go a long way in building up the farmers executive committees into institutions which will eventually run their own affairs without so much assistance by Gossner or government staff.

#### GSDP INITIATED INSTITUTIONS

By the end of the 1970s, the need to create other organizations which would work side by side with, but independently of, the GSDP was felt. Through these new organizations, funds generated in the valley could be returned and ploughed back into local development-oriented projects. The Gwembe Project as a government organization, cannot do this as it has to deposit all the money it generates into the national treasury and then apply for it when need arises, a long and tedious bureaucratic process. Hence, to circumvent this, it was decided to establish other nongovernmental organs which would operate effectively without having to go through government coffers.

### **The Valley Self-help Promotion Society**

Moses Banda considers the Valley Self-help Promotion Society (VSP) as the one institution which has earned the Gwembe South Development Project "the greatest respect in the area" (Banda 1983:221). The society's presence has been felt throughout most of Gwembe South, unlike the other GSDP activities and projects which have had very limited geographical impact. The original idea was that VSP be constituted of all organized groups and individuals in the area. At present, however, membership is composed of individuals rather than organizations. These meet annually to elect their executive committee which is the supreme body of the organization which establishes their policies and plans. This committee consists of some of the most experienced people in the valley. It is chaired by the recently rehired secretary to SGDP. Its secretary is a teacher at one of the elementary schools while the treasurer is a successful businessman who is also a chairman of a local consumer cooperative society near Siatwinda Irrigation Scheme.

### **Mandates**

As has just been mentioned, VSP was founded as a supplementary development agency so that programs within GSDP that make a profit would be available for use in further development work, and for supporting self-help projects in the area. The objectives of the society are to promote policies and support and implement programs which are beneficial to and serve the social, cultural, and/or economic development of the people of the Gwembe Valley and their environment, especially programs which reinforce self-reliance and self-sufficiency.

In pursuance of its objectives, VSP has carried out a number of projects which, as Banda observes, has made GSDP very well-known in Gwembe South.

#### VSP Boat Service

Transport, especially toward the most southern tip of the study area, is extremely difficult because of the rugged terrain which makes road building an extremely difficult operation. In addition, the few roads and bridge that had been constructed were destroyed during the Rhodesia/Zimbabwe liberation war. Hence, the need and relevance of boat transport, especially to Kafwambila at the southern-most tip of our study area. During 1986 and 1987, an average of two trips a week were made carrying forty 50-kilogram bags of maize meal per trip and other essentials from Sinazongwe harbor to Kafwambila.

While the VSP Boat Service has been carrying out a necessary service, its major problems have been the constant engine breakdown coupled with the unavailability of spare parts in Zambia, as well as the necessary technical and mechanical skills to run the boats. In fact, the boats are presently broken down. In addition, it is difficult to realize profits from this venture as running costs of the boats and workers' wages are very high. The 1986 Annual Report gives the figure of only K350 as gross profit for the year (VSP Annual Report 1987:2).

#### Second-Hand Clothes

The Valley Self-help Promotion Society is best known for its dealings in second hand clothes. Dutch and German well-wishers of the Gossner Evangelical Mission send the latter second-hand clothes to assist the mission in its work. Instead of distributing these clothes free of charge, the mission decided to

sell them cheaply in order to raise money for self-help schemes. This activity has obviously benefited both the local community who are able to purchase clothes at minimal costs and also the VSP itself by raising some funds for its operations.

#### School Uniforms

Considering that school uniforms were difficult to come by in the valley, and that whenever they were available from the plateau, they were very expensive, the Valley Self-help Promotion Society embarked on a school uniform tailoring program in 1984. They bought the required sewing machines and employed tailors to sew the uniforms. Most of the money realized from this venture is ploughed back into the venture. It is used to purchase materials for the project. Some of the money, however, is used to finance other self-help projects.

#### Other GSDP Activities

The Gwembe South Development Project has been involved with a couple of other activities and/or local organizations. Notably among these have been the Gwembe South Builders and the Tonga Crafts. The former organization provided the personnel which constructed the majority of the houses for the various government departments in the valley. Government paid for all the expenses, thus, bringing in money to the area. Although the Gwembe South Builders have collapsed as an organization, the skills of the previous members are still being utilized. Gwembe Valley Development Company used them; so does the council in building its new rest house near Maamba and the two new secondary schools.

The various drafts that are produced in the Gwembe Valley are bought and kept at the Gossner Mission, most of it for onward transmission to Lusaka and Europe where it is sold. This is the Tonga Crafts which has brought money into the valley though nobody has been able to give it an exact figure. The activity has mainly been in the hands of the expatriate Gossner Mission personnel.

The Sinazeze Cooperative Society is also important and is currently being regarded by the Government Department of Cooperatives as a very viable organization. The society is involved in a number of income generating activities, including selling and distributing such farm inputs as seeds and fertilizers. This success is due to two factors, namely, good experienced leadership, like that of VSP, and the relevance of its activities.

### **Bilateral Assistance**

The major actors in the Gwembe South Development Project have been the Gossner Evangelical Mission and the Government of the Republic of Zambia. While fulfilling most of its agreement obligations, Zambia has, especially in the past decade, been unable to meet its financial obligations to GSDP. In addition, due to lack of experience and, especially the lack of adequate training and skills, most of the Zambian staff on the project have, acted as assistants and not counterparts to the expatriate Gossner Mission personnel.

It is not surprising, therefore, that the Gossner Mission personnel tended to work on their own. Indeed, the original idea was that there be a Gwembe Valley Coordinating Committee consisting of officers of government departments; this was to be headed by a coordinating officer who was to be appointed by the Zambian government. This committee was to be the main policy and planning body

of all activities to be undertaken by the Gossner-Zambia cooperation. While it has been created, this committee has never been responsible for the direction GSDP activities have taken. This has been greatly influenced by the previously mentioned factor that the Zambian personnel on the project have been more of assistants, and not qualified counterparts to the expatriate Gossner Mission personnel.

### **The Future**

The Valley Self-help Promotion Society is perhaps the institution with the best potential for making the greatest contribution to the development of the majority of the population. It is basically and ideally a local institution with capable and devoted local leadership which is keenly aware of the various problems of the area. It has the support of all the key institutions and individuals in the area. The constraints which VSP has faced include what has just been discussed above, namely, the fact that Gossner Mission Staff's contribution to its activities has been over-exaggerated to the detriment of local initiatives. However, it is clear as one reads through some of the latest annual reports that the approach to the development in the area needs to be changed; local institutions and individuals must be given more say in the initiation and running of development projects there.

The Valley Self-help Promotion Society has often operated like a charitable organization; it has depended on external charity, for instance, in its second hand clothing sales; it has carried out activities which are not at all viable from an economic point of view, although they have been essential services which often have meant life or death for certain sections of the local populations. Such activities include water transportation of essential com-

modities to remote areas and building clinics and schools often at no material benefit to the institution. It is not possible to assess the overall profits, if any, that VSP makes because of the eclectic combination of income generating economic activities with those that are determined by service to the needy.

## **ZAMBEZI TRAINING FARM**

### **Introduction**

The Zambezi Training Farm was started in the late 1960s based on cooperation between the Catholic Archdiocese of Milan in Italy and the Diocese of Monze in Zambia. The Italian Church was to send professional agriculturalists to teach the local Zambians. At present, the Zambian government second an agricultural assistant who happens to be a two-year trained certificate holder in general agriculture. The farm is situated at the northern end of the study area below the Kariba Dam.

### **Mandates**

The basic purpose of the farm is to train young people in banana growing so that they could later settle on their plots of land and grow bananas there. After completing their training, the farmers are to be settled in specially designated areas where they can grow bananas as well as other crops. One such settlement area is in Lusitu area.

### **Unexpected Events**

While the droughts did not particularly affect the scheme, the Zimbabwe/Rhodesian war of liberation did. The farm is along the Zambezi River which forms the boundary between Zambia and Zimbabwe. There was a lot of

shelling from across the border. At the height of the freedom struggle, the farm was completely closed down and abandoned. It has, however, since revived and is very productive once again.

### **Participating Agencies**

The main actors in this project are the Catholic dioceses of Monze and Milan and the Zambian Department of Agriculture. As often happens with donor aided projects, where the donors in the form of technical advisors follow aid money and actually execute the project, the Zambezi Training Farm is suffering from too heavy a presence of expatriate technical cooperation staff. These run the whole show with minimum contribution and participation of the one Zambian member of staff who, for all practical purposes, is more of an assistant and not a co-worker or a counterpart. This is very clear from the type of job assignments he is given, his residential accommodation, and lack of any authority whatever in the place. While very benevolent in nature and instilling very useful skills to those who are able to attend, the Zambezi Training Farm cannot really be called a Zambian institution until there is a certain amount of local Zambian input. If the Italians were to pull out, the whole thing would collapse.

### **Economic Viability**

The farm as such is doing very well indeed. The crops are well looked after and the farmers are making very good money while still at college. However, the problem starts when the trainees graduate. There is not enough resettlement land on which the graduates can go and practice the skills they acquired at the training farm. Lusit resettlement scheme is full.

Judging from the rather high productivity with which the trainees cultivate their plots, the farm training at the college is excellent. However, there does not seem to be very effective follow-up of the graduates. In other words, the extension services given to the banana farmers, once they graduate from the training farm and settle down to farming, is not at all adequate. This results in a gradual drop in productivity and loss of enthusiasm and interest on the part of the farmers. Because of this, the training farm has had very little impact on the lives of the people of the Middle Zambezi Valley, all in spite of its great potential to increase production and incomes in the valley.

### **The Future**

The potential contribution toward the development of the valley of an institution, like the one being discussed here, is enormous. The demand for bananas and, indeed, other types of fruits in urban Zambia is very high. Land that can be used for settling trained farmers can always be found along the Zambezi River and the Kariba Reservoir. What is required is a comprehensive package which will not only concentrate on training of farmers but will also look at resettlement after training, that is, continued informal training in the form of relevant extension services. Zambianising the institution both at the level of training and also at the level of policy and decision making is a must. Getting the wives of the trainees to participate in the training would be a most appropriate move since they contribute the major part of the farm labor.

## **THE INTEGRATED RURAL DEVELOPMENT PROJECT**

### **Introduction**

At a meeting in Lusaka on November 25, 1981, it was decided that Gwembe South be designated as an Integrated Rural Development Project (IRDP) area. In May of the following year, a steering committee meeting was held at Gwembe and on the 1st of February the first IRDP coordinator, Mr. Klaus Scheefer, a member of the Gossner Service Team, arrived in the area. A number of IRDP meetings and workshops, including at least one national IRDP Coordinators meeting, took place in the valley. However, no major donor had come to finance the project until December 1987 when German Technical Assistance (GTZ) came in to adopt the area as an IRDP. The project is based at Siavonga in Gwembe North, but will eventually spread out to Gwembe Central and South. One of the projects with which IRDP intends to get involved is the Siatwinda Irrigation Scheme.

### **Mandates**

Integrated rural development projects in Zambia are involved in the development of wide range of services, including opening up and improving feeder roads which lead to agricultural producing areas, developing of marketing services, promotion of crop and animal extension services, promotion of animal draft power and of primary cooperative societies.

The idea behind introducing an IRDP in the Middle Zambezi Valley is to bring into the valley a comprehensive development package which will include technical personnel as well as the required infusion of adequate amounts of funds for development purposes. In the direction that IRDPs are currently going, that is, following the British funded Mpika Model, the IRDP is to work very closely with the district council. They are there to strengthen the

district council in technical, managerial, as well as financial matters. When Gwembe South was declared an IRDP in 1981, it was envisaged that the GSDP be given IRDP status under which label the organization would have access to more development funds and would, therefore, expand to other areas of the Middle Zambezi Valley. In fact, however, the IRDP was initiated as a separate institution, run by a separate group of people, although both are West German and started at the northern end of the valley. However, the two will hopefully cooperate, for instance, in the Siatwinda Irrigation Scheme where Gossner will continue to provide technical skills while GTZ will provide the money.

#### **Expected Results and Impacts**

If the experiences of the Northwestern Province of Zambia where it has been running a similar project is anything to go by, GTZ will pump a lot of money into the Gwembe Valley; it will bring in a number of experts who will work most efficiently on a number of projects. This has been the experience of the majority of the other donor assisted IRDPs in the country. However, grass-root level development is not automatically assured when an IRDP is introduced. Too often in their haste to show tangible results of their work, the expatriate personnel work mainly on their own and with minimal participation of the locals with the result that at the conclusion of the aid project, the area remains as undeveloped as it was prior to the introduction of the project. Banda observes that too often IRDPs operate as parallel institutions to government departments with the result that when the project ends, government institutions refuse to take over any follow-up responsibilities (Banda 1985:228). Even the quasi-ideal Mpika model has its own grave deficiencies. It attempts to work closely with and through existing government institutions, particularly the district

councils. The latter have been known to promote their own business ventures often at the expense of both the private small-scale enterprises, and also other private organizations. In other words, one wonders whether the IRDP in the Middle Zambezi Valley will encourage such institutions as the VSP which are predominantly local organizations and have proved to have the potential to be economically viable as well as service oriented. One has still got to wait and see!

## **GWEMBE VALLEY DEVELOPMENT COMPANY**

### **Introduction**

The Gwembe Valley Development Company has established a 2,500 hectare farm in Sinazongwe on which it grows irrigated wheat and rain-fed cotton. Other crops, chiefly groundnuts and sorghum, have also been grown at a smaller scale than rain-fed crops. The company is a joint venture with the Georgian (U.S.A.) based Lumus corporation owning 70 percent of the shares, Howchst (Zambia) Limited, a subsidiary of a German multinational chemical company, owns 10 percent while the Lint Company of Zambia and the newly formed Zyongwe Cooperative Society own the remaining 10 percent each. According to the most recent report (Milimo and Siandwazi 1987:10), the farm which is popularly referred to as Buchi (honey) farm has dispossessed some sixteen hundred people of their fields while some ninety households representing about seven hundred people have lost both fields as well as their dwellings to the company.

Buchi farming project is herein regarded as an important institution in the valley since it has a great bearing on the socioeconomic development of the local people.

### **Mandates**

The Gwembe Valley Development Company's farming project is purely a commercial venture intent on growing cotton and wheat and a few other crops for the sake of making money. The Zambian Government has blessed the farming venture when it gave the farm the title deeds and when the President of the country formally commissioned the farm in July of 1987.

The government hopes the farming project will go a long way in developing the nation by producing the much desired wheat and other crops. Indeed, during the 1986/87 cropping season, the government commissioned the company to grow a rare hybrid sorghum seed on its land which is most suitable for this type of crop. The seed was then bought by the Zambia Seed Company for distribution to growers in similar agricultural conditions.

### **Role of Multilateral and Bilateral Agencies**

The farming project was started by international finance capital provided by Lumus, the major portion of which came from the Georgian-based international agricultural services corporation. The company came in after some amount of disappointment caused by several donors who had failed to bring in any tangible development in the area. For instance, as early as 1981 the area had been described as an Integrated Rural Development Project area but no major donor came up to finance it. In 1984, the West German Development Bank, KfW, commissioned a consultancy firm, Agrar Und Hydrotechnik, to carry out, together with local consultants, a multidisciplinary feasibility study focused on small-scale irrigation possibilities. People's expectations were raised high as they thought that at long last some project that might be beneficial to them was in the offing. To date (1988), this had not materialized; instead, the Germans

have come back to continue with their feasibility studies, but this time with minimum participation of local consultants. Gossner Evangelical Mission, as discussed above, has been operating in the area since 1970. However, many people, including those in decision making positions, feel that there is not much to show for their fifteen years and more of presence in the valley. Hence, the eagerness with which Chief Sinazongwe and a few other notables, both in the valley and in Lusaka accepted the company at least in the initial stages.

#### **Unexpected Events**

The farming project has been on only for two farming seasons. Hence, there is not much that has happened yet. Besides carrying out the expected farming activities, the farm has paid compensations to the people who lost their farmland and crops in 1985 when the company bulldozed their fields. People were paid K900 for every hectare of land lost. This is, however, equivalent to the value of only one year's crop on such a piece of land. The company is still expected to pay compensations to those whose residential houses had been destroyed. Some of the local people and authorities are thinking of demanding compensation for the crops and water that were polluted by the chemical which the company air-sprayed at the beginning of the current (1987/88) agricultural season.

#### **Contribution to Regional Development**

As Scudder observes the "Company has the potential to play a major role in the development of the Southern portion of Gwembe District" (1986:6). However, it is now too early to assess the development impacts the company had made in

the area. It is possible to identify several things which the company has done, plans to do or can contribute toward the development of the region.

The company has introduced the much needed daily bus-service between Sinazongwe subboma, near the farm and Choma some one hundred kilometers away on the plateau. The bus is owned by the newly founded Zyongwe Multipurpose Cooperative Society which has bought it on loan-basis from the company.

#### Outgrowers Scheme

Unlike the Nakambala Sugar Estate at Mazabuka, there is no outgrowers scheme associated with the Zambezi Valley Development Company's Farm. Such a scheme has, as Scudder observes, a great "potential . . . of dramatically raising living standards, and catalyzing a process of integrated area development which includes adequate company profit" (1986:18). The company probably requires more time to consolidate its own activities before embarking on an outgrowers scheme. It has also been argued that such a scheme may require further alienation of land from the local population, for, in order for it to be successful, it may have to be carried out on state land where the project will feel free to recruit and send away participant tenants as need arises.

#### Rural Electrification

There is a 66 KW electric transmission line from Maamba Collieries to the farm. However, the latter only requires half this amount of electricity. The rest can eventually be tapped by other users. Indeed, Buleya Malima Irrigation Scheme is going to do just that at the end of the 1988 rainy season. Funds for this have already been procured mainly from the Japanese government which has promised some K1,286,000. The local commercial fishermen have contributed

K400,000 toward the electrification project already. Once Buleya Malima will have been electrified, an additional twenty hectares is scheduled to be added to the present irrigation scheme. This will mean the inclusion of 40 new farm families into the scheme. More importantly, the scheme will operate even during drought years when the water level of Lake Kariba goes down.

#### Rural Employment and Rural Incomes

The Milimo-Siandwazi study showed that 50 percent of all the households that have been affected by the introduction of such a commercial farm have at least one member of their household in regular employment with the company (1987:35). According to district officials, there are as many as three hundred people in regular employment at the farm. The majority of these are locals. This does not include seasonal workers who are employed at peak periods. The average monthly wages for those in regular employment is K150.00.

#### Social and Economic Impacts

Since the establishment of the company, there has been economic hardships brought on the sixteen hundred or so individuals whose land had to be abandoned in order to establish the farm. The source of these people's livelihood has been forcibly taken away. A total of 630, however, have been compensated for the crops that the company destroyed and the farmland it took. The compensation was all in cash. The maximum an individual got was K46,000 while the majority got between K1,500 and K3,000. For the majority of the recipients, the money was not used to develop other farming areas. Thus, the problem of finding an alternative livelihood has not been resolved.

The impact the farm has had on the health and nutritional standards of the people is not yet clear. The Milimo-Siandwazi report shows that there was no evidence (yet) of any lowering of the nutritional status on the part of those who were affected by the Zambezi Valley Development Company. However, one hears of an upsurge of such illnesses as sexually transmitted diseases, of polluted waters and crops due to heavy dosages of chemical sprays.

## **THE KARIBA ELECTRICITY PROJECT**

### **Introduction**

Although the last project identified, the Kariba electricity project has had the most profound impacts on the lives of the people of the Middle Zambezi Valley. It is the project that caused the initial resettlements of the late 1950s and early 1960s. This was when the Kariba Gorge was dammed and the water flooded the homes and fields of some 50,000 people who had been living along both sides of the Zambezi River.

Whereas sound technical advice had strongly indicated the Kafue Gorge as the more ideal point to construct a hydroelectric plant, the ruling political authorities decided to construct the dam on the Zambezi River at the Kariba Gorge. The project was, and still is, owned by the two countries, Zimbabwe and Zambia, and is run by the Central African Power Corporation (CAPCO). Its objective is to create electricity for the two countries.

### **Impacts on the Local Populations**

As already mentioned, the creation of Lake Kariba forced local populations out of their homes. They also lost their gardens and grazing lands. The majority have not, in fact, completely fully readjusted themselves to the

resettlement conditions. Many of the projects and institutions discussed in this paper have been introduced precisely to address the problems of resettlement.

While benefiting the two countries, Zambia and Zimbabwe, in terms of electricity supply, the project has really not done much to improve the quality of life of the local population. The electricity that the project generates is not at all available to the indigenous people of the Zambezi valley. Instead, power lines fly over their roofs and heads as they transmit electricity to the copper mines and other parts of urban Zambia. It is only now that a firm decision has been made to make Kariba electricity accessible to some one hundred plus small-scale farmers at Buleya Malima Irrigation Scheme. The electricity at Maamba Coal Mine and at the small town of Siavonga cannot really be said to benefit the local Zambezi valley peoples for the majority of the population in these two towns hail from outside the valley.

While it is perhaps very costly to bring electricity to the majority of the peoples whose land was taken away thanks to the very project that is producing the electricity, introduction of other less expensive lake-related ventures which would assist the local people is not at all an unreasonable expectation. Such ventures would include fishing and irrigated cultivation. There is a big potential for developing commercial fishing in Lake Kariba. There are several types of fish in the lake, the major one being kapenta, a small type of fish which is a major industry in Zimbabwe; bream, the most popular local fish, and prawns. Prawns and a few other species are being developed on a commercial scale in Zimbabwe. Commercial fishing that takes place in Zambia is all owned by people from outside the valley. Hence, the

valley people have not benefited much by the construction of the Lake Kariba as far as fishing is concerned.

With such a huge mass of water in Lake Kariba, one would think that local people would get involved in irrigated agriculture. By and large, this has not been the case as there are constraints militating against the introduction of irrigation to the small-scale farming community in the Gwembe Valley. In the first place, viable irrigation schemes require large flat areas of fertile soils. Those are few, except in part of Gwembe South, and the northern end of Gwembe North. More importantly, there is need for electricity for pumping irrigation water. This is the only economically viable power source for pumping water and it is very expensive to install.

Water transport is another area that can be developed. This could immensely improve communications in the area where road-transport from one part of the valley to the other is at best problematic. The Valley Self-help Promotion Society as discussed earlier has attempted to address this problem. So has the Gwembe Valley Agricultural Mission (see below) operating between Chipepo in Gwembe Central and Siavonga. These attempts are, however, not sufficient.

Drawdown cultivation could be developed. This would greatly assist the people, especially in drought years. In like manner, pastures could be developed for the benefit of the animals, especially the goats which are presently overgrazing much of the valley.

While the creation of the Kariba hydroelectric scheme has gone a long way to make Zambia, and to an extent Zimbabwe, self-sufficient in electricity supplies, it has not done much to assist the indigenous valley peoples to improve their quality of life. The Central African Power Company (CAPCO) which

has been responsible for the scheme has concentrated on electricity generation and not on the overall development of the area. In 1987, CAPCO was replaced by the Zambezi River Authority. Judging from the name of the present responsible organization, one would think that its mandate and range of activities would be broad enough to cover other development activities other than generating electricity. To date, there is no sign of change of direction by the Zambezi River Authority which is still operating like CAPCO before it.

#### **OTHER ORGANIZATIONS AND INSTITUTIONS**

It is not possible to write at any length on all the organizations and institutions that are currently operating in the middle Zambezi Valley, which has seen a proliferation of external agencies during the drought years of the early 1980s. Hence, we will only provide a short list of these together with a brief description of the developmental work they are doing in the valley.

#### **Gwembe Valley Agricultural Mission (GVAM)**

The GVAM is directed by the Quakers who have for along time been stationed at Ibbwe Munyama on the escarpment that forms the western boundary of the valley. They are now operating from along the lake itself. Their activities include a boat service between Siavonga subboma and Chipepo in Gwembe Central, running rural health centers along the lake between Siavonga and Chipepo, and providing agricultural marketing depots where farmers can purchase their inputs and marketing agents can collect farm produce. GVAM is also heavily involved in promoting agriculture in the area. However, it is too early to assess the impact it has had since it has been operating in this manner only during the past three years.

### **Danish Volunteers**

Danish volunteers run a training farm at Gwena south of Siavonga in Gwembe North. The project is similar to the Zambezi Training Farm discussed above. They volunteers are assisted by a two-year trained agriculturalists seconded by the Department of Agriculture. After their training, the graduates are resettled in an area, hoping that they will put into practice the agricultural techniques they have learned.

This project has not had any marked impact on the area since the graduates do not generally utilize for any length of time the training they received. There is need for a comprehensive package which will include follow-up extension services.

### **Global 2000**

This organization is also trying to promote agricultural development in the valley. It is laying down demonstrations on sorghum growing with a view to making available the most suitable type of seed. If this venture is successful, it will go a long way in improving food production in the area, although the shift from sorghum, with which Global 2000 is experimenting, to maize consumption is already very evident.

### **World Vision**

This is another organization which is very active in the Gwembe Valley. It has established an office at Sinazongwe in Gwembe South and is also encouraging agricultural development in the area.

### **The Red Cross**

The Zambian Red Cross Society has been active during the drought years of the early 1980s. It has been distributing food-aid to the hunger-stricken valley populations.

### **Seventh Day Adventists**

Like the Zambia Red Cross Society, the Seventh Day Adventist Church was very active during the famine years. It raised money from its members in other parts of Zambia and from abroad. This money was used to purchase food for distribution in the famine areas.

### **The Roman Catholic Church**

This church did assist with famine relief during the drought years. It is now involved in promoting agricultural development through such activities as distributing farm inputs, especially in Gwembe South.

### **Africare**

Africare is one of the late arrivals on the Gwembe South scene. Two Zambian agricultural extension staff are living in Sinazongwe, a third at Sinazeze. Africare's efforts are directed primarily at assisting those sixteen hundred or so people who had forcibly abandoned their land to make room for the Gwembe Valley Development Company's farming project. Africare's objective is to help in improving agricultural productivity among these victims of the Gwembe Valley Farming Project and of the whole area generally. It has only been active for a year, hence, it is difficult to assess its impact.

### **Primary Cooperative Societies**

The Government Department of Cooperatives, together with a number of other organizations, notably GSDP, are promoting primary cooperative societies throughout the valley. The more successful ones, like the Mwaze Cooperative Consumer Society and VSP itself, are the ones with capable and devoted leadership as well as relevant economic activities.

### **Canadian Universities Services Organization (CUSO)**

This organization, which is operating in many parts of Zambia promoting women's clubs, has several such clubs in the Gwembe Valley. The two clubs in Gwembe South are at Sinazongwe subboma and Sinamalima area. The women are encouraged to form clubs whose main activity is farming.

No evaluation of these clubs, which were formed in 1983/84, has been made. An evaluation of similar clubs in other parts of the country has shown that such clubs are not as effective and successful as intended (Chilivumba and Kanyangwa 1985), for, among other factors, once donor assistance withdraws, the clubs collapse.

### **Maamba Coal Mine**

Though mentioned last, Maamba Mine and its predecessor, Nkandabwe open pit coal mine, have contributed immensely towards the copper mining industry in Zambia, they have provided the coal that is required for copper smelters. However, apart from giving employment to a few local valley inhabitants, Maamba Mine has had limited impacts on the social and economic development of the Zambezi Valley.

### CONCLUSIONS

The Kariba hydroelectric has played the key role in the development, or indeed lack of development of the Middle Zambezi Basin. Its creation brought about forced resettlement of the valley populations,, a resettlement to which they have not fully adjusted. Zimbabwe and Zambia, who own and manage the electric scheme, have concentrated almost exclusively on obtaining electricity from the whole venture and have not paid adequate attention to the development of other resource opportunities that arise as a result of the construction of the Kariba Dam. These resources include fishing, water transport, irrigate farming, as well as the human resources to undertake this broader based integrated rural development effort.

The plight and needs of the Zambezi Valley people have been clearly appreciated by the outside world, especially in the wake of the Rhodesia/ Zimbabwe liberation war and the severe droughts that followed. There is consequently a multitude of organizations working in the valley, each doing their own thing but all claiming to encourage the social and economic development of the area. The activities of these organizations are often characterized by overlaps, duplications, and met too occasionally by competition. Development activities of this nature tend to come from above. They have restricted involvement of the local people. When the external agencies withdraw, these development activities often come to a standstill.

There is, however, evidence of the possibility of local institutions having the potential to become viable. The VSP in Gwembe South is an example of such institutions. Instead of each carrying out their individual project, the various donor agencies could consider working by promising local institutions that they will not stifle the life and initiatives of these organizations

with their many ideas and money, but that they will strengthen them. The Gwembe South Development Project has been trying to do precisely this by promoting the Valley Self-help Promotion Society and the various irrigation schemes whose farmers executive committees are in the process of being built up and strengthened into self-reliant, self-supporting organizations which can administer the irrigation schemes. The Gwembe South Project has, of course, been considered slow in producing the desired effects. On the other hand, the Gwembe Valley Development Company has descended on the area and put up a large commercial farm which employs a number of local people but which is basically interested in making money for itself. The other agencies tend to lie between these two extremes in terms of involving local people in development efforts.

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