PD-ABD-412
74343

U.S.A.I.D./O.M.V.S.

INTEGRATED DEVELOPMENT PROJECT

PROJECT NO. 625-0621

VOLUME III

Section 3.10

PRIVATE SECTOR ANALYSIS

October 1982

TABLE OF CONTENTS

3.10.0 SUMMARY

By far the most important reason for the limited role of the private sector in the Senegal River Basin is the all-encompassing role of the state. The governments of all three OMVS countries intervene heavily in the development of the river basin via the three RDA's: SAED in Senegal, SONADER in Mauritania, and OVSTM in Mali (1). The mandates of these RDA's include, among other responsibilities, the provision of all necessary inputs of goods and services and the collection and marketing of all output. The RDA's are sometimes accorded legal monopolies for these activities. Even in cases where they are not, however, the subsidies, credit, and doorstep delivery services that they offer effectively discourage the private sector from successfully competing in the marketplace.

The role of the private sector, other than as a direct supplier for the RDA's, has been thus far relegated to providing services either not included in the RDA's mandate or for which the RDA is responsible but has failed to provide. When RDA deficiencies have proven significant enough, farmers have undertaken to rectify the situation themselves by turning to the private sector.

In examining the potential of the private sector, it is important to consider the future role envisioned by the governments for these RDA's. In Mauritania, the state feels that RDA participation in agricultural development will continue to be necessary for the foreseable future, not from choice but from necessity. In Mali and Senegal, both governements are committed to an increasing reliance on private initiative. In Mali, these intentions will have little relevance to the First Region (in which the Malian portion of the Senegal River Basin is contained). In Senegal, this decision is likely to have more influence on private sector development, as it will directly affect the RDA responsible for the Senegalese portion of the river basin.

In each of the three countries, formal banking institutions designed specifically to meet the needs of the agricultural sector are still in embryonic stages. None of the three countries have operations in the Senegal River Basin. Existing lines of credit in the valley have been made available largely by the RDA's, and then only for the inputs and services that they provide. If the private sector is to take an active role in the SRB, banking institutions must be available to service the farmer and small entrepreneur in the valley. This measure will require technical assistance in the design of effective programs as well as coordination with the RDA's in extending credit to the small borrower.

Although a gradual loosening of state control is certainly the first essential step for the development of the private sector, it is not the only necessary ingredient. As a result of the current low levels of profitability

---

(1) SAED: Société d'Aménagement et d'Exploitation des Terres du Delta et des Vallées du Sénégal et de la Falémé.
SONADER: Société Nationale de Développement Rural.
OVSTM: Opération Vallée Sénégal, Térékolé et Lac Magui.

in irrigated farming and a lack of access to farm credit (other than from RDA's), demand for private inputs is very weak. Lack of demand is the binding constraint to the development of the private sector.

Once demand is manifested, private sector potential for the supply of agricultural inputs can be exploited. Almost all suppliers interviewed for this analysis expressed an interest in expanding their activities into any profitable domain. Low level of income would make entrepreneurs unwilling to undertake any risk, however. Other impediments to private sector expansion include high costs, lack of credit, lack of training and infrastructure, and pricing policies. All of these constraints are binding primarily for the small and medium-scale local enterprises, and not for larger, foreign-owned firms located in the capitals. Unless some of these obstacles are elimated, only these larger firms are likely to respond to an increase in demand.

Traditionally, assistance to the private sector has focused on improving supply capacity. Since lack of demand appears to be the binding constraint in the river basin, however, concentrating on increasing supply can lead to an overproduction of goods and skills for which there is no market. Initial attention must therefore be directed toward raising the level of effective demand.

Farmers will not seek out the private sector until irrigated farming proves profitable enough for them to purchase inputs. Therefore, the primary goal of seeking external assistance should be to assure the financial viability (at unsubsidized prices) of agricultural production. Until farmers have this kind of assurance, they will remain dependent upon the state. RDA's must be encouraged to withdraw their input subsidies and services so farmers will have incentive to turn to the private sector. Once institutions are established to provide the necessary credit for farmers to make these purchases, policies to encourage private suppliers can be considered. Assistance can then be channeled into construction infrastructure, developing business credit, providing training programs, and cutting costs.

3.10.1. INTRODUCTION

3.10.1.1. Government Intervention in Economic Development

The Senegal River Basin should be viewed as a single socioeconomic unit. Within it, however, diversities exist on all levels, contrasting the upper valley, middle valley and the Delta from each other in ethnic groupings, natural resources, climate, soil types, etc. As a unit, the basin is distinct from the rest of the interior of the three countries and its three regions have an important common feature: their economic development is dominated by each government's heavy participation in every important sector. As a result, the diverse government policies involving currency, customs, taxes, pricing, etc. have created distinctly different economic systems for each nationally determined region.

The sustained low level of development in the OMVS member countries demonstrates the need for external forces to mobilize resources. Technology researchers in developed countries have not traditionally addressed themselves to the problems of limited natural resources in the Sahel. The little technology that exists and is appropriate to local resources and conditions is generally available only at exorbitant cost. Economic investment in the region is often beyond the means of the average individual or enterprise. Majority of the population in these countries exist at the subsistence level, few having the income for savings and investment. These individuals cannot undertake investment of the scale required to exploit these limited resources. As a result, the government finds itself in the position of being the only "engine for growth". Furthermore, the lack of infrastructure, including transportation and communications systems, combined with the lack of expertise and management skills, prevent farmers from coordinating their activities on a national or regional basis to reap sufficient economies of scale to make these projects profitable.

3.10.1.2. State Planning in the Sahel

The governments believe that the tendency to "pursue" traditional activities (either for socioeconomic reasons or because inadequate communications systems inhibit exposure to new ideas) keeps farmers from expanding into profitable areas and making productive investments essential for future growth. Since the local population historically has not given much consideration to long-range planning, an important function of the state has been to mobilize resources and channel them into activities it deems appropriate.

Sahelian governments have also served as intermediaries between the donors and the population for foreign assistance inputs and have determined priorities for the allocation of scarce resources such as foreign exchange. State planning aimes at achieving the following national objectives:

- Income equality - Resources should be redistributed between sectors and regions to improve the collective social welfare rather than to assure individual prosperity.

- Protection of the Government - Excessive concentration of individual economic power could threaten the existing political power structure.

- Independence, security, and stability - To achieve the purported goal of "food self-sufficiency", the governments are beginning to encourage farmers in the river basin to grow staple crops to meet domestic consumption needs instead of cash crops, regardless of how much more lucrative the latter may be.

- Rural development - Without government intervention, resources (capital or human) will flow into urban centers where returns are generally higher.

- Accelerated progress - To forge ahead with intensive programs, before necessary infrastructure is in place, huge investments, beyond the capacity of individuals or groups, are often necessary.

To achieve the objectives and avoid the problems outlined above, Senegal, Mali, and Mauritania have created a myriad of state and parastatal entities. Through these government control has permeated almost every sphere of economic activity. State participation in commercial, industrial, and integrated regional development agencies has become so overwhelming that to study virtually any aspect of the economy, including the private sector, one must view it in the context of these state institutions.

3.10.2. THE ROLE OF THE RDA'S

This chapter presents a description of RDA mandates, policies and responsibilities so as to demonstrate how the subsidies, credit, and delivery services they offer discourage the private sector. A more detailed organizational analysis of these institutions is presented in the "Institutional ANalysis," Volume III, Section 4.

3.10.2.1. Senegal - SAED

SAED (Société d'Aménagement et d'Exploitation des Terres du Delta et des Vallées du Sénégal et de la Falémé) was established by public law No. 6501 of 20 January 1965. Initially its authority was limited to the Delta Region, but it has progressively extended and now covers the right bank of the Senegal River as well as the valley of the Falémé River. Its responsibilities include:

- implementation of all infrastructure needed for the development and exploitation of lands under its control;
- maintenance of hydroagricultural perimeters and equipment;
- extension of farming techniques;
- supply of inputs;
- water management;
- organization and monitoring of marketing for harvested products.

To carry out these functions, SAED has a headquarters based in Saint Louis as well as regional operational bases in Richard Toll, Dagana, Nianga, N'Dioum, Guédé, Haere Lao, Matam, and Bakel.

1. Construction

For the construction of large perimeters, SAED personnel and equipment are used for infrastructure development and to prepare the land. For small perimeters farmers do this work by hand, although in some cases the villages have gone to SAED (or nearby government institutions) and asked for mechanized equipment. In all cases, the farmers are charged for the value of these services (unless provided by a bilateral donor).

2. Pumps

SAED equips the large perimeters with big pumping stations and the small perimeters with individual pumps, the latter charged to the farmers. In theory, each production group is expected to establish an amortization fund to set aside a certain sum per hectare per year so that at the end of the pump life, the farmers can purchase replacements from private suppliers themselves. In reality, SAED has been unwilling or unable to manage these accounts and farmers have had little incentive to comply, considering the inadequately managed accounts and the difficulties of obtaining loans from a bank.

Both large and small pumps are provided with a supply of spare parts by SAED. On the large perimeters, the farmers are billed for these as part of their general pumping costs. However, because SAED is poorly organized for storing these parts, lacks funds for up front purchases and suffers from lengthy bureaucratic processes in parts acquisitions, therehave been major shortages and delays in parts deliveries. On the small perimeters, SAED resells parts that come with the small pumps at original cost. Most are sold on credit, much of which is not repaid. The amount that is paid back is insufficient to replace the stock at current prices. To deal with the resulting shortages farmers collect funds and send either a SAED agent or or association or cooperative member to Dakar to buy spare parts directly from private companies.

3. Motor fuel

SAED has been buying motor fuel and lubricants wholesale and selling them (tax included) to the farmers. However, the irregularity of supply, often at critical moments, has been a serious threat to production in recent growing seasons. The fault has been attributed to SAED's bureaucratic inefficiencies. As a result, many farmers are now buying motor fuel directly from private suppliers.

4. Equipment, Maintenance and Repair

SAED also provides agricultural equipment for farmers, but this service has been disrupted at times by financial problems of the local manufacturer and by the lack of medium-term credit for these purchases.

Maintenance and repair of all SAED equipment are performed free of charge either on site, by the several mechanics based in each zone, or in the SAED workship in Ross Bethio. In areas where there are adequate numbers of mechanics, such as Nianga and Matam, this system works for the most part. In the other departments, however, insufficient numbers or poorly trained personnel have led to inadequate maintenance of existing material and substantial delays for repairs.

5. Seeds and fertilizer

The Government of Senegal has heavily subsidized seeds and fertilizer through the input supply parastatal, SONAR, which also provides credit. SAED acts as an intermediary for the distribution of these items. Similarly, bills submitted to the farmer for all of the inputs and services listed above, whether technically subsidized or not, are far below their actual cost.

6. Marketing

Until 1981, SAED had a legal monopoly on the purchase and processing of rice. Farmers currently sell at the official price. Their debts to SAED for goods and services rendered are deducted from the proceeds of their sales, calculated at the official price. However, the unofficial price is significantly higher than the official one. Since payment can be made in cash or in kind, farmers prefer to sell their rice in the parallel market and repay SAED in cash.

The rice purchased by SAED is taken to the SAED rice factories in Richard Toll and Ross Bethio for processing and then sold to "approved" merchants. Rice sold on the parallel market is pounded by hand or in individual rice hulling machines.

Until the 1981 growing season, farmers were allowed to sell 20 percent of their tomato harvest on the free market. The remaining 80 percent had to be sold to SAED, which in turn distributed it to one of the two tomato processing factories - SOCAS in Savoigne or SNTI in Dagana.

In principle, perimeters that do not repay their debt do not receive input or services the following growing season. This policy has only recently been enforced, however.

3.10.2.2. Mauritania-SONADER

SONADER (Société Nationale de Développement Rural) was established by decree No. 75237 of 24 July 1973 and amended by decree No. 76036 of 12 February 1976 and by decree No. 78183 of 28 June 1978. Its responsibilities include:

- the study, implementation, and control of infrastruction for hydroagricultural projects;
- monitoring and management of operations;
- extension services, training of farmers and agents;
- supply of production inputs;
- maintenance of perimeters, facilities, and equipment;
- supervision of individual or private enterprise perimeters, as requested by the government.

1. Construction

SONADER performs all land clearing and diking for the large perimeters; farmers do all other work by hand (including work on the small perimeters).

2. Inputs

SONADER provides the first pump at 50 percent of cost, to be repaid over a period of three years at 8.5 percent interest per year. The second pump is subsidized at only 1/3 the cost, while the third pump is not subsidized at all. SONADER provides inputs for production (seeds, fertilizers, chemical products) and for pumps (electricity for the large pumping stations, motor oil for the small ones, lubricants, and spare parts) free of charge for the first growing season. For subsequent seasons, seeds and chemical products are subsidized at 50 percent and fertilizers at 60 percent of cost. Motor fuel is not subsidized but is exonerated from all taxes. Spare parts are also exonerated if they are bought with the pump, but later purchases are not. SONADER is responsible for bringing all inputs directly to the perimeters, yet it experiences substantial difficulties in delivering on a timely basis. Part of the problem stems from causes beyond SONADER's control, such as difficulties with washed out roads, and poor access to isolated regions. Much of the problem, however, can be attributed to a bureaucracy too centralized and over burdened with many diverse responsibilities.

3. Maintenance and repair

Although SONADER is equipped with mechanics to provide maintenance and repair, the quality of the service is very poor. Much equipment is broken down or in deteriorating condition.

The fixed fee charged by SONADER to farmers for goods and services rendered at the end of each growing season is substantially below their real cost. They can pay in cash or in kind with a one percent per month interest charge on late repayments. Reimbursement for debts owed on pumps is collected at the same time. Farmers who pay in cash before the growing season get a five percent discount. Those who do not pay at all do not receive any inputs the following growing season. SONADER has been very strict in enforcing this rule.

4. Marketing

Although farmers are allowed to sell their output to whomever they wish, they have an incentive to sell rice to SONADER since, unlike Senegal, the official price is close to the free market price. This encourages farmers to grow rice, even though SONADER's rice processing factory at Kaédi does not have sufficient capacity to handle all the harves. This results in a flow of Mauritanian rice into Senegal. Since the Mauritanian government does not regulate the price of corn, only the first farmers on the market can reap profits, and those that follow generally face fluctuating prices, according to the law of supply and demand.

3.10.2.3. Mali - OVSTM

Up until May 1981, the agency responsible for irrigated farming in the Senegal River Basin in Mali was called API (Action Périmètres Irrigués). Its mandate included:

- distribution of parcels on perimeters;
- maintenance of perimeters and infrastructure;
- dissemination of services for all phases of production;
- production and distribution of seeds;
- provision of agricultural equipment;
- marketing;
- collection of repayments and agricultural taxes;
- training of farmers and extension agents;
- establishment of structures to enable farmers to eventually manage themselves (2).

(2) Arrêté No. du 17 Décembre 1976, Ministère du Développement Rural République du Mali.

In May 1981, OVSTM (Opération Vallée Sénégal, Térékolé et Lac Mague) was created in order to incorporate and expand the functions of API. OVSTM's new responsibilities include organization of agricultural credit and "proposing and executing all programs relevant to different aspects of production in the zone". At the same time, the region was also enlarged to include the Térékolé and Lac Magui Valleys (3). In reality, however, nothing has changed, because OVSTM has not been granted the financial means to carry out these additional responsibilites. In fact, API-OVSTM has received little operating funds since 1978. During the 1980-1981 growing season, only about 80 hectares were cultivated, for which farmers financed all inputs themselves.

1. Construction

All construction of perimeters in the First Region has been done by hand, with technical assistance from API.

2. Pumps

API was originally created to assist farmers who had bought their own pumps with money that they or their families had earned in France or elsewhere. However, with the aid of financing from external donors, API and OVSTM have given pumps free of charge to farmers included within donor projects. These farmers were expected to establish amortization accounts at the BDM (Development Bank of Mali) branch in Kayes for eventual pump replacement. This has, in fact, not happened.

3. Other inputs

Until recently, SCAER (Société de Crédit Agricole et d'Equipement Rural) was responsible for providing agricultural equipment and machinery to the RDA's for all of Mali. It was also responsible for purchasing and distributing (on credit, at subsidized prices) all production inputs, such as seeds and fertilizers. In the First Region, however, external donors have provided almost all inputs. Depending on the policy of the donor financing the particular project, farmers were given free of charge or sold inputs on credit to be repaid at the end of the growing season. Since SCAER has been liquidated (see below), this dependency on foreign assistance is expected to continue.

4. Maintenance and repair

OVSTM has four mechanics who do high quality work, but are often prevented by poor communications and roads from servicing pumps adequately. Pumps are thus often inoperative. Very little machinery or equipment is used in the First Region.

5. Marketing

Most of the perimeters produce fresh vegetables to be sold on the Kayes market. Although these vegetables are supposed to be sold at

(3) Ordonnance No. 81-8 PRM, Ministère du Développement Rural République du Mali.

official prices, inundated markets cause prices to fall. Most cereals that are grown are consumed locally or smuggled onto the Senegalese market, where even official prices are higher than in Mali, and parallel market prices are higher still. In principle, OVSTM is supposed to assist with marketing, but in reality it has no funds with which to purchase output, insufficient trucks to transport output to principle buying points, and no significant storage facilities.

3.10.3. THE ROLE OF THE PRIVATE SECTOR

RDA's face little direct competition. When these agencies are able to provide the goods and services called for in their mandates, they offer terms which the farmer cannot turn down. Nonetheless, the private sector does participate in four spheres of activity:

1. as suppliers to the RDA's;
2. as providers of services not included in the mandates;
3. on a shadow market, stepping in where the RDA fails and the demand is so great that farmers are forced to seek other sources;
4. in industry.

3.10.3.1. Suppliers to RDA's

The most important role played by the private sector is in supplying inputs to RDA's. This is largely not the case in the river basin itself. Generally, for heavy and/or sophisticated equipment, the RDA issues an international bid and goods are imported and supplied to the RDA through the local representative, of a large foreign-owned firm in the capital city.

3.10.3.1.1. Senegal

While Dakar is the major supply center for the Senegal River Basin, the majority of inputs for RDA's in Mali and Mauritania are imported through the respective capitals, of Bamako and Nouakchott

a. Equipment and machinery

The major suppliers of agricultural equipment and machinery in Dakar are MATFORCE, AFCO, SARIA, PEYRISSAC, and SISMAR. The first four of these are 100 percent French-owned and managed and quite similar in their operations. SISMAR is a mixed enterprise company and will be discussed separately below. Each of these French companies represents different brand names of equipment and vehicles. They pay full taxes on all imports and resell to RDA's with tax included. These companies do all the necessary installations and provide training (it is often financed by external assistance or shared with SAED) for the maintenance and repair of the goods they have sold to the individual farmer or to SAED. These companies also have their own mechanics available for repair problems beyond local capabilities but, with the exception of MATFORCE's mechanics, they are all based in Dakar, and delays for repairs can be substantial. Minimal credit to the RDA's is provided by the companies for periods ranging from one to three months.

Individuals or cooperatives wishing to purchase on credit must make arrangements through a bank with appropriate guarantees.

The biggest complaint voiced against these companies by both the RDA's and the farmers is that they often do not have the necessary spare part for a particular breakdown. The companies counter with the three following arguments:

- Substantial taxes on imports and high interest rates make inventories very expensive and keep stocks to a minimum.

- Stocks must turn over a certain number of times per year in order to be profitable. In this area, however they only turn over about one-twelfth of what is necessary for a good profit. This is due to the fact that farmers prefer to repair old parts over and over again or devise ingenious means of replacing them rather than laying out cash for new parts.

- The failure to replace parts when necessary and insistence on pushing the life of a part to the extreme limit often cause much more serious problems by ruining parts that would not ordinarily need to be replaced and are therefore not kept in stock.

None of these companies actually have branches in the river basin. They all claim that they would certainly open one if demand were sufficient, but that attempts to date have proven unprofitable. PEYRISSAC had an outlet in Podor, but that closed 10 years ago. Its main outlet for 100 years in Saint Louis was just sold in 1981 to a private Senegalese company (Comptoir Commercial Africain) after PEYRISSAC's. headquarters were moved to Dakar.

MATFORCE opened a branch in Matam in 1978, but found it to be unprofitable. Indications are that the sales manager did not sell enough and that the mechanic never came to work. Before this branch could be closed down, however, the Caisse Centrale intervened with financing and the branch was sold to a private Senegalese entrepreneur. MATFORCE provides the company with technical assistance and furnishes all parts on credit. Both MATFORCE and PEYRISSAC agree that the biggest problem is finding quality employees willing to live in the river basin.

AFCO plans to establish a workshop in Richard Toll in which to hold seminars for practical training in maintenance and repairs and to stock essential spare parts. The Caisse Centrale will finance this project.

SISMAR is the joint Belgian-Senegalese enterprise that bought out the bankrupt SISCOMA last year. It will continue SISCOMA's activities, which include:

- manufacturing appropriate technology equipment in Dakar. The factory has a capacity of 200,000 units. Primary inputs are imported from Europe;

- importing other types of motorized equipment, some of which are adapted in Dakar to make them more appropriate to farming conditions in the Sahel;

SISMAR will continue to export to all the countries of the Sahel.

b. <u>Fertilizer</u>

Fertilizer is produced by a company called SIES (Société Industrielle d'Engrais du Sénégal) in Dakar, a mixed-enterprise firm with its capital of 1.7 billion CFA divided between European and Senegalese, public and private interests. The factory has a production capacity of 120,000 tons and produces anywhere from 50 to 100 percent of that amount in any given year, depending on the market.

Fertilizer is marketed through SSEPC (Société Sénégalaise d'Engrais et Produits Chimiques), SIES's commercialization office, which is considered "private" in Senegal but which is a branch of a French parastatal, EMC (Entreprise Minière et Chimique). SSEPC markets Senegal's fertilizer and other insecticide/pesticide products both for the Senegalese market and for export in the Sahel.

Although SSEPC exports fertilizer throughout the Sahel, the bulk of SIES' fertilizer output is sold to SONAR, the Senegalese state agency responsible for purchase and resale of seeds, fertilizer, chemical products, and cereal output. SIES currently sells fertilizer to SONAR, which then resells it to cooperatives and RDA's on credit with a 60 percent subsidy. The state absorbs the difference. Supposedly, SIES does not offer any credit beyond the 30 day billing period, but ONCAD, SONAR's predecessor, still "owes" SIES 2 billion CFA, and SONAR now owes SIES another 2 billion CFA. It is difficult to determine the overall profitability of the company as input and output prices are determined by policymakers and profit margins greatly fluctuate.

SAED purchases roughly 1,000 tons of fertilizer per year from SONAR. It then acts as an intermediary for distribution and credit between SONAR and the farmers.

3.10.3.1.2. <u>Mali</u>

a. <u>SCAER</u> (Société de Construction Agricole et d'Equipement Rural)

In 1971, the Malian government placed the responsibility for supplying of agricultural inputs as well as for handling credit under the mandate of one institution, SCAER, which was to evaluate all of the agricultural input needs of the country and make the necessary purchases either on the local market or by international bid. These goods were sold on credit at subsidized prices, primarily to RDA's. The comprehensive acquisition and distribution role played by SCAER, combined with the extensive subsidies it provides, explain to a large extent why private enterprises have participated only minimally in the supply of agricultural inputs.

SCAER's major suppliers for agricultural equipment and machinery were SMECMA, a local manufacturer (see below), and MATFORCE, a French import company in Dakar. However, purchases were sometimes made through SIEMI, SIMAGA, Manutention Africaine, and other private companies in Bamako. SCAER also received equipment in kind from bilateral donors. Because so little equipment and machinery exists in the First Region, however, it is impossible to consider any of these firms as a major supplier to the Senegal River Basin.

SCAER's primary source of fertilizer is SSEPC in Senegal. However, the creation of SONAREM, a local company, should allow Mali to meet most needs internally. Other chemical products come from CIBA-GEIGY, a private Swiss company, and SHELL oil company in Abidjan. OPSR (Operation for Seed and Harvest Protection), a state agency, supplies seeds.

As mentioned above, SCAER is being dissolved due to poor management, problems with debt repayment, and the government's inability to cover subsidies already granted. A "Centrale d'Achat" under the supervision of the Ministry of Agriculture will replace it. In principle, this will provide the same purchase and supply services as SCAER, with about the same amount of private sector input.

At the moment, SCAER still exists, but its operations are rapidly winding down, and it is receiving no more funding. However, nothing concrete has occured for the actual establishment of the new Centrale d'Achat and its future mode of operations is yet to be determined. For the time being, external assistance and small private suppliers are meeting OVSTM's minimal input needs.

b. <u>SMECMA</u> (Société Malienne d'Entreprises et de Construction de Matériel Agricole).

SMECMA resembles SISCOMA in Senegal. It produces all kinds of light agricultural equipment at its factory in Bamako and imports 97 percent of its raw material. It also imports semi-finished agricultural material for completion. It operates at roughly 65 percent of its 90,000 unit capacity.

SMECMA was originally financed by the FAC (Fonds d'Aide et de Coopération - the French bilateral assistance program) and operates jointly with a private French firm, CODAMM, from which it must purchase 100 percent of its import needs. One-sixth of its current capital of 350.4 million FM is owned by CODAMM, and five-sixths by the Malian government or state agencies (BDM, SONATOM, COMATEX, SEPOM, CMDT).

During its first five years of operation, SMECMA received import exonerations and expanded rapidly. However, recently it has been experiencing financial difficulties. Strapped for cash, the government has to "ask" SMECMA for an advance on its 1980/81 tax obligations. Two other major problems are poor general management and management of stocks, which both result in considerable delays for the delivery of equipment.

3.10.3.1.3. Mauritania

SONADER can import directly itself and does for much of its equipment. It finds that this is much cheaper than working through the local companies which lack economies of scale and which then take their own cut as well. Also, in principle, SONADER is exonerated from import duties on most of its purchases and it is easier (albeit still difficult) for SONADER to deal with customs itself.

Nonetheless, SONADER does make purchases on the Nouakchott and Dakar markets. In Mauritania, a greater range of locally-owned firms provide agricultural inputs than in Dakar or Bamako. RIMATEC, a mixed enterprise, 100 percent Mauritanian-run company, is SONADER's largest local supplier of agricultural equipment. MATFORCE, in Dakar, follows close behind. SIRCOMA, ARADIS (two other Mauritanian companies) and SIEMI (a French company) also make occasional sales.

Fertilizers come from SSEPC in Dakar and ARADIS and CIPROCHIMIE in Nouakchott; the latter two are both 100 percent privately-run Mauritanian companies.

ARADIS, which boasts a product line ranging from fertilizer to agricultural implements, machinery, and irrigation equipment, plans to open equipment depots in Rosso, Boghé, Kaédi, and Sélibaby in 1982. The other companies confirmed that they would be interested in river basin branches if they proved profitable, but all saw competition with SONADER, low returns in agriculture, lack of infrastructure, and serious problems with debt repayment as serious obstacles and did not foresee establishing river basin branches in the near future.

3.10.3.2. Services Not Included in RDA Mandates

The private sector plays a limited role in providing services other than those described above. Competition with the RDA's is one constraining factor; further constraints will be discussed below. Nonetheless, the private sector does participate, primarily in the following two areas:

(1) supplying inputs and services for private perimeters
(2) supplying inputs for nonirrigated farming.

As of July 1981, there were 589 hectares of private perimeters in the river basin; 570 hectares (19 perimeters) are in Mauritania and 17 hectares (3 perimeters) in Senegal. Most of these hectares are in the Delta, and are owned by individuals with private capital at their disposal, such as merchants, livestock owners, and government officials. Another 1,099 hectares are not under the supervision of an RDA. These are run primarily by Private Voluntary Organizations (PVO's) in Mauritania (325 hectares in 20 perimeters) and youth groups in Senegal (774 hectares in 15 perimeters).

In general, PVO's import the inputs they need or buy them from the large firms in the capital cities. Private individuals buy primarily in the capital cities. Nonetheless, small-scale commerce, involving primarily the informal sector, does serve the needs of private perimeters and farmers practicing nonirrigated technology in the river basin.

The survey done for this analysis found that no more than 20 merchants along the entire river basin really sell agricultural inputs, and that even then, the merchandise sold is limited to very small implements such as shovels, rakes, spades, hoes, and wheel barrows. Only five merchants actually sell pumps and pump parts, though they are willing to order most anything a farmer requests. Approximately another two dozen merchants sell tools and small hardware, but again, on a very limited basis. Half of the latter are Lebanese.

While all of the merchants complained of slow business and lack of demand, some of those that currently do not furnish agricultural inputs claimed that even if demand for these products increased, they would not enter that market. Thirty percent said agricultural items did not interest them, while another 30 percent explained that market belonged to someone else and that they would not encroach on it. Another 40 percent felt that the existing competition was too stiff for them to penetrate those markets.

In all three countries, merchants generally claimed to make their purchases in their respective capital cities. This is true of Mali and Mauritania because customs operations are centralized in the capitals. Theoretically only merchants with licenses are allowed to import and legal trade in goods only exists in Senegal. Nonetheless, it is obvious that a substantial amount of illicit trade takes place and that customs requirements are ignored or "negotiated" at the borders.

The OMVS socioeconomic study of 1980 found the role played by regional centers to be limited and emphasized links between the capital cities and the basin instead. This finding appears to hold true for Tambacounda, Senegal, which plays no role in river basin agricultural commerce. But is not valid for agricultural inputs and related items, supplied from Saint Louis. PEYRISSAC (Comptoir Commercial Africain) in Saint Louis draws a significant proportion of merchants from Richard Toll (50 percent), Dagana (40 percent), and Podor (25 percent).

For transportation, PEYRISSAC in Saint Louis and MATFORCE in Matam, as well as six other individual merchants, were found to have their own trucks. Other merchants rent vehicles in the capital cities.

For credit, 90 percent of merchants interviewedclaimed that they did not need credit, implying that they either had sufficient liquidity or had obtained credit elsewhere. Only the Lebanese admitted to having obtained bank credit. Another 7 percent felt such credit was too costly, while 3 percent claimed that they had tried but were unable to obtain credit.

For the maintenance and repair of Diesel pumpsets and agricultural equipment in the river basin, the survey uncovered a dozen qualified mechanics working on their own in Senegal and eight working for CSS (Sugar Company of Senegal) in the Richard Toll-Dagana. Another 24 private mechanics and some 75-100 apprentices where found who work only on gasoline engines, cars and small trucks.

The survey in Mauritania found all of the mechanics there to be Senegalese except for one, who was Malian. Most of the mechanics were trained in Senegal by private companies or had held past jobs with the Senegalese government. The others had been apprentices in Saint Louis or Dakar. None of the mechanics had been trained on site.

Spare parts for pumps and agricultural equipment in Senegal are only available on a consistent basis from Richard Toll, Saint Louis, and Dakar. In both Mauritania and Mali, private mechanics buy their parts directly from Dakar. Customs duties are not levied on these goods, since they are for end-use and not for resale.

3.10.3.3. Private Sector's Role in the Shadow Market

This study found that farmers have taken the initiative to turn to other sources when RDA's fail to fulfill their responsibilities, but they do so rarely, only in emergencies. However, there are three important exceptions to this in Senegal:

a. Motor fuel - The insufficient supply of motor fuel for pumps and equipment has become a constraint to many operations along the left bank of the river. While the situation has been difficult to rectify for the large pumping stations because of the quantities required, farmers on small perimeters have resorted to buying directly from private service stations. For many of the perimeters, SAED has abandoned its fuel supply operations altogether.

b. Spare parts - Where SAED stocks have run out for small pumps, farmers have been able to collect funds among themselves and buy necessary parts in Dakar.

c. Marketing - Because the parallel market price for rice is higher than the official price paid by SAED, farmers are doing their own marketing to the greatest extent possible, despite the fact that SAED has a legal monopoly on these activities. Private rice hulling machines have been appearing along the length of the left bank. Farmers sell only enough rice to SAED to repay their debts. If possible, however, they prefer to reimburse these debts in cash by selling their rice beforehand on the parallel market or by selling livestock or other personal possessions.

Aside from these exceptions, this study found that deficiencies in RDA service do not stimulate private initiative in supplying inputs for the following reasons:

(1) Farmers are unwilling or unable to turn to private suppliers. Despite the inefficiencies and delays, the RDA's can provide goods and services either heavily subsidized, tax free, or free of charge, because:

(a) they are financed by state and external donors;
(b) they receive tax exemptions on their own purchases; or
(c) they achieve important economics of scale in their operations, an especially important consideration for imports.

RDA prices are so much lower than outside prices that farmers normally can afford to wait for the RDA's services.

(2) Even if the farmers do turn to the private market, suppliers often cannot respond because the farmers needs are too diverse and sporadic or because RDA failure to meet these needs stems from constraints that inhibit the private sector as well, such as washed out roads or lack of foreign exchange.

3.10.3.4. Industrial Capacity

Very little of the private industry ha. been developed in the river basin area.

a. Rice

As noted above, SAED has a monopoly on the transformation of rice and owns and operates two rice factories, one at Ross Bethio and one at Richard Toll. SONADER too, has its own rice factory at Kaédi. Beyond individual rice hulling machines, however, the private sector is not involved in rice transformation.

b. Sugar

The most important industrial concern in the river is the CSS (Compagnie Sucrière du Sénégal). This 100 percent private French-owned company with capital of 11.3 billion CFA has been accorded a monopoly by the state for the production and marketing of sugar in Senegal. Its average annual after-tax turnover is 16 billion CFA. The company currently has 850 permanent employees (of which 65 are expatriate), but this figure swells to 7,200 during peak season. Its current processing capacity is 100,000 tons of raw sugar; with the recently completed extension of the factory, this figure will increase to 120,000. Actual processing in 1980 was only 78,000 tons.

CSS's equipment is French and British and was imported by the company itself. Spare parts are bought in Dakar or imported. Capital investments come from local bank loans and retained earnings. CSS benefits from investment code privileges which accord it substantial reductions on income taxes.

CSS is an autonomous entity, with its own mechanics, trucks, transport services, electricity (via a private generator), and motor fuel (imported directly from Dakar). The expatriate community has access to housing and recreation as well as health, commissary, logistical, and general support services, that are provided directly by the company.

While CSS requires little input from the town around it, much of the excess service capacity that exists is used to the benefit of Richard Toll. For example, CSS supplies the entire city's electricity. In addition, it often accomodates requests made by citizens within the department for construction and mechanical services, sometimes free of charge. CSS also has a pipe factory that manufactures polyethelene pipes, many of which are sold to SAED. The company's biggest problem is finding qualified employees willing to work outside Dakar.

c. Tomato Processing

SOCAS (Société de Conserverie et d'Alimentation du Sénégal) was established in 1969. Its capital of 145 million CFA is 100 percent private, 25 percent of which is French and 75 percent of which is technically Senegalese. However, most of the Senegalese firms that hold SOCAS stock have French participation in their own capital.

When it first opened, SOCAS purchased all of the tomatoes for processing by direct contract with the farmers. The price was fixed before the growing season and SOCAS provided seeds and technical advice for free. The system proved successful, and land cultivation increased rapidly. SOCAS even added its own plot to serve as a research station and to regularize the input to the factory.

Up until that point, SAED had been acting as a facilitator between SOCAS and the cooperatives. In time it abolished the direct contract system, deciding that such activity fell within the realm of its own monopoly. At this point, SAED took charge of the fields and became SOCAS' main supplier. Tomato output began to drop steadily. In 1974, SAED decided to create a new tomato factory; at that time, SOCAS was processing only 11,000 tons or 44 percent of its capacity. Total tomato production was nowhere near sufficient to supply two factories.

Nonetheless, SNTI (Société Nationale de Tomate Industrielle) was completed in Dagana in 1975. SAED owned 33 percent, while private Senegalese owned the rest of the 150 million CFA capital. For the 1979 growing season, SAED's "production plan" earmarked 90,000 tons of fresh tomatoes available for processing. Once the fields were planted, SAED revised this projection to 46,000. The actual harvest was 10,000 tons. Of these, 7,000 were sold to SNTI and only 3,000 to SOCAS.

Since that time, SOCAS has been unable to earn a profit. It has begun to diversify its purchases, resorting to direct contracts again with private fields in Saint Louis and cooperatives up to 200 km away in Guédé (permissable again in 1981). It has also expanded its own growing operations. At present, two-thirds of its tomatoes come from private fields.

Meanwhile, SNTI's own losses are substantial. In 1980, it processed only 5,700 tons of a 38,000 ton capacity.

Up until the 1981 growing season, the cooperatives were only allowed to sell 20 percent of their input on the free market, while the remaining 80 percent had to be delivered to SAED. Since 1981, cooperatives have been free to sell to whomever they wish. This benefits SOCAS, as SNTI will have difficulty making cash payments for its purchases. In the past SAED has paid the farmers, while SNTI's debts to SAED mounted. This system will no longer be possible. In principle, SAED recently sold its shares of SNTI. In reality, it is not clear just how much interest in the company it has relinquished.

Another major problem facing the Senegalese tomato industry is contraband. A tariff on imports into Senegal aims at protecting its industries from European tomato sauce which is heavily subsidized by EEC price support. No such duty exists for the Gambia and Mauritania, since these countries have no tomato industry. Hence, hundreds of thousands of tons of tomato concentrate (350,000 in 1980) destined for these two countries come into the port of Dakar for transit to Nouakchott and Banjul, while in reality it never leaves Senegal.

SOCAS, like CSS, is an autonomous industry in that it supplies its own equipment, parts, mechanics, workshop, and warehouse. SOCAS was initially financed by private French sources with subsequent loans from the Caisse Centrale. SNTI's initial capital came from the Italian government along with an additional large subsidy from the Senegalese state.

3.10.4. REDUCTION OF PUBLIC INTERVENTION

3.10.4.1. Reasons for Trends

National trends toward reducing public interventions are becoming apparent in the three OMVS states. This primarily due to the fact that the governments have been increasingly unable to fund their recurring costs and operational deficits. Likewise, the RDA's have been unable to fulfill the specific responsibilities assigned to them. Each RDA has acquired diverse functions while retaining a tightly centralized administration. This has resulted in a heavy, inefficient bureaucracy and has created inevitable conflicts of interest between functions.

One of the primary purposes of introducing irrigation was to eliminate much of the risk inherent in rainfed farming. Yet farmers have become totally dependent on a single institution -- the RDA -- which has proven itself unreliable. They have no backup and no recourse to a parallel market to insure themselves against inevitable breakdowns in the system. Hence, the RDA's may inadvertently have increased the risk in farming. Nonetheless, the governments seem to have a profound distrust of unregulated markets and are reluctant to ease restrictions and allow free markets.

3.10.4.2. Mauritania

On a national level, Mauritania has tried three different methods to develop and improve production and distribution. These include:

1. promoting the private sector through a liberal investment code, aimed in particular at small-scale industry;

2. since 1966, using the public sector, via parastatal and state agencies, to achieve development objectives;

3. more recently, creating special legislation to encourage the formation of cooperatives (6). In the river basin, SONADER has tried to link these latter two models, but it has tended more towards complete control.

The prevailing attitude is that the state knows best. As a result, certain private activities are suppressed in order to permit better state control of national policy. For example, SONADER discourages the following:

1. <u>cash crops</u>-

To assure proper crop choice and achieve the goal of food self-sufficiency, SONADER feels that it must be present to see that farmers plant cereal instead of cash crops. (Note: almost all existing private perimeters grow vegetables, while those under SONADER's supervision grow primarily cereals (7)).

2. <u>private supply of inputs</u> -

a. Because the state feels the market is too small to support many suppliers and fears exploitation of farmers by monopolies, SONADER squeezes potential entrepreneurs out of the market by offering farmers subsidized prices and by limiting their access to credit.

b. SONADER believes it cannot use the private sector as an intermediary to transfer resources to the rural sector at low prices because it fears goods will be resold at high prices.

3. <u>private control of marketing</u>

To prevent speculators from buying output at low prices just after harvest and reselling to farmers at high prices just before the next harvest when food is in short supply, SONADER feels it must play the major role in marketing.

Were the state to encourage the right incentives, it could meet does not take into account the high cost to farmers of delays and deficiencies in the supply of essential inputs under SONADER. Finally, to prevent exploitation by speculators, farmers and cooperatives could be shown how to store grains themselves.

3.10.4.3. Mali

In Mali, the government justifies its heavy participation in key sectors as necessary to achieve two essential goals:

1. to respond as rapidly as possible to the fundamental needs of the population;

2. to make up for the absence of local and foreign investment.(8) By 1960, 34 state enterprises were created which, by 1979, controlled 67 percent of total commercial activity (9) and 70 percent of industrial production (10). Numerous RDA's have also been created since that time. The private sector was discouraged intentionally by outright restrictions in some areas and by tangles of regulations in others.

The inefficiency, mismanagement, waste, and corruption that marks these institutions is well documented and has been of concern to observers for quite some time. Between 1977 and 1979, the gross revenue of the 19 most important firms actually fell in nominal terms. The sector as a whole was barely able to earn a profit by 1976 and has run larger and larger deficits every year since then (11). Price adjustments of the state enterprises responsible for purchasing agricultural output have lagged behind the general rate of inflation, discouraging production and encouraging farmers to trade on the black market, which has further reduced the tax base and resulting revenue.

The increasing operating deficits of state enterprises and decreasing tax revenues have contributed to the Malian government's current financial crisis. As a result, the state is considering a policy of decentralization and privatization.

Since the government regards this new strategy as a last recourse and does not have a genuine desire to relinquish control, changes have been slow and tentative. The government would like to retain the status quo by simply "reforming" the state enterprise sector. Accordingly, the Five Year Plan, issued in July 1981, announced that --

1. strategic firms (defined as those whose maintenance is "essential for the national economy") are to be consolidated and made profitable,

2. all firms that are "structurally profitable and have hope for the future" will be kept under state control.

---

(8) Five Year Plan 1981-88
(9) IBRD Estimates
(10) Marchés Tropicaux
(11) Five Year Plan 1981-86

In order to maintain this control, the government proposes the following assistance to the state enterprises:

- injecting financing of 40 billion FM (20.5 billion of which will go to industry, 18.5 billion to building and transportation, and 1 billion to commerce);
- reducing taxes and tariffs on their inputs;
- consolidating some of their debts;
- making a greater effort to assure essential inputs (no explanation is provided as to how this is to be done);
- protecting them against the most active fraud (many state firms claim that illegal imports are an important cause of their inability to make profits);
- imposing quotas on competitive import goods;
- fixing prices to allow for greater profitability;
- giving priority to state enterprises for administrative orders.

At the same time, however, the Government seems to acknowledge that the state cannot be the major impetus for growth. The Plan also includes a "commitment to private enterprise as an integral part of the overall development strategy", to be based on "cooperation between the state, mixed, and private sectors".

Private enterprise is to be encouraged by "fiscal, banking, and customs measures (unspecified)," as long as it "contributes to employment creation and professional training." All state enterprises constituting a "drain on the national economy" are to be opened up to private capital, both local and foreign. Since this category includes the vast majority of the firms, this concession is more important than it might first appear.

In fact, at the UDPM (Union Démocratique du Peuple Malien) Congress in February 1981, in Bamako, the government announced that it was "dismantling the state sector by 1985" and that state ownership for 20 of 30 firms would be dissolved. (12)

SOMIEX, the national import-export monopoly for primary needs plans to sell off 100 of its stores nationwide. It will continue its centralized purchase and distribution functions for only seven items, and only up to the regional level. These stores ("boutiques"), while free to furnish any items they please, will be able to buy supplies at SOMIEX's regional stores.

The Government also envisions more liberal marketing arrangements. OPAM (Office de Produits Agricoles du Mali) will relinquish its monopoly on grain purchases and licensing of private grain traders has begun. (13)

Plans are also being made to transfer seven state enterprises to mixed or private ownership. Further transfers may be made in response to a World Bank study scheduled to commence in December 1981. Planned industrial development over the next five years includes a significant number of firms already privately financed. (14)

---

(12) "West Africa" 9 March 1981, "Le Soleil" 20 February 1981
(13) Steve Mink: GRM Development Plan, September 21, 1981
(14) ibid.

As far as agricultural inputs go, little has changed. SCAER's centralized acquisition functions will merely be transferred to a Centrale d'Achat - another government bureau. A new firm, SOMEA, which plans to produce agricultural hardware and light equipment, was "asked" to abandon production of tractors and seeds for the benefit of SMECMA (a similar industry of which the government owns five-sixth of the capital). Nonetheleos, SOMIEX's new private boutiques could conceivably supply agricultural inputs if demand warranted it.

Furthermore, the mandate for OVSTM was expanded during 1981, not reduced, although the lack of financial means to realize these new responsibilities will effectively prevent the state from assuming this larger role.

3.10.4.4. Senegal

In Senegal, the rural agricultural sector (except for peanuts) was virtually ignored until 1974. At that time, in an effort to diversify into other regions and other crops, the Government created a myriad of regional and state agencies. By 1977, one-third of the capital of the 25 largest firms in Senegal belonged directly or indirectly to the state. By 1980, poor industrial performance and stagnating agricultural production was creating a financial crisis for the Government and forcing it to rethink its methods of intervention.

In the January 1979 Declaration of Economic Policy, the then Prime Minister Abdou Diouf announced that there would henceforth be a more systematic reliance on market mechanisms and economic incentives to encourage private involvement. The Government was to maintain its involvement in primary industries and utilities but was also to seek means to encourage the private sector in other areas (15).

Two mixed-capital institutions that have recently become active in this domain are SOFISEDIT and SONEPI. SOFISEDIT is a specialized bank making term loans and equity investments in private industrial and tourism ventures. SONEPI does feasibility studies and provides management and some technical training. Recently this team has been identifying projects around the country for small and medium scale enterprises. (See the World Bank report on SOFISEDIT, Appendix A, and the credit tables for more details). The Government is also considering a number of changes to liberalize the Investment Code.

However, the major changes called for in The Prime Minister's declaration were primarily in the marketing sphere. ONCAD was dissolved in October 1980 and its monopoly on groundnut marketing was transferred to the cooperatives. The state monopoly of millet distribution was abolished to encourage development of a system of marketing by "approved" private traders; the rice monopoly was transferred to CPSp (Comité de Péréquation et

(15) International Monetary Fund - Senegal, Recent Economic Developments-May 9, 1980.

Stabilisation de Prix), which is also suppose to operate through private traders; and marketing of maize and sorghum is to remain in the hands of the private sector (16).

For the moment, the state still plays an essential role in providing inputs. Monopoly powers are being eliminated, however, and the Government envisions gradually transferring responsibilities to the cooperatives. At the same time, it has moved to reconstruct and revive the cooperatives.

For the 1981 growing season, the cooperatives did sell their output directly to the oil factories instead of using SONAR as an intermediary. It should be noted however, that of the two peanut oil factories, SEIB is 51 percent and SONACOS is 65 percent state-owned and that prices are fixed by the state. Obviously, these moves cannot really be considered as offering a recourse to "free" markets. Nonetheless, it is a step in reducing an unnecessary layer of government participation. RDA's officially "assure" cotton marketing. The Government has announced its intention to protect SONAR's monopoly in seed collection and distribution (17), although for the 1982/83 growing season, it is encouraging farmers, through cash incentives, to conserve their own seeds. Furthermore, in 1983 SONAR is expected to abandon its fertilizer operations, allowing SSEPC to sell directly to the cooperatives. The price of fertilizer is also expected to be raised from 25 CFA/kg to 50 CFA/kg. Removal of these and other input subsidies will further reduce the need for public sector intervention.

The most significant policy shift concerning agricultural development in the river basin is the reform of SAED. The new statutes were released during the last week of September, 1981. Some of the changes signify definite reversals in policy, while others merely represent recognition of a situation that has existed defacto for quite some time. The shift from centralization is as follows:

1. from the Government to SAED;

2. from the central administration to SAED's operational bases;

3. from SAED to the farmers (cooperatives) in general; and

4. from SAED to other state agencies operating in the river basin.

SAED will now be able to make its own purchases directly from the private market, without first having to pass through the cumbersome ministerial processes. It will also decentralize its central administration to allow for greater efficiencies.

Under the reform, farmers will participate more heavily in the construction of the perimeters and in all aspects of maintenance. They will also be free to purchase inputs from any source, although SAED will still coordinate and indeed continue to supply certain factors of production

(16) International Monetary Fund
(17) Le Soleil 18 September, 1981.

(unspecified). Farmers will also be allowed to sell their surplus production on the free market. Other organizations will take over some of the activities previously controlled by SAED, including the following:

1. Cooperatives will supply seeds and fertilizers directly to farmers;

2. An agricultural development bank will be established to provide credit directly to farmers;

3. CPSP will supply funds to SAED for the exact amount necessary to purchase and transform paddy, rather than SAED financing these activities through its general budget;

4. SENELEC, Service Hydraulique, and CSS will supply water to certain perimeters and Travaux Publics will construct others. (18)

These new policies could have a major impact on private sector development in the river basin, both in encouraging cooperatives to work for themselves and in stimulating peripheral input and output services. Nonetheless, it should be recognized that these changes have come about only in areas where SAED was unable to fulfill its obligations or, as in the case of marketing, where the farmers have simply taken over an activity that SAED would find difficult to reappropriate. They do not necessarily reflect a genuine desire to relinquish control of these functions. It should be further noted that several vague clauses remain in the statutes authorizing SAED to "control all action of rural enterprise development in any area of the zone to which it is assigned" and, "in a general fashion, to effect all the tasks to permit or facilitate the economic and social development of its zone". Such hedging certainly allows for the possibility of SAED reneging on these new policies. Its employees appear very committed to the change, however, and there is no reason to believe that the Government would reclaim these responsibilities unless farmers, private organizations, or relevant state agencies failed to fulfill them.

3.10.4.5. Summary

Until now, RDA activities have inhibited the development of the private sector in virtually every sphere of agricultural activity. The question now is whether demand will increase in the three countries for the provision of goods and services from the private sector. Following is an assessment of trends in each country.

1. Mauritania - SONADER has no plans to withdraw from its current, all-encompassing monopoly, and it provides disincentives for farmers to seek private sector assistance by offering farm inputs and services at heavily subsidized prices.

(18) Ministère du Développement Rural
Lettre de Mission entre le Gouvernement du Sénégal et la SAED
1981/82 - 82/83 - 83/84

2. Mali - OVSTM has a mandate as comprehensive as SONADER's but lacks the means to implement it. The degree of freedom as well as the incentives the farmers have to make their own purchases will depend on the policies adopted by donors funding perimeters. Given the extremely poor state or lack of roads to the First Region, farmers are unlikely to take any initiative on their own as long as OVSTM not only transports inputs, but provides them free, subsidized, or on credit. Mali's new commitment to increasing private sector involvement will have little effect if OVSTM can offer farmers better terms.

3. Senegal - Government policies designed to promote a more active private sector are most effective in Senegal, as they affect the role of SAED itself. There will certainly be increased demands on the private sector to supply those items for which SAED is no longer responsible, notably motor fuel, spare parts, and light agricultural implements. There may also be some increased demand for land clearing, leveling, diking, and mechanics, although the continuing supply of these services from SAED at reduced or no cost will suppress private sector demand.

3.10.5. NATIONAL CREDIT SYSTEMS AND PRIVATE SECTOR DEVELOPMENT

Given the low level of income of the Senegal River Basin's population, it is difficult for local residents to make development investments without recourse to some kind of financing. If the private sector is to assume a more important role in the region, then capital must be available in the form of credit to enable farmers to purchase agricultural inputs and services on the private market as well as to allow entrepreneurs to fill these needs. This chapter examines the availability of this kind of credit from formal institutions in each of the three countries in the Senegal River Basin.

3.10.5.1. Mali

1. SCAER (Sociéte de Construction Agricole et d'Equipement Rural)

Growing season credit used to purchase fertilizer, seeds, etc. and to be paid back after harvest. Credit for any agricultural material or equipment came from SCAER, channeled through API-OVSTM as an intermediary. SCAER was established for the express purpose of providing agricultural inputs to the farmers on credit. It was in turn funded by the BDM (Banque de Developpement du Mali). SCAER was poorly conceptualized as a credit institution, providing no incentives for repayment nor means to recover loans if they were not reimbursed on time or at all. SCAER could not fulfill its mandate, as dictated by the RDA, to meet all of the needs of the rural sector. Because it placed loans without giving sufficient considerations to repayment prospects, unpaid debts began to mount. It sold supplies at subsidized prices for which the Malian Government, strapped for financial resources, could not come up with the funds.

Weary of supporting an institution structurally destined to run a deficit and seeking more profitable commercial ventures, the BDM began to cut back its resources to SCAER. SCAER's overwhelming financial as well as management problems finally convinced the Malian Government to liquidate the institution.

2. BDM (Banque de Développement du Mali)

This is the largest bank in Mali and is 100 percent state-owned. State enterprises are required to conduct all of their banking business at this bank, which has eight full service branches across the country. The Kayes branch is the only bank in the First Region. According to the Five Year Plan released in July 1981, the BDM plans to open another branch in the First Region at Nioro du Sahel, although only 0.5 percent of the bank's total outstanding loans are in this area.

Distribution for the bank as a whole is as follows:

- 60 percent commerce (mostly marketing of agricultural production, exports of agricultural products, and handicrafts)
- 20 percent industry
- 15 percent agriculture and livestock
- 10 percent housing and consumption loans and public entities.

Distribution in the First Region is as follows:

- 85 percent commerce,
- 15 percent "social" and emergency loans to farmers just before harvest.

To obtain a loan from the BDM, a borrower must be a client and have an account open for six months containing at least 20,000 Malian francs (FM).

The BDM makes most loans through intermediaries and not directly to individuals. Cooperatives can turn to the BDM to open amortization accounts and rolling funds. Assuring prompt repayment of loans has been a major problem. Seventy percent of short-term credit is not repaid by the contracted date. Nonetheless, because the banks have the power to call in the police and force repayment if necessary, most loans are eventually reimbursed.

Except through local enterprises and emigrants from the area, most of the farmers in the project zone have little contact with and insufficient comprehension of financial services available to them at the BDM branch in Kayes. Apart from transactions in connection with their OVSTM amortization accounts, farmers rarely come into direct contact with the bank's personnel. Part of the problem is linked to the bank's administrative structure, which has worked against providing services for residents outside the town of Kayes. The staff views its major responsibility as managing the collection of deposits and recovery of short-term loans, not as promoting increased lending to or savings from farmers. Furthermore, these employees do not have sufficient training or experience in rural finance to market and manage the types of financial services that would attract a larger part of the rural population. Recently, however, the executive direction of the BDM has begun to pursue increased involvement in the rural sector. Its program will focus on developing and marketing incentive plans for savings generation, credit delivery and recovery, and assistance to borrowers in the management of their own accounts.

The bank's concern is that any new operation be viable and sustainable, which requires that the bank charge enough in interest or fees to cover its costs. It also implies that the bank is able to gain the respect and confidence of borrowers and savers. In providing only credit, the bank can neither establish a more diversified portfolio nor develop a good financial relationship with its customers. Even small farms use money transfer services and would use deposit facilities (especially during the flush season immediately following harvest) if these services could be provided at attractive terms. Equally important, unless the bank can develop a wider range of services, it and the local business community will not be able to obtain sufficient information about the rural economy to permit them to function dynamically.

In determining a structure and interest rates appropriate for the bank's credit program in Kayes, IDP planners should recognize that the small-scale farmers, artisans, and enterprises upon whom IDP focuses are currently in a high risk category owing to the following factors:

1. potentially narrow margins between their output and their subsistence requirements;

2. limited access to economic opportunities, information, inputs, and services.

The IDP is designed not only to assess the causes of these conditions, but to reduce their negative effect on expected returns from project investments.

3. <u>BNDA</u> <u>(Banque Nationale de Développement Agricole)</u>

In June 1981, the Malian Government established the BNDA to replace SCAER's credit function. This organization will work in conjunction with the new <u>Centrale d'Achat</u> (falling under the Ministry of Agriculture, but directly linked to the BNDA), which will take over SCAER's acquisition and distribution functions. It will have a capital of 4 billion FM (Francs Maliens) divided as follows:

55 percent Malian Government
20 percent Caisse Centrale
15 percent Central Bank of Mali
10 percent BDM

The new director is very serious about establishing a viable credit system, and has draw up plans for the BNDA specifically designed to avoid the problems faced by SCAER. According to these plans, the BNDA will begin by targeting certain regions for disbursement of credit and will follow by designating certain organizations, villages, or projects within the regions. Schemes are being developed to equip farmers with a basic understanding of a bank's operations and to provide any necessary information in the clearest manner possible so that the farmers can use the bank effectively. To increase its accessibility to farmers, the bank might include a traveling bank outlet.

Headed by a dynamic director with a real concern for farmers, the BNDA could be the ideal institution to which cooperatives could turn for amortization accounts and general expenses. It could also provide dynamic inputs to agriculture such as the acquisition of material and equipment, and the marketing constitution of stocks. The director has admitted that loans to individuals not directly engaged in farming were not a priority, however. He did not foresee them being included in the BNDA's program at least in the near future.

The BNDA does not envision conducting activities in the First Region over the next few years. In the meantime, OVSTM will be active in very few programs not financed by external donors.

3.10.5.2. Mauritania

More than one-third of the credit allocated by all banks in Mauritania is for trade and commerce. Almost two-thirds of outstanding claims are against private firms and individuals engaged in commerce and trade; the remaining claims are primarily against state-owned enterprises, mostly in the mining industry. Over 80 percent of the credit allocated is short-term (24 months or less) and goes to minimum risk enterprises (imports, construction, and real estate) located in Nouakchott or Nouadhibou. Longer term credit goes to the mining sector, the petroleum industry, and water and electricity distributors.

In order to respect financial and monetary criteria set by the IMF as part of the rescheduling of debts and established by the World Bank in its Rehabilitation Program, the BCM has been forced to minimize the risks associated with the investments it finances directly or through banks under its control. Consequently, the BCM has adopted an investment approach that replicates foreign banking in allowing for quick, low-risk use of its capital. Longer term investments in productive areas have been ignored, and restrictions have been imposed on the interest rates.

These restrictions have encouraged banks to grant short-term credit at 14 or 15 percent interest to imports, hotels, and services and discouraged the granting of credit for medium-term investments in agriculture and livestock, which would earn only 11 percent interest. Thus the banking community has made few attempts to diversify portfolios and to take on longer-term, but more productive, loans. The Government has in effect created institutions that grant longer-term development loans almost exclusively, offer their clients a narrow range of financial services, and depend on public rather private capital. Precooperatives, which are not fully legally certified, are charged 16 percent interest regardless of the category of duration. This regulation severly restricts access to preferential credit by private sector applicants unauthorized by the state.

Commercial Banks

Mauritania has only two commercial banks operating in the Senegal River Basin, described below.

1. BIMA (Banque Internationale pour la Mauritanie)

Created in 1974, BIMA replaced the previous subsidiary of BIAO in Mauritania with a capital investment of 100 million. By 1980, BIMA's capital reached 150 million um, and its ownership distribution shifted from 51 percent Government/49 percent BIAO to 70 percent BCM/30 percent BIAO. As Mauritania's most important commerical bank, BIMA had accorded close to 3 million in credit by the end of 1980. BIMA has five branch locations in Mauritania, including one in Rosso and another in Kaédi, both in the Senegal River Basin. The latter branch is temporarily closed.

2. BMDC (Banque Mauritanienne de Développement et de Commerce)

The BMDC is a semi-public institution whose mandate includes technical and financial assistance to industry, commerce, agriculture, livestock, fisheries, and housing as well as to cooperatives. It has never developed its agricultural portfolio, however, and has only served as a depository for funds managed by SONADER. It is equipped to undertake agricultural viability studies. The BDM (Banque Mauritanienne de Développement), BMDC's predecessor, participated in credit facilities to the agricultural sector and incurred heavy losses in the process. As a consequence, the BMDC has a penchant for low risk obligations.

In 1979, the World Bank granted a $ 2 million loan to the BMDC for the development of small and medium scale enterprises. The process for selecting and approving loans of eligible enterprises is long and complicated. By mid-1981, only 40 percent of the $ 2 million had been committed, none of which was distributed to the Senegal River Basin owing to previous difficulties with repayment there. The most serious problem faced by all banks in Mauritania is that they have found no means of ensuring that loans are reimbursed. Although the BMDC has one branch in the Senegal River Basin (in Kaédi), all decisions are made in Nouakchott and it only has 5 million UM ($ 100,000) outstanding. Given the BMDC's lack of initiative in agriculture and other areas of the economy is need of development assistance, the CCCE has recently assisted the Government in forming another specialized rural credit institution, the Fonds National de Développement (FND).

4. FND (Fonds National de Développement)

Recognizing the need for credit for the rural sector, the Government created the FND in November 1980. Although it has received capital from the State and the Caisse Centrale, it is not yet operating.

The FND will be responsible for "promoting national development in rural sectors, industry, and buildings", which includes agriculture, dams, wells, irrigation, livestock, agroindustries, and small and medium scale industrial enterprises. It may also provide saving facilities. Its mandate stipulates that FND funds and services will be available to cooperatives and pre-cooperatives.

FND's staff have just completed their training program with various key government and nongovernment services. Over the last year, the director and several staff members have been studying a number of options for FND's intervention in agriculture. One plan is to finance local supply stores into which farmers could buy shares and, in exchange, purchase on credit their seasonal and occasional production needs. Another alternative is for FND to progressively assume SONADER's current credit operations.

FND has not yet put any plan into operation and, in fact, would like outside assistance in reviewing overall approaches for intervention in rural development.

5. SONADER

SONADER is practically the only source of credit for intensive agriculture in the Senegal River Basin. It supplies credit for the input it provides. Responsibilities for credit at SONADER headquarters are handled by the Bureau du Crdeit et de Commercialisation (BCC), and include --

- instituting all credit operations in coordination with BMDC,
- organizing the sale of paddy rice,
- defining the form(s) of repayment,
- developing accounting procedures for producer groups.

In the field, the counterpart is the Service du Crédit et de la Commercialisation, whose staff of credit extension agents --

- accounts for delivery and collection of short-term and medium-term credit;
- trains and informs both farmers and extension agents in financial and administrative management;
- participates in commercial phases of production to ensure collection of debts.

The distribution of agricultural credit by the BCC is inextricably linked with the supply of production factors and irrigation equipment. On all the small irrigated perimeters, the BCC's correspondents are the pre-cooperative associations (GPC) comprised of those individuals to whom plots have been allocated. Loans are made exclusively to these associations. In turn, the associations serve as loan guarantors. In effect, they are the BCC's borrowers and debtors.

Each association commits itself to the repayment of loans made out to it by the BCC, on the strength of loan contracts signed by its Chairperson, Vice-Chairperson, Secretary, and Treasuror. In this respect, the presence of an association on every perimeter provides the means for securing efficient collection of paddy rice harvests for collective marketing. Similarly, it insures the efficient pooling of available cash resources from members, which can be used primarily to pay off loans contracted.

SONADER extends two types of loans to the precooperative associations: short-term loans for annual farm operation costs, and medium-term loans for irrigation pumps. Short-term farm operation loans are used to acquire production factors (mainly selected seeds, fertilizer, plant care products, ingredients, fuel, lubricants, and spare parts). SONADER supplies loans interest-free on a short-term basis (periods of 12 months or less). Supplies made for the first farm season are outright grants. This arrangement enables the pre-cooperative associations to build up operating funds for writing off irretrievable losses and for alleviating their teething problems.

SONADER grants medium-term loans for motor pumping stations to the precooperative associations according to a formula involving a progressively decreasing subsidy. The initial pump is invoiced at a price factoring in a 50 percent subsidy. For the remaining 50 percent, there is a three year medium-term loan at an annual interest rate of 8.5 percent. The second pump purchase receives a 33 percent subsidy; all purchases thereafter are unsubsidized. Spare parts for the pumps are supplied in the same manner and according to similar rules as production factors, at prices established by SONADER.

The hefty 50 percent subsidy for initial pump purchases is designed to lighten the financial burden of farmers during the first farm season, aiding them in adjusting to a mode of farming new to them, and giving them time to get used to managing hydroagricultural equipment. The repayment period is limited to three years to avoid the spreading out of loan payments beyond the life span of the equipment and to ensure that repayments are not postponed as a consequence of droughts or disasters.

The pre-cooperative associations have a choice of paying off their loans in cash (to CRE agent from SONADER) or in kind, specifically in the form of paddy rice. Payments in cash receive a five percent discount. Payments in kind are calculated on the basis of a reference price for white rice fixed by the Mauritanian government.

According to standard practice, associations failing to meet their repayment deadlines are subject to a one percent fine on the outstanding amount. In theory, according to BCC regulations, any perimeter that fails to repay at least 80 percent of its due loans is not entitled to request loans for the next farming season. This rule is often not strictly enforced: after investigation, cases of default are generally treated leniently.

Throughout the entire period of loan use, qualified personnel from the Regional Operations Centers (CRE) working within the associations check and supervise the handling of credit.

Conclusion

As discussed earlier, SONADER's Bureau de Credit et Commercialisation (BCC) provides credit for inputs to all farmers participating in its irrigation schemes. This system operates relatively efficiently and is the only reliable source of capital for this kind of activity. Clearly this form of public financing will continue to be necessary for some time given the current conditions of the Senegal River Basin. However, under the SONADER system, farmers are not able to make input purchases on the private market and there is no capital available for private enterprises. One solution would be a parallel credit scheme whereby farmers could choose to obtain financing from outside sources if they wished. SONADER's credit terms should be gradually revised to eventually reflect the opportunity cost of capital. This move would enable two systems to operate profitably at the same time. The parallel scheme should also direct credit operations to private entrepreneurs involved in activities related to agricultural production.

The banking system in Mauritania has the necessary institutions to provide these financial services. The BMDC and the FND have been set up explicitly for purpose of extending credit for agricultural investments. However, these institutions currently lack the initiative and resources to seek the small scattered investments needed in the rural sector. Moreover, cumbersome and restrictive regulations and complicated lending arrangements have to date been obstacles to greater credit demand by the private sector.

The BCC's experience with cooperative loan repayments has been mixed. In spite of the fact that it has agreed to allow loan payments to be spread out over an ample time period, the FED and FAC perimeters are still far behind in their payments, though the average rate of arrears, currently 40 percent, seems to be going down gradually.

On the other hand, the rate of arrears on the new perimeters in the sectors of Kaédi and Gouraye, the zone covered by the present project, does not exceed 10 percent, with the exception of Wompou perimeter, which was only able to accomplish half of its program as a result of serious irrigation problems. In regions outside the project zone, the average rate of arrears is still relatively high, ranging between 32 and 37 percent.

Some of the reasons for non repayment are legitimate, including crop failures because of fuel shortages, excessive pump costs as a result of water control problems, and production losses due to weed and insect problems. However, in many cases farmers do not repay loans because they do not expect penalties to be strictly enforced. This problem calls for a more strictly defined agreement between farmers and the BCC distinguishing cases in which non repayment is deemed legitimate from those for which failure to repay will result in enforced penalties.

3.10.5.3. <u>SENEGAL</u>

1. The Central Bank

Senegal is one of six members of the West African Monetary Union that pools its foreign exchange earnings and reserves to a common central bank, the Banque Centrale des Etats de l'Afrique de l'Ouest (CEAO).

The BCEAO controls the development of the money supply within each member country by granting rediscounting facilities and money market advances. The interest rate structure, common to all member countries, was modified on April 14 1980. The preferential rate of rediscount was increased from 5.5 percent to 8 percent, while the normal rate increased from 8 percent to 10.5 percent. Borrowing and deposit rates are all linked to these basic rates. The variance on the borrowing rates may not exceed 5 percent, whereas for deposit accounts the BCEAO fixes minimum interest rates which vary from 0 percent to 8.5 percent.

In Senegal, the Central Bank must authorize banks to grant loans of 70 million CFA and above. In addition, the commercial banks must regularly report loan amounts to the BCEAO. Since 1977, a selective credit policy has been introduced to favor productive investment and the housing sector. Senegal's National Credit Committee proposes targets for the overall credit supply as well as subtargets for the private and public sector. If the country's balance with the Central Bank is unsatisfactory, increases in the credit targets for the public sector necessarily reduce the credit available to the private sector.

Before 1976, credit availability to the modern part of the private sector did not constrain its growth. Almost all commercial banks in Senegal had and still have large foreign participation, mainly from French banking corporations. The Senegalese banks were therefore not entirely dependent on the Central Bank for credit facilities. Transfers of funds between the parent companies and Senegalese banks required only pro forma Central Bank approval, and were executed at the guaranteed fixed parity. The banks were therefore prepared to give credit to their major clients (which were often also branches of French firms), provided that interest rates paid were high enough to cover the interest on the corresponding liabilities in France. Since credit in Senegal was cheaper than in France, however, modern sector enterprises and banks consistently tried to finance a maximum of their transactions with domestic credit. Whenever the Central Bank cut back its discount facilities, private banks increased their foreign liabilities almost automatically in order to continue current operations.

The majority of credit is now controlled by the Central Bank. The reduced foreign control of private enterprises related to the Government's participation policy has made foreign parent companies and private commercial banks less willing to finance these operations, in particular when the financial prospects of the firm in question are not too promising. The share of domestic credit going to the private sector has become much smaller in the past two years, diminishing also the flexibility in its monetary arrangements.

Senegal's difficult monetary position at the end of 1980 was exacerbated by external debt, a decrease in the rate of credit extended to the economy as well as in the money supply's growth rate, and an economic cycle marked by poor performance in agriculture and industry. Senegal's public foreign debt increased from 84.5 billion CFA at the end of 1976 to 187 billion CFA at the end of 1980, bringing the country's total debt to 319.9 billion CFA. Debt service increased in 1980 to 32.6 billion CFA, equal to 17.7 percent of the estimated value of its exports.

Because of Senegal's current financial problems, credit accorded to the economy increased by only 6.8 percent in 1980, as opposed to 39 percent in 1979. In particular, seasonal credit for financing agricultural marketing requirements increased by only 5.9 percent in 1980. An obvious constraint is currently being imposed on the amount of credit available in Senegal's banking community by the deflationary monetary policies of the BCEAO and, in particular, the International Monetary Fund (IMF). In less than one year, between 1979 and 1980, the annual growth in Senegal's money supply was reduced by the BCEAO from 17 percent to 1.7 percent. Accordingly, banks can no longer satisfy all of their clients needs for credit.

In addition to these monetary restrictions, the Government of Senegal recently imposed its own lending policies, whereby 66 percent of total bank credit is to be accorded to priority sectors. However, the banks are not currently equipped to cover the longer-term loans required by investments in priority sectors such as agriculture or extractive industries. Most of the transactions in Senegal's banking community are composed primarily of short-term, high return commercial credits. The Government's lending policies will therefore have to signal a new orientation among banks in Senegal if these new policies are to be successfully implemented.

Beyond the constraints of monetary and political action on credit, Senegal's banks have been further hobbled by the government's recent abolishment of farm debt. The banks, which had extended most of the financing, were left with close to 50 billion CFA of worthless assets. It is not surprising that the banking community is sceptical about financing economic recovery in the prevailing deflationary context of both economic conditions and current BCEAO practices.

There are currently two banks with branches in the Senegal River Basin, the BNDS in Saint Louis and the BICIS in Saint Louis and Richard Toll. SONEPI/SOFISEDIT also have minor credit operations in the region.

2. BNDS (Banque Nationale de Développement du Sénégal)

The Banque Nationale de Développement du Sénégal (BNDS) was established to encourage the country's development by providing credit to small and medium-sized companies. The BNDS has extended its activities to most sectors of the economy by making loans to both the private and public sector and taking shares in Senegalese companies. The BNDS has begun to act increasingly as a commercial bank and to provide credit to individuals.

The BNDS has a branch is Saint Louis that serves the entire river region. Its activities include the following:

a. distributing state funds to SONAR to disburse to cooperatives for its own credit program. The BNDS also finances SONAR's marketing operations in the river basin, although it has no direct contact with SAED.

b. maintaining, in theory, cooperatives' accounts for amortization, debt repayment, and operations under SAED's jurisdiction at the BNDS branches in Saint Louis or Tambacounda. In reality, such accounts have yet to be established.

c. financing cooperatives directly, in particular consumer and commercial cooperatives, of which there are three -- in Saint Louis, Podor, and Matam.

d. financing construction (very limited).

e. acting as a depository of cash for firms, civil servants, and other parties.

f. handling other diverse functions such as rolling funds for firms like SOCAS.

Farmers currently receiving assistance and participating in RDA agricultural programs can apply for loans from BNDS for the purchase of fertilizer and agricultural equipment. These purchases are guaranteed by the Fonds Mutualiste de Développement Rural (FMDR), created in 1962 and considered to be a financial organization functioning primarily to guarantee credits extended by the BNDS for rural development activities. It also finances, with its own capital and reserves, certain subsidies for agricultural production and inputs purchased by officially designated cooperatives.

3. BICIS (Banque Internationale pour le Commerce et l'Industrie au Sénégal)

The BICIS has a defacto monopoly on commercial banking in the Senegal River Basin. The Saint Louis branch, serving the region as far as Dagana, holds demand deposits of roughly 600 million CFA and savings deposits on the order of 120 million CFA. Only a small portion of this sum is redistributed in the river basin. At present, 200 million CFA are outstanding, 160 million of which is only in short-term loans. It is clear that the bank is merely collecting funds for redistribution to Dakar. In fact, the Saint Louis branch channels an average of 200 million CFA per month back to its headquarters. The BICIS branch in Richard Toll has very limited operations. Established primarily to meet the needs of CSS employees, it holds 61 million CFA in deposits, only 25 percent of which is redistributed in the river basin. Both branches have a 5 million CFA minimum loan requirement. To obtain credit from the BICIS, an individual --

- must be a client;
- must have held an account for a period of six months to a year;
- must not bounce checks; and
- must respect appointments.

Other personal subjective criteria may be included in the requirements.

4. SOFISEDIT/SONEPI (Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme)/(Société Nationale d'Etudes et de Promotion Industrielle)

After many years of neglect and occasional outright discouragement, the Government officially recognized the potentially important role of the private sector in agricultural development. The Governments approach of encouraging the private sector, which began with its 1979 Reform Plan, has involved creating two institutions to offer private interests greater access to technical and financial services.

SOFISEDIT and SONEPI are both parastatal institutions. SOFISEDIT is a specialized development bank that makes term loans and equity investments in industrial and hotel ventures. It offers preferential interest rates to Senegalese and to anyone willing to locate outside of the Cap-Vert region. It has its own credit line supplied by external donors such as the

World Bank, BOAD, and the Germans. Recently, donors have granted it financing specifically to develop small and medium enterprises. It is prohibited from making loans for infrastructure, agriculture, housing, consumer durables, and general commerce. SOFISEDIT works in tandem with SONEPI, whose primary objective is to develop small and medium scale industrial enterprises controlled by Senegalese. It provides marketing studies, management consulting, guarantee funds, and training.

The SONEPI/SOFISEDIT team was extremely busy during August and September 1981, touring the country in search of possible projects. The team identified 25 projects in the river basin: 21 involving small or medium enterprises and 3 involving agroindustries (it should be recognized that "identification" does not imply that these projects will be accepted and financed by donors).

The SOFISEDIT/SONEPI credit system is the only one in Senegal that actively seeks its clients, and it offers the most complete package of relevant technical assistance. None of the projects identified in the river region involve agriculture, the fabrication of farm implements, nor even general mechanical agricultural capacity, however, and, as mentioned earlier, these organizations cannot make loans for commercial supply of inputs. Moreover, SOFISEDIT's minimum loan requirement of 2 million CFA and SONEPI's required fee for services virtually preclude the illiterate artisan or farmer.

5. Agricultural Credit in the Senegal River Basin

Unlike its Mauritanian counterpart, SAED's credit functions are limited. At present, the initial pump, motor, and other heavy equipment are supplied at no cost to the producer groups, who are expected to establish accounts for amortization (a depreciation fund used for replacing the equipment) at the BNDS in turn. These accounts are interest free. The BNDS extends seasonal credit to SONAR, which supplies most of the seasonal inputs. Farmers repay SAED either in kind or in cash at harvest time for the inputs delivered to them during the planting season. The repayment of these loans, which carry 6.5 percent interest, enable SAED to repay the SONAR accounts at BNDS. BNDS maintains few bookkeeping operations at the level of the borrower, except in the rare cases where a group or individual has applied directly to it for a loan.

The Senegalese Government is about to embark on its own variation of a formal agricultural credit institution. Final details are yet to be determined, but several pilot projects have been planned in Thiès and Matam for the 1982/83 growing season. The decision to design a new system stems from the Government's acknowledgment that existing institutions do not adequately meet current credit needs. The following factors have contributed to the failure of the present system:

1. RDA's have been an inappropriate intermediary for disbursing funds because they already have too many functions.

2. Cooperatives have not been developed enough to handle debt responsibilities, and poor repayment records have resulted.

3. As farmers' incomes depend largely on climatic conditions, a poor harvest can undermine the whole repayment system.

4. The existing system does not develop a sense of responsibility on the part of the farmers.*

The Government is aware of these intrinsic deficiencies, yet at the same time it recognizes the real need for farm credit. To rectify this situation, it proposes reorganizing both the existing cooperative and credit systems.

As far as credit is concerned, the government has proposed to create a new autonomous financial institution linked to the BNDS. The new institution will take over all of the agricultural functions of the BNDS, at the same time seeking to correct its weaknesses and improve its performance by dealing directly with the farmers, developing pragmatic operating policies, and devising a flexible repayment scheme.

To bring the bank as close to the borrowers as possible, a unit of the new institution, known as the Caisse Locale de Crédit Agricole (CLCA), will be located at the department level or, if demand is not sufficient at this level, "autobanks" can be based at the arrondissement level. These CLCA's will work with the RDA's and the cooperatives in determining inputs needs for the farmers. The RDA will serve farmers only in an advisory role in credit distribution; while the RDA will place orders for inputs and assure their delivery, farmers will make repayments directly to the bank. The CLCA will prepare the loan file, to be submitted to the autonomous CRCA (Caisse Régionale) at the regional level for approval by its Administrative Council. The CNCA (Caisse Nationale) at the BNDS in Dakar will serve only to centralize requests and to approve loans over 70 million CFA. Two types of loans will be available: growing season loans (involving seeds, fertilizer, motor-oil, etc.), to be repaid just after harvest, and equipment loans, which can be paid in up to 15 years. A "calamity" fund will also be established to prevent bad crop years from undermining the entire system. The Government has not yet furnished details.

Working directly with the cooperatives and the RDA's will enable the CLCA's to encourage the establishment of amortization funds and other necessary bank accounts and, it is hoped, to assure that they are reimbursed. The system envisaged for repayment is to bring the bank, the farmer, and the purchaser of output together at the point of sale. At this time, the client will pay the amount the farmers owe to the bank and the farmers will receive the difference. While this practice may be feasible in the case of peanut cooperatives and oil factories, it is not at all clear that it will work for crops grown in the Senegal River Basin, especially now that farmers can sell their rice and tomatoes to whomever they wish. The Caisse Centrale and perhaps the World Bank will finance the effort.

3.10.6. CONSTRAINTS ON PRIVATE SECTOR ACTIVITY

The greatest constraint to either demand for or supply of private services for irrigated agricultural development in the Senegal River Basin has

---

* World Bank report

been competition with the RDA's. It appears likely that this will continue to be a constraining factor for quite some time. The overwhelming presence of RDA's has prevented farmers from purchasing input on their own and has hence discouraged the stimulation of a supply response to serve their needs. If the RDA's were to simply cease supplying inputs, the ability of the private sector to take over this function would depend on the answers to the following questions:

1. Demand side: Would farmers/cooperatives take the initiative to purchase these inputs?

2. Supply side: If yes, would the level of this demand provide a sufficient margin for profit to private suppliers, given the high costs associated with operations in the river basin?

3.10.6.1. Demand Side: There is both an economic and a sociological component to this answer.

1. Economic Aspects

a. Profitability of production

Since demand for agricultural inputs depends on market demand for agricultural outputs, it is important to determine whether the production of this output is sufficiently profitable to enable the farmer to purchase these inputs on cash or credit; i.e., is the amount earned from the actual yield realized, when sold at prevailing prices, enough to cover operating expenses and investments at their unsubsidized costs directly from the private sector? In the initial stages of the project, the start-up and learning costs will be high, but these should diminish over time. Similarly, yields will be low at first, but should increase over time. Not until they know that production actually becomes financially profitable, however, will farmers manifest a demand for private intervention. In the meantime, the state can encourage farmers to turn to the private sector through the following means:

1. by extending agricultural credit to allow them to purchase factors of production, tools, or equipment directly from the private sector;

2. by continuing to provide certain inputs free (such as pumps) or at substantially subsidized prices (such as fertilizer and seeds) through state agencies to enable farmers to generate the cash flow to purchase other items.

Farmer demand for inputs from the private sector will be contingent in large part upon the success achieved in agricultural production.

b. Credit

Another important consideration is farmers' access to credit. When the institution providing the inputs was a state agency, it could ensure the availability of credit. Since the same institution was involved in the collecting of outputs, it could also ensure repayment to a certain extent. If the private sector supplies the inputs, one cannot expect it to have sufficient liquidity, expertise, nor means of enforcing repayment to provide the farmers the necessary credit. Therefore, the extent to which a public or private institution (be it public or private) is able to fulfill these credit needs will also be a determinant of demand.

2. Sociological Aspects

Another important determinant of private sector demand will be farmer interest in irrigated agriculture. If the farmer does not receive inputs for free, or at least at minimal cost, will he be motivated enough to pursue them on his own initiative or will he resort to less input-intensive cultivation? Whatever the answer, it is clear that certain government policies and modes of operation have not served to encourage him. For instance, SAED's excessive intervention has clearly had a negative effect on farmer incentives. Accustomed to having inputs and services provided for them, farmers are reluctant to exert these efforts themselves. It is possible that this trend would change over time, however.

Another complicating factor has been the Senegalese Government's policy of completely abolishing farmers' outstanding debts. In early October 1981, Le Soleil reported that on a recent trip to the Senegal River to visit the SAED perimeters, Mr. Serigne Lamine Diop, the Minister of Rural Development, found all of the farmers complaining that the Government should abolish its debts "like it has done for all the rest of the farmers in the country". On October 2, 1981, a debt of 330 million CFA for fertilizer and seeds held by the farmers on SAED perimeters was erased from the books. While this action represented a practical recognition of the fact that farmers would never be able to repay these loans, it was detrimental to developing in farmers an understanding of credit systems. Such moves breed farmer expectation of free inputs. The Government cannot afford to sustain this policy, which strongly discourages farmers from resorting to private suppliers.

3.10.6.2. Supply Side

1. Costs

The quantity of privately supplied goods and services will be a function of costs and of whether or not the level of demand - the amount that farmers are willing and able to pay - can cover these costs. As noted above, demand could be fairly weak, while private sector operating costs will most likely be high.

a. Transport

The Senegal River Basin is a long distance from major supply centers and transport is very expensive. Both the exorbitant price of gas and the poor quality of roads in Mali and Mauritania exacerbate this problem and raise the maintenance and repair costs for vehicles.

b. Customs

Another significant cost is that of customs duties and tariffs, particularly a problem (and often a barrier to entry) in Mauritania.

c. Administrative requirements

Administrative costs are enormous. Heavy bureaucratic requirements are a problem all over Africa, and the three OMVS countries are no exception. In Mauritania, these encumbrances are combined with difficulties in obtaining foreign exchange and import privileges.

Other factors that constrain the movement of goods and services are the following:

2. Lack of necessary infrastructure for efficient operation

Lack of sufficient infrastructure not only affects costs, particularly if the enterprise endeavors to furnish its needs itself, but completely precludes private sector participation, especially for smaller firms. For example, of the eleven major towns in the river basin, five are inaccessible by road during the rains (Kaédi, Boghé, Bakel, Selibaby and Kayes) and are poor even during the dry season. Two of them can only be attained by river when the water is high. Four have no electricity beyond private generators, and of those with electricity, two do not produce during the day (9). Lack of adequate communications systems is another significant problem.

3. Pricing policy

Even if private entrepreneurs could assess the level of market demand, it would be difficult to estimate their potential margin of profit because many prices are regulated by the Government and subject to policy changes. Many enterprises complain of the squeeze put on them as input prices creep up with no commensurate increases in output prices.

4. Lack of capital and effective credit system

There is very little credit available for individuals or enterprises wishing to provide inputs and services to the agricultural sector for the following reasons:

a. the banking system in all three countries has little liquidity
b. there are no means to guarantee repayment
c. the cost of processing small loans is high

5. Lack of skills

Lacking management and accounting skills, many private concerns are restricted to the small-scale, informal sector and suffer from inventory problems and a dearth of qualified mechanics to tend to equipment maintenance and repair needs in the river basin.

(9) Socioeconomic Study Section D

6. Sociological constraints

a. It is difficult to find qualified, educated people who will spend a substantial amount of time in the river basin.

b. The educated do not consider private enterprise a prestigious activity (10).

c. Socio-cultural traditions within the village tend to discourage the development of individual initiative (11).

d. Activities are often carefully delineated between individuals or enterprises, stifling competition. As a result, a supplier of automobile parts may be unwilling to branch into pump parts, agricultural equipment, and other areas, no matter how profitable it may be.

e. Entrepreneurs are often pressured to support increasing numbers of family and friends rather than to save and make productive investments.

f. The existence of corruption in some private endeavors leads to the need for pay-offs and participation in other illegal activities.

g. Bank credit is not a traditionally accepted mode of financing in these countries, in fact, it is contrary to Moslem principles to borrow at interest.

7. Agroindustries are at the mercy of the caprices of Sahelian weather patterns

Extremely high costs and pricing policies yield a financial return insufficient to meet this risk.

8. Income and risk

All of these supply constraints are further compounded by the absolute low level of income that severely limits the level of risk an entrepreneur is willing to take. Investors generally avoid entering into ventures that could lead to serious loss for their families. There are two components of risk involved in the supply of agricultural inputs:

a. Uncertainties about demand

It is difficult to assess the demand for agricultural inputs, which is in turn a function of demand for agricultural output - a market in which the input supplier does not deal.

(10) Mark Weber, Proposed USAID Support for the Private Sector in Assisting Senegalese Development - Analysis of Alternatives 1980

(11) Ibid

b. Instability of demand

If rains are particularly good in a given year, farmers may not irrigate, reducing their demand for certain inputs.

For these reasons, commerce in basic necessities (for which demand is assured even during hard times) flourishes, while levels of productive investment and supply of inputs at greater risk remains low.

3.10.7. IMPLEMENTATION PLAN

3.10.7.1. Introduction

The preceeding analysis has delineated several major problems that impede or prohibit the private sector from assuming a major role in supplying or servicing agricultural production in the Senegal River Basin. These can be summarized as follows:

1. Publicly-financed RDA's in all three countries have been given extensive mandates to operate in roles that otherwise might be filled by the private sector. These functions include supplying inputs, servicing machinery, and processing and marketing produce. By providing certain advantages in terms of subsidies, tax exonerations, economies of scale, and legal status available only through the RDA's, the public sector has largely stifled competition from the private sector.

2. Transportation and communications infrastructure within the basin is poor, resulting in exorbitant collection and distribution costs. In Mauritania and Mali, especially, access to many riverine villages is cut off for all vehicles except boats during the rainy season. Servicing and supply operations require advance planning and coordination that so far only public agencies have been able to undertake, albeit inefficiently.

3. The dearth of credit available for financing supplier and small farmers purchases on the private market has served to reinforce farmers' reliance on public supply schemes for which credit arrangements at favorable terms are provided.

4. Entrepreneurs' general inexperience in the river basin vis à vis the requirements of intensive agriculture, as well as their lack of training in business management, accounting, or mechanical skills have retarded their ability to compete with the trained cadre of public organizations in the support activities required by irrigated agriculture.

The project will attempt to alleviate the problems summarized above through the following measures:

1. As a condition of the project in each country, farmers will be permitted to grow whatever products they wish and to sell them to whomever they wish. Moreover, the project will encourage the removal of all input subsidies. These policy changes will improve the competitiveness of private supply and marketing operations. Justification for these changes is presented in detail in the Economic Analysis. (See Volume III, Section 3.0.).

2. The project will seek to improve the local transport and communications infrastructure in the valley by constructing feeder roads and installating a telecommunication system to service the upper Senegal River Valley. (See the technical reports for Roads and Telecommunications, Volume III, Sections 3.4.).

3. The project will set up credit schemes in each of the project zones to alleviate the constraint on capital available to farmers and small businesses for agricultural investments. A detailed explanation of the credit schemes and their implementation plans follows.

4. Several project components will include training programs for target groups to increase their ability to act independently within the private sector. Farmers will benefit from programs operated out of mobile training units and can turn to extension agents for help in establishing and managing their credit accounts. Small businesses will have access to advisory services sponsored by the project.

3.10.7.2. Program for Private Sector Promotion

At the regional level, the "Private Sector Program" component of the IDP will strengthen OMVS initiatives to promote policy changes that liberate markets for agricultural inputs and produce. At the national level, the Private Sector Program will design two activities in each country: (1) a credit scheme to provide capital to farmers, artisans, and input suppliers for investments in agriculture-related activities, and (2) a small business promotion program to provide skills and management training to the same groups and assist them in coordinating and linking their activities.

The outputs of these activities are described briefly below, followed by a discussion of project inputs required to achieve these objectives for each country. These descriptions are intended as guidelines for the establishment of project activities in each area, and may require significant alterations as the program is implemented. Moreover, many details will not be elaborated until the project implementing staff is in place in each area to make more specific assessments of the needs and priorities of the local participants.

3.10.7.2.1. Regional Outputs

At the regional level, various OMVS units will sponsor initiatives in policy change and harmonization, feasibility and research studies, and the expansion of public and private capital investments in the basin. The OMVS Directorate of Development Coordination, acting in concert with national institutions in member states, will oversee aspects of private sector development. It will define key policy issues of major importance to the private sector, such as input and output pricing, harminization of tariff levels, and loosening of state monopolies in agricultural markets. It will also work closely with national institutions to bring these issues before the appropriate national legislative or policy bodies.

The Industrial Development Division (IDD) of the Directorate of Development Coordination will be responsible for promoting the development of agribusiness credit systems and business assistance programs, the term "agribusiness" in this sense signifying the entire agricultural system, including input suppliers, agricultural producers (individuals and groups), and businesses that provide services such as equipment maintenance, storage, processing, or marketing. This unit will also be responsible for identifying capital requirements and sources of financing for these programs, as they are designed at the national levels.

The IDD will also have a substantial role, along with the OMVS Investment Directorate and Industrial and Finance Ministries at the national levels, in identifying business opportunities suitable for private sector investment, particularly from within the capital markets of the three member states. The IDD will become a focal point for investment inquiries and will serve to prepare and promote attractive projects at the same time. This unit should also become the liaison office between the private sector investment funds of the Communauté Economique de l'Afrique de l'Ouest (CEAO), the Development Fund of the Economic Community of West African States (ECOWAS), the African Development Fund of the African Development Bank, the International Finance Corporation of the IBRD, and other regional and subregional funds.

The OMVS Consultative Committee, in which USAID participates, will be active in mobilizing financial resources for feasibility studies and project investments. Because it is directly linked with the OMVS Council of Ministers, it will also serve as a central forum for periodically reviewing the progress made by member states in adjusting policies that constrain market-oriented agricultural development.

3.10.7.2.2. Country Outputs

In all of the OMVS countries, the Private Sector Program will involve two components to encourage development of private initiative.

1. First, a financial system will be developed in each country to provide agricultural production credit, savings facilities, and small and medium scale business credit. The project will do the following:

a. Make capital available to finance seasonal and longer term investments for farmers and cooperatives engaged in agricultural production. In all three countries, the bank or combination of banks responsible for the agricultural sector will have the legal and operational capacity to make loans directly to these borrowers, without using RDA's or other public agencies as intermediairies.

b. Include a credit and loan guarantee program for local artisans and small businesses involved in activities that support the agricultural sector through improved supply and servicing of farmer needs.

c. Heighten the regional populations understanding of and participation in formal lending institutions. Additional funds will be mobilized for investment by establishing savings facilities offering rates of return sufficient to encourage local deposits.

d. Improve the operations and long term viability of banking institutions in each project region by improving the compentence of their staff and the financial soundness of their operations.

In Mali, the program for agricultural production credit will be carried out via a credit window using the capital and services of the Banque Nationale de Développement Agricole (BNDA) but located in the existing facilities of the Banque de Développement du Mali (BDM) in Kayes. The BDM itself will provide savings facilities and extend commercial business credit to suppliers of agricultural inputs, agroservice business, and manufacturing enterprises.

The proposed credit system in Mauritania will be based on a similar relationship between the Banque Mauritanienne pour le Développement et le Commerce (BMDC) and the newly established Fonds National de Développement (FND) created to provide rural credit and credit guarantees. As it is now in an embryonic state, it is impossible to determine how effective the FND will become. Judging by its mandate however, we feel it is the most favorable institution for establishing the IDP credit scheme.

In Senegal, the entire rural financial system is undergoing major revisions. All of the credit and savings activities described above are expected to fall within the new mandate of the Banque Nationale du Développement Sénégalais (BNDS).

2. Secondly, programs will be established to assist small enterprises. Institutions with mandates to encourage small scale industrial development already exist in each country: the Centre d'Etude et de Promotion Industrielle (CEPI) in Mali and Mauritania, and the Société Nationale d'Etude et de Promotion Industrielle (SONEPI) in Senegal. Supported by the IDP, these institutions will extend their current activities to include the provision of a variety of business advisory services in the Senegal River Basin. These services will be available to assist small commercial suppliers, manufacturers of light agricultural equipment, and businesses providing services such as mechanical repair, processing, and marketing. They will also provide training in areas such as accounting, purchasing, and inventory control. All of these programs will be designed to complement the capital programs available to business from local credit sources. The small enterprise promotion institutions will also work with Peace Corps Volunteers and RDA extension agents to identify new agriculturally-based needs and appropriate technologies which can be supplied by these small- and medium-scale enterprises.

3.10.7.2.3. Regional Project Inputs

The IDP will finance the costs of a Business Development specialist, who will be assigned to the Industrial Development

Division of the Directorate of Development and Coordination at OMVS. This specialist will work for three years with the OMVS Investment Directorate and industrial and enterprise development agencies at national levels. The specialist will identify business opportunities in the Senegal River Basin suitable for private sector investment. He or she will also seek to attract investments from the capital markets of the member states and the wider African capital market for the Senegal River Basin. The specialist, with the assistance of staff assigned to the national programs, will produce pre-feasibility investment proposals to be considered for equity participation by various international and national funds. Finally, the specialist will work with the OMVS team conducting the long range development plan for the upper valley to identify and examine areas for potential business investment.

3.10.7.2.4. Country Project Inputs

The country project inputs for the Private Sector Program are composed of two separate subprograms: small business promotion and rural credit. In each country, the IDP will furnish a technical assistance team. A general outline of this team is provided in Volume II, while job descriptions appear in Volume III, Section 7.0.. Of this team, the following members will be involved directly in the private sector program:

Contractor Chief of Party will be responsible for coordinating private sector/credit activities with other field level activities of IDP.

Credit Specialist (who will also be the project manager in Mali and Mauritania) will be responsible for developing all aspects of the credit program in conjunction with relevant local banking institutions.

Extension Training Specialist will be responsible for coordinating all aspects of training to small business, cooperatives, and farmers.

Peace Corps Volunteer(s) will work in conjunction with the extension training specialist and the local business promotion institution to provide technical assistance to small enterprises.

Inputs relevant to the Small Business Promotion and Credit Sub-Programs of the Private Sector Program are described below:

3.10.7.3. Small Business Promotion Program

To increase the capacity of local businesses to meet farmers' needs and to increase farmers' ability to interact with local business, this project will do the following:

1. Provide training to farmer associations and small businesses in agricultural activities such as:

a. Supply of inputs (fertilizer, tools, equipment),
b. Fabrication or repair of farm implements,
c. Maintenance or repair of equipment,
d. Construction of water control structures,
e. Processing, marketing, or storing farm output.

The relevant small business promotion institution in each country (see below for details by country) working in conjuction with specialist and/or Peach Corps Volunteer(s) will identify the training needs of these firms. Short courses will be developed and conducted based on need in the following subject areas:

- cost accounting,
- inventory control,
- artisan skills,
- management skills to establish/run a business,
- mechanical skills.

General training programs should be avoided so as not to create an oversupply of labor in a particular skill for which there is not adequiate demand. As new technologies become available, however, general workshops may be justified. Courses on subjects such as debt and investment management will be coordinated with the credit specialist.

2. Develop information packets and advertising materials in local languages for farmers and artisans concerning inputs, services, and credit available to them. The small business promotion institution, a local PVO or farmer association, or perhaps a Peace Corps Volunteer could participate in this effort to develop links between local enterprises and suppliers in the capital cities as well as between the enterprises and farmers.

3. Provide broad training programs to farmers at the cooperative level in accounting and management skills. RDA extension service or a local farmer association federation, such as the Committee for the Coördination of Perimeters (CCP) in Mali will manage these programs, (see Training Analysis Section 3.3. for a description of training needs).

4. In each country, IDP funds will be allocated to a rural credit scheme. Capital will support credit facilities aimed directly at the kind of small enterprises listed above; it will go toward extending credit to farmers to give them freedom to enter into transactions with private firms. The credit scheme is described below.

3.10.7.3.1. Mali

In Mali, the Centre d'Etude Pour la Promotion Industrielle (CEPI) already has a mandate to provide, among other things, technical assistance and training to small and medium scale enterprises, which includes a program of assistance to Malian artisans. It also provides loan guarantee funds and equity participation.

The training extension specialist on the IDP technical team will be responsible for determining the extent to which CEPI's activities already fulfill or can be extended to provide the advisory-training services described in the IDP project. If possible, the training-extension specialist will encourage CEPI to develop in the First Region of Mali the kinds of programs outlined in this paper, which are within the framework of its own mandate and financing. Ideally, a CEPI representative will be assigned to Kayes.

To establish a direct link with the IDP project, a Peace Corps Volunteer (PCV) will be assigned to work with CEPI. The volunteer will be responsible for ensuring that programs are carried out. If CEPI is lacking personnel or financial resources to undertake all of these activities, the Peace Corps volunteer will bear more of the responsibility. The training-extension specialist and Peace Corps should decide whether another volunteer should be assigned to the region in this case. Prior to his/her arrival in Kayes, the volunteer will spend one month in Bamako, where he or she will receive from CEPI basic training in implementing a technical assistance and training program. He/she will also establish contact with the Institut de Productivité et de Gestion Professionnelle (IPGP), the IDA Extension Service for Artisans and Small Entrepreneurs, the Chamber of Commerce, and the village artisans training program of the Compagnie Malienne de Développement des Textiles (CMDT). Using these contacts, he/she will collect and organize training materials for use in the IDP program. In Kayes, CEPI and the PCV(s) will work closely with the training specialist on the IDP technical team and in--

1. developing a methodology for assessing local training needs,

2. designing and conducting short-term courses on an as-needed basis to fill these needs. (If CEPI or the PCV feel that outside consultants are necessary to supplement their own activities in particular skills, the training-extension specialist may decide to contract for these services on a short-term basis).

3. determining the need for more general workshops or seminars in such areas as pump repair or manufacture of animal traction equipment. These programs should be carried on in conjunction with OVSTM personnel and suppliers from Bamako; OVSTM's facilities should be used to the extent possible. Again, the extension--training specialist should decide if outside consultants are needed.

3. developing information and advertising packets in local languages for farmers and artisans on inputs, services, and credit available to them. The credit specialist, the mobile training unit, OVSTM extension agents, and the Chamber of Commerce will participate in collecting, organizing, and distributing this information, which could be compiled in the form of advertising pamphlets produced by the Chamber of Commerce.

To help the farmer associations manage credit, input supply, and perimeter operations more effectively, the project will support accounting and management training to the associations. A local private voluntary organization already operating in the area will implement this program. The most likely organization appears to be the Committee for the Coordination of Perimeters (CCP), founded in 1979 as a cooperative enterprise of several farmer associations in the Kayes area. The CCP has already undertaken market research and assisted some perimeters by organizing training seminars and obtaining agricultural credit. A contract for these services will be negotiated during project implementation. Type, duration, and timing of training will depend on demand from farmer associations for this type of project support.

3.10.7.3.2. Mauritania

In Mauritania, as in Mali, the Centre d'Etude et de Promotion Industrielle (CEPI) already has a mandate to provide, among other things, technical assistance and training to small and medium scale private enterprises. The training-extension specialist on the IDP technical team will be responsible for determining the extent to which CEPI's activities already fulfill, or can be extended to provide, the advisory-training services described in the IDP project. If possible, the training-extension specialist will encourage CEPI to participate in the Kaedi and Gouraye sectors, to develop the kinds of programs outlined above within the framework of its own mandate and financing. Ideally, a CEPI representative will be assigned to Kaédi. To establish a direct link with the IDP project, Peace Corps Volunteers will be assigned to work with CEPI in the Kaédi and Gouraye sectors. The volunteers will be responsible for ensuring that all of the Small Business Promotion activities are carried out. If CEPI is lacking personnel or financial resources to undertake all of these activities, the Peace Corps Volunteers will bear more of the responsibilities. The training-extension specialist and Peace Corps should decide whether additional volunteers should be assigned to the region in this case.

Prior to assignment in the Senegal River Basin, the volunteers will spend a month in Nouakchott, where they will receive basic training in implementing technical assistace and training programs from CEPI. Because few other institutions are interested in promoting rural enterprises in Mauritania, the volunteers should be creative in making contacts to collect and organize training materials for use in the IDP program. These contacts might include organizations like the Chamber of Commerce and the World Bank.

A. In the River Basin, CEPI and the PCV's will work closely with the extension/training specialist on the IDP technical team and the mobile training unit in:

1. developing a methodology to assess local training needs.

2. designing and conducting short-term courses on an as-needed basis. If CEPI or the PCV feel that outside consultants are necessary to supplement their own activities in particular skills, the training extention specialist may decide to contract for these services on a short-term basis.

3. determining the need for more general workshops or seminars in areas such as pump repair or manufacture of animal traction equipment. These programs should be carried out in conjunction with SONADER personnel and suppliers from Nouakchott. SONADER's facilities should be used to the extent possible. Again, the extension training specialist should decide if outside consultants are needed.

4. developing information and advertising packages in local languages for farmers and artisans explaining inputs, services, and credit available to them. The credit specialist, the mobile training unit, SONADER extension agents, and the Chamber of Commerce will participate in collecting, organizing, and distributing this information, which could be compiled in the form of an advertising pamphlet sponsored by the Chamber of Commerce.

B. The extension service will be responsible for carrying out broad, cooperative level training in basic management and accounting skills to increase farmers capacity to enter into transactions with private business (see section 3.6 on Cooperative Development for details).

3.10.7.3.3. Senegal

In Senegal, the Société Nationale d'Etude et de Promotion de l'Industrie (SONEPI) already has a mandate to provide, among other things, technical assistance and training as well as loan guarantees to small and medium scale private enterprises. It works in tandem with the Société Financière Sénégalaise pour le Développement, which makes term loans and equity investments in industrial interprises.

The training-extension specialist on the IDP technical team will be responsible for determining the extent to which SONEPI's activities already fulfill, or can be extended to provide, the advisory-training services described above. If possible, the training-extension specialist should encourage SONEPI to develop the capacity in the Senegal River Basin to carry out these services within the framework of its own mandate and financing. To establish a direct link with the IDP project, two Peace Corps Volunteers will be assigned to work with SONEPI in Podor and Bakel. These volunteers will be responsible for insuring that all activities of the Private Sector Promotion Program are carried out. If SONEPI is lacking personnel or financial resources to undertake all of these activities, the Peace Corps Volunteers will bear more of the responsibility. The training extension specialist and Peace Corps should decide whether additional volunteers should be assigned to the region in this case.

Prior to assignment in the river basin, the volunteers will spend one month in Dakar, where they will receive basic training in implementing technical assistance and training programs from SONEPI. They will also make contact with the Chambre de Métiers, the Société Sénégalaise de la Promotion de l'Artisanat (SOSEPRA), the Société Nationale de Garantie d'Assistnce au Commerce (SONAGA), the Ministry of Commerce, and the Chamber of Commerce. Using these contacts, the volunteer will collect and organize training materials for use in the IDP program to Podor and Bakel. SONEPI and the PCV(s) will work together in:

1. developing a methodology for assessing local training needs.

2. designing and conducting short-term courses on an as-needed basis to fill these needs. If SONEPI or the PCV feel that outside consultants are necessary to supplement their own activities in particular skills, the training-extension specialist may decide to contract for these services on a short-term basis.

3. determining the need for more general workshops or seminars in areas such as pump repair or the manufacture of animal traction equipment. These workshops should be coordinated with the animal traction training program and the pump mechanic service of SAED. SAED facilities and personnel should be used to the greatest extent possible. Again, the training extension specialist should decide if outside consultants are needed.

4. developing information and advertising packets in local languages for farmers and artisans explaining inputs, services, and credit available to them. The credit specialist, the Mobile Training Unit, the SAED extension agents, the Chambre of Commerce, and other relevent institutions will participate in collecting, organizing, and distributing this information, which could be compiled in the form of an advertising pamphlet sponsored by the Chamber of Commerce.

B. The mobile training unit and the extension training specialist will be responsible for carrying out broad, cooperative-level training in basic management and accounting skills aimed at increasing farmer capacity to enter into transactions with the private business (see Volume III, Section 3.6. on Cooperative Development for details).

3.10.7.4. The Credit Program

The IDP credit program in each country will provide four different classes of credit. Medium term and seasonal farm credit will directly serve the agricultural production activities of the project. All farmers and producer groups within the project will be eligible for these two types of credit. Non-farm loans will finance a variety of small businesses that support the agricultural sector. Finally, a loan guarantee scheme will be offered to locally-based traders and suppliers. The project credit program will establish savings accounts for its clientele to encourage savings and facilitate loan repayments.

The terms for loans described in the sections below indicate the intended relationship between the costs of capital for differenct uses. The absolute level of the rates, however, must be negotiated, and should be adjusted to accurately reflect economic conditions.

3.10.7.4.1. The Credit Activities

1. Medium-Term Farm Credit

Medium-term farm credit will be available for financing any kind of large farm or irrigation equipment. In particular, producer groups will be expected to use this credit for purchasing motor pumps, while farmers will be expected to use this scheme largely for buying animal traction equipment. Both farmer and producer groups may also apply to the project credit officer for credit to purchase other items such as small tractors, grain threshers, and storage containers to increase their productive capacities.

Medium-term credit will be offered at 13 percent annual interest rate, to be repaid in equal installments over five years. Estimates of the medium-term credit requirements for each of the project zones appear in Appendix A, Tables 1 through 5. These requirements are based upon calculations made in the farm budget analysis of the Economic and Financial Analysis (Volume III, Section 1.0.).

2. Seasonal Farm Credit

The farmers and producer groups participating in the project will also be able to obtain seasonal credit for purchases of production inputs. Although producer groups generally buy fertilizer, seeds, pump fuel and crop protection chemicals as a group and then distribute them to their members, individual farmers should have access to seasonal credit as well so that those with initiative can experiment with different crops and input mixes.

Seasonal credit will be extended for a period of up to six months. Repayment will be made after the harvest. Interest on the loan will be 7.5 percent over the six-month period, (equivalent to a 15.6 percent annual rate of interest). A discussion of the credit terms is provided in

Section 7.8.5.2.). Seasonal credit requirements for each project zone are presented in Appendix A, Tables 1 through 5, based on estimates made in the farm budget section of the Economic and Financial Analysis (Volume III, Section 1.0.).

3. Non-Farm Credit

Non-farm credit includes loans to small business serving the agricultural sector. The following is a list of the types of loans most likely to be made under this program .

Under the project, loans will be extended to village blacksmiths in the region to enable them to invest in shops for providing repair and maintenance services for animal traction equipment and other farm tools. These metal-working shops should be able to manufacture simple farm tools and are eventually to assemble and adopt farm equipment to the local working environment.

The project will also extend loans to village mechanics to allow them to purchase the materials, tools, and equipment needed to maintain and repair of pumps, pump motors, and produce processing machinery in the project zone. The project may also provide loans to construct and furnish workshops for blacksmiths, mechanics, and other small businesses. Loans will be extended to purchase rice hulling equipment, thus encouraging local processing of the crop produced under the project. All these loans will be extended to individuals or cooperative entities in the project zone. Loans for all large-scale equipment will be extended at an eight percent real rate of interest or in approximately 13 percent nominal interest rate (see discussion of credit terms below) to be repaid in equal installments over five years. Appendix A, tables 1-5 present the estimated costs of these loans and their annual credit requirements. These calculations assume that the nominal value of the loans will rise at an annual inflation rate of eight percent. Repayments on the loans are adjusted to reflect an expected default rate of 20 percent each year during the project life.

4. Suppliers Credit Guarantees

At present, there is no obvious need for credit to private suppliers in the project zones. Credit requirements for suppliers might include financing for stocking inventories and for covering operating costs, size, and duration of credit would depend upon the value and turnover time of the suppliers inventories. While these variables are unknown in the valley, traders and suppliers appear to have considerable access to credit through informal capital market channels. In fact, often these enterprises even provide credit to their local clientele.

During the project, traders and merchants are expected to play a major role in providing agricultural inputs and equipment, a function presently carried out almost entirely by the RDA's or donors in all three countries. This new activity will require that these suppliers expand their operations, which may temporarily overtax their credit resources. We therefore recommend that the project credit program set up a mechanism to provide loan guarantees to suppliers, thus making it easier for them to obtain commerical loans from existing banking institutions. To ensure that the banks enforce prompt and full repayment, these guarantees should not exceed 50 percent of the loan. The project credit specialist in each country will be left to define the need for these guarantees and their exact terms. Estimates of the cost of this activity are provided in the notes to Appendix A, Tables 1 through 5.

5. Savings Accounts

In the interest of mobilizing rural savings as a further source of loan funds, the project will promote a system of savings accounts within the credit schemes of each project zone. All recipients of credit through the project will be encouraged to establish savings accounts. As an incentive to establishing these accounts, clientele will be eligible for a slight reduction in interest rates on borrowed credits (one-half percent). Another incentive will be the earning of interest on savings accounts. These interest rates will vary with type of accounts--time deposits would earn more in relation to quantity and length of deposit--and will be negotiated between the project credit specialist and the participating banks in each zone.

Project personnel should also consider the feasibility of providing joint checking and savings accounts to the savings clientele and should institute this practice if they feel it will contribute to promoting private sector activities.

3.10.7.4.2. Terms of Credit Program

In defining the terms for each of the credit activities of the project, the guiding principle has been that the credit scheme should not be a means of subsidizing farmers. This principle is important first, because if credit is subsidized, then the credit system will deplete its capital unless continuous financing is assured to support the system. As the Economic and Financial Analyses point out, (See Volume III, Section 1) the three OMVS countries can ill afford such a recurrent cost drain.

Secondly, subsidizing rural credit has been shown in many instances to disturb the distribution of capital in the developing rural economy, often favoring large over small farmers and providing a disincentive for all farmers to save and invest their own income.

Thirdly, subsidized rural credit schemes will deter private financial institutions from enterine the rural sector.

If credit is to be unsubsidized, then the real rate of interest at which is is lent must first be high enough to cover costs of operating credit programs and losses to defaults, and then provide a positive return to the invested capital. The structure of the real interest rate is complicated by the fact that in rural economics of developing countries, dual capital markets exist in which several interest rates prevail. This dual structure is often characterized by the distinction between formal and informal economic sectors. Informal capital markets represent non-institutionalized sources of capital such as money changers, traders, and merchants. While it is difficult to determine real interest rates in these markets, evidence from throughout West Africa indicates that they fall above 25 percent. These high rates reflects the high transaction charges and risk that characterize these markets.

Formal credit markets include national and commercial banks and lending institutions. The following table presents nominal interest rates charged for commercial credit offered in the banks of the three OMVS countries.

	Seasonal or short term loans	Medium term loans
Mali Banque Malienne de Developpement	15-17 percent	12.7 percent
Senegal Banque Central des Etats de l'Afrique de l'Ouest	11 percent	11.5-15.5 percent
Mauritania Banque Centrale de la Mauritanie		

These rates are considerably lower than those for the informal market, in part reflecting indirect subsidies resulting from financial or technical assistance given to these banks. The difference also reflects the reduction in risk and transaction charges that may characterize the large scale lending of these banks, and the diversified nature of their portfolios.

These rates are considerably higher than the rates of interest currently charged by the RDA's in the Senegal River Basin for the agricultural credit they administer. The nominal interest rate for medium-term credit to buy pumps offered by SAED and SONADER is currently only 8.5 percent, and seasonal credit is granted at an effective zero or negative rate of interest; inputs are charged at cost when their repayment is made after the harvest.

Enforcing credit repayment will require formulating either sanctions for nonrepayment or positive incentives for early repayment. These measures might include a penalty interest rate charged for reimbursement after the contracted date, a refusal to furnish new credit until previous obligations are met, or deductions in interest rates for repayments which are made ahead of schedule.

The credit specialist and the banks will define the exact nature of the regulations imposed by the credit system as well as their administration and enforcement in the context of the local environment, allowing for adjustments in the case of unforseen circumstances such as drought that could effect the system's operation.

3.10.7.4.3. Administration

In each OMVS country, the IDP Staff will include a credit specialist responsible for designing and implementing all credit activities, whose first major task in each country will be to negotiate the specifics of the institutional relationship between the project credit program and the participating banking institution as well as organizational structure of the program and the terms of the credit. In connection with these negotiations, the credit specialist should also reach an understanding with the local RDA's as to the sharing or transfer of responsibilities between existing RDA credit activities and the proposed project credit activities. To establish the credit programs, the credit specialist will work closely with counterparts in the participating banking institutions to insure that these institutions possess the capacity to maintain the credit facilities established by the project.

Finally, the credit specialist will work closely with the other members of the project staff to coordinate and integrate the credit scheme with other project activities. The scope of work for the credit specialist is defined in greater detail in the description of inputs to the credit program for each country. The RDA extension services and the small business promotion services will advertise and promote the credit program to eligible clientele. Personnel of each of these groups will be sensitized to the activities of credit program and instructed in assisting farmers and enterprises in becoming participants. They will be expected to provide continuing advice to clientele in managing their debts.

The banks through which the IDP credit is administered should be solely responsible for collecting debts; the extension service of the RDA's should not be solicited for this purpose. This division of responsibility is necessary to protect farmer trust in the RDA extension agents.

3.10.7.4.4. Malian Credit Program

The IDP credit program in Mali is expected to be administered through the Banque Nationale de Developpement Agricole (BNDA), which will install a credit window in the existing facilities of the Banque de Developpement au Mali (BDM) in Kayes. This plan may be subject to considerable change, as 1) such a relationship does not currently exist between the two banks (though it has been proposed by the BNDA), and 2) the nature of the institutional links between the project and both banks has yet to be negotiated.

An IDP project manager with training as a credit specialist will direct Mali's credit program in Kayes. The Manager's responsibilities will include the following:

1. Negotiating the operational relationship between the IDP and the BDM/BNDA and the institutional structure, regulations and audit terms for the credit and savings activities. The specialist should complete these negotiations within the first six months of his or her tenure.

2. Designing the credit management systems, the loan monitoring and collection procedures, and the internal audit and control procedures for the BDM/BNDA credit schemes. The credit specialist should carry out this activity during first six months of his other tenure.

3. Supervising the implementation of the project credit program by the BDM/BNDA.

4. Training a loan officer in the BDM/BNDA to manage the credit program and to assume control of the program in the sixth year of the project.

5. Coordinating the medium-term and seasonal farm credit activities with existing credit activities of OVSTM to facilitate a transition of credit responsibilities where overlap occurs. As OVSTM currently has no resources for extending credit, its credit responsibilities are purely theoretical. It is suggested that OVSTM give up these responsibilities entirely.

6. Coordinating and integrating the IDP credit and savings programs with the other activities of the project, which involves the following:

a. synchronizing credit availability with the construction of new irrigated perimeters.

b. working with OVSTM extension agents, the project training-extension specialist, and the rural sociologist to increase farmers and producer associations' awareness of credit availablity and to provide training and continuing advice in managing debts.

c. working with the small business promotion program to advertise credit available for small businesses and to provide training and advice in debt and investment management.

d. cooperating with private input suppliers, producer groups, and OVSTM extension agents in evaluating seasonal agricultural input needs and associated credit demand.

7. Preparing annual reports on credit activities and participating in an evaluation of the credit program in the sixth year of the project.

The project manager/credit specialist will be assigned a counterpart by the BDM/BNDA to be trained as a Rural Loan Officer responsible for the following:

1. Managing all disbursements and collections made from IDP credit accounts.

2. Establishing and managing savings accounts for individuals, groups, and associations participating in project activities.

3. Participating in initial marketing of project credit and savings operations, which will entail periodic field visits with the mobile training unit to project villages.

The cost of IDP credit activities in the Kayes Region will be approximately $576,000. This figure is broken out into each of the subactivities for each year of the project in Appendix A, Table 1.

The BDM/BNDA is expected to cover its own initial operating costs, including the salaries of the loan officers assigned to the project. The service charge included in each project loan will go towards supporting the recurrent costs of the operation.

3.10.7.4.5. Mauritanian Credit Program

As currently envisioned, the credit program in Mauritania for both Kaedi and Gouraye sectors will be administered in cooperation with the Fonds National de Developpement (FND), to be installed in the Banque Mauritanienne de Developpement et Commerce (BMDC) in Kaedi.

This relationship which must be negotiated with both banking institutions, which may require considerable alteration.

The credit program will require close coordination with SONADER's existing credit operation, currently the sole source of formal credit to farmers in irrigated agriculture in Mauritania.

In order to assure this coordination, the project will provide a credit specialist, to be based in SONADER's Bureau de Credit et de Commercialisation in Kaedi. This person will work with the BMDC/FND in developing its credit scheme and in assuring its harmonization with the eventual replacement of the BCC credit operations. At the same time, he or she will be responsible for improving the BCC's capacity to advise and assist farmers in using the BMDC credit scheme. From his or her base in Kaedi, the credit specialist will also direct the extension of credit to the Gouraye project zone.

The responsibilities of the credit specialists will include the following:

1. Negotiating the operational relationship between the IDP and the BMDC/FND and the institutional structure, regulations, and credit terms for the credit and savings activities. These negotiations should be completed within the first six months of the credit specialist's tenure.

2. Designing the financial and credit management systems, the loan monitoring and collection procedures, and the internal audit and control procedures for the BMDC/FND credit schemes. The credit specialist will carry out this activity in the first six months of his or her tenure.

3. Supervising the implementation of the project credit program by BMDC/FND in Kaedi and Gouraye sectors.

4. Training a loan officer(s) in the BMDC/FND to manage the credit program and to assume control of the program in the sixth year of the project.

5. Coordinating the credit activities with the existing BCC/SONADER credit program to facilitate a transition of credit responsibilities where overlap occurs.

6. Coordinating and integrating the credit and savings programs with the other activities of the project, which involves the following:

a. working with SONADER extension agents, the project training-extension specialist, and the rural sociologist to increase farmer's and producer associations' awareness of credit availability and to provide training and continuing advice in managing debts.

b. working with the small business promotion program to advertise credit available for small businesses and to provide training and advice in debts and investment management.

c. cooperating with private input suppliers, producer groups, and SONADER extension agents in evaluating seasonal agricultural input needs and associated credit demand.

7. Preparing annual reports on credit activities and participating in evaluation of the credit program in the sixth year of the project.

The credit specialist will be assigned two counterparts by the BNDC/FND to be trained as Rural Loan Officers responsible for project credit activities in Kaedi and Gouraye, including the following:

1. Managing all disbursements and collections made from IDP credit accounts.

2. Establishing and managing savings accounts for individuals, groups, and associations participating in project activities.

3. Participating in the initial marketing of project credit and savings opeeations, which will entail field visits with the mobile training unit to project villages during the early years of the project.

Because of the long distance between Gouraye and Kaedi and the poor condition of transport and communications infrastructure in the region, delivering credit to the Gouraye sector will require some planning. The credit specialist should consider the following alternatives and choose one or a combination of them to assure farmers access to project credit through the most cost effective means.

a. establishment of grant facility to the BMDC/FND in Selibaby to serve the greater Gouraye region.

b. placement of mobile credit unit to circulate seasonally (or more often) to project villages, providing credit and savings facilities.

c. institution of credit facility operated through the existing structure of the BCC/SONADER.

The cost of IDP credit activities in Mauritania appears in Appendix A, Tables 2 and 3. The Kaedi section will require $689,000 over the project life before repayments are sufficient to capitalize further loan demand. The Gouraye section will require $683,000.

The BMDC/FND is expected to cover its own initial operating costs, including the salaries of the loan officers assigned to the project. The service charge included in each project loan will go towards supporting the recurrent costs of the operation.

3.10.7.4.6. <u>Senegalese Credit Program</u>

The rural credit component of the BNDS is currently undergoing fundamental restructuring. USAID is currently planning two pilot projects to provide production and agribusiness credit in Thiés and Matam. Based on an evaluation of these two programs, the BNDS may institute similar operations throughout Senegal. The precise details of how these "caisses locales" are to operate are being worked out by a high level interministerial and donor committee.

The IDP credit specialist should work closely with the BNDS in determining whether individual branches should be opened in Bakel and Podor or whether it would be preferable to operate a mobile credit unit out of the Matam branch. In either case the specialist should pursue credit efforts in Bakel to coincide with overall project activity. The Podor component should be initiated gradually as the IDP expands its operations into that area.

The responsibilities of the credit specialist in conjunction with the BNDS, include the following:

1. Developing a credit scheme compatible with the new BNDS framework and with the needs of the IDP.

2. Determining the operational relationship between IDP and the BNDS and the institutional structure, regulations, and credit terms for the credit and savings activities. These negotiations should be completed within the first six months of the credit specialist's tenure.

3. Designing the financial and credit management systems, the loan monitoring and collection procedures, and the internal audit and control procedures for the BNDS credit schemes. The credit specialist should carry out this activity during the first six months of his or her tenure.

4. Supervising the implementation of the project credit program in Bakel and Podor.

5. Training two loan officers in the BNDS to manage the credit program and to assume control of the program in the sixth year of the project.

6. Coordinating the medium-term and seasonal farm credit activities with existing SAED credit program to facilitate a transition of responsiblities where overlap occurs.

7. Coordinating and integrating the credit and savings program with the other activities of the project, which involves the following:

a. assuring that credit availability is syncronized with the construction of new irrigated perimeters.

b. working with SAED extension agents, the project training-extension specialist, and the rural sociologist to increase farmers' and producer associations' awareness of credit availability and to provide training and continuing advice in managing debts.

c. working with this small business promotion program to advertise credit available for small business and to provide training and advice in debt and investment management.

d. cooperating with private input supplies, producer groups and SAED extension agents in evaluating seasonal agricultural input needs and associated credit demand.

8. Preparing annual reports on credit activities and participating in an evaluation of the credit program in the sixth year of the project.

The credit specialist will be assigned two counterparts by the BNDS to be trained as Rural Loan Officers responsible for project credit activities in each of the project zones, Bakel and Podor. Their responsibilities will include the following:

1. Managing all disbursements and collections made from IDP credit accounts.

2. Establishing and managing savings accounts for individuals, groups, and associations participating in project activities.

3. Participating in the initial marketing of project credit and savings operations, which will entail field visits with the mobile training unit to project villages during the early years of the project.

The cost of IDP credit activities in Senegal appears in Appendix A, Tables 4 and 5. This Bakel sector will require $514,000 over the project life before repayments are sufficient to capitalize further loan demand. The Podor sector will require approximately the same amount.

The BNDS is expected to cover its own initial operating costs, including the salaries of the loan officers assigned to the project. The service charge included in each project loan will go towards supporting the recurrent costs of the operation.

APPENDIX A

TABLE 1

CREDIT REQUIREMENTS : KAYES

	1983	1984	1985	1986	1987	1988	1989
Medium Term Farm Credit (Thousand FM)							
Loans	-	-	8776	103614	27294	29477	21100
Repayments	-	-	-	24956	55415	62175	70558
Repayments Adjusted		-	-	19965	43532	49740	56446
Credit Requirement			8776	83649	16238	(20263)	(35346)
Credit Requirement (Thousand $)			146.3	139.4	27.1	(33.8)	58.9)
Seasonal Farm Credit (Thousand FM)							
Seasonal Loans	-	-	22720	58038	113778	178066	225443
Repayments	-	-	24424	62391	122312	191421	242351
Repayments Adjusted	-	-	19540	49913	97849	153137	193881
Seasonal Credit Recovery	-	-	22720	38498	63865	80217	72306
Credit Requirement	-	-	11560	19249	31932	40108	36153
Credit Requirement (Thousand $)	-	-	18.9	32.1	53.2	66.8	60.2
Non Farm Credit (Thousand $)							
Loans (current $)	-	-	18.5	19.6	21.2	22.9	24.7
Repayments	-	-	-	5.7	10.7	16.7	23.3
Repayments Adjusted	-	-	-	4.2	8.6	13.4	18.6
Credit Requirements	-	-	18.5	15.4	12.6	9.5	6.1
Loan Guarantee Claims (Thousands)	-	-	1.7	1.9	2.0	2.2	2.4
Sub Total Credit Requirement (Thousand $)	-	-	185.5	188.8	94.9	44.8	9.8
Contingency (10%)	-	-	18.6	18.9	9.5	4.5	1.0
Total Credit Requirement	-	-	204.1	207.7	104.4	49.3	10.8
Capitalization (current $) 576,300							

TABLE 2
CREDIT REQUIREMENTS : KAEDI

	1983	1984	1985	1986	1987	1988	1989
Medium Term Farm Credit (Thousand UM)							
Loans	-	-	3835	8642	8359	5934	-
Repayments	-	-	-	1090	3547	5924	7611
Repayments adjusted	-	-	-	872	2838	4739	6089
Credit Requirement	-	-	3835	7770	5527	1195	(6089)
Credit Requirement (Thousand $)	-	-	74	150	107	23.1	(118)
Seasonal Farm Credit (Thousand UM)							
Seasonal loans	-	-	-	3234	11130	19152	25715
Repayments	-	-	-	3477	11965	20588	27644
Repayments Adjusted	-	-	-	2781	9572	16471	22115
Seasonal Credit Recovery	-	-	-	3234	8349	9580	9244
Credit Requirement	-	-	-	1617	4174	4790	4622
Credit Requirement (Thousand $)	-	-	-	31	80.6	92	89
Non Farm Credit (Thousand $)							
Loans	-	-	19.3	20.8	22.5	24.3	26.2
Repayments	-	-	-	5.5	11.4	17.8	24.7
Repayments Adjusted	-	-	-	4.4	9.1	14.2	19.8
Credit Requirements	-	-	19.3	16.4	13.4	10.1	6.4
Loan Guarantee Claims (Thousand $)	-	-	1.7	1.9	2.0	2.2	2.4
Sub Total Credit Requirments (Thousand $)	-	-	95	199.3	203.4	127.4	(20.2)
Contingency (10%)			9.5	19.93	20.3	12.7	(2.02)
Total Credit Requirements			104.5	219.2	223.7	140.1	22.22
Capitalization 688.7							

TABLE 3
CREDIT REQUIREMENTS : GOURAYE

Medium Term Farm Credit (Thousand UM)

	1983	1984	1985	1986	1987	1988	1989
Loans	-	-	3783	5283	8083	7412	-
Repayments	-	-	-	1076	3430	5729	7836
Repayment Adjusted	-	-	-	860	2744	4583	6269
Credit Requirement	-	-	3783	7423	5340	2829	(6269)
Credit Requirement (Thousand $)	-	-	730	143.3	103.1	54.6	(121.0)

Seasonal Farm Credit (Thousand UM)

	1983	1984	1985	1986	1987	1988	1989
Seasonal loans	-	-	-	3950	11448	19665	27023
Repayments	-	-	-	4246	12307	21140	29050
Repayments Adjusted	-	-	-	3397	9846	16912	23240
Seasonal Credit Recovery	-	-	-	3950	8057	9819	10111
Credit Requirement	-	-	-	1975	4025	4909	5055
Credit Requirement (Thousand $)	-	-	-	38.1	77.7	94.7	97.6

...m Credit (Thousand $)

	1983	1984	1985	1986	1987	1988	1989
Loans	-	-	16.5	17.8	19.2	20.8	22.4
Repayments			-	4.7	9.8	15.2	22.1
Repayments Adjusted	-	-	-	3.8	7.8	12.2	16.9
Credit Requirement	-	-	16.5	14.0	11.4	8.6	5.5
Loan Guarantee Claims (Thousand $)	-	-	4.7	5.1	5.5	6.0	6.4
Sub Total Credit Requieement	-	-	94.2	165.5	197.7	163.9	(11.5)
Contingency (10%)	-	-	9.4	16.5	19.8	16.4	-
Total Credit Requirement	-	-	103.6	182.0	217.5	180.3	(11.5)
Capitalization 683.4							

TABLE 4

CREDIT REQUIREMENTS: BAKEL

MEDIUM TERM FARM CREDIT (Thousand CFA)	1983	1984	1985	1985	1986	1987	1988	1989
1. Loans	31431	-	10102	10102	31923	24923	50799	1850
2. Repayment	-	8936	8936	8936	11808	20884	27970	33477
3. Repayments adjusted		7148	7148	7148	9446	16707	22376	26781
4. Credit Requirement	31431	(7148)	2954	2954	21477	8216	28423	(26781)
5 Credit Requirement (Thousand $)	~~204.8~~ 104.8	(23.8)	9.8	9.8	71.6	27.4	94.7	(89.3)
Seasonal Farm Credit (Thousand CFA)								
1. Seasonal loans	-	21672	23406	23406	24990	46337	57584	61985
2. Repayments	-	23297	25161	25161	26864	49812	61903	66634
3. Repayments adjusted	-	18638	20129	20129	21491	39850	49522	53307
4. Seasonal Credit Recovery	-	21672	4768	4768	4861	24846	17734	12463
5. Credit Requirement	-	10836	2384	2384	7431	12423	8867	6232
6. Credit Requirement (Thousand $)	-	36	8	8	8	41	30	21
Non Farm Credit (Thousand $)								
Loans (current $)	-	17.8	19.3	19.3	20.8	22.5	24.3	-
Repayments	-		5.1	5.1	10.5	16.5	22.9	29.8
Repayments (adjusted)	-		4.1	4.1	8.4	13.2	18.3	23.8
Credit Requirements	-	17.8	15.2	15.2	12.4	9.3	6.3	(23.8)
Loan Guarantee Claims (Thousand $)	-	2.6	2.8	2.8	3.1	3.3	3.6	3.9
A. Sum of Credit Requirements (Thousand $)	104.8	32.6	35.8	35.8	95.1	71	134.3	(88.2)
B. Contingency (10%) B A.X.1	10.48	3.26	3.58	3.58	9.51	7.1	13.43	(8.82)
C. Total Credit Requirement 1 A B	115.28	38.86	39.89	39.89	104.61	78.1	147.73	(97.02)
Captialization (current $) 513.9								

TABLE 5
CREDIT REQUIREMENTS : PODOR

MEDIUM TERM FARM CREDIT (Thousand CFA)	1983	1984	1985	1986	1987	1988	1989
1. Loans (current CFA)	-	-	8979	-	26500	-	-
2. Repayments (13%)	-	-	-	2553	2553	10087	10087
3. Repayments (adjusted)	-	-	-	2042	2042	8070	8070
4. Credit Requirements	-	-	8979	(2042)	24458	(8070)	(8070)
5. Credit Requirements (Thousand $)	-	-	30	(7)	82	(24)	(24)
Seasonal Farm Credit (Thousand CFA)							
Seasonal Loans (current CFA)	-	-	43127	7364[illegible]	79539	157185	169730
Repayments	-	-	46361	7917[illegible]	85504	168945	182460
Repayments Adjusted X .8	-	-	37089	6333[illegible]	68403	135156	145968
Seasonal Credit Recovery	-	-	43127	3655[illegible]	16203	88755	34574
Credit Requirement (Thousand CFA)	-	-	21563.5	18279	8101.5	44378	17287
Credit Requirement (Thousand $)	-	-	72	61	27.5	148	58
Non Farm Credit (Thousand $)							
Loans (current $)	-	-	18.5	19.6	21.2	22.9	24.7
Repayments	-	-	-	5.7	10.7	16.7	23.3
Repayments adjusted	-	-	-	4.2	8.6	13.4	18.6
Credit Requirements	-	-	18.5	15.4	12.6	9.5	6.1
Loan Guarantee Claims (Thousand $)	-	-	2.8	3.1	3.3	3.6	3.9
Sub Total Credit Requirements	-	-	123.3	72.5	125.4	132.1	44
Contingency	-	-	12.33	7.25	12.54	13.21	4.4
Total Credit Requirements	-	-	135.63	79.75	137.94	145.31	48.4
Capitalization 546.9							

Notes to Credit Requirement Tables

1. Loan inflation for all loans is estimated at 8 percent, reflecting expected rate for industrial products. All repayment except for seasonal credit are at 13 percent nominal (8 percent real interest plus 5 percent domestic inflation rate). All repayments are adjusted to reflect a default rate of 20 percent.

2. Medium term farm loans and seasonal farm loans requirements are taken from the farm credit requirements Table in the Economic and Financial Analysis (Volume III, Section Table 86. Seasonal credit is assumed to be extended at 7.5 percent interest rate over 6 months.

3. Non-farm loans are based upon the following estimates of loan types and costs.

(a) The loans to blacksmiths will cover such small equipment as tools for tempering metal, molds, tapping equipment, threading tools, grinding equipment, soft-soldering, and light welding equipment. Experience in Mali shows that these cost about 140,000 CFA. Large equipment needs include:

Blacksmithing equipment

Forge blower	120,000 CFA
Soldering set	60,000 CFA
	180,000 CFA
Welding equipment	
Arc welding plant	1,200,000 CFA
Welding accessories	
(shields, arc torches clamps, etc.	7,000 CFA
	1,270,000 CFA

The table below gives rough estimates of the number of non-farm loans (by type) to be distributed by the project financed credit facilities in each of the project zones.

Loan package	Cost	Kayes	Bakel	Podor	Gouraye	Kaedi
Blacksmithing tools	(140,000 CFA)	4	5	5	5	5
Blacksmithing large equipment	(180,000 CFA)	4	5	5	5	5
Welding equipment	1,270,000 CFA	1	1	1	1	1
Mechanic tools	(100,000 CFA)	4	5	3	5	5
Workshop construction	(400,000 CFA)	8	10	7	10	10
Rice hullers	(2,100,000 CFA)	6	6	6	5	6
Total (thousand CFA)	18,750	19,770	18,750	17,100	19,970	
Contingency 15 percent	2,812	2,995	2,812	2,565	2,995	
Total (thousand CFA)	21,562	22,965	21,562	9,665	22,965	
Total ($)	71,900	76,600	71,900	65,600	76,600	

The disbursement of these loans over the project life is given below by region.

Non-farm Loan Schedule

(1981 Constant thousand $)

	1983	1984	1985	1986	1987	1988	1989
Kayes	-	-	14,4	14,4	14,4	14,4	14,4
Bakel	-	15,3	15,3	15,3	15,3	15,3	-
Podor	-	-	14,4	14,4	14,4	14,4	14,4
Gouraye	-	-	13,1	13,1	13,1	13,1	13,1
Kaedi	-	-	15,3	15,3	15,3	15,3	15,3

4. The average loan guarantee is estimated to cover $5,000 (1/2 of a $10,000 loan). It is expected that 15 percent of the guarantee value will be claimed by the banks. The cost of the loan guarantee program is therefore estimated as follows for each project zone.

	No. of guarantees/yr	Value	Claims against guarantee (15 percent of value)
Kayes	2	$10,000	$ 1,500
Bakel	3	15,000	2,250
Podor	3	15,000	2,250
Gouraye	5	25,000	3,750
Kaedi	2	10,000	1,500

The nominal cost of these guarantees are expected to raise at an annual inflation rate of 8 percent.

APPENDIX B GLOSSARY OF ACRONYMS

AFCO	-	a private French company in Dakar that supplies agricultural inputs.
API	-	Action Périmètres Irrigués - the former RDA responsible for irrigated farming in the Kayes Region of Mali.
ARADIS	-	a private Mauritanian company in Nouakchott that supplies agricultural equipment and chemical products.
BMD	-	Banque de Développement du Mali, State Development Bank.
BICIS	-	Banque Internationale pour le Commerce et l'Industrie (Sénégal) - private commercial bank.
BIMA	-	Banque Internationale de Mauritanie - private commercial bank.
BMD	-	Banque Mauritanienne de Développement - State Development Bank.
BMDC	-	Banque Mauritanienne de Développement et du Commerce (mixed capital bank).
BNDA	-	Banque Nationale de Développement Agricole (Mali) - Mali's new State Agricultural Bank.
BNDS	-	Banque Nationale de Développement du Sénégal - State Developpement Bank.
CCCE	-	Caisse Centrale de Coopération Economique.
CIBA-GEIGY	-	Private Swiss supplier of chemical products in Abidjan.
CIPROCHIMIE	-	Private Mauritanian supplier of chemical products in Nouakchott.
CLCA	-	Caisse Locale de Crédit Agricole - Sénegal's planned departmental level outlet for agricultural credit.
CMDT	-	Compagnie Malienne pour le Développement des Textiles - Mali's State enterprise responsible for all aspects of cotton production.
CNCA	-	Caisse Nationale de Crédit Agricole - The headquarters for Senegal's planned agricultural credit system, based in the BNDS.
CODAMM	-	A private French exporter raw materials in France.

COATEX	-	Compagnie Malienne de Textiles - a mixed enterprise textile factory in Mali.
CPSP	-	Caisse de Péréquation et Stabilisation des Prix (Senegal)
CRCA	-	Caisse Régionale de Crédit Agricole - The Regional level coordination office for Senegal's planned agricultural credit system.
CSS	-	Compagnie Sucrière Sénégalaise - a private French sugar factory in Richard Toll, Senegal.
EMC	-	Entreprise Minière et Chimique - a French parastatal fertilizer company.
FAC	-	Fonds d'Aide et de Coopération - French Bilateral Assistance Program.
FND	-	Fonds National de Développement (Mauritania) - The new State Development Bank.
MANUTENTION AFRICAINE	-	Private suppler of vehicles and equipment.
MATFORCE	-	Private French/British supplier of agricultural machinery and equipment in Dakar.
OMVS	-	Office de Mise en Valeur du Fleuve Sénégal. A multilateral organization composed of members from the Malian, Mauritanian and Senegalese goverments responsible for the development of the Senegal River Basin.
ONCAD	-	Office National de Coopération et Assistance au Développement (Sénégal) - a State agency with a monopoly on the supply of all seeds and fertilizers and a monopsony for all grain purchases. Dissolved 1981.
OPSR	-	Opération Protection de Semences et Récoltes (Mali).
OVSTM	-	Opération Vallée Sénégal, Térékole et Lac Magui - the RDA responsible for irrigated farming in the Kayes Region of Mali.
PEYRISSAC	-	a private French supplier of agricultural equipment and machinery (among other things) in Dakar.
RDA	-	Regional Development Agency - State Institution responsible for all aspects of development in a particular region.

RIMATEC	-	a mixed enterprise, parastatal Mauritanian company that sells, among other things, agricultural machinery and equipment.
SAED	-	Société d'Aménagement et d'Exploitation des Terres du Delta et des Vallées du Sénégal et de la Falémé - the RDA responsible for the irrigated farming in the Senegal River Basin in Senegal.
SARIA	-	a private, French supplier of agricultural machinery in Dakar.
SCAER	-	Société de Crédit Agricole et d'Equipement Rural (Mali). A State agency which purchased all agricultural inputs from local markets and overseas to resell to RDA's on credit at subsidized prices. In the process of bring liquidated.
SEIB	-	Société Electrique et Industrielle du Baol (Sénégal) a mixed enterprise peanut oil factory.
SEPOM	-	Société d'Exploitation et de Production des Oléagineux du Mali.
SHELL	-	Supplier of petroleum products.
SIEMI	-	a private French supplier of agricultural equipment and machinery in all three capitals.
SIES	-	Société Industrielle d'Engrais du Sénégal - a mixed enterprise fertilizer company in Dakar.
Ets SIMAGA	-	a private Malian supplier of agricultural machinery and equipment in Bamako.
SIRCOMA	-	a private Mauritanian supplier of spare parts and equipment in Nouakchott.
SISCOMA	-	Société Industrielle Sénégalaise de Construction de Matériel Agricole.
SMECMA	-	Société Malienne d'Entreprises et Construction de Matériel Agricole - alocal manufacturer of light Agricultural Equipment in Bamako.
SNTI	-	Société Nationale de Tomate Industrielle - a Senegalese tomato processing factory in Dagana, Senegal.
SOFISEDIT	-	Société Financière Sénégalaise pour le Développement de l'Industrie et le Tourisme - a specialized development bank making term loans and equity investments in private enterprises in Senegal.

SOCAS	-	Société Conserverie et Alimentation du Sénégal - a private French and Senegalese tomato processing factory in Savoigne, Senegal.
SONACOS	-	Société Nationale de Commercialisation des Oléagineux du Sénégal - a mixed enterprise peanut oil factory in Senegal.
SONADER	-	Société Nationale de Développement Rural - the RDA responsible for irrigated farming in the Senegal River Basin in Mauritania.
SONAR	-	Société Nationale d'Approvisionnement du Monde Rural - the Senegalese State agency responsible for purchase and resale of seeds, fertilizer, chemical products and cereal output on credit.
SONATOM	-	Société Nationale des Tabacs et Allumettes - Mali.
SONEPI	-	Société Nationale d'Etudes et de Promotion de l'Industrie Sénégal - a mixed enterprise company which works with SOFISEDIT to provide marketing studies, management consultancy, guarantee funds and training to small and medium scale enterprises.
SSEPC	-	Société Sénégalaise d'Engrais et Produits Chimiques - commercialization outlet for fertilizer and chemical products in Senegal.