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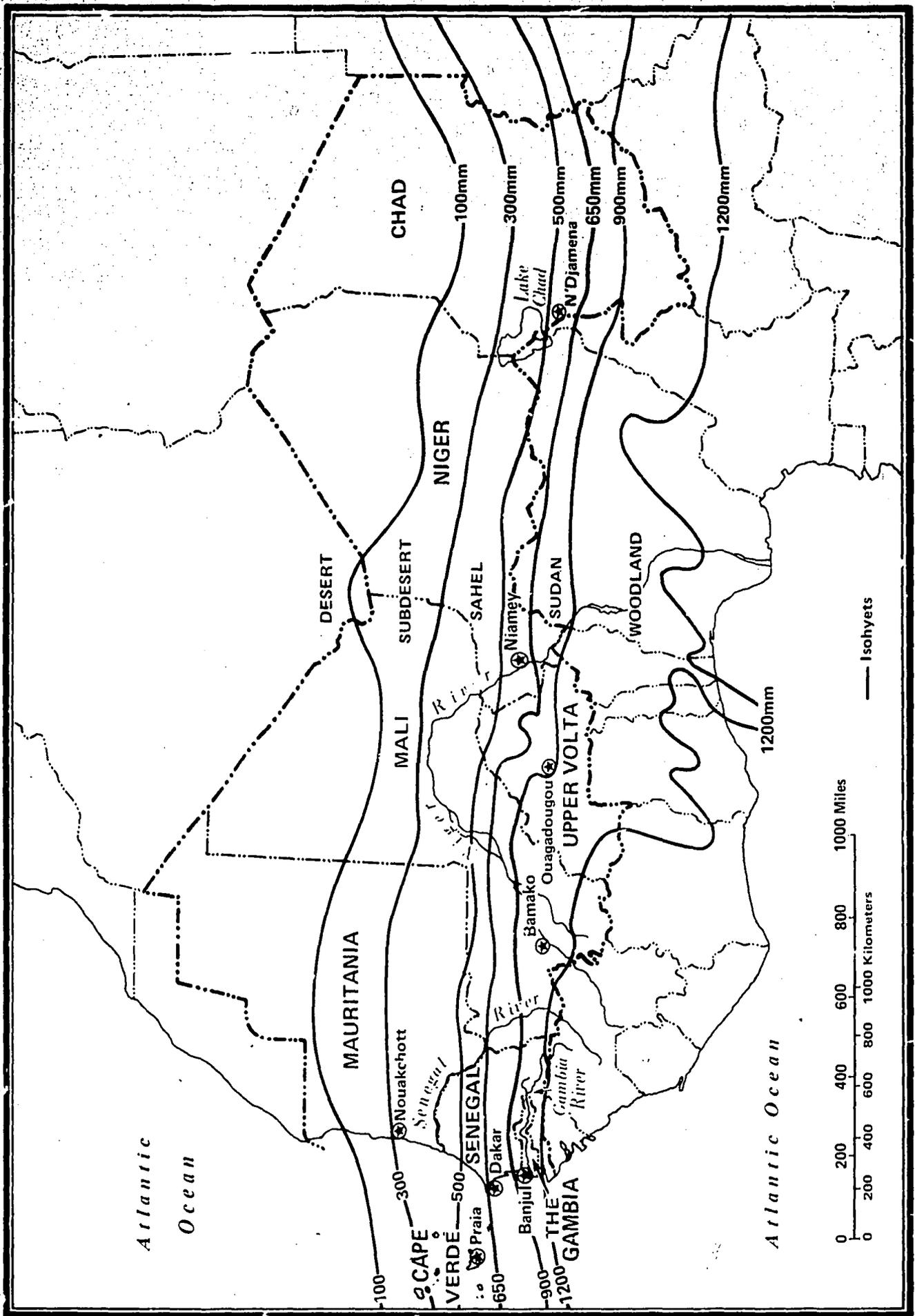
Sahel Development Program

Annual Report to the Congress

March 1984



Agency for International Development
Washington, D.C. 20523



**The Sahelian Countries
Rainfall Map**

THE SAHEL DEVELOPMENT PROGRAM: 1984 ANNUAL REPORT TO CONGRESS

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I. Overview

The Sahel includes the seven countries on the southern edge of the Sahara: Mauritania, Senegal, The Gambia, Mali, Upper Volta, Niger, Chad, plus the island nation of Cape Verde. These eight nations are subject to a harsh and life-threatening environment. In 1967-73, the Sahel was devastated by a drought which resulted in tremendous human suffering, livestock losses, crop failures, desert advancement, and urban migration. The international response to the crisis was unprecedented, attracting over \$1 billion in emergency food and rehabilitation aid. The Sahelians realized that the most effective way they could recover and be prepared for the next drought (which is currently taking place) was to establish a region-wide framework for a coordinated approach to Sahel development. To begin the process of regional coordination, national leaders met in Upper Volta in 1973 to found the Permanent Interstate Committee for Drought Control in the Sahel, known by its French acronym of CILSS. At that time, the CILSS established what continues to be their primary objectives: regional food self-sufficiency under conditions of ecological balance and self-sustaining growth.

In response to the joint Sahelian initiative, the Chairman of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD), with the full support of France and the United States, invited the Sahelians in 1976 to join the donors in forming the Club du Sahel. The resultant donor-recipient organization has a secretariat in Paris which works closely with the Ouagadougou-based CILSS. Together these organizations have established an effective mechanism for donor-recipient dialogue and collaboration in the development of the Sahel. They have adopted common strategies for attacking the Sahel's problems such as inadequate food production, deteriorating land, a paucity of capable managers and technicians, limited physical infrastructure, and low levels of health care and literacy. Donors have provided the necessary initial funds to begin implementing these strategies and executed a broad range of national and regional development projects. The result of this new collaborative style of development planning and implementation has been to make donor assistance more responsive to national and regional needs.

Since 1978, U.S. assistance has been channelled through the Sahel Development Program (SDP) established by Congress as a special feature of the U.S. Foreign Assistance Act. The SDP was created in recognition of the importance and uniqueness of the Sahelian situation. A.I.D.'s role in the overall Sahel program is reviewed regularly by the Sahel Mission Director's Council (SMDC). This collective review facilitates the analysis of A.I.D. programs and their relationship to overall regional strategy and objectives. Furthermore, it provides a forum for discussing new themes and their integration into A.I.D. strategy.

It is now more than ten years since the Sahelian states formed the CILSS. In the interval, growth in food production, while lagging with respect to the increase in population, has been positive. Through the multi-donor aid effort, thousands of expatriate teachers and advisors have been at work

training technicians and managers, hundreds of miles of roads have been built or reconditioned, thousands of Africans have been trained or are in training, health services have been delivered to millions, basic research has gone forward in many sectors, food has been provided, environmental improvement has begun, production of some export crops has improved, and much effort has gone into determining how to improve food production. The Sahel has not only largely recovered from the drought emergency of the 70's, but it has been able to hold its own in face of recent adverse climatic conditions.

Combined with the world economic recession, the continuing drought has hampered the overall program's progress so that its accomplishments at this time are disappointing. At the Fifth Club Conference in October in Brussels, universal concern and anxiety with the rate of progress in relation to the ambitious goals of the program were expressed. The Club reported that:

- the region has not progressed towards food self-sufficiency and food crop production remains extremely vulnerable to climatic conditions;
- the ecological balance has not been re-established, desertification continues to progress and each day the desert encroaches further on land and forest reserves;
- economic growth is slow; and
- external debt and budget deficits have reached disturbingly high levels in several countries.

Despite those problems, the Fifth Club Conference gave cause for hope by citing notable achievements in the following areas:

- considerable progress has been made in understanding the difficult problems confronting the region;
- Sahelian governments have begun to establish policies which better support the joint efforts of Sahelians and the international community; and
- assistance from the international community has tripled since the Club was founded to almost \$1.7 billion per year and has increasingly focused on solving the Sahel's key problems in food production.

For its part, A.I.D. in 1983 contributed \$86 million in development assistance, \$37 million in P.L. 480 food and \$10 million in ESF. These funds were concentrated on agricultural development, economic stabilization support, forestry and environmental protection, with secondary emphasis on livestock, public health, and human resource development activities essential to the successful expansion of the agricultural sector.

In 1983, A.I.D. initiated a comprehensive review of the program comprised of several complementary assessments. The results of these, plus improvements in project and financial management initiated in 1981-82, will enhance the effectiveness of the A.I.D. Sahel Program. The measures endorsed by the Club Conference and the re-examination of the mandate of the Sahel regional institutions in the 1984 Conference of the CILSS Chiefs of State will further enhance this unique program for development cooperation.

II. 1983: A Year of Assessment and Introspection

1983 has been a year of introspection for A.I.D., the CILSS, and the Club. All three organizations have been involved in major assessments of the overall Sahel program and their respective activities and participatory roles. These assessments have exposed serious problems. Yet in exposing these problems, the CILSS, the Club, and A.I.D. have shown a willingness to take corrective actions. A.I.D. is confident that these assessments will be a major step towards developing a program that is increasingly effective and ultimately responsive to overall Sahel Program objectives.

A. The CILSS and Club

In 1983, the CILSS carried out an assessment of the role of CILSS which was mandated by the CILSS Chiefs of State in 1982. In preparation for the Fifth Club Conference, the Club undertook assessments of the overall progress attained in the region since its inception. CILSS also established a network of national representatives to streamline its effectiveness in each Sahelian country. These activities were undertaken concurrently with other studies and evaluations.

The special committee (Comite de Reflexion), commissioned by the CILSS Chiefs of State in 1982 to assess the functioning of the Sahel regional organizations, completed its initial report in late 1983. A.I.D. and other donors were impressed by the systematic, objective, and energetic manner in which the committee carried out its mandate. The CILSS Heads of State considered its recommendations at the Summit Meeting in Niamey in January 1984 and referred the report to the new Minister-Coordinator for further study. The new President of CILSS, President Kountche of Niger, has indicated his desire to streamline the organization.

In May, the Secretariat of the Club conducted informal discussions with the donors to recommend future Club activities. These were examined at the Brussels Conference where the following recommendations were endorsed: that the Club continue the specific role it has played, to promote greater understanding of the problems confronting the Sahel; that the Club be preserved as a forum of free discussion; and that a common CILSS/Club work program, taking into account the directives provided by the CILSS Heads of State, be created. A.I.D. supported these recommendations.

In 1983, the CILSS succeeded in activating a network of national CILSS representatives. At their first regional meeting in Upper Volta in April, these representatives agreed on a set of principles to strengthen their roles in their respective countries; these principles include greater independence from routine tasks, better information links to CILSS entities, and adequate financing. They insisted on closer involvement in CILSS activities such as the program of sectoral evaluations. They accepted responsibility for key activities such as agricultural price harmonization, recommended annual national meetings with the donors to review execution of national food sector strategies, and called for better food pricing and distribution policies. Finally, they asked CILSS to concentrate its efforts on five major objectives: regional agricultural price harmonization, resolution of food aid

disincentive issues, completion of the sectoral evaluations program, execution of national recurrent costs workshops and completion of ongoing regional studies like the study on private sector food stockpiles. These objectives were endorsed by the CILSS at an August meeting, thus confirming the stature and vitality of this new system of national coordinators.

In April 1983, the Club and the CILSS published a detailed study on the absorptive capacity of the Sahel countries. The study was conducted to determine what area might be improved to ensure efficient application of the high level of resources flowing into the Sahel.

Important aspects of food production and food security have been under increasing CILSS/Club scrutiny since the Cereals Policy Colloquy, which took place in July 1979 in Mauritania. Pursuant to the commitments made then, the CILSS has tried to encourage food production, rationalize food aid policy and practices, and search for viable medium and long-term methods for improving food security. A major step in 1983 was the construction of a computerized food grain model permitting Sahelian governments to predict the effect of varying assumptions and investment options on agricultural production and food self-sufficiency. This study, conducted jointly with Davidson College, showed that more investment in irrigated agriculture is required. The CILSS has taken the first steps to improve food supply by initiating the process of developing a regional food security system. A.I.D. works closely with the CILSS/Club Select Committee on Cereals Policy to expedite resolution of this complex problem.

CILSS undertook a major step in 1983 in consolidating the regional program on pest management. Following the advice of participating donors, the CILSS Council of Ministers transferred all elements of the project to Upper Volta, creating a more effective system of financial accounting and management. The project itself was substantially redesigned and decentralized so that, finally, the cooperative effort to attack the problem of crop and harvest protection is soundly underway.

The cooperative actions of the technical secretariats of the CILSS and Club resulted in several major studies in 1983. Evaluations in the rainfed agriculture sector were completed for Gambia, Senegal, and Cape Verde. Evaluation of the irrigation sector was completed for Upper Volta. The CILSS also completed a series of village/pastoral water supply sector studies and held a regional synthesis meeting in Upper Volta in October. Livestock sector studies were started in Upper Volta, Niger and Senegal. The CILSS finished Maritime Fishing sector evaluations in the four coastal states. In the forestry/ecology sector, all program evaluations were completed, and the CILSS proceeded to initiate development of national and regional strategies with a series of national roundtables. In the transport sector, the CILSS hosted a meeting of Sahelians on road maintenance. The CILSS Human Resources team pursued its sectoral evaluation program, and, with A.I.D. assistance, the CILSS planning unit initiated the development of an automated planning information network. In addition to these studies, the CILSS, with the Club and the U.N. Sahel office, sent a high level mission to Chad, re-establishing organizational links and reopening programs in livestock, ecology and general development programming.

In 1982, a regional symposium on recurrent costs was held in Upper Volta under CILSS/Club sponsorship. Based on its recommendations, the CILSS has helped member states hold national workshops. These meetings have been successful in promoting greater understanding of the budget implications of rapid economic development and of the need to establish particular policies and practices with respect to project design, user fees, local participation, macro-economic concerns, the private sector and pricing. A special group of donor and Sahelian experts have drafted guidelines for systematic analysis of recurrent costs in developing countries. This activity was commended by the donors in Brussels as an excellent example of how the collaborative process can work.

The Sahel Institute is the CILSS organization responsible for coordination of research, collection and dissemination of technical information, and technician training. Among its achievements in 1983 were: completion of first phase region-wide selection trials to identify adaptable varieties of millet, sorghum and cowpeas; continuation of the popular and successful regional documentation and information network; development of in-house data processing and computer training capability; progress in improving demographic data and research including publication of census results for several member countries; completion of a variety of short and long term training projects; and improved cooperation with kindred organizations in the Sahel and with the donor community.

B. A.I.D.

In 1983, A.I.D. initiated three special studies of the U.S. Sahel Program: 1) the Assessment of the Sahel Development Program, 2) a Project Assessment Workshop, and 3) an overall assessment of the organization and management of A.I.D.'s Sahel Program. These assessments were prompted by a series of audits and measurements of economic change in preceding years exposing problems in program execution (e.g. financial management) and limited progress in the economic well-being of the Sahel. The completed assessments have led to a variety of recommendations for improvements in the program.

1) The Assessment of the Sahel Development Program was carried out within the Africa Bureau by experts familiar with the program. In brief this assessment observed:

- as a general rule there is not yet a technology of widespread applicability for improvement of rainfed agriculture in the Sahelian drylands. Therefore, agricultural research in rainfed production from the perspective of farming systems should be emphasized
- Sahelian official development agencies are inefficient and should be reformed.
- certain official policies continue to be major constraints to development.
- irrigation development must be improved and accelerated in order to achieve food production goals.

- research in forestry and environment should be enhanced to devise an effective deterrent to environmental degradation.
- acceptable techniques for improving livestock production have not been identified.
- A.I.D. has too many different projects too widely dispersed in the Sahel for effective management.
- the rectification of problems with financial management must be sustained and should serve as a reminder of the need for attention to all aspects of project and program management.

The SDP Assessment recommended the following:

- A detailed and focused strategy for A.I.D.'s Sahel Program should be designed. (This is underway and will be reviewed in A.I.D./Washington in 1984).
- Project selection should be vigorously guided by the program priorities of agricultural production and environmental stability.
- A.I.D.'s management and analytical structure, including the Sahel Development Planning Team, should be strengthened (The Management Assessment exercise is analyzing this issue).
- The active projects in the Sahel Program should be reviewed in order to identify required revisions or terminations. (This review was done by the Project Assessment Workshop, whose report follows).

2. The Project Assessment Workshop was held in Bamako, Mali in April 1983. It assembled senior officers from most of the A.I.D. Sahel missions and the technical staff of the Sahel Development Planning Team. Its purpose was to review the aims, experiences, problems and achievements of most of the projects in the Sahel Program portfolio. The Workshop reached the following conclusions:

- The majority of the projects reviewed were determined to be consistent with program objectives.
- Many projects are achieving their goals to the extent that thousands of rural and agricultural workers are employed, thousands of health workers trained, hundreds of acres brought into irrigation, thousands of acres of trees planted, relevant research is underway, and thousands of students at all levels are being trained.
- A number of large and very important projects were experiencing difficulties. An attempt was made to identify precisely the problems and generate resolutions. The workshop noted that:
- A.I.D.'s project designs tended to be overambitious. More testing is required before widespread implementation is attempted.

- Inadequacy in quality and quantity of African technicians has delayed projects.
- The management of programs by the A.I.D. missions themselves frequently caused project delay and poor performance.
- There is great difficulty in attracting qualified Americans and other foreign technicians who speak French to work in Sahel development programs.
- Because of the French oriented technologies and traditions, inadequacy of transport and complicated bureaucracies, our projects have had continuous difficulties in providing equipment and supplies for projects.
- Coordination with other donor and development activities should be further improved.

By exposing these complications, the Workshop was able to lay the groundwork for each Mission to take positive steps to improve both activities underway and the design and implementation of future projects.

3) The Sahel Management Assessment was initiated in September of 1983. Comprised of a team of consultants familiar with A.I.D. practices, the Sahel Management Assessment Team (SMAT) was commissioned to suggest improvements in the content of the A.I.D program, its administrative and organizational structure, and its management practices. The Team's preliminary findings and recommendations indicate that :

- The concept of a special long-term Sahel development program remains valid and A.I.D. management should reconfirm its validity.
- The SDP regional strategy now in preparation should consider formulation of intermediate goals and targets which relate to 1) institution building of regional and national institutions; 2) the provision of basic services; and 3) more emphasis on improvement of agricultural price policies (outputs and inputs) and increasing the role of the private sector. The strategy should also emphasize tailoring projects and programs to support policy objectives such as increasing reliance on private initiatives, adopting market oriented price policies and improving mobilization of domestic resources.
- The team suggests a review of the program mix with consideration to additional infrastructure construction and maintenance projects (e.g. transportation links and irrigation) and program assistance when it can support dialogue to effect policy changes. Country programs should give greater attention to the management constraints resulting from human resource limitations. The result should be fewer projects in fewer sectors and more turnkey projects.

- A.I.D./W should reduce the pressure on missions to meet obligation targets and consider using the no-year funding authority provided by Congress.
- AFR should reorganize and decentralize the management of the SDP.
- Management in the field should be strengthened. Most missions need to improve internal mechanisms for follow-up, monitoring, and control of project implementations. Missions should consider managerial training.

III. Progress and Prospects for the Future

A. Donor Coordination and Assistance

Total donor commitments to the Sahel in 1982 were \$1.51 billion. While this was lower than the record \$1.97 billion the previous year, several donors including Saudi Arabia and the U.S. increased their contributions.

The sectoral distribution of donor aid has strengthened its focus on the key SDP goals of food production and environmental protection. The share of new commitments going to rural development increased from 34% in 1981 to 39% in 1982. The share of commitments going to forestry in 1980-82 averaged 2.1%, versus 0.9% in 1975-79.

While the increased flow of donor assistance was a cause for satisfaction at the Fifth Conference of the Club, the donor delegations and the Sahelian representatives agreed that the program components remain far from optimally coordinated. The conference also acknowledged the need to act more concretely and rapidly. It proposed that in addition to existing consultation procedures, program review meetings be held at regular intervals in each Sahel country to address key problem areas, especially the problems of food production. The conference encouraged member governments, with the support of the CILSS and Club Secretariats to organize these meetings. The conference also reconfirmed the role of the Secretariats to analyze the problems confronting the Sahel, the strategies to be adopted and undertake analysis to integrate it into a broader, more global, prospective strategy framework. It also requested that an accelerated research effort be undertaken to find more effective technical packages for Sahelian farmers.

B. Financial and Program Management

The Sahel Regional Financial Management project and the FAA 121 (d) process of reviewing host country accounting systems have been the focal points of A.I.D.'s efforts to improve the management of the Sahel Development Program. Responding to concerns reflected in audits completed during 1980-1981 on several projects, A.I.D. has launched exceptional measures to help ensure effective management, especially in accounting of funds for local costs financing of the Sahel program. Over the past two years, the local costs accounts (182 in total) of every Sahel project were re-examined by the responsible field missions. Of these, all but a few (for which disbursements have been halted) have been found to be adequate, or have been strengthened to satisfy the requirements of Section 121 (d) of the Foreign Assistance Act.

In addition, A.I.D. has conducted region-wide financial management training programs in which both A.I.D. and host country management level personnel participate. Host country accountants have been trained in the use of simplified accounting systems and procedures which meet A.I.D.'s requirements for accountability and provide management information. As a further outgrowth of this effort, A.I.D. modified its own internal project manager training course to include more financial management skills training.

To ensure that the current momentum towards better management is maintained, the Africa Bureau is paying particular attention to the Sahel Program staffing requirements, internal operations procedures, management and financial training of personnel and other constraints to project implementation. To this end, a \$5 million Sahel Regional Financial Management project (RFMP) was approved in 1982. Its primary purpose is to help host country institutions improve their financial and management systems, including necessary staff training over the next three years. An additional \$2 million in FY 84 will expand host country staff capability to manage proceeds accruing from PL 480 and non-project assistance activities. Through the RFMP and the certification process, A.I.D. is impressing upon donors and host country governments the importance of rigorously monitoring the management of their development activities.

C. Stabilization

The Sahelian economies have been bludgeoned by the world recession, high interest and energy prices, and feeble prices for the few, mostly agricultural, commodities which the region exports. External debt is now estimated to be equal to about half the value of total annual export production. Debt service alone costs more than \$300 million, i.e. as much as 25% of the export income of some countries. Donors have had to divert assistance to help with current financing imperatives to sustain consumption and to assure economic and political stability. A.I.D. activities in this area rely on PL 480 programs and the Economic Support Fund (ESF) for budgetary

support and Commodity Imports Programs (CIP). While ESF resource transfers are used to directly cover Government operating costs, CIP and PL 480 commodities address balance of payments problems by relieving pressure on foreign exchange reserves and by generating local currency to cover operating costs of priority projects or recurrent costs of another nature.

In Chad, the government faces a critical budgetary imbalance due to costs associated with its defense against Libyan aggression and its efforts to repair essential public infrastructure and compensate for revenues lost by the dislocation of private commerce. To give the Government time to reconstitute its fiscal authority, A.I.D. is providing direct budgetary support through ESF and expects to cover most of the local currency costs of its projects by providing PL-480 commodities for local sale. In addition, A.I.D. continues to provide Relief and Rehabilitation assistance to Chad to meet critical commodity shortages, re-establish transport, repair rural infrastructure, and generally establish the preconditions for long-term growth.

In the Gambia, depressed prices for the dominant export crop (peanuts) and large foreign purchases to compensate for food production shortfalls led to a growing balance of payments deficit in 1983. To help the Government cope with this complicated situation, A.I.D. provided several economic experts who worked with the Ministry of Finance in designing stabilization policies and conducting negotiations with the IMF. As a result, the Gambia succeeded in meeting stringent IMF conditions for continued standby agreements and a possible Extended Fund Facility credit.

In 1979, the Government of Senegal launched an economic and financial reform program aimed at balancing the budget and stimulating economic growth, particularly in the rural sector. The Government has already moved to reduce central controls over farmers and to restructure rural credit and cooperatives. However, Senegal continues to face serious economic problems. In 1983, A.I.D. was active in the negotiations for a new one-year Stand-by Agreement for the period July 1, 1983 to June 30, 1984. This Agreement, which authorizes \$63 million in Special Drawing Rights (SDR), introduces measures to correct the critical public finance situation. In addition, A.I.D. has decided to commit a greater percentage of the Senegal program to non-project assistance. The Government and the donors agreed that this type of assistance was most helpful in meeting urgent balance of payment needs and in providing local currency required to implement essential programs in the agricultural/rural sector. Accordingly, A.I.D. initiated two non-project assistance activities in FY 1983. The first, the Agriculture Development Assistance program (SDP funded), will permit the government to import fertilizer. With the local currency generated from fertilizer sales, the government will be able to undertake reforms in the fertilizer and cooperative sub-sectors. The second, financed from the Economic Support Fund, generates \$5.0 million in local currencies from a broad based commodity import program. The government will use these funds for the maintenance and upgrading of rural roads in important agriculture production zones.

In Niger, A.I.D. is helping to achieve economic and financial stability through the Agriculture Sector Development Grant. During FY 1983, A.I.D. and the Government of Niger signed the first tranche of \$5 million for the ESF component of this commodity import program. The counterpart funds generated by the commodity imports will reduce the government's need to borrow funds to meet local cost requirements of certain key projects, preventing their complete shut down. This assistance also encourages the government to undertake policy reforms in agricultural marketing, bolstering the role of the private sector in agricultural input delivery, and the reduction of subsidies.

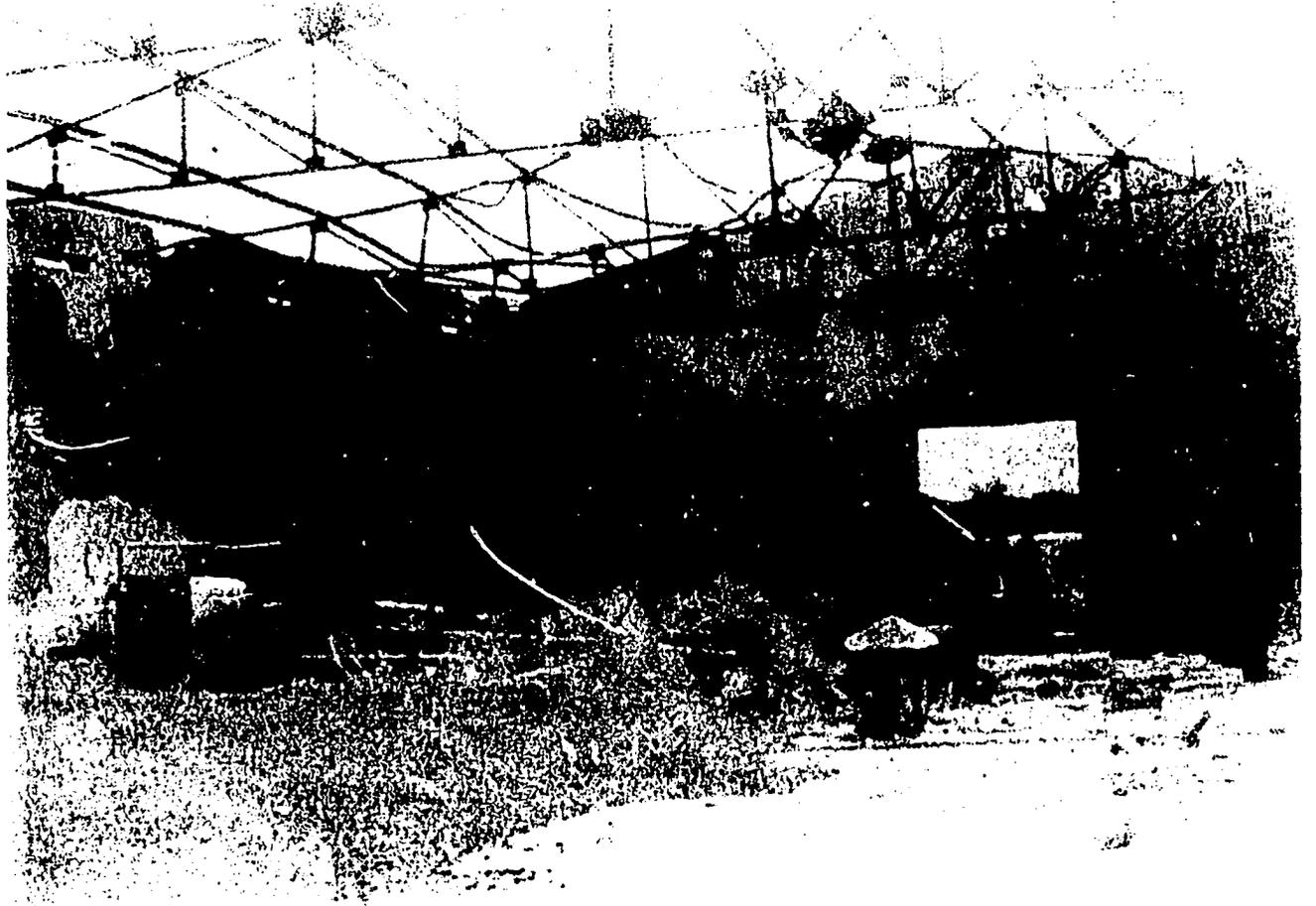
D. Food Production

In 1983, the Sahel region was plagued by a particularly severe year in terms of inadequate rainfall. Per capita cereals production actually reached levels lower than those experienced during the great drought of 1967-1973. During the period 1976-1980, per capita cereals production averaged 182 kgs. compared to 138 kgs. in 1973. Yet 1983 yielded only 130 kgs., creating serious food shortages in all the Sahelian countries with the exception of Niger. It is to the credit of the CILSS and multi-donor efforts that, despite these conditions, the tremendous human suffering experienced a decade ago is being alleviated. This fact shows that significant gains have been made in forecasting drought, mobilizing assistance, and delivering food to deficit areas.

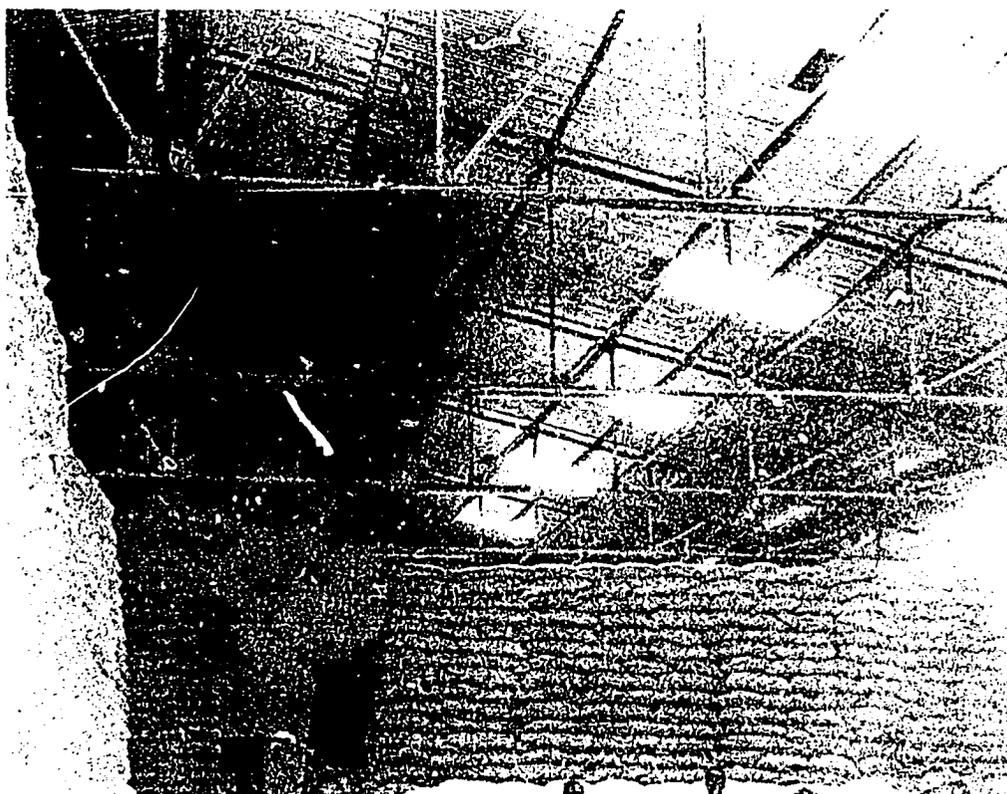
A.I.D. does not believe that declining food production in the Sahel is an irreversible trend or that increasing food dependency is inevitable. Rainfed agriculture can be significantly improved and irrigated agriculture can assure the production of basic supplies during drought years. However, Sahelian governments must reform agricultural policies which only exacerbate already precarious agricultural conditions. With PL 480 resources, A.I.D. encourages Sahelian governments to give greater responsibility to the private sector while providing immediate balance of payments and budgetary support. More intensive research is required to discover better seed varieties, inputs, cropping techniques, and ways to deliver this information to farmers. Institutions which are critical to food production must be established and/or strengthened and irrigation development efforts pursued to ensure production during periods of drought.

1. Policy Reform

In 1983, A.I.D. and other donors continued their efforts to encourage and assist host government officials in implementing policies that would be more conducive to increased food production. Of primary importance are efforts to liberalize marketing and distribution functions by giving greater responsibility to the private sector. Until recently, parastatal agencies in most countries had control over producer and consumer prices, collection and distribution of food, trade within and outside the country, and input supply. Sahelian governments are increasingly finding alternatives to the centralized rigidity which characterizes most of the systems.



CHAD: A WAREHOUSE PRIOR TO RECONSTRUCTION. A PRODUCT OF THE 1980 HOSTILITIES
IN N'DJAMENA.
BELOW: INTERIOR OF FOOD WAREHOUSE IN CHAD FOLLOWING REPAIRS PERFORMED UNDER
A.I.D. GRANT TO UNDRO.



In Niger, A.I.D. is discussing with the Government the implementation of the following policy reforms: (1) further reduction of government subsidies to agricultural inputs; (2) further freeing up by the government of controls on the price of farm products; (3) further liberalization of opportunities for the private sector and individual cooperatives in the areas of farm production and distribution, farm equipment supply, animal traction and other agricultural inputs. (4) improvement in the management and policy of agricultural credit systems; and (5) further review of the policy governing livestock and grain trade with Nigeria. A.I.D. is designing an Agriculture Sector Development Grant to be funded from both SDP and ESF funds which will help stabilize the economy by providing immediate balance of payments support and local currency to meet the recurrent costs of priority projects. These assistance packages are premised on the government's implementation of key policy reforms adopted as a result of the Zinder Rural Development Conference, of which A.I.D. was the leading donor. These include measures to reduce governmental controls in the distribution of agricultural products and inputs, and encourage more local participation, especially through an improved cooperative system. The Zinder conference and the national recurrent costs workshop also contributed to the adoption of expenditure reducing policies and measures to reduce the roles of government parastatals.

In Senegal, the government has undertaken some tough measures to reduce central control of rural activities and restructure credit and cooperatives. A 1983 Stand-by Agreement with the IMF provides for increased producer and consumer prices of certain basic commodities. This measure will reduce official import expenditures and provide improved marketing and income opportunities for Senegalese farmers. By providing funding for critical fertilizer imports, A.I.D. was able to direct attention to removal of subsidies for production inputs in order to encourage realistic production initiatives and to begin privatization in marketing of production inputs. A.I.D. is also providing a package of ESF and PL 480 balance of payments assistance. The package is premised on the Government's adherence to the IMF stabilization program, better coordination with other donors in a consultative group framework, and strengthening the local currencies management system.

In Mali, the government has implemented reforms in the liberalization of producer and consumer cereal prices. The U.S. played an active role in the conceptual stage of this program. A.I.D. also intends to participate in a P.L. 480 Cereals Market Restructuring Project which involves an existing multi-donor effort linking food aid and policy reforms such as increasing producer prices, reducing consumer subsidies, and reforming a state marketing agency. The Government of Mali has already implemented major policy reforms including partial abolition of the state monopoly on grain marketing, reduction in marketing agency staff and physical plant, and significant increases in cereals prices. Much remains to be done, however, to increase the role of the private sector in cereals marketing and to extend liberalization to foreign as well as domestic trade. PL 480 assistance will facilitate these reform actions.

In Mauritania, a number of on-going projects have influenced policy. For example, the Guidimaka Integrated Rural Development (IRD) project has encouraged the Government to charge user fees for supply of agricultural and veterinary inputs. The Rural Medical Assistance Project has achieved similar policy shifts with respect to pharmaceuticals. A.I.D. provides a PL 480 Title II Section 206 program with two main objectives. The first is to help Mauritania address its food deficit problem by delivering 20,000 tons of cereals per year and improving distribution management. The second is to encourage pricing reforms which will give farmers incentives to increase domestic food production. The Government has agreed to raise the official price of all food marketed by its cereals agency to equal the world market price, plus transport and handling, by 1987. This gradual elimination of subsidies should help reduce the Government's deficit and encourage private sector entrepreneurs to invest in grain distribution, providing a positive alternative to the present state controlled system.

In Chad, A.I.D. is in the process of developing a mid-term strategy that will provide the basis for dialogue with the government on formulation and development of economic policies appropriate to its evolving circumstances.

In Upper Volta, A.I.D. has implemented a Section 206 Program as an integral part of its Grain Marketing Development Project. This addition has permitted greater policy leverage in cereals reform and a stronger producer orientation in the state marketing agency. As a result of these efforts, the Government has significantly increased producer prices, encouraging food grain production, and is now permitting the free movement of grain throughout the country.

In Cape Verde, A.I.D. has supported policy changes encouraging production by the small private farmer. For example, A.I.D. helped influence the government to increase artificially low prices of imported corn and other grains in order to stimulate local production.

2. Private Sector

A basic premise in the on-going policy reforms supported by A.I.D. and the other donors is the encouragement of private enterprise. Of particular importance is the stimulation of small producer agriculture, the largest part of the private sector. The bulk of A.I.D. project assistance is directed towards improving the policy environment in which farmers and herders operate, and to supporting the ability of farmers to increase production and participate more profitably in the broader development of their region.

In Cape Verde, the National Assembly has approved an agrarian reform allowing farmers to acquire tenure of the land they work. Windmills purchased for the renewable energy project are manufactured by a private firm on the island of Mindelo. Under the PL 480 program, A.I.D. is encouraging a private retail marketing system for imported corn.

In Mali, A.I.D. is providing technical assistance to a private bank. An Agricultural Enterprises Development project has been proposed which will finance business management training seminars for local entrepreneurs and similar training in credit systems for local banks.

In Niger, A.I.D. projects stress shifting the financial burden of certain public sector roles to the private sector, cooperatives, or local community groups. The indicators that will be used to measure achievement of these objectives include the degree of increased availability and efficiency of food delivery systems services and technical inputs along with greater availability of related credit and local financial resources. A.I.D. is pressing for greater private sector involvement in its livestock and cereals production projects. It also helps the Government review its overall private sector policy through support to such multi-donor activities as the national recurrent costs workshop.

In Mauritania, A.I.D. seeks to transfer agricultural input and marketing responsibilities to the private sector primarily through the PL 480 project. A.I.D. is helping expand private sector enterprise through construction of rural roads which will augment private trade in rural areas. It also encourages private involvement in pharmaceuticals distribution through installation of a fees-for-services system.

In Senegal, A.I.D. conducts credit and training activities to strengthen private farmer groups. A.I.D.'s Community and Enterprise Development Project will promote the growth of artisanal small enterprises in the Sine-Saloum region. The Senegal River Basin Development Organization (OMVS) will provide incentives to private enterprises to handle input supply and marketing, as well as the local processing of produce harvested in the Senegal River basin. A.I.D. is also encouraging the reduction of legal and institutional obstacles to private enterprise expansion in Senegal's economy through its program assistance instruments.

In Upper Volta, A.I.D. is attempting to create an economic environment conducive to local entrepreneurship and private enterprise through both Development Assistance and PL 480 resources. Under the Title II Section 206 program, U.S. grain will be marketed through the private sector. With the Partnership for Productivity Small Economic Activity Development project, A.I.D. is promoting small scale rural enterprises in the Eastern Region of Upper Volta. A.I.D. has also made notable progress in its program to resettle people in highly productive agricultural zones. Under the responsibility of the Volta Valley Development Authority, approximately 150,000 Voltaics have been resettled and participate in small privately owned enterprises financed through a revolving credit fund.

3. Research and Technology Transfer

Technology and related research is a fundamental issue in the Sahel. While a substantial amount of research has been underway for several years, many important questions remain unanswered. A.I.D., the Club and CILSS have not yet been able to determine an effective and reliable strategy or technical packages for increasing agricultural output. However, certain agronomic and technological methods have been discovered which may be practiced in limited areas. For its part, A.I.D. has supported adaptive research programs in the areas of food crop production, integrated pest management, livestock and public health.

In Mali, A.I.D. expects to implement a Farming Systems Research and Extension project in the near future. This action-oriented on-farm program will link producers, researchers, extension agents, and trainers in conducting practical on-farm trials and surveys.

In Senegal, A.I.D. also sponsors an Agricultural Research and Planning Project which helps upgrade the national agricultural research institute, ISRA. This activity is intended to establish farming systems methodology in all three major farming zones in Senegal and to strengthen macro-policy analysis based on the agricultural data collected.

In Niger, the Cereals Research and Agricultural Production Support projects provide assistance in strengthening institutions involved in agricultural research and transferring innovations, like improved seed varieties, to farmers. The Cereals Research Project has introduced higher-yield seeds (millet and sorghum) to a number of farmers in Niger. It has also made progress towards controlling the cost of improved seed varieties to make seed multiplication center operations financially self-sustainable. Already existing research components will be strengthened when A.I.D., Niger, and other donors agree on formal research protocols. A.I.D. will sponsor studies on the Government's agricultural inputs and how to increase private sector involvement.

In the Gambia, a recent evaluation of the Mixed Farming and Resource Management Project showed noteworthy success in increasing maize yield and introducing a maize package on an experimental basis. In the experimental plots, normal maize yield tripled during the 1982 growing season. The Mission is adding a marketing component to the project so that by FY 85, field trials and marketing information should be sufficient to determine the crop's real potential. Based on the maize forage and range work to date, the project will take a farming systems approach to working with farmers over its final three years. This approach, advocated by many Sahelian countries, links producers, researchers, extensionists, and trainers in conducting practical on-farm trials.

In Cape Verde, A.I.D.'s new Food Crop Research Project is assisting the Government in developing its institutional capacity to conduct applied research and establish a central agricultural information unit.

At the conference in Brussels, the Club recommended the following steps:

(a) Compilation and evaluation of the multitude of projects and studies already taken within the CILSS/Club program.

(b) Increase the aggregate effort in research of rainfed agriculture. We should await the initial assessment efforts of the Sahel Institute and the Cooperation for Development in Africa (CDA) Agricultural Research Inventory which have been underway for some time. When these are completed, the CILSS and Club should conduct an analysis and make recommendations for requirements in research. The Sahelians' and the donors should then be convened for the purpose of identifying a program and generating commitments to this activity.

A.I.D., in its role as "lead country" for stimulating agricultural research in the Sahel, has agreed to collaborate with the Sahel Institute to complete a systematic survey of regional research activities, assess the overall effort, and make recommendations for research projects and other related activities. The data collection phase and computer listing were completed in 1983. The analysis and recommendations are planned for the first half of 1984.

4. Institution-Building

A.I.D. concentrates much of its assistance on strengthening weak but critical institutions, such as those responsible for research, public services, and regional coordination. A.I.D. also seeks to find alternatives to institutions which are obstacles to development, such as national agricultural inputs and cereal marketing monopolies. Increasingly, A.I.D. is re-orienting resources toward the development of private enterprise institutions in its training programs, credit investment feasibility studies, and technical assistance. At the regional level, A.I.D. seeks to develop institutions which (a) strengthen coordination of all the components in agricultural development i.e. the CILSS Sahel Institute, the regional meteorological center (AGRHYMET), and river basin authorities. (b) economize scarce administrative talent like the Commune Economique de l'Afrique d'Ouest (CEAO) Management School, and (c) meet essential regional requirements, like integrated pest management and onchocerciasis control, which can't be addressed at the national level alone.

In Senegal, A.I.D. is encouraging the decentralization of responsibilities to regional private individuals and organizations through government decontrol and commercialization of the rural production process. To this end, A.I.D. plans to work simultaneously at three levels: (a) activating farmers' groups which are the basic foundation for an energetic cooperatives system; (b) assisting the government in reforming regional development agencies and restricting their role while providing better extension programs; (c) encouraging and actively fostering more private involvement in the rural marketing and production process. A new project starting in FY 1984 will harness Private Voluntary Organizations as an alternative channel for reaching rural producers.

THE WATERSHED MANAGEMENT
PROJECT IN CAPE VERDE.

THE CAPTACAO DAM IN RIBEIRO
FLAMINGOS IS THE LARGEST DAM
IN THE COUNTRY. NO PUMPS ARE
USED.

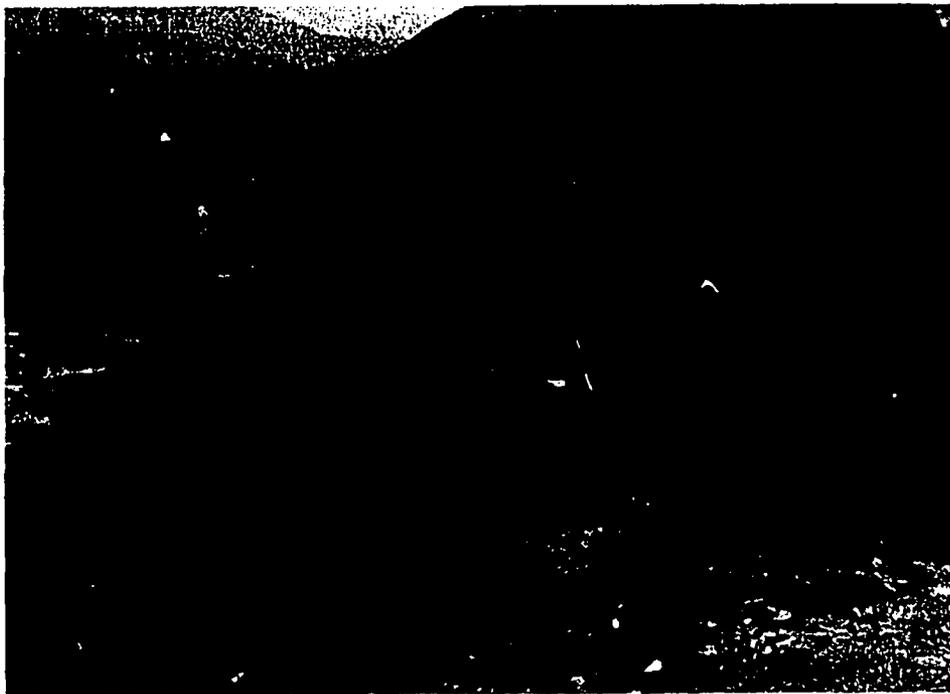
FRONT VIEW FACING THE SEA



REAR VIEW FACING THE UPPER
WATERSHED AREA



THE WATERSHED
MANAGEMENT PROJECT IN
CAPE VERDE. THE
CONSTRUCTION OF WATER
RETENTION DAMS.



THE GAMBIA RIVER BASIN
PLANNING PROJECT.

JOINT OMVG-UNIVERSITY
OF MICHIGAN RESEARCH
TEAM INTERVIEWS VILLAGERS
IN THE FUTURE KOUGOUFULBE
DAM RESERVOIR AREA.

(DIGAN, FOUTA DJALLON,
RPR GUINEA).



In Cape Verde, the need is less to reform and more to develop institutional capability. On Santiago Island, A.I.D. has been instrumental in the development of an impressive capacity for water retention, erosion control, and agricultural extension. The catchment dams, contour walls, and other structures funded by A.I.D. projects were tested during a heavy rain in September and generally performed very well. In addition, A.I.D. is helping to improve indigenous research through the Food Crop Research project which is designed to strengthen Cape Verde's Institute of Agrarian Research.

In Mali, the inadequate planning and managerial capacity is the most serious constraint to development. Hence, the Mali program emphasizes management training, both academic and on-the-job, for a number of Malians with leadership potential. Over-centralization and inefficient parastatal institutions are also major problems in Mali. We have noted previously the very promising multi-donor effort to rationalize the parastatal cereals storage and marketing agency. A.I.D. is also attempting to reform the regional development organization by improving its internal financial and program management competence and encouraging it to reduce the scope of its aspirations and rely more upon private initiative.

In Niger, A.I.D. has played an important role in reducing government institutional direction in food supply and rural development. For the long term, A.I.D. is concentrating on improving the quality of technical education and research.

In Upper Volta, the soon to be initiated Agricultural Development Support project is intended to strengthen institutions responsible for creating and extending new technologies to farmers and for managing such public services as food crop protection, pest management and food grain security. U.S. universities will be the principal agents for the transfer of U.S. technology to the local institutions. A.I.D. is also cooperating in a multi-donor project with the national cereals agency (OFNACER) to strengthen its capability to monitor stock levels so it can assure adequate supplies (private and public) at the regional level.

Regional and sub-regional institutions receive a large portion of A.I.D.'s attention. A.I.D. believes that the cooperative approach to development by the eight Sahelian countries has the potential for significant advantages, particularly in terms of economic efficiencies derived from shared investments, harmonization of policies, and cross-fertilization of approaches for similar development problems. Capable multi-national organizations are required to exploit the advantages of cooperation and A.I.D. is prominent in its support of the special agencies, especially the CILSS and the Sahel Institute. Although these institutions have had management problems, they have proven to be productive and have the potential to be extremely useful. A.I.D. is also supporting several sub-regional institutions within the Gambia, Niger, and Senegal River basins, whose purpose is the environmentally sound development of the river basin potential in the region, including the vast potential for irrigated agriculture.

5. Irrigation and River Basin Development

A much more concentrated effort in irrigation is required to achieve regional food self-sufficiency. At the Fifth Club Conference in Brussels, A.I.D. urged the CILSS/Club analysts to proceed with detailed studies on the irrigation possibilities in each country, for which there is already much information available, and to attack a most important problem in irrigation development - the organization, management, and administration of irrigated perimeters. For its part, A.I.D. has been working to develop irrigation for some time.

In 1983, A.I.D. hired academic experts in the field of irrigation organization and management from the Universities of Utah, Colorado, and Cornell to begin work on irrigation development in the Sahel. In addition, A.I.D. is continuing with what is essentially its principal pilot effort in the Sahel, the introduction of irrigation technology to 20 villages in the Bakel area of the Senegal River Basin. During the 1981-82 growing season, the project successfully developed 415 hectares, much of which was double cropped. Rice production averaged 5.1 tons per hectare, triple the tonnage produced from traditional irrigation. Since the design of this project is completely transferable to other sites, A.I.D. believes that the overall experience acquired can be applicable elsewhere. Thus, A.I.D. has proceeded to design several other irrigation and related production projects in the Senegal River Valley. These projects are all part of an effort to exploit the control over the flow of the Senegal River once the Manantali Dam is completed.

A.I.D. is also investigating irrigation possibilities in Cape Verde, Upper Volta, and the Gambia. In Niger, the A.I.D. mission is conducting a sub-sector analysis focusing on irrigated agriculture.

The Senegal River Basin Development Organization (OMVS), created by the governments of Senegal, Mali, and Mauritania, is charged with the integrated development of the Senegal River Valley. Its principal development plans include the construction of a salt intrusion barrier at Diama near St. Louis in Senegal, the water control and hydroelectric dam at Manantali in Mali, a navigable river system and ports extending from Kayes in Mali to Saint-Louis in Senegal, and the development of irrigated agriculture in an area covering 300,000 hectares to be brought under production by 2028. Donor and national funding of nearly \$800 million was secured for both dams in 1981, and their construction began in 1982. The U.S. did not contribute to the construction of the dams, but will support downstream irrigation and the relocation of the affected population in the Manantali area.

A.I.D. support for OMVS includes: (1) a fiscal allocation project which will permit the three member states to partition development costs and benefits according to a computerized formula; (2) an aerial photography and mapping project which has provided the OMVS and interested donors with detailed maps of the basin at a scale of 1/150,000; (3) a groundwater monitoring project aimed at assessing the non-riverine water resources of the basin; (4) an agricultural research project aimed at improving agricultural production through applied research; and (5) an environmental assessment and plan of action to assure a balance between physical development of the basin and its long-term effects on the human, animal and vegetative environments.



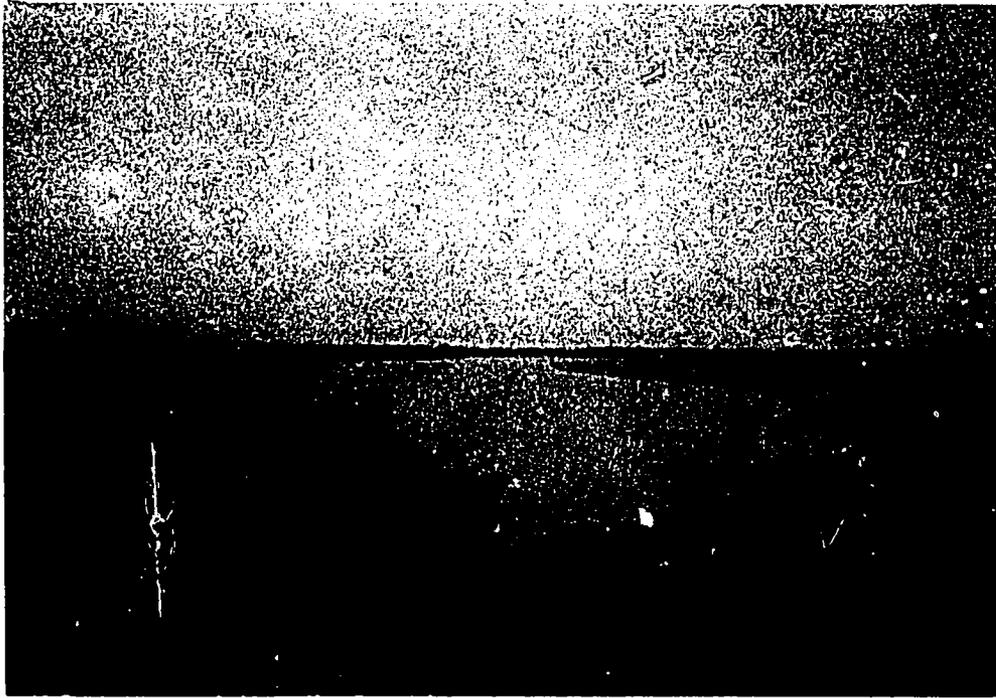
THE BAKEL SMALL IRRIGATED PERIMETERS PROJECT IN SENEGAL. MAIZE PRODUCTION.



HARVESTING TILAPIA UNDER THE BAKEL SMALL IRRIGATED PERIMETERS PROJECT
IN SENEGAL.



HARVESTING RICE UNDER THE BAKEL SMALL IRRIGATED PERIMETERS PROJECT IN SENEGAL.



THE DIROL PLAIN IN MAURITANIA. A POTENTIAL IRRIGATION SITE ON
SENEGAL RIVER BANKS.

The Gambia River Basin Development Organization (OMVG), consisting of the Governments of Senegal, Gambia, and Guinea, is cooperating with A.I.D. in its Gambia River Basin Development Project. The project, now in its third year, consists of the following elements: (1) aerial photography, mapping and initial surveying of the entire basin; (2) comprehensive socioeconomic and environmental studies of the Gambia basin; (3) provision of U.S. technical assistance to the OMVG in the fields of environmental science, sociology, and resource economics; (4) training of OMVG technical staff in U.S. Universities; and (5) institutional development of the OMVG to increase its capacity for the planning and management of river basin development.

The governments of Niger, Guinea, Mali, Benin, Nigeria, Ivory Coast, Upper Volta, Cameroon and Chad have also established a cooperative organization, the Niger River Basin Authority (NBA), to develop the agricultural potential of the Niger River Basin. The NBA requested the assistance of the U.S. Corps of Engineers (COE) in the development of a basin-wide comprehensive development plan. A.I.D. is presently providing assistance to the NBA to utilize COE services for a river systems analysis program, environmental and socio-economic studies, the Kandadji Dam Environmental Assessment, and training.

E. Livestock

Livestock is an important source of export earnings, as well as protein, for the Sahelians. Livestock numbers in the Sahel have nearly returned to their pre-drought levels. In fact, herds are at, or near, the peak number sustainable under the present conditions of below average rains, forage, and water availability. A.I.D.'s approach to livestock production focuses on creating an environment in which, given the ecological nature of the Sahel, the maximum sustainable herd size is not exceeded. However, traditional livestock customs create an obstacle to that achievement. The herder practice of accumulating livestock as a store of wealth conflicts with the Sahel's range carrying capacity. Thus, A.I.D. livestock projects concentrate on herder management in particular while also addressing problems of animal health and water point development. A.I.D. now has two major livestock projects in the Sahel Program as well as smaller livestock related activities associated with other projects.

In Niger, A.I.D. is in the second phase of the Integrated Livestock Project which seeks to strengthen independent herder associations. The project will help establish roughly 50 associations over its first two years, each supported by a health worker, a veterinarian assistant, and a self-managed credit fund. The herder associations are expected to provide a more efficient approach to managing range resources, particularly through the control of animal populations, improving marketing, hygiene, and literacy, and thus increasing family incomes and stability along with animal protein protection. A research component is intended to discover replicative techniques for improving productivity, range utilization, marketing, and veterinary epidemiology.

The Mali Livestock Sector Project, now in its second phase, is more production-oriented in that it provides services, health, extension and on-farm-feeding activities which have a proven capability of improving output. It supports the Mali Central Veterinary Laboratory (CVL) which is fully operational and capable of country-wide cattle vaccination sufficient to contain major epidemic diseases. It serves to raise incomes, provide foreign exchange through livestock exports, and improve nutrition and soil fertility. Financial and operational management training is also a major component of this project.

F. Environmental Stabilization and Forestry

High and increasing consumption of wood for fuel, wind erosion, poor water management, and inappropriate use of marginal lands are destroying the vegetative cover in the Sahel. Therefore the obvious approach to environmental stabilization is to provide fuelwood without destroying the woodland cover, preserve the grasslands and marginal lands through astute range management, discourage inappropriate land use, and improve water management. Overall environmental stability, i.e. preservation of the vegetative cover, will not be achieved with the level of effort presently expended. Only 2% of the total multi-donor Sahel Program is currently being spent on forestry and environment. More research is required to discover the techniques which will ensure environmental stabilization. For its part, A.I.D. is attempting to increase fuel supply without destruction of the woodlands through better management of natural forests, special fuelwood plantations, alternative energies, and reduced per capita consumption through more efficient use i.e. improved woodstoves.

Through Volunteers in Technical Assistance (VITA), and in collaboration with the CILSS Secretariat, A.I.D. has funded research in improved woodstoves. The research has provided new hope in the form of a simple inexpensive stove with household appeal which is significantly more efficient. A.I.D. intends to complete testing in 1984.

In Senegal, A.I.D. is continuing the pilot fuelwood plantation project which planted 850 acres of eucalyptus seedlings in 1983. In cooperation with the Peace Corps and AFRICARE, A.I.D. is helping to establish village woodlots in the vicinity of Bambey and Diourbel and experimenting with improved woodstoves, solar dryers, and more efficient charcoal production.

In Gambia, A.I.D. has successfully trained Gambians in forestry management, established a well-managed plantation plus village woodlots, experimented with a tree which enhances soil fertility and provides forage as well as fuelwood, completed a study on efficient exploitation and preservation of mangrove forests, and set up an improved woodstove program.

In Mali, the Forestry Development Project supports environmental improvements for the benefit and with the participation of small farmers. The focus is on the development of private and community woodlots, windbreaks, and fruit and shade tree planting. This project is likely to have a large impact on policy and institutional development in the National Forestry Service.

In Upper Volta, the Forestry Resource Management project and the Forest Education and Development project are expanding research and range management training facilities to middle and lower level forestry agents. The result of this training will be to increase Upper Volta's capacity to more effectively utilize and preserve its forest resources.

A.I.D. has several projects in the field of research and application of alternative and renewable energies. In Cape Verde, the Renewable Energy Project uses mainly wind energy to pump underground water for domestic and agricultural use. The Watershed Management Project has transformed the center of Santiago; stopping erosion, and creating tillable surface in hundreds of terraces and catchments. In Mali, A.I.D. supports a Solar Energy Laboratory in technician training, prototype development and testing, improvement of research facilities, and data compilation and provides American technology and expertise to the regional Solar Energy Research Center (CRES). A.I.D. also supports research on solar drying in Senegal.

G. Family Health Care

In 1983, A.I.D.'s public health and family planning activities in the Sahel amounted to a projected total cost of \$6.2 million, roughly 7% of the Sahel Development Program's appropriations. A.I.D. assistance in this sector seeks to improve the Sahelians' ability to address their own health care and nutritional needs. It also supports host country efforts to meet recurrent health costs problems through user fees.

In Mauritania, the Expanded Program of Immunization (EPI) and rural medical assistance projects have helped the government strengthen its rural health service delivery program. EPI has assisted in developing a network of fixed and mobile inoculation facilities which have immunized a significant percentage of Mauritanian children and mothers against communicable diseases. The Rural Medical Assistance project has trained nearly 200 community health workers in the Trarza region. Under this program, villages are responsible for remuneration of the health worker and the medical supplies used by the worker. A.I.D. has sponsored training and improved understanding in oral rehydration therapy and use of scientific health data gathering techniques. It has introduced public health issues as part of the curriculum in government health training institutions. Under a new Rural Health Services project, approved at the end of FY 83, A.I.D. will strengthen the government's ability to provide health services with programs to improve Mauritanian skills in management and financial administration.

In Mali, a pioneering study on pharmaceutical distribution, an essential drug list, and a pharmaceutical user's manual sponsored by A.I.D. and the World Bank were endorsed by the Ministry of Health. These works have had wide distribution outside Mali. In late 1983, A.I.D. and the CILSS sponsored a regional oral rehydration therapy seminar to help train senior health workers in the use of this simple, low cost, yet very important life-saving treatment for infants.

In Chad, A.I.D. has helped the Ministry of Health re-establish its pharmaceuticals distribution system through planning assistance, management training, setting up an accounting system, and supply of basic medicines. This Relief-and-Rehabilitation funded project has laid the groundwork for rebuilding Chad's capacity to provide basic medical services for its people.

In Senegal, the Rural Health Delivery Services Project has been successful to the point that it is now considered a model for Primary Health Care projects in Africa. This project assisted the Government of Senegal in creating a system whereby the population pays for health services through the generalized payment of user fees. All the proceeds from these fees are managed by an independent, locally elected, health committee.

In Niger, a national primary health program incorporating user fees, a village health worker, and a referral system is being supported largely through A.I.D. assistance.

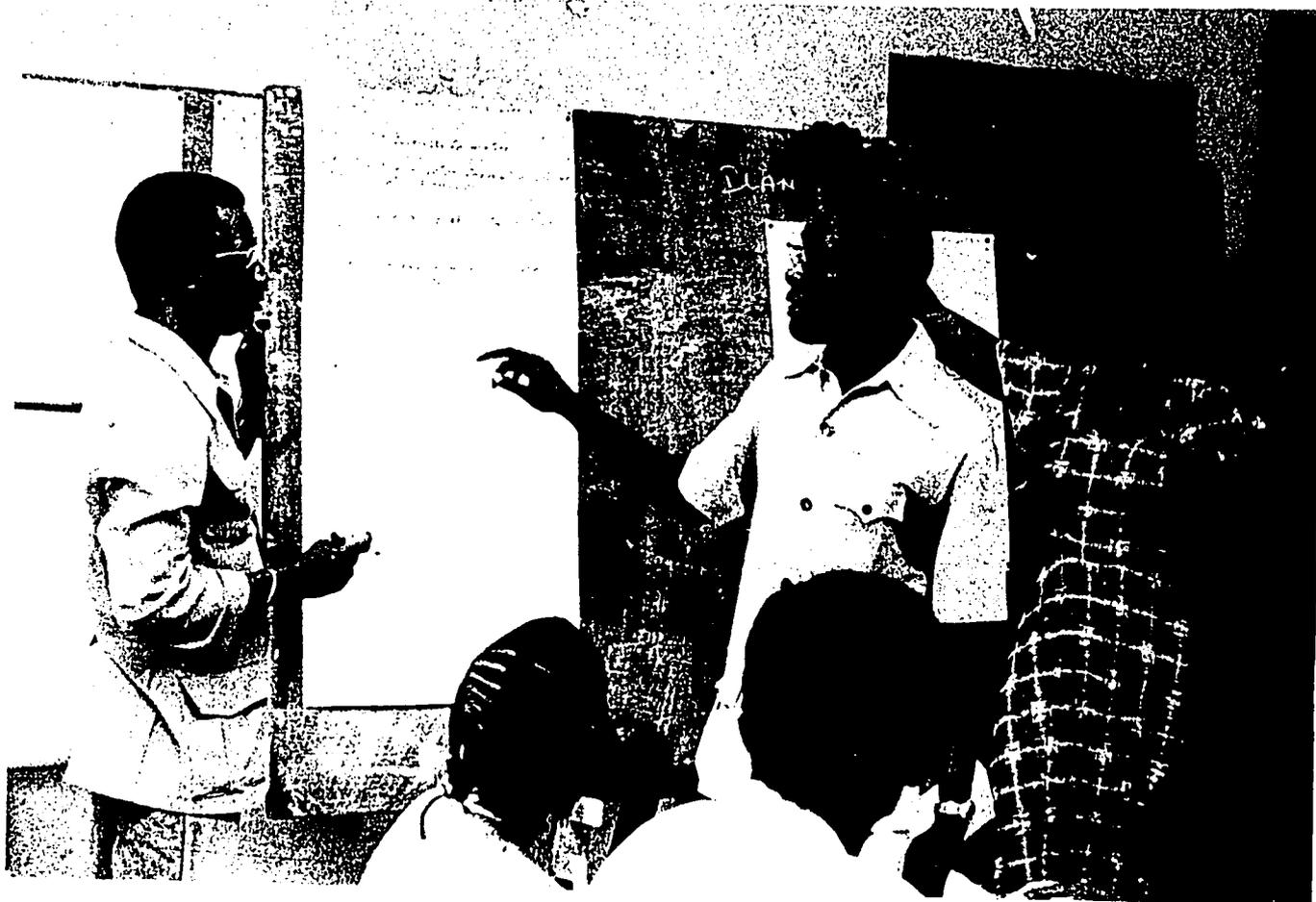
In Upper Volta, the A.I.D Strengthening Health Planning project is supporting the development of a crucial planning unit in the Ministry of Health. This unit is responsible for the systematic analysis of health needs and resources as well as for the development of health strategies and programs.

In Gambia, A.I.D. has carried out an oral rehydration therapy (ORT) program using mass media techniques which has been exceptionally successful in terms of reaching a significant proportion of mothers in rural Gambia. A.I.D. intends to incorporate ORT technology into existing Sahel bilateral rural health projects in the ensuing year.

H. Education

A major barrier to rapid economic development in the Sahel is the inadequacy, numerically and qualitatively, of trained and literate people. In 1983, A.I.D. invested an estimated \$6.8 million, roughly 8% of the SDP appropriations, in human resource development in the Sahel. A number of projects are specifically designed to train Sahelian personnel in areas of highest priority need and almost every project activity has a training or education component. These activities range from literacy training to long term technical and professional degree courses.

In Niger, A.I.D. has given special emphasis to educational development. A.I.D. plans to concentrate on improving the quality of education and training components in its projects and increasing the Government of Niger's institutional capacity to plan effectively for its human resource requirements. A.I.D.'s Niamey Development Project has established ten farmer couple training centers which can train 200 farm families a year. Available data from 1980-82 suggest that the project has contributed to increased yields among farmers who adopt the practices they learned at the centers. The project has helped create a grassroots organizational structure of about 100 cooperatives, facilitating local organizations and self-reliance. In addition, local leaders receive training in managing agricultural credit and input distribution and women are taught about nutrition and health.



SENEGAL: THE SINE SALOUM RURAL HEALTH PROJECT.

USAID PROJECT COORDINATOR, AIDA LO FAYE, AND THE REGIONAL MEDICAL OFFICER TRAIN FUTURE TRAINERS OF VILLAGE HEALTH WORKERS.

In Cape Verde, A.I.D. has financed the construction of more than fifty schools and related facilities to improve education and accommodate higher enrollments.

In Senegal, A.I.D. is working with Texas Tech University to establish a program in project management training at the National School of Applied Economics. Several projects have Women in Development components. The YMCA is addressing youth vocational training and the Regional Development Agency for the Senegal River Valley (SAED) is training technicians for irrigation support. Many other projects have large training components.

In Mali, the Agricultural Officers Training project provides assistance to institutions which train mid-level agricultural extension workers. The Development Leadership Training Project trains individuals in management and selected professions. Functional literacy and training of women is conducted under the Haute Vallee project.

In Mauritania, A.I.D. plans to develop a Human Resources Development Project to improve the managerial capacity of Mauritanian institutions by training a limited number of specialized planners and a larger number of middle level cadres in specific administrative and management skills.

In 1983, as part of the regional Sahel Manpower Development Project (SMDP), each A.I.D. mission completed a five year country training plan (CTP) for their respective country. These plans were based on an analysis and projection of the trained personnel requirements critical to the success of each country's development program. The CTPs identified the training components of each A.I.D. project and then identified necessary supplemental education and training. The SMDP is very important for selecting and, ultimately, providing talents critical to the success of each country's development scheme. The project's first phase completed high level U.S. training of about 300 Sahelian technicians.

IV. The Food Emergency

An analysis of rainfall data from the National Oceanographic and Atmosphere Administration (NOAA), cereals production/consumption data from the Food and Agriculture Organization (FAO), and A.I.D. population data clearly show that 1983 was a disastrous year for agriculture in the Sahel. The total volume of river flow, river levels, and cereals production reached levels as low, if not lower, than those experienced during the great drought (1968-1973). There was little rainfall and what precipitation occurred often did so during periods which were not conducive to agricultural production. The total volume of river flow for the Niger, Senegal and Gambia rivers was at a reported all-time low. River levels, which have a major impact on recessional agriculture, were also extremely low. The peak water level (PWL) at Kaedi on the Senegal River was the lowest ever recorded at 8.6 meters, compared to 9.5. meters during the great drought in 1972 1/. During an average post-drought year, 110,000 hectares are flooded in the river basin and available for recessional agriculture. In 1983, only an estimated 30,000 hectares were available.

The gap between cereals production and consumption in the Sahel is approximately 1,772,000 metric tons ^{2/}. However, the situation is not as severe as this figure would indicate. The Sahelian nations and the donor community are still in the process of analyzing the availability of in-country stocks and commercial and non-commercial imports to determine what the net consumption deficit will be.

Although 1983 was a severe drought year, the human suffering experienced a decade ago is being avoided due to the extensive efforts of the donor-recipient community. Over the last ten years, considerable progress has been made in laying the groundwork to successfully combat the life-threatening effects of drought. A statistics collection system has been established to provide for early warning of critical agricultural conditions. Port facilities and transportation infrastructure have been improved. Systems providing for data analysis, decision-making, and transportation of food from surplus to deficit areas have been installed. As a result of these activities, food aid and commercial imports are and will be more effectively channeled to critical areas to significantly counter the otherwise inevitable consequences of severe drought conditions.

V. Conclusion

The Agency for International Development's Sahel Development Program has experienced serious problems in its implementation. Yet, it is important to recognize these difficulties in the overall context in which the program was originally initiated. When A.I.D first ventured into the Sahel as a cooperative program in 1978, it knew little about the region. Since that time, it has made significant progress in understanding all features; political, agricultural, economic, environmental, and cultural, which are relevant to the Sahel's development. In 1976, A.I.D. agreed to participate with the other donors in the development of the Sahel with the understanding that the joint effort would constitute a "Contract for a Generation". Considering that only the first seven years of this ambitious 25 year program have been completed, there is no reason to be pessimistic about its future. There is certainly no legitimate humanitarian grounds for dismissing its necessity. While the conclusions of the numerous assessments conducted in 1983 were disappointing, they represent a very significant and positive step towards the accomplishment of the SDP goals of food self-sufficiency under conditions of ecological balance and self-sustaining growth in the Sahel. Recognition of mistakes provides opportunity for success in the future, thus the results of these assessments should lead to progress. A.I.D has recognized the necessity to modify its approach in the Sahel and anticipates the active pursuit in the near future of major issues raised during this past year of assessment and introspection.

1/ Source A.I.D./River Basin Development Organization (RBDO).

2/ Based upon FAO data with the exception of Niger which is A.I.D. data.

TABLE A.

ANNUAL RAINFALL IN MILLIMETERS 1/

<u>Country</u>	<u>1972</u>	<u>1973</u>	Post Drought Normal <u>2/</u>	<u>1982</u>	<u>1983</u>
Gambia	655	731	837	755	603
Mali	566	545	656	592	485
Mauritania	115	124	159	61	71
Niger	330	298	502	331	354
Senegal	467	570	552	510	397
Upper Volta	774	698	831	705	611

TABLE B.

SAHEL CEREALS PRODUCTION 3/
(In thousands of metric tons)

Country	1972	1973	Post Drought Normal <u>2/</u>	1982	1983
Cape Verde	12	13	4	4	3
Chad	407	507	619	460	500
Gambia	72	80	67	110	45
Mali	794	709	1171	974	880
Mauritania	54	34	33	20	15
Niger	766	803	1564	1452 ^{4/}	1431 ^{4/}
Senegal	510	624	743	780	515
Upper Volta	887	843	1149	1175	1000
Production Total	3,502	3,613	5,351	4,975	4,389
Total Estimated Population in Millions ^{5/}	25.45	26.10	29.48	32.61	33.73
Per Capita Production in Kilograms	137.6	138.4	181.5	152.6	130.1

1/ Information provided by NOAA (Computation Methodology standard for all years).

2/ Post Drought Normal—determined by averaging data for years 1976 through 1980.

3/ Based upon FAO estimates.

4/ A.I.D estimates.

5/ A.I.D estimates.

TABLE C.

BASIC INDICATORS - THE SAHEL 1981

	<u>CAPE VERDE</u>	<u>CHAD</u>	<u>GAMBIA</u>	<u>MALI</u>	<u>MAURITANIA</u>	<u>NIGER</u>	<u>SENEGAL</u>	<u>UPPER VOLTA</u>
(\$ or \$ Millions)								
% Growth Per Capita GDP (1960-1980)	1.25	-1.8	1.7	1.4	1.6	-1.6	-0.3	0.1
Per Capita GNP	300	120	350	190	480	340	500	240
Current Account Balance	.8	NA	-1.05	-238	-264	-265	-579	-200
External Debt	60	143	128	498	827	605	1,057	296
Annual Debt Service	NA	14	4	37	54	63	99	14
Debt Service/Export Ratio (%)	NA	10	16	24	17	21	24	11
Net External Resources (1980)	64	35	82	254	149	256	448	228
Net Concessional Aid (1980)	64	35	54	252	159	170	263	212
Official Expenditure Plus Investment	NA	NA	109	191*	434	743	1,065	362
% Distribution of National Official Expenditure								
Defense	7.19	25.8	NA	17.7	29.4	3.8	10.7	16.9
Education	14.67	13.5	6.5	21.6	10.4	18.0	18.9	16.4
Health	8.22	4.2	6.3	5.3	2.8	4.1	6.0	9.9

* 1979

TABLE D.

PL 480 FOOD AID COUNTRY SUMMARIES
(in \$000)

	<u>FY 1982</u> Actual	<u>FY 1983</u> Actual	<u>FY 1984</u> Estimates	<u>FY 1985</u> Projections
Cape Verde				
Title II	2,533	2,692	4,384	3,680
Chad				
Title II	2,460	3,244	3,312	909
Gambia				
Title II	1,098	447	1,025	2,999
Mali				
Title II	792	4,307	2,534	5,522
Mauritania				
Title II	3,412	5,976	8,798	6,221
Niger				
Title II	2,134	756	472	4,039
Senegal				
Title II	5,773	5,259	9,192	5,618
Title III	7,000	7,000	---	8,000
Upper Volta				
Title II	6,845	7,156	7,363	10,177
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TOTALS	32,047	36,837	37,080	47,165

Country levels reflect bilateral programs only. PL 480 contributions through the World Bank are not reflected.

TABLE E.

TEN LEADING DONORS TO SAHEL 1979-1982
Commitments, \$ Millions and Percent

1979			1980			1981			1982		
RANK	\$ mil	%	RANK	\$ mil	%	RANK	\$mil	%	RANK	\$mil	%
France	278	17.1	France	319	21.2	France	384	19	France	302	19.9
EEC	240	14.8	EEC	180	12.1	EEC	239	12	EEC	202	13.5
Germany	136	8.4	United States	130	8.7	Germany	210	10.6	Germany	165	10.9
United States	123	7.6	World Bank	122	8.1	World Bank	166	8.4	Saudia Arabia	160	10.6
Saudia Arabia	117	7.2	U.N. Agencies	101	6.7	United States	142	7.2	United States	144	9.5
World Bank	110	6.8	Germany	94	6.2	Kuwait	136	6.9	World Bank	93	6.1
Kuwait	86	5.3	Netherlands	87	5.8	Saudia Arabia	102	5.2	African Dev. Bank	74	4.9
U.N. Agencies	78	4.8	Saudi Arabia	68	4.5	U.N. Agencies	98	5	U.N. Agencies	72	4.8
Netherlands	58	3.6	Iraq	47	3.1	Canada	70	3.6	U.A.E	51	3.4
Japan	47	2.9	Kuwait	40	2.7	OPEC Fund	59	3	OPEC Fund	41	2.7
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	1,273	78.5		1,188	79.1		1,606	81.5		1,304	86.1
	351	21.5		314	20.9		364	18.5		210	13.9
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	1,624	100		1,502	100		1,970	100		1,514	100

Definition: ODA Commitments, including food aid.

Source : CILSS/Club documents Sahel D (80) 103, Sahel D (81) 144, Sahel D (82) 188 and Sahel D (83) 230

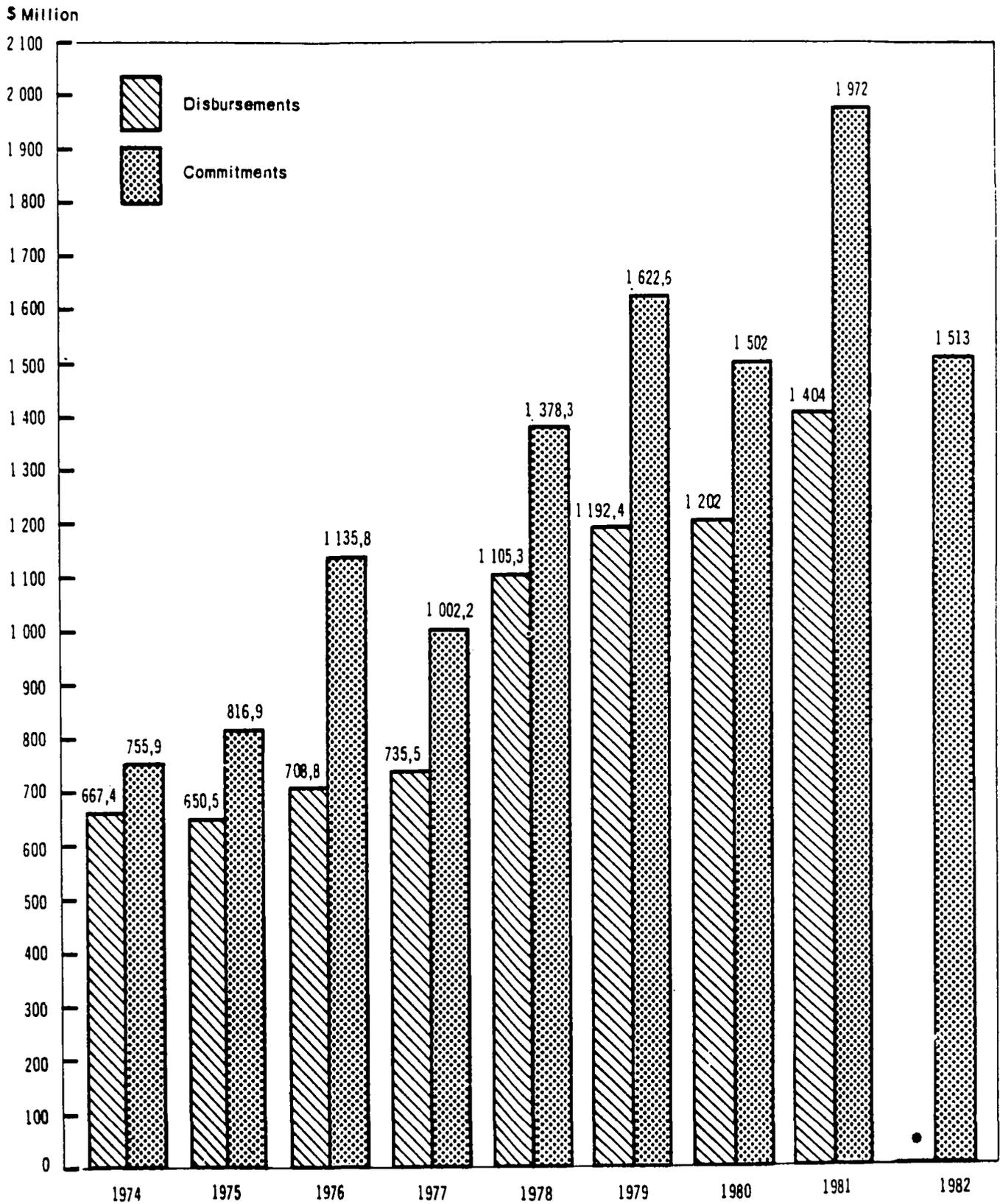
TABLE F.

CONTRIBUTIONS TO SAHEL COUNTRIES BY MAJOR GROUPS OF DONORS

	<u>1979</u>	<u>1980</u>	<u>1981</u>	1982
Multilateral Aid	25.3%	25.9%	25%	25.1%
U.N. Agencies	4.8%	6.7%	5%	4.8%
OPEC Countries and Financial Institutions	22.3%	16.5%	21%	19.9%
OECD Countries	47.6%	50.8%	49%	50.1%

TABLE G

TOTAL DISBURSEMENTS AND COMMITMENTS OF PUBLIC
AID FOR DEVELOPMENT IN THE SAHEL 1974 - 1982



• Figures for 1982 disbursements are not available.

TABLE II.

FY-1984 FOOD PRODUCTION/DEFICIT INFORMATION FOR THE SAHELCountry: Cape Verde

	Total Grain Product.	Per Capita Grain Consumpt.	Pop.	Total Grain Require.	Grain Stocks In Country	Anticipated Commercial Imports	Non Emergency PL-480		Food Aid Other Donor	Deficit	Deficit As % of Need	PL-480 Emergency Food AID (Requested)	Remaining Need
							Title I/III	Title II					
FAO:	1	188kg	340	64	8	5			21	27	42%	2.000	25.0
USDA:	4	165kg	345	57	0	20	0	17.791	n/a	15.2	27%	(Approved) 2.000	13.2
USAID:	5	220kg	310	76.5	22	1.5			25.8	4.4	4%		2.4

Country: Chad

	Total Grain Product.	Per Capita Grain Consumpt.	Pop.	Total Grain Require.	Grain Stocks In Country	Anticipated Commercial Imports	Non Emergency PL-480		Food Aid Other Donor	Deficit	Deficit As % of Need	PL-480 Emergency Food AID (Requested)	Remaining Need
							Title I/III	Title II					
FAO:	500	127kg	4,200	625	6	40			27	52	6%	18.500	38.5
USDA:	500	124kg	4,994	617	n/a	5	0	0	33	79	11%	(Approved) 13.500	65.5
USAID:	460	80-150kg*	4,242	598	16	65			46	14	0		0

Country: Gambia

	Total Grain Product.	Per Capita Grain Consumpt.	Pop.	Total Grain Require.	Grain Stocks In Country	Anticipated Commercial Imports	Non Emergency PL-480		Food Aid Other Donor	Deficit	Deficit As % of Need	PL-480 Emergency Food AID (Requested)	Remaining Need
							Title I/III	Title II					
FAO:	45	156kg	670	102	3	36			7	11	11%	10.000	11
USDA:	58	159kg	659	105	n/a	20	0	3.107	9	24.9	22%	(Approved) 0	24.9
USAID:	40	170kg	714	121	6	26			13	33	31%		33

Country: Mali

	Total Grain Product.	Per Capita Grain Consumpt.	Pop.	Total Grain Require.	Grain Stocks In Country	Anticipated Commercial Imports	Non Emergency PL-480		Food Aid Other Donor	Deficit	Deficit As % of Need	PL-480 Emergency Food AID (Requested)	Remaining Need
							Title I/III	Title II					
FAO:	880	154kg	7,700	1,175	7	99			47	136.4	11%	30.000	126.4
USDA:							0	8.600				(Approved) 10.000	
USAID:	1,090	184kg	7,660	1,420	29	150			100	61.0	3.6%		51.0

Country: Mauritania

	Total Grain Product.	Per Capita Grain Consumpt.	Pop.	Total Grain Require.	Grain Stocks In Country	Anticipated Commercial Imports	Non Emergency PL-480		Food Aid Other Donor	Deficit	Deficit As % of Need	PL-480 Emergency Food AID (Requested)	Remaining Need
							Title I/III	Title II					
FAO:	15	136kg	1,700	231	38	78			40.9	24.5	4%	25.000	9.4
USDA:	22	121kg	1,603	200	n/a	45	0	34.666	69.1	29.0	7%	(Approved) 15.000	14.0
USAID:		135kg	1,770	239									

Country: Niger

	Total Grain Product.	Per Capita Grain Consumpt.	Pop.	Total Grain Require.	Grain Stocks In Country	Anticipated Commercial Imports	Non Emergency PL-480		Food Aid Other Donor	Deficit	Deficit As % of Need	PL-480 Emergency Food AID (Requested)	Remaining Need
							Title I/III	Title II					
FAO:													
USDA:							0	2.004				(Approved)	
USAID:	1,431	200-250kg	5,9	1,461	160	50			-0-	-0-	-0-		-0-

Country: Senegal

	<u>Total Grain Product.</u>	<u>Per Capita Grain Consumpt.</u>	<u>Pop.</u>	<u>Total Grain Require.</u>	<u>Grain Stocks In Country</u>	<u>Anticipated Commercial Imports</u>	<u>Non Emergency PL-480</u>		<u>Food Aid Other Donor</u>	<u>Deficit</u>	<u>Deficit As % of Need</u>	<u>PL-480 Emergency Food AID (Requested)</u>	<u>Remaining Need</u>
							<u>Title I/III</u>	<u>Title II</u>					
FAO:	515	218kg	6,200	1,353	14	445			88	244.4	16%	50.000	219.4
USDA:	550	193kg	6,153	1,200	n/a	350	26.0	20.669	88	165.4	12%	(Approved) 25.000	140.4
USAID:	524	197kg	6,260	1,234	50	336			55	222	16%		197

Country: Upper Volta

	<u>Total Grain Product.</u>	<u>Per Capita Grain Consumpt.</u>	<u>Pop.</u>	<u>Total Grain Require.</u>	<u>Grain Stocks In Country</u>	<u>Anticipated Commercial Imports</u>	<u>Non Emergency PL-480</u>		<u>Food Aid Other Donor</u>	<u>Deficit</u>	<u>Deficit As % of Need</u>	<u>PL-480 Emergency Food AID (Requested)</u>	<u>Remaining Need</u>
							<u>Title I/III</u>	<u>Title II</u>					
FAO:	1,000	176kg	6,300	1,150	6	60			6.2	55.8	4%	23,562	45.8
USDA:	1,000	177kg	7,295	1,290	100	35	0	22.004	12.2	120.8	8.5%	(Approved) 10.000	110.8
USAID:	917	192kg	6,580	1,279	87	60			6.0	87	6%		77

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