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U.S. ASSISTANCE IN THE SAHEL

REPORT

OF A

STAFF STUDY MISSION TO NIGER,
UPPER VOLTA, MALI, AND SENEGAL
OCTOBER 26-NOVEMBER 20, 1978

TO THE

COMMITTEE ON FOREIGN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES



DECEMBER 1979

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NATHANIEL FIELDS, *Staff Associate, Subcommittee on Africa*

FOREWORD

HOUSE OF REPRESENTATIVES,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, D.C.

This report has been prepared for the committee by a staff survey team comprised of Gerald E. Pitchford, Stephen D. Nelson, staff consultants to the Committee on Foreign Affairs and Nathaniel Fields, Staff Associate, Subcommittee on Africa.

The findings contained in this report are those of the staff study mission and do not necessarily reflect the views of the members of the Committee on Foreign Affairs.

CLEMENT J. ZABLOCKI, *Chairman.*

(III)

REPORT

Presented to the
Committee on the
Education of the
Deaf

The report of the
Committee on the
Education of the
Deaf, for the
year 1900, is
presented to the
House of Representatives,
in compliance with
a resolution of the
House of the 56th
Congress, passed
March 3, 1899.

W. H. BROWN,
Director.

LETTER OF TRANSMITTAL

HOUSE OF REPRESENTATIVES,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, D.C.

Hon. CLEMENT J. ZABLOCKI,
Chairman, Committee on Foreign Affairs, U.S. House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Transmitted herewith is a report of a staff study mission which went to the Sahel region of Africa October 26–November 20, 1978, to gather information on U.S. economic assistance to that region under the mandates of the Foreign Assistance Act and other legislation within the purview of the Committee on Foreign Affairs. The study mission examined assistance programs in Niger, Upper Volta, Mali, and Senegal. The study mission also conferred with officials of the Club des Amis du Sahel (Club of the Friends of the Sahel) in Paris and attended the third meeting of the Club held in Amsterdam. The scope of our study is outlined in the introduction to our report.

The undersigned would like to express their thanks and appreciation for the assistance, advice, cooperation, and hospitality extended during the course of the study mission.

GERALD E. PITCHFORD,
Staff Consultant.

STEPHEN D. NELSON,
Minority Staff Consultant.

NATHANIEL FIELDS,
Staff Associate, Subcommittee on Africa.

LETTER OF TRANSMITTAL

TO THE PRESIDENT OF THE UNITED STATES
FROM THE SECRETARY OF THE INTERIOR
SIR: I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the report of the Commissioner of the General Land Office, dated the 2nd inst., in relation to the proposed extension of the public land survey in the State of California. The report of the Commissioner is herewith transmitted for your consideration. It is respectfully suggested that you may wish to refer the same to the proper authorities for their consideration and report.

Very respectfully,
J. M. Smith,
Secretary of the Interior.

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INTRODUCTION

The purpose of the study mission was to gather information on how U.S. assistance programs in the Sahel region of Africa are being administered under the Sahel development program, other mandates of the Foreign Assistance Act, and other legislation within the purview of the Committee on Foreign Affairs. The mission focused on U.S. efforts to formulate an assistance program which reflects the philosophy and goals of the Club des Amis du Sahel (Club of the Friends of the Sahel). The Club du Sahel is an association of donor and recipient countries and organizations interested in the economic development of the countries of the Sahel.

Before proceeding to Africa, the mission visited the Club Secretariat which is headquartered in Paris. Following that visit, the mission was in Niger, October 28–November 4, 1978, in Upper Volta, November 4–8, in Mali, November 8–16, and in Senegal, November 16–19. The mission split up en route back to Washington; two members of the group attended the third conference of the club held in Amsterdam November 21–23; the third member of the group returned to Washington.

In its study of U.S. activities in the Sahel the staff mission paid particular attention to the integration of the activities of the Agency for International Development (AID) into the efforts of the Club du Sahel and how AID's programs fit into the philosophy and goals of the club.

Attention was given to the "new directions" mandate established by the Congress in 1973 and to the mandates established by Congress in authorizing AID to develop a long-term multidonor and multi-recipient program for the Sahel. The mission also inquired into the Public Law 480 food-for-peace programs and activities of the Peace Corps.

As used in this report, the term "new directions" refers to a major restructuring of the Foreign Assistance Act undertaken in 1973. The Congress at that time set forth a focus for U.S. bilateral economic development assistance which is commonly referred to as "new directions." The purpose of the mandate was to shift the emphasis of U.S. bilateral aid from "large-scale capital transfers" toward critical problems " * * * which affects the lives of the majority of the people in the developing countries" with "highest priority" to be given "to undertakings submitted by host governments which directly improve the lives of the poorest of their people and their capacity to participate in the development of their country."

In the International Development and Food Assistance Act of 1977 the Congress placed the Sahel program in chapter 1 of the Foreign Assistance Act of 1961 to make clear that the program should be governed by those legislative guidelines (as well as other provisions of law applicable to development assistance generally). The legislative history behind that act indicates that the legislative guidelines

applicable to other development assistance may have to be modified in order to meet the special problems of the Sahel region.

During the mission, the staff group met with U.S. Embassy officials, AID mission personnel, Peace Corps staff and volunteers, host government officials, and representatives of international organizations. Field inspection trips were made in each of the African countries visited by the mission.

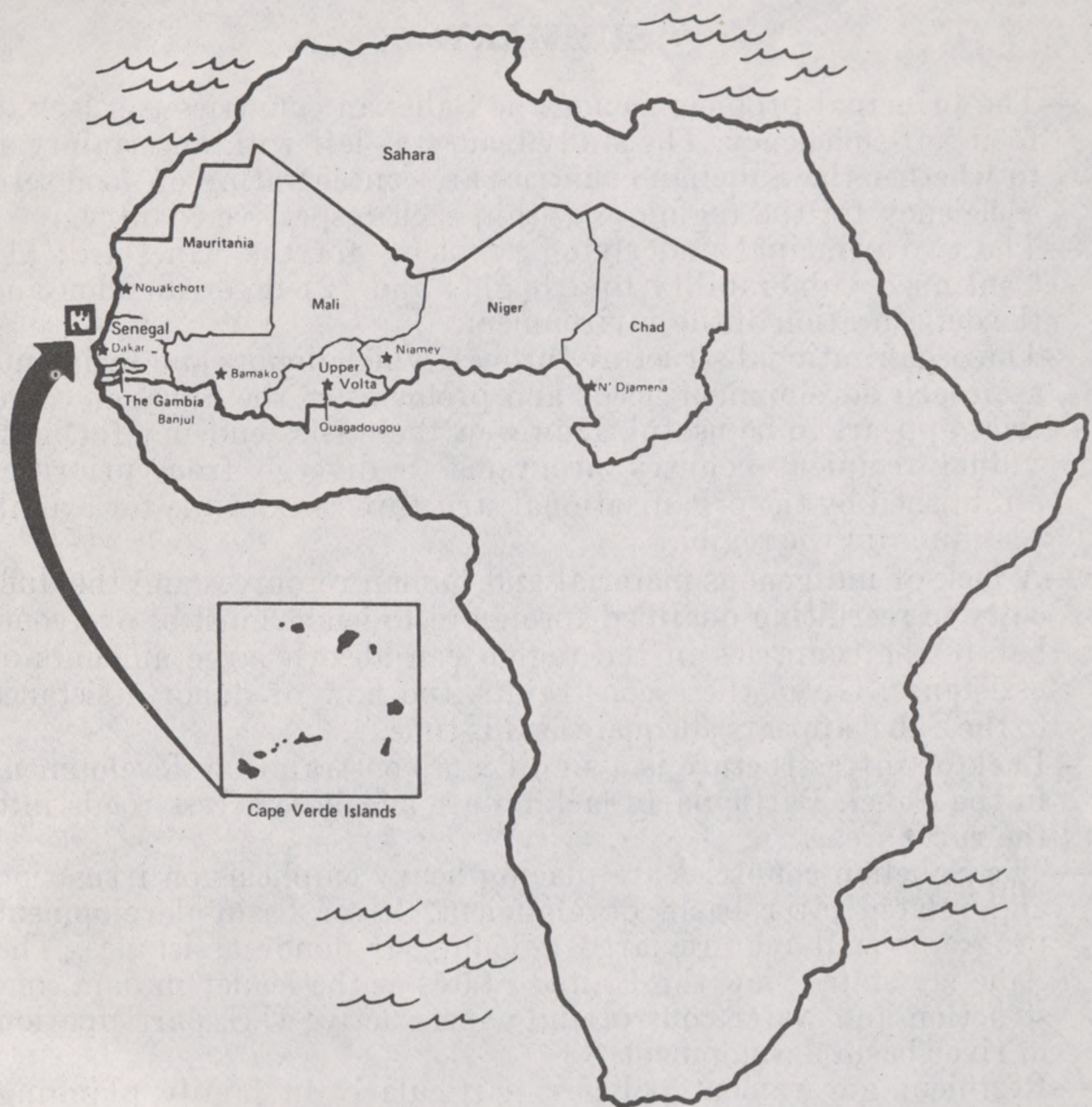
The results of the mission were also enhanced by briefings and meetings held in Washington with officials of AID and the Department of State.

The Sahel region is comprised of eight countries; the study mission visited four. Any conclusions and recommendations should not be construed as necessarily applying to programs in countries we did not visit; nor was it possible, within the time constraints of such a trip, to make definitive evaluation on a project-by-project basis.

SUMMARY

- The principal problem facing the Sahelian countries is a lack of food self-sufficiency. The study team was left with uncertainty as to whether the Sahelian countries are concentrating on food self-sufficiency for the region or within each respective country.
- The two principal underlying problems for the Sahel are: (1) Continued vulnerability to drought; and (2) desertification and the deterioration of the environment.
- The organizational structure through which donors and recipients approach development needs and problems of the Sahelian countries appears to be useful. However, there is a tendency for individual recipient country programs to diverge from priorities established by the organizational structure responsible for overall planning for the region.
- A lack of indigenous material and human resources and the difficulty in recruiting qualified foreign technicians must be overcome before the countries in the region can absorb large amounts of assistance. Given these constraints, the flow of donor assistance to the Sahel appears adequate at this time.
- Lack of infrastructure is a significant constraint on development in the Sahel. Particularly lacking are adequate access roads into the rural areas.
- The Sahelian countries are placing heavy emphasis on irrigation and related river basin development. River basin development programs will require large amounts of donor assistance. The Sahelian states view the United States as the leader in dam construction and water control and expect active U.S. participation in river basin development.
- Recipient government policies, particularly in family planning and agricultural pricing, constitute constraints on development. These policies reflect traditional attitudes of the respective peoples. Pricing policies on food products seem intended in large part to pacify the more politically active urban consumers.
- AID projects in the countries visited were frequently characterized by significant delays in implementation.
- AID/Africa has a tendency to place an excessively narrow construction on legislative policy on U.S. participation in infrastructure projects. This results at times in almost automatic rejection by AID of some proposals actually consistent with legislative policy.
- Peace Corps and AID officials are working to improve cooperation and coordination of their respective development activities in the countries visited. The principal area of difficulty involved situations where volunteers arrived in country to participate in AID supported projects and AID had not been ready to proceed with project activities.

THE SAHEL



OVERVIEW OF THE SAHEL DEVELOPMENT PROGRAM

The Sahel is the name generally used in referring to a region of Africa which includes eight countries: The Cape Verde Islands, Chad, The Gambia, Mali, Mauritania, Niger, Senegal, and Upper Volta.

The region comprises some 2 million square miles (by comparison the U.S. mainland has 3 million square miles) with a population of approximately 27 million inhabitants.

Six of the Sahelian countries: Chad, Mali, Mauritania, Niger, Senegal, and Upper Volta, former French territories, obtained independence in 1960. The Gambia, a former British crown colony, obtained independence in 1965. Cape Verde, a former Portuguese colony, obtained independence in 1975.

The nations of the Sahel entered into independence as states of uncertain economic viability. Very little had been provided to them in the way of roads, schools, hospitals, irrigation works, and other infrastructure investment. As indicated by the table on page 6, these countries are some of the most impoverished of the poor countries of the world.

In 1976 the eight countries were all on the list of countries most seriously affected by the 1974 oil crisis. Except for Senegal and Mauritania all are on the 1978 Organization for Economic Cooperation and Development [OECD] list of least developed countries [LDC's].

The Sahel countries are some of the least industrialized nations of the world. As the table demonstrates, 85 to 90 percent of the labor force in the typical Sahel country is engaged in agriculture; in most LDC's the percent is approximately 60 percent. However, though the labor force is concentrated in agriculture the countries of the region have had to rely on large amounts of imported food to meet their needs.

Insofar as mineral resources are concerned, Niger has important uranium deposits and Senegal and Mauritania have offshore oil possibilities but the region as a whole appears to be one of the least favored in the world. In all eight countries firewood is the principal source of energy.

In addition to the economic hardships these newly independent countries also faced the need to fashion new administrative structures for governing; for example, in Mauritania where a new state was established after independence. On top of this came the great drought which afflicted the Sahel from 1968 to 1973 and brought focus on the longstanding problems of the countries of that region.

As a result of the drought:

- An estimated 100,000 persons died of starvation or related causes.
- An additional 8.4 million underwent extreme hardships of hunger, malnutrition and disease, and loss of livestock, crops, dwellings, and livelihood.
- Some 7 million cattle died at an estimated loss of \$288 million.
- Crop losses have been set at more than \$180 million.

SAHEL ECONOMIC AND SOCIAL DATA

Country	Economy GNP per capita (dollars, 1976)	Education literacy rate (percent)	Total (thousands, mid-1978)	Population				Health		
				Density (persons per square mile)		Percent labor force in agri- culture	Number of people per doctor	Life expectancy (years)	Infant deaths per 1,000 live births	
				Annual growth rate (percent)	Population/ agriculture land					Population/ total land
						1960's	1970's			
Cape Verde	260	27	315	2.3	(1)	202	(1)	59	(1)	79
Chad	120	14	4,285	2.1	88	9	14	91	38.5	190
Gambia	180	10	566	2.0	170	141	9	84	40.0	168
Mali	100	2	6,266	2.2	36	13	10	91	38.0	141
Mauritania	340	11	1,529	2.0	8	4	6	85	38.5	185
Niger	160	6	4,978	2.7	62	10	7	91	38.5	175
Senegal	390	6	5,399	2.8	100	71	23	76	40.0	170
Upper Volta	110	11	6,498	2.2	73	61	4	89	38.0	260

¹ Not available.

Source: Agency for International Development.

The international community responded with considerable assistance during the crisis, as noted in the following table:

Sahel drought relief assistance, 1972-75

Grants:	
U.S. Government-----	\$228, 200, 000
U.S. voluntary agencies-----	15, 600, 000
International community-----	163, 400, 000
Total -----	<u>407, 200, 000</u>
Loans:	
World Bank (IDA loans)-----	29, 600, 000
World Bank (regular loans)-----	3, 000, 000
Total -----	<u>32, 600, 000</u>

Source: Agency for International Development.

The drought from 1968-73 brought to the world's attention the vulnerability of the region and showed that the people in that region are perpetually exposed to the immense perils of its uncertain climate. This vulnerability is increased by the poverty and underdevelopment of the Sahelian states. The effects of the drought raised fundamental questions concerning the future prospects and development of the Sahel countries. Recognizing the dangerous ecological and human conditions in the Sahel a number of development agencies undertook special studies of what strategies and measures might be employed for the long-term rehabilitation and protection of the Sahel region.

The Congress expressed its support for international consultations and planning for a comprehensive, long-term development program for the region and in 1975 provided \$5 million for planning, consultation, and program development, and called on the President to develop a proposal for long-term development of the Sahel and other drought stricken areas of Africa.

CLUB DES AMIS DU SAHEL (CLUB OF THE FRIENDS OF THE SAHEL)

The development program for the Sahel is being planned by the Club des Amis du Sahel. This coordinating mechanism, created in 1975 at the initiative of the United States and France, brings together the Comité Inter-Etats de Lutte Contre la Secheresse (CILSS—Interstate Committee for Drought Control in the Sahel), which is a regional organization comprised of the eight Sahelian states, and major donor countries and organizations.

HOW THE CLUB CAME INTO EXISTENCE

The studies made on the Sahel showed this area to have considerable agricultural and human resource potential and they pointed to broad lines for social and economic development with major emphasis on food self-sufficiency. It was clear that realization of the potential for development would require a concerted effort in international cooperation—first, by the Sahel states, through appropriate policies and a priority for agricultural development and, second, by donor institutions through a sustained increase in technical and capital assistance. Their common determination should take the form of a mutually agreed plan of action, ranking the different programs by order of im-

portance, including a timetable for their implementation, and measures to be undertaken by all the parties involved—Sahel countries and donor organizations—in order to give development a reasonable chance of success.

Realizing the need for a collective and sustained effort, the Sahel states and certain members of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) joined together in considering how concrete shape might be given to their cooperation. The DAC chairman cooperated with the Coordinator of the CILSS in formulating a specific proposal which was accepted by the Chiefs of State of the CILSS states in December 1975. Adoption of this proposal brought into being the Club des Amis du Sahel. It is an informal association, open to all governments and development agencies, on an equal footing, who share mutual confidence and solidarity in concerting efforts for the development of the Sahelian region.

Principles and objectives for the club were defined by the CILSS countries and confirmed in the resolution setting up the club adopted by the inaugural meeting of the club in March 1976. This resolution states the club's broad purposes as follows:

- Support action by the CILSS, the principal agency for regional cooperation;
- Inform and create awareness among the international community with regard to the Sahel's development prospects and requirements;
- Encourage cooperation between donors in order to implement projects envisaged by Sahel governments and regional organizations and make it easier to mobilize resources for development;
- Be a forum in which the Sahel states can outline their policies and priorities for medium- and long-term development and discuss them with the donors;
- Meet at least once a year and set up working groups to study specific problems.

CILSS

The CILSS was established in September 1973 at the height of the drought. It was founded by six Sahel countries¹ of central and western Africa to rally donor support for their national and regional development needs. The Gambia and the Cape Verde Islands later joined CILSS. During 1973 to 1975, CILSS, with a very small secretariat, sought donor financing for short- and medium-term activities on behalf of the members.

In 1976 CILSS accepted a major new responsibility—to guide and coordinate planning for the comprehensive long-term development of the Sahel. This additional responsibility required an expansion in CILSS staff activities and responsibilities.

The CILSS reorganization plan calls for establishing three operating divisions in charge of:

- administration and finance;
- documentation and information; and
- programs and projects.

¹ Chad, Mali, Mauritania, Niger, Senegal, and Upper Volta.

These divisions are directed by the Executive Secretary and the Minister Coordinator who receive policy guidance from the CILSS Council of Ministers.

CILSS is attempting to staff its Program and Projects Division with a diversified staff of economists, engineers, and management experts. Also, CILSS plans to organize a regional management unit which would have overall responsibility for managing a regionwide crop protection project planned through the club.

CILSS provides the framework for bringing together the views of the Sahelian countries, and, along with the club, sponsors the work of the club's international development planning teams. These teams are responsible for developing the strategies to assure food self-sufficiency and alleviate problems such as desertification, deforestation, declining land fertility, low human resource capacity, inadequate market access, market instability, and lack of production incentives. CILSS is the forum for regional discussion and ratification of the actions proposed under club/CILSS auspices. CILSS will play an even more important role by directing and coordinating the daily refinement and development of the planning efforts.

CILSS is a unique international organization in several respects. Apart from the Organization for African Unity, it is the only African international organization based on purely geographic commonalities rather than political, economic, or ideological ones. It is unique as a consortium of assistance-receivers (and thus the Club du Sahel is unique in linking a regional organization of recipients with a consortium of donors to a region rather than a single country). It is unique also in that it is, in a strict sense, an international organization of ministers of rural development rather than of government representatives representing the foreign-affairs, or the financial, or the planning functions in their respective governments.

The CILSS is an operational organization whose effectiveness depends directly on its working contacts with the CILSS member states. To function efficiently the CILSS therefore requires a national correspondent element in each member state. These correspondent structures, or CILSS national committees, are administered by midlevel government officials in the member states. These country CILSS representatives have been responsible for backstopping some 30 CILSS/club missions which have taken place in the past year.

The Sahelian states have all created, by decree, CILSS national committees and secretariats to fulfill their obligation and commitment to implement a long-term development program. The committees are necessary to translate the programming work of the club and CILSS into national plans and projects. These committees and secretariats, however, have not become fully operational, because of a shortage of both financial and human resources.

The mission of the national CILSS committees is:

- To define national first generation projects in view of their presentation to financing sources;
- Monitor the coherence between national CILSS projects and their integration into the national social and economic development plan at the national level;
- Track the implementation and participate in the evaluation of CILSS projects;

- Undertake studies and specific tasks aimed at improving the strategy as well as programing;
- Design projects for the second and third generation;
- Bring together and disseminate information relative to the activities of CILSS and the club.

Because both the committees and their respective secretariats should serve as coordinators and multisector overseers of national/bilateral programs, the CILSS has suggested that donor representatives and appropriate Sahelian officials meet, at their own initiative or through CILSS sponsorship, to work out the best means to make both the committees and secretariats functional. The national committees have a key role to play as the link between CILSS and national planning, implementation and monitoring, and identification of special problems which are common to one or more states.

DONORS

Financial support for club development efforts in the Sahel has been provided by members of the Organization for Economic Cooperation and Development (OECD), multilateral financial institutions, countries and financial institutions of the Organization of Petroleum Exporting Countries (OPEC), and agencies of the United Nations. The existence of the "club" structure for facilitating development activities in the Sahel appears to have been a factor in inducing a number of nontraditional donors to become active in the Sahel. In the period 1974-75, prior to the establishment of the club, donor flows to the Sahel were about three-quarter billion dollars per year. Flows increased to over \$1 billion per year for 1976 and 1977. The following table lists the top 10 donors to the Sahel based on commitments:

TOP 10 DONORS BASED ON COMMITMENTS IN MILLIONS OF DOLLARS

	1977	1976	1975
Rank:			
1.....	France.....185	France.....212	France.....162
2.....	EDF ¹129	EDF ¹149	Germany.....86
3.....	Saudi Arabia.....122	IDA/IBRD ²134	IDA/IBRD ²79
4.....	Germany.....96	Saudi Arabia.....130	USAID ³71
5.....	USAID ³85	Germany.....96	EDF ¹62
6.....	Canada.....83	USAID ³60	Canada.....57
7.....	IDA/IBRD ²64	ADF ⁴46	Saudi Arabia.....31
8.....	UNDP ⁵63	AFESD ⁶42	Kuwait.....29
9.....	Holland.....42	Canada.....40	ADF ⁴26
10.....	OPEC Special Fund.....26	Holland.....38	Belgium.....15
Total.....	895	947	618

¹ EDF—European Development Fund.

² IDA/IBRD—International Development Association/International Bank for Reconstruction and Development.

³ USAID—United States Agency for International Development.

⁴ ADF—Africa Development Fund.

⁵ UNDP—United Nations Development Program.

⁶ AFESD—Arab Fund for Economic and Social Development.

Source: Agency for International Development.

At the second meeting of the club held in Ottawa in May 1977, members approved a program of projects covering efforts to be carried out during the period of 1978-82. The program was developed by a working group of recipients and donors established by the club in 1976 for the purpose of formulating a strategy proposal and program

schedule for the medium and long-term development of the Sahelian countries. In most of the countries there already existed a set of planned activities. The proposed program, therefore, had to relate to these activities and the group expanded on a series of already identified projects rather than developing a large number of new projects. The program is, however, intended to reflect actions necessary in support of long-term objectives.

This program, entitled "First Generation Projects 1978-82," is focused toward achieving the goals of food self-sufficiency and self-sustaining development. The total estimated cost of the first generation projects is \$3.3 billion of which \$870 million had been firmly committed by donors as of the time of the club's third meeting in Amsterdam in November 1978. The United States has committed \$178 million for the "first generation projects."

U.S. ASSISTANCE TO THE SAHEL

The United States began providing bilateral assistance to Chad, Mali, Niger, Senegal, and Upper Volta in 1961; Mauritania in 1958; the Gambia in 1956; and the Cape Verde Islands in 1975. Cumulatively through September 30, 1978, U.S. assistance, including food made available under Public Law 480, was valued at about \$512 million. However, most of that aid—\$306 million—was provided following the severe drought of 1968 to 1973. Almost two-thirds of the aid since 1973 has consisted of emergency food supplies and special drought relief.

In 1977, the Congress authorized funds to begin implementation of a Sahel development program (SDP) which is aimed at increasing food self-sufficiency, improving living standards of the poor, and increasing economic growth in the region. The Congress authorized an appropriation of \$200 million with a \$50 million limit on appropriation for fiscal year 1978; \$75 million was appropriated for fiscal year 1979. The Congress has authorized an additional \$30 million for fiscal year 1980, making \$105 million available for appropriation for 1980.

U.S. efforts under the SDP are concentrated in: agriculture, livestock, fisheries, human resources, health, ecology, and transport. Prior to fiscal year 1979, funds for U.S. activities in the Sahel were provided from SDP appropriations, AID's functional appropriations, program grants to private voluntary organizations and Public Law 480 programs. Sahelian countries also benefit directly or indirectly from Africa Bureau regional projects. Beginning in fiscal year 1979, AID discontinued funding SDP activities from its functional appropriations. AID's efforts appear to meet the most pressing needs of the states of the Sahel, are consonant with the "new directions" emphasis mandated by the Congress and reflect an attempt to formulate U.S. participation in the Sahel by supporting strategies established and recommended by the club.

As noted, U.S. efforts in the recent past were devoted primarily to relief efforts required to alleviate suffering caused by the drought. Any assessment of AID's efforts in the area must be made with the realization that AID's efforts devoted to development are of relatively recent origin. U.S. efforts began to develop momentum with the congressional mandate of 1975 directing the President to report to the Congress on

the development needs of the Sahel and the subsequent congressional action establishing the SDP as the vehicle for U.S. participation in a multidonor effort for long-term development of the region.

Organizationally, AID has established a Sahel development program team (SDPT) as a focal point for planning efforts undertaken in the Sahel. The SDPT, originally located in Washington, was moved to the field in August 1979. Also, a Sahel mission directors conference (SMDC) made up of the mission directors from the Sahelian countries has been established and held its first regular meeting in October 1978, shortly before our visit to the area. In the future, AID will also develop a regional development strategy statement for the Sahel which we assume will complement the individual country strategy statements. Given the current movement to the field by the SDPT and the newness of the SMDC, the staff delegation believes it is too soon to evaluate how these organizational developments will impact on U.S. efforts. We are encouraged by these developments which would provide AID with more frequent contact with CILSS working groups and help evolve a detailed and coordinated AID strategy.

The study mission noted encouraging signs from AID's efforts but our visit also brought an awareness of the tremendous obstacles which must be overcome in order for states of the region to begin to meet the goals of providing for the basic human needs of their citizens.

OBSERVATIONS AND CONCLUSIONS

Clearly each of the four Sahel countries visited (Niger, Upper Volta, Mali, and Senegal) has its own individual development needs. However, it is equally obvious that these four countries share some very fundamental and serious problems. The two principal long-term problems more or less common to each are (1) continued serious vulnerability to drought and (2) desertification and the attendant deterioration of the environment. Even a casual observer of conditions in these developing nations can scarcely overlook the sobering magnitude of the problems posed by these related natural phenomena which are at once awesome, tenacious, and, on occasion, deceptively unpredictable.

This essential commonality of underlying development problems has naturally led to a general similarity of national goals and priorities among the four countries visited. Attaining food self-sufficiency, for example, while variously defined, is uniformly cited as the number one development priority of the individual governments of these countries.

REGIONAL APPROACH TO DEVELOPMENT

It is in large part the mutual recognition and acknowledgment of this similarity of development problems and goals which has formed the foundation for the regional approach to identifying and funding solutions to these problems. The most significant manifestation of that approach has been the creation of the joint multidonor/multirecipient relationship of the club/CILSS structure (Club des Amis du Sahel consisting of, the donor countries/organizations, and the Permanent Interstate Committee for Drought Control in the Sahel, the latter being the organization of Sahelian recipient countries).

After fairly extensive interviews and discussions with officials of the U.S. Agency for International Development, host country officials, and representatives of other donor countries and organizations, we believe it can reasonably be concluded that the club/CILSS structure is, in the final balance, a generally useful institutional framework for approaching the development needs and problems of the Sahelian countries. From the discussions and interviews referred to above the following essentially positive attributes of the club/CILSS structure can be identified: (1) It provides a forum for candid exchanges among the recipient and donor countries and organizations regarding the nature, extent, and priority of problems and possible alternative solutions; (2) it has been useful in encouraging regional cooperation in some matters, for example, establishing uniform customs treatment of emergency food aid in transit; (3) it encourages exchanges among recipient countries of their own limited expert personnel resources; (4) by providing a mechanism whereby either recipients or donors can present a united front on points of their respective mutual interests, the club/CILSS structure enhances the influence of individual member coun-

tries or organizations; (5) this institutional framework helps to facilitate donor contributions, especially for smaller donors which may lack the expertise or personnel to evaluate and monitor the implementation on their own of each development project or program in which they may be interested; and (6) the continuing interchanges between donors and recipients, and especially among the recipient countries themselves, may well have helped the recipient country members of the club/CILSS structure to refine their individual development strategies.

As noted above, the overall impression conveyed by the club/CILSS structure as an institutional framework for promoting development efforts was generally favorable. However, the heavy emphasis on regional approaches to development needs, of which the club/CILSS institution is the preeminent example, is not without some potential drawbacks which should not be overlooked. In the desire to maximize cooperation in Sahel development efforts, care ought to be exercised to avoid a probable natural tendency to reduce diverse manifestations of individual participants' development needs to a regional "lowest common denominator." Such a tendency may result in oversimplifying country-specific problems and factors, and possibly needlessly sacrificing flexibility in program implementation efforts.

Another potential problem area for club/CILSS operations is a tendency for the development priorities identified by CILSS members through that institution to diverge from priorities actually emphasized in those members' individual national development programs. This divergence is often attributed to the fact that the member countries' representatives to CILSS are customarily from their respective rural development ministries, while the priorities for their own national development plans are often established; or at least very substantially influenced, by their particular planning ministries. The responsibility of CILSS member countries to each establish their own national CILSS committees, which could presumably control these policy divergences, has not been entirely successful. At the time of our visit some countries had not yet actually established their committees. The national committees of others had never met, and in some cases, the size of the membership of particular national committees makes them too unwieldy. Lastly, the club/CILSS structure is merely the most visible embodiment of the emphasis on regional approaches to development in the Sahel. There is some indication that a growing predilection exists to overuse the familiar rubric of regional approaches to development in the Sahel as though it were a sort of incantation, the beneficial effects of which might be invoked by routinely creating an increasing number of regional committees, commissions, etc., dedicated to the theory of regional development. The number of such regional institutions specializing in one function or issue is fairly large already. Many of these institutions are still in a state of considerable flux and evolution. They often appear to lack clear concepts of their respective purposes and how those purposes are related to or overlap those of other institutions. There seems to be some risk of dissipating the limited administrative and managerial resources of the Sahelian countries in the confusing proliferation of such regional organizations.

CONSTRAINTS TO DEVELOPMENT

The countries of the Sahel are generally among the poorest in the world. One of the major constraints to development is the very meager resource base present in these countries for the most part to provide a foundation for accelerated economic development. In a number of the nations of the Sahel, mineral resources are scarce or nonexistent, and the amount and fertility of the land reasonably available for cultivation is relatively limited.

This shortage of resources on which to base development is not confined to the category of material resources. Each of the countries visited by the study mission suffers from differing degrees of shortages of adequately trained and/or educated personnel to devise, plan, and carry out their respective development programs in the most effective and efficient manner which might otherwise be possible. The limited numbers of persons with administrative, organizational, and management training and skills is probably the most critical single category of deficiency in the area of host country personnel resources.

Another very significant constraint on development in the countries visited is the serious lack of infrastructure. The most critical and visible aspect of this constraining factor appears to be the shortage of infrastructure for irrigation and related river basin development, and transportation and communications infrastructure, particularly adequate access roads. It seems doubtful that very meaningful long-term development achievements can be obtained without increasing somewhat the levels of assistance for this aspect of the development situation. This is not intended to imply encouragement for AID to uncritically launch itself into the financing of infrastructure projects with the enthusiasm at times exhibited by U.S. assistance agencies for such ventures in the past. We mean only to emphasize the discernible, serious need for infrastructure in the particular context of the Sahel region, and the demonstrated congressional recognition of the special circumstances of the multidonor/multirecipient Sahel development effort in the application of legislative development assistance policies.

Another constraint on development is the lack of reliable and timely data on many problems and situations in these countries. An increased capacity to collect and evaluate adequate data on such matters as demographic movements, water and fuel resources and usage, various agricultural practices, et cetera, are needed to improve the effectiveness of the development planning efforts of these nations.

Traditional attitudes of the people in the countries visited may in some cases restrain the pace of development. Traditional social patterns and agricultural practices which may tend to encourage overcultivation of land may dangerously exacerbate the environmental deterioration induced by the drought/desertification problem. Similarly the apparent traditional reluctance to view population growth as a potential negative influence on the progress of development efforts may serve to undercut the success of such programs in the not too distant future.

Lastly, some governmental policies in some of the Sahel countries may constitute constraints to development in certain cases. A government policy often will tend to reflect the traditional attitudes of their respective peoples on a subject as universally sensitive as population

growth and family planning. At this point in time, population growth rates in the countries visited continue to be relatively high despite (or possibly in part because of) high infant mortality. For example, population growth is often high enough to result in decreases in the annual per capita agricultural production growth rate despite the fact that the annual total agricultural growth rate has increased. However, the factor of population growth does not pose an imminently really serious problem in these countries yet, by comparison to the situation in other parts of the world. Nevertheless, the seeming dismissal of this factor as a growing potential development problem based on the relatively low population densities in these countries may well prove to be a less than farsighted policy. Although population densities are low, much of the land in these countries counted in these density calculations is scarcely capable of supporting even existing sparse populations.

A second area in which government policies often appear to constitute a constraint on development is in the matter of agricultural pricing policies. Establishing realistic and workable pricing policies is admittedly no simple task as must be obvious from even a perfunctory glance at the history of such efforts in the developed agricultural countries.

Nevertheless, the evidence suggests that in several of the countries visited, government pricing policies were primarily intended to keep food prices relatively low to pacify politically active urban consumers, although these policies seemed to discourage to some degree increasing agricultural production. One indication of the disincentive effects of such government policies was the widespread existence of unofficial, parallel market systems.

AID

AID operations in the four countries visited were frequently characterized by rather significant delays in the implementation of development projects. For the most part, AID officials sought to explain these delays as due to difficulties in obtaining qualified direct hire personnel and contractors, delays on the part of host country officials in signing project agreements, difficulties in obtaining the timely delivery of equipment and supplies—particularly to points in land-locked countries—the AID internal approval process for projects, and generally the long leadtime in planning and developing projects. In fairness, it must be acknowledged that the United States has only had regular development assistance programs in the Sahel for 3 or 4 years, and development is a slow and difficult process. Second, it is also true that a number of projects are proceeding more or less on schedule, particularly in Senegal. Although there may be little which AID can do with respect to some of these problems, it seems that AID officials can and ought to reevaluate the lengthy and cumbersome process for its own internal review of project proposals. A random examination of the chronology of the development of various projects appears to indicate that the requirements of this process are excessive, and are not specifically required by statute.

In this regard, it should be noted that AID has taken steps to reduce the leadtime in planning and developing projects by delegating to the

missions greater authority in the project approval process. Missions now have the authority to approve project activities having a cost up to \$500,000 and a total life cost of \$5 million.

With respect to the question of infrastructure mentioned earlier, it is difficult to escape the impression, albeit subtle, that AID may be construing the legislative policy on this subject too restrictively. This may result at times in an automatic rejection of some project proposals which might in fact be consistent with existing legislative policy. Clearly the main emphasis of the "new directions" foreign aid policy originally enunciated in the Foreign Assistance Act of 1973 is generally away from infrastructure projects, or more specifically large projects in this category, in the view that they have too often been undertaken in the context of the so-called "trickle down" theory of foreign assistance. Nevertheless, the legislative history on this matter in authorization and appropriation acts in the last few years has clearly implied that Congress recognizes that there are times when assistance for even major infrastructure projects may be necessary and consistent with development assistance policy goals. The case of the Sahel development program has been acknowledged in legislative history—particularly that accompanying the fiscal year 1978 development assistance authorization and the fiscal years 1978 and 1979 appropriations acts—as an apparent instance of the existence of such circumstances, including a framework for multilateral donor participation. Moreover, amendments to section 103 of the Foreign Assistance Act of 1961, as amended, made by Public Law 95-424 have modified language referring to assistance for rural infrastructure projects generally to help avoid "excessively narrow misconstruction" [H. Rept. 95-1087] of the statutory terms in which the "new directions" policy of focusing the benefits of U.S. assistance on the poor majority have been couched.

PEACE CORPS AND AID COOPERATION

Peace Corps programs are operating in each of the four countries which the staff delegation visited. From time to time, members of both the legislative and executive branches have proposed that the Peace Corps and AID could and should coordinate their respective programs where appropriate to complement and enhance their development assistance efforts. In 1978, AID Administrator John Gilligan and then-Peace Corps Director Carolyn Payton issued a joint letter to their country personnel directing them to cooperate and coordinate their respective development activities where possible in order to make the total U.S. development assistance effort as effective as possible.

This now official policy of cooperation is still in its early stages. However, the staff delegation found that Peace Corps and AID officials and Peace Corps volunteers generally appeared to be attempting in good faith to make this policy work to the benefit of both agencies and of the recipients of assistance. Much of the efforts at identifying potential cooperative projects are still on a fairly informal and ad hoc basis. Nevertheless, some progress has been made in regularizing channels for the Peace Corps and AID to exchange information on their respective activities and proposed activities and to improve their capacities to identify and coordinate complementary activities. In some cases, Peace Corps staff have an opportunity for input during AID's

project proposal stage to determine if Peace Corps might participate in some appropriate aspect of a proposed project. Some difficulties have been experienced where delays occurred in the implementation of AID projects in which Peace Corps volunteers were supposed to participate. This sometimes resulted in volunteers who arrived as originally scheduled only to find that their assignments had not yet materialized. The incidence of such problems apparently has now declined, and the situation seems to be essentially under control.

NIGER

Niger is a landlocked country in West Africa located along the southern edge of the Sahara Desert. The country covers an area of some 490,000 square miles which, by way of illustration, makes it somewhat larger than the states of Texas and California combined.

While Niger's total land area is relatively large, between 75 and 80 percent of that area is made up of semiarid or desert land. It is estimated that less than 15 percent of the total land is effectively cultivable. A band of pastoral land exists between the main agricultural area in the south and the mountainous and desert areas in the north of the country.

Census estimates for 1975 put Niger's population at about 4.8 million. However, a recent pilot census survey seems to point to a population possibly as large as 6 million. With the aid of the United Nations Fund for Population Activities (UNFPA), the Government of Niger (GON) is completing a new census.

Based on United Nations figures Niger has the highest crude birth-rate in the world. However, the infant mortality rate is also among the highest in the world. According to figures provided by the Ministry of Health of the GON, the mortality rate for infants (0 to 1) is 314 per thousand and for children aged 1 to 4, the mortality rate is 327 per thousand. Nevertheless, the rate of population growth in Niger is estimated at 2.7 percent (1976-77). Moreover, the dependency ratio of the population is fairly high. According to figures from the Ministry of Health, 43.8 percent of the population is under age 15.

Ninety-one percent of the population is located in the rural areas, where there are an estimated 9,000 villages. Some 90 percent of the people live in a band across the southern part of the country where water is somewhat more available.

Niger has only one major river. The Niger River flows for approximately 500 miles through the southwestern end of the country. Rainfall is relatively low each year with two-thirds of the country receiving less than 4 inches. The rainy season is centered on the months of June through September.

Formerly a part of the colonial entity of French West Africa, Niger became an independent republic in 1960. In 1974 a coup occurred in which the present military government came to power. A number of observers have expressed the view that the coup resulted, at least in part, from a perceived inability of the prior civilian government to deal with the economic straits in which Niger found itself in the aftermath of the major drought of 1968-73. In addition, the previous government apparently enjoyed a dubious reputation for allegedly widespread official corruption.

About 90 percent of the work force in Niger is engaged in the agricultural sector, as sedentary farmers, or as seminomadic or nomadic herders. There are approximately 500,000 farms in Niger. The size of

the average farm is 6 hectares (about 14.8 acres), and the average population per farm is eight persons. The main staple crops in Niger are millet and sorghum. The principal cash crop is groundnuts (peanuts). Cotton, gum arabic, sesame, and cowpeas (black-eyed peas) are also produced. Exports of these products go primarily to France or other EEC members.

Niger also exports some livestock, primarily to Nigeria and the Ivory Coast.

The primary source of export earnings for Niger is derived from the export of uranium. Uranium was discovered in northern Niger by the French in 1967. A joint company made up of public and private French and other foreign interests, and the GON began producing uranium in 1971. A second mine was opened in April of 1978.

U.S. ECONOMIC AID

Total U.S. economic aid to Niger through fiscal year 1978 has been approximately \$92 million. Annual U.S. economic assistance through fiscal year 1972 was modest. Most of the aid consisted of food aid under title II of the Food-for-Peace Act (Public Law 480) and Peace Corps volunteer programs. With the final and most disastrous year of the drought which extended from 1968 through 1973, U.S. assistance began to increase. Most of the increased levels of U.S. aid during fiscal years 1973-75 is accounted for by the need for increased food aid to help deal with a severe food shortage. Very modest increases in Peace Corps programs occurred as well. AID development assistance averaged only about \$100,000 annually during fiscal years 1960-75.

Beginning in fiscal year 1976, AID development assistance programs increased while some decline in the need for food assistance under Public Law 480 occurred at the same time. During the period 1976 to 1979 the United States provided the following assistance to the GON:

[In millions of dollars]

	Total	Public Law-480	Development assistance	Peace Corps
Fiscal year:				
1976.....	13.6	4.2	7.8	1.6
1977.....	8.4	.4	6.7	1.3
1978.....	14.8	2.8	10.6	1.4
1979 ¹	11.2	0	9.5	1.7

¹ Estimate.

DEVELOPMENT PRIORITIES

The first priority of the GON is to achieve self-sufficiency in food grains and to restore and improve livestock production. It seems to be widely agreed that Niger was generally self-sufficient in cereal grains before the drought of 1968-73. The GON expects to achieve this goal through efforts to develop and introduce better agricultural techniques and inputs, and to halt and reverse the environmental deterioration that apparently resulted from a combination of the drought, increased population pressures and traditional agricultural practices.

The livestock sector, traditionally of great significance in Niger, was one of the hardest hit by the drought. Before the drought, there

were an estimated 5 million head of cattle, 6 million goats and 6 million sheep in Niger. The drought drastically reduced these numbers to about 2 million head each of cattle, goats and sheep. Niger has achieved some measurable success so far in rebuilding depleted livestock herds. It is estimated that the goat population has once again reached 6 million head, and that there are now some 5 million sheep. However, the number of cattle is estimated to have reached only 3 million at this point.

A second main priority is on rural infrastructure to open up the interior areas where much of the population is located and improve their access to development opportunities. Irrigation and rural transportation links are being emphasized. In fact, some GON officials have expressed a desire to have greater U.S. participation in irrigated agriculture, river basin development, and transportation projects.

A third priority is improving the quality and expanding the availability of health care for the rural population. GON health policy emphasizes developing adequate delivery systems for basic curative and preventive medicine, promoting appropriate sanitary and health education, and helping provide potable village water supplies.

The GON generally appears to have a serious commitment to development. One clear indication of this commitment is the fact that the GON places all of its net revenues from its uranium export earnings into the national investment fund (FNI), the total resources of which are earmarked for development activities. The FNI resources are in addition to development sector expenditures in the GON regular national budget. In its integrated rural development programs in various departments (major administrative districts) the GON is pursuing a policy of trying to decentralize the decisionmaking process in the development effort through a system of review of proposals by departmental committees, subject to a final decision at the national level. Grassroots inputs on perceived local development needs would be encouraged and channeled through participation in cooperatives.

The GON is also providing a relatively large share of the financing for local research, experimentation, and adaptation of solar energy technology as a needed alternative energy source. This indicates a recognition of the need to reduce the reliance on diminishing forest resources for firewood, a trend which has led to a serious deforestation problem which exacerbates the related problem of desertification.

In compliance with CILSS policy, and in order to maximize the developmental benefits of participation in the club/CILSS structure, by promoting a unified national approach to development efforts, the GON has established a national committee on CILSS. The membership of this national CILSS committee is drawn from representatives of the Ministry of Planning, the Ministry of Rural Development, the Ministry of Education, the Ministry of Health, and the Ministry of Economy and Industry.

CONSTRAINTS TO DEVELOPMENT

Niger does face a number of formidable constraints to its efforts to address developmental needs. Niger is subject to certain constraints referred to elsewhere in this report which are more or less common to all of the countries in the Sahel region. One such constraint arises from

a lack of adequately trained or educated personnel to manage and implement development activities which might otherwise be undertaken. Another such constraint is the serious lack of infrastructure to support and sustain lasting development.

Of course, the difficult environmental and climate conditions constitute the most obvious constraint.

GON officials expressed the view that an effective Niger River Commission was needed in order to proceed efficiently with the development of the Niger River Basin. However, this multilateral Commission has done little to promote equitable development of the basin's water resources. The Niger River Commission has a large membership, many of whose support and interest has apparently been lackluster and sporadic. Some members have failed to pay their assessed membership contributions to the Commission.

Some observers have expressed the view that the GON needs more well-defined and aggressive policies on reforestation and antidesertification if environmental deterioration is to be arrested and food self-sufficiency reached on a national basis. Others registered the opinion that the educational system is outdated and not appropriate to development needs. They feel educational policy reform or overhaul is needed.

A number of knowledgeable individuals also pointed to the GON's lack of an official population policy as a growing constraint on Niger's ability to achieve sustainable development goals. The current rate of population growth is seen by a number of observers as placing growing burdens on Niger's physical and personnel resources. It is believed by some that this problem may become critical within a generation. There are indications that GON officials are beginning to recognize an increasing need to address the population issue in the development context.

It is also widely held that Niger's official agricultural pricing and marketing policies act as a constraint to development activities which are intended to increase agricultural productivity. The current average price for millet and sorghum on the unofficial, parallel market is roughly 60 percent higher than the producer purchase price fixed by the semimonopoly government grain marketing agency. The policy and operations of that agency appear to emphasize holding cereal grain prices down to fairly low levels for the benefit of consumers, particularly those in the cities.

However, it should be recognized that establishing the most effective pricing and marketing policies is a rather complicated task. There appears to be little, if any, reliable data on how the average small farmer weighs considerations of income and need for cash against the traditional practice of retaining relatively substantial grain stocks on farms for family security and as a socially gratifying indicator of successful accomplishment.

AID STRATEGY AND PROJECTS

In general AID's strategy in Niger is directed toward helping to improve the standard of living of the rural poor majority. AID's efforts in this regard concentrate on helping the GON to increase the productivity of small-farm agriculture and livestock production. AID is also increasing its activity somewhat in the area of rural health

delivery. This strategy appears consistent with the development priorities of the GON and the development strategy for the Sahel region identified by the CIUD/CILSS first generation program.

AID is attempting to implement this cooperative development strategy through a number of projects. A description of AID's major projects follows.

The Niger cereals project is an effort to help Niger develop and disseminate to small farmers a package of improved millet and sorghum seed and agricultural practices to increase small-farm grain production; \$4,165,000 was programmed for fiscal year 1978 and \$1,700,000 was programmed for fiscal year 1979. AID inputs include technical and training support, field facilities construction, vehicles and fertilizer. The major components of the project include adaptive research, establishment of a foundation seed farm and five seed multiplication centers (SMC's), cooperative credit services, and extension services.

The project is approximately a year behind schedule due apparently to delays and difficulties in procurement and the arrival of contract technicians almost a year later than originally anticipated. Three of the SMC's are operating although facilities construction has not yet been completed. Construction on the other two centers will begin this year.

Under the project, improved seed and an appropriate related schedule of agricultural practices are developed and furnished to the SMC's. Those field stations in turn multiply the seed and serve as demonstration and agriculture extension services. The SMC's will serve to supply contract farmers who will receive a modest premium to try the improved seed and techniques, and to further multiply the seed. Initial supplies of improved seed for the SMC's has been provided from the Tarna Research Station. Apparently good progress is being made in producing improved millet seed at the research station where later generation millet seed is being developed which has substantially higher production per hectare than the traditional seed used in Niger.

Administrative problems which disrupted for a time the payment of local construction workers salaries and an uncertain chain of responsibility and authority over the extension component of the project have caused delays. Some complaints were also voiced by Nigerois officials regarding the absence of some U.S. contract technicians from the project sites during certain times when their advice and assistance was apparently deemed necessary. While the project is off to a slower start than anticipated and a number of hurdles remain before it gets into full swing, its prospects are beginning to look more promising. The success of the cooperative and extension efforts appear to be the critical future factors in whether this project may be deemed a success in the long run.

Another major AID supported project is the Niamey Department rural development project for which \$1,675,000 was programmed during fiscal year 1978, and \$1,175,000 was programmed for fiscal year 1979.

This is essentially a village-level integrated rural development project in the Niamey Department, a governmental administrative zone. In short it is an effort to establish a sustainable network of services to encourage and enable rural farmers in the project area to participate in self-help development. Similar integrated productivity projects in other departments in Niger are being supported by other donors.

The main components of the project are increasing small farm agricultural and livestock production, establishing village level cooperative and credit services, farmer education and literacy, village soil conservation, and small scale rural irrigation. AID inputs consist of technical assistance, some equipment and commodities, and some minor facilities construction. The approach of the project tries to emphasize flexibility and adaptability and the aggressive use of demonstration plots which is expected to appeal to the pragmatism of the village farmers.

Implementation of the project is roughly a year behind the original schedule. Sixteen cooperatives, each serving five or six villages, have been established. Credit and agricultural inputs are available through cooperative membership. At present the project is seeking to place one agricultural extension agent per two villages.

A third important AID project is the Niger range and livestock project. Funds programed for this project for fiscal year 1978 and fiscal year 1979 were \$800,000 and \$737,000 respectively.

This project is also about 1 year behind its initial schedule. This situation is apparently due to a delay in signing the project agreement, and what turned out to be insufficient time originally allowed in the planning phase. The purpose of the project is to help the GON develop a plan for range management and a program to maximize livestock production appropriate to the challenging climate conditions in Niger. AID inputs include technical assistance, training, some equipment, and some facilities construction.

This is essentially a study and pilot project to determine physical and societal factors affecting the problem of overgrazing and range deterioration and to study water resource development in the pastoral area. A control herd and an experimental herd receiving salt, minerals, and calf feed during stress periods will be established and monitored. A pilot program of grass reseeding around some water holes will also be undertaken. The ultimate goals are to increase the income of herders and provide them with greater security for their herds.

AID is also funding a rural health improvement project. Funding programed for fiscal year 1978 was \$2 million, with an additional \$1,894,000 programed for fiscal year 1979. The purpose of the project is to assist the GON in strengthening the existing village health team system and to expand its coverage. Village health teams generally consist of a president, a secretary, three first aid assistants and two midwives. AID inputs consist of technical assistance, participant training, some commodities, equipment, and construction or renovation of dispensaries and village health stations. The project will provide training for new village health workers and establish a retraining program for existing health team workers. In addition training will be provided for certified nurses who will be assigned to dispensaries from which each nurse will supervise 10 village health teams. On completion of the project (estimated to be fiscal year 1984) it is expected that about 40 percent of the population will have access to basic health services.

The rural sector human resources development project represents AID's participation in a UNDP/FAO coordinated program to increase and improve the capacity of Niger's Practical Institute for Rural Development (IPDR) to train middle and lower level Niger-

ois development personnel. AID's inputs include technical assistance, participant training, supplies, equipment, and construction. The AID effort focuses on training for middle management, and project planning, especially in the field of ecology, and on curriculum reform. \$2 million was programed for this project for fiscal year 1979.

AID has programed \$886,000 for a forestry and land-use planning project. This new project indicates an enhanced recognition of the serious problem of ecological deterioration and desertification and the apparent need to increase efforts in this area. The main components of the project are a basic resource inventory and planning assistance, development of model reforestation and dune stabilization sites, and training GON personnel for the planning and management of a long-term effort to check and reverse environmental deterioration.

The solar energy development project involves assistance to the GON's small but impressive solar energy program conducted by the Niger Office of Solar Energy (Onersol); \$500,000 was programed by AID for this project in fiscal year 1979. Significant adaptive research on solar energy is being carried out by Onersol, and the GON personnel involved are acknowledged experts and leaders in the field of adapting such technology to the conditions of the developing world. The project goal is to assist the GON's efforts to develop suitable adaptations of solar technology for solar pumps for village water supplies and irrigations, for solar cookers and crop dryers, for telecommunications, and for solar cooling systems suitable for preserving human and animal vaccines at rural health facilities.

Solar water heaters and distillers are currently being produced in Niger. Solar cookers, crop dryers, pumps, cooling devices, and telecommunications uses are being actively field tested. Considering the need to substitute other forms of energy for expensive imported petroleum products and for declining supplies of firewood, this modest project is potentially very significant.

FOOD SITUATION AND FOOD ASSISTANCE

As noted earlier, before the drought of 1968-73, Niger was generally food self-sufficient. Since that time, Niger has required food assistance. From 1973 to 1978, the United States provided approximately \$36.2 million of emergency food assistance (including transportation costs) to Niger under title II of Public Law 480. Most of this emergency food aid has consisted of government-to-government donations of sorghum, with the remainder provided by the United States through UNICEF or the World Food Program (WFP). Most recently, in fiscal year 1978 the United States provided an emergency grant of 10,000 metric tons of sorghum to the GON. This fiscal year 1978 emergency title II agreement provided for 50 percent of the sorghum to be distributed free and 50 percent sold to generate currency. Distribution was handled by the Niger Cereals Office (OPVN), the GON grain procurment and distribution agency.

No official decision had apparently been reached by the GON regarding a request to the United States for emergency food aid for the coming year during the staff delegation's visit. However, according to OPVN officials, preliminary information indicated that at least three of Niger's seven departments will have food deficits.

Total OPVN storage facilities for both the Agency's regular commercial programs and for reserve or security stocks amounts to 105,035 metric tons. Of this total 90,035 metric tons of storage capacity is needed for OPVN's regular program, and 15,000 metric tons of capacity is allocated for storage of reserve stocks. The Federal Republic of Germany (FRG) has been providing assistance for the construction of storage facilities for security or reserve stocks. By the end of April 1979, when this construction project is expected to be completed, total OPVN storage capacity will aggregate 130,035 metric tons. Of this amount 40,000 metric tons would be set aside for storage of reserve stocks.

Assuming that the GON could acquire enough grain through its domestic buying campaign, commercial imports, and/or donor assistance, AID officials consider Nigers projected 130,035 metric tons storage capacity adequate to maintain the estimated "at risk" population, traditionally estimated at 20 percent of total population, during the 4-month "soudure" period of maximum vulnerability each year. This storage capacity is deemed sufficient to maintain the entire population (based on the approximately 5 million people in the last census) for 1½ to 2 months. However, given the time lag which occurs between the declaration of an emergency and considering the historically cyclical nature of droughts in the region, some AID officials expressed the view that Niger will need to obtain additional grain storage facilities.

Niger does not participate in Public Law 480 title I (concessional sales) or title III (food-for-development) programs. A little interest has been expressed in title III programs. Regular (that is, non-emergency) title II humanitarian food assistance programs programmed for private voluntary organization (PVO) projects in Niger for fiscal years 1978 and 1979, \$3.9 million and \$4 million, respectively, failed to get off the ground. AID, the GON, and representatives of the PVO's involved were unable to reach a final agreement on the program.

PEACE CORPS

The Peace Corps has been operating in Niger since 1962. At the time of the staff delegation's visit to Niger, 110 volunteers were serving in Niger: 55 volunteers were serving in education sector projects; 33 were assigned to agriculture and rural development sector projects; and 22 were involved in rural health sector projects.

In line with current Peace Corps policy, the mix of volunteers in Niger is gradually shifting emphasis away from formal educational positions for volunteers involved in teaching English as a foreign language (TEFL program) and more toward project assignments with a higher basic human needs (BHN) content. In Niger, this shift of emphasis will apparently be manifested mainly in an increase in volunteers in the health field.

Health volunteers are involved in rural sanitation and nutrition education for the most part. Volunteers in the field of agriculture and rural development are serving in projects involved with the development of rural village fisheries, basic level applied agronomics—local development of improved vegetable types, for example—range management, reforestation, and dune stabilization.

In a number of cases, Peace Corps volunteers are serving in cooperative development projects with AID, UNICEF, and PVO's such as CARE, Lutheran Relief Services, and Church World Service.

Peace Corps and AID officials in Niger appear to have more or less regular, casual contacts which permit the Peace Corps to review some proposed AID projects for possible Peace Corps volunteer input, assuming such input is consistent with the GON's program, and to otherwise make suggestions. It would seem that similar informal contacts also exist between the Peace Corps and PVO's and some international organizations in an effort to coordinate and identify, where possible, possible cooperative projects.

Language training presents some difficulty. Approximately 80 percent of the volunteers in Niger need to acquire speaking ability in both French, the official language in Niger, and in the appropriate local language of the area in which the volunteer is assigned. Not infrequently, volunteers in the more remote areas experience significant difficulties for the first segment of their tours because of inadequate local language proficiency.

Peace Corps country staff seem generally to find the increasing programming emphasis on basic human needs [BHN] appropriate and not too difficult to implement. In this regard the country staff generally endeavors not to have volunteers placed in the few cities, in government ministries, or in nonapplied research activities.

UPPER VOLTA

The delegation spent 4½ days in Upper Volta traveling overland from Niamey, the capital of Niger, to Fada N'Gourma, one of the principal cities in Upper Volta and the center of a region where AID has substantial activities. We stayed overnight in Fada meeting with officials of the Government of Upper Volta (GOUV) and U.S. direct hire and contract personnel working in the region. The following day was spent traveling to Ouagadougou, the capital. En route we visited Peace Corps volunteers and stopped at a solar energy project which will use solar energy as a power source for common village tasks such as grain milling and pumping water. The remainder of the trip was spent in meetings and site visits around the capital.

During our visit to Upper Volta we met with various GOUV officials, the Executive Secretary of CILSS, which is headquartered in Ouagadougou, representatives from international organizations, and with officials of the U.S. mission.

Upper Volta, an independent country since 1960, is one of the poorest of the least developed countries (LDC's). It has limited exploitable natural sources, but is relatively rich in long-range agricultural potential. It has a population of 6 million in an area of 106,000 square miles (slightly larger than Colorado). Approximately 92 percent of the population live in rural areas; about 20 percent of the labor force migrates annually to neighboring countries for seasonal employment. Life expectancy is 37 years; the annual population growth rate is estimated at 2.2 percent; literacy is 5 to 10 percent; gross national product, \$644 million (1976 estimate) with a per capita income estimated at \$110.

United States assistance to Upper Volta was started in 1961 under the auspices of an AID affairs officer located in the Ivory Coast. The office was later moved to Niger as a part of a regional development office. In 1974 the Country Development Office in Ouagadougou became responsible for AID activities. In May 1978, consonant with the increased scale of development programming, the Country Development Office became a full USAID mission. At the time of our visit the mission had an authorized personnel ceiling of 35 with 15 in country.

The current AID program began in 1973 with emergency food shipments (60,000 metric tons at a cost of over \$12 million) and continued in early 1974 with a series of 16 short-term recovery and rehabilitation (R. & R.) projects totaling 3.2 million intended to relieve the more immediate effects of the drought.¹ Then with the establishment of the Country Development Office AID began to implement larger scale, longer term development projects.

The program of national development established by the Government of Upper Volta (GOUV) is focused on rural development. By

¹ An earlier postindependence bilateral AID program in Upper Volta was terminated in the mid-1960's.

this the GOUV means an integrated approach to meeting the basic human needs of the people. Priority is accorded to the ultimate goal of national food self-sufficiency as part of the broader CILSS goal of food self-sufficiency in the Sahel and the strengthening of intracountry communications; that is, access, through increased feeder road construction and maintenance. Second priority is educational reform to transform the inherited forms of elite-oriented classical education, open primarily to the urban few, into a nationwide program for functional education geared to the real development needs of the rural population. Third is health, to bring some basic form of rudimentary medical aid and preventive medicine to the rural poor for whom medical treatment is a rarity.

As a means of organizing this effort, the Government of Upper Volta has divided the country into 11 organizations for regional development (ORD's). The ORD's are semiautonomous local government organizations under the Ministry of Rural Development and its Interministerial Coordinating Committee for Rural Development. The ORD's are the decentralized means for bringing the tools of modern agricultural development to Voltaic farmers. It is through the extension services of these organizations that most rural development assistance is delivered.

AID's new congressional mandate fits well with these priorities. The keystone of the AID program here is rural development. With the eastern ORD integrated rural development project, a seed multiplication project initiated in 1974, and a village livestock project commenced a year later, AID had started on a full program of rural development assistance. This program is structured on the recommendations of the development assistance program (DAP), written in late 1974, and the 1978 country development strategy statement, emphasizing rural development, rural education, health, and assistance for resettlement of the relatively fertile Onchocerciasis-freed river valleys. The fiscal years 1977 and 1978 programs have seen development of a rural roads project, a project for strengthening women's roles in development and an effective secondary level agricultural training program, and the development of a training project for women in the Sahel. In fiscal years 1979 and 1980, AID programming in Upper Volta will follow the broad strategies laid down by the Club du Sahel including a large-scale rural water supply program, increased assistance to the Volta Valley Authority in resettling the "oncho-freed" areas and the beginning of an integrated rural development project in the Yatenga ORD.

During the period 1975 to 1979 the United States provided the following assistance to the GOUV:

[In millions of dollars]

Year:	Total	Public Law-480	Development assistance	Peace Corps
1975.....	9.6	3.6	5.3	0.7
1976.....	6.2	3.6	1.6	1.0
1977.....	12.5	8.1	3.4	1.0
1978.....	20.4	8.3	11.4	.7
1979 ¹	14.2	4.5	8.4	1.2

¹Estimate.

PROJECT IMPLEMENTATION

Project implementation has been slow in Upper Volta and nearly all projects are between 1 and 2 years behind schedule. Because of travel schedules and remoteness of project activities we were unable to visit most project sites within the country. The delegation did spend many hours discussing the program with mission staff and based on those discussions we feel there would not have been much that could have been seen by site visits. There were some exceptions to this such as efforts at controlling river blindness. Meetings with representatives working on Onchocerciosis eradication, a multidonor effort supported by AID and other donors through grants to the World Health Organization, indicate good progress is being made in this endeavor.

An evaluation of project implementation must consider that AID/Upper Volta has been focusing on development efforts for a relatively short period; however, we believe that certain constraints to more rapid project implementation continue to exist and probably will hinder progress for the foreseeable future. We think that AID and GOUV planning must consider these constraints in considering program size and type of projects.

PROJECT DESIGN

Slowness in project design was cited in almost every instance as one of the principal causes for delay in AID's project implementation. Delays in design were frequently cited in each country we visited. Principal bottlenecks appear to be delays in design teams arriving in the field; teams with little knowledge of problems of the country; lack of trained host country personnel able to work with design teams; delays in project documents working their way through the system in AID/Washington.

AID has, we understand, taken steps to reduce the time now required before implementation begins. This has taken the form of reducing the time for documents to be processed in Washington. We think AID should explore every avenue for reducing the time currently required in project design. Possibly the time has come for AID to reduce its efforts in designing new projects for the Sahel and devote its efforts toward implementing those it has started.

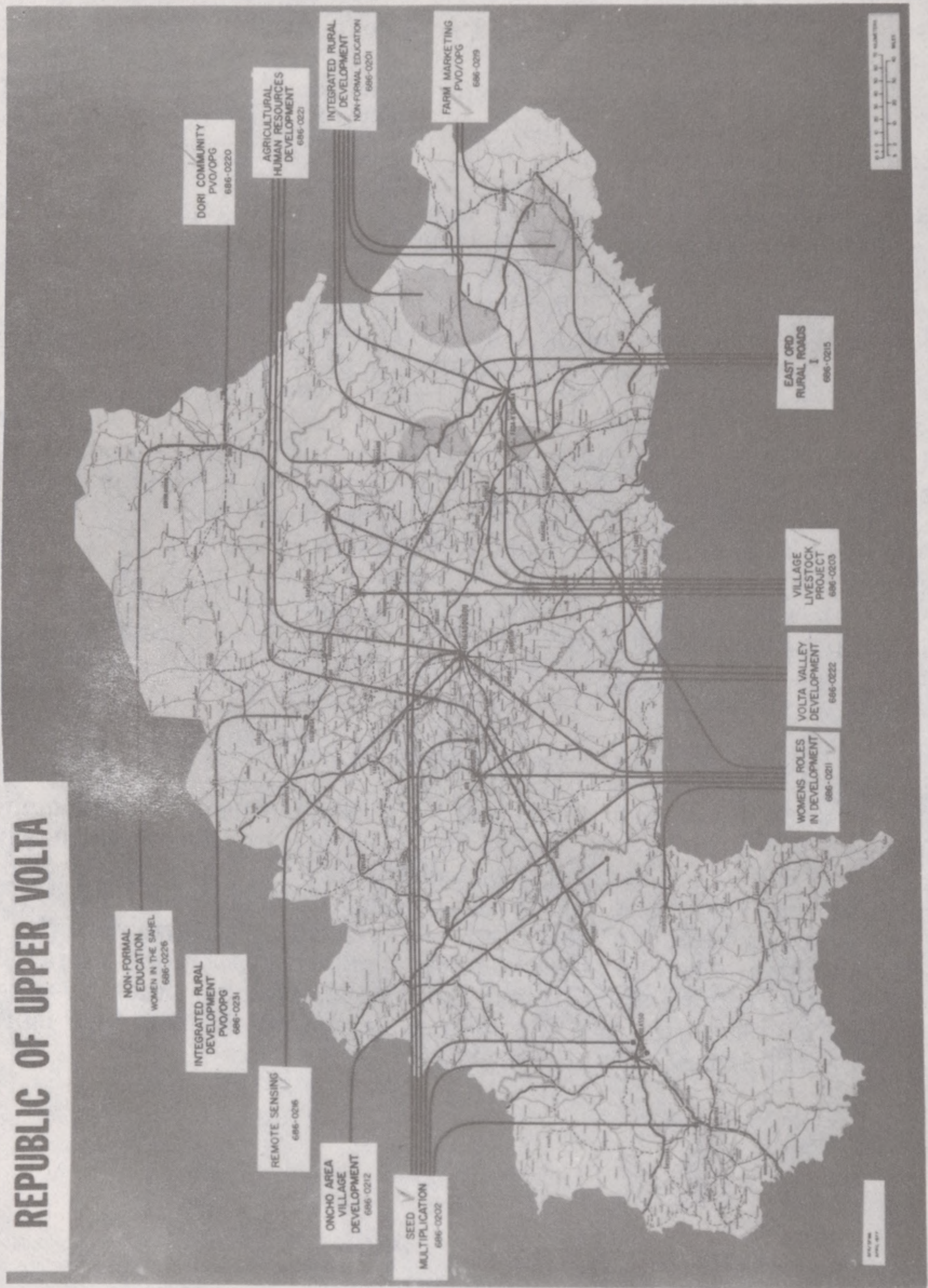
U.S. DIRECT HIRE AND CONTRACT PERSONNEL

The lack of adequately trained host country personnel was often cited by AID and other donors as one of the principal constraints to development in Upper Volta. We also noted that AID is experiencing difficulty in finding qualified direct hire U.S. technicians and contractors to staff AID projects. This difficulty is not peculiar to AID. Many donors told us they are experiencing problems in finding qualified personnel for their projects. Lack of French language training was often cited as a reason for the shortfall in the mission's reaching its assigned staffing level. Given the difficult living conditions we believe AID will have difficulty in reaching its projected staffing levels. We think the Congress should consider this before approving substantial increases in the program. In light of the difficulty one experiences in traveling throughout Upper Volta and the harsh living conditions, it is difficult to see how AID can maintain a sufficient number of well-trained, highly motivated staff to adequately monitor an extensive program. It was suggested that what Upper Volta may need is not many small projects but a few larger, more concentrated ones. We think this idea has merit and deserves study by AID. The map on page 32 gives an indication of the dispersal of AID projects throughout Upper Volta. In viewing the map, the reader should remember that transportation is difficult at best and requires great expenditures of time. One can readily see the need for a full complement of staff in order to efficiently manage a program scattered over the entire country.

INFRASTRUCTURE

The study mission concluded that the problem of lack of an adequate transportation infrastructure is one of the most inhibiting factors in Upper Volta. AID has initiated several projects impacting on this problem and expects to put forth additional ideas in the future. We feel the Congress must view these requests within the framework of the special problems of the Sahelian countries. In Upper Volta, 92 percent of the population lives in rural areas. Without access to these areas it is difficult to see how any development efforts can touch more than a small percentage of the target group.

REPUBLIC OF UPPER VOLTA



Location of AID Projects in the Republic of Upper Volta

We do caution AID, however, in presenting such proposals to the Congress that:

(1) AID demonstrate a clear need for such infrastructure projects and demonstrate how they will help to bring to those most in need in the rural areas those benefits the Congress has directed should be the focus of U.S. efforts.

(2) Every effort be made to enlist other donors in these infrastructure projects. We believe that if a project has merit AID should be able to enlist the assistance of other donors. It is our opinion that AID can and should exercise the leadership necessary to address in a multidonor framework this most serious of problems.

(3) AID must address the problem of recurring costs insofar as continuing maintenance is concerned. We are not convinced that this problem has been adequately addressed and given the rapid physical deterioration of infrastructure that takes place in that region it is imperative that AID not involve itself in a project where the GOUV will find itself unable to provide the follow-on support necessary to draw continuing benefits from past projects.

AID STRATEGY AND PROJECTS

The dominant impression left with the delegation is that AID has made limited progress toward implementing its program in Upper Volta. It is obvious to us, that when speaking of development in Upper Volta it must be recognized that a long-term effort will be required just to provide what are the basic human needs of the population. We think AID's strategy is consonant with the new directions mandate and the program is at a point where noticeable progress can be produced over the next several years.

The objective of AID's strategy is to assist the GOUV in its efforts to meet the basic human needs of its people. This strategy attacks the major constraints to achieving the basic human needs goal. At the time of our visit AID strategy, as set forth in agency documents, attacked major constraints in several ways:

HUMAN RESOURCES

Upper Volta lacks sufficient trained and skilled personnel to bring programs to the people. In Upper Volta, as in other Sahelian countries visited by the staff delegation, lack of such personnel has been and will continue to be a principal obstacle to rapid improvement in the living

conditions under which the majority of the inhabitants in the Sahel find themselves. The lack of trained personnel and a lack of personnel available for training was cited not only by U.S. officials but representatives of other donors active in the Sahel. The delegation noted that host governments are insisting that their citizens be actively involved in the development processes. While this participation is desirable it will necessarily slow the development process until a sufficient number of trained personnel become available to bring programs to the people. To assist the GOUV in developing a cadre of trained personnel AID is funding the following projects:

- An agricultural human resources development project (total projected funding is \$9.5 million) which seeks to improve Upper Volta's agricultural training and research facilities. This training will enhance the GOUV's capability to train professional agriculturalists to staff the GOUV agricultural services, including the extension systems of the ORD's, and to provide a reservoir of trained personnel for nascent agricultural enterprises.
- Training of women in the Sahel (total projected funding is \$1.7 million). This project's purpose is twofold: (1) to train Sahel-based female extension agents in techniques of organizing and motivating village women, in groups and individually, to engage in village activities; and (2) to enable villagers, through non-formal training, to invest in, manage and carry out labor saving activities, income-generating microprojects, health and hygiene programs, and literacy instruction.
- The African manpower development project is an Africa-wide project designed to train Africans in the United States and Africa in skills related to economic and social development priorities. Projected cost Africawide is \$20 million. U.S. training is at the graduate level only. At the undergraduate university level training is conducted at educational institutions in Africa. The project also funds specialized nonacademic programs in Africa or in the United States as may be appropriate.

In Upper Volta in fiscal year 1977, the first full year of this project, the project made available six scholarships for graduate study in the United States and four special agricultural economic graduate training scholarships. The fields covered by the scholarships include agriculture, agricultural economics, business management, development economics and rural sociology. At the undergraduate level the GOUV has requested 100 scholarships for study in African universities, but currently only a small portion (11) of these have been included in this year's program.

Short-term training financed under this project is also planned in Upper Volta on rural development and project development and management themes. The mission has sponsored project-funded seminars in small farmer agricultural credit and project management/evaluation. Special short-term U.S. training is anticipated in agribusiness, women's roles in development, and pre-project training for the University of Ouagadougou rural development engineering faculty in preparation for the agricultural human resources development project.

In addition to the above, several projects geared toward improving the decentralized development delivery systems contain training ele-

ments necessary to establish the human resource base to make those systems work. In fiscal year 1979 AID planned additional efforts to address personnel needs in forest management, deforestation, and desertification.

EXPANDING COMMUNICATIONS

A second constraint inhibiting development is the degree of isolation in which much of the country finds itself (92 percent of the population lives in rural areas cut off from the capital and other principal parts of the country for much of the year). This limits the GOUV's ability to extend health, education and social services beyond those groups living in close proximity to the major population centers.

To obtain a better understanding of conditions, the staff delegation, after completing its visit to Niger, traveled overland from Niamey, the capital of Niger to Ouagadougou, capital of Upper Volta, a distance of approximately 160 miles. The road over which we traveled is a "national route" in the context of Upper Volta. It is a principal route for goods shipped from the Port of Lome, Togo to Niger. It is for the most part unpaved and subject to heavy degradation in the rainy season. If the condition of the road over which we traveled is indicative of the road system in Upper Volta, it was clear that extending social services to the rural areas will be an extremely difficult task. It is the feeling of the delegation that the problem of access to the rural areas is one that must be addressed and it should be added was raised constantly during our visit. AID projects directed toward this problem include:

- A rural roads project in the eastern ORD which is financing the purchase of heavy road building equipment and funding the construction of three farm-to-market roads totaling 159 kilometers in the eastern ORD. Total projected funding is \$2.3 million. The roads will be constructed by the GOUV Department of Public Works over a 3-year period beginning in November 1978. When completed, the roads will provide year-round market access in three of the eastern ORD integrated rural development project's intensive zones which are frequently isolated during the height of the rainy season. The new roads should contribute to increased farmer income by providing market access and should also increase farmer access to health, education and social services not currently received because of isolation.
- Rural roads rehabilitation and maintenance with total projected funding of \$10 million. This project will be a follow-on to the previous project but will take a more comprehensive approach by undertaking road maintenance as well as construction. This project will also extend activities into another ORD (designated Sahel ORD) where AID is proposing increased rural development programs. By improving access to intended beneficiaries AID hopes for enhancement of the potential for success from its programs.

THE FOOD PRODUCTION BASE

The absence of an adequate production base on which to build toward feeding its people is another major constraint faced by the

GOUV. To increase food production, a principal goal of GOUV and AID efforts, certain infrastructure elements must exist: a marketing system offering price incentives sufficient to stimulate production; and the technological means; that is, improved seeds, equipment, et cetera, of increasing production coupled with the organizational structure capable of providing these elements within the rural areas. AID's efforts relevant toward meeting these needs include:

—*An integrated rural development project in the eastern ORD.*—

The project, with a projected U.S. contribution of \$4.2 million, in cooperation with the United Nations Food and Agricultural Organization and the United Nations Development Program provides technical and financial assistance to the eastern ORD to increase agricultural and livestock production, to improve the quality of life for the rural population, and to improve the ORD's capacity to function as a development institution. A recent evaluation of the project affirmed the value of certain major activities but concluded that the schedule was overly ambitious for the 5-year time frame. The project's basic approach is to create two intensive development zones in high potential areas where various development stimulants can be adapted; for example, animal traction, agricultural credit, lowland development for rice production, vegetable gardening, and poultry raising. A nonformal education element has been added to develop a learning resources center and to construct 30 community learning centers throughout the ORD. U.S. assistance will aid Voltaic personnel at the learning resources center to design and produce audiovisual materials to support such ORD extension efforts as animal traction, cash crop production, lowland development, gardening, and functional literacy.

—*A village livestock project aimed at farmers/livestock producers at the village level in three ORD's.*—The projected U.S. contribution is \$1.8 million. It is designed as a pilot project which will test various hypotheses at the village level in areas of range management, on-farm animal fattening and finishing, animal health, animal nutrition, and village level association of livestock producers.

At present the project has implemented a vaccination program throughout the six project sites by the provision of vaccines and medicines against the major diseases found in Upper Volta. It has recently completed its first vaccination park with two others scheduled for completion during the next 4 months. In addition to the above, a sociological study within all project sites has been initiated. Other activities include the classification of major grasses and studies on pastures.

Training programs have been undertaken for project personnel as well as for the two project participants who are training in the United States and are here for 3 months' on-the-job training.

—*A seed multiplication project.*—The purpose of which is to create an organizational framework for promoting a system of seed production and control so that high-quality seeds of improved varieties can be introduced to farmers as they become available from research organizations. The United States will provide some \$1.6 million for the project. Under the project, the GOUV created a national seed service which is now functioning. Under the auspices

of this service the government has organized three annual seed production campaigns (1976, 1977, and 1978) with seed being produced by four agricultural research stations and three ORD's.

The project has provided agricultural equipment, vehicles, fertilizer and operating funds to each of the production sites. A combined headquarters building, seed laboratory and warehouse have been constructed and equipped for the National Seed Service. Project funded warehousing for seed storage is under construction. Seed processing equipment is on order. Training programs have been conducted for 24 Voltaics either in Upper Volta or at the International Institute of Tropical Agriculture in Ibaden, Nigeria. The Director of the National Seed Service has attended a 3-month course in seed technology in the United States.

Intensive experimentation and seed trials being conducted by the AID-financed SAFGRAD project (see later description) will hopefully provide improved varieties of sorghum and millet for multiplication. In the interim the program is placing emphasis on rice, peanut, corn, and cowpea seed multiplication.

—*Semiarid food grain research and development (Safgrad).*—The purpose of the Safgrad program is the development of improved cereal varieties (sorghum, millet, maize) and grain legumes (cowpeas, groundnuts) and cultural practices which are compatible with small farm semiarid farming systems and to promote their adaption in participating countries. The project will support senior crop and soil scientists and farming system researchers to develop and test new varieties and technologies under small farm conditions. It will also increase liaison among researchers throughout the region through scientific conferences, planning sessions, and technical publications, and will provide technical assistance and support for field trials at the national level.

This is a regional project with approximately 24 participating African countries sharing research results and conducting field trials. U.S. funding will provide \$13.9 million of a total cost of \$21.3 million. The Scientific and Technical Research Commission of the Organization of African Unity (OAU/STRC) is the principal organizer of this regional approach and provides coordinating services for the project. AID financial inputs relate principally to financing of scientists, field trials officers, and training for African scientists and assistants.

Other donors planning to participate in the program include:

United Nations Development Program.

Mission de Cooperation Francaise.

International Development Research Center.

Ministry of Overseas Development (Great Britain).

European Development Fund.

Ford Foundation.

The Netherlands.

—*The Oncho-freed area village development fund* is directed toward improving the social and economic well-being of people being settled in areas recently freed of onchocerciasis (river blindness). The project, with U.S. funding of \$2.2 million, supports the long-term GOUV strategy of resettling the valleys of the Volta rivers and their tributaries. The entire resettlement effort will have the ancillary effect of decreasing land pressure in

overpopulated areas of Upper Volta and thereby increasing agricultural productivity and human welfare in other parts of the country. The project will be carried out by the Volta Valley Authority (AVV), an agency which operates under the Ministry of Rural Development.

The project will create a \$1 million village development fund which will provide loans in 133 villages to establish small-scale income-generating enterprises.

In addition to the above ongoing projects, AID is currently considering the following: Additional efforts toward assisting the GOUV in adopting and supporting grain pricing policies which will provide increased farmer incentive to produce food as a cash crop. These efforts will be channeled through the GOUV National Cereals Office. This will be AID's second effort at working through the cereals office. The first, a multidonor effort including AID, failed to help the office in its role; a multidonor integrated rural development effort in another of the country's ORD's. This project was requested by the GOUV as its highest priority for new AID assistance in 1980.

NONFOOD ASPECTS OF BASIC HUMAN NEEDS

This is the fourth area where AID's current strategy seeks to lay an infrastructure base. Projects in this area are intended to help meet basic human needs in health, sanitation, nutrition and education. AID efforts include:

—*Strengthening women's roles in development.*—The purpose of the project is to: (1) Improve rural women's capacity to organize, manage, and invest in development; and (2) institutionalize a credit system to facilitate these activities. The project will enhance the activities of the already existing Domestic Economy Unit within the Coordinating Committee for Rural Development and its female extension staff. Funding is projected at \$1.1 million. The project contains three main components: (1) establishment of a revolving credit fund for village women within four project-specific ORD's and within the Domestic Economy Unit for ORD's and other female organizations; (2) improvement of the knowledge and skill base of the Domestic Economy Unit personnel through training and the provision of training aids and reference materials; and (3) the implementation of an information system. The revolving credit fund will finance small-scale, village-level appropriate technologies to reduce the amount of unproductive labor women are generally called upon to perform in rural Upper Volta and to enhance their opportunities to initiate more productive local enterprises.

In fiscal year 1979 AID planned to initiate a multidonor program to provide potable water to rural areas. Total cost of the project is projected at about \$38 million with the U.S. providing \$12.3 million. Efforts will focus on the construction of new wells and rehabilitation of existing ones.

In addition, AID/Upper Volta has ongoing several research and development efforts and participates in Sahelwide regional efforts:

—*Research and development.*—There are various AID-funded research activities being undertaken in Upper Volta. These in-

clude solar energy research and planning for urban market centers in rural areas. The solar energy project is to test the use of such appropriate technologies as water pumps and grain mills through the use of photovoltaic cells using the sun's rays to generate electricity. The second project is to assist the GOUV to plan the ordered expansion of small urban centers in rural areas to aid the rural poor in securing the market and other urban-related facilities they need. The mission is developing the relationship with various U.S. universities to aid in research as well as project implementation activities.

- A regional water resources project which provides support to the Inter-African Committee for Hydraulic Studies (CIEH), a regional organization based in Ouagadougou and composed of 12 members and 4 observer states. This organization is tasked with analyzing and planning the development of water resources in the Sahelian and adjacent countries of West Africa. The AID grant provides a five-member technical assistance team to assist CIEH staff to establish a technical documentation center, train additional staff, analyze existing documents and establish a technical planning office. At the completion of the project, the technical planning office will have the analytical and programing capabilities to prepare and coordinate water development programs and projects. By the end of 1978, when this 5-year project ends, CIEH is to have developed an action program which will enable the member states to develop rationally the water resources in the West African Savanna region for human and animal consumption and for agricultural development, taking into consideration the ecological effects of such development.
- The regional remote sensing project is intended to improve the information base used by African countries for planning and administering regional and national development programs and policies. It is a 5-year, multidonor project designed to institutionalize the use of modern remote sensing satellite data by governments and organizations in preparing resource inventories and making environmental assessments.

MALI

The delegation spent 8 days in Mali. The first 2 days were spent in meetings and visiting AID project sites in and around Bamako, the capital. Two members of the delegation spent the next 4 days visiting AID project sites outside Bamako. The third member of the delegation remained in the capital to continue meetings with officials from the U.S. mission, the Sahel Institute, and from international organizations. In their site visits the two members of the delegation joined a group which included Dr. Johnnie Prothro, a member of the Board for International Food and Agriculture Development, and Mr. William Johnson, Chief of the Agriculture and Rural Development Division, in AID's Bureau for Africa/Office of Development Resources.

Mali has a population of 6.3 million in an area of 465,000 square miles—about the size of California and Texas combined.

Mali is poor. According to the 1978 World Development Report of the World Bank, Mali is ranked as the fifth poorest country in the world, with a per capita income of approximately \$100. U.S. development officials also emphasize that the most salient feature of the Mali economy is the pervasiveness of poverty in the country. In describing the profile of poverty and the poor majority in Mali, AID reports indicate that the poor majority in Mali consists of 90 to 95 percent of the country's population. The typical person in Mali lives in 1 of the 11,000 villages and has a life expectancy of around 38 years. The person normally would suffer from at least two of the following diseases: malaria, achistosomiasis, onchocerciasis—river blindness—glaucoma, meningitis, tuberculosis, venereal disease, or tipanosomiasis. A village in Mali would probably not have a school nor a health clinic with access to both being many miles away and perhaps several days' walk. The literacy rate is 5 percent; infant mortality is 50 percent; people per doctor number 40,000: and only 10 percent of the rural population is served by a modern health care system.

Mali's physical resources are also extremely limited. The primary resources are land and water. Having no known mineral deposits of significance and at present a low level of agricultural production that renders Mali unable to generate sufficient foreign exchange reserves to finance its own development projects. In addition, the lingering effects of the 1968-73 drought further reduces Mali's ability to provide for the country's food needs. However, officials of the Government of the Republic of Mali (GRM) believe that with the development of its water resources Mali could begin to produce crops sufficient for her own food needs and perhaps for export.

The thrust of the Malian economy is toward national self-sufficiency in food production; and toward increasing the production of major export commodities (cotton, peanuts, livestock). This emphasis is most important in order to reduce Mali's reliance on foreign food aid required to offset the deficit in domestic food production as

well as reduce Mali's reliance on foreign assistance to finance its development plans. At present there is no capital budget for development projects apart from donor contributions. A further indication of Mali's lack of money is the fact that Mali requires external assistance from France to meet the deficit in its recurrent budget (1978 \$129 million).

From the perspective of stimulating growth in the Malian economy the emphasis on food self-sufficiency and increasing production of agricultural exports appears to be appropriate. Moreover, from the standpoint of meeting the basic needs of the poor in the country, it is clear, that the success of these strategies is dependent upon increasing the production and productivity of the rural population, which has an average per capita income of about half the national average.

Mali has settled on a development strategy that emphasizes integrated rural development projects covering fixed geographic zones. For GRM administrative purposes, the larger geographic zones are designated "operations" and smaller zones are designated "actions." The original purpose of the system was to stimulate agricultural production of a given crop in a given area. The "operations" and "actions" have become integrated rural development projects. It is through this administrative structure that the government provides training for farmers, opens up new lands for cultivation, provides health services, and functional education services. But the GRM continues to place primary emphasis on improved inputs, farmer training, and extension efforts to raise production and productivity on the part of small farmers.

In pursuing this strategy, Malian officials are concentrating on comprehensive development of various ecological areas of the country, according to their suitability for specific crops. In this regard, Malians are asking donors to first assist the country in increasing food and cereal production and in increasing livestock production. Further they emphasize that donors should consider the whole project area, and projects should be geared to reaching the largest number of farmers in an area, rather than solely concentrating on special farmers or high productivity districts within the country.

AID STRATEGY AND PROJECTS

The U.S. assistance program in Mali was born from the 1973-75 drought relief assistance. The program stresses smallholder food crop production along with an increasing range of economic and social services for rural people. AID has developed a strategy consistent with that of the GRM and, intended to meet the following needs:

- Increased livestock and cereals production. Current production is hampered by current pricing and marketing policies, organizational deficiencies and an ineffective extension system;
- A higher quality of life for its rural people, many of whom lack the means to remain free of disease or to move out of the poverty cycle;
- Funds for development projects. With a total budget of only \$20 per citizen annually, Mali's Government can make only a meager financial contribution to its own development.

The United States provided the following levels of assistance during the period 1976-79:

[In millions of dollars]

	Total	Public Law 480	Development assistance	Peace Corps
Fiscal year:				
1976.....	4.6	0.2	3.8	0.6
1977.....	10.6	0	10.0	.6
1978.....	16.1	5.3	10.1	.7
1979 ¹	17.1	0	16.1	1.0

¹ Estimate.

At the time of our visit AID's principal activities were in the following sectors:

AGRICULTURE

(1) Operation Mils is the first Malian development operation based solely upon increasing food crop rather than cash crop production. The project seeks to increase production in an area of 260,000 hectares from 200 to 500 kg/ha to approximately 1,200 kg/ha through provision of farm equipment and other agronomic inputs. Research on improved millet and sorghum varieties, road construction, well digging, community development, and functional literacy are all components of the integrated Operation Mils program. Estimated total cost is \$6 million for the first 3 years with \$4 million expended through September 30, 1978. AID believes that experience with Operation Mils has enabled AID to gain considerable insight as to the serious constraints which affect Mali's continued growth in the agricultural sector. AID is moving toward activities intended to address the marketing and price aspects of the operation which are among the most serious constraints to increased production and self-sustaining financial viability. Through Operation Mils, USAID hopes to demonstrate to the GRM alternative methods for effective pricing and marketing strategies.

Operation Mils is one of AID's principal activities in Mali. The initial obligation of funds took place in fiscal year 1976. The project is scheduled for completion in 1982.

Two members of the delegation spent 2 days in the Operation Mils area beginning with a briefing on the concept and operation of the organization and a brief review of accomplishments. We then spent the remainder of our time traveling through the area noting the following activities: A road rehabilitation component of the project which appeared to be progressing well with projections that approximately 185 miles of roads will have been improved by the end of the project; increased use of animal traction; statistics were cited as evidence of increased crop yields and a general air of optimism seemed to prevail among those officials and villagers we met with during our visit. We did encounter what we believed to be a lack of reliable data on which to determine just how successful the project has been in meeting its principal goal of increasing crop yields. Reports on success are primarily based on opinions of GRM extension agents in the field. Production statistics appear to be based on GRM purchases of production. However, because of the opportunity for farmers to receive a higher price; that is, 80 to 120 Malian francs per kilo vis-a-vis the government of price of 50 francs per kilo, a private market has developed outside government channels. Further, there seemed

to be a lack of reliable data on how much production is sold across the border particularly in Upper Volta. The mission has begun a base line study to obtain data for future evaluation of the project. We were told that AID has as yet not made an overall evaluation of the project.

(2) "Action" Riz-Sorgho is a project to increase rice and sorghum production in a chronically grain deficit area in northern Mali. Project emphasis after achieving production increases will be continued financial viability of the action.

(3) "Action" Ble like Action Riz-Sorgho is located in the northern part of Mali. Action Ble will build on several years of French-financed experimentation to increase wheat production in another chronic deficit area. Irrigation through the provision of small pumps and cooperative efforts by farmers is the basis for the project. Both projects, Action Ble and Action Riz-Sorgho, will, hopefully, contribute significantly to reducing the regional food deficit which prevails in the area and will provide employment possibilities for those in the area. The GRM has little baseline data related to the potential development of the region. AID pilot activities will identify development needs and possibilities over a 2-year period. After completion of the pilot studies, AID may participate in project activities identified by its study or those resulting from studies conducted in the region by other donors.

The delegation visited the Action Riz-Sorgho project, located near the city of Goa. Total project cost is \$3.5 million of which \$0.9 million has been expended through September 30, 1978. The project is 2 years behind schedule due to difficulties in procuring earthmoving equipment for the construction of dikes. Water control appears to be an important element of the project and funds are to be provided for the construction of some 60 kilometers of dikes resulting in an additional 17,000 hectares under cultivation. During our visit we were shown the proposed location of the dikes but there was little else to view.¹ Possibly a return visit in 2 to 3 years after completion of the dike system will permit a better appreciation of benefits to be provided by AID's efforts.

AID strategy statements for Mali and discussions with officials in Washington and in Mali emphasized the following ongoing or planned activities:

- An agricultural officers training project which addresses the lack of midlevel agricultural manpower. Rehabilitation and curriculum improvement at the Centres d'Apprentissage Agricole (CAA) schools should increase the GRM capacity to train agricultural agents.
- A land use inventory project which will be implemented in cooperation with the French Government will assist the GRM in performing an inventory of land and water resources and assist Mali in developing a capacity to plan effective utilization of its resources. An initial obligation of \$2.2 million was made in fiscal year 1978. No expenditure of funds had been made as of September 30, 1978. Total project cost will be \$3.3 million.
- An integrated agricultural education and research project (IAER). This project seeks to effectively link GRM agricultural

¹ During fiscal year 1979 AID completed construction of 15 kilometers of dikes making 3,500 hectares available for farming.

and livestock research, extension services, agricultural education, and training. It consists of a 20-year phased integration, upgrading and expansion of agricultural and livestock research, and university education. The program will utilize U.S. title XII resources along with extensive coordination with other donors.

—Operation Haute Vallee is an integrated rural development project similar to the Operation Mil discussed above. The project has a life of project cost of \$18.4 million and is scheduled for completion in 1983. An initial obligation of funds was made in fiscal year 1978 but no funds have been expended. The project will seek to expand food production in an area situated near the capitol, which has the largest concentration of urban dwellers. Health and literacy programs will be devised to directly improve villager well-being.

AID has proceeded with the design and initial implementation of "Haute Vallee" even though there has been no evaluation of the Operation Mil project which is similar in objective and project components. Haute Vallee will involve a substantial outlay of U.S. funds over the next 5 years and we question AID's moving to implement such a large and costly activity without the benefit of an evaluation of AID's experiences in the Mil project.

LIVESTOCK

AID's livestock strategy seeks to increase the welfare of small herders and farmers by improving the livestock industry through a production and marketing sector program. Before the 1968-73 drought Mali had 5.4 million cattle; at the end of the drought herds were down to 3.6 million. They have built up to 4.2 million. All ongoing projects will be programed and managed as one broad sector program with a life of project cost of \$46 million with an estimated completion date of fiscal year 1984. Activities will include controlled grazing, small farmer cattle feeding and credit, feedlot construction and management, veterinary research, vaccine production, tsetse fly research and control, and opening new lands to livestock production. Initial obligation of funds under the sector program is planned for fiscal year 1979.

At the time of our visit AID was engaged in the following activities in the livestock sector:

Central veterinary laboratory.—This laboratory was designed and constructed with multidonor financing including an AID loan. At the time of our visit AID was providing assistance in producing vaccines and diagnosing and conducting research on animal diseases. Technical assistance was being furnished by the U.S. Department of Agriculture and two private contractors. The delegation visited the lab and was impressed with the physical plant. The director of the lab did express a need for additional assistance for facilities, equipment, an operating funds. The Director believes the lab will need support until it develops its diagnostic capability; as he put it probably 10 years.

Production and distribution of quality vaccines appear to be going well. Delivery infrastructure for introducing vaccines throughout Mali appears to be effective.

The Texas A. & M. University contract.—This contract was initiated in fiscal year 1976 apparently in an attempt by AID/Washington to obligate funds before the close of the fiscal year. The contract was designed and planned in Washington without mission involvement and the contract team apparently had some difficulty determining its role at the lab. At the time of our visit, emphasis was on tsetse fly research. This contract appears to reflect AID's difficulties in designing its projects; that is, lack of mission input in the design process and lack of sufficient attention given to the needs of the recipient country. The original contract appeared to owe its existence more to AID's need to obligate funds rather than a realistic appraisal of the needs of the Malian Government.

Our discussion with contract team members pointed up another potential problem caused by delays in renewing AID contracts. The team members stated that they had been given little indication of AID's intentions regarding a renewal. Consequently, the members would be forced to begin looking for positions elsewhere. Delays in renewals could result in AID losing experienced personnel. We do not know if this is a serious problem with other contractors. It was, however, of serious concern to the members of this team.

Livestock development.—This project, began in 1974, has as its purposes improved cattle production and marketing by:

- (1) Expanding livestock production by sedentary farmers;
- (2) Construction and operation of two animal feedlots;
- (3) Construction and development of a range management and grazing facility.

The project is scheduled for completion in 1981 with an estimated cost of \$4.5 million.

An audit in 1977 by AID's Auditor General² noted that project progress has been slow. The mission advised us that plans for construction of one of the feedlots (a 2,500 animal capacity feedlot at Segou) and the range management and grazing facility had been dropped apparently due to insufficient funds necessary to complete all activities planned under the original project.

The staff delegation visited a 1,000 animal feedlot at Tienfala which began operation in December 1977. The GRM hopes the lot, located near Bamako, will help insure a steady supply of meat to the capital. AID also hopes the lot will serve as a demonstration for investors to invest in feed lots in Mali.

AID is projecting that with the lot, herders in pastoral zones distant from Bamako can be induced to drive their cattle to the lot for feeding and preparation for market. The project has a credit program to enable butchers to purchase cattle for resale on the Bamako market. At the time of our visit the first herd of cattle from the distant pastoral zones was expected at the feedlot.

We are unable to evaluate the ultimate success of the project. AID's livestock projects have suffered from understaffing, optimistic projections of what can be accomplished and what appears to the delegation as the natural reluctance of Malian herders to dispose of their herds. The impression left with the delegation is that throughout the Sahel a large herd is a sign of wealth and herders will only part with

² Area Auditor General/Africa Audit Report No. 3-688-77-33 dated Aug. 30, 1977.

so much of their herd as is necessary to meet their needs. It seems to us that in the Sahel the livestock is more valued than cash thus there is a reluctance to part with it. As with many AID projects in the Sahel we feel that it is impossible to determine if the project will be a success; that is, assure a regular supply of meat to the Bamako market. We do feel that AID should exercise caution in designing and proceeding with other livestock projects until sufficient time has elapsed to enable AID to evaluate the results of current projects.

Range management.—AID's third project in the livestock sector has as its stated purpose an increase in livestock production and marketing through better use of current range areas and expansion into new range lands. This project appears to incorporate some of the objectives AID was unable to pursue under the livestock development project discussed above. This project began in 1977 and was scheduled for completion in 1979. Included in the project is funding for a training and communication center for livestock agents in range management, animal husbandry, and extension work. The delegation visited the training center located near Bamako. The first group of trainees recently completed training at the center.

We were briefed by the Director of the center and by recent graduates. The physical facilities appeared to be adequate although we were told that additional facilities are needed. The center is receiving approximately 100 applications for each class but can accept only 20 applicants. However, the center has not determined what the needs for its programs will be. Thus it was unable to say how many students will be trained under the program. The delegation was impressed by the quality and enthusiasm of the briefing provided by the recent graduates. The briefing presented data on the aspects of the program which the trainees will be engaging in in the field.

HEALTH

The major problems adversely affecting the health of the Malian population are communicable diseases and nutrition deficiencies. AID estimates 90 percent of the population is outside the health service structure. AID has currently underway one project in the health field seeking to design a demonstration rural health system which the Government of Mali can adopt as the basis for a national rural health service. This project was first presented to the Congress in fiscal year 1976; agreements were signed in fiscal year 1977. Estimated completion date is 1982 with a total cost of \$3.9 million. The original estimate for total cost was \$2.5 million. The project is about one year behind schedule primarily because of delays in getting a project manager on board.

TRANSPORTATION

In the transportation sector AID has provided highway maintenance equipment and spare parts and training in the United States in administration and equipment maintenance. In the Operation Mils project discussed above AID expects to improve some 185 miles of roads. The delegation visited the area where road construction was underway. Our trip certainly brought to us the realization of the critical need for improvement in the transportation network. We do

believe that the GRM will be hard pressed to find funds in its budget to provide the necessary upkeep and maintenance once AID terminates its efforts.

CONGRESSIONAL PRESENTATION DOCUMENT

AID presented to the Congress in its fiscal year 1980 CPD a new project providing funds for 150 miles of road construction intended to facilitate rural development in Mali's first region. Estimated cost is \$14 million; AID intends to provide \$5 million to the cost with financial participation expected from other CILSS donors. Development of the road is expected to complement project development activities in the region by the United States and other donors.

RURAL DEVELOPMENT

In addition to the above activities, AID has several programs directed toward assisting villagers in identifying, planning, and implementing small, economically productive rural works projects; assisting women to improve their lives and family incomes and; supporting development of renewable energy sources.

SENEGAL

The delegation spent 3 days in Senegal, our arrival having been delayed for 24 hours due to a canceled plane flight. Our delayed arrival caused a cancellation of most of the meetings scheduled with Government of Senegal (GOS) officials. We arrived on a Thursday evening and departed the following Sunday. Due to the short notice and the weekend, the mission was unable to reschedule most of the meetings. Meetings were held with: Mr. Adrien Senghor, GOS Minister of Equipment and Hydraulics and current President of the Council of Ministers of CILSS; representatives of international organizations and officials of the U.S. mission.

Two members of the delegation spent 2 days visiting AID project sites outside Dakar, the capital.

Senegal, located on the bulge of West Africa, has a population of 5.3 million in an area of 76,000 square miles; about the size of South Dakota. It is a poor country with limited natural resources. Its literacy rate is 5 to 10 percent; life expectancy is 40 years; the population growth rate is 2.8 percent. Seventy-two percent of the population lives in rural areas with farming as their primary occupation. Senegal has a mean per capita income of about \$300, however, there is considerable disparity in per capita income between rural and urban areas with many farmers having an income of \$75 per year. Aside from much lower incomes, rural areas are worse off in terms of socioeconomic indicators. General living conditions and the availability of basic amenities in rural areas suffer badly in comparison with urban areas. Nutritional levels are minimal; basic health services are not available; range and forest lands continue to be depleted at an alarming rate; educational opportunities are not adequate; and scarce financial resources are being used to finance food imports. This situation has serious implications for the rural populace.

Senegal is, however, a country possessing the resources for considerable agriculture expansion. In the areas where farming is the principal occupation the typical unit is between 5 and 10 hectares (12 to 24 acres) in size and employs 6 to 10 family members. The principal crops, depending on the particular region, include peanuts, millet, sorghum, and rice. The primary cash crop is peanuts. Production of food has shown some increases but is still insufficient for domestic requirements. Due to poor rains, Senegal suffered a shortfall in expected food production during the 1977-78 harvest season. Food production during the 1978-79 harvest season is expected to be substantially greater than the 1977-78 season.

A primary goal of GOS planning is to provide Senegal with food self-sufficiency. Senegal presently imports up to 300,000 metric tons of cereals per year, including from 150,000 to 200,000 metric tons of rice. This represents a substantial drain on foreign exchange and exacerbates an already difficult balance of payments problem. The GOS has embarked on a balanced program which will provide for the gradual

development of the country's hydraulic resources for irrigation in the three principal river basins of the country (the Senegal River, the Casamance, and that part of the Gambia River which extends into the eastern part of Senegal); and a concomitant program to intensify and increase productivity and production of dryland agriculture. This program is concentrated in the groundnut basin which is the center of both peanut and millet production, as well as in Senegal Oriental and the Upper Casamance where export crops such as cotton are being emphasized but not at the expense of increased cereals production. Attention is also being given to creating a rational integrated livestock policy including the encouragement, where feasible, of mixed farming/livestock operations.

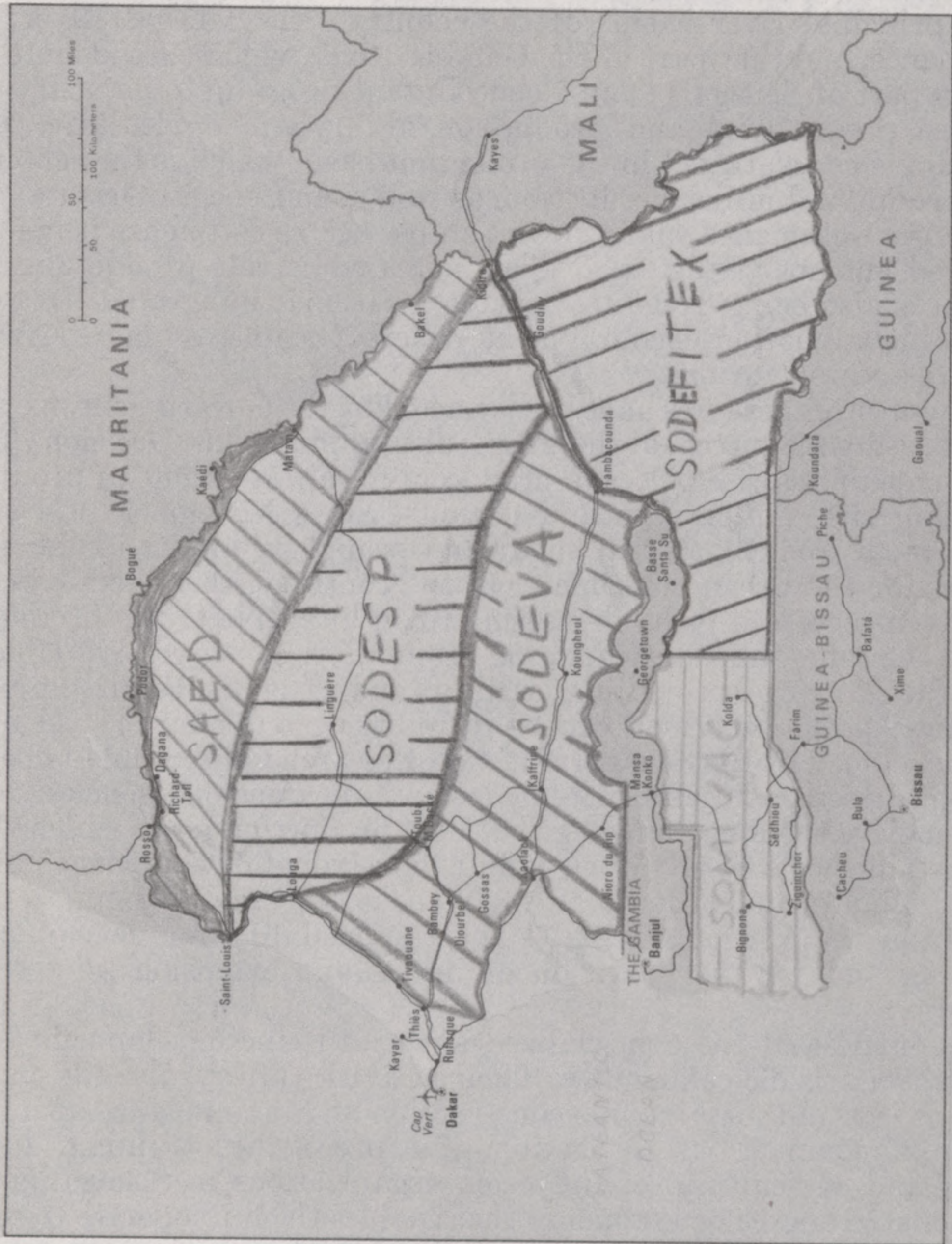
A number of measures have been enacted by the Government in order to help assure the success of these agricultural programs. Decisions have been made to increase prices to producers for a wide range of products including rice, millet, corn and peanuts. Since November 1974 such staple food products as rice, sugar and peanut oil are no longer subsidized for the urban consumer. On the contrary, these retail prices have been increased to levels which are an incentive to the producers and at the same time make funding from internal sources available to assist the farmer by providing fertilizers and seeds at subsidized prices. Technical packages which can be introduced at the farm level have been developed by the Senegal National Research Center and are being brought directly to the farmers by organized extension agencies.

To achieve the long-range agricultural production goals which they have established, the GOS has adopted a regional development policy using semiautonomous development agencies which have begun to take over from the central ministries the responsibility for development planning and for the provision of inputs and extension services to farmers.

The purpose of these specialized agencies is the development of a region or a specific commodity. Their activities always include extension services and may include construction and maintenance of infrastructure, commodities marketing and processing, training, input supply and agricultural credit. Such organizations in Senegal enjoy a reasonable degree of autonomy that enables them to operate to some extent outside the cumbersome governmental financial and procurement procedures.

Five of the regional development agencies which have been organized are: (1) Societe de Developement et de Vulgarisation Agricole (SODEVA), which has been given full responsibility for extension services in the groundnut basin; (2) Societe d'Amenagement et d'Exploitation des Terres du Delta (SAED), is responsible for irrigation development in the Senegal River Valley; (3) Societe pour le Developement des Fibres Textiles (SODEFITEX), formerly responsible for cotton development only, is now concerned with all agricultural development in eastern Senegal and the Upper Casamance; (4) Societe pour la Mise en Valeur de la Casamance (SOMIVAC), is responsible for planning and development in Casamance; and (5) Societe de Developement de l'Elevage dans la Zone Sylvo pastorale (SODESP), has been given the responsibility for developing the livestock industry throughout the Ferlo zone.

Senegal



Airport

A balance is being sought between investments and in irrigated agriculture and the improvement of dryland farming; between necessary food crops and export crops which can give the country a base for making future investments.

Efforts are being made through extension services and through the community development programs to explain actions to the villagers; to provide them with such tools as basic literacy; and to otherwise assure that there is a grass roots demand and desire for economic improvement.

Within this general context, there is an exodus of youth from rural areas and emphasis is being given to projects to encourage young people to remain in those areas. With the cooperation of donor organizations the GOS hopes to build up the social and health structures of rural communities and through cooperatives and flexible credit availabilities to furnish the base for productive farm enterprises which will make it possible for youths to earn their living in their own region.

It is thus significant that in its development planning the GOS is giving increased emphasis to rural development, education of agricultural technicians, and improvement of rural health delivery systems. Also, the GOS will develop a more coherent pricing, marketing, and storage policy, and is generally giving increased attention to the well-being of the rural population.

From the political point of view, it is hoped that agricultural development will be aided by the Government's administrative reform program which is now operating in three of the eight regions of Senegal, and which is being introduced into one new region each year. This provides for a decentralization of the administration and the setting up of rural communities consisting of approximately 10 villages. These communities have some measure of autonomy, are able to make development policy decisions regarding their future at the local level, and have at their disposal a certain percentage of taxes, which previously were sent to the central government for use in financing local projects.

SENEGAL'S DEVELOPMENT POLICY

Since the drought period ending in 1973, Senegal has undertaken what appears to be a constructive policy in planning and organizing for the future. The fifth 4-year plan for the years 1977-81 lists the following objectives of the current planning and domestic resource allocation exercise:

- (a) Recover from years of drought;
- (b) Orient the country toward the rural poor;
- (c) Increase food production to decrease reliance on expensive imports and donor assistance;
- (d) Increase the use of natural resources, particularly water resources;
- (e) Improve human resource capability;
- (f) Improve the lot of women;
- (g) Reduce the population growth rate; and
- (h) Bring health services to the rural poor.

COUNTRY RESOURCES: NEGATIVE FACTORS

(a) *Sahelian climate*.—The climate makes rainfed agriculture a highly risky and unpredictable occupation. Since the early 1970's, the

country has suffered from periodic droughts which have been particularly hard on the poor.

(b) Lack of sufficient food to feed the population results in heavy imports of these items, contributes to balance of payments deficits, and has a negative impact on Government development policies.

(c) Limited natural resources: Senegal has no major source of cheap energy and must import all its crude oil. This likewise has resulted in large trade deficits, raised production costs in industry, and made it more difficult for Senegalese industry to be competitive.

(d) Heavy dependence on international technical and financial assistance: Senegal does not presently have the necessary resource base to permit it to contribute to its own development budget. Current programs designed to improve agricultural production are promising, but they will require many years before they become economically viable and contribute to the budgetary resources of the GOS.

COUNTRY RESOURCES: POSITIVE FACTORS

(a) Long-range economic potential of increased agricultural production in the Casamance and Fleuve regions, particularly as hydraulic resources are developed. Assuming, of course, projected benefits are obtained.

(b) Sufficient land availabilities to accommodate a growing population if necessary investments are made. Outside the densely populated peanut belt, land is generally not scarce.

(c) Relatively good communications network by Sahelian standards, but still poor in so-called peripheral areas.

(d) A highly intelligent, educated/trained elite with good potential for national leadership.

(e) Ability of the Government to acquire fair amounts of international financial and technical assistance.

GROWTH AND EQUITY QUESTIONS

Senegal has approached this question with the realization that its resources are too limited to attempt to do everything at once and is giving emphasis to the three primary agricultural sections of the country (the groundnut basin, the Senegal River Basin for irrigated agriculture, and the Casamance). Nonetheless, some attention is being given to other areas where rainfall, soil conditions, transportation links, and other factors are less favorable to development. While emphasis on certain geographical zones may have an adverse equity impact on less-favored regions, the country and AID believe a resource base must be built if Senegal is to truly develop, and even those farms in the most-favored regions are poor by any standards, so that growth is really not carried out at the expense of equity in this case.

The policy of dealing with various size farms in agricultural intensification poses the problem that in most cases, greater initial progress can be made with those farmers who are better educated, more industrious, and have slightly larger land holdings than the poorest farmers. The former tend to have the knowledge to introduce more modern methods and can take the necessary risks as far as agricultural credit and debts are concerned.

Another area for concern is the problem of deciding on relatively heavy capital investments which are required in irrigated agriculture such as that being carried out in the Senegal River Valley and the possible results which could be obtained by making the same investments over a larger area in dryland farming. While complete emphasis on the latter might affect a greater number of poor farmers, nevertheless the total impact would be relatively slight, with living standards being raised only by a very small amount. On the other hand, the GOS believes that Senegal's opportunity for developing a resource base which will permit it to invest in the poorer regions depends very largely on development of its hydraulic resources.

All of these irrigated areas being developed affect some of the poorest farmers in the country and, as indicated above, dryland farmings, which also requires considerable investment, is not being neglected. At the same time, donor organizations and international financing groups are making funds available for both types of projects. Given the importance of irrigation, it is doubtful that funds now being provided for this sector would or could be usefully transferred to dryland areas in addition to the inputs already going into these latter regions.

In summary, while there are various options which do involve growth versus equity, the problem in Senegal is being handled on a level which assists a large percentage of the population and at the same time faces the practicalities mentioned above and the need to develop the national income base for future development.

INSTITUTIONAL CAPACITY

Despite historic overcentralization, there are several favorable elements concerning institutional capacity in Senegal which can be enumerated as follows:

(a) Creation of new research and development institutes and programs more in tune with the needs of the country.

(b) Growing number of competent technical cadres capable of devising and managing development programs adapted to local environment and needs of the people.

(c) Strengthening of regional development corporations and local participation through administrative reform.

(d) Gradual reorientation of the education system, particularly in rural areas, more in keeping with practical requirements.

AID STRATEGY AND PROJECTS

Until recently AID participation in Senegalese development has been as a minor donor. The major donor to Senegal is France, followed by the European Economic Community, Canada, the International Bank for Reconstruction and Development, and the Federal Republic of Germany. Beginning in 1975, AID started a bilateral program stressing agricultural development, rural health, and human resources development. Within the framework of the overall SDP and club/CILSS strategy, AID expects that over the next decade the United States will contribute meaningfully to overall economic development

of the country. The following table sets forth U.S. assistance to Senegal during the period 1976-79:

[In millions of dollars]

	Total	Public Law 480	Development assistance	Peace Corps
Fiscal year:				
1976-----	6.3	2.7	2.1	1.5
1977-----	13.1	2.9	8.7	1.5
1978-----	18.8	9.2	8.7	.9
1979 ¹ -----	17.6	5.6	10.7	1.3

¹ Estimate.

AID strategy documents set forth a program which is intended to be in keeping with the basic precepts of the Sahel development program, a long-term commitment to the Sahel, and cooperation with other donors on both a regional and bilateral basis within the club/CILSS strategy. AID has chosen to participate in the integrated rural development of the country in the three principal geographical regions where Senegal has requested U.S. assistance and where U.S. financial resources and technical skill complement and enhance the programs being carried out by other donors.

This effort permits AID to have a much closer working relationship with the GOS, takes advantage of other donor activities in the regions and sector activities chosen, and makes optimum use of the absorptive capacity of the country.

SENEGAL RIVER BASIN DEVELOPMENT

The GOS holds the view that the greatest promise for long-term development and food security in Senegal lies in the development of its water resources. This view is supported by AID. It is now thought by some officials that the Sahel will always suffer from a shortage of the rainfall necessary to produce food sufficiency; hence better use must be made of irrigated agriculture by capturing and using available water resources through river basin development. The Senegal River Basin, which affects Mali, Mauritania, and Senegal, is one of the five¹ water systems which at various times have been considered appropriate for development efforts.

In our discussion of river basin development the question of U.S. participation in infrastructure projects was invariably raised. The Sahelian states believe U.S. participation is essential because:

- The United States has had drought problems and resolved them through dams and reclamation projects.
- Supposed effectiveness of dams and reclamation projects in the United States gives the impression that the United States is the leading nation in the field.
- Sahelian countries are giving very high priority to river basin development.

The Senegal River Basin is the most advanced of the basin projects.

¹ The other four are: The Niger River Basin, which affects Niger and Mali; the Volta River Basin, which affects Upper Volta; the Lake Chad Basin, which affects Chad and Niger; and the Gambia River Basin, which affects the Gambia and Senegal.

The Organisation pour la Mise en Valeur de Fleuve Senegal (OMVS) or Senegal River Basin Development Organization is located in Dakar and is an organization established by the three Senegal River Basin states (Senegal, Mauritania, and Mali) in 1971 with overall responsibility for Senegal River Basin planning. However, responsibility for irrigation (that is, development and operation of irrigated perimeters) has been retained by the member states. The main emphasis of the OMVS has been infrastructural development with attention also being paid to the development of downstream areas for irrigated agriculture.

The two major OMVS projects are the Manantali Dam in Mali (estimated cost \$300 million) which would provide a water supply for irrigation of 375,000 hectares of land, maintenance of a river flow for navigation, and an annual generation of 800 million kilowatt-hours of electrical energy; and the Diama Dam (estimated cost \$190 million) a low water dam in the delta in Senegal. Plans also include later dams and power plants, development of mining plants and improvement of the Senegal River channel and river ports. The locations of the proposed dams are shown on the following map.



Funding for OMVS projects is being provided by a number of donors. Major funding is being provided by the World Bank (\$50 million over 5 years for design and construction of irrigation works and land development); the African Development Bank (\$60 million for unspecified projects); France (technical assistance, perimeter development and \$20 million for the Diama Dam); West Germany (\$8 million grant and \$50 million loan for the Manantali Dam); Canada (\$23 million for port studies and construction); Saudi Arabia (\$43 million) and Kuwait and Abu Dhabi (\$35 million).

Because of interpretations within AID of the "new directions" mandate the Agency has not seen itself as able to get involved in the main work of river basin development. The AID input has focussed on studies of the effects of the OMVS project as well as some institutional support to the OMVS.

The United States has provided \$8.5 million to the OMVS. These funds have been for an analysis of the environmental implications of major planned development projects; helping the OMVS establish a hydrometeorological system, collect and analyze hydrogeological data and produce maps needed to plan basin development activity; and assisting OMVS in carrying out agronomic research. Funds have also been provided for studies of on-farm irrigation systems, socioeconomic studies, fiscal allocation responsibility and river basin design. In fiscal 1979, AID planned to provide \$1,223,000 for an environmental assessment, overall basin mapping, hydrogeologic research, and agronomic research. In fiscal year 1980, AID tentatively plans to provide \$2,500,000 for basin mapping, institutional development, agronomic research and a project to assist OMVS help small farmers convert their holdings to irrigated agriculture.

Discussions with Mission staff indicated that by 1981 the United States will have to decide if it will participate in the main work of river basin development which would require major infrastructure. It is expected that OMVS will, at that time, be prepared to move into its construction phase.

Given the commitment of the participating countries, Senegal, Mali, and Mauritania, to OMVS, the delegation was left with a clear impression that the project will go forward without a U.S. commitment. We were also left with the impression that important questions still need to be resolved. For example, there is still some dispute as to whether both the manantali and Diama dams are needed. Apparently the answer depends on which donor or country representatives one discusses the matter with. There appears to be a consensus that Manantali, to be located in Mali, is needed but some question as to whether Diama, to be located in Senegal, is needed.

A previous staff survey mission made a more in depth look at OMVS in 1976. We refer the reader to that report entitled "U.S. Development Aid Programs in West Africa," dated March 22, 1976, for additional background data on OMVS.

STRENGTHENING OF GOS DEVELOPMENT AND EXTENSION AGENCIES

The GOS policy of decentralizing policy functions and the management of development to specialized and/or regional development agencies is a policy supported by AID, first as a means to disentangle development from the heavy government bureaucracy of Dakar and second, to place the decisionmakers and implementers in closer contact with the rural population.

The majority of the rural poor are located in three regions of Senegal: The groundnut basin, the Casamance, and the Fleuve. AID strategy is particularly focused in these three regions and assistance is directed to the agencies charged with development responsibilities in these regions: SODEVA, SOMIVAC, and SAED, respectfully. Efforts are also directed toward the livestock industry through

SODESP and cereals marketing and storage through the National Office for Cooperation and Development Assistance (ONCAD).

(1) *SODEVA*.—Along with a similar International Bank for Reconstruction and Development project, ongoing and proposed assistance to SODEVA will strengthen the SODEVA extension service to assist farmers in crop production through the use of small farm implements and animal traction, correct fertilizer usage, improved seeds and agricultural practices, et cetera. The intensified production of millet and the integration of livestock into the farm economy are two important outputs which will contribute to the long-term goal of the AID program.

(2) *SOMIVAC*.—Assistance to this recently organized development agency will establish it as the policy and coordinating board for development in the Casamance, enabling it to do long-range development planning and, through the project management units which it directs, to integrate and implement the development of the region. The SOMIVAC project management unit for the Lower Casamance will also receive AID project assistance to make it an effective extension agency to deliver technical information, agricultural commodities and equipment, administer agricultural credit programs and assist villagers in traditional efforts to halt saltwater intrusion into rice lands.

(3) *SAED*.—The Fleuve is a region of potential for substantial increases in integrated food production. SAED is reasonably well-staffed and trained and has adequately carried out the development of some 15,000 hectares to date, providing land preparation and irrigation management. AID has participated in this development and along with other donors is planning to increase its investment in the Fleuve as one major way to meet goals of food self-sufficiency with production free from dependence on the vagaries of the rains.

The SAED organization, to meet its responsibilities as more land is put into irrigation, and to prepare it for the development of significantly larger areas when two dams, Diama and Manantali, are constructed in the Senegal River Basin, is attempting to upgrade the quality of its staff and the services they provide to the farmers. AID, with other donors, is assisting in this.

(4) *SODESP*.—A major initiative in working with herders in the sylvo-pastoral zone of Senegal is to limit the number of cattle around well points, to increase production by culling off old and nonproductive cattle, and to provide animal food supplements and health measures as well as a guaranteed price, is being undertaken by SODESP with collaboration from several donors.

AID will participate in an effort to realize the goals of increased income to the herder while maintaining a healthier and more productive herd, protection of the grazing land in an ecologically fragile zone through the voluntary limitation of grazing, and increased flow of meat to the urban markets to replace imported beef.

(5) *ONCAD*.—Grain marketing and storage as well as cooperative development and agricultural credit are the responsibilities of ONCAD. AID assistance to ONCAD will assure adequate storage facilities for buffer and security stocks as well as provide ONCAD personnel with the technical skills and means to correctly stock, treat, and rotate stored grain.

PRESERVING AND REPLENISHING THE NATURAL RESOURCES OF THE COUNTRY

The degradation of Senegal's land and soil base due to uncontrolled grazing, wind erosion, bush fires, and the excessive use of forest resources is serious and contributes to an ominous pattern of decreasing food production and increasing hardship to the rural population. AID objectives in this area are to develop rational approaches to crop and grazing land utilization through range management, intensification of agriculture, protection of soil and grassland through reforestation and bush fire control and planting of fuelwood forest lots. AID assistance to the Livestock Service, to SODESP, to SODEVA, and particularly to the National Water and Forest Service all form a part of projects aimed at eventually meeting this objective.

DEVELOPING AN INFRASTRUCTURE FOR DELIVERY OF BASIC HEALTH SERVICES TO THE RURAL POPULATION

Health services in Senegal are inadequate and inefficient. The health delivery system hardly extends to semiurban areas and has almost no contact with rural areas. AID objectives and project financing are based on the theory that village health systems, organized and financially supported by the local populace and backed up by the national health service, offer the most effective health care to the community.

AID is participating in a project to help set up and staff a network of local health facilities in the Sine Saloum region of Senegal. The network consists primarily of a series of health posts with separate maternity units in the larger villages which provide basic health care and maternity services. These facilities also serve to backstop a number of secondary local health houses in the surrounding outlying areas.

The health posts generally treat such common local ailments as malaria, diarrhea, respiratory infections and sores. Health posts are operated by a trained nurse assisted by village health workers. Maternity units provide prenatal care, including monthly prenatal visits and delivery services. They are staffed by midwives, supervised by the trained nurse assigned to the health post. The operations of the health posts/maternity units are supported in part by the Government of Senegal, by donor support, small user charges, and contributions from local village councils. Local support is generally provided from the income of a community agricultural plot or in the form of labor on facilities construction or renovation.

At the most basic, grass roots level, health care services are provided to groups of small villages by a village health house. These facilities normally consist of a one- or two-room structure staffed by a village health worker. The health houses provide treatment for minor illnesses and ailments and distribute malaria medication. Patients whose medical problems are too serious initially or who do not respond to treatment within a short time are sent to the health post for that area. The nurse/supervisor from the health post visits the health houses under his supervision approximately once per week. Based on visits to a number of village health units, grass roots support for this program appears to be considerable.

AID assistance for this project includes funding for technical assistance, training, medicine, equipment, and construction and renovation of facilities.

In the area of family planning, AID objectives are to permit the choice of rational spacing of children and the obvious benefits to the health of both mother and child.

HUMAN RESOURCES DEVELOPMENT

One of the primary development problems in Senegal is that of the absorptive capacity of the Government services to plan, implement and manage the development of rural areas. There is a serious need for trained technicians, primarily at the middle level, which AID is attempting to meet. The program objective of having a trained technical development cadre, especially with the specialized development agencies, is being addressed within the context of each of the AID projects being financed as well as in projects specifically addressing the human resource need.

FOOD ASSISTANCE

As a result of poor rainfall in 1978 Senegal suffered a shortfall in food production during the 1977-78 harvest season. A multidonor effort was initiated and an estimated 150,000 to 180,000 tons of emergency assistance was provided of which the United States provided 25,000 tons of sorghum. The entire U.S. contribution has been distributed. The mission does not expect a request for emergency assistance for calendar year 1979 (harvest year 1978-79). Food donors meet once a month to review the food situation in Senegal and at the time of our visit it appeared that emergency assistance will not be needed.

Senegal does suffer chronic food deficits in certain areas of the country and the impression from our discussions is that it is easier for the GOS to distribute food assistance coming through the port at Dakar than it is to move food from surplus areas in-country to deficit areas. Thus a request for assistance could be made even though there is a surplus within the country as a whole.

We were told that Catholic Relief Services (CRS) which appears to be the principal outlet for distribution of U.S. supplied food concentrates its efforts in deficit areas.

Public Law 480 title III.—A long-term, multiyear Public Law 480 title III program has been proposed. This program will assist the GOS to maintain adequate rice supplies, provide local currency to support priority areas, and help resolve Senegal's chronic balance of trade problems. At the time of our visit the mission was still engaged in negotiations with GOS on this project.

FOOD RESERVE

A discussion is currently underway by food donors to design a food reserve system for Senegal. Firm data on the amount of such a reserve had not been developed at the time of our visit. At that time, storage capacity for 90,000 metric tons of food was under construction throughout the country; AID is funding construction for 30,000 tons. These storage facilities are being built at various locations throughout the country.

We were assured that the buffer was not a price stabilization program. Stocks would be drawn down only when production fell below

a level such that the reserve would be needed and would be replenished in "good" harvest years.

It appears to the study mission that while addressing the problems of food production, the GOS should also be addressing its capabilities in moving food from surplus to deficit areas instead of relying on food donations arriving through the port at Dakar. It also seems advisable for AID, if it intends to establish buffer stocks in deficit areas, to also address the problem of moving stocks to these areas so as to avoid using buffer stocks even in those years when the harvest countrywide is sufficient.

AVAILABILITY OF TECHNICIANS

AID has encountered, and expects to continue to encounter, considerable difficulty recruiting and fielding qualified technicians for the execution of projects in Senegal. The housing, medical, and educational facilities are poor in rural areas in Senegal and it is difficult to find qualified technicians willing to live under such conditions. French-speaking ability is an additional requirement that limits the number of technicians available. One approach to this problem is to attempt to structure projects, insofar as possible, to reduce dependence on technical assistance, or join AID financing with other donors (such as the French) who can provide technical assistance.

OTHER CONSTRAINTS

The key constraints in the implementation of projects are: (a) lack of trained Senegalese cadre, (b) administrative delays within the GOS governmental structure, and (c) local costs. AID can provide some assistance to help unlock the first constraint, but only over a rather long period given the time it takes to put participants through training programs (either in the United States or in-country). In the meantime, technical assistance will be required and providing such technical assistance will be difficult as noted above. The second constraint will not yield easily to any donor efforts, but will only be resolved over time as development occurs. The problem of local costs can be solved to some extent by using proceeds from the Public Law 480 title III program to finance them, but donors must be prepared to assume local procurement costs until such time as the long-range production programs begin to give Senegal a reasonable resource base.

PROJECT VISITS IN SENEGAL

The Senegal River Basin.—In Senegal one member of the delegation took a 1-day field trip to St. Louis where the SAED headquarters are located and visited several existing agricultural irrigation projects at Richard Toll, Dagana, and a rice mill at Ross Behot. The principal purpose of the visit was to talk with SAED officials regarding continued U.S. assistance to SAED, and to visit several agricultural irrigation projects being implemented by SAED, none of which AID was currently funding. SAED is the regional development agency responsible for irrigated agriculture development in the Senegal River Valley. AID has provided assistance to SAED since 1976. In our discussion with the Deputy Director of SAED, we received clear indications

on the importance of SAED to the overall development of irrigated agriculture in Senegal. Given the high priority of river basin development for Senegal's long-term food self-sufficiency goals, consolidating SAED's capability for implementing the projects is of urgent importance.

SAED is charged with implementing all of the irrigation schemes along the river. This includes training of farmers and other workers in the use and regulation of the water through irrigation channels; training in maintenance of dikes, training in new cultivation practices; and larger activities such as the preparation for construction of dikes with heavy equipment.

Although our discussions and visits were limited to 1 day, we saw clear indications of a need to strengthen SAED's managerial capability. The organization appeared to suffer from an inability to retain personnel, due to lower salary and benefit scales, and from very weak administrative leadership. During our visits, AID officials indicated that the Government was undertaking steps to alleviate these problems.

MEETING OF THE CLUB DU SAHEL IN AMSTERDAM

Two members of the delegation attended the third annual meeting of the Club du Sahel held in Amsterdam from November 21 through November 23, 1978. An inaugural meeting was held in 1975 where members of the OECD Development Assistance Committee (DAC) and other multilateral organizations proposed the creation of the Club du Sahel to examine what cooperative actions might be taken for the long-term development of the region. The CILSS member states accepted the proposal at the first official meeting of the club in Dakar, Senegal, in March 1976. The second annual meeting was held in Ottawa in May 1977.

The primary objective of the third meeting held in Amsterdam was to review progress toward the objectives set in the Ottawa meeting. The review concentrated on two items: (1) reviewing the progress attained in financing the "first generation program" within the overall Sahel development program, and (2) reviewing the progress attained in refining the economic and social development strategy for the Sahel. Several specific policy issues were discussed including cereal policy, energy prospects, financing of recurrent costs, results of the emergency activities after the drought of 1977, support for programing and evaluation of projects in the Sahel, and finally, a discussion of the work plan for the club in 1979.

The meeting was well attended, with delegations from the eight Sahel states and representatives from 49 donor, subregional, and national groups. The participants included from the OECD donor countries: Austria, France, Germany, Belgium, Canada, Italy, Japan, the United Kingdom, Switzerland, Denmark, and the United States. Representatives from the Sudan, Australia, and Nigeria attended the conference as observers for the first time. There were over 20 multilateral agencies represented at the conference, including OPEC, World Bank, FAO, IFAD, IMF, UNDP, UNESCO, and OECD.

The conference was addressed by President Jawarra of Senegal, currently serving as president of the CILSS organization. President Jawarra stressed several points which he deemed of critical importance to maintaining the progress toward economic viability in the Sahel. These included: (1) the need for accelerated development of the Sahel water resources—the large river basins, lake basins, and underground water resources; (2) an immediate focus on the energy needs of the Sahel, with particular attention on energy conservation and alternative energy sources needed to arrest the degradation of the Sahel's fragile ecology; (3) an analysis of the crucial problems facing the Sahelian governments in the areas of pricing and marketing of food crops; (4) proposals for solving the critical recurrent cost financing dilemma facing all Sahelian governments and which hampers their ability to sustain projects once they are established with donor coopera-

tion; (5) increased attention on the introduction of appropriate technologies to address some of the critical problems in the Sahel.

ISSUES

LONG-TERM STRATEGY (1978-2000)

The first task of the club was to draw up a long-term development strategy for the Sahel. This mandate was approved at the Ottawa meeting of May 1977. Since that time the club secretariat has held a series of donor-recipient meetings to refine the strategy, to target their objectives for growth, and to examine the sector requirements for achieving these targets. The primary objectives of the long-term strategy for the region is to achieve food self-sufficiency and to reverse the ecological deterioration occurring in the Sahel. The strategy objectives are intended to lead to self-sustaining economic and social development by the year 2000. After discussion of some of the broader points of the strategy, the conference concluded that the strategy emerging was acceptable, but that the club secretariat should continue to work on refining the specifics of the strategy.

FIRST GENERATION PROGRAM (1978-82)

The long-term strategy for the year 2000 provided initially for a first-generation development program—1978 through 1982—estimated to cost at least \$3 billion, which set out specific objectives for the 5-year period. The program, which sought to obtain donor financing for projects, highlighted: The development of water resources, crop protection, reforestation to combat desertification, increases in livestock and agricultural productivity, training needs, health and research programs, and development of a transportation network. The first generation program expressly called for an increase in the number of projects financed on a multidonor basis.

The focus of the Club du Sahel's work in 1978 was centered around organizing a series of meetings between the donors and the Sahelian states to consider financing of first generation project. These meetings appraised the technical feasibility of the projects, examined whether the projects were consistent with the overall regional strategy, and attempted to ascertain donor interest for financing particular projects. Agreement appears to have been reached on funding approximately one-third of the cost of the first generation program.

The Sahelian states expressed their concern over the slowness in obtaining firm commitments for the remaining two-thirds of the first generation program. The Sahelian states called for a study to examine the reasons why progress was proceeding so slowly in reaching firm commitments for the remaining two-thirds of the projects. The study would examine whether there were weaknesses in the ability of the Sahelian states to design projects or whether the criteria applied by the donors were too stringent.

OFFICIAL DEVELOPMENT ASSISTANCE FLOWS

The conference reported that total official development assistance to the Sahel from all donors had increased over the period 1974 to 1977, but the increases were not consistent. Total flows from all donors were

\$755 million in 1974, \$748 million in 1975, \$1,107 million in 1976, and \$1,050 million in 1977. The major donors have been France, Germany, the United States, Canada, and the Netherlands. Of the multilateral donors, the European development fund and the World Bank are the largest. The UNDP and FAO have also been important contributors. The International Fund for Agricultural Development is also expected to finance a large number of Sahel food production projects. At the Amsterdam conference the OPEC representatives pledged a significant increase in assistance from OPEC development funds and Arab institutions.

SPECIFIC POLICY ISSUES

The conference undertook very frank and open discussions of sensitive issues such as how to best increase cereal production in the member states, the appropriate marketing and pricing strategies which should be undertaken by member states, the means for assessing the food aid requirements of the member states, and the means for improving the Sahelian capability for designing and implementing development projects. Unfortunately the conference produced no concrete resolution to the issues. However, there was frankness and openness in the discussion of these sensitive issues. The conference concluded that reaching an agreed-upon solution of these issues was critical for sustained development in the Sahel and that the club should convene a series of CILSS/donor meetings to further pursue resolution of these issues over the next year.

