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Country Development Strategy Statement

FY 1986

CHAD

MAY 1984

Agency for International Development
Washington, D.C. 20523

BEST AVAILABLE

CHAD

COUNTRY DEVELOPMENT STRATEGY STATEMENT

(CDSS)

FY 1986

May 1984

AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

EMBASSY OF THE
UNITED STATES OF AMERICA
N'Djamena, Chad

May 24, 1984

The Honorable
M. Peter McPherson
Administrator
Agency for International Development
Washington, D.C. 20523

Dear Mr. McPherson:

I have the honor to enclose the AID/Chad Country Development Strategy Statement covering the next three years. I commend its analysis of the current situation and examination of the economic and development problems of Chad. It offers a sound strategy as our AID program moves from relief to rehabilitation to mid-term development.

The PVO projects are having an effect on agriculture production and are operating at the grass roots level. Also, our involvement in the health sector and Title II programs have reached those most in need. We will soon be moving on to longer-range PVO agriculture projects and a sorely needed training program for ministry personnel. At the same time, the AID Mission will develop long-range projects, first in seed multiplication and then in road rehabilitation/maintenance. The latter will be a major intervention that could continue for a decade. Later on, research will be added to the seed activity and an essential irrigation project started, two key steps toward longer-range agriculture production. The strategy is sound with the road project complementing agriculture production and with employment of PVO's to assure that the results reach small farmers. The activities of the Private Enterprise Project along with its planned expansion take into consideration some of the credit needs of small entrepreneurs.

The increased confidence of the Chadian people in the face of Libyan aggression is in part due to the AID relief program of supplying food and medicine and in the agriculture activities of the PVO's. As the AID program moves

into developmental activities and assists ministries to be more responsive to the needs of the people, this positive momentum will increase, allowing Chad to remain a viable entity. This coupled with increasing agriculture production and expanding small businesses will all contribute to a self-reliant, self-feeding Chad of the future.

Sincerely,

Jay R. Moffat
Ambassador

CHAD

COUNTRY DEVELOPMENT STRATEGY STATEMENT

FY 1986

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EXECUTIVE SUMMARY

Chad's history has been characterized by internal strife and civil war over the past two decades. Following independence from France in 1960, President Tombalbaye ruled, albeit with increasing northern opposition, from 1960 until he was ousted in a military coup d'etat in 1975. For the next seven years, the country was torn by conflicts among warring political factions, the fighting escalating between 1980 and 1982 when then-President Goukouni Oueddei, backed by Libyan troops, and Defense Minister Hissein Habre vied for control. Following the abrupt withdrawal of Libyan forces in November 1981, Habre seized the capital in June 1982 and created a new government. He has since sought to unify the country by seeking broad-based support and has won the allegiance of both northern and southern elements. Libyan troops have re-occupied much of the northern part of the country but are currently kept in check by French and Zairian forces.

Since the intervention of French forces in August 1983, there has been relative calm in the country's interior, allowing for the partial resumption of normal socio-economic activities. The cotton harvest for the 1983-84 season more than doubled over the past two years, making Chad the largest cotton exporter in French-speaking Africa. International and private voluntary organizations are expanding their relief reconstruction and development activities into rural regions further from N'Djamena as confidence increases in the overall security situation. Libya's unwillingness to risk direct confrontation with French forces deployed up to the 16th Parallel has allowed for inter alia the expansion of our AID bilateral program. Meanwhile, optimism is growing about Chad's government as it continues to put the country back on the road to economic recovery while continuing to seek a political solution to its differences with the Libyan-backed opposition. The respect with which the Chadian Government (GOC) is viewed by its African neighbors and its growing recognition from inter-African organizations are reassuring.

Nevertheless, the situation depends largely upon an unpredictable Libya with a penchant for the irrational and sensational. The stationing of Libyan troops in the northern one-third of Chad is a costly affair and considered unpopular in Libya. As the stalemate continues, however, Libya might choose to test the resolve of the French.

Although "non-aligned," the Chadian Government is considered pro-western and blocks Libya's expansion into Black Africa. The USG program of economic and military assistance contributes to its stability. We must provide this strategically

important assistance in order to enhance the stability of Chad. Conditions are presently such as to permit implementation of the USG economic assistance program in selective geographic areas of the country. The continuation and expansion of our economic assistance program in Chad are therefore both politically desirable and, from a current security standpoint, "implementable," given the continued deployment of French troops and the apparent willingness of France to maintain them as long as Libya poses a threat.

The primary U.S. political interest is to help assure the territorial integrity and independence of Chad. To this end, the USG contributes to the effectiveness of the GOC by providing diplomatic support, military aid and economic assistance. The GOC desperately needs help to restore the productivity of Chadians. AID support for the GOC is designed to increase the Government's effectiveness in addressing its manifold problems. In concert with other donors, we wish to assist in firmly re-establishing a stable GOC, which is the sine qua non of economic restoration and growth. We believe the best way for AID to contribute to GOC stability is by helping it be perceived as a government which can deal with Chad's socio-economic problems and which will look to the well-being of its people. Our strategy for attaining this objective is two-sided. We will finance directly productive agricultural interventions which are highly visible at the grass roots level. These interventions will be made by U.S. PVO's. The other side of our strategy is restoring and developing Government capacity to handle Chadian and donor-generated resources in the selected areas of agriculture, transport and health. We hope to attain this increased capability, inter alia, through on-the-job training provided by AID-funded U.S. counterparts who are operationally engaged in supervising program activity. An example of this approach is the Chad Road Rehabilitation and Maintenance project which will restore a significant portion of the GOC maintenance capacity while actually rehabilitating key road segments using re-equipped and effectively managed and supported road maintenance brigades. During FY 1984, AID has begun a shift from strictly relief efforts aimed at establishing a holding pattern, towards rehabilitation and reconstruction efforts directed at stabilizing an indefinite future by re-building on the most viable and essential foundations remaining from the past.

Selection of rehabilitation activities was made on the basis for which they can serve as the foundation for future development projects. Projects also will be selected which place minimum demands on the frail GOC bureaucracy given the Government's limited fiscal, physical and managerial resources. The relative ease of start-up and implementation also will be factors in project selection. Our projects will be tightly focused in the Sahelian zone, i.e. in the Kanem-Lac

region within a short radius of Abéché as well as in and around N'Djamena (Chari-Baguirmi Prefecture). Beginning in FY 1987, our program will expand into nearby Mayo-Kebbi Prefecture (240 km from N'Djamena). Mayo-Kebbi is a well-watered and fertile area offering suitable potential for irrigated rice production.

Given our desire for rapid implementation for maximum effect and demonstration of support to the Government, we have selected PVO's using the OPG mode as the prime vehicle for project implementation. We chose the OPG mode as the preferred implementation approach because: (a) OPG's can be moved through the approval system quickly, as they do not require competitive procurement and other time-consuming procedures; (b) OPG's demand less AID monitoring compared to the direct contracting mode; (c) PVO's are more prone to accept the currently difficult working conditions and lack of amenities in Chad; (d) PVO's are motivated to move very quickly in developing the design of their OPG; and (e) 121(d) requirements are easily met. We hope to strengthen PVO technical expertise by blending it, as necessary, with university technical backstopping so that the PVO operational personnel can draw on its technical expertise and resources. We intend to explore this approach for the seed processing project.

Whenever possible we seek to complement World Bank and UN-funded projects in order to maximize our impact on a sector, e.g., our seed multiplication and processing activity complements a UN project and our Bongor Irrigation project will be undertaken in conjunction with the World Bank's efforts in this sector. Our Road Maintenance project will maintain the N'Djamena-Guelengdeng portion of the main north/south axis. The EEC plans to finance major rehabilitation of this section of road.

Virtually every activity has training components. In addition to these, we have programmed two training programs (excluding Sahel Manpower Development II). The first is the Management Assistance to Ministries project which will strengthen the capacity of Chadian technicians and administrators in the Ministries of Agriculture, Health, Natural Disasters and Public Works in fiscal and project management. Our P.L. 480 Managerial and Financial Support Activity will provide hands-on training in connection with our Title II emergency sales programs.

The Chadian civil service has not directly managed projects involving significant financial resources for nearly two years. Many of the former expert technicians and civil servants were lost to the Government because of civil war and inability to make salary payments. Therefore, we believe the training of Chadians remaining in service, and in financial and fiscal management, is particularly important. Also, Chadians have had limited opportunity, over the last few years, to receive technical training either in Chad or in other countries.

Therefore, provision of technical training is important, with the upgrading of potential AID counterparts receiving higher priority.

An important thrust of our program is to help re-establish displaced persons and former refugees as productive contributors to Chadian development. Our efforts to help refugees centers on Abéché and N'Djamena where most are found. For the Abéché region, we will assist in the restoration of the agricultural productivity of war-affected farmers and former refugees. In N'Djamena, our efforts will concentrate on creating employment opportunities and helping entrepreneurs meet consumer needs while providing employment.

Given Chad's structural food deficits, P.L. 480 commodities can be employed as a developmental tool. We have, therefore, placed great emphasis on programming Food-For-Work activities to be carried out by PVO's. We have also planned a P.L. 480 emergency sales program whose immediate objective is to provide limited financial means for selective restoration of Chad's seed, crop protection, disaster relief, extension and epidemiological services. Funds generated by emergency sales will be used to purchase needed equipment, repair buildings, finance utility vehicles and their maintenance. These resources will help restore those services which are key to the Government's capacity to assist the productive sectors of agriculture and will prepare these services for active participation from the outset in AID-funded projects. The longer-term objective of this sales program is to stimulate agricultural production and re-establish normal movement of cereals from Chad's traditionally more productive south to the Sahelian zone.

As a follow-on to the emergency sales project, AID/Chad intends to begin implementation in FY 1986 of a multi-year Section 206 Program which will monetize 24,000 MT rice over a three-year period. Local currencies generated by these sales will be integrated with DA resources to finance activities, primarily in the agriculture and transport sectors, which contribute to Chad's efforts aimed at food self-reliance. Given AID/Chad's stated intent to focus its program in FY 1986 on these two sectors, additional resources in the form of local currencies will increase the overall development impact of our assistance.

There is no question that Chad faces several tremendous obstacles to its development. A very significant portion of the country is subject to a harsh environment characterized by very low levels of rainfall and recurrent drought. As a result, the 85 percent of the population which is dependent upon agricultural production for its livelihood generally suffers from malnutrition and poverty. The per capita income has been estimated between $97 and $120, ranking Chad among the poorest two or three countries in the world. Even before the outbreak of hostilities, Chad suffered from a severe lack of adequate infrastructure and institutional

capability to support respectable transport, educational and public health care systems. Only 3.5 percent of the country's 7,270 km of road was paved, while 15.1 percent of that was engineered, all-weather design. The educational system suffered from low numbers of qualified teachers, while only an estimated 11 percent of the national budget was devoted to the educational sector, 91 percent of that to salaries. The public health system has never been able to fully contain any of the major diseases which, combined with the poor nutritional status, are responsible for an average life expectancy of 40-43 years and an estimated infant mortality rate of 150 to 210 per 1,000 live births. Today, what minimal infrastructure and institutional capability did exist prior to 1979 has been largely destroyed by the outbreak of civil war and subsequent foreign invasion.

Required military expenditures and the dislocation of the economy have undermined the GOC's financial stability so that it cannot hope to address the needs of the Chadian people. As a result, it must depend on substantial donor assistance. From July 1982-June 1983, total donor assistance was approximately $91 million. Of that $91 million, about 52 percent was for food and humanitarian assistance, 19 percent for GOC operating support, 11 percent for reconstruction, nine percent for medical assistance and nine percent for long-term development. Yet, Chad still must undergo a massive reconstruction effort before it can even reach the stage of development it had achieved before the civil war. It must, in several very essential ways, start all over again.

While Chad is the victim of seemingly endless and overwhelming difficulties, its development potential must not be underestimated. It is not that Chad does not have the promise to make significant progress as much as it has not been permitted to do so. In actuality, Chad has four possible resources which, if properly exploited, could well prove to be its ticket to gaining significantly higher status in the world economy.

Chad's key cash crop, cotton, increased about five percent in volume and almost doubled in value between 1982 and 1983. The 1983-84 harvest, in terms of both production and revenue, was excellent. The area seeded increased by some 20 percent, and average producer prices which rose from FCFA 59/Kg in 1982 to 70 in 1983 further increasing to FCFA 80/Kg in 1984. According to Cotontchad, the 1983-84 harvest produced 160,000 metric tons, compared to 102,118 last year. Because of this substantial increase, Chad has become the most important cotton producer in all of French-speaking Africa and may very well continue to be so in the future. The producer price for cotton is expected to be as high as FCFA 110/Kg in 1984-85, and the French Embassy is estimating a harvest of 230,000 MT. Thus, Chad will experience a significant boost in export receipts, an occurrence which will do a lot to help put Chad's economy on its feet.

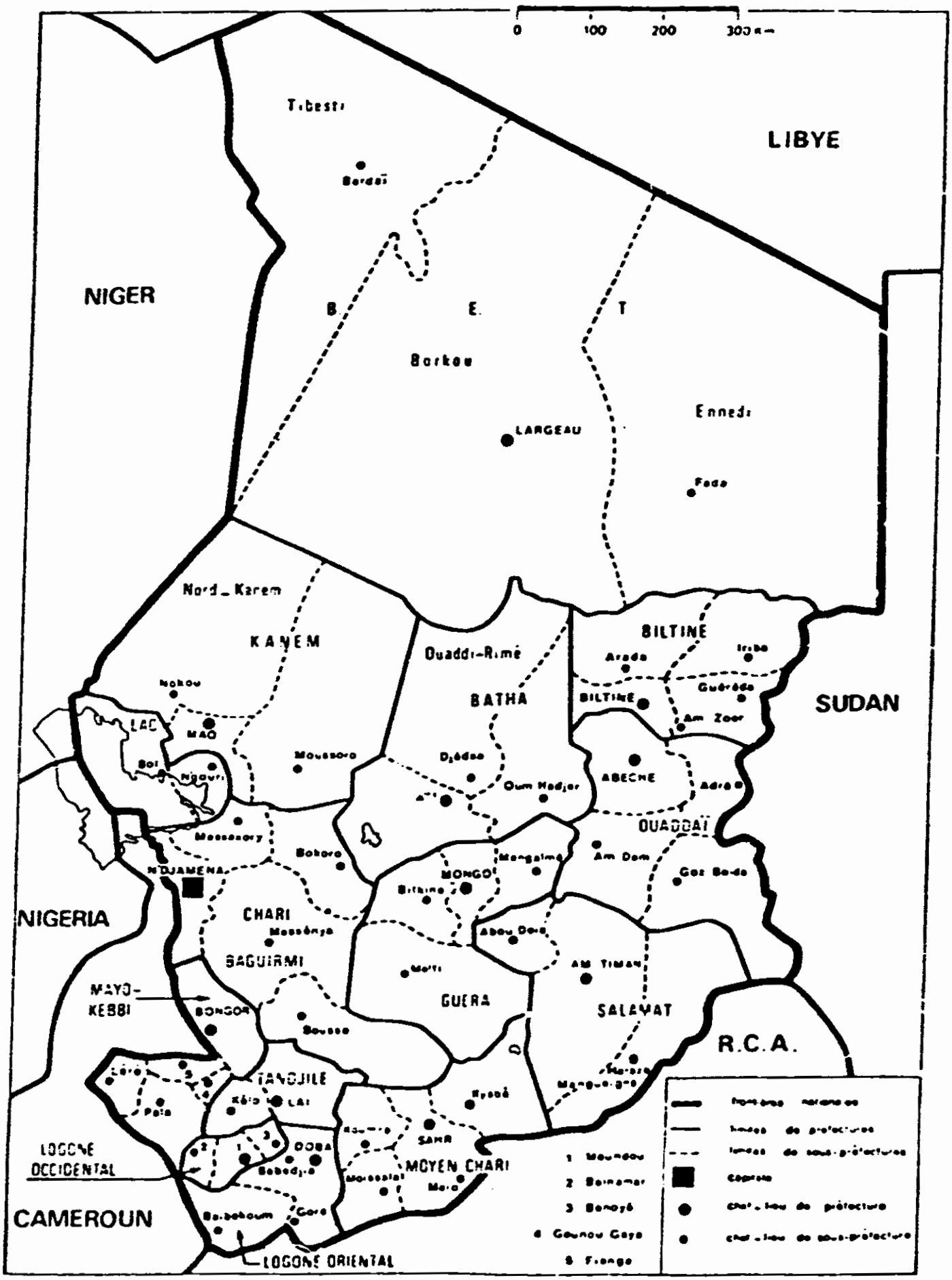
Oil has also been discovered in Chad. The most explored area to date is Rig-rig, just north of Lake Chad. The idea of constructing a pumping station at one of the oil reserves in the Lake Chad area with a pipeline to N'Djamena for refining diesel fuel for electrical energy production is receiving more and more attention from certain large financial institutions. Esso has conducted initial surveys to explore the south around Sahr. Proper exploitation of Chad's oil reserves, like the construction of the pipeline, would have the multiple beneficial effect of cutting down on fuel imports, reducing energy costs, and providing increased foreign exchange earnings and employment.

Unlike other Sahelian countries, Chad has not yet reached its full livestock capacity. Based on CILSS/Club estimates, production could increase as much as 90 percent and milk production 70 percent by the year 2000. To achieve these production levels, the national herd would have to increase 35 percent, all of which could go into the understocked mixed-farming zones of the south. A production efficiency increase of 25 percent would also be necessary, accomplished by better water point distribution and improved health care. Also contributing to the extra offtake would be the addition of a 2.5 percent herd growth after the herd size is stabilized near the end of the century. Part of the herd growth in the south could evolve naturally with increased agricultural development.

The potential for substantially increased livestock production in Chad is unquestionable. Better yet, the means to achieving it are accessible and realistic. Given the fact that livestock products already account for 26 percent of the GNP and 30 percent of exports, such an increase would have a strong impact on export receipts and the balance of foreign exchange.

Finally, unlike the large majority of Chad which lies in the Sahelian zone, the five southern provinces experience an average rainfall of 1,000 mm/year and a semi-tropical climate conducive to agricultural production. The agricultural potential of the south has not been realized and may be sufficient to compensate for food deficits in the rest of the country. Before the great drought and the outbreak of hostilities in the 1970's, Chad had experienced basic food self-sufficiency. Drought conditions continue to inhibit agricultural production in the south, however, the recent stabilization of the political environment has contributed to marginal increases. For example, in the 1982-83 crop year, production of sorghum and millet reached 280,000 tons compared to 274,000 tons in the previous year. The outlook for 1983-84 is for a further increase to 288,000 tons. As the security climate continues to stabilize, agricultural production in the south should increase significantly, if there is adequate rainfall.

In order to make a notable impact on reconstruction and development in Chad, AID will have to devote approximately $54 million from now over the next three years. Of that amount, $33 million are from the Economic Support Fund: $3 million for budget support, $14.5 million to the transport sector; $11 million for irrigation and $4.5 million to Health/Population. Approximately $21 million should be DA-funded: $7.5 million to relief and rehabilitation (including $4 million for refugee resettlement); $11 million to agricultural production in the Sahelian zone; $1 million for private enterprise development in N'Djamena; and $1.5 million for management assistance. The concentration of AID assistance on the agricultural sector reflects the pragmatic necessity of alleviating a sizeable food deficit and repairing the damage to agriculture brought by civil war. If security and stability continue to improve, additional aid can be expected from other donors as well. Granted, our proposed obligations are substantial, but we believe that they are justified by Chad's development potential and the increasingly improved prospect of political stability.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I. ANALYSIS

A. Development Setting and Intersectoral Constraints

Chad is a land-locked country of 1,284,000 km^2. It is characterized by desert in the north ranging to fairly wet savanna in the south. It has a highly diversified population estimated at 4.9 million, the great majority of whom earn their living from agriculture and livestock. Isolation, an inhospitable climate, protracted political instability and conflict make Chad one of the poorest two or three countries in the world (per capita annual GNP estimated to be $110 or lower) with all the attendant characteristics of severe underdevelopment: adult literacy of less than 15 percent, infant mortality between 146 and 210 per thousand and life expectancy of 43 years. During the great drought (1969-74), Chad experienced severe malnutrition, loss of livestock and ecological degradation, leaving it little chance to advance towards reasonable levels of social and economic well-being. The renewal of civil war in 1979, subsequent foreign invasion and renewed drought have further exacerbated Chad's already precarious status to create a critical situation demanding immediate attention.

1. Political Overview

After its independence from France in 1960, Chad was governed by the increasingly repressive regime of President Tombalbaye. Excessive and harsh administrative measures fomented local revolts and resistance culminating in the formation of an armed resistance movement called the FROLINAT (Front de Liberation Nationale de Tchad). In 1975,a military coup headed byGeneral Malloum, overthrew Tombalbaye and took the capital city, N'Djamena. In 1979 he was ousted by the northern factions of the resistance movement controlled by the two rival leaders Goukouni Oueddei and Hissein Habre. Goukouni and Habre soon broke their alliance and for the next three years N'Djamena and the northern part of the country were the battleground of a major civil war. Libya's Mu'ammar Qadhafi exploited this conflict to the maximum,sending a large ground and air unit to support the Goukouni faction in N'Djamena, engineering a widely-denounced plan for Chad-Libya unification, and ultimately annexing the mineral-rich Aouzou Strip along the frontier by sending massive air forces and ground troops into the key northern strongholds of Faya-Largeau and Fada. Qadhafi continues to provide arms and materiel to rebel forces, although since June 1983, France has provided a buffer force and air defense, stabilizing the conflict at roughly the 16th Parallel. The United States is providing supporting equipment and resources to help the Chadian Government defend itself against Libyan aggression and a negotiating process is beginning, at least in part, under the aegis of the OAU.

President Hissein Habre had maintained much of the basic pre-existing administrative structure. In seeking a dosage reflecting the ethnic composition of Chad, he has, perforce, substantially increased the role of northerners. In the south, the Habre government's power is being extended to the village level through the COPOFAN (Comite Populaire des Forces Armées du Nord) political communities which constitute the embryonic beginnings of a political party.

After 18 years of civil strife, Chad faces massive reconstruction and the imperative to reunify. The nation's leaders have already made a remarkable effort at reconstruction, given the military and political uncertainties involved. Yet, Chad needs substantial foreign assistance to implement the activities required for the adequate reconstruction of the country. The UN has taken the leading role in mobilizing such foreign assistance. In Resolutions 34/120 and 35/92, the UN General Assembly called upon all countries to help in reconstruction. In November 1982, it convened an international conference in Geneva (Assembly Resolution 36/210) where Chad presented a priority reconstruction program composed of 102 projects estimated at approximately $122 million. As of May 1983, implementation of 52 of these projects had begun, with commitments of some $65 million (excluding food aid).

2. United States Interests

The U.S. has a political interest in consolidating the territorial integrity and national security of Chad. Thus, AID programs will help foster conditions which will improve the stability of Chad's government, its credibility with the Chadian people and its relations with neighboring countries. Our aims are also humanitarian: to provide relief for the distresses of war and natural disasters. In order to achieve these political and humanitarian aims, AID intends to establish the prerequisites for self-sustaining growth that will enable Chad to achieve food self-sufficiency and improve the quality of life.

3. Social Profile

The significance of Islam in Chad is the result of incessant migrations by Islamic peoples. In the 8th century, Arabs entered from the north across the Libyan Desert, bringing the Islamic faith. Beginning in the 14th century, there was a massive influx of Islamic herders and warriors from the east. While this influx has certainly subsided through the centuries, Islamic herders and warriors continue to cross and settle in the sub-Saharan Sahelian zone which bisects the country.

Chad is composed of at least 20 major ethnic groups and a great many minor groupings created by the incessant splinterings, regroupings and intermingling that has occurred during wars and migrations. Consequently, Chad is not dominated

by any single ethnic group or language. French and Arabic are official languages. The former is generally used for administration, while "Chadian Arabic" is spoken and understood by both Arab and many non-Arab groups.

The country is broadly divided into separate socio-economic and political areas that conform to its three climatological zones, the Saharan (north), Sahelian (intermediate) and Sudanic (south). Although no area is ethnically uniform, the three regions have distinct qualities which provide each one with some homogeneity. The sedentary Sara, while constituting just 24 percent of the total population, dominate the south. The preponderance of Sara gives this part of Chad a more pronounced degree of homogeneous culture and ethnic unity than exists elsewhere in the country. At independence, the Sara dominated government administration because of early involvement with the colonial administration. The Arabs are the second largest ethnic group. They inhabit central Chad and are mainly nomadic and semi-nomadic herders and part-time traditional cultivators. They retain their traditional ways under their own leaders, and although ethnically diverse, exhibit a degree of homogeneity through adherence to Islam. The third largest ethnic group is the Maba who occupy a vast area in Ouaddai Prefecture and parts of Biltine Prefecture in east-central Chad. They are strongly concentrated around Abéché, thinning out and mixing with other people to the west and east. The northern third of the country, constituting the rocky desert wastes of Borkou-Ennedi-Tibesti (B.E.T.) Prefecture, is the domain of the nomadic Toubou. In the mid-1960's an estimated 195,000 Toubou ranged the Chadian and neighboring deserts of Libya and Nigeria. Of these, approximately 120,000 live in Chad.

Eighteen years of conflict have had their toll on the society's development potential. Many skilled Chadians have fled. In addition, the protracted hostilities, together with the Libyan invasion, have uprooted large segments of the population, heightening mistrust among social groups, and reducing the managerial and technical cadre needed for development.

4. Population

According to the GOC, the population is approximately 4.9 million, with an annual growth rate of 2.4 percent. In 1977, about half of the population lived in Mayo-Kebbi, Logone Occidental, Logone Oriental, Tandjile and Moyen-Chari, commonly referred to as the South. The other half lived in the north and east in Chari-Baguirmi (including N'Djamena with an estimated population of 280,000), Guera, Salamat, Ouaddai, Batha, Biltine, Lac, Kanem and the B.E.T., the latter with a population of just 86,000. Population density is extremely variable, ranging from 36/km^2 in Logone Occidental to 1/10 km^2 in the B.E.T. Pressure on arable land, especially in the populated south, is rising. However, given the

comparatively low rate of increase and high war losses, population growth in Chad, though a matter for concern, is not regarded as a top priority.

5. Climate and Geography

Chad encompasses a range of climatic zones, from semi-tropical in the far south to desert in the northern third. The five southern provinces, where rainfall averages over 1,000 mm/year, produces the bulk of Chad's agricultural output. Mixed farming and herding is practiced in the intermediate zone, where rainfall is less abundant and regular. In good years, this zone supports coarse grain production. Seasonal herding and oasis agriculture are practiced above the 400 mm isohyet (from lower Lake Chad to Biltine).

Two main rivers, the Chari and the Logone, flow north from the Central African Republic. Their point of confluence is N'Djamena, where they continue as the Chari River to Lake Chad. While recessional irrigation is practiced along the Chari, it has a large, yet significantly underutilized, potential for controlled irrigation. Recessional agriculture may also be practiced along Lake Chad depending upon the season. The river and lake waterways provide seasonally-varying transport and are a plentiful source of fresh-water fish, much of which is dried and exported to Nigeria and Cameroon.

For the most part, Chad's mineral wealth is inaccessible or unverified. For example, deposits of tin, tungsten and uranium have been reported in the Libyan occupied northern strip. The GOC hopes that two petroleum fields, one in the Lake Chad area, and one in the south, will be commercially exploited. The re-establishment of Esso, the operating agent for the Esso/Shell/Chevron consortium, in N'Djamena has provided a concrete basis for that hope. Lack of construction material is a handicap. Builders in N'Djamena have to truck stone and gravel from as far away as Abeche.

6. Transport

In 1976, Chad's road system had an estimated 250 kilometers of paved road, 7,000 kilometers of improved (gravel or laterite) road and 24,000 kilometers of unimproved road. However, hostitlities in Chad have precluded adequate road maintenance and road conditions have markedly deteriorated as a result. Most road equipment was lost during the war. Because of the higher population and production levels, road density is much higher in the south. To compensate for inadequate national maintenance services, Cotontchad, the cotton parastatal, funds a minimal road repair operation each year before harvest to permit access by its trucks. The EEC has a $5.6 million project underway to rehabilitate the road from Guelendeng to Sarh/Moundou/Lere. French aid (FAC) is also implementing a $1.6 million project to rehabilitate the N'Djamena-Abéché road.

As part of its Relief and Rehabilitation project, AID provided $387,000 through CARE in FY 1982 for Food-For-Work repairs on a 155-km stretch of road from N'Djamena to Guelendeng. AID is financing heavy-equipment repair, through AFRICARE, contributing $585,000 for technical assistance, tools, equipment, spare parts, vehicle and operating costs of rehabilitated equipment. Given the poor pre-war maintenance record (a pattern similar to other Sahelian countries), these actions are nowhere near sufficient to re-install an adequate road system. The ultimate solution lies primarily in ensuring sufficient and reliable resources to the Ministry of Public Works after donors have helped with the initial rehabilitation. An independent road fund, supplied from petrol taxes and possibly vehicle registration fees, might help if such funds are not diverted to other uses.

River crossings are critical to Chad's transportation system. There are currently no international bridges to link Chad to the Western seaports. The Chari River crossing at N'Djamena has only a few, often inoperative ferries. Trucks queue up for as long as two weeks to cross both ways. In addition, the ferry charge (FCFA 40,000) is discouraging. Any major increase in traffic, e.g., the transportation of relief supplies, produces major bottlenecks and adds to direct costs and losses. Given these conditions, the following activities are perceived as necessary in the transportation sector: (a) rehabilitation and maintenance of the primary road network; (b) accelerated rehabilitation of the equipment and workshops of the Ministry of Public Works; (c) emergency repairs on the rural roads in the agriculturally productive south; (d) review of the role of the CTT (Cooperative des Transporteurs Tchadien) and the Chamber of Commerce in the administration and operation of the trucks and ferries to encourage the growth, competitiveness, and efficiency of the transport industry; and (e) facilitation of the transport of Chad's imports and exports. Over the longer term, activities should concentrate on: (a) establishing a technically competent and financially independent organization for the rehabilitation and maintenance of both primary and rural roads; (b) starting a policy dialogue to open up the transport sector to greater competition; (c) exploring the possibility of reducing the energy intensity of transport through training in better vehicle maintenance and operation, more efficient utilization of vehicle fleets (fewer empty backhauls), and conversion to more energy-efficient vehicles and modes; and (d) reducing the urge to build uneconomic roads and exploring the most appropriate means of transportation to isolated areas in the Sahel.

Other infrastructure reconstruction needs are receiving donor attention. France has rebuilt the N'Djamena electrical power system and is providing financial resources for residential reconstruction. France and the African Development

Bank are aiding airport reconstruction. The BDEAC (Banque de Developpement des Etats de l'Afrique Centrale) is helping with river transport. AID's Relief and Rehabilitation project has provided Food-For-Work assistance to rebuild agricultural infrastructure, focusing on water control. Requirements, however, are immense. Commonly-cited damage figures for N'Djamena alone are 30,000-40,000 unusable structures and $200 million in replacement costs.

7. Institutions

The post-independence period saw a deterioration in institutions, which was accelerated abruptly by the war. In particular, the higher levels of institutional organization, e.g., education, administration, judiciary, and finance, are essentially inoperative in many outlying parts of the country. The conflict also led to the disappearance of many financial, industrial and commercial institutions in the market sector. The market was disaggregated, with many small traders replacing the large foreign and state-owned institutions (the full retail market is a good example, Cotontchad is a notable exception), and the whole system operating at a much reduced level. The breakdown of the banking system has placed a particularly severe constraint on financial recovery. Rebuilding Chad requires the re-establishment of these essential structures, preferably with increased economic and social effectiveness.

With Central Bank and donor support, progress is being made to re-establish a minimally working financial system. However, the potential exists to establish a new, liberal and dynamic system through: (a) discouraging re-establishment of parastatal enterprises which have rarely been guided by principles of economic efficiency; and (b) reducing central government control over the organization and management decisions of smaller private enterprises. The latter, among other things, implies doing away with the systematic regulation of import prices and abandoning the system of government-sponsored trade and service syndicates, e.g., the livestock traders' monopoly and the road transport associations.

Within the AID program, re-establishing public institutions means conducting activities to overcome three main types of constraints: (a) political, i.e. re-installing GOC authority in the provinces, and working out civilian/military and other relationships; (b) human resources, i.e. training sufficient cadres to run administrative structures and restraining the past tendency for public service to be viewed as an employment service and a reward for loyalty; and (c) infrastructure, i.e. providing financial and material means to rebuild and re-equip administrative infrastructure and assure long-term GOC ability to pay its personnel and operating expenses.

8. Development Planning

The Ministry of Plan and Reconstruction (MINPLAN), with a professional staff of 65 receiving technical and material assistance from the World Bank and UNDP, expects to commence preparation of a medium-term national plan towards the end of 1984. This plan will be developed through sectoral commissions drawing on personnel from the corresponding technical ministries. The GOC's development priorities now are rainfed agriculture (with livestock), education, health and infrastructure.

The GOC has deferred work on a new plan because: (a) the 1982 Geneva Program for Rehabilitation and Reconstruction is considered an adequate framework through 1984; and (b) the Government must first build up an adequate data base for planning in Chad's radically changing post-war economic and social environment. A range of analytical studies, some donor-funded, are underway at the statistical office. These include a household budget survey, updatings of trade, national accounts and employment statistics, and a study of population. Like other GOC ministries, the MINPLAN and its statistical office are slowed by shortages of resources; for example, there are no computing facilities.

The GOC does not integrate national and foreign resources in its reconstruction and development programs. While the MINPLAN's statistical office prepared studies of assistance programs for the 1982 Geneva Conference and again in August 1983, the 1983 national budget and its implementation accounting do not register donor inputs. Structured, thorough coordination among all donors and the GOC to ensure effective use of resources and consistent practice is also absent. These problems are under review.

At the macro-regional level, Chad expects the Lake Chad Basin Commission (the LCBC), including Chad, Niger, Nigeria and Cameroon, to return its headquarters from Maroua, where it was moved during the hostilities, to N'Djamena in 1984 as agreed by the LCBC Heads of State at Lagos in February 1983. This may permit a re-activation of regional planning and cooperation.

9. Other Donor Assistance

In 1982 and 1983, there has been a resurgence of donor support in Chad after years of virtually no assistance. As the political situation continues to stabilize, other donors are preparing to renew old programs and initiate new ones. The prospects for a large volume of support for Chad's reconstruction and development in the remainder of this decade, therefore, appear good, even given the uncertain prospects for foreign withdrawal.

OECD/DAC statistics indicate that total net development assistance to Chad dropped from a peak of $119 million in 1978 to $35.3 million in 1980. The main donors throughout this period were France, the EEC and the United States. The

DAC data also show that private sector flows essentially disappeared after 1978 (when they were $12.3 million).

At the November 1982 Geneva Conference, the GOC proposed a program amounting to roughly $250 million for reconstruction, of which about half was required immediately. The response from the donor community was strong, and the GOC estimates that almost 40 percent of the request had been committed as of January 1984.

The MINPLAN estimates that from July 1982-June 1983, total assistance was $91 million, of which slightly less than one third was provided by the UN group, 24 percent by France, 16 percent by the U.S., and 15 percent by the EEC. There was also substantial assistance in the period 1982-83 from Germany, Italy, Switzerland and Canada, and a lesser amount from the UN. Of that $91 million about 52 percent was for food and humanitarian assistance, 19 percent for Chad Government operating support, 11 percent for reconstruction, nine percent for medical assistance and nine percent for long-term development. While the MINPLAN analysts regret the low ratio of development assistance to relief assistance, there was clearly a broad consensus that the first priority is to feed Chad's people, repair the damage, and get the administration back in operation.

The main foci of individual donor programs in 1982-83 were as follows:

EEC:	European Development Fund (FED) assistance concentrated on rural development projects (40 percent) and humanitarian aid (30 percent). The FED provided pharmaceuticals, rehabilitated dispensaries, and financed road repairs. A major part of its agricultural assistance was for cotton production.
France:	About 60 percent of French grant assistance (from FAC) was for public administration, notably cash and equipment grants to the Government to support specific ministries (education and health). France also provided infrastructure and operating support to the electric company, the national radio, the telecommunications system, and road construction.
Germany:	Germany financed extension of the electric plant, provided the GOC office equipment, furniture, medical equipment, drugs, and financed hospital operating expenses.
Italy:	Through the FAO, Italy financed seed grain and provided 119 vehicles to the GOC. Italy also re-opened a rice production project at Sategui-Deressia.
Switzerland:	The Swiss are helping reconstruct schools, providing agricultural training, and funding village pharmaceuticals.
UN:	Activities have included health sector assistance (WHO, UNICEF and UNDRO) and forestry and petroleum exploration support (UNDP).

Several donors that assisted Chad prior to the hostilities are expected to move forward as soon as security and the financial stability of the Government are reasonably assured. For example, the World Bank would like to re-activate agricultural projects plus projects in education and highway maintenance worth approximately $26 million. It also has discussed an Economic Rehabilitation Program for state enterprises and the private sector estimated at $25 million. The French development loan fund (CCCE) resumed activity in March 1983 and has already opened lines of credit for rehabilitating the sugar factory, animal traction equipment, residential reconstruction in N'Djamena and re-establishing the private banking system. The CCCE is considering rehabilitating N'Djamena Airport (with the African Development Bank), re-opening a quarry, and providing water for provincial capitals. Regional financial institutions are also expected to provide assistance. For example, the BDEAC is expected to help rehabilitate the river transport infrastructure and may later become involved in irrigated rice and livestock improvement projects.

10. Managerial and Administrative Capability

The civil war has resulted in the almost total centralization of the Chadian Government, the loss of a large number of experienced civil servants, and a present cadre of officials who either have not had the opportunity to use their managerial skills for about five years or who have never held managerial positions until now. In addition, a significant number of the Chadians in senior government positions were recruited for political reasons rather than for their technical qualifications. The GOC realizes that this paucity of managerial capability cannot be tolerated if it is to muster its scarce resources effectively and create the necessary credibility to attract donor assistance.

Chadian officials cite several constraints which contribute to the deficiencies in their current management policies and procedures. These include: (a) unclear institutional mandates; (b) lack of operational objectives, making the proper "management of objectives" impossible; (c) inadequate coordination and a paucity of information, making it difficult to identify problems systematically; (d) inexperience in the control and monitoring potential of a financial management system designed to go beyond bookkeeping; and (e) lack of training and experience in activity conceptualization, design, implementation and evaluation.

In late January 1984, AID/Chad contacted the Directors General of the Ministries of Plan, Public Works, Agriculture and Health concerning their perceptions of Chad's management development problem and their interest in supporting management improvement activities in their respective organizations. They were unanimously supportive and each expressed willingness to participate, either in person

and/or by nominating key staff members, in a three-day planning workshop. The workshop addressed the issue of comprehensive improvement of organizational performance through group sessions, simulations, case studies, presentations by participants, and short lectures on the characteristics of effective management and its techniques, the major constraints to effective management shown in the participants' institutions, and the most promising strategies for dealing with these constraints. The participants agreed that comprehensive management improvement can best be undertaken in the near term by adopting a strategy of in-country short-term training, in-service training, and short-term third-country or U.S.-training.

B. Progress in Economic Recovery

Most of the available data on economic activity point toward modest, yet positive recovery in 1982-83 from a very low level. The principal reasons appear to be: (a) agricultural production in the south, the heart of Chad's economy, was less affected by war and, in general, experienced satisfactory rainfall in 1983: producer prices were substantially increased and, therefore, farm incomes were higher; (b) a sharp increase in official capital inflows related to assistance programs; (c) despite intermittant border problems with Nigeria, trade with the outside world appears to have picked up substantially.

1. Food Crops

Chad's total production of coarse grains increased about ten percent in the 1982-83 crop year to some 470,000 tons. The consumer price of millet apparently moved sharply downward between mid-1982 and mid-1983. In the 1983-84 crop year, rainfall has been more or less equivalent to the previous year. The area seeded for grains is estimated to have increased by five percent to 452,000 hectares, compared to the historical peak of approximately 600,000 hectares.

Rice, on the other hand, continues to fare badly, with recorded output dropping by nearly half between 1981-82 and 1982-83. The number of hectares planted fell further from 42,000 in 1982-83 to 33,000 in 1983-84. This decline in production is largely attributed to the drought conditions which have steadily worsened since 1981. A significant amount of what rice is produced is exported to foreign markets because the ONC (Office National des Cereales), the Chadian parastatal responsible for marketing rice, is too financially unstable to offer prices competitive with those of non-Chadian merchants.

2. Cash Crops

Buoyed by strong export prices, Chad's key cash crop, cotton, increased about five percent in volume and almost doubled in value between 1982 and 1983. The 1983-84 harvest, in terms of both production and revenue, was even more impressive.

The area increased by some 20 percent, and average producer prices which rose from FCFA 49/Kg. in 1981, to 59 in 1982, and 70 in 1983, further increased to FCFA 80/Kg. in 1984. According to Cotontchad, the 1983-84 harvest produced 160,000 metric tons, compared to 102,118 last year. Because of this substantial increase, Chad has become the most important cotton producer in all of French-speaking Africa, a fact which will provide a significant boost to export receipts during the year. This trend may well continue. The producer price for cotton is expected to be as high as FCFA 110/Kg. in 1984-85 and the French Embassy is estimating a harvest of 230,000 MT.

Peanut production increased about five percent in 1982-83, and a much larger proportion was sold to the vegetable oil mill as it raised its purchase price to a more competitive level. Minor crops showed mixed performance. Tobacco leaf production declined sharply from 71 to 45 tons, but almonds purchased by Cotontchad rose sharply from 53 to 211 tons. Sugar production, at 8,600 tons in the first six months of 1983, was 32 percent over 1982.

3. Livestock

Chad's animal stock increased by an estimated average of four percent per annum between 1979 and 1983, providing, with side products, 26 percent of the GNP and 30 percent of exports, only one-quarter of which was officially recorded. In the first eight months of 1983, meat turnover at the N'Djamena abattoir was over 50 percent higher than in 1982. On an annual basis, the 4,900 tons this represents is close to the normal high prior to hostilities. However, given livestock losses to Rinderpest of six percent in 1983, and the security constraints on north-south movement, the livestock sector as a whole did not improve in 1983.

4. Industry

Pre-war industry was composed of some 80 major firms, of which half were in N'Djamena and most of the rest were in the south. Since hostilities, only 13 have reopened in N'Djamena, and most are operating at 20-30 percent capacity. The five most significant firms in the south were less affected and, even with financial problems, have maintained normal production. Several agricultural processing industries, as noted earlier, increased their output fairly strongly in 1983; the cotton oil factory, the cotton mill, the slaughterhouse and the sugar company notably. Soap production, moribund for many years, resumed in 1981-82 producing an output of 1,300 tons in 1982. Tobacco processing increased in 1982, but may have fallen again in 1983 due to the reduced crop. The brewery in Moundou expanded production about eight percent in the first half of 1983. However, due in part to the influx of French military, production cannot keep up with local demand and the N'Djamena brewery is still closed. Electricity

production, which continues to benefit from French assistance, increased 15 percent in 1983.

The principal black mark on the industrial ledger is the textile company whose products cannot compare with the cheap smuggled goods from Nigeria. Despite the prospect of continued losses, for reasons of national prestige, the Chadian textile company (STT) will probably continue to operate. The cooking oil factory's prospects are also uncertain. Output fell 50 percent in 1982 and it is not clear whether the higher prices it subsequently offered in 1983 for seed grains are sustainable against more efficient and subsidized competition from neighboring countries. However, cottonseed production in 1983 increased by 55 percent.

5. Government Finance

Chad's national budget was rarely balanced before the war and the hostilities destroyed most of the basis for consistent financial planning. Given the disruption of commerce and revenue collection services, as well as the uncertainties regarding administrative staff levels and lines of fiscal control, GOC budgetary planning and execution have had to undergo constant revision in 1983. A return to "normalcy" is probably still several years away. In the interim, the GOC desperately needs both technical assistance in financial management and large amounts of budgetary support to cover large and unavoidable deficits.

Comparative Estimates of 1983[a] Budgetary Performance
(FCFA Billion)

			Deficit Financing		
Estimate (date)	Expend.	Revenue	Overall	Aid	Arrears
1983 Budget (1/83)	36.75	8.33	28.42	28.42	-
Revised Forecast (3/83)	14.28	9.11	5.17	2.17	3.0
UNDP (11/83)	21.05	6.34	14.71	14.71	-
Trend (11/83)[b]	9.7	5.2	4.5	2.8	1.7

The GOC faced many problems in planning and executing its 1983 budget. Initially, it estimated levels substantially higher than projected by UNDP at the Geneva Conference. The latter assumed a "normal" seven percent annual increase in operations starting from the base of 1978. Both revenue and expenditure levels under Ministry of Finance control were revised downwards as the year progressed for several principal reasons. On the revenue side: (a) the GOC was unable to re-establish control over customs collection points and provincial fee-collecting

[a]The Chadian fiscal year corresponds to the calendar year.

[b]First ten months of actual data, extrapolated to full year.

services as rapidly as hoped; (b) commerce was again disrupted by hostilities and temporary closure of the Nigerian border during 1983; (c) the Government authorized tax exemptions (equipment and construction materials) during 1983 to stimulate reconstruction and return of business; and (d) the structure of business, e.g., petroleum importation, was splintered by the war and GOC tax collection, geared to taxing mainly a few large modern enterprises, was unable to readjust immediately. On the expenditure side: (a) military expenditures, budgeted at FCFA 15 billion or about half the total budget, were almost entirely picked up by foreign donors. Likewise, donors financed several civilian line items; e.g., technical schools and faculties, outside the budget; (b) the GOC cut in half basic civilian pay, already severely eroded in real terms by inflation, and partially froze some other benefits to compensate for lowered revenue expectations; (c) due to lower salary expectations and continued insecurity, fewer civilian employees than projected resumed their posts in Chad; and (d) donor budgetary support for civilian expenditure (primarily from France) was less than the GOC apparently expected.

The scope for financing the deficit outside of donor budgetary support is very limited. The GOC cannot borrow from the central bank, the Bank of the States of Central Africa (BEAC), because the statutory borrowing ceiling, 20 percent of a previous year's revenues, non-cumulative, was reached in 1978. Since the GOC has let its private debt run up rapidly, it is facing resistance from some suppliers who decline to deliver until credit lines are reduced. Direct budgetary support by France, FCFA 2.8 billion in the first ten months of 1983, is expected to have been lower in the remainder of the year.

By end-October 1983, the GOC had collected revenues equal to about 47 percent of the total planned for the fiscal year, and about 57 percent of what should have been achieved by then to stay on target. The entire shortfall was in customs collections and direct taxes (income and business taxes); revenues from state domain taxes, e.g., on wood cut in national forests, and administrative fees exceeding forecasts. Actual expenditure was only 21 percent of the initial budget estimate and 56 percent of the revised target. No line in the budget was over the initial forecast in terms of accrued expenditure and most line items met initial target levels only partially: agriculture (14 percent), livestock (16 percent), forests and waters (18 percent), health (nine percent), and education (seven percent). Of accrued expenditures, 56 percent was for salaries and 44 percent for operating costs and equipment. Of the latter, however, over half went to just three ministries, the Presidency, Interior and Defense. The combined operating expenditures of agriculture, livestock, education and health were only three percent of the total. Thus there were no significant capital or

development expenditures from Chadian domestic (non-aid) revenue sources.

Civilian personnel on the GOC payroll as of April 1983 totalled 20,000, of which about 7,000 were in N'Djamena and 13,000 in the provinces. Following the half-pay measure decreed in March 1983, average monthly salaries in government were $72 for cadres (fonctionnaires) and $25 for other employees (including laborers).

In summary, the financial condition of the central government is tenuous. Its ability to collect revenues and control expenditures is circumscribed and could easily deteriorate if means are not found to extend civilian authority and resume pay to civil servants at normal levels. Continued large foreign budgetary support is a sine qua non for financial survival. Indeed, Chad's pre-war financial problems suggest that some level of budgetary support will be required for several years even after a return to "normalcy." Financial resources for capital investment and development in the public sector come, and for a long time must come, from international donors.

6. Banking

Despite some indicators of recovery late in 1983, Chad's banking system has been virtually paralyzed since the period of hostilities. The Central Bank for Central Africa (BEAC) and one commercial bank (BIAT), linked with the West African BIAO, which in turn is partly funded by French, Italian and German banks, were opened during 1983. A second commercial and development bank (BTCD), controlled by the GOC but linked with the Credit Lyonnais, opened on December 30, 1983. A third bank, with Bank of Paris participation, may open about June 1984.

Basic statistics for the banking system are unavailable. From the BEAC's own accounts, we deduce that net credit to Chad's banking system from the central bank increased just $50,000 million in the year ending August 1983. The sole commercial bank opened during 1983 offered few financial services but none outside the capital, though there are plans to open other branches in two provinces in 1984. Most transactions have had to be settled in cash. While cash circulation increased 11 percent from 1982 to 1983, much of this liquidity was diffused in markets outside Chad because foreign trade transactions had to be settled in cash. Recorded foreign private capital flows through the BEAC were strongly negative, and informal capital outflow has been large. The main factor balancing the increase in Chad banknote circulation has been credit to the BEAC from the French Treasury's Operations Account.

SUMMARY OF BEAC MONETARY TRENDS

(8/31/82 to 8/31/83)

(FCFA million)

Changes in BEAC Net Assets Vis a Vis:	Change
Chad Public Sector	-20
Domestic Banks	+192
Foreign Banks	-357
IMF	+645
French Treasury Operations Account	+2,756
Other (net)	-754
Equals: Change in Currency Circulation	+2,462 (+11.0%)

MONETARY INDICATORS

June-to-June

(FCFA million)

	1980-81	1981-82	1982-83
Average Currency Circulation	18,537	22,991	23,336
Chad Banknotes Negotiated Abroad	9,486	14,588	-
- in Cameroon	6,517	11,495	-

Source: BEAC, "Rapport d'Exercise 1981-82"
"Situation Provisoire" (monthly)

7. Balance of Payments (BOP)

Despite drought, poverty and war, Chad was able to run substantial balance of payments surpluses in 1981, 1982 and, in all probability, 1983. According to UN estimates, Chad's current trade was even in surplus in 1981. While this changed to deficit in 1982, the difference was more than compensated by official transfers. Although little information is available, the prospects are for a renewed trade surplus in 1983, as well as a larger surplus on transfers. Cotton exports in 1983 should be almost double the previous year, and the rapid growth of the resident official community and assistance programs, contributing considerable local cost financing, should produce large transfer receipts. While imports will also grow (both aid commodities and consumer imports), there is little evidence from the available data, e.g., customs receipts, that they will overtake exports and transfers. The continued public anxiety regarding security, the absence of viable Chadian banking institutions, the weakness of the Franc, and the slow recovery of business will doubtlessly produce a continued net outflow of

short and probably long-term capital.

It is still paradoxical that Chad's likely continued overall BOP surplus acts more as a damper than a stimulant to domestic growth and fiscal performance. Reserves are held by the BEAC regional system and will be drawn down only to the extent that the domestic banking system generates credit-led demand or the Government is able to pursue an expansionary fiscal policy through borrowing, which is practically impossible, on the banking system.

BALANCE OF PAYMENTS SUMMARY

(1981 - 1983, FCFA Million)

	1981	1982	1983
Exports: cotton	14,116	11,492	20,147
total	22,779	17,833	-
Imports	22,708	25,343	-
Services	-5,437	-4,688	-
Transfers	11,825	17,130	-
CURRENT BALANCE	6,459	4,952	-
Capital Account	-973	-2,017	-
SDR's, errors & omissions	519	-	-
CHANGE IN RESERVES	6,005	3,736	-

Source: BEAC (cited by UN: A/38/213)

8. External Debt

At the end of 1982, Chad's external debt was $226 million. Thirty-seven percent was owed to multilateral institutions (principally IDA), 46 percent to bilateral agencies, and 17 percent to private suppliers and financial institutions. By 1983, about $37 million, or 19 percent of disbursed debt, were technically in arrears. The Chadian institution responsible for debt management, CAA (Caisse Autonome d'Amortissement), was not re-established until late 1983, precluding until recently adequate GOC attention to the external debt. Given the Government's budgetary difficulties, only a few token payments could be made against debt service due in 1983. Some bilateral donors, France for example, have provided debt relief over the past two years. More rescheduling may be required. The World Bank estimates that total service payments will average $11 million per year in 1983 through 1985 which, considering only disbursements scheduled as of end-1982, would yield negative resource flows in each of those three years. The normal measures of debt servicing capacity, i.e. the debt service ratio, are not adequate to judge Chad's ability to absorb more loan assistance or meet its current obligations because Government resources do not closely parallel the trend in exports.

CHAD EXTERNAL DEBT ($ MILLIONS)

	1980	1981	1982	1983	1984	1985	1986
Disbursed Outstanding	265.0	251.8	225.8	189.4	152.7	153.7	154.4
Disbursements	5.2	5.1	0.1	9.3	10.1	10.6	9.2
Service Payments	2.4	3.2	0.0	11.1	10.8	11.5	9.0
Net Flow	2.8	1.9	0.1	-1.8	-0.7	-0.9	0.2
Exports	72.7	83.8	54.3				
Debt Service Ratio	3.3%	3.8%	0.0%				

Source: World Bank Debt Tables; UN A/38/213 (exports).

9. National Accounts

Although several estimates of GDP are available, there is no reliable set of numbers. According to the Ministry of Plan, GDP dropped 30.8 percent in 1979, but increased an average of two percent per annum during the following two years. Preliminary studies by the Ministry of Plan estimate 1981 GDP at $445 million or, assuming a population of 4.6 million, about $97 per capita. The World Bank's most recent published estimate (1983 World Development Report) records 1981 GNP as $495 million, or $110 per capita for a population of 4.5 million. The World Bank estimates that per capita GNP declined an average of 2.2 percent per annum between 1960 and 1981. The Ministry of Plan also estimates the 1981 distribution of GDP by sector was: agriculture 42 percent, commerce 28 percent, manufacturing 16 percent and all other 14 percent. Given available information on trends in livestock and crop production, the share to agriculture may have been substantially larger.

C. Sectoral Development Potential and Constraints

1. Agriculture

In an October 1983 interview with Jeune Afrique, Hissein Habre responded to a question about his intentions for the reconstruction of Chad once peace should be achieved:

> ". . . taking account of our resources, which are essentially agricultural, we will base our development upon agriculture. Certainly, our resources are rich, but it is necessary to have the means to exploit them. Private initiative has its place here. Cooperatives, also. The state must make a special effort." (October 5, p. 26.)

The priority to be placed on agricultural development has been emphasized in more recent discussions with Chadian officials. While there have been failures in this sector, AID believes agricultural development is a correct first priority in

Chad's development strategy.

a. Crop Production: There are two major regions for rainfed agriculture. The first, the Sudanian zone, covers the five southern prefectures of the country and generally experiences rainfall in excess of 800 mm per year. It is the most agriculturally productive region in the country and can support cotton production. The second, the Sahelian zone, includes the rest of the cultivable area and is characterized by low productivity. It is occupied by subsistence farmers growing millet and sorghum and by nomadic and transhumant pastoralists. Analytically, this two-zone approach is too general as it conveys only the broadest notions of constraints and potentials for increased production at the farm level.

A commodity-based description provides more information. Sorghum and millet are grown everywhere during the June-October rainy season as dietary staples, with millet receiving more emphasis as rainfall expectations decline. Transplanted sorghum (berbere) is planted at the end of the rainy season in the residual soil moisture of heavy clay soils wherever the mean rainfall is less than 1200 mm. Berbere is not, however, grown in the Lake Chad area. There, irrigated wheat usually takes precedence, although because of the war and continued reductions in the lake's surface area, wheat production has been virtually nil in recent years. Below average rainfall levels for several years are among the reasons for the recession of the lake's shores.

Irrigated swamp rice and vegetable cultivation are largely restricted to the flood-plains of the Chari and Logone Rivers and the shores of Lake Chad, although small-scale production seems to be scattered throughout the country. Corn is a minor crop in terms of acreage, largely produced as a garden crop close to village residences for consumption as corn-on-the-cob.

Cotton is cultivated in the areas receiving, on the average, more than 800 mm of rainfall. Cottonseed is commercially processed and marketed as edible oil within Chad. All of the fiber is exported after ginning, as cotton exports alone provide Chad with 70 percent of its foreign exchange receipts. Peanuts and sesame are widely grown as oilseeds, principally for home processing into oil and/or paste for domestic consumption but also, in certain locations, for processing of marketable oil by refineries. Cowpeas and other legumes appear to play more minor roles in rainfed cropping patterns, but seem to be a source for animal feed as well as human food. Sugar cane is gown in small amounts for fresh consumption and, on a larger scale, for sugar manufacture by the parastatal.

The level of technology applied in these crop production activities is highest among the farmers producing cotton and those participating in parastatal-managed rice irrigation operations. Both of these groups of farmers have been

the targets of intensive extension campaigns, recipients of credit and subsidized inputs, and participants in organized marketing operations. Some figures on the use of improved technologies distributed by the ONDR (Office National pour le Développement Rural) in 1982 give an impression of the extent to which improved agricultural technologies have been used in recent years:

(i) Improved seed, according to the ONDR Report for 1982, was produced and distributed among the 280,000 households served by ONDR extension staff in the Sudanian zone. These include: 282 tons of improved peanut seeds, or enough for about three percent of the total area sown; 21 tons of improved rice seed, sufficient for less than one percent of the area planted; and cottonseed for over 95 percent of the area planted (130,000 ha in 1982). No other foodgrain or forage seeds have been produced for distribution to farmers in Chad since 1979.

(ii) Inorganic fertilizer is widely used for the cultivation of cotton. About 55 percent of cotton hectarage was reportedly fertilized with NPKSB (19-12-19-5-1-8) distributed on an in-kind credit basis by the ONDR. Just over 45 percent of the cost of fertilizer is subsidized by the Government (formerly with EEC assistance). No data are available on commercial purchases of fertilizer or on the volume of fertilizer used for rice and vegetable production.

(iii) Pesticides are used primarily for cotton (an estimated 75,000 ha in 1982). Pesticides are distributed by the ONDR and applied by farmers with sprayers rented from the ONDR. The price of pesticide application is subsidized, although the exact rate is not clear. Pesticides do not appear to have been used on other crops with the exception of some experiments conducted by a FAO researcher on application of pesticides on foodgrain and legume research plots in 1983. These were found to be largely ineffective and highly uneconomic.

(iv) Animal traction equipment was reportedly owned by only 44,000 households (16 percent) in the Sudanian zone, although an estimated 75 percent of all cotton hectarage in 1982 was plowed with animal traction. Reasons for the lack of animal traction utilization are speculative, but are presumed to be associated with the general shortage of investment capital in farmers' hands due to the general political instability, and past low cotton sales. Also cited as contributing to the decline were inflation in the price of animals, the lack of veterinary services, and problems of supply and credit for equipment. The parastatal producing equipment in Chad, SOMAT, has been closed since 1979, although France, through the Caisse Centrale, has recently granted a loan to start it up again.

"Traditional" production technology for rainfed crops is similar to that employed elsewhere in savanna West Africa. The farm household labor force carries out all operations with hand tools. The use of hired labor is uncommon. Fields surrounding villages are manured and more or less permanently cultivated, at least in the Sudanian zone, with food crops. The larger cotton fields are cultivated outside this area, generally employing a three or four-year rotation followed by an equivalent number of fallow years. The most common rotation is

cotton - millet/sorghum - peanuts - fallow, although a cotton (fertilized) - peanut (residually fertilized) rotation also is used and can be quite profitable. Peanut revenues can be as much as 50 percent higher than if the peanuts were gown on unfertilized soil and would require 28 percent fewer labor days than the alternative, sorghum, for only ten percent less return per work-day.

The prospects for effectively encouraging farmers to use improved crop production technologies are uncertain. Farmers in the Sahelian zone reportedly use little animal traction, no improved seeds, and no fertilizers. Even the application of manure from the large herds in the area is said to be limited. According to the ONDR Director, the technical, administrative, and financial effort of compiling a set of recommendations for the ONDR agents to extend into the zone presents a challenge. In the Sudanian zone, continuation and expansion of extension efforts must continually face the problem of input subsidies which are too high, deterring the farmer from experimenting with technologies to increase production.

Extension advice and services are organized fairly narrowly around the distribution of purchased inputs, farmer education in the use of these inputs, and credit. The ONDR is the largest extension organization in Chad with more than 1500 permanent and contract employees. The ONDR's greatest emphasis is on support for Cotontchad's production campaigns in the Sudanian zone. Cotontchad pays a cess per kilo of cotton delivered to the ONDR for its support. In the Sudanian zone, one agent is assigned to roughly 300 households, farming about 1,000 hectares of which roughly 15 percent is in cotton. The Sudanian zone field staff of 1300 people was reported in 1982 to be using 22 vehicles, 111 mobylettes and 911 bicycles for its activities. In contrast, the estimated 230 field personnel in the Sahelian zone division of the ONDR were each to service approximately three times the area of their colleagues in the Sudanian zone with just three vehicles, two of which were assigned to headquarters staff in N'Djamena.

The potential benefits of more intensive cultivation, i.e. using more inputs per unit of land and increasing yield per hectare, over more extensive cultivation, i.e. fewer inputs per hectare and lower yields, but more hectares under cultivation, are not clear in Chad. The exception, of course, is the areas irrigated with pumped water where intensive production methods are essential to cover the operating costs. The variability of the rainfall, the relatively low population density, and the scarcity of working capital for purchasing inputs all argue for the continuation of extensive production methods in rainfed production systems. However, there is little information on how farmers can improve the productivity of their extensive methods without the conventional package of purchased inputs and, implicitly, credit.

While research on foodgrain crops was never firmly established, research on all crops, with the exception of cotton, has declined since 1979. Facilities and staff capability for research have to be rebuilt. In 1983, FAO took steps to do this by providing an agronomist for the Dougi Station near N'Djamena. A small volume of foundation seed for foodgrains demonstrated in past years as possessing some yield advantage in the Sahelian zone was produced. Some observations on and selections from exotic nurseries of sorghum, millet, and cowpeas were made. All results were limited by the very short rainy season and 50 percent average rainfall. According to the ONDR Report, varietal trials and fertilizer experiments were conducted by the Operation Arachide staff, part of the ONDR, in the Sudanian zone at Deli, Moussoum, and Mankara in 1982. Herbicide trials for rice also were conducted at Benibo in the same year.

The Ministry of Agriculture is preparing an up-to-date analysis of Chad's agricultural research system as part of an all-Sahel assessment on agricultural research resources conducted by the Sahel Institute with AID assistance. This report will provide a good basis for donor coordination in revitalizing, and possibly expanding, the agricultural research system.

The private commercial sector plays a role in transferring technology and marketing food and cash crops. Seeds are reportedly imported from Cameroon and Nigeria by private traders. Spare parts and replacement equipment for animal traction may be entering the same way. Merchants are redistributing sizable quantities of agricultural commodities within Chad as well as importing and exporting them across the Cameroonian and Nigerian borders.

b. Livestock Production: The importance of the livestock industry to the Chadian economy and to the individual quality of life is evident. The 1983 livestock herd, just over five million UBT, produced 16 percent of the GNP in meat alone and 25 percent of the GNP when milk, hides, traction, and manure were included. Twenty-nine percent of the population depend almost completely on livestock for their livelihood. The industry is also very important to the foreign exchange balance, providing 30 percent of the total export value.

Livestock production efficiency is relatively low, with an approximate 13.8 percent offtake, because of inadequate nutrition. Chad's harsh environment, poor animal health conditions, and poor grazing distribution due to inadequate water point distribution in the north and lack of sufficient health controls in the higher-risk south are the principal reasons for this low nutritional level. Nevertheless, production could be increased economically by prudent water point development and efficient animal health delivery service.

An assessment of the livestock production potential[1] in Chad indicates that meat production could increase 90 percent and milk production 70 percent by the year 2000. Realization of this potential would depend largely on improvements in animal health and water point distribution, both of which would require significant investments by donors and the Chadian Government. The national herd size would have to increase by 35 percent and production efficiency by 25 percent. While the Sahelian zone of Chad is still considered to be overstocked at 1,800,000 UBT, it is not likely that its herd size will change significantly.

A 1983 Emergency Vaccination Campaign was very successful at limiting Rinderpest death losses to less than six percent during the outbreak that year. By vaccinating 4,700,000 cattle in less than two months, the Animal Health Service demonstrated that it is sufficiently staffed and organized to serve the country's animal health needs. Financing through the 1983-84 campaign has been assured by FED, FAC, and FAO. Additional assistance to the Animal Health Service could be used to support a special Rinderpest brigade on the Sudan and Central African Republic borders.

The IEMVT (Veterinary Vaccine Production and Research Laboratory), also financed by the EEC and FAC, has the capacity to address all the vaccine needs in Chad and its neighboring countries. However, due to a lack of Chadian staff and limited French staff, only Anthrax and Pasteuralosis vaccines are being produced. Next year, Rinderpest vaccine will be produced again. Although veterinary personnel were trained through FAC assistance to work in the IEMVT, they took other jobs or remained in France. AID had similar experience with participant training in animal and range science.

Sotera, a government-controlled, semi-private, institution oversees livestock marketing, though it actually controls only a small portion of the domestic market and less than 30 percent of exports. Sotera proposes direct interventions in buying, stocking, fattening, retailing and exporting refrigerated carcasses. Preliminary analyses, however, indicate that most of the Sotera-proposed operations need subsidies and would directly compete with the traditional traders and butchers.

The CMPA (Center for the Modernization of Animal Production) of the Ministry of Animal Production, is involved in dairy marketing, provision of baby chicks, egg sales and feed processing. The operation is highly subsidized, shows no hope of becoming self-sufficient, and therefore should be limited to quality and sanitary control, leaving the marketing, chick provision and feed processing to the

[1]Based on CILSS/Club estimates, as tempered by SDPT.

private sector. An example of the private marketing potential is the private competition for milk in the same area serviced by CMPA. The private operation is processing milk into cheese and selling it at a price equivalent to 50 cents per liter in the village. CMPA offers the farmer just 20 cents and therefore obtains a very limited return.

There are two large government-owned, operated, and subsidized slaughterhouses in the country with an annual capacity of 25,000 tons. Since 1975 these abbatoirs have been used mainly for domestic slaughter and have processed only 3,000 to 5,000 tons per year. The N'Djamena plant is in extremely poor condition in terms of both maintenance and sanitation. Only three of the 19 cold chambers are operational.

c. Forestry and Environment: Chad contains approximately 16 million hectares of forest land, of which about a million hectares have been classified as forest and wildlife reserves. Since independence, only an estimated 3,000 hectares of trees have been planted, one-third around N'Djamena. Various species have been used in these plantings, with *Eucalyptus camaldulensis* and neem reportedly the most promising. Major non-wood forest products were traditionally gum arabic in the north and *karite* (shea-butter) in the south.

Fuelwood and charcoal represent major uses for the forests. According to a 1975-76 study, potential supplies of fuelwood and charcoal around N'Djamena were deemed adequate to meet the urban demand through the 1980's. This situation is better than that faced by most cities in the Sahel. With an estimated 725,000 ha of woodland within a 100 km radius of the city, and an average production per hectare of 35 steres, a harvest of 36,250 ha per year on a twenty-year rotation was calculated to be feasible. Key assumptions included the ability of the Forest Service to exercise control over cutting patterns and to displace charcoal production toward the south outside the 100 km radius. At present, however, the Forest Service maintains only six control points around N'Djamena where taxes are levied on fuelwood brought into the city. The tax rate is the same as it was in 1970, i.e. 50 cents per stere of fuelwood, or $1.20 per ton. An FAO survey in 1976 near Dougui, about 40-50 km north of N'Djamena, indicated that the sale of wood and charcoal provided twice the revenue obtained from crops and 1.3 times that obtained from the sale of cattle. Therefore, wood sales may offer the small farmer an important source of revenue.

While the cutting of fuelwood is a factor in the "desertification" equation in Chad's Sahelian zone, it does not appear to be a principal one. A major environmental issue is the impact of reduced rainfall and increased Cameroonian diversion of water from the Logone, which apparently contributes to the shrinking

of Lake Chad. Over the past decade, Lake Chad has reportedly reduced in surface area from 19,500 km^2 to 13,500 km^2.

Forest resources in Chad were "protected" by a paramilitary Forest Service, a common approach to the forestry sector among Sahelian countries. In the 1970's, however, the effectiveness of this way of doing business came into question. Yet it wasn't until 1979 that forestry activities came to a complete halt. The infrastructure which had been developed through a series of projects since the early 1970's became inoperative and has remained so ever since. Most equipment and supplies were either stolen or damaged. The buildings are now repaired at Forestry Service headquarters in N'Djamena, but there are chronic shortages of equipment, supplies, vehicles and insufficient funds to cover operation. On the positive side, there is a staff of 250 trained personnel who are eager to relaunch forest development across the country.

The Forestry Service doesn't have an adequate research infrastructure nor any trained forestry researchers. The Forestry Service would like to establish a research center and concentrate on indigenous tree species. Although there is a pressing need for a whole range of forestry research, developing a program from scratch in Chad is not cost-effective. However, forestry research components could be included in agricultural research and carried out in the context of field forestry projects. Some research assistance might be available through the mechanism of the interministerial Bureau d'Etudes et Projets in the Ministry of Agriculture, which includes a forester.

Chadian experience in the areas of *Acacia albida* planting and protection under FAC and CARE projects, and in natural forest management, are considered particularly important as they were pioneering efforts. An evaluation of the results of these efforts, completed before 1979, is of considerable interest to foresters elsewhere in the Sahel.

Only two small projects have, to date, received new funding. UNSO and FAO have funded rebuilding and extending the tree nursery at Milezi (near N'Djamena) and the Catholic Diocese of Pala has begun a range of rural forestry activities in the Mayo-Kebbi Prefecture with a series of 57 village nurseries. The UNSO/FAO project has already been used as the basis for re-establishing Arbor Day. In addition, 32,000 seedlings were planted around N'Djamena as a symbolically important beginning for forestry activities in the region. Current plans are to produce 200,000 seedlings for next year.

The Forestry Service has not as yet established an official forestry policy. However, since the mid-1970's, there has been a move toward increased local participation, emphasizing the protection of natural formations as an alternative

to expensive tree planting programs. The Acacia seyel forest just south of N'Djamena remains an impressive example of this approach. De facto policy seems to be centered on the use of village-level nurseries as is done in the Mayo-Kebbi project.

2. Health/Population/Nutrition

Estimates of Chad's population vary widely, as do assumed growth rates. According to the GOC, the total population of Chad is about 4.9 million, an estimate based on the 1964 census. The 1977 statistical yearbook projects an annual growth rate of 2.4 percent. Out migration is not included, but is probably substantial, especially among the professional cadres.

Ministry of Health (MOH) officials estimate that more than half of the doctors have left Chad, leaving only an estimated 20-30 physicians in the entire country. This acute shortage of medical professionals will be a severe impediment for years to come. Urban-rural distribution of personnel is uneven. Of an estimated 2,000 MOH-salaried personnel, 930 are in N'Djamena. The Central Hospital alone employs about 600 people. Calendar year 1983 payments through September 30 were approximately FCFA 146 million for salaries and FCFA 1,620,000 for operating costs, compared to initial 1983 budget estimates of FCFA 989 million for salaries and FCFA 598 million for operating costs. The annual MOH budget (per capita) is one of the lowest in the world at just 90 cents.

The nutritional status of the population is largely unknown. Ad hoc surveillances by MSF (Medecins Sans Frontieres) indicate that although 20 to 60 percent of all children under five suffer from malnutrition, wide-spread third-degree malnutrition seems to be absent. However, no serious epidemiological survey has been done since the CDC study in 1973 (Koth, et. al.).

The health status of the population probably has not changed very much from that indicated in the data from the 1977 statistical yearbook. Of the reported diseases, 16.5 percent were malaria, 10.9 percent were eye diseases, 10.5 percent were respiratory tract infections, ten percent were gastro-enteric diseases, seven percent were injuries, 4.5 percent were amebiasis, 31.6 percent were unidentified and 9 percent were miscellaneous. Among the transmittable (epidemic) diseases, bacterial meningitis, measles and occasionally anthrax seem to be the main killers. In addition, parts of Chad are subject to a range of other tropical diseases including sleeping sickness, onchocerciasis, schistosomiasis and non-tropical diseases such as rabies, hepatitis, mumps and chicken-pox. These and a poor nutritional status are responsible for a life expectancy of 40-43 years and an infant mortality rate estimated from 150 to 210 per 1,000 live births. Thus, health needs in this country, which ranks among the poorest in the world, are enormous.

The country's health services will depend almost entirely upon foreign donors for some years to come. All of the donor activities are being coordinated through the CCASS (Comite de Coordination d'Action Sanitaire et Sociale), a roundtable forum, where all major foreign donors and the MOH participate in regular discussions.

The southern prefectures of Logone Occidental and Oriental and Tandjile are served by the Christian churches. BELACD (the Catholic Mission) has reportedly formed 2,000 village health worker teams (VHW) in 1,000 villages, comprising a population of 500,000. It also runs two large hospitals, two medical centers and 22 dispensaries staffed by 68 expatriate and 82 Chadian medical personnel. Villagers pay for the drugs directly supplied by the missions. The rest of the country, i.e. nine prefectures, is served by MSF.

MSF, a Franco-Belgian PVO, has about 33 doctors, seven nurses and ten non-medical staff such as pilots, mechanics and administrators. In addition to providing on-the-job training for Chadians, MSF gathers data, develops standard drug lists and treatments, and conducts continuing nutritional surveys. The EEC funds the MSF costs in the 9 prefectures where MSF operates 83 dispensaries, 16 infirmaries and ten health centers.

The League of Red Cross Societies operates 22 food distribution centers in the Guera, 30 centers in the Biltine, and supplementary feeding centers serving 30,000 persons around the city of Mongo. FAC supports the SGE (Service de la Lutte Contre les Grandes Endemies). Out of the six geographic sectors, three already have been put back into operation (N'Djamena, Moundou and Sarh), with French military physicians and rudimentary cold chain equipment. UNICEF continues to supply medical equipment, basic medicines and vaccines. The World Health Organization (WHO) is providing limited supplies of vaccine and cold chain equipment.

AID has contributed $1,200,000 worth of drugs, most of which have arrived. More importantly, it has set up a successful management system at the PASP (Direction de Pharmacie d'Approvisionnement pour le Secteur Publique), which will serve the MOH in the future.

The Pharmaceutical system has two branches; the PASP serving the public sector and Pharmat, a firm serving the private sector. The Pharmat was created in August 1983 and operates on a commercial basis as a wholesale firm for 60 privately owned pharmacies in N'Djamena and the prefectures. PASP supplies itself based on a national list of about 250 essential drugs, all generic. It distributes drugs to hospitals and dispensaries where they are provided to the people without charge. Currently, the PASP is well stocked due to contributions.

However, once this source diminishes or stops, the system cannot replenish itself. The MOH drug budget will not be adequate to continue free distribution in the near future. Therefore, adoption of a policy of consumer payment is urgent.

The MOH's planning unit has five rooms and a staff of seven in the MOH building. The WHO provides the unit with basic stationery supplies. As there are no new health statistics coming in, the office is dealing mainly with arrangements for third-country training of Chadian health personnel.

The fact that Chad's estimated 4.9 million population is increasing at an annual rate of 2.4 percent puts increasing pressure on the GOC to address the country's health problems effectively and immediately. Available statistics indicate that the demand for health care will increase by 60 to 100 percent over the next 30 years. The MOH has recognized this and given high priority to maternal and child health care, with particular emphasis on reducing childhood mortality. Despite all efforts, however, the MOH cannot hope to meet the demands on public health services implied by this significant population growth rate.

In addition to putting overwhelming pressure on the public health system, the population growth rate has serious economic implications. First, it will have a significant impact on dependency ratios. Second, to ensure household food security, producers will necessarily have to commit greater hectarage to the production of low value coarse grains, inevitably reducing the production of oil crops, vegetables and other cash crops essential to national food self-reliance. In addition, this population growth rate will substantially increase food import needs, further exacerbating Chad's balance of payments situation and continued dependence upon donors.

3. Education and Human Resources Development

Since the 1979 conflict, Chad's educational system at all levels, primary, secondary, technical and university, has been in complete shambles. Physical facilities have been partially or completely destroyed, while most of the furniture and equipment has been looted. The quality of the teaching corps, particularly at the elementary, secondary and technical levels, has dropped considerably. A total of 175 expatriate teachers and 165 Chadian teachers at the secondary level have left Chad and been 90 percent replaced by untrained Chadians who need in-service training in teaching methodology and subject matter. In the technical and vocational sector, the technical industrial lycee and technical commercial lycee in N'Djamena, as well as the industrial technical college in Sarh and the 12 vocational/apprentice schools around the country, have survived the hostilities. However, they are functioning with few and unqualified instructors to accommodate nearly normal activities and, in a number of instances, with absolutely no

science or mathematics teachers.

Chad must depend on outside donor assistance for physical and technical aid to get its educational facilities adequately functioning again. A number of major donors, such as the UNDP, ILO, FED, FAC and the Swiss, are or will be providing assistance to all levels from primary through university, implementing area-specific projects generally covering a two-year period.

The GOC should use the opportunity to reconstruct the educational system to rethink its objectives and avoid the low level of efficiency experienced prior to 1979. Primary education was characterized by low numbers of qualified teachers, low attendance rates at an average of 24 percent and a high dropout rate of 78 percent. Before the events of 1979, the Ministry of Education employed the largest number of civil servants, second only to the Ministry of Defense. But for the large part, these personnel were not well trained or qualified. In addition, the national education budget represented only 11 percent of the total national budget, with roughly 91 percent of that going to salaries.

Of principal concern is the agricultural training and education system in the country. The DEFPA (Direction de l'Enseignement et de la Formation Professionelle Agricoles) under the Ministry of Agriculture is responsible for the education and training of government personnel in the agricultural (including livestock) sector. The DEFPA has responsibility for the College d'Enseignement Technique Agricole de Ba-Illi, where Agents Techniques Agricoles (ATA) are trained, and the school at Tikem where extension workers receive nine months of training. The College is faced with the problem of a reduced qualified staff and the need for an upgraded curriculum. This manpower need is critical because of the prominent role of agriculture in the economy.

II. AID's STRATEGY

A. The Decision Framework

1. Objectives

U.S. assistance to Chad in the next five years will have two central and interrelated objectives. First, AID wants to help consolidate national unity and stability in the face of external threats. In order to do this, we will work with the GOC to help re-establish a sound administration, revitalizing critical public services, providing necessary relief to displaced persons and rebuilding essential infrastructure. By addressing the needs of the Chadian people, a more stable and secure political and social environment will be established, increasing the GOC's resilience to outside aggression and contributing to the preservation of Chad's territorial integrity. Inherent in this effort is the imperative to overcome obstacles to Chad's development which, even before the war's destruction, kept it among the poorest countries in the world. The agricultural sector is characterized by an insufficient productive capacity which is extremely vulnerable to recurrent drought, the consequences of which are severely compounded by Chad's inadequate infrastructure and managerial capacity. AID intends to conduct activities in these areas.

The longer-term objective, to be undertaken within the multi-donor Sahel Development Program, is the establishment of a financially stable, reasonably well-managed Chadian administration, itself capable of increasing Chad's productivity in agriculture and livestock and providing economically and technically viable solutions to its pressing health and nutrition problems.

2. Continuity and Evolution

The U.S. assistance program to Chad resumed in September 1982 and was again, though briefly, disrupted by the Libyan invasion of northern Chad in the summer of 1983. Because of the tremendous destruction inflicted by the war, it has had to focus on the quick disbursement of emergency and reconstruction aid. However, much of this assistance has been conceived with the intention of laying the groundwork for a longer-term development plan, based on the increasingly valid assumption that the essential structure and processes of the GOC will henceforth be stable and amenable to development initiatives.

Our strategy is geared towards building on reconstructed systems and converting them gradually from maintenance to development engines. This calls for adroit tactics. The plan is to play a major role in the evolution of the country's economy from one that barely provides for human survival to one in which a large

number of people, specifically the 2,000,000 farmers of the Sahelian zone, experience accelerating marginal improvements in the quality of their lives. These people have been the beneficiaries of immediate emergency aid and will be the targets of a more profound assistance in the future as the same organizational and physical systems that have been recreated out of devastation are significantly improved to carry out development objectives.

During the first two years, AID efforts in Chad will focus on rehabilitation. They also will concentrate on developing the information base, human resources, institutional capacity and policy environment needed to support evolving production-oriented interventions. Our continued concern for Chad's economic and administrative strength will influence the way we select and implement subsequent development initiatives. However, the extensive destruction Chad experienced during the war precludes its full recovery within the CDSS timeframe. Nor will it be able to support very large-scale direct investments in its productive capacity until the end of this period. Given these circumstances, AID is obliged to concentrate on limited development investments.

During these two years, AID will focus on re-establishing the viability of the Chadian administration by using ESF and P.L. 480 resources to support the civilian budget and, in particular, the administrative components essential to Chad's agricultural development, transport, and to a much lesser degree, its health and population sectors. It will continue Food-For-Work support to restore agricultural infrastructure through the combined efforts of PVO's and the World Food Program (WFP). It will retain critical staff using resources from the Sahel Manpower Development Project (SMDP) and provide much-needed financial and management assistance to these organizations through the Sahel Regional Financial Management Project (SRFMP). In addition to these activities, AID will begin to lay the groundwork for longer-term efforts by restoring the Ministry of Health Planning Unit, funding a PVO-managed small-business credit program, assisting in the development of agriculture in and around Abeche, and financing the production of certified seed.

In the medium term, AID will concentrate on developing the institutional base for increased agricultural production by supporting selected research stations near N'Djamena, re-establishing a national seed improvement program, supporting the national agricultural training institute, and implementing selected trial irrigation production projects. In livestock, we will support programs to improve animal health, provide a limited number of water points, and promote mixed farming. In health, we will support national health planning and propose study of an improved pharmaceuticals distribution system.

3. Management Criteria

Chad's need for assistance in reconstructing its war-battered economy and emerging from its long-term and pervasive poverty is tremendous. AID's constrained resources, both in staff and funds, can provide just a part of what is required. To ensure that our share in this effort achieves maximum impact, we will be selective in our activities. In terms of area, we will concentrate on the logistically accessible Chari-Baguirmi Prefecture and the historically less-favored Sahelian zone, centering on Abéché. In terms of sector, we will direct our efforts towards agriculture, with complementary activities in livestock, health and nutrition. In regard to components, we will focus mainly on training, limited infrastructure and the provision of production inputs. To overcome predictable staff constraints, we will: (a) work on only two large projects; and (b) implement a relatively large portion of the program through contractors or PASA's and agreements with private voluntary organizations and perhaps Title XII Cooperating Universities. To a certain extent Sahel Regional projects, e.g., SMDP and SRFMP, will also be drawn upon.

A major programming objective is to minimize the long-term burden on GOC administration and finances by using the private sector as the preferred medium for induced change whenever possible. AID project designs will minimize net recurrent costs generated by our activities or provide for them in Phase II activities.

Finally, we will take full advantage of the multi-donor SDP framework by exploiting additional resources, cooperating to encourage needed policy decisions, establishing the fullest possible exchange of information and collaborating on implementation issues such as salary supplements and adherence to the SDP-agreed priority of food self-sufficiency.

4. Regional Programs

Because of the civil strife and the consequent dislocation of its economy and people, Chad has not been included in regional projects. A few months ago, Chad reactivated its CILSS National Committee (CONACILSS), which is gradually becoming a forum for dialogue between donors and the GOC in agriculture. AID is providing operating support to the CONACILSS, via the Sahel Regional AID and Coordination Project, and funds for the reconstruction of the CONACILSS office. Chad also participated in the Fifth Club du Sahel Conference (November 1983), where its developmental needs were clearly defined and amply discussed.

With increased stabilization, Chad is actively seeking to be included once again in the activities of the Crop Protection Program, such as the Integrated Pest Management (I.P.M.) Annex B Project. An I.P.M. reconnaissance mission including people from FAO, CILSS and AID arrived in N'Djamena early in January 1984 and

recommended Chad's inclusion in this regional program beginning FY 1985.

5. Donor Coordination

AID/Chad is supporting greater donor coordination to avoid waste and duplication of efforts by participating in a number of coordination committees such as the Action Committee for Emergency Aid and the Donor/GOC Health Activities Coordinating Committee. The former was created as a mechanism to mobilize donors and coordinate their overall assistance in the field. The second is responsible for coordinating donor assistance specifically in the health sector. The Director General has proposed the creation of a subcommittee consisting of WHO, UNICEF and AID/Chad to discuss policy and donor coordination in the population sector.

AID is actively seeking the creation of a donors' training committee to improve coordination with regard to participant training via the SMDP II mechanism. It is calling for this activity to be carried out under the auspices of the Technical Committee for the Coordination of Foreign Aid, created as a result of the Geneva Conference on Chad. Another committee in the formative stage is the Donors' Agricultural Committee which will be coordinated by the CONACILSS, as the CONACILSS correspondent is also the head of the interministerial BEP (Bureau des Etudes Professionelles) in the Ministry of Agriculture and Rural Development.

The policy issues which we will encourage these coordinating bodies to address during the CDSS timeframe are inter alia: (a) establishing common practices with respect to salary supplements to GOC counterparts; (b) establishing networks to pool information on donor activities and lessons learned at the field level; and (c) agreement on desired overall sectoral distribution targets for assistance. Currently, heads of resident donor agencies are meeting informally bimonthly under the aegis of the French. By encouraging coordinated donor and GOC contributions, AID hopes to help both the donor and the GOC reach a better understanding of how to appropriately allocate and utilize their resources so that they will have the maximum impact possible.

B. Financial Stabilization

1. National Budget

One requisite for the implementation of development programs is the administrative and fiscal stability of the national government. If the GOC is not able to pay civilian salaries, minimal operating expenses and non-deferable debts, it will not be able to provide a secure environment for development programs.

Through 1983, GOC revenue collections were far below expectations, mainly due to its slow progress in reasserting central government control and private sector reluctance to re-establish itself in Chad. As the year progressed, the GOC ran

up a large expenditure debt despite direct budgetary support from the French and indirect budget support from several UN agencies (among others) and its own efforts to discontinue a number of fringe benefits and cease funding to selected administrative units. We hope that the Government will improve on this performance over the next two years, but we see little likelihood that a balanced national budget can be achieved before 1985 even after accounting for unconfirmed non-U.S. support. As GOC fiscal stability is essential to all our programs, we have committed a portion of ESF resources directly to GOC budgetary support.

The aim of this support program is to cover the costs of general administration and fixed obligations while leaving it an increasing margin of resources to support development programs and services, particularly to rural areas. The role of foreign assistance thereafter will be to finance development investment costs and some recurrent costs.

We expect the GOC to take a variety of steps, with donor support, to achieve budgetary equilibrium. The GOC will review customs schedules and collection procedures to improve receipts and equity, and establish more reliable and equitable tax collection systems and controls with respect to business, banking and administrative fees. It also will need to review government equity participation and tax schedules for the parastatal companies, such as Cotontchad, which occupy a large segment of the commercial sector but make little net contribution to revenues.

On the expenditure side, priority should be given to re-establishing normal budgetary control procedures and eliminating the substantial unobligated expenditures which currently approximate 50 percent of that budget. As a next step, the GOC will establish consistent budgetary accounts to keep track of resources attributed to the various government units from the budget, independent sources, such as receipts retained by provincial authorities and fees retained by individual agencies, and support provided by foreign donors directly to GOC administrative entities. With regard to the foreign debt, we expect the GOC soon to appoint and reactivate the Autonomous Debt Fund (Caisse Autonome d'Amortissement) to discuss on a bilateral basis the rescheduling of its external obligations. The debt service for the GOC is currently estimated at $11 million per year.

In the longer term, the GOC will need to begin a review of overall staffing patterns to minimize general administrative growth, establish adequate incentives to attract skilled Chadians temporarily abroad, while leaving sufficient resources to finance necessary material, operations and maintenance.

The GOC budget for 1984 is expected to reflect the progress it made in executing the budget for 1983. Total receipts in 1983 were nearly on target with the

November 1982 UNDP projection. If that trend continues, total revenues should be around FCFA 10.2 billion in 1984, rising to FCFA 19.4 billion by 1986. Assuming that annual civilian budget support for 1984-85 is FCFA three billion from France, this would allow total GOC-managed civilian expenditures of about FCFA 14 billion in 1984, rising to FCFA 22 billion in 1986.[1]

GOC BUDGET YEARS (CALENDAR YEARS)

(FCFA BILLIONS)

		1983	1984	1985	1986
1	"Normal" Revenues = Expenditures	21.0	22.5	24.1	25.8
2	Revenue Performance (%of normal)	30	45	60	75
2a	Actual Revenues	6.3	10.2	14.5	19.4
3a	Civil Budget Support (France)	2.8	3.0	3.0	3.0
3b	Civil Budget Support (U.S.)	0.0	2.0	2.0	1.2
4	Total GOC Civil Budget Resources	8.1	15.2	19.5	23.6
5	"Shortfall" From "Normal" (= 1-4)	10.9	7.3	4.6	2.2
6a	Made Up By: GOC Salary Cuts	6.5	N/A	N/A	N/A
6b	Direct Donor Aid to Ministries	N/A	N/A	N/A	N/A
6c	Other Revenue and Expenditure Measures	N/A	N/A	N/A	N/A

We expect other donors to support the Government's stabilization effort in several ways. Traditionally, France has been Chad's main source of budgetary assistance, providing FCFA 2.8 billion ($7 million) from January through October 1983. A similar level of support is expected during the next few years. France also plans to provide approximately 30 technical advisors next year, some of whom will work with the Ministry of Finance. AID also expects that France and other donors will continue to directly fund the operations of selected GOC institutions.

AID intends to promote the continuation and, if possible, the expansion of these other-donor activities. We also will look for ways to encourage the increased involvement of international financial institutions which are uniquely equipped to provide technical advice on fiscal policies and may be prepared to commit resources. AID intends to work informally with the resident donor community to promote support for anticipated GOC fiscal policy reforms and to encourage donor policies directed towards funding counterpart operating costs in projects, maintaining a high percent of quick-disbursing aid in overall portfolios, and designing projects to reduce net recurrent costs to the Government, therefore easing the burden on the GOC budget.

[1] Source: International Conference on Assistance to Chad (Geneva, 11/82, Volume 1, page 130 and following which provides normal revenue and "gap" estimates through 1984. All other figures are Mission estimates (from GOC data) and projections. We included U.S. grants of $3 million transferred over 12 months.

AID proposes to assist directly the Government of Chad in this interim period by providing a portion of P.L. 480 counterpart funds to support GOC operating costs for agencies with which we work. AID intends to provide an additional $2 million in the form of 5,000 tons of P.L. 480 rice to be sold in the market. Local currency generated will be used to support GOC agencies in public works, disaster relief, and procurement of medicines. This food assistance corresponds to a well-identified market shortage in rice. Given the anticipated continued need for local currency to support our development programs, we project maintaining a comparable level of P.L. 480 market sales of rice in subsequent years.

AID will need to build up its own information base and analytical capability to support this stabilization program. The Mission must keep track of and evaluate GOC and other donor performance continuously in order to provide informed advice to the GOC and to manage its own contributions effectively. To do this, AID will need to deepen its understanding of Chad's budgetary and financial systems as they relate to the national economy and conditions in such influencial neighboring countries as Nigeria. This will require: (a) maintaining close contack with other-donor analysts, particularly in the IBRD and IMF; (b) utilizing short-term consulting resources; and (c) establishing an in-house financial-economic analysis capability.

Thereafter, we expect the Government to maintain to a significant extent those services which are essential to the public and efforts to exercise taxation and expenditure policies which maximize the mobilization of national resources for private and public investment. We also expect it to begin to meet a portion of the recurrent costs of foreign-financed development activities. A condition for success in this will be the Government's willingness to yield a greater role to the private sector and to make government interventions more selective. We expect other donors to continue to provide technical assistance and policy advice to the ministries responsible for public finance, and possibly some continued budgetary support.

2. Banking and Credit

Issues deserving further research include: (a) the status and adequacy of traditional/informal savings and credit systems; (b) the role of trader credits from neighboring countries, particularly Cameroon and Nigeria; (c) the bank-like services of parastatals such as Cotontchad in rural areas; and (d) the actual distribution and terms of credit by those banks which currently function.

The overall objective in this sector is the development of a functioning agricultural credit system with substantial private sector involvement at all levels and public operation of a credit extension system. To achieve this goal, donors,

in the short term, must help reconstitute the private banking system and resolve the debt overhang. For the longer term, various options should be explored to develop a robust banking/credit system targeted on rural areas and trade in agricultural/livestock inputs and outputs.

AID expects other donors to provide capital and reconstruction credits to reopen the private banking system and to fund soft loans to the private sector, through the banks, to rebuild residences and commercial structures. We also expect IBRD and IMF to provide analytical and policy counsel in the public finance sector and hope that they will contribute to developing and funding producer-oriented savings/credit systems in the rural areas.

AID intends to participate in this sector by financing a small enterprise credit system managed by a PVO and targeted on the N'Djamena area and by training Chadians in financial accounting and management under the SRFMP. In the longer term, we expect to work with the ONDR and the interministerial BEP unit on research and planning to encourage the development of an effective rural credit/loan system.

C. Agriculture

The agricultural strategy which AID intends to implement in Chad will address selected development needs while recognizing short-term economic, financial and physical constraints. We will take into special account the sector's limited absorptive capacity, in terms of both trained personnel as well as counterpart funds, and the lead time required to establish an information base and physical infrastructure that will support longer-term agricultural growth. The sequence will be as follows: In 1983-87, AID will: (a) re-establish the viability of key government organizations by providing equipment and operating expenses, training opportunities, short-term technical assistance and opportunities for Chadians to participate in regional agricultural activities; (b) repair and rehabilitate agricultural infrastructure in the Sahelian zone which will increase production and facilitate efficient private sector marketing activities; and (c) provide timely, limited resources to address critical short-term problems, such as the availability of certified seed, the selected development of livestock watering points, the preparation of planning documents for future projects and the conducting of problem assessments. In 1987-90, AID proposes to focus its agricultural assistance for the Sahelian zone on: (a) strengthening Chad's national agricultural research capacity, with particular emphasis on crop research geared to making a medium-term impact on production systems; (b) establishing a seed improvement capacity for foodgrain; (c) developing economically viable irrigated crop production systems;

and (d) continuing to improve the management of agricultural development institutions and systems, including those in the private sector.

The repair of agricultural infrastructure has already begun through agreements with AFRICARE and CARE under the Relief and Rehabilitation project. AFRICARE will assist the Ministry of Agriculture unit, CAMAN (Cooperative Agricole des Maraicners et des Arboriculteurs de N'Djamena), in re-establishing vegetable production in two small irrigated perimeters not far from N'Djamena. AFRICARE will provide CAMAN and farmers with pumps, seeds and operating capital. CARE will undertake an ambitious program, using Food-For-Work and development assistance resources, to perform a substantial amount of reconstruction work, such as the reinforcement of dikes and canal repairs in the Bongor Irrigated Rice Production areas, general irrigation canal repair near Karal, Guelendeng, Ligna, and Lai, and urban sanitation efforts, involving the upgrading of the slaughte-house in Doba and the covering of 250 meters of a sewage canal in the Millet Market in N'Djamena.

The future development of the GOC's seed improvement and dissemination capacity will be fundamental to its program to make improved seed varieties available to farmers in the Sahelian zone. In the shorter term, greater quantities of cleaned, treated and sorted seed will boost productivity. In the longer run, genetic improvements should have a great impact on productivity. FAO has already taken the first step in a seed production and certification effort which AID will carry to its next stage in 1985-87. AID will be able to offer significant U.S. expertise in this field and will aim at a seed multiplication system which can become self-sustaining and produce seed varieties useful to low-resource as well as high resource farmers.

As already noted, AID has begun activities with CARE and AFRICARE which establish contact with irrigating farmers. We are monitoring and studying these efforts carefully to assess the requirements and potentials involved in the re-development of Chad's irrigated production capacity. Other donors, the World Bank, the Chinese and FED, for example, have expressed interest in renewing support for irrigation development activities. AID will actively participate in irrigation development dialogue to ensure that, as Chad gets back into high-cost agricultural production, the GOC does not reinstitute unsustainable policies with regard to input subsidies. We also want to make sure that the recurrent cost and trained personnel requirements which will be generated by the sudden injection of donor support for irrigation stays under control. AID has been asked to resume its assistance to the regional SODELAC (Lake Chad Development Authority), however, we are not prepared to enter the irrigation sector until we have carefully studied it. These policy issues, as well as our reassessment of overall investment and training needs for this or similar projects, must be considered in more depth

before a committment is made. However, in principle, we believe that irrigated agriculture has a significant role to play in Chad's agricultural development and will do all we can to encourage and support the re-development of this sector.

Finally, AID will continue to support training of professional agriculturalists through the 1987-90 period with short-term courses. Consideration will also be given to re-establishing and strengthening the indigenous training capacity and to expanding long-term training opportunities outside Chad. Special emphasis may be placed on supporting the integration of forestry into the curriculum of the Ecole d'Agricole at Ba-Illi, for example. Yet, this option would have to be weighed against the option of providing training opportunities at other schools in the Sahel.

Two possible areas of activity in which AID can participate to rebuild and expand Chad's national agricultural research system are:

(1) Crop research which might affect rainfed farming systems in the medium term. Marginal improvements in farming techniques would significantly increase farmers' ability to meet their basic food requirements despite the variability of rainfall. Some of the options already suggested, e.g., training in the effective use of manure, greater use of animal traction, possible improvements in erosion control and soil/water management, will no doubt be supplemented by other options identified in BEP studies in the coming years. AID can usefully foster a research dialogue to broaden the scope of research activities for the Sahelian zone to include varietal selection of coarse grains and pest control, although experience elsewhere indicates that varietal improvement and economic pest control are long-term propositions.

(2) Multidisciplinary research already has a good start in Chad with the existence of the BEP. The BEP includes specialists in agriculture, livestock, sociology, agricultural economics and forestry. Carrying this multidisciplinary approach into the level of field research would seem to be an objective fully justifying AID support for the longer term. Given the problems of low precipitation and surface erosion in the Sahelian zone, identification and testing of viable agroforestry approaches might be a useful starting point. The near overstocking of the Sahelian zone and understocking and need for greater use of animal traction in the Sudanian zone, make investigations along these lines a useful course of action to follow.

D. Health, Population and Nutrition

The MOH does not have a population policy or program. However, reported illegal abortions, the prospect of insurmountable pressure on health care systems and increasing economic instability, plus growing official awareness of the

important role women can play in development has made the MOH recognize their necessity and request assistance for population planning and programming from AID.

Our population strategy will concentrate on the four major problems confronting the MOH, e.g., planning, policy, program development and personnel.

The Health Planning Restoration Activity is designed to restore health planning capabilities within the MOH through the recreation of a health planning unit. The functions of this planning unit will be to serve as a central clearing house for health information, to assess health needs and establish priorities, to provide guidance for and coordinate activities of donor agencies in the health sector, to plan and coordinate training efforts and to use scarce resources in a cost-effective manner. The activity will emphasize two components — training of Chadian personnel and the development of a health information system. The training component will consist of on-the-job training of Chadian counterparts within the MOH by U.S. technical advisors, formal third-country training of MOH officials, and the planning and implementation of in-country problem-specific seminars and workshops at both central and regional levels. The second component will consist of the development of a standardized morbidity and mortality surveillance reporting system for all medical facilities in Chad and the completion of a series of population-based surveys to obtain data on basic health indicators. This activity constitutes the cornerstone of the AID health program in Chad.

AID will encourage the development of appropriate policies and attitudes towards the population sector. In general, the Chadian people do not support aggressive family planning population programs. Their reluctance is rooted to a significant extent in their poor living conditions, cultural practices and lack of economic opportunities.

Our short-term objective in this area is to increase policymakers' interest in, and understanding of, population issues. In order to accomplish this, we will continue our dialogue with the MOH on the importance of population policies. As part of that dialogue, we intend, in early FY 1985, to present the RAPID II Demonstration to the President, the Council of Ministries and key personnel in development ministries. We also will use technical assistance from the AID centrally-funded Development Law and Policy project to further facilitate policy development in the MOH. This project was designed specifically to help policymakers develop laws and policies related to population and development.

In the area of program development, we will request assistance from the AID Population Communication Services project to provide information and identify educational needs for family planning programs in Chad. Further assistance will be sought from AID's Family Planning International Assistance program (FPIA) to

design and implement small-scale programs that are affordable, cost effective and maintainable. These programs will be tied into the newly formed MOH Family Health Services division. We will also ask the AID Population Program Development and Support project to help the MOH analyze and evaluate the quality of family planning data systems in Chad, assist in workshops to train personnel in program management and evaluation and evaluate the family health services program. These activities will tie into the Health Planning Restoration Activity as the family planning data which are to be analyzed and evaluated must necessarily come from the MOH planning unit. Conclusions made on the basis of these data may then be used by the MOH to formulate appropriate family planning policies and programs.

As in most Sahelian countries, the MOH will integrate population programming with Family Health Services and Maternal/Child Health programs. In the short term, we will develop programs which are limited to counseling in methods of birthspacing, problems of fertility and infertility, and Maternal/Child Health Care. However, the Director General has expressed his support for the distribution of oral contraceptives and condoms. In view of this goahead, we will seek ways to integrate the delivery of these commodities, and counseling in their use, into our family planning programs. MSF, the largest PVO in the health sector, and various missionary services have expressed their willingness to act as contraceptive extension agents as well.

Training of administrative, management and survey personnel will be provided under the Health Planning Restoration Activity (HPRA). Additional medical and technical personnel will be trained through JHPIEGO programs in the U.S. and Tunisia. The MOH Director General will receive training through a Public Health Management course at the University of North Carolina in late FY 1984. In addition, the HPRA also will conduct workshops and in-country training for nurses, midwives and traditional birth attendants to help create more effective and affordable basic health/FP services for the urban and rural poor.

The AID/Chad Mission's small size and limited resources prevent it from being able to participate extensively in the health sector outside of our population program. However, we have been conducting several activities on a smaller scale. Through our Medicines and Medical Supplies Activity, we provided $1,230,000 in urgently needed medicines, medical supplies, and technical assistance to the Chadian National Pharmacy. The Pharmacy itself was repaired and a management system established to coordinate donor assistance. Eight Chadians received on-the-job training. During 1986, AID intends to conduct a full study of the health sector, the outcome of which may include additional assistance to the National Pharmacy. Technical assistance and commodities also would be included to develop

a self-supporting supply system that would end its dependence on continuing donor assistance.

In addition, AID will help develop an Oral Rehydration Therapy program (ORT) in N'Djamena during FY 1985. With help from the Sahel Development Planning Team, we will open two Oral Rehydration Units with already-trained personnel. These restored units will provide the base from which a larger national ORT program will be developed in late FY 1985.

E. Transport

What minimal national highway system had existed prior to the long period of civil unrest and war has since deteriorated as a result of the fighting and inadequate maintenance systems. According to the last road inventory, conducted in 1961, only 3.5 percent of the country's 7,270 km of road was paved, while only 15.1 percent of that was engineered, all-weather design. The failing economy is largely the reason behind the neglect of highway maintenance institutions within the Ministry of Public Works. What was once a reasonably organized, equipped and functioning equipment and road maintenance system has become a collection of largely abandoned and empty structures.

AID/Chad intends to mount a significant effort at reconstruction and development in the transport sector. The activity will focus on the reconstruction of formerly operational roads in the N'Djamena area, while providing the institutional inputs necessary to create a well-functioning self-sufficient road maintenance system.

At present, AID efforts at road rehabilitation and maintenance have been limited to two projects amounting to approximately $1 million. One, a $0.4 million activity, is being implemented through Food For Work to reconstruct the major road leading 155 km south from N'Djamena to Guelendeng and is actually a major component of a larger Food-For-Work feeding program. The project has made some progress, but the available means have been too scanty to make any longer-term impact. The second, the $0.6 million Heavy Equipment Repair and Road Rehabilitation project, is a more substantive activity aimed at making institutional improvements, but again represents just a first step toward making a lasting impact on the situation.

In February 1984, the Chadian Government established the OFNAR (Office National des Routes), as a subdivision of the Ministry of Public Works, to be responsible for the reconstruction and maintenance of the national highway system. The creation of OFNAR exemplifies the very high priority the GOC places on the reconstruction and maintenance of Chad's roads. Taxes on petroleum fuels

for land transport vehicles are the basis for its future funding, deposited in a segregated account by and for OFNAR. It is AID's intention to support the GOC's effort to improve Chad's road network by providing up to $14.5 million in ESF grant assistance to OFNAR so that it may attract the necessary operating and maintenance personnel and other expatriate management supervisory and planning expertise to develop its capacity to effectively and efficiently conduct its responsibilities. Local cost financing is to be included to the extent necessary to ensure the project's viability. A second phase will also be required during which decreasing amounts of local cost financing and advisory services will be provided as OFNAR becomes more and more self-sufficient.

A team of AID-financed experts will be provided to serve operationally at critical levels of management within OFNAR until their counterparts have developed sufficient expertise to replace them. The U.S. Department of Transportation (DOT) Federal Highway Administration will provide technical experts under an AID-DOT PASA. The PASA team leader will act in an advisory capacity to the Director General of OFNAR, while all other expatriate personnel below him will assume supervisory positions to their existing counterparts in OFNAR. Other PASA expatriate management persons will work on parts supply and inventory management, road brigade field operations, and equipment repair in the N'Djamena sub-district of the N'Djamena Arrondissement.

Immediate and thorough expatriate assistance to OFNAR in its day-to-day operations is necessary because of the critical need for it to become an effective functioning organization as soon as possible. It also should be noted that the reconstruction and maintenance of the national road network will give an important boost to the economy as the improved transport facilities help connect major production and consumption areas in the vicinity of N'Djamena.

F. P.L. 480 Use Strategy

As a follow-on to the emergency sales project, AID/Chad intends to begin implementation in FY 1986 of a multi-year Section 206 Program which will monetize 24,000 MT rice over a three-year period. Local currencies generated by these sales will be integrated with DA resources to finance activities, primarily in the agriculture and transport sectors, which contribute to Chad's efforts aimed at food self-reliance. Given AID/Chad's stated intent to focus its program in FY 1986 on these two sectors, additional resources in the form of local currencies will increase the overall development impact of our assistance.

The likelihood of continued shortfalls in grain production is high given the consistently inadequate rainfall in the north and a growing predilection for cotton production in the south. Although various studies have indicated that

"normal" grain production in Chad should average 600,000 MT of sorghum and millet per year, plus 100,000 MT of rice, the norm was seldom reached in the 1970's and has not yet been reached in the 1980's. Until such time as agricultural production receives the requisite inputs in those geographic regions where cereals production is still a viable option, there will continue to be shortfalls.

Commercial imports through the private sector help fill a portion of these shortfalls. The Chamber of commerce estimated that 65,000 MT of cereals were imported between 1982-83 through the private sector from Nigeria and Cameroon. The GOC does not become directly involved in these commercial grain imports and is incapable, due to its extremely weak economic base, to finance such imports.

The GOC has not yet defined its policy on cereals production and marketing. The result has been an essentially laissez-faire marketplace with an occasional attempt at government controls. For example, in 1983 the GOC attempted, without success, to ban export of cereals produced in the south towards Nigeria and Cameroon. The National Cereals Office, which was created in 1978 from a Dutch grant through the FAO, is functioning only at the most rudimentary level, and is no longer capable of purchasing local cereals. Thus, most cereals in Chad are bought and sold in a free marketplace. The single exception is the rice which is bought in paddy from southern farmers by a parastatal, milled, and resold. The purchasing and selling price for rice milled by this parastatal, OMVSD (Office pour la Mise en Valeur de Sategui-Deressi), are set by the GOC. However, this does not prevent rice from being marketed outside OMVSD channels. And finally, retail prices for all cereals produced in Chad, including rice, float freely on an open market.

Commodities to be provided under a Section 206 program will be marketed by the ONC in a manner similar to that which will be utilized in the Emergency Sales Project scheduled for FY 1985 implementation. The rice will be received, stored and sold by the ONC to licensed retail merchants in N'Djamena. The wholesale price at which the ONC will market the rice will be the prevailing in-country market price. Local currencies generated by the wholesale sale of the rice will finance self-help measures in the agriculture and transport sectors aimed at improving the food supply situation and strengthening the GOC's capability to resolve problems contributing to the lack of food and the need for continued concessional food aid. In this way, local currencies generated will be fully integrated with other AID resources which also will be focusing upon activities in the agriculture and transport sectors during FY 1986.

The monetization of rice as opposed to other Title II commodities through the proposed Section 206 Program for Chad is preferable due to its high degree

of acceptability in urban markets and the resultant quick generation of large amounts of local currency for funding development activities. The marketing of 24,000 MT over a three-year period (8,000 MT per year) can likely be absorbed by the N'Djamena market without creating a disincentive to production or a disruption of the market. However, a design team will examine more closely in FY 1985 the possible disincentive effect of placing this quantity of rice on the marketplace. Also, during the design phase, specific kinds of projects in the agriculture and transport sectors eligible for financing with local currencies will be identified.

Storage problems are not likely to occur due to the existence of 20,000 MT storage space in N'Djamena, and the intent to call forward the Section 206 rice allocation in manageable consignments of 2,500 MT - 3,000 MT. The existence of several GOC warehouses earmarked for ONC use ensures that there will be adequate storage. At this point, there is no indication that other donors intend to support the ONC in FY 1986 or beyond with significant quantities of cereals which could, if not properly timed, create a storage crunch. All food aid is closely coordinated among donors and the GOC through a Food Aid Committee which meets on a weekly basis under the chairmanship of the Ministry for Natural Disaster Relief.

G. Education and Human Resource Development

Given the critical need for improved manpower skills in the Ministry of Agriculture, we are concentrating our efforts on human resources development in agricultural administration, specifically the implementation and operation of projects. In the short term, this will be conducted through short-term in-country technical training consisting of workshops, seminars, hands-on exercises and refresher courses for technical personnel who have not had the opportunity to function in a technical capacity for the last several years. The vehicle for this training will be the Sahel Manpower Development Project II, which will accommodate not only the Ministry of Agriculture/DEFPA mid-level personnel, but also mid-level and mid-service personnel in the Ministry of Public Works and Public Health and the National Cereals Office.

Human resources development, especially on-the-job training and specific skills development, will be an integral part of all AID/Chad activities, but will serve physical and economic goals and not be an end in itself. Serving the longer-term goals of those efforts will be limited efforts, some of them already afoot, that reduce manpower constraints in advance of making larger AID investments. These sub-activities include, under the amended Relief and Rehabilitation project (1982-87), P.L. 480 Management Assistance, Health Planning

Restoration and Management Assistance to Ministries. The Sahel Regional Financial Management Project's new Chad component will train accountants in advance of the arrival of large AID investment resources which the GOC will have to manage. The Sahel Manpower Development Project will be used as a medium for selected, more advanced training of Chadian development managers and policymakers.

III. RELATIONSHIP TO AID PRIORITIES

A. Policy Dialogue

The Chad strategy proposes to engage the Government in a wide range of economic policy discussions. In our budgetary assistance negotiations with the GOC, we shall focus on factors affecting revenues, expenditures and budgetary efficiency. In the agricultural sector, we propose to review with the GOC the structure of agricultural credit, cereals pricing (with a focus on rice), and livestock marketing. In health, we intend to demonstrate to the GOC the feasibility of a policy of user payment for pharmaceuticals. We are now dialoguing with the Government re its development of a population policy.

B. Institutional Development

The strategy proposes to allocate a large part of AID's resources during the first few years to rebuilding essential GOC institutions while holding discussions with the Government on the appropriateness of altering or dropping other non-critical institutions and institutional arrangements. AID will heavily fund the development of institutions needed to support important longer-term activities, specifically in the areas of agricultural development as it relates to the Sahelian zone. We also will build the maintenance capability of the Ministry of Public Works.

C. Private Sector

The strategy proposes to allocate modest but vital resources to improve credit facilities of small private enterprise. Our policy dialogue also will seek to restrain GOC intervention in fields better served by the private sector and to remove impediments, e.g., livestock export quotas to private sector growth. One of our aims in the pharmaceuticals sector will be to promote independent drug outlets in rural areas. If our experiment with the private sector credit program is successful, it will be expanded.

D. Technology Transfer

We propose to allocate a substantial portion of resources to road maintenance and repair as well as to irrigation agricultural production. In the health sector, we will be providing much-appreciated U.S. expertise in health planning. Through the SMDP, we will strengthen the technical capability of key agricultural personnel. Through the SRFMP the same will apply with respect to financial management.

E. Relationship to the Regional SDSS

The Sahel Development Strategy Statement (SDSS) calls for an increased focus on agricultural production and agricultural policies to achieve significant improvement in food self-sufficiency. The Chad CDSS makes this priority second only to stabilization, which is a SDSS precondition. The SDSS calls for more research on rainfed food production, which is also a focus here. With respect to irrigated agriculture, which the SDSS points out as essential to the long-run food balance in the Sahel, our CDSS calls for continuation of FFW activities rehabilitating water control infrastructure in the Sahelian zone and re-development of intensive irrigated crop production systems. In livestock, the SDSS advocates encouragement of improved mixed farming, not neglecting animal health and water point development. Each of these will be treated by Sahelian zone PVO agricultural development projects.

The Chad CDSS emphasizes the usefulness of coordination with the regional institutions of the Sahel Development Program: INSAH/CDA and AGRHYMET for agricultural research, CILSS/Club for recurrent costs analyses, CILSS/IPM for crop production, and CONACILSS for overall national and donor coordination.

We fully agree with the Sahel Management Assessment Team's (SMAT) finding that AID's strategy in the Sahel must focus more on visible, high impact activities such as infrastructure needs, e.g., road repair and maintenance and irrigation. We also support SMAT's recommendation that donors in the Sahel should finance local recurrent costs.

IV. PROPOSED RESOURCE LEVELS

A. Assistance Planning Levels

The following table presents the Proposed Assistant Planning Levels for the FY 1986-87 planning period. Overall DA levels by year are based on the continuation of FY 1985's DA level of $5 million. Their distribution by sector is

indicative of the priorities the Mission accords to various elements of its strategy. ESF levels are those provided to the Mission in State 111229, dated April 17, 1984. Under P.L. 480 Title II, AID intends to sell commodities to generate local currency to support key GOC rehabilitation activities.

B. Staffing and Management

The current AID/Chad staffing ceiling is seven direct hire Americans and four Foreign National employees. N'Djamena 2735 sets forth the reasons for the Mission's non-concurrence in the AID/W authorized work-year levels. The Mission believes that the levels do not reflect the requirements here and would not permit the AID Representative to manage a new and rapidly increasing program well. Thus, with Ambassadorial concurrence, the FY 1985 ABS proposed that the USDH staff be increased to nine in FY 1985 and 12 in FY 1986. For FY 1985 we now request an engineer officer and a project development officer. The function of the latter is the sine qua non of success and we cannot necessarily expect it to be filled on a bi-monthly basis by REDSO/WCA/PDO indefinitely.

To speed implementation and thus demonstrate our support to the Government, we have selected PVO's to implement projects through the Cooperative Agreement because they can get projects approved more rapidly and demand relatively less monitoring. PVO staff are highly motivated and easily meet 121(d) requirements. We hope to strengthen PVO technical expertise by blending it, as necessary, with university technical backstopping. We do not regard this as the only or necessarily the best mode for the implementation of complex activities.

In order to operate efficiently within present staff limitations, we are relying heavily on REDSO/WCA services and guidance from SDPT. However, these should not be made to substitute for assigned USDH in the longer run because their coordination is too problematical and an abjuration of OAR responsibility.

PROPOSED ASSISTANCE PLANNING LEVELS

($000)

	U.S. Fiscal Year			
	1984	1985	1986	1987
I. Economic Support Fund (ESF)				
A. Budget Support	3,000	-	-	-
B. Transport Sector	-	10,000	4,500	-
C. Agriculture Production (Irrigation)	-	-	5,500	5,500
D. Health/Population	-	-	-	4,500
Total ESF	3,000	10,000	10,000	10,000
II. Sahel Development Program (SDP)				
A. Relief and Rehabilitation	3,500	-	-	-
B. Agriculture Production (Sahelian Zone)	-	2,225	4,000	5,000
C. Private Enterprise (N'Djamena)	-	-	1,000	-
D. Management Assistance	-	1,500	-	-
Total SDP	3,500	3,725	5,000	5,000
III. Africa Resettlement (Refugee Funds)				
A. Agriculture Production (Sahelian Zone)	3,000	-	-	-
B. Private Enterprise (N'Djamena)	1,000	-	-	-
Total Refugee Funds	4,000	-	-	-
TOTAL GRANT ASSISTANCE	10,500	13,725	15,000	15,000

V. REFUGEES AND DISPLACED PERSONS

Historical Perspective

Chad has been the scene of varying degrees of civil disorder and armed struggle since 1965. The period from February 1979 through June 1982 was particularly violent, with various politico-military factions vying for power and three changes of government occurring. This resulted in a succession of refugee outflows and inflows which peaked in 1980 when the UNHCR estimated 260,000 Chadians fled their homeland in search of asylum in neighboring countries. Most Chadians who were forced to seek refuge during that turbulent period have since returned to Chad. An estimated 62,500 were repatriated through the UNHCR repatriation program and an even greater number returned spontaneously. Although some Chadians have chosen not to return, despite GOC reconciliation efforts and a policy of non-persecution for those who have returned, their numbers represent only a fraction of those who were outside Chad prior to the formation of the present government. A new source of refugee generation, however, appeared during 1983 when Libyan-backed opposition forces invaded and occupied the northern one-third of Chad. Many Chadians native to these occupied zones were forced to leave their homes and head further south to areas under control of government forces and behind the defensive perimeter established by French troops. Severe economic dislocation resulted, requiring mobilization of donor resources and organizing emergency food deliveries. The definition of refugees as used in the 1985 World Refugee Report includes those who have been "displaced within their countries because of . . . foreign invasion," necessitates inclusion of the above displaced persons under this category.

Statistics

Since the massive repatriation of refugees in 1982, it has been increasingly difficult to estimate refugee inflows and outflows. Except for the expulsion of approximately 30,000 Chadians from Nigeria in January 1983, all repatriation since 1983 has been gradual, spontaneous and unrecorded. There likely remain several thousand Chadian refugees in neighboring states, with the possible exception of Niger which has apparently never received large influxes of refugees from Chad. The following estimated figures of Chadian refugees living outside their country were recently provided by respective U.S. missions: Nigeria (2,000); Cameroon (up to 10,000); Sudan (1,000). It is probable that a few thousand also remain in the Central African Republic and Libya. The latter, of course, is actively supporting opposition forces and has therefore attracted many individuals

seeking refuge outside Chad. With the exception of a few hundred Chadian refugees in North Cameroon who continue to receive assistance from UNHCR, most Chadian refugees are unregistered, have become integrated into asylum country communities through ethnic or family ties, and do not benefit from special refugee status. In addition to these spontaneously integrated external refugees, there are an estimated 50,000 displaced persons (GOC estimates) who have left northern occupied zones to resettle further south in Chad's interior.

Assistance Programs

A. During large-scale repatriations in 1981-82, conducted under UNHCR auspices, the USG provided a $2.5 million cash contribution, a $834,000 in-kind contribution along with 2,000 MT of P.L. 480 sorghum and a $273,000 grant to CARE for housing rehabilitation. An FY 1982 STATE/RP grant of $440,000 to CARE also provided for infrastructure rehabilitation, enhancing the quality of life for returnees and others adversely affected by prolonged civil strife. In March 1984, CARE organized food distributions with a UNHCR grant for 740 families who had at one time sought refuge in neighboring Sudan. Two additional activities impacting upon returned refugees, funded under the Africa Resettlement Services and Facilities project, were obligated in FY 1984. Their total cost is $4.0 million. Both activities aim at increasing the productive output of returned refugees and other persons in geographic regions which have been the scene of recent (1979-83) fighting. One activity, implemented by AFRICARE, will increase agricultural productivity in the Abéché region, while the other activity, implemented by VITA, will offer economic opportunities to small businesses in the private sector in N'Djamena.

B. Assistance programs benefiting displaced persons have thus far been limited to meeting their most urgent needs: distribution of food, blankets and medical coverage. A proposal from CARE to design a project meeting longer-term needs in the north-west region where large concentrations of displaced persons have resettled is presently under consideration. Such a project would enhance the prospects for the economic re-integration of these displaced persons. If this project is approved for funding under the Africa Resettlement Services and Facilities project, refugee displaced persons' needs will have been largely met throughout the country. The impact of displaced persons on already impoverished and overburdened GOC institutions has been minimal because most assistance in the social sector is being provided by the donor community. The net effect has been to require additional resources from the international donor community, as opposed to drawing on host country resources, to meet immediate and longer-term refugee requirements.

Estimates and Projections

Given the current occupation of the northern one-third of Chad by Libyan-backed opposition forces and mercenaries, plus continuing efforts on their part to destabilize other areas of the country, the likelihood of continued generation of refugees/displaced persons remains high. However, the continued presence of French troops stationed along the 16th Parallel inspires a sense of security among Chadians and is a sine qua non for maintaining the present precarious calm. Were the present government to be replaced by a Libyan-backed one, it is probable that there would be large-scale refugee movement, akin to that produced in 1980-82, towards neighboring countries, placing an even greater burden on the international community to assist asylum countries in meeting immediate and longer-term refugee needs.

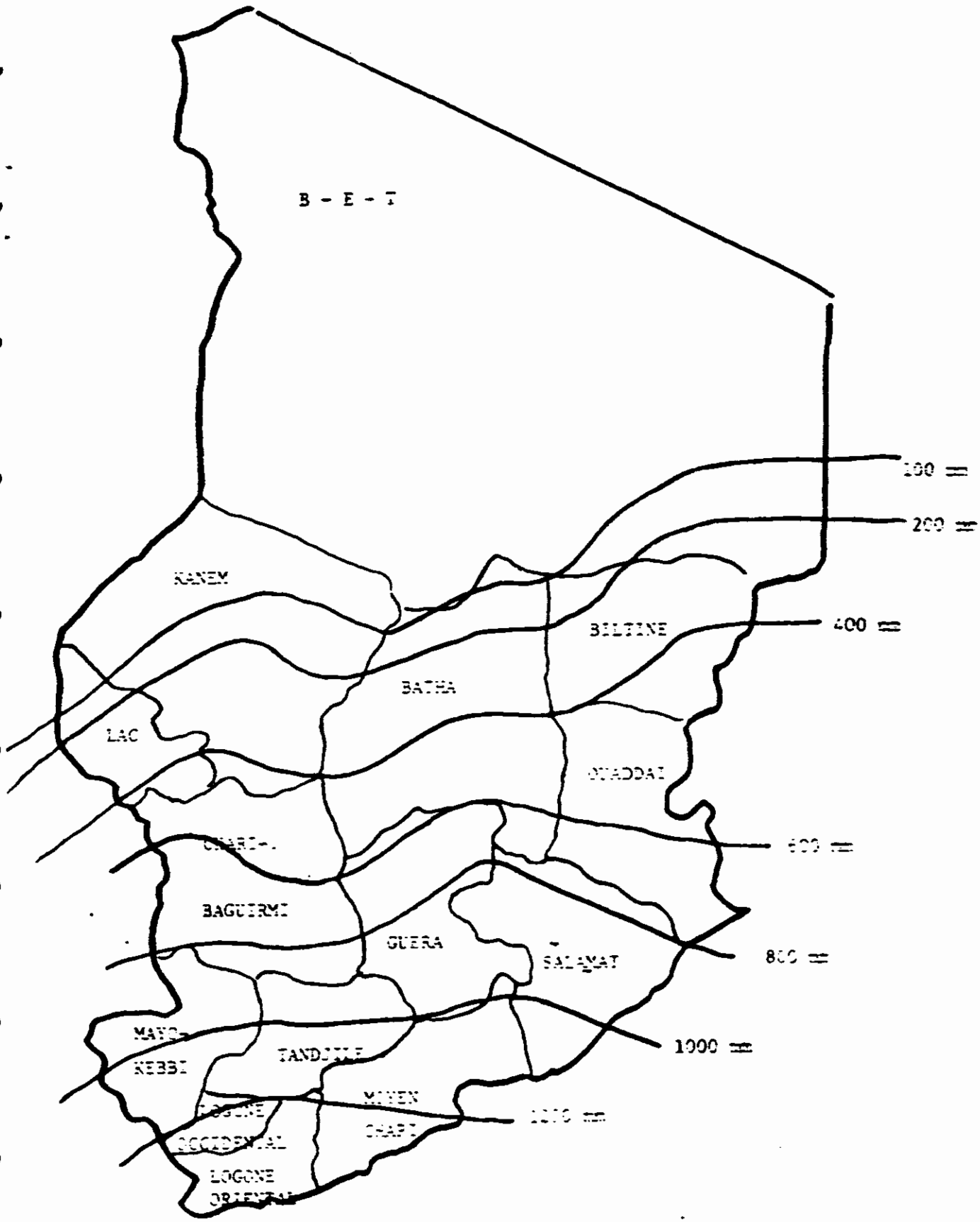
VI. STATISTICAL ANNEX

A. Map — Rainfall Map of Chad

B. Tables

1. Population Distribution by Province
2. Foodgrain Production 1982/83
3. Production of Food grains 1974-1983
4. Cotton Production 1966-1982
5. Market Prices for Principal Products
6. Indicators of Economic Activity
7. Sector and Use of Assistance 6/82-6/83
8. Receipts and Expenditures 1983
9. National Revenue by Category
10. Budgetary Expenditures by Chapter
11. Civilian Employment by Chapter
12. The Ten Major Diseases 1977
13. Annual Development of Infectious Diseases/Transmissible 1973-1977
14. The Ten Major Diseases 1977 in the Medical Centers
15. The Ten Major Causes of Morbidity 1977
16. GOC Health Budget 1961-1977
17. Total of the National and Foreign Staff in the Health Sector
18. Per capita GOC Health Expenses
19. Rural and Urban Population by Prefecture
20. Population and Population Density by Prefecture

MAP 1. RAINFALL MAP OF CHAD



Distribution of Population and Land Area

by Prefecture, 1977

PREFECTURE	Population (1,000)	Percent of Total	Area (Km2)	Percent of Total Area	Population Density Per Km2	
					Rural only 1/	Total
ATHA	344	8.22	88,800	6.92	3.67	3.87
.E.T.	86	2.04	600,350	46.76	0.12	0.14
ILTINE	169	4.01	46,850	3.65	3.47	3.60
HARI-BAGUIRMI	628	14.90	82,910	6.46	4.20	7.57
UERA	199	4.72	58,950	4.59	3.05	3.37
ANEM	195	4.62	114,520	8.92	1.52	1.70
AC	133	3.15	22,320	1.74	5.95	5.95
OG. OCCIDENTAL	280	6.64	7,695	0.60	25.86	36.38
OG. ORIENTAL	296	7.02	28,035	2.18	8.77	10.55
AYO-KEBBI	651	15.45	30,105	2.34	19.56	21.62
OYEN-CHARI	498	11.82	45,180	3.51	8.89	11.02
ADDI	341	8.09	77,240	6.02	3.81	4.41
ALAMAT	103	2.44	63,000	4.91	1.53	1.63
NDJILE	290	6.88	18,045	1.41	13.30	16.07
Total	4,213	100.00	1,284,000	100.00	2.70	3.28

1/ Subtracting the population of urban centers.

Rainfall zone	Prefectures (Sectors)	'000 Ha. Sown				Av. Yield/Ha. (kg)			
		Millet	Sorghum	Berbere	Maize	ML	SG	BB	MZ
100 - 400 mm	Lac	8.4	0.5	--	10.1	460	550	--	900
	Kanem	40.0	--	0.3	2.5	160	--	500	500
	Batha	57.5	21.5	19.0	--	260	276	600	--
400 - 1000 mm	Chari-Baguirmi	36.1	5.7	8.0	4.8	500	400	600	450
	Guera	15.9	1.3	15.5	--	594	652	670	--
	Ouaddai[a]	32.3	11.8	11.0	0.4	145	640	562	--
	Salamat	2.8	10.8	23.1	2.3	425	154	1500	310
Over 1000 mm	Mayo-Kebbi								
	Guelendeng - P[b]	5.3	12.4	4.0	0.6	469	638	634	NA
	- A	0.2	2.3			430	652		
	Mayo-Kebbi - P	2.4	28.2	5.7	4.2	650	693	684	NA
	Ouest - A	2.4	14.6			626	709		
	Mayo-Kebbi - P	4.3	18.7	14.4	0.8	416	570	619	NA
	Est -A	2.9	10.1			404	539		
	Tandjile - P	16.3	17.5	1.1	2.7	448	462	727	NA
	- A	6.4	24.1			462	601		
	Logone Occ. - P	12.9	8.8	--	3.6	615	580	--	NA
	- A	4.5	32.1			613	632		
	Logone Oriental								
	Lim - P	3.6	3.4	--	2.8	794	695	--	NA
	- A	1.3	21.6			763	839		
	Pende - P	14.4	14.5	--	0.3	634	728	--	NA
	- A	3.5	19.8			614	752		
	Moyen Chari								
	Mandoul - P	26.3	21.0	--	1.9	595	641	--	NA
	- A	5.4	23.3			603	648		
	Sarh - P	13.2	14.4	0.5	3.8	731	796	751	NA
	- A	3.8	13.9			730	796		

SOURCES: Figures for all prefectures having less than 1000 mm of rainfall are from a FAO UNDRO estimation for 1983; figures for prefectures (and sectors) with more than 1000 mm of rainfall are from the Office National de Developpement Rural (ONDR) Annual Report for the 1981-83 campaign in the Soudanian zone., pp. 126 and 127.

[a] Figures for Biltine (under 400 mm) were grouped by the FAO/UNDRO team with those from Ouaddai. Since Ouaddai has more rainfall and probably accounts for the majority of production, they have been included there.

[b] P = Grown in pure stands; A = Grown in association with other crops. Most common associations are sorghum and groundnuts, sorghum and beans/cowpeas, sorghum and curcurbits. (See p. 106 in ONDR Report).

PRODUCTION OF FOODGRAINS IN THE SOUDANIAN ZONE

(1974 - 1983)

('000 TONS)

YEARS	MILLET	SORGHUM	BERBERI	RICE	GROUNDNUT	SESAME
1974	77.8	216.0	17.9	13.4	78.5	10.0
1975	89.4	253.9	19.5	11.4	82.3	7.9
1976	79.7	247.1	11.5	14.0	73.7	8.3
1977	69.7	217.5	5.6	6.8	87.6	9.9
1978	66.5	206.6	7.9	20.7	93.8	11.3
1979	67.3	192.1	4.3	25.7	98.6	8.2
1980	77.5	209.1	12.9	46.6	86.1	11.2
1981	65.8	190.9	13.2	42.3	73.0	11.9
1982	76.5	203.1	16.6	23.3	77.7	13.0

SOURCE: CNDR Report for 1982-83 Campaign in the Soudanian zone, p. 130, Tab. II-12.

COTTON PRODUCTION, 1966 - 1982

Crop Year	Total Area (Ha)	Area in "Improved" Production (Ha)	Production (Tons)	Average Yield (Kg/Ha)
1966/67	299,487	19,666	122,699	409
1967/68	298,388	26,116	101,623	340
1968/69	295,435	34,449	148,496	502
1969/70	291,162	44.115	116,748	400
1970/71	301,575	40,602	94,684	313
1971/72	301,906	41,957	108,482	359
1972/73	275,576	44,723	104,037	377
1973/74	269,026	54,852	114,394	425
1974/75	272,156	74,976	143,640	527
1975/76	336,492	127,459	174,062	517
1976/77	318,781	131,462	147,384	462
1977/78	283,978	120,360	125,279	441
1978/79	267,300	137,100	136,856	512
1979/80	179,821	100,270	91,297	506
1980/81	166,484	70,940	85,716	514
1981/82	133,899	56,254	71,391	533
1982/83	137,734	75,986	102,118	741

SOURCE: ONDR Report for the 1982-83 Campaign in the Soudanian Zone, p. 176, Tab. III-7.

MEAN MARKET PRICES FOR PRINCIPAL PRODUCTS IN THE SOUDANIAN ZONE

JANUARY, JULY, AUGUST, 1982
(FCFA)

PRODUCTS	UNIT	January 1982	July 1982	August 1982	% Change Jan. to Aug. 1982
SORGHUM	100 kg Sack	6,647	10,556	9,999	+ 50.4
MILLET	" " "	8,613	12,551	11,669	+ 35.5
PADDY RICE	Kilo	88	107	110	+ 25.0
HULLED RICE	"	170	223	218	+ 28.2
GROUNDNUTS, IN SHELL	40 kg Sack	3,556	4,099	3,244	- 8.8
GROUNDNUTS, SHELLED	Kilo	141	181	173	+ 22.7
SALT	"	155	186	220	+ 41.9
SUGAR	"	375	377	376	+ 0.3
OIL, LOCALLY REFINED	Liter	440	485	467	+ 6.1
GASOLINE	"	191	225	225	+ 17.8
CHICKEN	Item	678	652	626	- 7.7
BEEF, LIVE	"	44,601	51,831	52,125	+ 16.9
TRACTION ANIMAL	"	66,275	87,394	88,458	+ 33.5
BEEF	Kilo	351	343	363	+ 3.4
GOAT	Item	5,586	5,697	5,274	- 5.6
SHEEP	"	6,954	6,802	6,338	- 8.9
FISH, FRESH	Kilo	501	568	552	+ 10.2

Indicators of Economic Activity

	1981	1982	1983	1984
I. Agricultural Production				
Coarse grain production, Chad (000 T)*	477	430	(473E)	-
-Soudanian zone *	299	270	296	-
-Area seeded, Chad (000 ha)*	-	-	430	452
Groundnuts, Soudanian zone (000 T)*	86	73	77	-
-Area seeded, Chad (000 ha)*	-	-	116	142
Cotton production (000 T)*	86	71	102	113(P)
Rice production (000 T)*	47	42	23	-
-Area seeded (000 ha)*	-	-	41	33
Tobacco production (Tons)*	-	71	45	-
Almonds (Tons purchased)*	-	53	211	-
Meat, Farcha Slaughterhouse (000 Tons)[a/]	-	2.2	2.3	-
II. Industrial Activity				
Cotton exports (CFA billion)*	-	11.5	20.1	-
Sugar production (000 Tons)[b/]	-	6.5	8.6	-
Brewery (000 hecto-liters)[b/]	-	1.4	1.5	-
Soap (Tons)	-	121	1289	-
Tobacco products (CFA billion)	0.78	0.97	-	-
Electricity (billion KWH)[c/]	-	14.1	16.3	-
III. Prices (N'Djamena)[d/], CFA per				
Millet (Kg.)	-	220	112	-
Rice (Kg.)	-	185	164	-
Beef (Kg.)	-	900	600	-
Sugar (Kg.)	-	350	325	-
Oil, local (Liter)	-	350	360	-
Cotton (producer price, Soudan zone)	49	59	70	80

Sources: BEAC, ONDR, UN: A/38/213

[a/] Eight months; [b/] Six months; [c/] Five months; [d/] May 1982 and August 1983;
* Crop year.

Sector and Use of Assistance 6/82-6/83 ($ million)

Ministry or Sector	Total	Administration operating cost	Other
Health	11.35	2.36	8.99
Water (hydraulics)	0.09	0.01	0.08
Agriculture	6.91	0.39	6.52
Livestock	2.88	0.55	2.33
Public Work	11.57	2.96	8.61
Education	4.33	4.23	0.10
General administration	6.65	6.65	0.00
Total	43.79	17.16	46.81
Of which:USA	2.59	0.22	2.37
Food $ Humanitarian	46.81		
- of which:USA	12.49		
Total	90.60		
of which:USA	15.08		

Source: Ministry of Plan "l'aide internationale au Tchad", July 1983

CFA 361.5/$.

Chad: Central Budget

Receipts and Expenditures Trends, 1983
(CFA Millions)

	Revenues			Expenditures			Balance	
I. Monthly	Total	National	Aid	Total	Civilian Salaries	Other	Month	Cum.
January	498	498	-	637	388	249	-139	-139
February	359	359	-	689	391	298	-330	-469
March	898	298	600	1,563	427	1,136	-665	-1134
April	405	405	-	825	224*	601	-420	-1554
May	912	412	500	837	210*	627	75	-1479
June	783	283	500	497	151*	346	286	-1193
July	256	256	-	1,933	1,515	418	-1677	-2870
August	591	591	-	820	242*	578	-229	-3099
September	1,293	493	800	280	301	(-21)1/	1013	-2086
October	708	708	-					
II. Cumulative								
September	5,994	3,594	2,400	8,080	3,850	4,230		-2086
October	6,702	4,302	2,400					

Source: Direction du Budget, "Situation des Recettes Budgetaires" (Monthly); "Situation des Depenses" (Monthly).

*/ No expenditures for provincial salaries in indicated months

1/ Gross non-salary expenditures of 383, less adjustments on previous months of 404.

CHAD: CENTRAL BUDGET

National Revenues by Category, 1983 [1/]
(CFA Millions)

I.

Monthly	N'Djamena				Other	Chad
	Customs	Domains	Direct Taxes	Administration	Provinces	Total [2/]
January	261	15	44	19	157	498
February	188	39	57	65	9	359
March	198	19	32	39	10	298
April	264	28	39	26	48	405
May	172	33	50	11	145	412
June	162	27	54	6	34	283
July	165	34	37	3	12	256
August	263	123	23	9	171	591
September	361	25	76	30	1	492
October	258	37	62	25	323	709
Cumulative						
N'Djamena	2,292	380	474	233	-	3,390
Provinces	549	50	189	73	-	912

II.

All Regions Cumulative	FY 83 Target [3/]	Actual to 10/31/83	% Actual / Target
Customs	5,972	2,841	47
Domains	352	430	122
Direct Taxes	2,455	663	27
Administration	266	306	115
Other	74	61	83
Total	9,118	4,302	47

1/ Excluding foreign budget support.
2/ Includes "divers" (columns do not add to total)
3/ As revised in March 1983 (Total was 8330 in original budget.)

Source: Direction du Budget, "Situation des Recettes Budgétaire" (Monthly)

GOVERNMENT OF CHAD

BUDGETARY EXPENDITURES CUMULATIVE THROUGH 9/83
(CFA Millions)

Ministry	Personnel	Materiel	Total Expend.	Budget Estimate
Presidency	235	84	319	555
Service under Presidency	27	14	35	434
National Council	73	4	77	130
Information	43	5	48	317
Inspector-General	19	16	34	83
Agriculture & Rural Development	95	14	109	767
Foreign Affairs	48	1	50	1,685
Interior & Security	265	56	322	2,628
Defense & Veterans	181	376	557	15,000
Justice	33	11	44	215
Economy & Commerce	30	16	46	66
Natural Disasters	27	1	29	67
Livestock & Pastoral Hyd.	64	1	65	418
Finance	106	3	110	1,896
Plan	36	1	37	164
Public Works & Mines	85	1	86	320
Transport	12	1	13	57
Post & Telecommunications	6	1	7	10
Higher Education	46	11	57	1,172
Civil Service	24	1	25	77
Education, Culture, Sport	281	2	283	4,153
Labor & Women	23	1	24	53
Health & Social Affairs	146	2	148	1,734
Tourism, Water & Forests	61	2	63	353
Common Expenses	172	944	1,117	3,024
Contributions & Transfers			133	1,364
Total Obligated	2,134		3,836	
To be regularized			4,244	
TOTAL EXPENDITURES			8,080	36,750

Sources: Tresorerie Centrale, "Budget d'Etat Exercise 1983: Bordereau Sommaire des Mondats Admis Depuis le Commencement de la Gestion 1983 jusqu'au 30/9/83."

Direction du Budget, "Situation des Depenses au 30/9/83."

Chad Civilian Government Employment - April 1983

I. Employment

A. N'Djamena	Civil Servants	Other Categories	Total
Presidency	43	28	71 1/
Services under Presidency	81	12	93
National Council	30	-	30
Information	132	44	176
Inspector General	43	2	45
Agriculture & R. D.	341	123	464
Foreign Affairs	103	15	118
Interior & Security	1,336	5	1,341
Defense & Veterans	7	-	7
Justice	85	19	104
Economy & Commerce	68	-	68
Natural Disasters	29	85	114
Livestock & Pastoral Hydr.	241	41	282
Finance	388	39	427
Plan	71	-	71
Public Works & Mines	250	247	497
Transport	24	-	24
Post & Telecommunications	6	-	6
Higher Education	-	-	-
Civil Service	80	-	80
Education, Culture, Sports	1,088	201	1,289
Labor & Women	93	26	119
Health & Social Affairs	559	371	930
Tourism, Water & Forests	193	282	475
TOTAL (N'Djamena)	5,291	1,540	6,831 1/
B. TOTAL (Provinces)	-	-	13,055
C. GRAND TOTAL	-	-	19,886

II. Average Salaries (CFA/Month)

A. N'Djamena	29,279	8,754	24,649
B. Provinces	-	-	15,414
C. Total	-	-	16,934

1/ Excludes Presidential Guard

Source: Direction du Budget: "Recapitulatif General de Salaire du Mois d'Avril."

CHAD: THE TEN MAJOR DISEASES (1977)

DISEASES	NUMBER OF CASES
1. Malaria	186,595
2. Amibiasis	59,601
3. Schistosomiasis	21,543
4. Bacterial Infections	19,943
5. Dysentary	18,308
6. Measles	12,420
7. Syphilis	8,904
8. Infectious Hepatitis	8,224
9. Whooping Cough	5,960
10. Chickenpox	5,719
Total	347,217

ANNUAL DEVELOPMENT OF INFECTIOUS DISEASES/TRANSMISSIBLE
(1973 - 1977)

DISEASES	1973	1974	1975	1976	1977
Malaria	121,776	132,813	153,646	217,793	186,595
Leishmaniasis	473	881	131	960	749
Trypanosomiasis	14	54	-	148	176
Recurrent Fever	-	-	6	-	9
Syphilis	7,713	9,227	12,173	12,379	8,904
Bacterial Infections	23,407	20,636	19,223	21,698	19,943
General Malaise	183	90	165	216	206
Schistosomiasis Haematobium	27,134	22,780	22,695	25,741	21,543
Schistosomiasis Masoni	4,951	5,191	4,874	4,275	5,154
Onchoceriasis	5,437	4,104	3,372	4,207	3,214
Dracunculiasis	1,043	662	551	478	209
Influenza	1,105	10,135	803	9,195	1,164

Remark: The annual variations are due to a fluctuation rather than a real change in the incidence of the disease.

For Trypanosomiasis we can note a significant and dangerous increase for the last five years.

THE TEN MAJOR DISEASES REGISTERED IN 1977

IN THE: HOSPITALS

MEDICAL CENTERS

NURSERIES AND POLYCLINICS

RANK	GENERAL DISEASES	NUMBER OF AFFECTED PEOPLE	%
1	Infectious and parasitic diseases	244,697	38.7
2	Undefined morbidity cases	94,704	15.0
3	Respiratory infections	91,822	14.4
4	Diseases of the Central Nervous System	84,027	13.3
5	Injuries, Poison, Trauma	54,288	8.6
6	Osteo-muscular diseases and Diseases of connective tissues	16,857	2.7
7	Digestive System diseases	15,184	2.4
8	Skin diseases	14,824	2.3
9	Urinary/Reproductive System diseases	7,398	1.2
10	Metabolic and nutritional diseases	3,453	0.5
	Total	627,254	99.1
	Other Groups	5,937	0.5
	GRAND TOTAL	633,191	100.0

Source: GOC Health Statistics Yearbook 1977.

CHAD: TEN MAJOR CAUSES OF MORBIDITY (1977)

Malaria	16.46%
Ophtalmological Disorders	10.88%
Pulmonary Disorders	10.75%
Gastro-intestinal Disorders	10.14%
Musculo skeletal and Connective Tissue Disorders	7.19%
Unidentified Disorders	5.68%
Amibiasis	4.45%
Headaches	4.29%
Colds and Sorethroats	3.76%
Other	23.30%

GOC HEALTH BUDGET 1961-1977

(in FCFA 000)

YEAR	NATIONAL BUDGET	PUBLIC HEALTH EXPENSES					
		Operating Cost	Staff	TOTAL	% of Total Budget	% for Function	% for Staff
1961	5,170,778	206,476	260,009	466,485	9.0	44.3	55
1962	5,627,750	211,340	278,866	490,206	8.7	43.1	56
1963	5,860,728	243,885	319,800	563,685	9.6	43.3	56
1964	6,426,406	291,465	333,800	625,265	9.7	46.6	53
1965	7,981,169	367,736	373,538	741,274	9.[illegible]	49.6	50
1966	9,993,725	351,621	386,404	738,023	7.4	47.6	52
1967	10,514,788	340,900	418,979	763,879	7.3	45.3	54
1968	10,585,322	378,650	390,268	768,918	7.3	49.3	50
1969	11,797,902	359,884	424,419	784,303	6.7	45.9	54
1970	13,456,000	373,474	404,766	778,240	5.8	48.0	52
1971	14,267,585	374,094	446,767	820,861	5.8	45.6	54
1972	13,227,550	159,346	441,161	594,507	4.5	25.8	74
1973	17,018,051	151,346	490,075	641,410	3.8	23.6	76
1974	19,899,861	289,381	507,991	791,372	4.0	36.3	63
1975	19,286,000	289,631	678,806	968,437	5.0	30.0	70
1976	15,785,326	343,797	734,964	1,078,761	6.8	31.0	68
1977	16,910,336	385,480	740,675	1,126,155	7.0	34.2	65

Source: Directorate of Administrative, Financial Affairs, and Materials (Ministry of Public Health).

TOTAL OF THE NATIONAL AND FOREIGN STAFF
IN THE HEALTH SECTOR (12/31/1977)

	NATIONAL		FOREIGN		TOTAL
	NUMBER	%	NUMBER	%	
Doctors	36	38%	59	62%	95
Dentists	1	33%	2	67%	3
Anesthesiologists	3	60%	2	40%	5
Midwives	26	78.8%	7	21.2%	33
Specialized Nurses	679	96.9%	22	3.1%	701
Nurses Aids	248	100%	-	-	248
Midwife Assistants	65	100%	-	-	65
Pharmacists	5	83.3%	-	16.7%	6
Assistant Pharmacists	3	100%	-	-	3
Sanitation Engineers	4	80%	1	20%	5
Sanitation Technicians	4	100%	-	-	4
Sanitation Assistants	33	100%	-	-	33
Laboratory Technicians	6	85.7%	1	14.3%	7
Administrative Staff	25	78.1%	7	21.9%	32
Others	1,284	99.8%	2	0.2%	1,286
TOTAL	2,422	95.9%	104	4.1%	2,526

Note: In fact, if we only take into consideration the trained staff, the percentage becomes:

- National: 89.4%
- Foreign : 10.6%

PER CAPITA GOC HEALTH EXPENSES

(1961 - 1977)

YEAR	TOTAL EXPENSE FOR HEALTH (000)	TOTAL POPULATION (000)	EXPENSE PER CAPITA FCFA
1961	466,485	3,100	150
1962	490,206	3,150	155
1963	563,685	3,200	175
1964	625,265	3,254	192
1965	741,274	3,307	224
1966	738,023	3,380	219
1967	763,879	3,438	223
1968	768,918	3,496	220
1969	784,303	3,554	219
1970	778,240	3,612	222
1971	820,861	3,770	221
1972	594,507	3,791	157
1973	641,410	3,869	166
1974	791,372	3,950	200
1975	968,437	4,030	240
1976	1,078,761	4,121	262
1977	1,226,155	4,213	287

SOURCE: Statistical Office, Ministry of Health.

RURAL AND URBAN POPULATION BY PREFECTURE

(June 30, 1977 Estimates in Thousands)

	TOTAL POPULATION	POPULATION	
		RURAL	URBAN*
Country Total	4,213	3,472	741
The South	2,015	1,676	339
Mayo-Kebbi	651	589	62
Logone Occidental	280	199	81
Logone Oriental	296	246	50
Tandjile	290	240	50
Moyen-Chari	498	402	96
The North	2,198	1,796	402
Chari-Baguirmi	628	349	279
Guera	199	180	19
Salamat	103	97	6
Ouaddai	341	295	46
Batha	344	326	18
Biltine	169	163	6
Lac	133	133	-
Kanem	195	177	20
B.E.T.	86	76	10

Source: Directorate of General Statistics.

*For towns of more than 5,000 inhabitants.

POPULATION AND POPULATION DENSITY BY PREFECTURE

PREFECTURE	Population (1,000)	% of total Population	Area (Km^2)	% of Area	Density per Km^2 1*	Density per Km^2 2*
Batha	344	8.22	88,800	6.92	3.67	3.87
B.E.T.	86	2.04	600,350	46.76	0.12	0.14
Bilitine	169	4.01	46,850	3.65	3.47	3.60
Chari-Baguirmi	628	14.90	82,910	6.46	4.20	7.57
Guera	199	4.72	58,950	4.59	3.05	3.37
Kanem	195	4.62	114,520	8.92	1.52	1.70
Lac	133	3.15	22,320	1.74	5.95	5.95
Log. Occidental	280	6.64	7,695	0.60	25.86	36.38
Log. Oriental	296	7.02	28,035	2.18	8.77	10.55
Mayo-Kebbi	651	15.45	30,105	2.34	19.56	21.62
Moyen-Chari	498	11.82	45,180	3.51	8.89	11.02
Ouaddai	341	8.09	77,240	6.02	3.81	4.41
Salamat	103	2.44	63,000	4.91	1.53	1.63
Tandjile	290	6.88	18,045	1.41	13.30	16.07
Total	4,213	100.00	1,284,000	100.00	2.70	3.28

1* Density: We subtracted urban population from the total to compare the relative densities of the prefectures.

2* Density: Density from the total population; urban and rural.