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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

PROJECT PAPER

Proposal and Recommendations
For the Review of the
Bilateral Assistance Subcommittee

CHAD - AGRICULTURAL INSTITUTIONAL DEVELOPMENT GRANT

AID/BAS-009

UNCLASSIFIED

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

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June 23, 1978

MEMORANDUM FOR THE BILATERAL ASSISTANCE SUBCOMMITTEE

SUBJECT: Chad - Agricultural Institutional Development

Attached for your review are recommendations for authorization of a grant to the Government of Chad of not to exceed Five Million Three Hundred Eighty-Four Thousand United States Dollars (\$5,384,000) to enhance capabilities of MOA in: a) agricultural planning, statistical collection and analysis and monitoring of agricultural development; b) agricultural staff training and manpower development; and c) orienting expanded extension service towards food crop production.

No meeting has been scheduled for this grant proposal. However, we would appreciate your advising us of your concurrence or objections as early as possible, but no later than close of business on ~~Monday, July 3~~, 1978. If you are a voting member, a poll sheet has been enclosed for your response.

Wednesday, July 12

Working Group on Bilateral Assistance
Office of Policy Development and Program
Review

Attachments:

Summary and Recommendations
Project Analyses
Annexes A - F

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AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT PAPER FACESHEET
TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE ("X" appropriate box)
 Original Change
 Add Delete

2. COUNTRY/ENTITY: Chad

3. DOCUMENT REVISION NUMBER: 3

4. PROJECT NUMBER: 677-0022

5. BUREAU: a. Symbol: AFR, b. Code: I

6. ESTIMATED FY OF PROJECT COMPLETION: FY 83

7. PROJECT TITLE - SHORT (stay within brackets): [Agricultural Institutional Development]

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION: a. INITIAL: 7/78, b. FINAL FY: 80

9. ESTIMATED TOTAL COST (\$000 or equivalent, \$1 =)

a. FUNDING SOURCE	FIRST YEAR FY 78			ALL YEARS		
	b. FX	c. L/C	d. Total	e. FX	f. L/C	g. Total
AID APPROPRIATED TOTAL (Grant)	1041.8	684.2	1726	3,158.1	2225.9	5384
(Loan)						
Other 1. Peace Corps						
U.S. 2.				168		168
HOST GOVERNMENT		77	77		307	307
OTHER DONOR(S)		296	296	1014	1000	2014
TOTALS	1041.8	1057.2	2099	4340.1	3532.9	7873

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)

a. Approp-riation (Alpha Code)	b. Primary Purpose Code	c. Primary Tech. Code	FY 78		FY 79		FY 80		ALL YEARS	
			d. Grant	e. Loan	f. Grant	g. Loan	h. Grant	i. Loan	j. Grant	k. Loan
SH	180	0503	1726		1891		1767		5384	
TOTALS										

11. ESTIMATED EXPENDITURES: 753, 1350, 1000

12. PROJECT PURPOSE(S) (stay within brackets) Check if different from PID/PRP

Enhance capabilities of MOA in: a) agricultural planning, statistical collection and analysis and monitoring of agricultural development; b) agricultural staff training and manpower development; and c) orienting expanded extension service towards food crop production.

13. WERE CHANGES MADE IN BLOCKS 12, 13, 14, or 15 OF THE PID FACESHEET? IF YES, ATTACH CHANGED PID FACESHEET.
 Yes No

14. ORIGINATING OFFICE CLEARANCE

Signature: [Handwritten Signature]

Title: _____

Date Signed: mo. 05 day 26 yr. 78

15. Date Received in AID/W, or For AID/W Documents, Date of Distribution: mo. 0 day yr.

ACRONYMS USED IN PROJECT PAPER

AID	Agency for International Development
ASD	Agricultural Statistics Division
PO	Planning Office of Ministry of Agriculture
CFCPA	Agricultural Schools for Training Village-Level Extension Workers at Dougui and Tikem.
CFPA	Center for Professional Agricultural Training
FAC	Aid and Cooperation Fund (French Aid)
FAO	Food and Agricultural Organization
FED	European Development Fund
GOC	Government of Chad
IBRD	International Bank for Reconstruction and Development
MOA	Ministry of Agriculture
ONDR	National Office of Rural Development
PNUD/UNDP	United Nations Development Program
DEFPA	Directorate for Agricultural Education and Training

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PART I. Summary and Recommendations

A. See Face Sheet.

B. Recommendations

1. That grant funds be authorized for the Agricultural Institutional Development Project in the amount of \$5,384,000.

C. Description of the Project

What Will Take Place Under the Project

The purpose of this project is to strengthen the capability of the Ministry of Agriculture (MOA) to function more effectively in the establishment of policies and the development and execution of rural development programs for small farmers. Its specific objectives are to improve MOA capabilities for carrying out the basic functions of: a) planning, statistical collection and analysis and the monitoring of agricultural development within Chad; b) agricultural staff training and manpower development; and c) orienting expanded extension service towards food crop production. In short, the project provides a means by which to make a coordinated effort with respect to agricultural institutional development in Chad.

Who Will Carry Out Project Activities

Project success depends upon application of assistance on a broad basis throughout the MOA. Project direction will reside within the Office of the General Director of the Ministry. Overall ministerial planning will be performed by the Planning Office reporting to the office of the General Director. Statistical programs are the responsibilities of the Agricultural Statistics Division (ASD) of the MOA. The National Office for Rural Development (ONDR) carries out extension activities in the agriculture sector. The ONDR is the operational arm of the Ministry. It is charged with the implementation of activities deriving from the planning, research and training functions. The agricultural education function within the MOA is performed by the Directorate of Agricultural Education and Professional Training (DEFPA), which has responsibility all agricultural training below the university level.

The various aspects of this institutional development project, i. e., planning, extension service, agricultural education, and agricultural statistics, represent an interlocking series of relationships, each complementing the other, justifying their inclusion in a single institutional development project.

Planning is critical to the development of national agricultural policies, projects and studies, and the establishment of priorities and resource allocations among projects. An effective organization for policy planning will be developed and staffed in order to give the MOA the capability for accomplishing its mission.

Statistical data are needed on all aspects of agricultural production, marketing, yields and trends as the basis for planning. The MOA's statistical service has a vital role to play in collecting and maintaining agricultural economic data focusing on trends, needs and problems and establishing baseline data. Trained manpower, facilities and resources are seriously needed in this area.

In order to improve the effectiveness of the extension field service and to achieve a better balance between cash crop and food crop production extension programs, additional staff will be hired, and existing staff will be retrained in food crop production and extension methods.

Faculty upgrading, improved physical facilities, and limited instructional materials will be provided to strengthen the MOA agricultural education system to permit it to perform more effectively in producing the trained manpower required for development of the agriculture sector.

Project Outputs and Inputs

In order to achieve the project purpose of strengthening the principal functions of the MOA, the following outputs will be produced:

1. Planning Office of MOA organized for sector analysis and planning, project analysis, and project evaluation and monitoring.
2. Training initiated of professional Chadian agricultural economist with eventual full capability in conducting feasibility studies, evaluating projects, undertaking sector analysis studies, and carrying out in-depth agricultural economic studies.
3. Extension program for food crop production developed through compilation of existing technical recommendations from international and foreign research sources.
4. Technical training programs oriented towards food crop production established at extension schools for south (Tikem) and Sahel (Dougui).
5. Recruitment and training of additional extension workers for food crop extension programs in south and Sahel.
6. Training of faculty and administrative personnel initiated for agricultural schools at Ba-Illi, Tikem and Dougui.
7. Training of Chadians in various areas and levels of agricultural statistics.
8. Headquarters of ASD and some buildings at Ba-Illi and Tikem will be renovated.

The following inputs will be required to produce the outputs listed above:

1. Five technicians, one in each of the following agricultural departments: planning, statistics, extension, and two in education.
2. Training in the U.S. and African countries of 36 Chadians to staff above departments and the agricultural schools of Ba-Illi, Tikem, and Dougui.
3. Commodity support in the form of vehicles, office equipment, and educational materials.
4. Other cost support for modest building renovation, recruitment and training of additional extension workers, and operations and supplies.

Total budgetary requirements for the project are \$5,384,000:

Personnel (5 advisors for 16 person years)	\$ 1,600,000
Participants (36 for 120.5 person years)	997,800
Commodities	929,000
Other costs	<u>1,168,100</u>
Subtotal	\$ 4,694,900
Inflation (10% per year compounded)	456,300
Contingencies	<u>232,800</u>
Grand Total	\$ 5,384,000

Anticipated Results (End-of-Project Conditions)

As a result of the assistance proposed, progress will have been achieved in strengthening the principal functions of the MOA, and,

significantly for AID, the MOA will be more capable of collaborating in the formulation and implementation of _____ agricultural development programs. Specifically, the key functions of the MOA planning office will be organized with an increased capacity for policy formulation, identification of economic problems in the agricultural sector, elaboration of development strategies and projects, evaluation of technical aspects of projects and maintenance of continuous liaison with the Ministry of Plan.

The MOA extension service will be expanded and staffed with a better trained field force of village extension workers more capable of guiding, implementing and evaluating food crop production programs and relating to the needs and aspirations of male and female Chadian agriculturalists.

The MOA training and manpower development service will be more adequately equipped and staffed by a faculty capable of planning, teaching and evaluating a comprehensive, practical and job-oriented curriculum for agricultural workers in Chad.

The MOA statistical services will be functioning more effectively in collecting, compiling, processing and reporting agricultural data and information, based on an enlarged data base and the implementation of special studies and surveys.

D. Summary of Findings

The present project is judged to be technically, financially, socially and economically sound. The technical ramifications of the extension component of the project have been studied and analyzed at length, and the technical approaches recommended are believed to be feasible and appropriate for the Chadian setting. All repair plans have been reviewed and approved by REDSO/W. The project is not expected to impact directly upon the physical or human environment of Chad. Justification for a negative IEE is included as an annex to the Project Paper.

Recurrent cost considerations have been accorded great importance because of the weak financial position of the Chadian Government. Every effort has been made to keep to a minimum any and all project costs which will be borne by the GOC both during the project and upon its completion.

Alternative project designs have been analyzed and explicitly considered throughout the design of the project. The social analysis, undertaken by a professional sociologist/anthropologist, provides a survey of the social/anthropological setting of the project, with particular attention devoted to the proposed extension activities and to the role of women in agriculture and the project. The project was judged to be socially feasible.

The MOA is in complete accord with the scope and content of the project and is extremely anxious to proceed to project implementation at the very earliest moment.

The project meets all statutory criteria, and a completed criteria checklist is annexed to the PP.

E. Project Issues

Issues raised at the FRP review or during review of the original PP are summarized below together with an indication of the section of the paper where the issue is discussed.

<u>Issue</u>	<u>Section Where Issue Treated</u>
1. Capacity of MOA to absorb proposed assistance.	See below.
2. Capacity of GOC to absorb recurrent costs of project once AID assistance is withdrawn.	See below and Financial Analysis.
3. Technical feasibility of proposed extension activities relating to (a) extension methodology and (b) initiation of a food crop extension program prior to development of research recommendations for food crop technology under Crop Production Research, Seed Multiplication and Grain Marketing project (677-0014).	Detailed description of Agricultural Extension.
4. Role of women in project.	Social Analysis.
5. Analysis of social context of project with particular attention to proposed extension activities.	Social Analysis.

The issues raised during another review meeting held on March 2, 1978 dictated and guided the present revision of the PP.

Absorptive Capacity

The judgement of the PP team and USAID is that there will be sufficient manpower to fill the 36 scholarships to be provided by the project. Lycee graduates will be an important source of training candidates. Their number has been going steadily upward, from 291 in 1971-72 to 436 in 1975-76. Another source of candidates with experience are the technical-level, lycee equivalent graduates (conducteur de travaux agricoles), who presently number more than one hundred in the MOA.

The Director General and Minister of Agriculture have concurred in the proposed training program and provided emphatic assurances that candidates for training will be available. As participants will not all be departing for training at the same time, the "manpower drain" on the MOA will be limited in impact.

Recurrent Costs

The GOC has expressed keen interest in participating in the Agricultural Institutional Development project and in undertaking the activities proposed in this paper. The Government has accorded high priority to the project. It recognizes its difficult financial situation, and for this reason special attention has been given to minimizing recurrent costs in the design of the project.

The GOC has assured USAID that it will make every effort to meet its recurrent cost obligations under the project. The recurrent budget analysis contained in the Financial Analysis indicates that assumption by the MOA of recurrent costs generated by the project is entirely feasible. A specific commitment to meet recurrent costs will be included in all Project Agreements signed between the USAID and the Government. See the Financial Analysis section of the paper for details of the recurrent budget analysis carried out for the project.

PART II. Project Background and Detailed Description

A. Background - General

Chad is one of the poorest countries in Africa with an estimated per capita GDP of \$93 in 1974 for 3.9 million people. Chad's major potential for economic growth lies in its agriculture sector. In years of normal rainfall Chad has the potential to be self-sufficient in the production of basic food crops and to export limited quantities of rice, wheat, and oats.

Development of Chad's potential requires that priority attention be placed on the crop production and livestock sectors with considerable emphasis upon the development of human resources within these sectors. With this in mind, USAID recognizes the need to concentrate on strengthening GOC planning, management, and service capacity within the crop production and livestock sectors through institutional and manpower

development programs. This will require assistance to several GOC units responsible for agricultural sector planning and program execution in order to help develop an agricultural institutional infrastructure capable of responding to the development needs of the agricultural sector.

B. Sector Goal and Project Purpose

The sector goal of this project is the attainment of national self-sufficiency in food and forage crop production and improved economic and social conditions for the country's small agricultural producers. For this end, the project proposes to increase the capability and effectiveness of the Ministry of Agriculture in

- a. planning, analyzing, and monitoring agricultural development within Chad;
- b. extension service;
- c. staff training and manpower development; and
- d. statistical collection.

Assistance to be provided to the MOA under this project includes technical advisors in agricultural statistics, planning, education, and extension; agricultural training of Chadians in the U.S. and third countries; office equipment, instructional materials and equipment and means of transportation to and in the field; and other cost support for operational functions and very limited renovation of existing buildings.

This project, which calls for a total of \$5.384 million in grant funds budgeted over three years (FY 78 to FY 80), will terminate its operation at the end of calendar year 1982. At that time, the institutions assisted by this project will have gained in strength and effectiveness. It would be fatuous, however, to believe that these institutions and others in the MOA will not need additional assistance and development after the end of the project. Considering the present embryonic state of the MOA institutional capabilities, it is evident that the requirement for institutional development within this Ministry will continue in the foreseeable future. However, this project, which will provide technical assistance, participant training and operational assistance until December 1982, will have made significant headway in agricultural institution building. Moreover during this project the project technicians and evaluators will examine and determine the need of future assistance. This can be done in the second and third year of the project so that a second phase, should it be needed, can be programmed and follow upon the first without interruption.

The following sections will provide a more detailed background on each of the MOA functions which will be strengthened under the project and a description of how this strengthening will be accomplished.

C. Agricultural Planning

Background

For many years, planning for agricultural development in Chad was restricted for the most part to large-scale cotton production. Until recently, a limited degree of policy and project planning was conducted by individuals attached to various directorates within the Ministry. In June 1976, a central planning office was established for the entire Ministry of Agriculture. The chief of the Planning Office reports directly to the Director General who is the permanent technical head of the MOA.

Personnel

At present the Planning Office consists of five Chadians: a veterinary doctor (the chief), an agricultural engineer, an agro-economist, a doctor of sociology, and a geographer. This Chadian staff is assisted by three expatriates: an agro-economist financed by FAC, an expert in hydro-agricultural management provided by FAO and an agro-economist supplied by AID Mission. This latter technician who has been hired on a personal service contract works full time in the Planning Office and serves as liaison with the AID Mission, the Ministry of Planning and other donors. Because of this person's effectiveness and the Ministry's appreciation of his services, the Mission plans to finance his services from another source of funding throughout the lifetime of this project.

In the future, the Planning Office may receive two more experts from FAC (a veterinarian and an agro-engineer) and a sociologist from Swiss Aid. Even with this possible additional assistance, the Planning Office cannot carry out its multiplex responsibilities which are divided in four large categories: sector analysis, project analysis, project evaluation and monitoring, and documentation.

The Planning Office is first of all responsible for long-range, broad agricultural sector planning in support of national policy. It is expected to conduct in-depth studies of the agricultural production potential of Chad and recommend budget allocations to various sectors according to priority. It should prepare an overall national strategy for long-term rural development and recommend changes to meet shifts in national policy, giving due attention to national food requirements and export crops for foreign exchange.

Another important function of the Planning Office is project analysis. With adequate staff it should conduct feasibility studies for new projects; recommend priorities for agricultural projects based on development priorities and available resources; coordinate agriculture projects with other national economic development programs; prepare in-depth analyses of all proposed projects from foreign donors; respond to the day-to-day economic problems of the Minister of Agriculture such as marketing and

pricing policy decisions, export and import policies for agriculture commodities, establishment of food processing industries, commodity storage and transportation, etc.

The Planning Office should also be engaged in project evaluation and monitoring. It should establish bench marks for each project and assure timely review of project progress. Lack of progress or failure to execute project activities should be brought immediately to the attention of the responsible person for action. Regular meetings should be held with foreign donors to review project progress. Timely recommendations should be made to the Minister of Agriculture on project progress or, if necessary, to cancel ineffective projects.

Finally, the Planning Office is responsible for the collecting and classification of all project papers, feasibility studies, economic reports, and statistical data which relate to development planning. The Planning Office should maintain liaison with data sources in other ministries as well as other domestic and foreign sources of economic information.

In order to perform the above functions effectively, the Planning Office must have a close relationship with the six important directorates of the MOA such as those of Agriculture, Livestock, Rural Engineering and six semi-autonomous agencies engaged in extensive agricultural development

under the tutelage of the Ministry of Agriculture. In addition, the Planning Office must work closely with other Ministries, such as that of Economy and Planning and with donor organizations capable of financing agricultural development projects.

The arduous activities and complex responsibilities described above which take on additional dimensions in a country as harsh and poor as Chad are beyond the present capabilities of the Planning Office. It needs reinforcement. To provide this, the project proposes first of all to finance the training of five Chadians. Two of them will study in the U.S. for three years and obtain a Master's degree in agricultural economics. Two others will train in an African university during four years and obtain the degree of Ingenieur d'Agriculture (equivalent of a B.S. degree) one in agronomy and the other in agricultural engineering. The fifth Chadian, destined to function later in the documentation section of the Planning Office, will attend an African university for two years and specialize in the classification of documents. In addition to these five long-term scholarships, the project will provide an opportunity to the five Chadians now on board to attend appropriate seminars or training sessions in the United States. These will be staggered during the calendar years of 1980-82 to keep the maximum number of persons in the Planning Office during the project.

Besides providing participant training, the project will further strengthen the Planning Office by financing the service of an agricultural economist for four years. To fill the need that is most keenly felt at this moment, the technical advisor must be an expert in the monitoring and evaluation of ongoing projects. He should also be competent in project analysis. During the lifetime of the project, this technician will work with a counterpart and in close coordination with the other Chadians and expatriates in the Planning Office. Together with the technician provided by AID through a personal service contract, he will provide assistance to improve the organization and operation of the Planning Office as a whole.

Because the Planning Office is at the hub of the Ministry of Agriculture, directly connected to the Office of the Director General, the project technician functioning in the Planning Office will be the team leader of the four other technicians provided by this project and working in different departments of the MOA. The close coordination of the related and interdependent activities of all project technicians will be his responsibility. What that will entail will become more evident later in this document after the description of the responsibilities and functions of each project technician in the various departments of the MOA.

At the end of the project, the technical expert will have made progress in: (a) setting up a system of project monitoring and evaluation and improving the related skills of his counterpart; (b) strengthening the overall operation of the Planning Office; (c) and linking up the operations of the other technicians and their respective departments so as to be mutually supportive and strengthening. In addition, after five Chadians return from long-term training and after the present Chadian staff has benefitted from short-term training sessions in the U.S., the Planning Office will have gained considerable strength and be capable of carrying out its responsibilities with greater efficiency.

Besides providing technical assistance and participant training, this project will finance sorely needed means of transportation. At the present, the Planning Office does not have any vehicles at its disposal. The personal cars of the expatriates are not available to the Chadian personnel. Without vehicles, the personnel cannot travel to analyze on site project proposals; to ascertain the status of ongoing projects and evaluate their progress and effectiveness; in short, to carry out with first hand knowledge the responsibilities of the Planning Office. Moreover, as explained above, the Planning Office is the focal point for the planning and evaluation of all projects of the Ministry of Agriculture which includes 6 Directorates and 6 semiautonomous agencies. The offices of these

organizations and divisions are scattered all over the city of N'Djamena. Without vehicles it is very inconvenient and oftentimes impossible for the Planning Office personnel to go^{to} other offices of the MOA. The same problem exists to attend meetings and hold discussions with personnel of the Ministry of Planning and other ministries. The communication between the Planning Office and all other governmental departments related with agricultural and livestock activities is seriously impaired without means of transportation.

To alleviate this serious situation, the project proposes to provide five vehicles, one of which will be reserved for the project technician employed in the Planning Office. Through this means, he will be able to make necessary field trips and keep in touch with the other project technicians of whom he is the chief. The other vehicles will be utilized by the USAID personal service contractor and the Chadian personnel for project purposes.

In 1976, the Planning Office building was constructed with financing supplied by the European Development Fund (FED). Later, the personnel scrounged old desks and chairs, but the office is in need of office equipment, furniture, and supplies without which the personnel cannot function efficiently. For this purpose, the project will provide a modest amount of money.

D. Agricultural Extension

At the present time, the greatest potential for development in Chad lies in agriculture and the exploitation of this natural resource depends almost entirely upon small holders, each cultivating an average of 2.7 hectares. However, since 90 percent of Chad's population or about 3.5 million persons live in the rural areas, they cultivate large expanses. In 1976 for example, Chad's small farmers grew food crops on 1,152,000 hectares and cotton on 319,000 hectares.

In order to motivate and assist the farmers to increase production, the Government relies heavily upon village extension workers to contact the farmers directly. Instructions must be communicated orally since almost all Chadian farmers are illiterate. Moreover since the great majority are subsistent farmers with little cash reserve, they are not ready to accept the suggestion of new agricultural techniques. In their precarious financial position they cannot run risks of failure. Before abandoning traditional techniques with which their families have survived, they must be shown and persuaded that the new methods will be successful. This persuasion is possible only by person to person contact, discussions, demonstrations, in a word through the activities of extension workers.

According to the latest personnel chart available, the Government employs forty-seven extension workers in the northern Sahelian zone

and five hundred twenty-five in the southern Sudanian zone. The Government's Four-Year Plan: 1978-81 states that at the moment, each extension worker in the south has contact with about four hundred farming families cultivating approximately 1,500 hectares. Thus 525 extension workers are assisting 210,000 families farming 787,500 hectares.

Until now, the extension workers in the south have been engaged principally and almost exclusively in the promotion of cotton production. Although their nine month training includes instructions in general agriculture such as food production, livestock, and other related subjects, the emphasis has been on cotton production.

In the last several years, however, while still recognizing the value and need of cotton exports, the Government has come to realize the danger of an excessive economic dependence upon a product that itself depends upon unpredictable weather and a changing world market. Besides, the increasing impoverishment of the soil is cause for alarm. In addition, the production of the staple cereals of millet and sorghum which decreased during the drought years to 490,000 tons in 1972 and to 430,000 in 1973, has not yet reached the level of 639,000 tons that was the annual average production between 1966-71. That predrought production level must be regained urgently.

The Four-Year Plan, however, which spans the years 1978-81, aims at an even higher goal. In order to increase the Chadian's daily diet by 250 calories, and considering the annual 2.25 percent increase in population, it will be necessary to reach the following levels of production:

	1975	1981	1990
Millet and sorghum	613,000	786,000	1,031,000
Paddy	42,000	54,000	108,000
Wheat	3,000	16,000	23,000
Corn	<u>24,000</u>	<u>31,000</u>	<u>51,000</u>
Total	682,000	887,000	1,213,000

Considering the annual 1.6 percent increase of the rural population and the concomitant normal increase in production, the cereal deficits in 1981 and 1990 will be as follows:

	<u>1981</u>	<u>1990</u>
Millet and sorghum	112,000 tons	253,000 tons
Paddy	8,000 tons	55,000 tons
Wheat	13,000 tons	19,500 tons
Corn	<u>5,300 tons</u>	<u>21,500 tons</u>
Total	138,300 tons	349,000 tons

There will also be deficits in other food products such as peanuts and sesame.

These deficits can be avoided and the goals of food production can be reached in 1981 and 1990 only if the Chadian small farmers can be induced and assisted to produce more food crops. For this promotion

activity among the farmers the Government will rely principally upon the extension workers. These, the Government realizes, will need a new orientation, emphasizing the crucial need of increasing food production. In the Government's Four-Year Plan and more recently in a national agricultural conference in Moundou, the Government laid down its policy to diversify agricultural production so as to achieve national self-sufficiency in food. To achieve this goal, the plan calls for the reorganization and strengthening of the extension service.

The governmental agency responsible for the organization and management of the agricultural extension service is the Office National de Développement Rural (ONDR), a semiautonomous agency of the Ministry of Agriculture. In order to understand the present personnel status of ONDR, it is necessary to review briefly the various levels of agricultural training in Chad. At the lowest level, the extension worker receives nine months of agricultural training after having completed six years of elementary school and obtained his certificat d'études primaires (CEP).

Students, who complete two more years of general education after obtaining their CEP, can enter the agricultural vocational school in the town of Ba-Ili. After four years of studies, graduates leave with the grade of Agent Technique d'Agriculture (ATA), the equivalent of a U.S. vocational high school diploma.

Students, who have obtained their baccalaureat in general education (no sooner than seven years after leaving elementary school with a CEP), can enter an agricultural college and obtain, after three years, the grade and title of Ingénieur de Travaux Agricoles (ITA), Engineer of Agricultural Activities. After two more years of agricultural training, he obtains the grade and title of Ingénieur d'Agriculture (IA) which is the equivalent of a U.S. Bachelor of Science in agriculture. At the present time, these last two degrees ITA and IA cannot be obtained in Chad for lack of agricultural training at the college level.

In the central office of ONDR, the Chief is an Ingénieur d'Agriculture (IA). He is assisted by two Ingénieurs de Travaux Agricoles (ITA) and three Agents Techniques d'Agriculture (ATA) who are, it must not be forgotten, only vocational high school graduates. These few technicians, supported by a few typists and accounting aides, are responsible for the organization, administration, logistical support, in-service training, and supervision of the entire agricultural extension service. Predictably, the personnel in the central office are principally occupied with administrative, financial, and supportive matters with little or no time for the improvement and revitalization of the extension service. In addition to the Chadian personnel in the central office, there are three French expatriates who are mostly concerned with the extension service as it affects and

In order to strengthen the headquarters of ONDR, this project proposes to provide one technician for four full years. For the purpose of promoting food production in the Sudanian as well as in the Sahelian zone, the project technician will assist his Chadian counterpart in preparing a new technological package for the extension workers. This package will be prepared in collaboration with the Division of Research and its research and with stations, the Directorate of Agricultural Education and Training in which another project technician will assist in adapting the training of extension workers to the new food production objectives. The initial concentration should be on improving agricultural management practices. These practices include better land preparation, improved seedbed and nursery maintenance, use of good seed including appropriate improved varieties, seed treatment, timely operations, weeding, proper spacing of plants, and so on.

In addition, the project technician will assist in improving the communication from the level of the farmer and extension workers to the central office, the research centers, and the training schools. He shall assist in revitalizing the extension service by making it possible for qualified extension workers to be promoted, undoubtedly with further training, to the level of Agent Technique d'Agriculture (ATA). He shall assist in ensuring that extension workers receive a remuneration, not necessarily

in cash, commensurate with their work. He will also be responsible for preparing, with short-term consultants if need be, an education program for the effective utilization of the audiovisual vehicle and equipment provided by this project at the level of the extension workers and farmers. In short, he will be responsible for improving and strengthening the extension service and orienting it to the new food production objectives.

In order to strengthen further the staff at the central office, the project will provide the following training of Chadians. One person will study four years in the U.S. and obtain a Bachelor's degree in science while another Chadian will receive four years training in an African university and the grade of Ingénieur d'Agriculture (IA). On their return, one will replace the project technician and the other a French expatriate. They will focus their attention and efforts on the constant improvement of the extension service for maximum food crop production.

Between the headquarters of ONDR and the extension workers, there is a two-tier organizational link: one at the sector level and the other at the subsector stratum. The southern section of Chad is divided into 9 sectors and these, in turn, into 54 subsectors; whereas the Sahelian zone has six operational sectors divided into 23 subsectors. In this northern zone, there is only one Ingénieur de Travaux Agricoles (ITA)

with 3 years of agricultural college training and 26 Agents Techniques d'Agriculture (ATA) equivalent to U.S. vocational high school graduates. In the southern zone, there are 4 ITA's and 75 ATA's. To complete the personnel picture at the sector and subsector levels in the southern zone, there are 63 other agricultural agents who received, under an educational system no longer in effect a little more or a little less agricultural training than the ATA. In the Sahelian zone, there are 14 agents with similar levels of training. Thus over a territory greater than Texas, scattered over 15 sectors and 77 subsectors, 183 agricultural agents form the vital communication channel between ONDR headquarters and 572 extension workers and a farming population of 3.5 million cultivating 1.5 million hectares.

Summary Table

<u>Numbers of</u>	<u>Sahelian (north)</u>	<u>Sudanian (south)</u>
sectors	6	23
subsectors	9	54
ITA	1	4
ATA	26	75
Other trained agricultural agents	14	63
Extension workers	47	525

ONDR would like to decentralize the administration of the extension service and constitute two separate regions: one in the Sahelian zone and the other in the Sudanian zone. Besides being responsible for the administration, personnel, logistic support of the agricultural agents and extension

workers within its jurisdiction, each region would have the full responsibility for instructing, motivating, supervising, and retraining its personnel.

In response to a request by ONDR, this project will provide for the training of two Chadians chosen to head the regional centers. After obtaining a bachelor degree in extension service in the U.S., one person will head the Sahelian office. The other will be in charge of the Sudanian regional office after obtaining the grade of Ingénieur d'Agriculture (IA) in an African university. Their training will be deliberately oriented towards extension service in food crop production.

After a careful study of the personnel needs of ONDR for the next decade, a research team financed by French assistance determined that by 1982 ONDR will require an additional 18 Ingénieurs des Travaux Agricoles (ITA). It is true that the Government made a decision in March 1978 to establish a national agricultural college in Sarh for the training of ITA's. The Government will start negotiating with the Fonds d'Aides et de Coopération (FAC) for the finances and personnel needed to establish this college. Several years can elapse before the school is opened and four years more before the graduation of the first class of locally trained ITA's. As a partial solution, this project will provide training in African universities for 6 persons who will obtain by the end of 1982 the grade of ITA. The intention of ONDR at this moment is to post these project-

trained ITA's in the 6 Sahelian sector stations and have them focus their attention and efforts on the extension service in food crop production.

In summary, therefore the project will provide the following participant training:

<u>No. of Participants</u>	<u>University</u>	<u>Years</u>	<u>Degree</u>	<u>Assignment</u>
1	U.S.	4	BS	ONDR Headquarters replacing U.S. TA
1	U.S.	4	BS	Head Sahelian regional office
1	Africa	4	IA	ONDR Headquarters replacing expatriates
1	Africa	4	IA	Head Sudanian regional office
6	Africa	4	ITA	Sahelian sector offices

Extension Workers

As mentioned above, ONDR now employs 525 extension workers in the Sudanian zone. There, on an average, each extension worker assists 400 farming families cultivating 1,500 hectares. For a more effective service, ONDR would like to reduce the ratio to one extension worker per 300 families. This will require an increase of extension workers. A larger number in the Sahelian zone is also contemplated because first of all the present number of extension workers is only 47 and also because

the distances between family clusters necessitates a rather low ratio between extension worker and farming families for effective activity. The above-mentioned study on the personnel status and needs of ONDR reveals that the Sudanian zone will require an additional 50 extension workers per year from now until 1990. In the Sahelian zone the requirement is for 30 additional extension workers per year until 1990. In order to help fill the gap and always in view of strengthening the extension service, this project will finance the nine-month training of 180 new extension workers and will support their services until the end of the project. Because of limited training facilities which will be described later, only 60 extension workers will be trained in CY 1979, 90 in 1980, and 30 in 1981. The plan at this moment is to deploy 120 of them in the Sudanian zone and 60 in the Sahelian zone. All of these extension workers financed by the project will receive a special training (to be explained in the agricultural education section) with a strong food crop production orientation. Upon graduation, the workers in the Sahelian zone will communicate to the farmer-herders properly balanced agricultural recommendations with emphasis on food crop production. Similarly in the Sudanian zone, the extension workers of this project will not promote cotton production but food crop production, even in areas where cotton is grown, in order to communicate the new policy of the Government which

aims at crop diversification, food production in order to attain national self-sufficiency and reduce its present dangerous economic dependence on cotton export.

Besides strengthening the personnel of ONDR at the central, sector and subsector, and village levels, this project will also improve their mobility. It is essential that the personnel at headquarters have the means to visit with the sector and subsector personnel and that these agricultural agents in turn have the mobility to communicate with and maintain a regular effective supervision of the village extension agents. These also must be provided with the means of transportation needed to make regular fortnightly visits to the farmers within their area of responsibility.

To make field trips possible for the personnel in the ONDR Central Office, the project will provide two vehicles, one of which will be reserved for the project technician. Each sector office in the Sahelian zone has one and sometimes two vehicles all pre-dating 1970 and oftentimes deadlined. The project will provide one vehicle for each sector, six in all. For the subsector and village levels, the project will provide some transportation means adapted to the areas: some 65 horses or motorcycles and about 180 bicycles.

Besides means of transportation, ONDR personnel require audiovisual aids to facilitate and render more effective their communication of new agricultural policies, techniques, and successful projects. In Chad among illiterate and country bound farmers, a picture is worth at least and perhaps more than a thousand words. A graphic demonstration on the screen of a new agricultural technique executed by a fellow farmer will be more persuasive than a lecture. At the present time, ONDR has no audiovisual equipment. The project will provide these aids and also budget for a vehicle equipped with portable generator, slide and movie projectors, sound systems, etc. However the vehicle equipped with audiovisual instruments will not be purchased until after the project technician is assured that an effective audiovisual extension service can be programmed and carried out successfully and that Chadian personnel can be properly trained in the maintenance and operation of the equipment.

With this project support in educational aids and means of transportation, with an augmentation of 180 extension workers trained in food production, with an additional six Chadians ITA's and two IA's at the sector/subsector level, and with two more Chadian IA's at headquarters replacing the project technician who will have spent 4 years improving the extension service in many ways, ONDR will have been infused with sufficient strength to carry out a much more efficient extension service promoting, better than before, food production in order to achieve national self-sufficiency.

E. Agricultural Education

The agency that has overall responsibility for the agricultural education and training of government employees and extension workers is the Direction de l'Enseignement et de la Formation Professionnelle Agricoles (DEFPA).

This directorate of the Ministry of Agriculture is responsible for all Chadians who are studying outside the country under agricultural scholarships received from or through the Government. The recruiting of candidates, the selection of universities, the backstopping of these students, and the monitoring of their studies abroad are all duties of DEFPA. In addition, this agency is in charge of the agricultural training centers, known as Centres de Formation Professionnelle Agricoles (CFPA). In the present 20 CFPA, husband and wife teams receive a two-year practical agricultural training after which they return to their home villages and purportedly serve as models to neighboring families. This program is mentioned here not because it will receive any support from this project but simply to give a more complete picture of the complex responsibilities of the small staff at the DEFPA central office.

The most important functions of DEFPA, however, center around the agricultural education and training of government personnel within Chad. DEFPA is in charge of the Ecole Nationale des Agents Technique d'Elevage (ENATE) where livestock technicians are trained. (No support for this activity of DEFPA is envisioned in this PP.) In addition, DEFPA has

overall responsibility for the College d'Enseignement Technique Agricole de Ba-Illi (henceforth referred to simply as Ba-Illi) where Agents Techniques d'Agriculture (ATA) are fully trained. Moreover, DEFPA is in charge of the school at Tikem where extension workers receive nine months training. DEFPA will also be responsible for the organization and supervision of the school at Dougui where extension workers will receive training for the Sahelian zone.

For the sake of clarity, the status and needs of DEFPA will be discussed in the following order:

- a. At headquarters
- b. At Ba-Illi
- c. At Tikem
- d. At Dougui
- e. Recapitulation.

1. DEFPA Headquarters

As indicated above, the responsibilities of the central office of DEFPA are extensive. Besides the department in charge of personnel, management and finance, there are only two divisions: that of Education and that of Professional Agricultural Training. The first is responsible for: teaching programs, recruiting, scholarships, retraining sessions, pedagogical support of sector and subsector agricultural stations, and the administrative

technical and pedagogical support of the school at Ba-Illi and the vocational high school for livestock technicians. The entire staff of this division consists of one Chadian (IA) and an expatriate advisor.

The other division is staffed by a chief (ITA), his deputy (ITA), and one woman in charge of female training. This division is responsible for the retraining of all agricultural technicians, the overall management of the 20 Centres de Formation Professionnelle Agricole (CFPA) and of the training centers at Tikem and Dougui for extension workers.

For a more manageable distribution of responsibilities and a more efficient operation, the Director requests the training of four Chadians to head the following divisions after reorganization:

- a. The Division of Agricultural Education, responsible for the agricultural schools at Ba-Illi, Tikem, Dougui, Sarh (for high-level technicians), and in N'Djamena (for livestock technicians);
- b. The Division of Professional Agricultural Training, responsible for all CFPAs.
- c. Division for Training Abroad.
- d. Division of Pedagogy.

In response to this request and to fill at least in part the personnel needs of DEPPA's central office, this project will provide one three-year

scholarship in the U.S. in order to enable an already identified candidate to obtain a Master's degree and assume upon his return the responsibility of Division Chief of Agricultural Education. Three other Chadians will study four years in the U.S. and obtain bachelor degrees. According to the present plan, these Chadians will head the other three divisions in DEFFPA's central office. The training that those four Chadians will receive in the U.S. will be directed in a special way to the training of extension workers engaged in promoting food production.

While awaiting the return of these Chadians, a technician, provided by the project, will work with the present staff and strengthen DEFFPA's central office. His primary overall responsibility will be the improvement of the initial training and subsequent upgrading of the extension workers as well as the education of agricultural agents in Ba-Illi, many of whom staff the sector and subsector offices from which extension workers receive instructions, support and supervision. The DEFFPA project technician will work closely with the other project technician who will be responsible for organizing at Dougui the training of extension workers for the Sahelian zone. (See section on Dougui extension school.) The DEFFPA technician will plug into the two-way communication channel established and/or perfected by the ONDR project technician between the extension workers and ONDR headquarters and sector/subsector

offices. He will also tap the flow of information passing between ONDR and the agricultural research stations. For further information on the effectiveness or deficiency of the extension service, he will work in collaboration with the project technician in the Department of Statistics whose function will be fully described later in the PP. In summary, the project technician will work four years until December 1982 at which time all four Chadians will have returned from the U.S. after obtaining in agriculture one Master and three Bachelor of Science degrees. This manpower will give strength to the nerve center of DEFPA's educational system.

2. College d'Enseignement Technique Agricole de Ba-Illi

In October/November 1977, Messrs. Charnel and Doubari made an in-depth evaluation of Chad's agricultural education and training. The results were published in a book entitled Propositions pour la Formation des Cadres de l'Agriculture Tchadienne. In several sections, notably in pages 24-28 and 48-56, the status and needs of the school at Ba-Illi are described at length. The following paragraphs provide a summary of the findings and recommendations of the evaluation report.

The purpose of the school is to train Agents Techniques d'Agriculture many of whom staff the subsector stations from which extension agents receive instructions, supervision, and support. The present staff

consists of five Chadians who teach general subjects and five expatriate instructors of technical subjects. Almost three fourths of the students' time is spent in listening to lectures given in a "very classical manner". There is very little practical agricultural training. Students simply observe what is being done on the school farm or at best participate as a group in seeding, weeding, and harvesting. The students make no observation trips outside the school whether to farmers fields or research stations because there are no means of transportation. For the teachers and the students there is a "cruel lack" of textbooks and agricultural literature.

The school farm has some assets: buildings, an irrigation system, some animals, plantations. However, the farm truck is old and often deadlined as well as the only one other school vehicle. The school buildings require urgent repairs to save them from total destruction.

The evaluation report recommends that the expatriate staff be replaced as soon as possible by Chadians. The principal reason is that the expatriates are too far removed from the Chadian farmers, their techniques and problems. As a result, the teaching is too theoretical. Moreover, because of the isolation of the school, the turnover of French teachers is frequent and disruptive. The evaluation report recommends a total personnel of eleven Chadians. To supply the deficiency, this project will grant two scholarships

of four years training in the U.S. terminating at the bachelor of science level. In addition, the project will provide four scholarships each consisting of four years training in an African university where the Chadians will receive the grade of Ingénieurs de Travaux d'Agriculture. The field in which each trainee will specialize has already been determined by the chief of DEFPA in consultation with the head of Ba-Illi.

The project will also provide books and agricultural literature as well as audiovisual and other educational equipment and supplies. For the repair of the existing buildings, the project will provide funds. Assistance will also be given to improve the farm and make it possible for the students to participate more actively in farming their own plots. Hoes, rakes, shovels, wheelbarrows, etc. will be purchased for that purpose. In addition funds will be available for the farm workshop where students will receive some training in the repair of farm equipment.

And finally the project will provide the following means of transportation: one pickup, one truck for the farm, and one truck or bus for the transportation of students to farmers fields, agricultural projects, research stations, etc. The project will also finance the maintenance of those vehicles during the lifetime of the project and a subsidy for fuel.

Everything that this project provides for the school of Ba-Illi has been recommended as crucial and urgent in the evaluation report mentioned earlier which now forms the basis for the DEFPA's future plans and requests for the strengthening of the agricultural education and training in Chad.

2. Agricultural Training School at Tikem

Besides the agricultural school at Ba-Illi, DEFPA has under its jurisdiction a training school for agricultural extension workers in the town of Tikem. Established in 1972 with FAC funds, the school has completed in the ensuing years the training of 300 extension workers.

ONDR itself recruits all the students from among those who have completed six years of elementary school and obtained their Certificat d'Etudes Primaires (CEP). Moreover ONDR tests the ability and interest of the applicants at least one full year in the field before admitting them into Tikem. All the students are matured persons in their early twenties.

According to the Charuel-Doubari report mentioned above, the nine months training given in Tikem is solid and practical. Sixty five percent of the trainees' time is spent in the school farm. Working in teams of four, the students go through a complete cycle of planting, nurturing, and harvesting various kinds of crops, actually doing all the required field operations themselves. Each member takes a turn as group leader.

The administrative and teaching staff of Tikem consists of five Chadians and three expatriates. Here as in the school at Ba-Illi, the foreign teachers have only a theoretical knowledge of farming in Chad. They have no personal experience of the hardships and problems of the farmers who eke out an existence in a harsh environment. Moreover, the frequent turnover of expatriate teachers is disruptive. For these reasons principally, the directors of DEFPA and Tikem would like to replace the expatriate teachers with qualified Chadians. In response to a request, this project will provide training to three Chadians, who after three years in an African university, will return with the grade of Ingénieur de Travaux Agricoles and teach in Tikem.

In an earlier section on ONDR, it was stated that the project will provide for the training of an additional 120 extension workers at Tikem. What was said earlier in that context bears repetition here: namely, that the project technicians in ONDR and DEFPA shall see to it that the extension workers trained and supported by this project receive a training especially oriented to food production. It is true that the present training at Tikem covers all aspects of farming including food production and livestock. However the emphasis is on cotton production occupying 15 percent of the class lectures and 24 percent of the time spent in the field. Since ONDR is the employer of the extension workers financed by this project, it can determine and dictate the kind of training the project

extension workers should receive with the appropriate emphasis on food production. The USAID project manager, working through the project technicians in ONDR and DEFPA, will ensure that the project extension workers receive the training required to achieve the project goal which is the attainment of national self-sufficiency in food and forage crop production.

In order to enhance the training of the project extension workers, the project will provide eleven thousand dollars for educational materials and equipment (such as a camera and a slide projector) and agricultural literature. In addition, the project will provide a modest amount of funds for sorely needed repairs of existing buildings and facilities (toilets, ceilings, windows and doors) and for the improvement of the farm (extension of the irrigation system, equipment for the repair of wagon wheels and plows, etc.).

With this relatively small material assistance and the provision of participant training for three future teachers as well as a new emphasis on food production in the training of extension workers, the project will make further progress in achieving its purpose of developing agricultural institutions.

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3. The Agricultural School at Dougui

The Sahelian zone, stretching from the twelfth to the fifteenth parallel, is a dry plain with aridity increasing from south to north. Rainfall is sparse and falls irregularly from year to year and from place to place within a given year. By and large the people in the Sahel zone, especially the Arab majority, are semisedentary, mixed farmers. They cultivate millet and sorghum in the southern areas in the rainy season, as well as berberé in the scattered alluvial depressions which retain moisture well into the dry season.

From 1962 to 1968, the French state company Bureau pour le Développement de la Production Agricole (BDPA) managed an agricultural extension program in the Bokoro subprefecture, some 150 miles east of N'Djamena. Although the experiment was by and large a success, it was abandoned after 1968 due to the political insecurity in the Bokoro area. However up to this day, ONDR has maintained a few extension workers, currently 47, in the Sahel zone. Unfortunately this small number cannot have a significant influence upon the farmers scattered in the Sahelian zones, especially since they did not receive a training especially oriented towards food production in the northern region.

The Government cannot be satisfied with that weak extension service, especially after establishing its new policy of national self-sufficiency in food production. To achieve this goal, the Government expects the

Sahelian zone to do its part. The Four Year Plan: 1978-1981 expresses the Government's intention to cultivate food crops on an additional 30,000 hectares in the northern region.

To accomplish this objective the farmers will need assistance from an expanded extension service specifically trained for growing food crops in the Sahel zone. With this in mind the Ministries of Agriculture and Planning have requested the help of the European Development Fund (FED) and USAID to establish at Dougui (some 40 miles north of N'Djamena) an agricultural school, similar to that in Tikem, for the training of extension workers destined to operate in the Sahelian zone.

In response, FED has agreed to finance the construction of the school buildings at Dougui, including classrooms, dormitory, dining room, kitchen, and garages. FED is pledged to commit these funds on the assumption that the Government will obtain the financing required to make the school operational. For this the Government has turned to USAID for assistance. This project provides furniture (e.g. desks, tables, beds, etc.), audio-visual equipment, agricultural literature, and the establishment of a farm where the students will cultivate food crops as part of their practical training.

To set up an extension service that is adapted to the farming in the Sahelian zone, DEFPA has put in a special request for the assistance of a

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technician. This person must be an expert in rainfed agriculture suitable for the Sahel region and knowledgeable in extension service. As just mentioned, his first task will be to determine the nature of the extension service most useful in the northern region as well as the elements of the training to be imparted to the students. In this task, he will work closely with the project technicians in DEPPA and ONDR headquarters.

He will also direct the four Peace Corps volunteers who will be full-time teachers and trainers at the school. Peace Corps has agreed to provide teachers with agricultural background. The project technician will also assist the Chadian headmaster and the Chadian teachers. In addition, he shall collaborate with the project technician in DEPPA in developing the nation's agricultural education.

In the meantime, with project financing, three Chadians will spend three years each in an African university and return with the grade of Ingénieurs de Travaux Agricoles and replace the Peace Corps volunteers.

For the technical assistant, the project will provide a pickup for field trips and for communication with the other project technicians. In addition, the project will finance a truck for the farm and another truck or bus for the transportation of students to the fields, project sites, research stations, etc.

Contrary to earlier predictions, FED has not yet made funds available to the Government for the construction of the buildings at Dougui. FED seems to be awaiting the firm commitment of USAID or another donor for whatever else would be required to make the school operational. Once these funds are assured, FED has the intention of honoring its pledge.

In any event, however, the construction of the school buildings cannot begin before the spring of 1979 and cannot be completed before the fall. For this reason, no PIO/T and no PIO/Cs will be issued in support of Dougui before the FED funds have been made available to the Government and construction is assured. As soon as this happens, steps will be taken so that the technician, furnishings, equipment will arrive quickly for the earliest possible opening of the school.

4. Recapitulation of Project Assistance to DEFPA

	<u>Central Office</u>	<u>Ba-Illi</u>	<u>Tikem</u>	<u>Dougui</u>
Technical support	1 for 4 years	--	--	1 for 2 years
Training in U.S.	4 for 4 years	2 for 2 years	--	--
Training in Africa	--	4 for 4 years	3 for 3 yrs	3 for 3 years
Educational equipment	--	55,000	6,000	9,000
Agricultural literature	--	15,000	5,000	5,000
Furnishings	--	--	--	61,000
Repair of buildings	--	180,000	30,000	--
Development of farm	--	60,000	25,000	65,000
Pickup	1 for T.A.	1	--	1 for T.A.
Truck	--	2	--	2
Vehicle fuel and maintenance	16,000	48,000	--	48,000

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F. The Agricultural Statistics Division

For efficient functioning the Planning Office of the Ministry of Agriculture requires reliable information covering all aspects of agricultural production. This is needed for long-term planning and policy making, the design of new projects, and the evaluation of ongoing projects. Since the operation of the Planning Office is based on agricultural data, the quality of the one varies in direct relation with the value of the other.

Besides the Planning Office, other departments of the Ministry of Agriculture and other governmental offices, notably the Directorate of Planning require basic agricultural data and a regular flow of information. With it, they can plan, evaluate, make operational decisions, take timely remedial actions, in a word function with efficiency.

For this information, every interested organization relies principally upon the Agricultural Statistics Division (henceforth referred to simply as ASD) of the Ministry of Agriculture. It is the responsibility of the division to gather the nation's agricultural data into a central reservoir. From there, the information flows to the interested agencies through an established channel of communication.

The ASD performs this important function with the following personnel. At the central office, the division chief is assisted by an FAO technician, two Agents Techniques de Statistique (ATS), the equivalent of vocational high school graduates, and two Chadians who have received training in general agriculture. In the field, the ASD has nine employees, only one of whom has received formal (high school level) training in statistics. The other eight are agricultural generalists at the level of Agents Techniques d'Agriculture. The nine field personnel are deployed in the southern region and are located, one in each of the sector offices of ONDR.

By a special arrangement with ONDR, the Government's statistical requirements are communicated to the 525 extension workers scattered throughout the southern prefectures. It is these employees, who travel from field to field on foot, bicycles, and horses, who instruct the farming families about the agricultural reports required by the Government. Accordingly the requested data are collected monthly and maintained in the village files. From there it wends its way through ONDR's subsector offices to the ASD agent located in ONDR's sector office and later to the ASD in N'Djamena.

It is apparent that the flow of information is strong at its source, thanks to the extension workers covering the countryside. Between the village level and the central office, however, there is only one ASD employee per

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sector in the south and none in the north. That communication link is weak and needs strengthening as well as the central office.

Aware of the weakness of the ASD which nonetheless has a critical function, the Ministry of Agriculture has made a direct appeal to USAID for assistance. In response to a specific request, this project will first of all provide additional training to the chief of ASD. At this moment, he has attained the level of Ingénieur de Travaux Statistiques which corresponds to the sophomore/junior year in a U.S. college. He will receive two years and a half of training in the United States and obtain a bachelor's degree after pursuing studies oriented towards agricultural statistics.

During his absence, a Chadian Agent Technique de Statistique will step up and become acting division chief. In order to strengthen the ASD even during the lifetime of the project and not only at the end, a project technician will be provided to assist the acting division chief. This support will be all the more critical since the contract of the FAO technician terminates definitively on December 25, 1978. According to plan, the project technician will work about nine months with the division chief before he leaves for the U.S. and after that with his temporary replacement.

After familiarizing himself with the agricultural data gathering system described above, he will work in close collaboration with the project

technician in the Planning Office and learn the agricultural statistical needs of all government agencies. He shall assist the personnel in the central office of ASD to prepare clear and well-structured questionnaires and forms for distribution ultimately to the extension workers. If he discovers deficiencies in the statistical gathering skills of the extension workers, he shall inform the heads of DEFPA and the schools at Tikem and Dougui responsible for the training of the extension workers. In these endeavors he will work closely with the project technicians assigned to those institutions. Moreover, inasmuch as the data-gathering system in the field depends heavily upon the cooperation not only of the extension workers but also of the ONDR personnel in the sector and subsector offices, the technician in ASD will function in close collaboration with the project technician in ONDR. And later when the information arrives from the field, he will assist his Chadian associate in refining the raw data and preparing reports rich in useful information. In short, working with his project colleagues, he will have to marshal their forces as well as his first to gather and then to distribute comprehensive agricultural data.

At the present, besides the division chief, there are among the entire personnel of ASD only 3 persons trained in statistics. And even these have received a training equivalent to the level of vocational high school graduates. To strengthen the staff, the project will provide

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several scholarships in African universities. Two will receive three years training and reach the grade of Ingénieurs de Travaux Statistiques (ITS) and two will study two years and become Agents Technique de Statistique (ATS). Upon their return, one ITS will take up the position of assistant division chief while the other ITS will be in charge of all officers in the field.

According to the new organization chart, two regional offices will be established one for the southern region and one for the Sahelian zone. The two project trainees with ATS degrees will head these offices. Under the supervision of the northern regional chief stationed in Ati, officers will be assigned to the existing ONDR offices in Mao, Abeche, and Mongo. At the start, these posts will be manned, as all other ASD stations in the south, with general agriculturalists graduated from the agricultural high school in Ba-Illi.

To function effectively all statistics field agents need mobility. As mentioned above, there is only one employee of ASD per sector which encompasses several subsectors spread throughout the countryside. By a special arrangement, the personnel in the ONDR 77 subsector posts are expected to transmit to the extension workers instructions regarding the gathering of agricultural data. But since this is not the primary purpose and responsibility of ONDR and its field agents, it is

done as time permits. Moreover some ONDR employees may not realize the value of accurate agricultural information and consequently they are lax in their instructions to and supervision of extension workers in this regard. For this and other reasons, it is imperative that the ASD field employee visit frequently the ONDR agents in the subsector posts. He explains the crucial need of agricultural data, the instructions originating from headquarters, the forms, etc. The ASD agent should also attend weekend meetings wherein the extension workers of a given area are gathered for instruction and retraining. These are opportunities for ASD agent to instruct and motivate the extension workers personally. In addition, whenever the subsector submits village reports that are confusing or inconsistent, the ASD agent must go to the source of the erroneous report and assist the extension worker in preparing an accurate report in proper form. In a word, to perform his task of collecting reliable agricultural data in an entire sector, the ASD field agent needs mobility.

The only means of transportation available to the ASD agents in the nine sector offices are vehicles scrounged from various sources, repaired and kept operational. There are none available for the five posts soon to be opened in the Sahelian zone. To provide this crucial transportation, the project will provide a total of seven pickups: five for the Sahelian

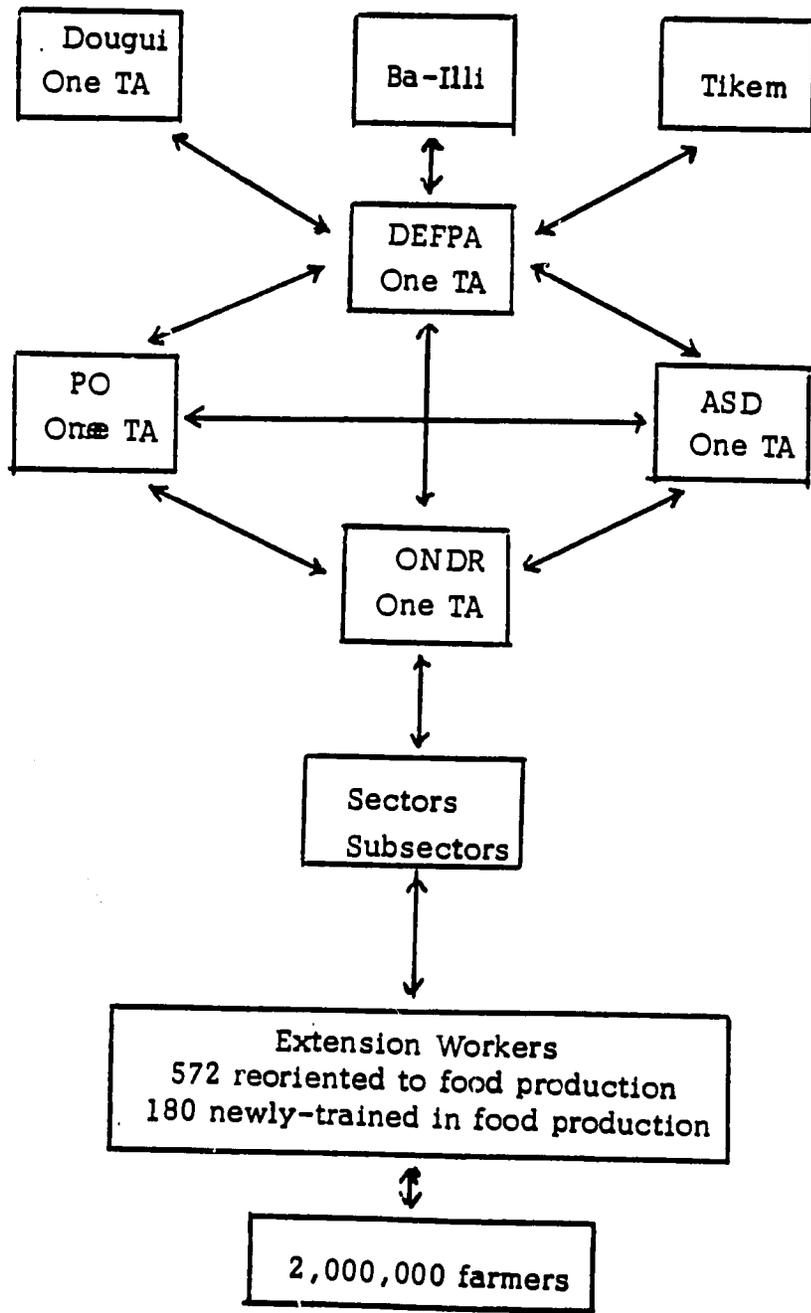
region and two for replacement of the worst vehicles in the southern zone. One of these vehicles will be available to the project technician during his two-year assignment in ASD. The project will also provide fuel and maintenance for each sector vehicle during the lifetime of the project.

In addition, the project will finance the restoration of the central office wherein the personnel cannot function effectively. A limited amount of office equipment, furniture, and supplies will also be supplied for the central office and the sectoral offices especially in the Sahelian region.

With this support and increased mobility as well as the training of five Chadians and the assistance of a technician, the ASD will be in a much stronger position, especially after the return of the project trainees, to fulfill its critical function of supplying comprehensive, accurate agricultural data to the Planning Office of the Ministry of Agriculture and to all other interested national and international organizations and foreign donor countries.

G. Interrelationship of Project Components

The following chart illustrates the complementarity and interrelationship of the various project components.



The Agricultural Statistics Division (ASD) receives program direction and requirements from the Planning Office (PO). The ASD obtains agricultural data utilizing ONDR agents and extension workers at the farmer level. ASD helps DEFPA to give agricultural agents and extension workers basic statistical training. After gathering data, ASD extracts all meaningful information and feeds it to the PO which utilizes and disseminates it to all interested organizations.

After receiving programming direction and requirements from the PO, the directorate responsible for agricultural education (DEFPA) trains agricultural agents and extension workers for ONDR in the schools of Ba-Illi, Tikem, and Dougui. From ONDR, DEFPA receives extension service packages and imparts them to the students. Later, after the graduates have been working in the field, ONDR evaluates their performance and informs DEFPA so as to increase the quality of the training in the schools. ASD also keeps DEFPA informed about the performance of the extension workers in data gathering so that the training in statistics can be improved.

If the Planning Office is the brain of the MOA, ONDR especially through the extension workers, is its eyes and ears and voice at the level of the farmers whose hands plow the fields, sow the seeds and harvest the crops for the nation. ONDR gets the program signals from the PO, collaborates with

the research division and stations to prepare extension packages, and arranges with DEFPA for the appropriate training of the agricultural agents and extension workers. By arrangement, ONDR puts its personnel at the disposal of ASD for the gathering of agricultural data. ONDR learns from ASD what it needs and obtains that data for ASD. It is through the ONDR channel that the problems, desires, efforts, and successes of the farmers are communicated up the line until they reach the Planning Office and the other interested MOA departments and agencies. In short, there is interaction, mutual dependence and support among the four departments of the MOA benefitting from the project.

In the same way, there will be a close interrelationship among the project technicians who will form one team headed by the technician in the Planning Office and responsible to the USAID project manager.

With a clear understanding of the project purpose of increasing the national food crop production, they shall be responsible for timely and maximum utilization of the project inputs. By close coordination of their activities, they shall strengthen the interrelationship of the agricultural institutions targeted by the project and ensure that the activities of these agencies are coordinated, complementary, and mutually supportive, all striving towards the common goal of national self-sufficiency in food crop production.

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H. Relationship to Other Donor and to Other AID Projects

1. Other Donor Projects

The Agricultural Institutional Development project represents one contribution to a substantial multidonor effort to strengthen the key functions of the Ministry of Agriculture. The other major donors in this effort include UNDP/FAO, FAC, FED and Swiss Aid.

a. Planning Office

FED financed the repair and extension of the building occupied by the planning unit. Swiss Aid provided office supplies. UNDP/FAO is providing the services of an FAO irrigation/water resource advisor. FAC is financing one agricultural economist and has agreed to supply an agronomist and one veterinarian advisor. Swiss Aid intends to fund a long-term sociologist and an agricultural economist.

b. Agricultural Statistics Division

The UNDP is providing an FAO statistician to advise the Chief of ASD. He is expected to be at post through the end of 1978. For special surveys, FAO has provided the following funds: \$56,000 in 1976; \$77,000 in 1977; and \$82,000 in 1978.

c. ONDR

FED provided over one half million dollars for the construction of ONDR compound in Moundou. Before 1970, FED financed the purchase of 30 vehicles and in 1977 FAC provided 4 vehicles. FAC is paying the salaries

of 7 expatriates (3 in headquarters and 4 in the field) and FED is providing one expatriate field expert. In 1977, ONDR received 42,000,000 CFA (\$180,000) from FAC and FED and 240,000,000 CFA (over 1 million dollars) from taxes on sale of cotton fibre (6 CFA per kilo).

d. Agricultural Education (DEFPA)

FAC is providing one expatriate in the central office, 5 in the school of Ba-Illi and 3 in the training center in Tikem. FAC has also financed the repairs of the buildings in Tikem and FED is planning to construct the buildings for the training center of Dougui.

2. Other AID Projects

There will be a mutually reinforcing relationship between the Agricultural Institutional Development project and several other ongoing or proposed AID projects.

The Comprehensive Human Resources Development project (677-0005) includes training for village volunteers who will teach practical skills to adults and children at rural elementary schools designated as practical skills training centers. The village-level extension agents who will receive training under the Agricultural Institutional Development project will coordinate with the village volunteers and utilize the facilities of the practical skills centers in their food crop extension programs. The

planned coordination between the extension activities of the Agricultural Institutional Development project and the adult education/practical skills component of the Human Resources Development project will remedy an important weakness in the INSE education reform program, i. e., the lack of an effective link with the MOA extension service.

The Chad Range and Livestock Development project (677-0201) will contribute to strengthening of the livestock planning capability of the MOA planning office by providing the services of a range management/animal husbandry advisor to the office. Assignment of this advisor to the planning office will simultaneously contribute to the formulation and design of viable range management/livestock development projects, which is a major end-of-project condition of the Chad Range and Livestock Development project.

The Crop Production Research, Seed Multiplication, and Grain Marketing project (677-0014) will strengthen operational field research programs which will assist ONDR in offering maximum assistance to the farmers through the extension service.

USAID is presently providing the services of an agriculture economist, hired under a personal service contract, to the planning office. Besides advising the Chief of the Planning Office, this person constitutes the vital communication link between USAID and the planning office and MOA.

In addition, during fiscal year 1978 USAID is providing \$84,000 to help the Agricultural Statistics Division to perform its vital functions while awaiting financial support through this project.

PART III. Project Analyses

A. Technical Analysis

This project does not include any technological elements. It consists simply in institution-building by providing technical assistance, participant training, means of transportation, educational and office equipment, farm implements, and other similar items. For a project of this type, there is no apparent need of a technical analysis in the strict sense.

Nor would it seem useful to focus here upon the appropriateness of the project as a whole and of each component part in particular. In the above detailed description of the project, an effort was made to paint a picture of the various responsibilities and activities of the agricultural institutions benefitting from this project. Against this background, the present manpower and material resources of each department were

depicted. The inadequacies were immediately apparent. Then the project provisions for filling these deficiencies were unfolded section after section.

The determination of the quality and quantity of inputs was the result of many discussions between Chadian officials, expatriate experts, and the project design team. The final decision was influenced by various considerations. For example, the desire to provide a great number of scholarships outside of Chad was tempered by the availability of candidates which is not unlimited and by the constraints of the national budget which cannot assume an indefinite number of civil servants.

Another illustration was the desire to keep the number of project technicians at an acceptable level. The current expatriate presence in each department was considered as well as the Chadian personnel.

It was judged wise to keep the expatriate element at a tolerable level and to avoid an imbalance that might prejudice the encouragement, advancement, and strengthening of the Chadian personnel.

In the same vein, it was extremely important to strike the proper balance between the technical assistance and participant training not in terms of numbers but with respect to costs. The Chadians know that the annual cost of one project technician equals four scholarships in the U.S. and twenty scholarships in African universities outside Chad. This fact

loomed high in the background of the discussions revolving around and finally determining the appropriate balance between technical assistance and participant training.

And similarly for the determination of the nature and quantity of commodities to be provided by the project, the assets of each department were inventoried, the inadequacies and the needs graded from critical to nice-to-have, and a hard decision was made based on various factors, principally upon post-project maintenance and operational costs that could be absorbed in the national budget.

Environmental Impact Statement

This project involves no direct measurable impact on the environment.
(See attached Initial Environmental Examination.)

Summary Conclusion

There has been no effort to establish in this section the "technical" soundness of the project package. The appropriateness of each and every element has been sufficiently demonstrated in the earlier detailed description of the project. The project meets FAA Section 611(a) and (b).

B. Financial Analysis

Being an institutional development effort, this project is nonrevenue producing. The financial analysis for the project, therefore, consists principally of a budgetary analysis of the MOA's ability to assume operating and maintenance costs once AID financing has terminated.

1. Recurrent Budget Analysis of MOA

Because of the difficult financial position of the GOC, every effort has been made in design of the project to minimize the recurrent costs which the Government will have to bear upon withdrawal of AID support. The following figures are significant:

<u>Total GOC budget - 1976:</u>	15,785,326,080 Frs. CFA
<u>Total GOC budget - 1977:</u>	16,182,035,830 Frs. CFA
Increase from 1976 to 1977:	2.5%
<u>Total 1976 MOA budget:</u>	<u>676,655,200 Frs. CFA</u>
<u>Total 1977 MOA budget:</u>	<u>693,974,700 Frs. CFA</u>
Increase from 1976 to 1977:	19,319,500 Frs. CFA
Percent increase:	2.9 percent.

With respect to the relative importance of the MOA budget, in 1976 the MOA received 4.2 percent of total GOC revenues and in 1977, 4.3 percent. In view of the importance of agriculture in Chad, these small sums are inadequate. Further, about 92 percent of the MOA budget represents salaries, with the remainder going for general overhead. There are virtually no investment expenditures financed from the MOA budget.

Recurrent costs to the MOA (per year) as Result of Agricultural Institutional
Development Project (all figures in 000's CFA)

1. Upgrading of present personnel

a. Planning Office

Two to MS level in U.S.

new salary	1,464		
former salary	<u>900</u>		
	564	(X2)	1,128

Three in Africa

new salary	636		
former salary	<u>504</u>		
	132	(X3)	396

b. ONDR

Two at BS level in U.S.

new salary	900		
former salary	<u>636</u>		
	264	(X2)	528

Eight in Africa

new salary	840		
former salary	<u>768</u>		
	72	(X8)	576

c. DEFPA

One to MS level in U.S.

new salary	1,464		
former salary	<u>900</u>		
	564		564

Five to BS level in U.S.

new salary	900		
former salary	<u>636</u>		
	264	(X5)	1,320

Ten in Africa

new salary	636		
former salary	<u>504</u>		
	132	(X10)	1,320

d. Statistics

One to BS level in U.S.			
new salary	900		
former salary	<u>636</u>		
	264		264
Four in Africa			
new salary	840		
former salary	<u>768</u>		
	72	(X4)	288
Total Personnel			6,384
2. Additional maintenance costs resulting from project			7,130
Total increase in recurrent costs			13,514

Using 1977 as base year, the increase in recurrent costs is 1.9 percent.

The above calculations do not include the post-project salaries of the 180 extension workers trained and paid with project funds during the life time of the project. The reason for this omission is that extension workers are not civil servants; they are hired under contract. Extension workers are not paid by funds allocated to the MOA from the national budget but from a tax levied on the sale of cotton (6 CFA per kilo) and from various subsidies (FAC, FED, and others amounting to 42,000,000 CFA in 1977). At the end of the project, ONDR has no intention to disband the extension workers trained and hired under this project. A number of them will have replaced the pre-project extension workers who will have left the service or been dismissed. For the others,

ONDR is sanguine that it will obtain the necessary funds from increased revenues generated from the sale of cotton and other crops in the production of which the extension workers have played ^{an} important role. If needed, subsidies will be sought from other donors who in the past have been ready to support this critical agricultural service.

As indicated in the above table, the GOC contribution to the project will initially be modest but reach almost 13.5 million Frs. CFA per year (\$60,000) by year four of the project. This will require an increase of about 1.9 percent in the MOA budget. With respect to the prospects for future revenues, the World Bank estimates that in normal conditions GOC revenues would grow at an annual rate of about 4.1 to 4.7 percent in constant terms. This would imply that if the MOA receives a 4.5 percent increase in its budget, it would be receiving its "fair share" of the increase in general revenues. Given the new GOC emphasis on agriculture and food crop production, one would assume the GOC allocation to the MOA to be at least as great as the increase in GOC general revenues. Thus, an increase in the MOA's budget by roughly the same rate as general revenues would provide the necessary financial source to meet additional MOA recurrent costs generated as a result of the Agricultural Institutional Development project as well as other projects.

In summary, while this project will place financial demands on the MOA, they are not great--nothing in year one, and growing to \$60,000

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in year four. Further, there is every reason to believe that the MOA will get a fair share of increases in general revenues.

On the basis of the foregoing, the USAID concludes that the proposed GOC contribution to the project is realistic and that it will not place undue stress on limited GOC resources.

Financial Management Competence

Based on current estimated capability, no management changes will be needed in the four units in the MOA. Each unit seems headed by a reasonably competent Chadian, and in each instance there are already present advisors from FAC or FAO. Coupled with the proposed levels of technical assistance, there should be adequate levels of management and technical expertise to ensure that the project is successful.

2. Financial Budget Tables

Project budget tables are shown on the following pages.

PLANNING OFFICE

	1978	1979	1980	1981	1982	Degree	FY78	FY79	FY80	
Technician							200		200	
Training in U.S.						MS		40.8		
						MS		40.8		
Training in Africa						IA		21	14	
						IA		10	10	
						IA		10	10	
Office equipment and furnishings										
2 heavy duty pickups @ \$13,000 + \$2,600 = \$15,600								35		
3 light pickups @ \$10,000 + \$2,000 = \$12,000								31.2		
								36		
P.O.L. @\$2,000 per yr. x5x4 yrs.									10	30
Vehicle maintenance @\$2,000 per yr. x5x4 yrs.									5	35
Other operational costs										10
								302.2	127.6	309
Inflation									15	65
Contingency								15.1	8	13.7
								317.3	170.6	387.7

AGRICULTURAL STATISTICS DIVISION

	1978	1979	1980	1981	1982	Degree	FY78	FY79	FY80
Technician Training in U.S.		-----	-----	-----	-----	BS	200		
Training in Africa		-----	-----	-----	-----	ITS		34	
		-----	-----	-----	-----	ITS		10	5
		-----	-----	-----	-----	ATS		10	5
		-----	-----	-----	-----	ATS		10	
Office equipment and furniture in central office							15		
Equipment and supplies in 14 sectoral offices							14	4.2	15
7 Vehicles @ \$13,000 + \$2,600 = \$15,600							62.4	46.8	
P.O.L @ \$2,000 per yr. x 4 vehicles x 4 yrs.								8	24
P.O.L @ 2,000 per yr. x 3 vehicles x 3 yrs.									18
Maintenance of 7 project vehicles + 7 pre-project vehicles							20	28	84
Renovation of central office							53		
Operational expenditures							5	5	15
							369.4	166	166
						Inflation		16	34.8
						Contingency	18.8	8	8.3
							388.2	190	209.1

ONDR

	1978	1979	1980	1981	1982	Degree	FY78	FY79	FY80
Technician							100	100	200
Training in U.S.						BS	13.6	13.6	27.2
						BS	13.6	13.6	27.2
Training in Africa						IA	10		10
						IA	10		10
						ITA		10	5
						ITA		10	5
						ITA		10	5
						ITA		10	5
						ITA		10	5
							12		
Educational equipment									
Means of transportation (horse, bicycles, etc.)							20		
Vehicle (audio-visual) @ \$25,000 + \$2,600 = \$27,600							25.6	7.4	20
Vehicles @ \$13,000 + \$2,600 = \$15,600							93.6	27.6	
Extension Workers (60 in 79; 150 in 80, 180 in 81+82)									
P.O.L. @ 2,000 per yr. x 7 x 4 yrs.							78	156.8	154.3
Vehicle maintenance @ 2,000 per yr. x 7 x 4 yrs.								14	42
Other operation costs								14	42
							5	5	15
Inflation							369.4	424	577.7
Contingency							14.5	42	121.3
							21	34.4	
							383.9	487	733.4

DEFPA

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	1978	1979	1980	1981	1982	Degree	FY78	FY79	FY80
Technician							100	300	
Training in U.S.	}					MS		27.2	27.2
						BS		27.2	27.2
						BS		27.2	27.2
						BS		27.2	27.2
1 Vehicle @ \$10,000 + 2,000 = \$12,000							12		
P.O.L. @ \$ 2,000 per yr. x 4								2	6
Vehicle maintenance @\$2,000 per yr. x 4								2	6
							112	412.8	120.8
						Inflation		41	25.3
						Contingency	5	20.6	6.
							117	474.4	152.1

BA-ILLI

	1978	1979	1980	1982	1982	Degree	FY78	FY79	FY80
Training in U.S.	{	-----	-----	-----	-----	BS	13.6	13.6	27.2
		-----	-----	-----	-----	BS	13.6	13.6	27.2
Training in Africa	{	-----	-----	-----	-----	ITA	5	5	10
		-----	-----	-----	-----	ITA	5	5	10
		-----	-----	-----	-----	ITA	5	5	10
		-----	-----	-----	-----	ITA	5	5	10
Educational and farm workshop equipment								55	
Books							15		
Repair of buildings							180		
2 trucks @ \$20,000 + \$4,000 = \$24,000							48		
1 pickup @ \$13,000 + \$2,600 = \$15,600							15.6		
P.O.L. @ \$2,000 per year x 3 x 4 yrs.								6	18
Vehicle maintenance @ \$2,000 x 3 x 4 yrs.								6	18
Development of school farm							60		
Inflation Contingency							365.8	114.2	130.4
							18.2	11.3	27.3
							6.	6.5	
							384.	131.5	164.2

TIKEM

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	1978	1979	1980	1981	1982	Degree	FY78	FY79	FY80
Training in Africa		--	---	---	--	ITA		5	10
		--	---	---	--	ITA		5	10
		--	---	---	--	ITA		5	10
Educational equipment							6		
Books							5		
Repair of buildings							30		
Development of school farm							25		
							66	15	30
								1.5	6
							3	-	1.5
							69	16.5	37.5

Dougui

	1979	1980	1981	1982	Degree	FY 78	FY79	FY80
Technician		-----	-----	-----			200	
Training in		-----	-----	-----	ITA		5	10
Africa		-----	-----	-----	ITA		5	10
					ITA		5	10
Equipment and furnishings for school							61	
Educational equipment							9	
Books							5	
Trucks @ \$20,000 + \$4,000 x 2						48		
Pickup @ \$13,000 + \$2,600						15.6		
P.O.L.							6	18
Vehicle maintenance							6	18
Development of school farm							65	
						63.6	367	66
							36	13.8
Inflation Contingency						3.	18	3.2
						66.6	421	83

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RECAPITULATION

Recapitulation		FY78	FY79	FY80
Technicians Participants	FX	600	600	400
	{ FX	54.4	278.8	217.6
	{ LC	40.	213.	194.
Commodities	{ FX	387.4	148.6	15
	{ LC	290.6	67.4	20
Other costs	LC.	276.	338.8	553.3
Total		1648.4	1646.6	1399.9
Inflation (10% annual compounded)			162.8	293.5
Contingency		77.6	81.6	73.6
Grand Total		1726.	1891.	1767

Summary Cost Estimate and Financial Plan

	AID	GOC	FED	FAC	FAO	Peace Corps	Total
Technical Assistance	1,600			1,027	360	168	3155
Local Staff Salaries during training		307					307
Training in U.S.	585.8						585.8
in Africa	412.						412
Commodities	929.				275		
Other Costs	1168.1	50	352				
Total:	4694.9	357	352	1,027	635	168	7220.9
Inflation:	456.3	35	35	102	63	16	721
Contingency:	232.8						232.1
Grand Total:	5384	392	387	1129	698	184	8174

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C. Social Analysis

Social soundness considerations have the greatest degree of relevancy to the extension element of the project. In addition, the ECPR review of the PRP requested investigation of the possible role of women in the project. This section consists, therefore, of specific background information and analysis of the social context of the extension element, supplemented by social soundness considerations to the degree they impinge on other areas of the project, and a discussion of the role of women in agriculture and specifically in the project.

In approaching its extension work, ONDR divides the arable portions of Chad into two zones. These zones are distinct ecologically, historically, demographically, and culturally.

The northern zone, stretching from a little north of the 12th parallel to the 15th parallel, is a dry plain with aridity increasing from south to north. This is the Sahelian zone. The only permanent water course is the Chari River emptying into Lake Chad in the extreme west of the zone. Rainfall is sparse, and falls irregularly from year to year and from place to place within a given year.

The Sahelian region is sparsely populated. Populations in the rural areas attain five persons per square kilometer in the south but dip to under two in the north. Families tend to be small, i.e. four or five is the average

By and large the people in the Sahel zone, especially the Arab majority, are semisedentary, mixed farmers. They cultivate millet and sorghum in the southern areas in the rainy season, as well as berbere in the scattered alluvial depressions which retain moisture well into the dry season. While a strong interest in cattle-keeping remains, the people have been fixing themselves more and more in permanent settlements.

The unit of production is generally the autonomous household. There is little cooperative labor among households in the village, although people often work together to build each other's houses, dig wells, or even periodically herd cattle as a group. Cereal production, however, is the responsibility of the autonomous patrilineal nuclear family.

Within each family the husband is responsible for millet cultivation. Although his wife helps, especially for weeding and harvesting. The wife often cultivates a field of her own, e.g. growing peanuts, which she hopes to market, and condiments, which she adds to sauces at mealtimes. Men take care of the cattle, plan their movements, and control their disposition. Women, however, control milk, milk products and their consumption and sale. Most women in the area owe a major part of their income to fresh milk,

butter and curdled milk sales.

Generally all the families in the village are patrilineally related but that is not necessarily the case. Village populations average around 200 inhabitants each. The villages are led by a chief who has limited powers. When the villages grow to a critical population that gives rise to problems of friction, they tend to fission with one group moving off either to found a new village or to attach itself to some other village with which it has actual or fictive patrilineal ties.

From 1962 to 1970, the French state company Bureau pour le Developpement de la Production Agricole (BDPA) managed an agricultural extension program in the Bokoro subprefecture, east of N'Djamena just below the fringe of the Sahelian zone. BDPA encouraged the setting up of volunteer groups of farmers within the village framework. The establishment of the rural groups took place after a series of meetings of BDPA agents with the village chiefs and the villagers concerned. In the beginning the groups were active only in marketing peanuts jointly. Later they moved toward acquisition and storage of certain consumer goods such as sugar and tea. In time the cooperative marketing operations extended to other food grains such as millet and even to cattle.

At the same time, the project aimed at the propagation of improved cultural practices and the intensification of cultivation of by animal traction equipment. This component was mixed success. The peanut sheller and seed drill were most welcome because they paid for themselves in labor saved. Animal drawn cultivators were not as well received however, due to demands they placed on the farmer not only for meticulous sowing, but also for care and training of the oxen to pull it.

The southern zone of Chad stretches from a little north of the 12th parallel to the southern border of the country. This Sudanian zone has many permanent water courses, most of which are tributary to the Chari and Logone systems. Rainfall is fairly generous and fairly regular over most of the area, although disturbing deficit years do occur.

Close to half of the people in the Sudanian zone are Sara or ethnic groups culturally related to the Sara many of whom are Christians.

Populations in the rural areas of the zone start from a density of six inhabitants per square kilometer in the east rising to thirty inhabitants per square kilometer in some of the western areas.

Average village populations range from about 450 inhabitants in the east to 900 inhabitants in the west. Three fifths of the families have over six members.

The people in this area are overwhelmingly sedentary agriculturalists. Their main crops are millet, sorghum, peanuts, some tubers such as manioc and taro, rice in propitious areas, and cotton as a cash crop. Almost no cattle raising is done. Fishing and hunting are, however, important secondary activities in many areas.

The unit of production in this environment is generally the patrilineal extended family. The oldest male is the family head who allocates land rights, distributes family wealth and adjudicates in case of disputes. The family produces as a unit and consumes as a unit. In principle there is very limited personal property in this structure. The most important exception to this rule has been in cash crop production. One of the important social innovations brought about by cotton production was the rebellion of the younger cultivators to turning over their receipts to the senior members of the family, traditionally the administrators of family resources. Cash cropping is open to anyone. Men and women alike engage in cotton production. In recent years, however, women have become

increasingly interested in rice cultivation, especially in those areas favored in soil and access to water.

Commercial cotton production began in the Sudanian zone in the mid 1920's. At that time, promotion and extension of production techniques was done by compulsion. Village chiefs were given the responsibility of overseeing production increases and the right to use any of several means of coercion to see that French policy applied. At this point there was virtually no extension effort as such. Cotton became just another crop inserted in the normal rotation, cultivated with traditional practices and tools.

By the early 1960's, cotton production had first leveled off and then began to drop. In 1964 the Chadian government signed a contract with BDPA for an integrated agricultural development/rural animation program in the Moundou Valley near Sarh in the Sudanian zone. BDPA's active field intervention in this area lasted from 1967 to 1972.

The objective of the BDPA in "Operation Moundou" as it was called, was to raise the absolute level of productivity of food crops, as well as of cotton, by the introduction of improved cultural practices and the promulgation of an educational structure designed to

prepare young people for the farmer's life. Operation Moundou was by no means as successful as the BDPA's efforts in the Bokoro area. The objective was to abandon the traditional authoritarian methods in favor of persuasion. While production was raised considerably in many cases, the "model peasant" approach of rural animation adopted in this project foundered on issues of seniority. Older men were not willing to respect the judgement and inspiration of the younger men designated by BDPA as model peasants.

BDPA also organized voluntary producer groups in the area. These groups were to work together with cooperatively owned animal traction equipment. In fact the groups tended to lack cohesion. Members joined a group to have access to credit. After repaying they dropped out of the group. They seemed to see no great advantages in group functions such as cooperative sale of produce or cooperative purchase of staples, functions that had proven to be important drawing points for group membership in the Bokoro experience.

Project Feasibility

There is every indication that a revitalized extension service is needed in Chad and that Chadian farmers are, in principle, quite receptive to efforts to assist them in improving food crop productivity.

To date, very little extension work has been done in the country for food crop production. Even in the Sudanian zone the extension effort, such as it is, has been restricted traditionally to cash crop production.

Experiments in more comprehensive forms of extension have been carried out with some success since independence. The BDPA Bokoro experience has provided a framework for a Sahel zone program. The Operation Moundou experience was less of a success but much can still be learned from it for application to the Sudanian zone.

The technical information to be imparted under the planned food crop extension program first to extension workers and then to small agriculturalists will be very elementary in nature. It will not require significant cultural change on the part of the farmer since it does not involve the planting of new crops or radical changes in the present agricultural system. Farmers will continue to grow millet and sorghum and will simply be taught techniques and practices to improve their productivity, e.g. the substitution of one millet variety for another, a change in depth of seed planting, a difference in seed treatment before planting. Disruptive changes in life style or in value and attitude structure will not be brought

about by the technical extension training proposed. The technical information on food crop production to be disseminated by the MOA extension service will not require increased production costs to the farmer. This is so because the technical information will be designed to fit into the current production rhythm and will involve only the substitution of one variety for another or of one cultural practice for another.

Social Consequences and Benefits

During the lifetime of the project, several departments of the Ministry of Agriculture will be strengthened significantly with technical assistance, better trained personnel, increased mobility, equipment, etc. These divisions and institutions of the MOA, and principally the project trained personnel, will be direct beneficiaries of the project. However, a more efficient MOA, especially in expanded extension service oriented towards food crop production will also benefit the farmers themselves. As mentioned earlier, one extension worker normally reaches 300 families averaging about 6 members, thus 1800 persons. Under the project, the existing 572 extension workers and an additional 180 will all receive a food crop production orientation. Thus they will reach 1,350,000 farmers who will receive from the project the support they desperately need to

increase their production, revenues, security, and welfare.

The interviews conducted for the social analysis were nothing but positive toward the principle of extension. People are anxious to have the guidance under which to make the effort to improve their welfare if: a) they are convinced the agent with whom they are dealing understands their position and genuinely has their interest at heart, and b) if the effort asked of them is worthwhile in a cost/benefit sense. They are willing to work harder and even invest in machinery and material if it brings positive results. One of the principal aims of the project will be to develop an extension system which is fully responsive to the needs of the Chadian farmer.

The likelihood of one group capturing project benefits at the expense of other groups is not great. Educational facilities are open to all Chadians, and all Chadian farmers will have equal access to extension services. Virtually all Chadian producers are small and poor by definition; the affluent farmer is simply nonexistent. The lack in Chad of a stratified class structure with large differences in income, such as exists in Latin America, is a definite advantage in terms of insuring that project benefits are distributed to those who need them most.

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The objective under the planned food crop extension program will be to recruit extension workers to work in the region from which they originate. The long-term effects of creation of an effective institutional infrastructure for agriculture on employment and rural migration can reasonably be expected to be favorable. Existence of such an infrastructure should help to spur agricultural production which in turn should increase employment opportunities (e.g. in marketing of the increased production). Increased production and small farmer income levels should also help measurably to decrease migration from the land to urban areas.

Spread Effects

The ultimate objective of the project is to transmit food crop information to as wide an audience of small farmers as possible, eventually covering all of the country's producers. This should not be an insurmountable task. The government has considerable experience in extending production information to farmers through its cotton production program. The extension program for cotton is well established and accepted, and geographic coverage in the south of Chad is broad. The MOA will be able to draw on the extension techniques and knowledge of relationships with local populations gained from the cotton program to significant advantage

in implementing the food crop production program in the south of Chad. It will also be able to draw on the lessons gained from the Operation Moundou program, as noted earlier.

Development of an effective food crop extension program in the Sahel in a sense represents the breaking of new ground. The government has, however, a considerable amount of experience in dealing with Sahel populations in the context of a variety of other official programs. Moreover, the MOA will be able to base its Sahel extension program on the relatively successful BDPA-Bokoro experience mentioned above.

Role of Women

As noted in the preceding section, women play an important role in agricultural production in Chad. Wives participate fully with their husbands in crop production, harvesting, and storage. In addition, most women cultivate gardens in which they grow whatever is cooked and eaten with the staple food of millet, sorghum, or rice. This includes peanuts, spices, and vegetables. Moreover, women raise chicken, and specialize in dairy production and fish preservation. They account for approximately 60 or 70 percent of the commercialization of agricultural, dairy, and fish production.

At the present time, women producers benefit from extension services provided by the government which are not aimed at men exclusively, but rather to farming families as units. Thus production techniques are imparted to women as a result of husband and wife working together. Parents in turn educate their children of both sexes in farming practices.

A number of female farmers have been benefitting from the special agricultural training that is imparted in the twenty or more Centres de Formation Professionnelle Agricole (CFPA) administered by the Direction d'Education et Formation Professionnelle Agricole which, as mentioned earlier, is also responsible for the agricultural schools at Ba-Illi, Tikea, and Dougui. Wives live with their husbands in the CFPA's for two years. Together they cultivate a plot of land under trained supervision. Since the women must tend to the domestic chores, such as cooking and washing, she misses many of the lectures and training sessions. Some of her time is also occupied attending courses in home economics, hygiene, and child care. Moreover in the past, the CFPA staff gave little or no attention to the agricultural activities that are special to women.

Sometime ago DEFPA became fully aware of this deficiency and appointed a specially trained woman to a new position in the central office. Her assignment is the training of women. This person will play an important role in the project entitled "Training of Farmer Women for Increased Agriculture Production" fully described in a PID being submitted to AID/W to draw down on the regional project for women development. The Chadian project will provide assistance to five select CFPA's in which a total of 1000 wives of men studying at the centers will receive special agricultural training. During two years, female instructors will teach and demonstrate improved techniques in the production of food crops usually grown by women. The teachers will also focus attention on the other farming activities usually reserved to women.

Since this will be the first time that training is directed to the agricultural activities special to women, it will be of an experimental nature. Various training techniques will be tried and progress will be made. By the end of the first or second year, effective techniques will have been developed.

As soon as this happens, DEFPA plans to expand this special training of farmer women to other CFPA's and to impart it as well

to the extension workers trained in Tikem and Dougui. Instruction and training in the best known techniques for improving the food crop production practised by women will become an integral element in the curriculum of extension education. After leaving the training centers, the extension workers will be instructed by ONDR to inspect the vegetable gardens and the poultry production of the women and give advice and assistance in these matters as part of their normal extension service. DEFPA and ONDR fully intend to carry out this program of introducing special women agricultural training, first in five CFPA's and then in a larger number of centers as well as in the schools at Tikem and Dougui. The execution of this plan will also be the concern and task of the project technicians stationed at Dougui and in the central offices of DEFPA and ONDR. This operation will be mentioned explicitly in their scope of work.

This plan and schedule of the Ministry of Agriculture for introducing special training and extension service directed towards the agricultural activities of Chadian women is progressive and paced prudently. Step by step, female farmers will receive technical assistance first in CFPA's, then from male extension workers in the fields and later, hopefully before the end of the project, from female extension workers duly educated in the training centers of Tikem and

Dougui. That will be a goal which the project technicians will strive to attain before the end of their mission in Chad.

In addition to the activities oriented towards female farmers just described, there is another USAID project which focuses specifically on assistance to Chadian women in agriculture. The adult education component of the comprehensive Human Resources Development project 677-0005 includes instruction to rural Chadian women in basic agricultural techniques. All three projects have the same objective and are mutually supportive. From these three fronts an advance will be made towards providing assistance to the Chadian woman who, after working alongside her husband in the fields, cultivates additional nutritious food crops in her garden for her family and the market.

D. Economic Analysis

The favorable long-range economic effects of the project will benefit a broad segment of the population and will be felt in the economy as a whole. The strengthening of agricultural institutions will facilitate the improvement and expansion of crop production programs in addition to foreign assisted rural development projects. Improved planning will assure better selection of priority agricultural improvement programs and more efficient use of scarce resources; expanded education and extension capability will directly hasten the transfer of appropriate improved the cultural practices and/more effective use of farm inputs.

By nature of the project, the economic benefits will be indirect. Assistance will be directed to national-level institutions which in turn, it is anticipated, will induce positive changes through their field organizations to the rural population. The expected long-range economic benefits produced at the farm level will be increased food production and income as well as improved nutrition and health. As the rural economy develops, the farmer's economic gains will be compounded. His increased income will give him the opportunity to invest in new farm inputs which would augment production and result in additional monetary gains.

In order to illustrate the magnitude of benefits which can be expected, one can reasonably assume that the strengthening of four important

(all figure except percentages are in the thousands)

Year	Project Costs	Returns at 1%	Discount factor 12%	Present Value		Discount factor 13%	Present Value	
				Costs (000's)	Returns (000's)		Costs (000's)	Return
1	1648	-	.893	1472	-	.884	1457	
2	1891	-	.797	1507	-	.783	1481	
3	1845	-	.712	1314	-	.693	1279	
4	-	1400	.636	-	890	.613	-	858
5	-	1400	.567	-	794	.543	-	760
6	-	1400	.507	-	710	.480	-	672
7	-	1400	.452	-	633	.425	-	595
8	-	1400	.404	-	566	.376	-	526
9	-	1400	.361	-	505	.332	-	465
10	-	1400	.322	-	451	.295	-	413
Total				4293	4549		4217	4290

B/C = 1.05 IRR = 13%

Sorghum/millet = 600,000 MT @ 20¢/kg = \$ 120,000,000)
 Peanut = 80,000 MT @ 25¢/kg = \$ 20,000,000)
 (Total \$ 140,000,000)

agricultural departments (especially the extension service that now reaches directly 210,000 families farming 787,500 hectares in the south) will bring about some increased output. A minimum rate of one percent over a period of ten years seems reasonable. If these results are realized, the B/C ratio at 12 percent will be 1.05 which corresponds to an IRR of 13 percent. It should be emphasized that these are conservative estimates and that the time frame will be longer and the induced increase will probably be greater.

As noted in Appendix 6G, Chapter 6, AID Handbook 3, a sophisticated cost-effectiveness analysis for projects whose outputs are primarily "technical assistance" or "institution building" is not possible but should rather be modified to consist of a statement of the costs of "any known alternative means of achieving the same output levels". This simplified form of qualitative analysis has been carried out for the present project, which is entirely institution-building in nature. An identical type of economic analysis was undertaken for two previous USAID/N'Djamena projects, both of which are also institution building in nature: Rural Health and Management (677-0004), and Comprehensive Human Resources Development (677-0005).

The purpose of the project is to improve key GOC functions in the agriculture sector, i.e. establish an effective institutional infrastructure

to promote and support development of Chad's agricultural potential. The particular design described in the PP was chosen over alternative project designs. The reasons why these alternatives were rejected are explained in the paragraphs below.

Four types of inputs are planned for the project: personnel (technical assistance), training, commodities and other costs. If one views each of these four inputs on a continuum, it is possible to make assessments about the degree of effectiveness of each.

With respect to technical assistance, one extreme of the input continuum would be to omit advisory assistance completely; the other would be to provide extensive technical assistance. From a cost-effectiveness standpoint, the first option was rejected. Providing no technical assistance would considerably slow down the institutional strengthening process. Technical advisors represent an invaluable, practical, face-to-face instructional medium which formal academic training cannot provide.

The second option, i.e. providing a great number of technicians, might bring spectacular benefits in the short run, but the moment the U.S. assistance was withdrawn, the chances are high that the GOC would be unable to sustain the momentum generated by the U.S. advisors. The

project would subsequently founder. Chadian sensitivities would also be offended by an overwhelming foreign advisory presence. Moreover, it is understandable that, given a choice between technical assistance and participant training, the GOC would prefer the latter for two reasons: first, because the trained Chadians will be here long after the project technicians have departed and therefore their influence will last longer and secondly, because one seems to get so much more for one's money in participant training than in technical assistance. For the same cost of a technician for one year, the GOC can provide training to seven Chadians in the U.S. and to twenty in African universities. The design which was selected after much discussion and reflection calls for modest technical assistance inputs, namely five experts, in the principal areas of the project.

With regard to participant training, several options were possible: little or much in either the U.S. or African universities. After considering the advantages of U.S. universities and those of African universities as well as the difference of costs (\$5,000 in Africa ; \$13,600 in the U.S.) but most importantly the definite needs of every organization, the design team selected the most appropriate mix of training in the U.S. and training in Africa.

Commodities and other cost support may be viewed in a similar perspective as other inputs, ranging from little or no support to massive contributions.

Neither end of the continuum seemed compatible with the objectives of the project. Chad is one of the poorest of the poor nations of the world, and the Sahelian drought has added to the country's development problems. Commodities and other cost support are essential elements of an institution-building package in such a context. On the other hand, excessive amounts of these inputs would create an insuperable burden on the GOC in terms of maintenance and operating costs. Again a middle-ground option prevailed: i.e. providing critical commodities and other cost support but omitting desirable, but not strictly crucial requirements. The level chosen is aimed essentially at renewing, repairing, and replacing a number of already existing GOC resources, making them fully operational. The development of school farms is expected to be partially self-supporting.

Accepting the DAP, PID, and PRP parameters of helping the GOC to raise the level of crop production, the project includes a reasonable balance of assistance in planning, extension, agricultural education, and statistics. The design team felt that insufficient assistance would not permit achievement of the desired result of a strengthened institutional infrastructure or would leave the job half done. An excessive intervention would complicate or prevent the MOA takeover of the activities generated by the project after AID assistance was withdrawn. The project design represents what was felt to be an optimum compromise between two equally valid and cogent development concerns.

PART IV. Implementation Arrangements

A. Administrative Arrangements

1. Recipient

Since this project is an institution-building activity, the administrative and organizational discussion and analysis required in this section have been covered in previous sections of this document. It seems sufficient to state here that every element of the project was discussed with the Director General of the Ministry of Agriculture and with the chief and other members of every department that will benefit from the project. These officials have agreed to support project efforts and to utilize the technical assistance inputs. In a particular way, the Director of ONDR has agreed to giving a new orientation to the entire extension service, giving greater attention to food crop production. And similarly, the head of DEPPA and the Director of the training school at Tikem have agreed to orient the training in line with the new emphasis.

The principal weaknesses of each of the above governmental units are insufficient numbers of trained personnel, inadequate physical facilities, and poor logistic support as described earlier. The alleviation and ultimately the elimination of these weaknesses is the very purpose of this project.

2. AID Administrative Arrangements

Because of the scope and size of this project, it is recommended that AID provide a full-time direct-hire project manager. If that is not possible, one officer could spend fifty percent of his time managing this project and the rest of his working hours monitoring project 677-0014. Part-time management of this agricultural institutional development project may suffice because the project manager will be assisted by a technician positioned in each of the four departments receiving assistance from this project (and another technician in the training school at Dougui). Each technician will ensure that the quality and timeliness of the project inputs produce the required outputs so as to achieve the project purpose. Since the success of the project depends in large measure on the coordination of the mutually supportive interrelated activities of the agricultural departments (UNDP, DEFPA, PO, ASD), it is crucial that the project technicians form a closely knit team with a designated leader. For this it would seem advisable to recruit the five technicians as a team either through a university contract or an arrangement with the U.S. Department of Agriculture. For this recruitment, the Mission, after preparing a comprehensive scope of work and determining the qualifications of the technicians, will rely heavily upon the experience and assistance of AID/W.

B. Implementation Plan

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<u>FY</u>	<u>Month</u>	<u>CY</u>	
78		78	
	June		Project approved.
	July		Project agreement signed.
	Aug.		PIL signed. Recruitment of candidates for participant training especially those starting courses in January 1979. PIO/T issued for U.S. advisors and recruitment started. Vehicles, equipment, and supplies budgeted in FY 78 ordered.
	Sept.		Tenders requested for repairs of ASD headquarters, of Ba-Illi, and of Tikem. Development of farmers at Tikem and Ba-Illi begun. Purchase of horses and bicycles for extension workers initiated.
79	Oct.		Vehicles, equipment, and supplies budgeted in FY 1979 ordered. (Purchases for Dougui conditioned upon construction of buildings with FED funds.)
	Jan.	79	Arrival of 4 technicians. Beginning of training for 16 Chadians in the U.S. and African universities and of 60 extension workers at Tikem.
	May	79	Selection of candidates for training beginning in September.
	Sept.		19 Chadians begin training.
80	Jan.	80	60 extension workers trained in 1979 begin work. 60 new recruits begin training in Tikem and 30 others in Dougui.

<u>FY</u>	<u>Month</u>	<u>CY</u>	
80	Jan.	80	One Chadian begins training. One technician arrives to start working at Dougui (provided building has been constructed with FED funds). During the year, 4 key staff members will attend seminars or study weeks in the U.S.
81	Oct.		Equipment and supplies budgeted in FY 80 ordered.
	Nov.		Mid-project evaluation.
	Jan.	81	Technician in ASD departs. 90 extension workers trained in 1980 begin work: 60 in the south; 30 in the Sahel. 30 new recruits begin training in Dougui. During the year, 2 more key staff members will attend seminars or study weeks in the U.S.
	Sept.		3 Chadians return from training and begin working: 1 in PO and 2 in ASD.
82	Dec.		Technician in Dougui school departs.
	Jan.	82	30 extension workers trained in Dougui begin work.
	Sept.		17 Chadians return after training and begin work: 2 in PO; 3 in ASD; 6 in ONDR; 3 in Tikem; 3 in Dougui.
83	Oct.		Final evaluation report begun.
	Dec.		16 Chadians return after training and begin work: 2 in PO; 4 in ONDR; 4 in DEFPA; 6 in Ba-Illi. Final evaluation report completed.
	Jan.	83	3 technicians depart. Project activities completed.

C. Evaluation Plan

Routine evaluation will take place around December 1979. The mid-project evaluation will be conducted in November 1980. The purpose of this evaluation will be twofold: (a) assess progress made toward achievement of the project purpose, and (b) determine whether or not AID should consider further assistance at the termination of this project in December 1982. If additional help is indicated, the evaluation team should formulate the nature and degree of assistance needed.

Part (a) of the special evaluation will determine whether the project purpose remains valid, whether modification in project outputs is required, and what changes, if any, are called for in project inputs. Special emphasis will be placed on the following topics: role of women, recurrent costs, absorptive capacity, extension methodology, and the relevancy and effectiveness of the food crop extension service.

The planning office of the MOA will assume overall responsibility for coordinating evaluation activities for the project as an additional means of strengthening its evaluation capabilities. AID will provide the following personnel for the special evaluation: (a) one planning and statistical consultant, (b) one extension consultant, (c) one agricultural education consultant, and (d) one rural sociologist or anthropologist. It is anticipated that the AID evaluation team members will be a combination of direct-hire staff and contract consultants.

At the beginning of October 1982, an evaluation team, composed of Chadian experts and U.S. direct-hire employees and assisted by three project technicians still at post and other expatriate experts working in the MOA, will conduct the final evaluation of the project. The team shall assess the activities of the project technicians and their contribution to the administration, operation, and efficiency of their agricultural departments.

The evaluation team will verify whether the Chadians, who returned after training financed by the project, did in fact begin to work in the PO, ASD, ONDR, and DEFPA of the Ministry of Agriculture. The activities of these Chadians will be examined, to assess if possible, the value and efficacy of the training.

The team will look into the training which was given in the centers of Tikem and Dougui to ascertain whether the appropriate attention was given to food crop production. This can be determined by checking the curriculum and the crops produced in the school farms. The team will verify whether the extension workers have received the proper guidance and instructions from ONDR and that these directives have in fact been carried out. The team will verify whether or not the extension workers trained or retrained under the project did in fact promote food crop production in a more intense and effective way than before the project. The team will try to measure the impact of the food crop production orientation given the extension service during the project.

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The team will examine closely the utilization of the educational and audio-visual equipment provided by the project in order to determine its effectiveness.

The team will do the same for the means of transportation provided by the project. The distribution and utilization of the vehicles and their maintenance shall be scrutinized. The team shall try to measure the impact of increased mobility provided by the project.

The above items are only illustrative of the assessment required of the evaluation team. In short, the team shall look into the delivery, utilization, and efficacy of every project input and verify whether or not and to what extent the outputs anticipated were produced and the project purpose attained.

This evaluation will influence the final decision regarding the appropriateness of a second project to follow on the wake of this project and, in the event of an affirmative decision, the findings, conclusions, and recommendations of the evaluation team will affect the final design of the follow-up project.

D. Conditions, Covenants, and Negotiations Status

There are no outstanding conditions requiring action by the GOC.

PROJECT DESIGN SUMMARY
AGRICULTURAL ENGINEERING

FORM 102-2-60 (11-70)

Project Title & Location

1. This information is to be used only for the purpose of providing data for the PAR (to be submitted to the donor)

Level of Project: _____ to FY _____
Type: S. Funding
Date Prepared: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS Measures of Goal Achievement (A-3)	MEANS OF VERIFICATION (A-3)	IMPORTANT ASSUMPTIONS Assumptions for achieving goal targets: (A-4)
<p>Program or Section Goal: The broader objective to which this project contributes: (A-1)</p> <ol style="list-style-type: none"> Achievement of self-sufficiency in food production Improvement in social and economic status for the small farmer. 	<ol style="list-style-type: none"> Chad food crop production sufficient to meet domestic needs in all but extreme drought periods. Chad self-sufficient in rice, peanuts and related oils and exporting initial quantities of these commodities. 	<p>(A-3)</p> <p>Official Government Statistics</p>	<ol style="list-style-type: none"> Security problems will not worsen and prevent government and donor activities in Sahelian and Sudanian zones of Chad. Government will continue to give priority to increasing food crop production.

ANNEX A

BEST AVAILABLE COPY

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PROJECT DESIGN SUMMARY
 LOGICAL FRAMEWORK

Life of Project
 From FY _____
 Total U.S. Funding
 Date Prepared: _____

Project Title & Number: P _____

NARRATIVE SUMMARY	OBJECTIVE - VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Purpose: (B-1)	Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)	(B-3)	Assumptions for achieving purpose: (B-4)
<p>To enhance the capability of the MOA to function more effectively in the establishment of policies and the formulation and execution of rural development programs for small farmers, MOA capabilities will be improved in: a) agricultural planning, statistical collection and analysis and the monitoring of agricultural development within Chad; b) agriculture staff training and manpower development; c) execution of extension and input delivery systems;</p>	<p><u>Planning</u></p> <ol style="list-style-type: none"> 1. Planning Office in MOA established, providing agricultural economic information and analysis to Minister of Agriculture. 2. Development of a national agriculture sector plan begun. 3. Formulation of national agricultural policies initiated. 4. Development project proposals from foreign donors beginning to be reviewed, analyzed, and coordinated. 5. Technical analysis activities by planning office in areas such as agricultural production, irrigation engineering, livestock, range management, rural credit and marketing initiated. 	<p><u>Planning</u></p> <ol style="list-style-type: none"> 1. Direct observation and evaluation of Planning Office reports. 2. Observation and review of special reports and studies relating to such items as subsidy programs, export/import policy changes, price regulations, etc. 3. Review of long-range agriculture sector plan. 4. Review of project proposals and recommendations of planning Office. 	<ol style="list-style-type: none"> 1. GOC will provide required manpower to staff expanded Planning Office. 2. U.S. technical assistance and commodities will arrive on schedule. 3. Effective cooperation will continue between the MOA and Ministry of Plan. 4. Expatriate assistance from other donors will remain at current levels until trained faculty from this project are available. 5. Sufficient counterpart personnel will be provided for management and operational positions. 6. Qualified Chadlan candidates will be available for high- and medium-level training. 7. Upon completion of training participants will occupy positions for which they have been trained.

PROJECT DESIGN SUMMARY

AGRICULTURAL DEVELOPMENT

Project Title & Number:

NARRATIVE SUMMARY

Project Purpose: (B-1)

Life of Project:
From FY _____
To End U.S. Funding
Date Proposed: _____

PAGE 2

OBJECTIVE VERIFIABLE INDICATORS
Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)

MEANS OF VERIFICATION
(B-3)

ASSUMPTIONS FOR ACHIEVING PURPOSE: (B-4)

6. Liaison established between Planning Office and Ministry of Plan to assure that national economic plans and policies are based on reliable and comprehensive data and analysis.

6. Examination of national planning documents.

8. Major project inputs are in place on time.

7. Extension
Development of cadre of line and supervisory extension workers will have been initiated to extend to farmers a well-balanced program, emphasizing food crop production (sorghum, millet, peanuts, and vegetables).

7. Extension
A study of sample extension programs to determine subject matter covered, techniques used and the frequency of contact between extension agents and farmers. As a corollary, farmers in the same areas will be interviewed to determine if the subject matter covered has been introduced, understood and used by the farmers, determining also the results obtained, their satisfaction with the results and relating all variables to the frequency of contact with the extension worker.

9. Government will keep all local staff employed after project termination to ensure continuation of institutional functions.

8. ONDR will coordinate with the planning, research, and education divisions of the MOA to:

8. A study of reports, and on-site inspection of program documents.

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PROJECT DESIGN SUMMARY

410 (Rev. 10-15-77)
GJMS (Rev. 10-15-77)

Project Title & Number _____

Total Project Funding _____
Date Prepared _____

NARRATIVE SUMMARY

Project Purpose: (B-1)

OBJECTIVE - MEASURABLE INDICATORS

Conditions that will indicate purpose has been achieved: End-of Project status. (B-2)

- a) Prepare viable technical packages for extension by ONDR agents to producers (e.g. recommendations concerning varieties, seeds, and cultural practices for improved millet production).
- b) Supervise ONDR field staff to ensure that programs are carried out effectively.
- c) Assess the degree to which extension programs are effective in promoting change among farmers.

Agricultural Education

9. Three lower level agricultural schools (Ikem, Dougou, and Ba-Illi) partially staffed with faculties beginning to be able to teach and evaluate a comprehensive, practical, applied curriculum in agriculture which will produce effective extension personnel versed in practical concepts and skills. Adequate facilities and sufficient instructional materials and equipment partially in place to support

MEANS OF VERIFICATION

(B-3)

Agricultural Education

9. Review of curricula and teaching plans of agricultural schools, relating these to student performance in school and later effectiveness on the job.

ASSUMPTIONS

PAGE 2

Assumptions for achieving purpose: (B-4)

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS	PAGE
<p>Project Purpose: (B-1)</p>	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</p> <p>the planned comprehensive, practical and role-oriented curricula described above.</p> <p><u>Agricultural Statistics</u></p> <p>10. Statistical information base enlarged to include food and forage crop production as well as marketing data.</p> <p>11. ASD beginning to collect, compile, process and report accurate agricultural data and information.</p>	<p>(B-3)</p> <p><u>Agricultural Statistics</u></p> <p>10. Review of ASD-11Q records, reports, and surveys.</p> <p>11. Visits to ASD sector offices</p>	<p>Assumptions for achieving purpose: (B-4)</p>	

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LOGICAL FRAMEWORK

NARRATIVE SUMMARY	OBJECTIVELY MEASURABLE INDICATORS	MEANS OF VERIFICATION	CRITICAL ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <p>Outputs: Planning</p> <p>1. Reorganized and expanded Planning Office to meet development planning needs of agriculture sector.</p> <p>2. Training initiated of professional Chadlian staff of agricultural economists with capability in conducting feasibility studies, evaluating projects, undertaking sector analysis and agricultural economic studies.</p> <p>Extension</p> <p>3. Training initiated of professional Chadlian staff of ONDR.</p> <p>4. Detailed plan developed by ONDR for strengthening extension worker skills and capabilities in relating to farmers (extension methodology). Extension program for food crop production developed by ONDR through compilation of</p>	<p>Magnitude of Outputs: (C-2)</p> <p>1. These functions being performed: sector analysis, and planning, project analysis, and project evaluation and monitoring.</p> <p>2. Two Chadlians trained to MS level in agricultural economics and three to BS level in agronomy, agricultural engineering, and documentation respectively.</p> <p>3. Two Chadlians trained to BS level in US; eight Chadlians trained in african universities: two to level of IA; six to level of ITA.</p>	<p>(C-3)</p> <p>1. Review of MOA planning unit organizational functions.</p> <p>2. Review of economic publications and national plan.</p> <p>3. Review of project proposals and feasibility studies prepared by planning unit.</p> <p>4. Annual reports prepared by ONDR; on-site inspection.</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>1. Qualified Chadlians will be made available for training abroad.</p> <p>2. Foreign donor inputs will continue during the next three years.</p> <p>3. Tikem (CFCPA) will remain a viable institution.</p> <p>4. CFCPA at Dougou will be constructed on schedule with FID support.</p> <p>5. Reasonable political stability in the Sahel will be maintained.</p>

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PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

BRIEF SUMMARY	ACTIVITIES	RESULTS	ASSUMPTIONS
<p>existing technical recommendations from international and foreign research sources. Program will be supplemented by technical recommendations to be developed under Crop Production Research, Seed Multiplication and Grain Marketing project (677-0014).</p> <p>5. Retraining of village-level extension workers to extend food crop recommendations to farmers.</p> <p>6. Additional village-level extension workers in south to launch food crop extension program there.</p> <p>7. Additional village-level extension workers in Sahelian zone to initiate food crop program there.</p>	<p>5. Extension workers retrained by ONDR or DETPA agents.</p> <p>6. 60 additional workers available in CY80, 120 for CY1981-82 for the south.</p> <p>7. 30 additional workers available in CY 81 and 60 for CY 1982 for the Sahel.</p>	<p>7. Observation of proper utilization of package recommendations by ONDR field staff; reaction of farmers in target zones national yield and production estimates.</p>	<p>Assumptions for achieving outputs: (C-4)</p>

AND 1000-20 11 24
 SUPPLEMENT 1

PROJECT DESIGN SUMMARY
 LOGICAL FRAMEWORK

Life of Project: _____
 From FY _____ to FY _____
 Total U.S. Funding _____
 Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY MEASURABLE INDICATORS (Signed or Coded: (C-2))	MEANS OF VERIFICATION (C-3)	ASSUMPTIONS (C-4)
<p><u>Agricultural Education</u></p> <p>8. Training initiated or professional staff for DEPPA central office and for agricultural schools in Ba-III, Tikem, and Dougou.</p> <p>9. New CTCPA to train extension workers for Sahel zone established at Dougou.</p> <p>10. Improved facilities, equipment and instructional materials for schools at Ba-III, and Tikem.</p> <p><u>Agricultural Statistics</u></p> <p>11. Chadlans trained in agricultural statistical disciplines.</p>	<p>8. Four Chadlans trained in the US; one to MS level and three to BS level for central and regional offices. Two teachers for Ba-III trained in extension education to BS level in US and four to ITA level in africa (horticulture; livestock production; agriculture engineering; socioeconomics). Six Chadlans trained in african universities to level of ITA principally in agricultural education and extension service for Tikem and Dougou.</p> <p>9. School will be established in year 2 of project and will have capacity to train 30 students per year.</p> <p>11. One trained in US to BS level in statistics; two to ITS level and two to ATS level in african universities.</p>	<p>8. Reaction of ONDR staff; examination of quality and progress of extension work.</p> <p>11. Inspection of regional and sector offices of ASD. Examination of pertinent head office correspondence; study of ASD publications.</p>	<p>Assumptions for achieving outputs: (C-4)</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Inputs: (D-1)</p> <p>1. <u>Technical assistance provided by AID:</u></p>	<p>Implementation Target (Type and Quantity) (D-2)</p> <p>1. <u>Personnel</u></p> <p>a) One long-term agricultural economists advisors for four years for project monitoring and evaluation in Planning Office.</p> <p>b) One extension advisor for four years with background and experience in food crop extension. The advisor will be assigned to ONDR. He will advise and assist Chadians assigned to extension activities.</p> <p>c) One agricultural extension advisor for four years with background and experience in extension methodology. He will be assigned to DEPPA.</p> <p>d) One agricultural extension professor-advisor for two years for the extension school to be established in the Sahel zone at Dougou.</p> <p>e) One statistical advisor to Chief of MOA statistical unit for two years beginning in 1979.</p> <p><u>Total advisors: 5</u> <u>Total personnel costs:</u> \$1,600,000</p>	<p>(D-3)</p> <p>1. Project agreements. Project evaluation.</p> <p>2. PIO/Ps, PIO/Cs, PIO/Ts.</p> <p>3. Examination of contracts.</p> <p>4. Examination of purchase contracts, delivery and registration documents as well as installation contracts. Inspection of offices.</p>	<p>PAGE 4</p> <p>Assumptions for providing inputs: (D-4)</p> <p>1. Qualified expatriate staff will be recruited on time.</p>

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AID 102-20 (1-70)
SUPPLEMENT 1

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Inputs: (D-1)	Implementation Target (Type and Quantity) (U-2)	(D-3)	PAGE 4 Assumptions for providing inputs: (D-4)
<p>2. <u>Scholarships provided by AID:</u> in the US and in african universi- ties.</p>	<p>2. <u>Training</u> Some list as in outputs above. Total trained: 36 long-term 7 short-term Total participant costs: \$ 997,800.</p>		
<p>3. <u>Commodities provided by AID:</u></p>	<p>3. <u>Commodities</u> a) Vehicles for planning office for technician use and field work . b) Office equipment for plan- ning office (calculators, duplicating equipment). c) Vehicles mobile visual aid unit, audio-visual equipment, and horses and bicycles for extension service. d) Vehicles, library books, instructional and educational equipment for DEEPA and its agricultural schools. e) Vehicles, office equipment for statistical unit of MOA. <u>Total commodity costs:</u> \$ 929,000.</p>		

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS (D-2)	MEANS OF VERIFICATION (D-3)	IMPORTANT ASSUMPTIONS (D-4)
Project Inputs: (D-1)	<p>4. <u>Other costs</u></p> <p>a) Vehicle POL and maintenance for 4 departments and three agricultural schools receiving project support.</p> <p>b) Support of village extension service of 570 person/years at \$660 per man year.</p> <p>c) Building renovation, farm development, and operations and supplies.</p> <p><u>Total Other costs: \$1,155,100</u></p> <p><u>Total All Components:</u> \$4,681,900</p> <p><u>Inflation (10 percent annually):</u> \$470,000</p> <p><u>Contingency (10 percent):</u> \$232,100</p> <p><u>Grand Total: \$5,384,000.</u></p>		<p>PAGE 4</p> <p>Assumptions for providing inputs: (D-4)</p>

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CONSEIL SUPERIEUR MILITAIRE

ANNEX B

MINISTRE DU DEVELOPPEMENT AGRICOLE
PASTORAL ET DE LA LUTTE CONTRE LES
CALAMITES NATURELLES

N'DJAMENA, le 7 Mars 1977

SECRETARIAT D'ETAT

DIRECTION GENERALE

N° 219 /MDAFLCON/DG. 00023

LE MINISTRE DU DEVELOPPEMENT AGRICOLE,
PASTORAL ET DE LA LUTTE CONTRE LES
CALAMITES NATURELLES

Monsieur le Ministre des Affaires Etrangères
et de la Coopération.

N'DJAMENA

Monsieur le Ministre,

A la suite des études engagées sur le plan technique par les services de mon Département avec des membres de la Mission USAID, un projet de renforcement de mes services centraux a été identifié et élaboré conjointement.

Il apportera un soutien à la création de nouvelles infrastructures, équipement de laboratoire, de bureau ou de services, jointe à une participation en personnel technique et à la formation de cadres nationaux.

Ce (important) projet servira au Bureau des Etudes et Projets de ma Direction Générale, à l'ONDR, au Service de la Recherche Agronomique, à la Statistique Agricole et de l'Enseignement et de la Formation Professionnelle Agricole / compris le niveau universitaire.

Je vous serais très obligé de bien vouloir intervenir auprès de mon Excellence Monsieur l'Ambassadeur des Etats-Unis pour solliciter et confirmer l'intérêt de l'USAID à une convention de financement pour l'exécution d'un tel projet qui retient particulièrement mon attention. --

P. LE MINISTRE DU DEVELOPPEMENT AGRICOLE,
PASTORAL ET DE LA LUTTE CONTRE LES CALAMI-



N'DJAMENA, LE 1^{er} 2 JAN. 1978

N° 49 /MPET/OPD

Le Ministre de l'Economie, du Plan
et des Transports

à

Monsieur le Directeur
du Bureau de l'U.S.A.I.D

N'DJAMENA

Objet : Intervention de l'U.S.A.I.D pour l'équipement d'un
Centre d'Encadrement Rural Polyvalent à réaliser à
DOUGUI (en co-financement avec le FED).

Monsieur le Directeur,

Depuis un certain temps déjà l'Administration Tchadienne vous entretient sur la nécessité de repérer un complément de financement devant permettre la réalisation du projet en objet.

Compte tenu, d'une part, de l'ouverture que nous avons enregistrée de votre part au cours de ces contacts et, d'autre part, de l'urgence que revêt ce projet pour le démarrage de plusieurs actions de développement en zone sahélienne, je vous saurais vivement gré, Monsieur le Directeur, de bien vouloir me signifier dans les délais les meilleurs si et comment le Tchad peut continuer à compter sur une intervention de l'USAID dans ce domaine.

Afin de vous faciliter une prise de connaissance circonstanciée du dossier, je donne instruction aux Services de la Direction du Plan et du Développement de prendre aussitôt contact avec vous et de se mettre à votre disposition pour tous renseignements utiles.

Dans l'attente de connaître la suite que vous entendez réserver à ce besoin pressant de mon pays, je vous prie de croire Monsieur le Directeur, en les assurances de ma considération très distinguée.



BEST AVAILABLE COPY

République du Tchad

Ministère des Affaires Etrangères
et de la Coopération

Direction Générale

N'Djaména, le

UNIT
A (11)
ACTION → 111

2/6/8

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N°/AFF. ET. COOP/ 12788 /COOP (pue)

005/1

Le Ministère des Affaires Etrangères et de la Coopération de la République du TCHAD présente ses compliments à l'Ambassade des ETATS-UNIS d'AMERIQUE et a l'honneur d'attirer son attention sur l'urgence de la mise en place des moyens complémentaires en personnel et matériel destinés à assurer l'encadrement et le support du Bureau d'Etudes et Projets du Ministère du Développement Agricole, Pastoral et de la Lutte Contre les Calamités Naturelles.

Cette assistance s'intègre dans un projet global de renforcement institutionnel de l'Agriculture formulé en 1975. Les structures de ce Bureau devraient être supportées conjointement par l'USAID, la FAO et le FAC. Comme l'USAID s'est engagée à apporter le soutien le plus important, les autres assistances se sont organisées en conséquence.

Actuellement les cadres tchadiens ainsi que le personnel de la FAO et du FAC sont en place. Un seul expert de l'USAID a rejoint à ce jour le Bureau.

Le Ministère des Affaires Etrangères et de la Coopération remercie l'Ambassade des ETATS-UNIS D'AMERIQUE pour son aimable entremise et saisit cette occasion pour lui renouveler les assurances de sa haute considération.-

AMBASSADE DES ETATS-UNIS D'AMERIQUE
N'DJAMENA



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6C(2) - PROJECT CHECKLIST

ANNEX C

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT.1. App. Unnumbered; FAA Sec. 653(b)

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;
(b) Is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)?

a. Advice of program change will be submitted to Committees.

b. YES

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

a. YES

b. YES

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

NA

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973)?

NA

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

NA

A.

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- 6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?
- 7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
- 8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
- 9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.
- 10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

Project is multilateral in nature. Other donors participating are FAO and assistance agencies of French government and European Economic Community.

Objectives (a) though (f) are possible. There are no GOC policies which preclude them. However, the low level of economic, social and political development in Chad should be borne in mind.

Present state of market opportunities in Chad offers only limited incentives to U.S. private trade and investment. Technical assistance will be provided by U.S. University.

The budgetary condition of Chad precludes a major contribution to contractual and similar costs.

U.S. owns no excess Chadian currency.

FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

This project is involved with strengthening the Ministry of Agriculture to permit it to play a more effective role in formulating and implementing development programs for the small farmers of Chad. Extension agents funded under the project will extend improved agricultural techniques to poor farmers.

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b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

- (1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;
- (2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;
- (3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;
- (4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:
 - (a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;
 - (b) to help alleviate energy problem;
 - (c) research into, and evaluation of, economic development processes and techniques;
 - (d) reconstruction after natural or manmade disaster;
 - (e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;
 - (f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

B1

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(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developer" country)?

N/A

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing?

N/A

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on: (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

This project is designed to address points 2, 3, 5, and 6. This project directly addresses points 2 and 3 by training Chadians to fill essential positions in the Ministry of Agriculture. The result of a stronger more effective ministry is that the country's food needs will be met and the general economy strengthened.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

A social analysis was conducted by an experienced rural sociologist as part of design of the project to ensure that the project would be consistent with the needs, desires and capacities of the small Chadian agriculturalist and his family.

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g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

2. Development Assistance Project Criteria
(Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

The primary need in Chad is to increase food production and this project directly addresses that need. Agricultural development is recognized as the first step in a self-sustaining process of economic growth.

The project will have little impact on the U.S. economy, and U.S. commodities will be used to the most practical extent possible.

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e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

3. Project Criteria Solely for Security Supporting Assistance

FAA Sec. 531. How will this assistance support promote economic or political stability?

4. Additional Criteria for Alliance for Progress

[Note: Alliance for Progress projects should add the following two items to a project checklist.]

a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

5. Additional Criteria for Sahel Development Program

How will this assistance contribute to the long-term development of the Sahel region in accordance with a long-term multidonor development plan?

This project will contribute to increased food crop production in Chad and improved social and economic conditions for the country's small farmers. It is an integral part of the Club du Sahel strategy for Chad.

6C(3) - STANDARD ITEM CHECKLIST

Listed below are statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by exclusion (as where certain uses of funds are permitted, but other uses not).

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

- FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of goods and services financed? YES
2. FAA Sec. 604(a). Will all commodity procurement financed be from the U.S. except as otherwise determined by the President or under delegation from him? YES
3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will agreement require that marine insurance be placed in the U.S. on commodities financed? Chad does not discriminate against U.S. marine insurance companies.
4. FAA Sec. 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? No agricultural commodities will be procured.
5. FAA Sec. 608(a). Will U.S. Government excess personal property be utilized wherever practicable in lieu of the procurement of new items? Use of USG excess property is not practicable in Chad.
6. IMA Sec. 901(b). (a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates. YES
- FAA Sec. 621. If technical assistance is financed, will such assistance be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis? If the facilities of other Federal agencies will be utilized, YES

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are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

8. International Air Transport. Fair Competitive Practices Act, 1974

If air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available?

Yes.

B. Construction

1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest?

NA

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

Yes

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million?

NA

C. Other Restrictions

1. FAA Sec. 201(d). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter?

NA

2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

NA

3. FAA Sec. 620(h). Do arrangements preclude promoting or assisting the foreign aid projects or activities of Communist-Bloc countries, contrary to the best interests of the U.S.?

Yes

4. FAA Sec. 636(1). Is financing not permitted to be used, without waiver, for purchase, long-term lease, or exchange of motor vehicle manufactured outside the U.S. or guaranty of such transaction?

Yes

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5. Will arrangements preclude use of financing:
- a. FAA Sec. 114. to pay for performance of abortions or to motivate or coerce persons to practice abortions? Yes
 - b. FAA Sec. 620(g). to compensate owners for expropriated nationalized property? Yes
 - c. FAA Sec. 660. to finance police training or other law enforcement assistance, except for narcotics programs? Yes
 - d. FAA Sec. 662. for CIA activities? yes
 - e. App. Sec. 103. to pay pensions, etc., for military personnel? Yes
 - f. App. Sec. 106. to pay U.N. assessments? Yes
 - g. App. Sec. 107. to carry out provisions of FAA Sections 209(d) and 251(h)? (transfer to multilateral organization for lending). Yes
 - h. App. Sec. 501. to be used for publicity or propaganda purposes within U.S. not authorized by Congress? Yes

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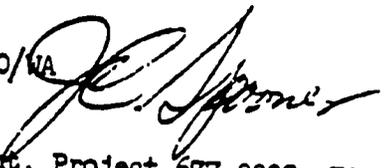
UNITED STATES GOVERNMENT

Memorandum

TO : Mr. John Lundgren, CDO

DATE: September 30, 1977

FROM : J.C. Spooner, General Engineer, REDSO/WA



SUBJECT: Agricultural Institutional Development, Project 677-0002, FAA Section 611A

As requested, I have investigated available plans and estimates and have made site visits to the locations in and around N'Djamena and to Tikem. Following are my observations, conclusions and recommendations.

Ba-Illi

Contractor's estimates for the proposed work are available. Mr. Delaney has visited the site and seen the proposed renovations. No structural alterations are required so no engineering investigation is needed. No plans or specifications are needed. Since the facility is functioning, and proposed work is maintenance, the operation of the facility is not dependent on the proposed work so that exact funding levels are not critical. Proposed work estimates are about equal to the funds proposed. No Section 611A Certification is required.

Tikem

This facility was observed on September 27. The work contemplated is renovation without structural alterations;
a Section 611A Certification is not required.

N'Djamena - Headquarters building, statistics

Two buildings are to be rehabilitated, one with slight modifications. No engineering plans are required. No Section 611A Certification is required.



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UNITED STATES GOVERNMENT

Memorandum

TO : THE FILES

DATE: 9 June 1978

FROM : AFR/DR/ENGR, M. J. Morgan



SUBJECT: Agricultural Institutional Development Project 677-0002, FAA Section 611(a)

Based on the information and judgements set forth in the original memo of the same subject, shown as Annex D in the PP (which was written by Mr. J. C. Spooner and dated 9/30/77), I believe that the requirements of 611(a) with respect to building rehabilitation have been met.

AFR/DR/ENGR/MJMorgan:a:6/9/78



5010-110

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Annex F

Waiver for Direct AID Contract

Agricultural Institutional Development Project

Your approval is requested for a waiver of the host country contract requirement. The Government of Chad at the present time lacks the capacity to undertake the numerous and relatively complex logistic and financial arrangements which would be required for the type of institutional contract called for under the Agricultural Institutional Development project (five long-term advisors over the life of the project). In addition, the advisors if hired under a host country contract would not be eligible for numerous benefits/conveniences such as central commissary and mail pouch privileges which direct-hire and contract personnel enjoy at present. This could lead to an undesirable morale problem among the host country contract advisors.

For these reasons, it is recommended that the USAID contract directly with the contractor selected.

Acting Director
 USAID/Chad
 John A. Lundgren

APPROVED _____

DISAPPROVED _____

DATE _____