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SAHEL DEVELOPMENT PROGRAM TEAM
EVALUATION BRIEFING DATA
AND ISSUES

NIGER

October, 1977

SAHEL DEVELOPMENT PROGRAM TEAM EVALUATION BRIEFING DATA AND ISSUES

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PRODUCTION SECTOR GOALS

Rainfed and Irrigated Crop Production Sectors

Crop Demand Forecasts

Forecasts of rice/wheat and millet/sorghum/maize demand can be separated into forecasts of Niger's population, average cereal demand per capita, and the fraction of cereal demand allocated to rice/wheat.

- a. Population. The population in 1974 was estimated to be approximately 4,579,000 people and increasing at 3.0 percent per year. 1/
- b. Cereal Demand per Capita. Consumption per capita is estimated to be 220 kilograms per person per year. 2/
- c. Rice/Wheat Fraction of Total Cereal Demand. This fraction is estimated to be 3.5 percent. 3/

TABLE N1

HISTORICAL TREND IN NIGER CEREAL DEMAND 1/

Thousand Metric Tons			
<u>YEAR</u>	<u>TOTAL CEREAL DEMAND</u>	<u>RICE/WHEAT</u>	<u>MILLET/SORGHUM/MAIZE</u>
1980	1,168	41	1,127
1990	1,569	55	1,514
2000	2,109	74	2,035

1. Based on (a) forecasts for cereal demand per capita of 220 kilograms per person and rice/wheat fraction of demand of 3.5 percent, and (b) forecast of 3 percent per year increase in population.

SOURCE: FAO, Perspective Study on Agricultural Development in the Sahelian Countries, 1975-1990, Volume I and II, 1976; CRED, Marketing Price Policy and Storage of Cereals in the Sahel, Niger Study.

Other forecasts of cereal demand are presented in Table N2.

1. FAO, Perspective Study on Agricultural Development in the Sahelian Countries, 1975-1990, Volume I, 1976, p. 58.
2. Republic of Niger, Ministry of Agriculture, Taken from CRED, Marketing Price Policy and Storage of Cereals in the Sahel, Niger Study, statistical table 5.
3. FAO, Perspective Study, Volume II, p. 52.

TABLE N2
FORECASTS OF NIGER CEREAL DEMAND

YEAR	Thousand Metric Tons			
	TOTAL CEREALS	CLUB DU SAHEL SYNTHESIS WORKING GROUP		CLUB DU SAHEL IRRIGATED WORKING GROUP
		RICE/ WHEAT <u>1/</u>	MILLET/SORGHUM/ MAIZE	RICE/WHEAT <u>1/</u>
1980	1,052	40	1,012	43
1990	1,424	62	1,362	67
2000	1,992	86	1,906	91

1. Milled rice.

SOURCE: Letter to Mr. Shear, AFR/SFWA, from Mr. Stacy, Club du Sahel Secretariate, October, 1976; Club des Amis du Sahel, Groupe Cultures Irriguees, Programmation des Equipements Hydro-agricoles.

The range of these forecasts shown in Tables N1 and N2 is presented in Figure N1.

Millet/Maize/Sorghum Production Trend

It is possible to project a future time trend, using the data in annex and using econometric techniques, for millet/sorghum/maize production. 1/ This trend, compared to demand, is presented in Figure N2.

Rice/Wheat Production Trend

Similarly it is possible to project a time trend for rice/wheat and this trend is presented in Figure N3. 2/

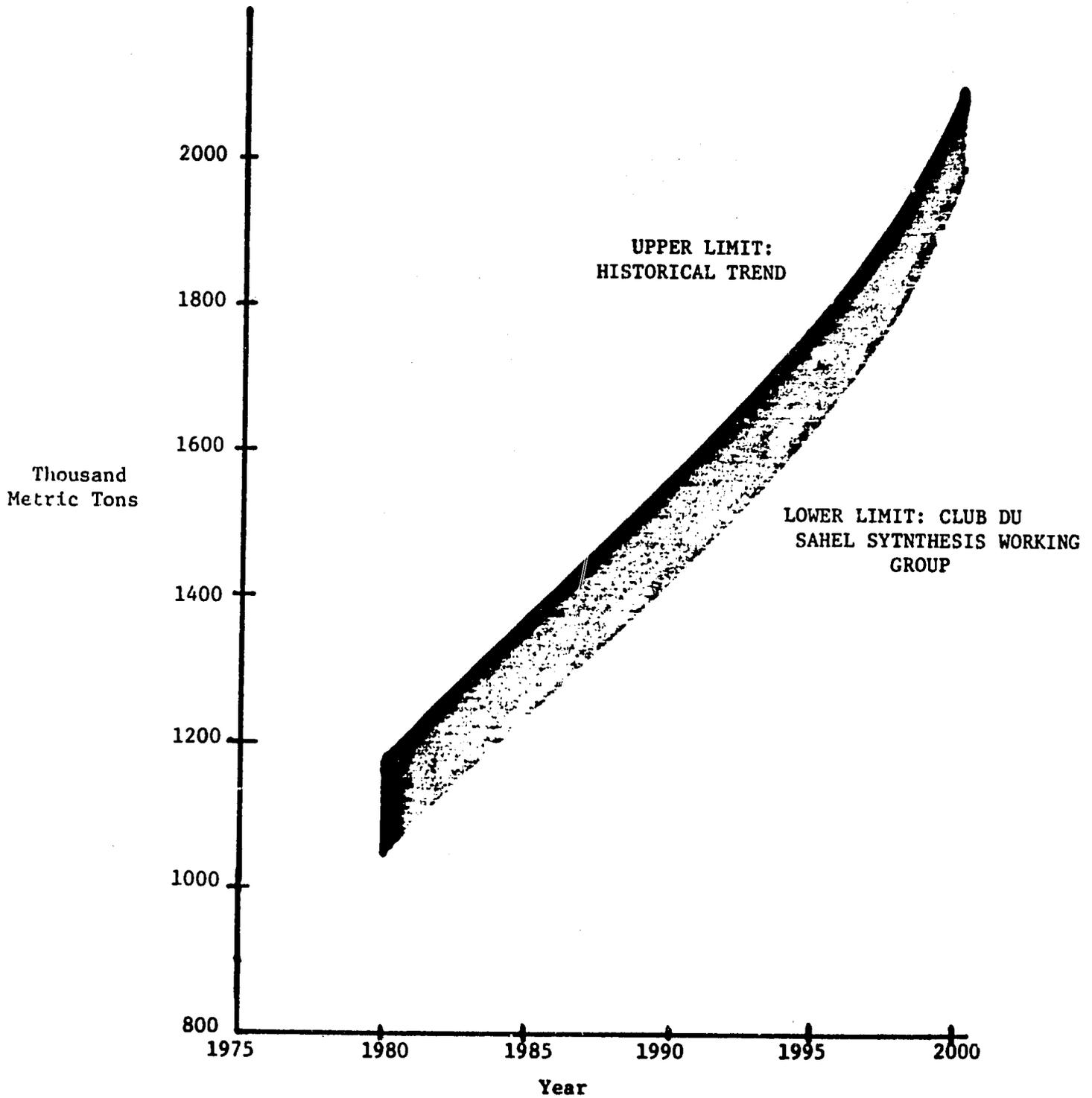
Comparing Total Cereal Production Trend and Cereal Demand Forecasts

The comparison of production trend and demand forecasts for cereals are presented in Figure N4.

1. Data for 1961-1976; University of Michigan, Center for Research on Economic Development (CRED), Marketing, Price Policy and Storage of Cereals in the Sahel, Niger Study, annex, table 1.
2. Ibid.

FIGURE N1

RANGE OF FORECASTS FOR TOTAL CEREAL DEMAND IN NIGER



SOURCE: Tables N1 and N2.

FIGURE N2

MILLET/SORGHUM/MAIZE PRODUCTION TIME TREND
RANGE OF FORECASTS FOR DEMAND

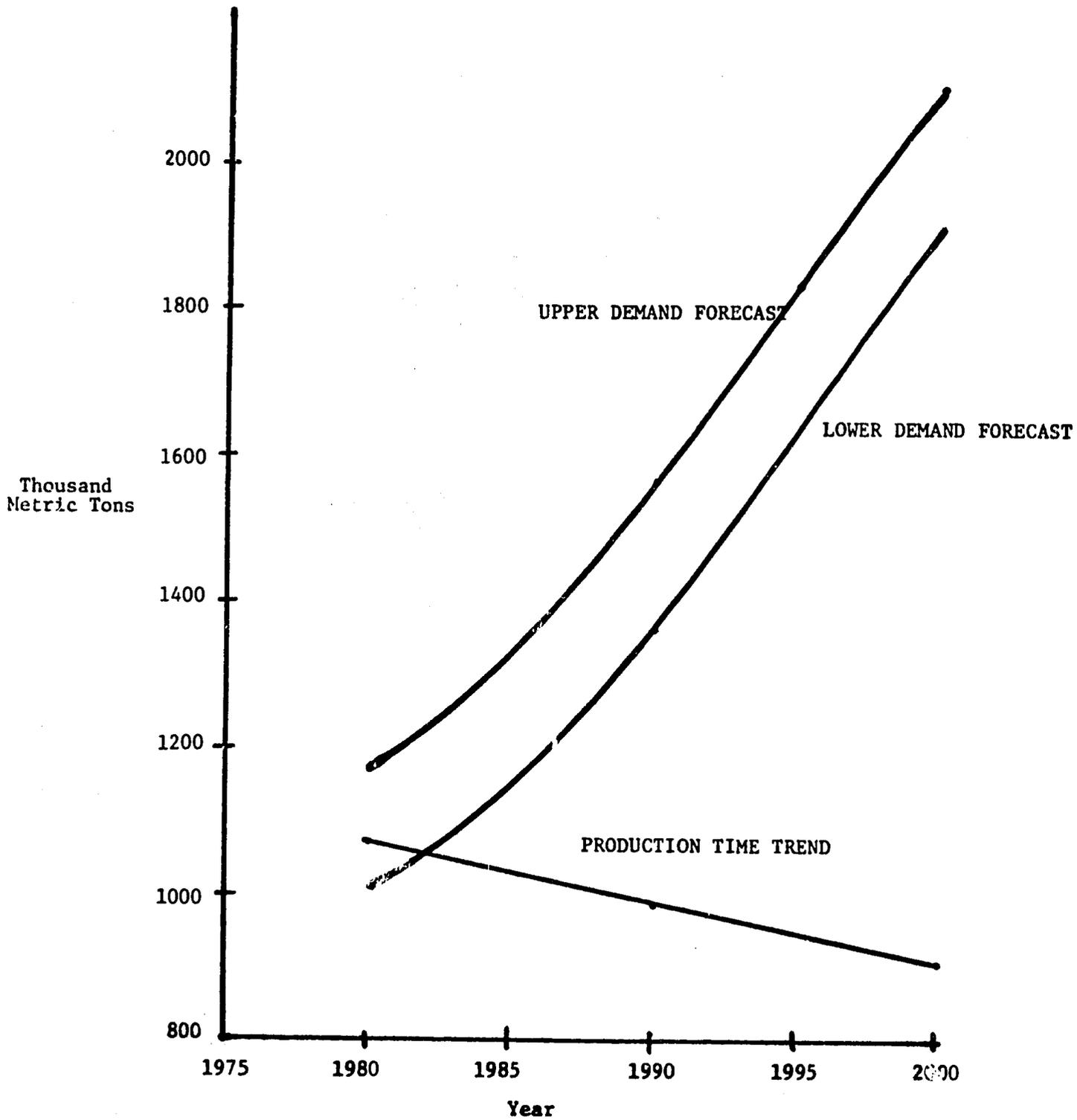


FIGURE N3

RICE PRODUCTION TIME TREND AND
RANGE OF FORECASTS FOR RICE/WHEAT DEMAND

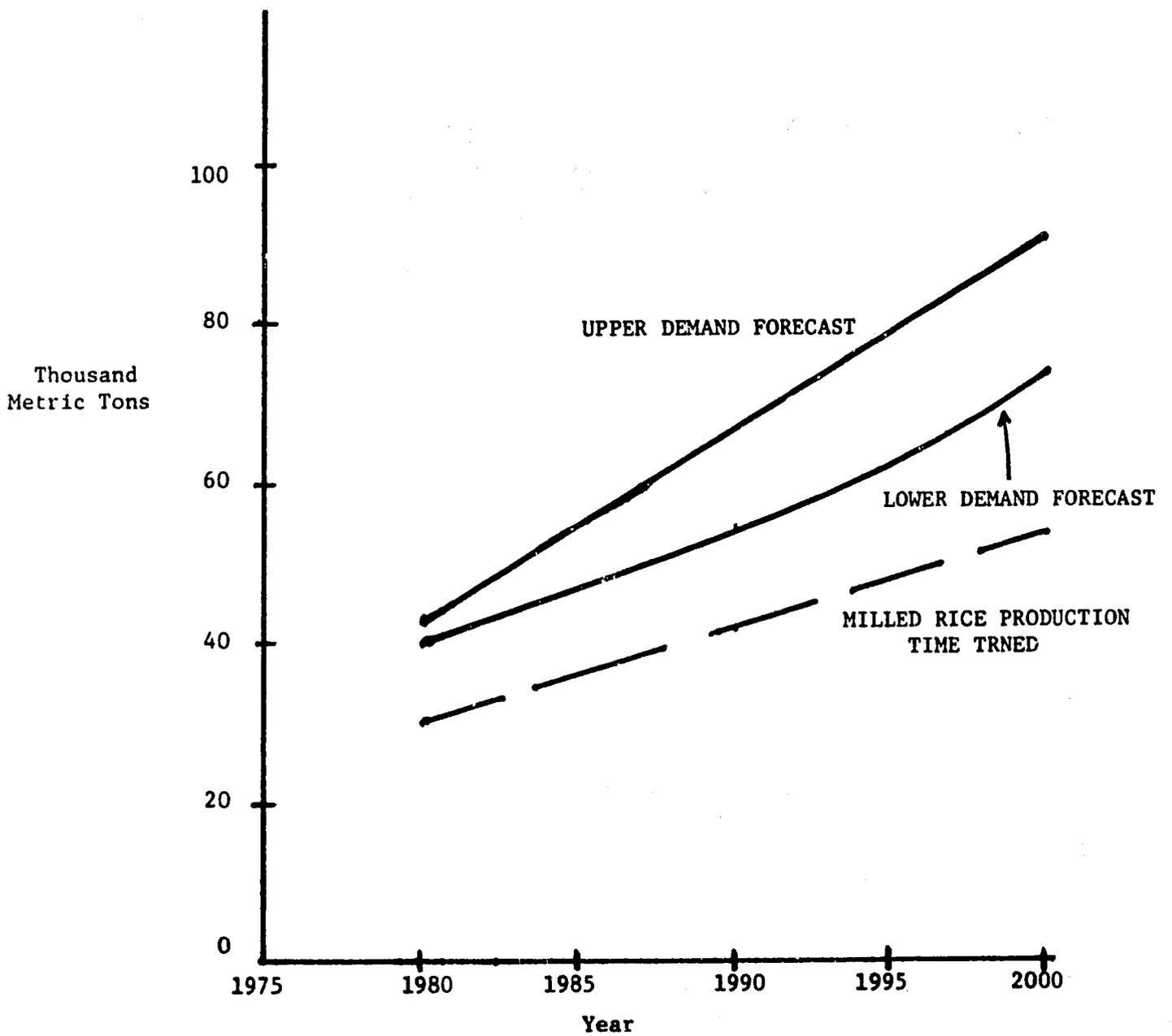
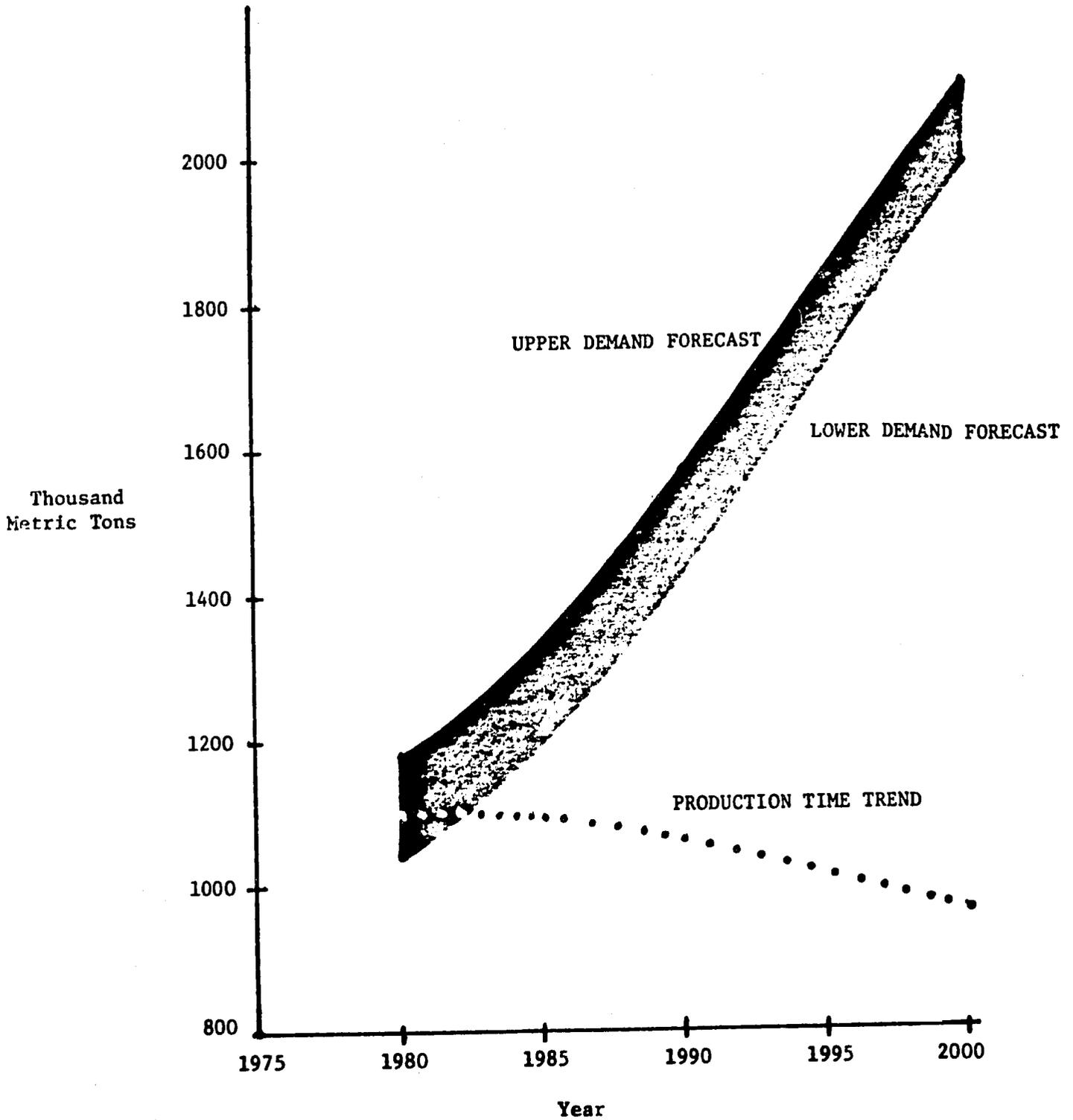


FIGURE N4

RANGE OF FORECASTS FOR TOTAL CEREAL DEMAND
AND TOTAL CEREAL PRODUCTION TIME TREND



AID Project Goals for Crop Production

There are four projects which directly affect crop production:

- a. Niger Cereals Production Project,
- b. Niger Cereals Production II Project,
- c. Niamey Department Development Project, and
- d. Say Arrondissement Development Project.

The costs, timing, and quantitative effects of the projects are presented in Table N3. The AID contribution to increasing Niger crop production, compared to demand, is presented in Figure N5.

Other Donor Project Goals for Crop Production

Table N4 represents the major donors from 1974 to 1976. Assistance by sector is presented in annex E.

TABLE N4

MAJOR DONOR ASSISTANCE COMMITMENTS TO NIGER

	<u>Millions of Dollars</u>		
<u>DONOR</u>	<u>1974</u>	<u>1975</u>	<u>1976 1/</u>
France	33.03	40.88	36.78
Canada	13.14	17.3	12.05
Germany	15.47	15.16	19.22
European Economic Community (EEC)	26.53	6.05	58.77
United States	28.9	21.8	10.72
TOTAL ALL DONORS	139.68	147.19	164.77

1. Incomplete.

SOURCE: Club des Amis du Sahel, Sectorial Breakdown of Official Development Assistance to the Sahel, 1974-1976

The donor projects that will affect crop production are:

- a. FED, Zinder Integrated Rural Development,
- b. IBRD, Maradi Integrated Rural Development,
- c. FAC, Dosso Integrated Rural Development,
- d. FED, Badeguichiri Integrated Rural Development, and
- e. UNDP, Say Arrondissement Development.

We do not yet have donor documentation on the crop production goals of these projects.

TABLE N3
QUANTITATIVE CROP PRODUCTION GOALS OF AID PROJECTS

NAME	PROJECT INVESTMENT	PERIOD <u>1/</u>	MILLET/MAIZE/SORGHUM PRODUCTION				RICE WHEAT PRODUCTION			
			PRESENT		GOAL		PRESENT		GOAL	
			YEAR	QUANTITY	YEAR	QUANTITY	YEAR	QUANTITY	YEAR	QUANTITY
Niger Cereals Production <u>2/</u>	\$9,636,000	1975-78	1961/73 Average	1,155,000 MT	1979	1,355,000 MT	-	-	-	-
Niamey Depart- ment Development <u>4/</u>	\$4,833,000	1977-79	-	-	1980	50,000 MT <u>3/ 5/</u>	-	-	-	-
Niger Cereals Production II <u>6/</u>	\$21,597,000	1979-83	na <u>7/</u>	na	na	na	-	-	-	-
Say Arrondisse- ment Development <u>8/</u>	\$8,000,000	1979-81	na	na	na	na	-	-	-	-

1. U.S. Fiscal Year
2. AID, Niger Cereal Production, Project Paper, April, 1975, annex f.
3. Increment to preceding production
4. AID, Niamey Department Development, Project Paper, March, 1977, p. 38.
5. Order of measure estimate, not a specific project goal.
6. AID, Niger FY79 ABS, June, 1977, pp. 103-112.
7. na denotes not applicable.
8. AID, ABS, *ibid.*, pp. 134-142.

Club des Amis du Sahel Project Goals for Crop Production

The government has decided to follow an integrated development strategy in the seven major departments of the country. Four regional development projects are in-process: 1/

- a. Badeguicheri.
 - increase subsistence crop production (e.g., millet and sorghum), and
 - increase commercial crop production (e.g., cotton).
- b. Maradi.
 - develop cultivation of groundnuts and cotton.
- c. Zinder.
 - increase production in three sectors: crops, livestock, and forests.
- d. Dosso.
 - intensification of cultivation.
 - improve crop rotation patterns for improved production of millet and sorghum production, and
 - increase use of by-products for livestock feeding.

Three development projects are envisaged: 2/

- a. Niamey.
- b. Tahoua.
- c. Diffa.

These projects fit within an overall development theme of three phases: 3/

- a. Phase I (1975/76 - 1981). The object is to pass 30 percent of the cultivated land from traditional cultivation (i.e., average millet/sorghum yields of 411 metric tons per hectare) to technical level number 1 (i.e., use of selected seed, plant protection, fertilizer with average yields of 659 metric tons per hectare).
- b. Phase II (1982-1986). This phase will emphasize the integration of crop and livestock production. The 30 percent of cultivated area in level 1 will pass to level 2 (i.e., level 1 plus animal traction with average yields of 694 metric tons per hectare), 30 percent will pass from traditional to level 1, and 40 percent will remain in traditional cultivation.
- c. Phase III (1987-1991). In this phase 30 percent will pass to level 3 (i.e., "integrated agro-sylvo-pastoral" farming with average yields of 727 metric tons per hectare), 30 percent to level 2, 30 percent to level 1, and 10 percent will remain as traditional farming.

1. Club des Amis du Sahel, Equipe des Cultures Seches, Niger Rapport de Synthèse, 7702/NER/R, March, 1977, pp. 15-16.
2. Ibid., pp. 16-17.
3. Ibid., pp. 9, 11.

The goals of those projects for which crop production goals are declared are presented in Table N5. Their contribution to increasing Niger crop production is presented in Figure N5.

Livestock Production Sector

Livestock Demand and Production Forecasts

Beef demand can be forecast by projecting historical beef consumption at the population growth rate of 3 percent per year. Historical production and consumption and projected consumption are presented in Figure N6.

AID Project Goals for Livestock Production

The primary AID project in this area is the Niger Range and Livestock project. There are two phases to the project: 1/

a. Phase I.

- series of range resource and water development studies and pilot range management effort for one or two groups of herders,
- sociological study of traditional herder range use and animal husbandry practices,
- livestock production system study of two groups of herding families,
- series of short-term studies to provide data on human and cattle populations, legislative issues related to range management, and recurrent costs of expanded government pastoral programs,
- construction of livestock stations,
- U S. training of Nigeriens in livestock extension and range management,
- development of local training capability in range management and livestock extension, and
- advising the government on comprehensive livestock and range management programs.

b. Phase II. A long-term action program based on Phase I studies.

The funding is for \$5,392,300 over FY 1977 to 1980.

In addition, the first phase of the Niamey Department Development Project provides for studies and field trials on livestock development in project farming areas.

Other Donor Project Goals for Livestock Production

The Niger ABS cites two main donor efforts underway: (a) an animal health program financed by FED and FAC, and (b) funding for five "multiplication centers" by FED and Saudia Arabia for breeding, training, demonstration and extension activity. 2/

Club des Amis Project Goals for Livestock Production

The Club strategy is separated into separate projects in "upstream activities"

1. AID, Niger Range and Livestock, Project Paper, May, 1977, pp. 1-2.
2. AID, Niger FY79 ABS, June, 1977, p. 28.

TABLE N5

QUANTITATIVE CROP PRODUCTION GOALS OF PROPOSED CLUB DU SAHEL PROJECT

NAME	PROJECT INVESTMENT 1/	PERIOD	MILLET/MAIZE/SORGHUM PRODUCTION				RICE/WHEAT PRODUCTION			
			PRESENT		GOAL		PRESENT		GOAL	
			YEAR	QUANTITY	YEAR	QUANTITY	YEAR	QUANTITY	YEAR	QUANTITY
Projet de Developement de Niamey	\$18,000,000	1978-84	1977	0	1979	3,060 MT	-	-	-	-
					1984	44,000 MT <u>2/</u>				
Projet Productivite Tahoua	\$24,000,000	1979- 2000	1979	0	1985	12,445 MT	-	-	-	-
					1995	34,495 MT				
					2000	45,745 MT <u>2/</u>	-	-	-	-
Projet de Developement de Badeguicheri	\$31,000,000	1977- 2000	1977	0	1982	7,000 MT				
					1990	23,800 MT				
					2000	39,000 MT <u>2/</u>	-	-	-	-
Projet de Developement de Maradi	\$15,000,000	1980-85	-	-	1985	18,100 MT <u>2/</u>	-	-	-	-
Projet de Developement Rural du Departement de Zinder	\$10,000,000	1977-82	-	-	1980	5,550 MT	-	-	-	-
					1985	17,180 MT				
					1990	22,900 MT				
					2000	32,250 MT <u>2/</u>				

(Table N5 continued)

TABLE N5 (continued)

NAME	PROJECT INVESTMENT 1/	PERIOD	MILLET/MAIZE/SORGHUM PRODUCTION				RICE/WHEAT PRODUCTION			
			PRESENT		GOAL		PRESENT		GOAL	
			YEAR	QUANTITY	YEAR	QUANTITY	YEAR	QUANTITY	YEAR	QUANTITY
Projet de Developpement Rural du Departement de Dosso	\$3,000,000	1977-81	-	-	1981	16,000 MT 2/	-	-	-	-
Projet de Developpement Rural de Diffa	\$3,000,000	1976-81	-	-	1980 2000	2,000 MT 37,500 MT 2/	-	-	-	-
Irrigation Projects:	-	1977- 2000								
Vallee du Niger			-	-	2000	24,000 MT	-	-	1982 2000	55,250 MT 120,250 MT 2/
L'Adder Doutchi Maggia					1982	5,100 MT 2/	-	-	-	-
Koumadougou			-	-	1982 2000	900 MT 5,400 MT 2/	-	-	1982 2000	5,400 MT 9,400 MT 2/
Lake Chad			-	-	-	-	-	-	2000	2,500 MT 2/
Goulbi de Maradi			-	-	2000	6,750 MT 2/				

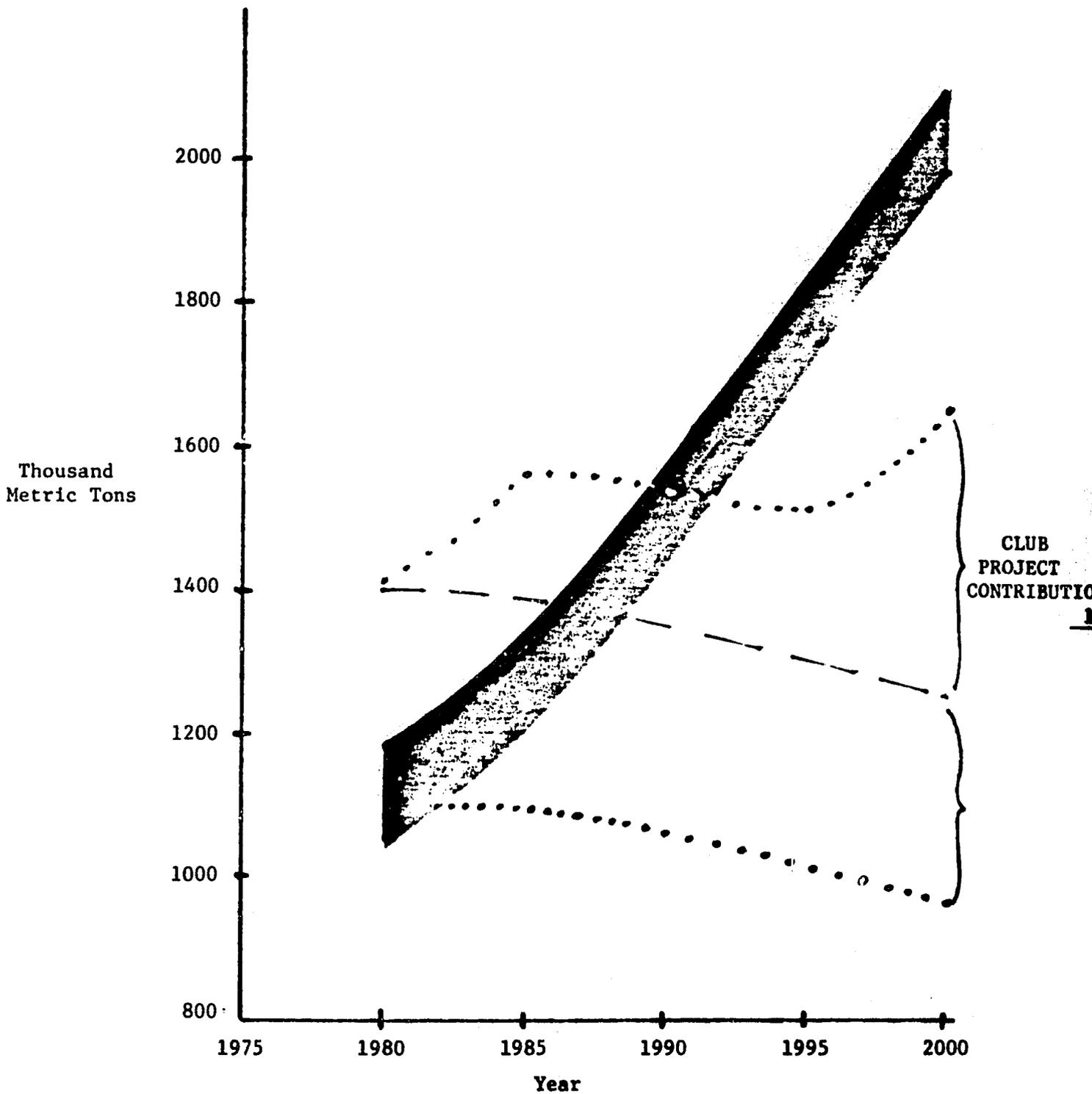
1. Exchange rate of CFA 250 = \$1 applied.

2. Increment to present year production.

SOURCE: Club des Amis du Sahel, Equipe des Cultures Seches, Niger Rapport de Synthese, 7702/SEN/P-5, P-6, P-8, P-9, P-11, P-12, P-13, March, 1977; Equipe Cultures Irriguees, Programmation des Equipements Hydro-Agricoles, 1975-2000, Republique du Niger.

FIGURE N5

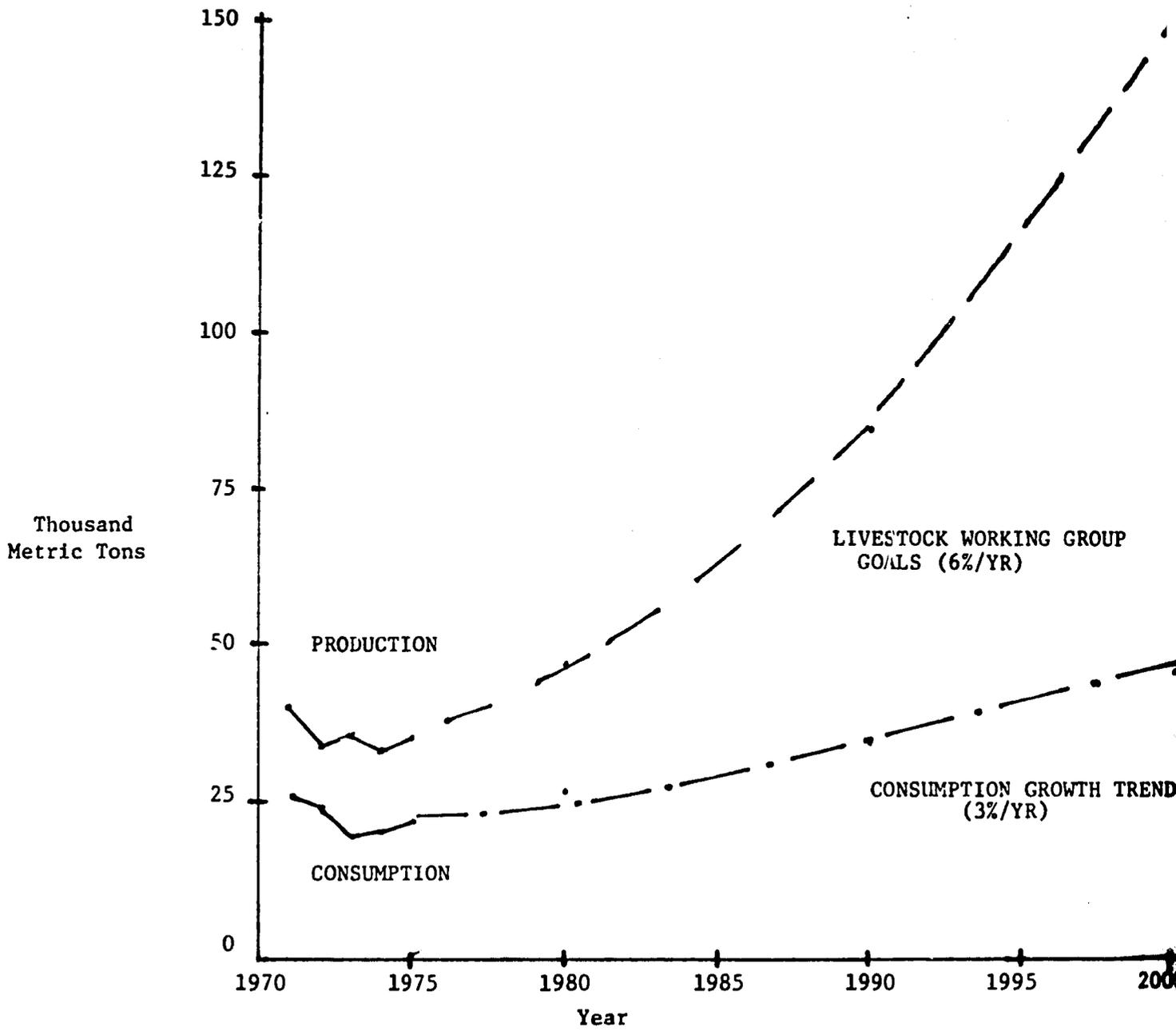
RANGE OF FORECASTS FOR TOTAL CEREAL DEMAND IN NIGER,
TOTAL CEREAL PRODUCTION TIME TREND, AND
AID AND CLUB PROJECT CONTRIBUTIONS



SOURCE: Tables N1, N2, N3, and N5

FIGURE N6

PRODUCTION OF BEEF IN NIGER
AND "CLUB" LIVESTOCK GOALS



(i.e., training/communications, studies and research, and animal health), production activities, and "downstream activities" (i.e., marketing). These projects are:

1. Upstream Activities.

a. Training/Communications:

- scholarships in for senior cadres, senior technicians, and technicians
- establishment of a continuous education system, and revision of training programmes (i.e., pastoral management, herd reconstitution, association of agriculture and livestock)
- creation of pedagogic materials using Tele-Niger

b. Studies and Research:

- unit to evaluate potential of natural resources, evaluate and track pastoral management
- evaluation of Tahoua-Agadez pastoral management projects 1/

c. Animal Health:

- strengthening infrastructure of veterinary and disease control service

2. Production Activities.

a. Experimental management to define development strategy for pastoral zone and creation of pastoral zone office.

- in four areas (Tamesna, Ingouchoul, Tejira, and Mango) over 2,636,000 hectares, or about a tenth of pastoral area
- programs for animal health and nutrition
- programs for rational exploitation of natural forage and water resources
- programs for commercialization, extension, human health, and literacy training

b. Herd reconstitution. Funding for \$92 million.

c. Diversification of animal production. Increase in production of meat, milk, and poultry.

- improvement of Dosso Cattle, \$528,000
- construction of cattle feed plant at Maradi, \$800,000
- development of industria and rural poultry production, \$4,44 million
- development of milk production near Niamey, \$1.8 million

3. Downstream Activities.

a. Assistance to SONERAN, the state corporation which markets cattle.

b. Equipment for markets.

1. Has IBRD and AID financing.

CONSTRAINTS TO DEVELOPMENT

The AID mission has highlighted the following constraints:

- a. Lack of qualified managers and technicians.
 - rainfed crops
 - irrigated crops
 - livestock
 - health/nutrition
- b. Poor data.
 - rainfed crops
 - irrigated crops
 - human resources
 - health/nutrition
- c. Inadequate Institutional Structures.
 - human resources
 - health/nutrition
- d. Malnutrition and disease.
- e. Plant Protection.
 - rainfed crops
- f. Land degradation.
 - ecology
- g. High Cost of Transport.
 - transport and infrastructure
- h. Population Growth.
 - health/nutrition

1. AID, Niger FY79 ABS, June, 1977, pp. 4-50.

Lack of Qualified Managers and Technicians

1. The U.S. Strategy:

There are two projects planned that will emphasize training:

- a. Irrigation: Training/Planning/Execution Project. The goals of the project are: 1/
 - provide assistance for a training program. The government indicates a need for 24 irrigation engineers, 24 technicians, and 270 field agents by 1982. Currently there are 5 engineers, 15 technicians, and 25 field agents,
 - provide assistance for the establishment of a new government agency, Office Nationale de l'Irrigation (ONI), and
 - develop a 350 hectare irrigation project

Funding from FY 1979 to 1983 is for \$10 million.

- b. Rural Sector Human Resources Development Project. The goals are: 2/
 - extension of Institute Pratique de Developpement Rural (IPDR) at Kolo (expanding capacity from 150 to 400 students) and creation of additional IPDR facility at Maradi. Surveys indicate a need for 3,500 mid and low-level trained personnel for rural sector activities over the next 10 years,
 - development of computer planning system for manpower planning,
 - creation of a Cooperative Training Center to train lower-level personnel responsible for organizing cooperative activity (243 cooperative agents should be increased by 470 over three year plan),
 - creation of a Literacy Training Center for training mid-level and low-level staff to direct and coordinate village and cooperative level literacy center. The government goal is to achieve a literacy rate of 30 percent by 1984, and
 - creation of a Development Project Management Center to provide programs for all training institution (EEATE, IPDR-Kolo, IPDR-Maradi, Cooperative Training Center, and Literacy Training Center).

Funding from FY 1979 to 1983 is for \$16,109,000.

In addition to these projects, other AID projects have training components, for example:

- a. Niger Cereals Production Project. A component for expansion and improvement of training center for the instruction of personnel for extension staffing, for functions in the cooperative system, and for demonstration farmers.
- b. Niger Range and Livestock Project. Development of local training capability in range management and livestock extension.
- c. Niger River Development Planning Project. Determination of manpower and training requirements for operation of Niger River Basin.

1. AID, Niger FY79 ABS, June, 1977, pp. 113-117.

2. Ibid., pp. 118-130.

2. The Club Strategy:

The Club Rainfed Crop Working Group states the present number of trained personnel by cadre level in 1975/76 in the agricultural sector: 1/

- Level A, 12
- Level B, 62
- Level C, 71
- Level D, 127
- Level E, 8
- Others, 221.

The Club rainfed strategy calls for the following training requirements:

- By 1981: 4 level A, 20 level B, 1,100 levels C, D, & E (which will all become level C), and 10,000 low-level extension agents;
- by 1986, 8 level A, 40 level B, 2,200 level C, 20,000 agents;
- by 1991, 12 level A, 60 level B, 3,300 level C, 30,000 agents.

This training will cost approximately \$17 million.

The Club Irrigated Crop Working Group states the present number of trained personnel by cadre level in 1977 in the irrigated sector: 2/

- Level B and C, 15
- Level D and extension agents, 24.

The irrigation strategy of 2,000 hectares per year indicates the following training requirements:

- By 1982, 24 level A and B, 24 level C, 30 level D and employees, and 240 extension agents;
- by 1990, 50 level A and B, 56 level C, 70 level D and employees, and 560 agents;
- by 2000, 960 level A and B, 100 level C, 150 level D and employees, and 960 agents.

Training for the different levels is conducted at: 3/

- a. High-level cadres. There is no Nigerien institution for level A1. Training is given by l'Ecole Superieure d'Agronomie Tropical de NOGENT for agricultural engineers and l'Ecole Veterinaire de Maison-Alfort and by l'Institute Veterinair de Dakar for veterinary doctors. Level A2 cadre are trained at l'Ecole Superieure d'Agronomie (l'ESA) for specialties in agriculture, livestock, water and forests.
 - b. Mid-level cadres. Level B cadres with specialties in agriculture, water and forests are trained at l'Institute Polytechnique rural at
1. Club des Amis du Sahel, Equipe des Cultures Seches, Niger Rapport de Synthese, March, 1977, pp. 4, 14.
 2. Club des Amis du Sahel, Groupe Cultures Irriguess, Programmation des Equipements Hydro-agricoles, 1975-2000, Republique du Niger, pp. 31-32.
 3. Club des Amis du Sahel, Equipe des Ressources Humaines, Rapport de la Commission Operationnelle et de Synthese, Niger Report, March, 1977, pp. 15-16.

Katibougou in Mali; cadres in the credit and cooperative sectors by l'Institute Pratique de Developpement Rural at Kolo.

- c. Low-level cadres. Training is at l'IPDR at Kolo.

The Club Human Resources Working Group has a three sector strategy: 1/

- a. training of mid and low-level extension agents,
- b. education of peasants, and
- c. training of high-level rural development personnel.

In the first sector, there are three projects:

1. Development of l'Institut Pratique de Developpement Rural de Kolo.
The Group projects the following 1982 needs:

- a. Cadre C
 - Dryland Projects, 339
 - Irrigated Projects, 125
 - Agricultural Service, 756
 - Total, 1220
- b. Cadre B
 - Dryland Projects, 51
 - Irrigated Projects, 10
 - Agricultural Service, 17
 - Total, 83

The object of the project is to train 125 level C cadres per year, and 75 level B cadres per year. Funding is for \$52 million.

2. Creation of a Centre for Cooperative Training. The goals are: (a) first phase, training of 50 "encadreurs cooperatifs" after equipping the Centre at Saga, and (b) second phase, promotion of 25 "encadreurs" per year to level C cadre after creation of a Centre de Formation Cooperative at Maradi or Zinder. Funding is for \$1.6 million.
3. Creation of three regional training and support centers. Objectives are in-service training for 150 level C cadre per year; logistic and teaching support for 50 students at IPDR at Kolo, a tenth of the students at EAATE, etc. There will be three regional teams for (a) Maradi and Zinder, (b) Niamey and Dosso, and (c) Tahoue composed of four training centers. Funding is for \$1,284,000.

In the second sector, there are two projects:

4. Creation of two centers for literacy training.
 - establish rural printing presses,
 - creation of 1700 "centre d'alphabetisation" in villages of Zinder, 750 in villages of Maradi

Funding is for \$1,763,000.

1. Ibid., p. 20.

5. Assistance for rural radio network and radio clubs.

- utilization of the radio network for training of rural people,
- improvement of quality and extension of radio transmissions.

Funding is for \$1,592,000.

In the third sector there is one project:

6. Creation of a fund for training and retraining of high-level cadres.

Poor Data

1. The U.S. Strategy:

AID is involved in the following activities:

- a. Sahel Water Data Network Management Project.
- b. Agricultural Sector Assessment Study.
- c. Niger River Development Planning Project. Identification and collection of all information related to the Niger River Basin with the ultimate aim of their transfer to the Documentation Center of the River Niger Commission.
- d. Niger Range and Livestock Project. Project contains range resource studies, livestock production studies, and sociological studies.

2. The Club Strategy:

A major Club project is the Projet de Developpement des Statistiques Agricole au Niger. Assistance to the national agricultural statistics services will be in three phases.

- a. Phase I (1975-81). Results of inquiry into farm operations (i.e., agricultural population, land planted, yields); establishment of agricultural calendar (e.g., bottlenecks to production); establishment of forecasts for harvests; creation of a statistical collection network in rural areas.
- b. Phase II (1982-2000). Activities to wait adequately staffed and equipped service.

Institutional Support

1. The U.S. Strategy:

AID projects will have the following effects:

- a. Niamey Department Development Project. Agricultural services in the department area will be fully staffed with permanent personnel:
 - office facilities in three arrondissements,
 - training centers in each arrondissement center, and
 - 16 field offices and Niamey municipality.
- b. Niger Cereals Production Project.
 - increase capability of the Union Nationale de Credit et Cooperatives (UNCC) to deliver agricultural production inputs and market agricultural outputs,
 - increase effectiveness of the national extension service in the Department of Agriculture.
- c. Niger River Development Planning Project.
 - assignment of an interdisciplinary team of expatriate technicians to support the River Niger Commission (RNC) for 24 months

--technical and logistic equipment to develop adequate RNC office space,
--training programs.

d. Niger Range and Livestock Project.

--establishment of a permanent government office responsible for range management.

e. Forestry and Land-use Planning.

--creation of a division of technical planning, design and demonstration, Bureau Technique Forestier (BTF), within the Water and Forestry Service.

2. The Club Strategy:

The Club Human Resources and Health/Nutrition Working Groups are primary sources for institutional development. These programs are discussed in other sectors.

The Club Synthesis Group places emphasis on the lack of Sahelian planning capacity: "We cannot help being impressed by ... the shortage of projects that have been appraised and, more specifically speaking, the lack of planning capacity in the Sahel. Nearly all the teams have emphasized the lack of ready projects and the necessity to expand planning capacity in individual sectors." 1/
The Group makes two proposals: 2/

- a. the Sahel develop its own capacity for completing studies, and
- b. the Sahel establish its own "memory system" for the studies and data; that is, develop a "baseline" in order to reduce the "study loss rate", composed of data "that is lost", duplications, etc. The Institute du Sahel may remedy the situation of existing data being more often recorded abroad than within the Sahel.

Malnutrition and Disease

1. The U.S. Strategy:

AID has two primary health projects:

a. Basic Health Services Delivery Project.

--establishment of a health delivery system consisting of preventative, educative and curative health program in eastern Diffa,
--assistance to Ministry of Health to assess and plan health programs, and
--funding over three years for \$2,818,000.

b. Improving Rural Health Project.

The current system is organized as:
(a) departmental health and hospital center, (b) arrondissement health centers, small hospitals, and maternity wards, (c) canton dispensaries or rural health post, and (d) village health teams. The village health teams are composed of a president (supervisor/coordinator of team,

1. Club des Amis du Sahel, Synthesis Working Group, Proposals for Drought Control and Development Programme and Strategy for the Sahel, Synthesis Report, p. 119.

2. Ibid.

supports securists/matrons, etc.) a treasurer secretary (holds medecins, renews non-free stock medecins, etc.), securists (expand cleanliness, nutrition education, malaria prevention, etc.), and matrons (pregnancy hygiene, look after infants, care to newborn, etc.). In 1976 there were 1,258 villages with health teams; in 1982 there will be 5,000 villages (50% of all villages. Funding is from FY 1977 to 1982 for \$12,500,000.

Several AID projects (i.e., Niger Cereals, Niger Range and Livestock, Niamey Department Development) have nutrition components.

2. The Club Strategy:

The Club Health and Nutrition Working Group has proposed a health care delivery system, Village-Based Health System. ^{1/} The system is designed for the average Sahelian country in five geographical levels: village, arrondissement, cercle, regional and nation. The responsibilities for each level are:

- a. Village. At the village level basic health services are provided by village health workers (VHW) who are chosen by village residents and live in the village. Basic health services include nutrition education, simple hygiene, organizations for immunization teams, simple curative measures, etc. They also provide primary data collection sources.
- b. Arrondissement. These are the bases for nurse or auxiliary visits to villages. A center for data collation, immunization campaign scheduling, and training of VHW's.
- c. Cercle. Center for nurse, midwife, and MD visits to arrondissements and villages. Responsibility for immunization and categorical disease control. Collation of data for transmittal to national level.
- d. Region. Coordination of supervision at peripheral levels. Hospitalization referral when possible. Regional health plan development, implementation and evaluation.
- e. National. Development of national treatment guide and formulary. Research on traditional medicine. National manpower policy and planning formulation. Training of MD's, senior nurses, and midwives.

Major components of such a strategy involve:

- a. Nutrition. Emphasis must be placed on improvements of nutritional status of population, especially mothers and infants.
- b. Village Water. The first priority is to make available an adequate quantity of water for village consumption needs. Second, villagers must be educated as to the importance of making water supplies safe.

1. Joseph, S. and Scheyer, S., A Strategy for Health as a Component of the Sahel Development Program, May, 1977.

- c. Environmental Sanitation. There must be village participation in establishment of sanitation systems to insure proper use and adequate maintenance. Simple technologies can be utilized and there is need for further research.
- d. Communicable Disease Control. Health risks to the population can be significantly controlled by regional or area approaches. A CILSS/ Club plan should be developed in cooperation with the World Health Organization.

There are no specific Club projects designed yet, although there are Sahel Regional Programs developed for demographic data and rural health for FY78 and 79 respectively in the PID stage. Current donor projects are presented in annex C.

Plant Protection

1. The AID Strategy:

The U.S. is taking part in the integrated pest management portion of the CILSS-sponsored Plant Protection Program.

2. The Club Strategy:

The CILSS project, Plant Protection in CILSS Member Countries, has five components: 1/

- a. Strengthening of national plant protection services,
- b. Integrated pest management for food crops in the Sahel,
- c. Migratory pest control,
- d. Improved post harvest crop protection, and
- e. Improved rodent control.

The project is for a total of 15 years.

For Niger in particular there is the Club Rainfed Crop Working Group project Protection des Cultures et des Recoltes. There are three areas of assistance needed: 2/

- support to service de la protection des vegetaux (PV) for crop protection, \$7,131,000,
- funding for a quarantine station in Maradi, \$1,040,000, and
- studies, \$150,000.

Land Degradation

1. The AID Strategy:

The primary AID project is Forestry and Land-use Planning. This project would (a) create a division of technical planning, design and demonstration, Bureau Technique Forestier (BTF), within the Water and Forestry Service, (b) support planning and training through demonstration and experiments, and (c) initiate long-term academic training program for personnel designated for expatriate staff in BTF. The project goals would be:

- better use of Niger's solids,
- maximize use of water resources,
- rational control of Niger's pastureland, and
- development of forest resources.

A later second phase would continue consolidation of efforts, and a third phase would develop an operational system to implement foregoing plans. The first phase is from FY 1978 to 1980 for \$2 million.

1. Club des Amis du Sahel, Plant Protection in CILSS Member Countries, Action Proposals, March, 1977.
2. Club des Amis du Sahel, Equipe des Cultures Seches, Republique du Niger, Protection des Cultures et des Recoltes, 7702/NER/P1, March, 1977.

2. The Club Strategy:

The Club's Ecology and Environment Working Group has proposed a forestry strategy. 1/ The objectives of the strategy are:

- a. supply population needs for combustible wood and construction timber,
- b. forage protection and management,
- c. improved agricultural production factors, and
- d. protection and appropriate exploitation of wildlife.

The strategies to meet these objectives are based on four subprograms. The subprogram with the highest priority is:

a. Wood Production.

1. natural regeneration methods,
2. artificial reforestation,
3. management and protection of natural forest stands,
4. village plantations, and
5. green belts around urban areas.

Subprograms with lower priority are:

b. Integrated Farm-Forest-Forage Operations.

1. preventive measures (pasture management, installation of wind breaks in agriculture areas, gaining popular acceptance on non-erosive methods of working the soil, creation of wood supplies around villages, planting fire belts around the forests, etc.),
2. taking direct measures to control erosion phenomena (control of brush fires, fixation of dunes, flood prevention, etc.),
3. actions to restore the environment, such as reforestation restoring vegetative cover for temporary protection or by planting.

c. Conservation and Utilization of Wildlife.

1. In the Sahelian zone:
 - restore populations of wildlife and their habitats,
 - inventory and manage desert species, and
 - plan, establish and manage protected zones.
2. In the Sudan zone:
 - preparation of management plans and their execution,
 - pilot projects for production of meat from game animals,
 - improvement of tourism based on wildlife, and
 - these projects will satisfy food needs of rural communities.

d. Coordinated Education and Forestry Training.

The group has proposed projects in each of the subprogram areas.

a. Wood Production.

Based on Group projections, the demand for wood in Niger, both urban and rural, in 1990 will be 4,514,000 cubic meters (cm). Production

1. Club des Amis du Sahel, Team for Ecology and Environment, Committee's "Forest Strategy in the Sahel".

in 1975 was 1,501,000 cm leaving a deficit of 3,013,000 cm in 1990. The first generation wood production projects are presented in Table N6. These projects will result in a total production of 68,000 cm resulting in a deficit of 2,945,000 cm by 1990.

TABLE N6
PROJECTS PROPOSED IN WOOD PRODUCTION SUBPROGRAM

<u>PROJECT</u>	<u>COST</u>	<u>ANNUAL PLANNED PRODUCTION</u> <u>(1000 cubic meters)</u>
Forestation and Forest Production Project in 7 Departments	\$916,000	21
Planting of 1,000 hectares around Niamey	\$589,000	6
Management of Roneraie of Dallol-Maouri	\$161,000	-
Establishment of Green Belts around Urban Areas in 7 Departments <u>1/</u>	\$2,055,000	21

1. Project in the Integrated Farm-Forest-Forage Subprogram.

SOURCE: Club des Amis du Sahel, Team for Ecology and Environment,
Committee's "Forest Strategy in the Sahel", annex 1.

- b. Integrated Farm-Forest-Forage Operations. The projects in this sub-program are primarily designed to prevent desertification. The projects are presented in Table N7.
- c. Conservation and Utilization of Wildlife. The projects are presented in Table N7.
- d. Coordinated Education and Forestry Training. The projects are presented in Table N7.

TABLE N7

PROJECTS PROPOSED IN INTEGRATED FARM-FOREST-FORAGE OPERATIONS,
CONSERVATION AND UTILIZATION OF WILDLIFE, AND COORDINATED EDUCATION
AND FORESTRY TRAINING SUBPROGRAMS

<u>PROJECT</u>	<u>COST</u>
<u>Integrated Operations</u>	
Planting Windbreaks Around Irrigated Areas (Sagua, Moradi, Taboua)	\$ 364,000
Implantation of a green belt around Diffa, Maine-Soroa and N'Guigmi	\$ 243,00
Operation forest-pasture (nursery, protection, plantation at Arlit, Department of Agadez)	\$ 85,000
Regeration of 5,000 hectares by Protection of Shade Trees around some Pastures	\$ 311,000
Plantation of Shade Trees around some Pastures	\$ 210,000
Operation Gao in Dallol-Mouri	\$ 263,000
Operation Windbreak for Protection of Dry Cultivation	\$ 531,000
Pasture Management	\$2,500,000
<u>Conservation and Utilization of Wildlife</u>	
Development of Wildlife Resources	\$2,914,000
Improvement and utilization of nationa Park	\$1,145,000
<u>Coordinated Training and Education of Foresters</u>	
Strengthening of the Forestry Training Program at l'Institut Pratique de Developpement Rural de Kolo	\$ 420,000

SOURCE: Club des Amis du Sahel, Team for Ecology and Environment,
Committee's "Forest Strategy in the Sahel", annex 1.

Transport

1. The U.S. Strategy:

The Niamey Department Development Project includes preparation of a comprehensive development program for the area, including rural road needs.

The Mission proposes sending a design mission to Niger in FY 78, in coordination with the World Bank, to discuss the Niger rural roads program and a possible U.S. contribution. The Mission would prepare the project analysis for the project paper. Funding would then be provided in FY 79.

2. The Club Strategy:

The road network of Niger is 18,376 kilometers. The project suggested by the Club Transport Working Group for 1977 to 1982 is: 1/

- a. Rehabilitation. There are 1,311 kilometers in special need of rehabilitation. \$16.61 million. These routes and their lengths are as follows:

	<u>Kilometers</u>
TILLABERY/MALI FRONTIER	123.5
AGADES/ASSAOUS	65.8
MABARIA/ZANGO (NIGERIA FRONTIER)	61.2
ILLELA/BADEGUICHERI	15.0
TERA/UPPER VOLTA FRONTIER	42.0
LOGA/DOGONDOUTCHI	86.0
BANIBANGOU/MALI FRONTIER	44.5
SABOUGARI/BOUREIMI	101.0
GUECHEME/MAROUA	53.0
RIENA 1 (PK 535.5/NIGERIA FRONTIER)	17.0
TALCHO/TAHOUA	219.0
TABALAK/ASSOUAS	228.0
TALCHO/EKRAFANE	91.0
TONDIKIWINDI/BANIBANGOU	130.0
W 1 (PK 18)/GONGES MEKROU	34.0

1. Club des Amis du Sahel, Groupe Transports et Infrastructures, Rapport de Synthèse, May, 1977.

- b. Maintenance. The government now maintains about 21 percent of the road network, or about 3,772 kilometers. The goal is to increase this maintenance to 44 percent in 1982, or 8,615 kilometers. \$37.26 million.
- c. Purchase of related material. \$14.98 million.
- d. Training and technical assistance. \$400,000.
- e. Amortization. \$8.4 million.

Population Growth

1. The U.S. Strategy:

The Mission states that a sound population policy cannot be formulated nor implemented until the delivery of basic health services becomes viable. The Mission envisions support for basic research into determinants of fertility, traditional means of child spacing and the likelihood of declining fertility rate given alternative options in the labor force for women, and women's education.

2. The Club Strategy:

The Club views the perceptible reduction of infant mortality as crucial to the acceptance of family planning. The need for demographic data, to improve development planning, is recognized as an important objective.

ISSUES

Candidate issues to be discussed:

- a. AID projects generally do not have objectives beyond the early 1980's. Due to the momentum of population growth and the long delays involved in bringing about change, should AID projects be planned over a longer time horizon? How?
- b. Figure N5 shows a widening gap between total cereal demand and planned production. Either total cereal supplies will fall or Niger's foreign exchange deficit will widen. Is a disaster on its way? Can the proposed development investment be effective? Are AID projects sufficiently large enough and in the appropriate sector to have a significant effect?
- c. Figure N6 shows the relationship between Club livestock goals and consumption trends. Are the club goals for livestock production realistic? What are the constraints which may decrease the chances for achievement of these goals? Have AID and Club strategies been adequate to alleviate these constraints?
- d. Figures N5 and N6 are based on the data presented in annex C. What is the Field's opinion of the accuracy of this data? Is it good enough for such planning purposes? If not, is the effect of current donor efforts unknown? How could better data be collected? Can the Field draw on the Figures their production forecasts?
- e. How much and what kind of rural participation is needed in planning a development project? Will a project only be successful if farmers participate in the planning and management of a project?
- f. Figure N6 indicated beef production as the major livestock indicator. Are other variables more important (i.e., animal stocks, herder income, milk production, etc.)?
- g. The Club gives an estimate of training needs for rainfed and irrigated development. What is the Field estimate of need for trained personnel by level, by decade, for rainfed crop, irrigated crop, and livestock development? Are AID, other donor, and proposed Club training projects adequate to fill this need? If the need is not filled, what will be the quantitative effect on the achievement of project goals, as shown in Figures N5 and N6?
- h. Can the Field chart and describe the major institutions for training and education? What is the typical flow of students from elementary schools to jobs, specifically as far as jobs in development activities are concerned? What are the number of students that flow between each institution? Can the donor program to support each institution be described? How does the AID program fit?
- i. The Club Ecology Working Group concentrated on wood production projects. Group projections indicate a serious shortfall in wood production. What can AID do now to increase wood production?

- j. Given the CRED report on the desirability of promoting private grain traders, how can AID projects either: (1) assist private traders, or (2) not discourage private traders?
- k. Given the Club Transport Working Group's concern over the deterioration of Niger's road system, how can AID assist?
- l. How should AID promote family planning programs to the government (e.g., demographic studies as a means to open doors to family planning programs; inserting family planning components into health projects; etc.)? Considering the delays involved in slowing population growth, is the Field strategy of waiting for viable health programs a prudent approach?
- m. The maintenance and operating costs, as well as depreciation costs, of irrigated crop hectares are generally high. Can the field give a judgemental quantification of these costs and the ability of irrigated crop farmers to pay them? If costs are higher than farmer's ability to pay, who should pay the difference and how?
- n. As far as other donor strategies are concerned, is the AID strategy similar or different in terms of sectorial funding (i.e., percentage of donor's total investment by Club working group sector)? A judgemental quantification is adequate.
- o. What is the Field's judgemental quantification of total recurrent costs per year for their planned projects? How can AID projects include in their initial analysis a projection of the future government and private revenues allocated to pay recurrent costs?
- p. Can the Field chart and describe the major Niger institutional structures that are crucial to development? Can the donor program to support each be described. How does the AID program fit? Is more support needed for other institutional structures or a central planning authority?
- q. What are the Field's recommendations for government economic policy on agricultural input subsidies, prices to farmers, import duties, etc.? If these recommendations would cause a change in existing government policy, how can AID influence such a change (e.g., persuasion, increase economic training for government decision makers, etc.)?

ANNEX

ANNEX A
UN PROJECTS IN NIGER

<u>Project number and title</u>	<u>Executing Agency</u>	<u>Date approved</u>	<u>Estimated completion date</u>	<u>Estimated project cost (US dollar equivalent)</u>	
				<u>UNDP</u>	<u>Government counterpart contribution</u>
<u>AGRICULTURE, FORESTRY AND FISHERIES (0500)</u>				<u>2,031,010</u>	<u>386</u>
DEVELOPPEMENT DE L'INDUSTRIE LAITIERE	FAO	02/70	01/78	264,230	
UTILISATION DE LA FOREUSE DAVEY	FAO	03/74	01/75	830,627	
LUTTE CONTRE LES GLOSSINES	FAO	12/74	01/77	76,685	11
ASSISTANCE POUR LE PROJET DE DEVELOPPEMENT DE L'I.P.D.R. DE KOLLO	FAO	07/75	01/77	313,040	
ETABLISSEMENT DU SYSTEME DE COLLECTE DES STATISTIQUES AGRO-PASTORALES	FAO	05/77	01/79	314,227	375
ASSISTANCE A LA SNCCP (HIDES AND SKINS)	FAO	09/76	01/77	3,701	
LUTTE CONTRE LES GLOSSINES (PHASE II)	FAG	09/75	12/75	228,500	
<u>CULTURE AND SOCIAL AND HUMAN SCIENCES (1000)</u>				<u>53,633</u>	
SOCIOLOGIE CULTURELLE	UN	12/72	01/78	43,583	
SOCIOLOGIE CULTURELLE	UN	05/77	01/78	4,275	
SOCIOLOGIE DU DEVELOPPEMENT	UNESCO	06/77	01/78	5,775	
<u>EDUCATION (1500)</u>				<u>701,722</u>	
PRIMARY TEACHERS TRAINING COLLEGE (ZINDER)	UNESCO	11/75	01/78	330,278	
TEACHER TRAINING COLLEGE, ZINDER (PHASE II)	UNESCO	10/71	01/76	369,194	
DROIT INTERNATIONAL	UNESCO	06/77	01/77	2,250	
<u>GENERAL ECONOMIC AND SOCIAL POLICY AND PLANNING (2000)</u>				<u>6,023,859</u>	<u>322</u>
EXECUTION REGIONALE DU PLAN	UN	02/70	01/78	616,685	
PILOT AGRICULTURAL DEVELOPMENT IN THE DALLOL MAOURT	FAO	06/70	01/76	1,222,716	
PROJET PILOTE DE DEVELOPPEMENT "DALLOL MAOURI"	FAO	06/77	01/78	95,000	
ECONOMIE DOMESTIQUE	FAO	07/71	01/78	103,552	

<u>Project number and title</u>	<u>Executing Agency</u>	<u>Date approved</u>	<u>Estimated completion date</u>	<u>Estimated project cost (US dollar equivalent)</u>	
				UNDP	Government counterpart contribution
ECOLE NATIONALE D'ADMINISTRATION DE NIAMEY	UN	01/71	01/80	2,326,324	
BOURSE DANS LE DOMAINE DE LA PLANIFICATION ECONOMIQUE	ILO	07/73	09/74	6,043	
INTERNATIONAL LAW	UNESCO	09/74	01/76	13,367	
ASSISTANCE A L'OFFICE DES PRODUITS VIVRIERS DU NIGER (OPVN)	UNDP	07/76	04/78	99,424	
PROJET-GLOBAL DES VOLONTAIRES DES NATIONS UNIES AU NIGER	UNDP	11/75	01/77	156,975	
BOURSE EN SOCIOLOGIE DU DEVELOPPEMENT	UNESCO	08/76	01/78	21,573	
ASSISTANCE AU DEVELOPPEMENT REGIONAL ET A L'AMENAGEMENT DU TERRITOIRE (TROISTEME PHASE)	UN	06/76	01/81	1,362,200	318
<u>HEALTH (2500)</u>				<u>704,427</u>	<u>1,331</u>
NATIONAL SCHOOL OF PUBLIC HEALTH NIAMEY (PHASE II)	WHO	01/72	01/78	704,427	1,331
<u>INDUSTRY (3500)</u>				<u>3,742,517</u>	<u>778</u>
INDUSTRIAL PROMOTION	UNIDO	04/69	01/78	213,749	
FEASIBILITY STUDY FOR THE INDUSTRIAL PROCESSING OF MILLET (PHASE II)	FAO	01/71	01/76	38,802	
SOTRAMIL	FAO	06/77	01/78	17,583	
MINERAL EXPLORATION IN TWO AREAS (PHASE II)	UN	01/71	01/77	1,110,265	468
ASSISTANCE TO SUGAR INDUSTRY	UNIDO	03/74	01/75	7,500	
MIXED CAPITAL ENTERPRISES	ILO	09/72	01/78	1,066,962	310
ASSAINISSEMENT/REORGANISATION DE LA CIMENTERIE DE MALBAZA	UNIDO	11/72	01/78	395,136	
ASSEMBLY OF BICYCLES AND MOPEDS	UNDP	10/73	01/78	20,000	
ANALYSE DES PROBLEMES DE LA CIMENTERIE ACTUELLE DE MALBAZA	UNDP	03/75	01/77	147,801	60

ANNEX A continued

<u>Project number and title</u>	<u>Executing Agency</u>	<u>Date approved</u>	<u>Estimated completion date</u>	<u>Estimated project cost (US dollar equivalent)</u>	
				<u>UNDP</u>	<u>Government counterpart contribution</u>
ADVISORY MISSION ON DEVELOPMENT OF SMALL AND MEDIUM-SCALE INDUSTRIAL ENTERPRISES	UNIDO	12/75	01/76	1,500	
ASSISTANCE A LA CIMENTERIE DE MALBAZA - EXPERT SPECIALISTE EN MOTEUR DIESEL	UNDP	10/75	01/77	23,199	
<u>LABOUR, MANAGEMENT AND EMPLOYMENT (4500)</u>				<u>366,066</u>	
FORMATION DES CADRES A LA GESTION	ILO	08/76	01/77	366,066	
<u>NATURAL RESOURCES (5000)</u>				<u>176,274</u>	<u>151,935</u>
ASSISTANCE AU SERVICE LOGISTIQUE DE L'OFFICE DES EAUX DU SOUS-SOL (OFEDES)	UN	03/75	01/79	176,274	151,935
<u>POPULATION (5500)</u>				<u>493,418</u>	
PHOTOGRAPHIE AERIENNE POUR LE RECENSEMENT DE LA POPULATION AU NIGER	UNDP	02/75	01/78	493,418	
<u>RELIEF ACTIVITIES (6000)</u>				<u>181,966</u>	
SAHEL DROUGHT EMERGENCY AND MID-TERM GROUNDWATER ASSISTANCE	UN	05/76	01/78	50,100	
SAHEL DROUGHT EMERGENCY AND MID TERM GROUNDWATER ASSISTANCE	UN	12/73	01/77	131,866	
<u>TRANSPORT AND COMMUNICATIONS (7500)</u>				<u>399,451</u>	<u>58,439</u>
TELECOMMUNICATIONS	ITU	07/70	01/75	269,076	
ASSISTANCE EN AVIATION CIVILE	ICAO	11/74	01/79	130,375	58,439

ANNEX B

CURRENT HEALTH PROJECTS IN NIGER

<u>Project</u>	<u>Donor Agency or Country</u>	<u>Total Amount (\$US)</u>	<u>Other Information</u>
Basic health services development	WHO		Continuing assistance in various aspects of health services development
Medical project	Netherlands	590,000	
Niger health	USAID	1,500,000	
Health projects	France	330,000	
<u>NATIONAL HEALTH PLANNING/LEGISLATION</u>			
Census project	FNUAP		
<u>URBAN HEALTH SERVICES</u>			
PMI Construction - Niamey	Conseil de l'Entente		
Supplies, equipment - Ministry P.H.	UNICEF		
4 Dispensaries - Irhazer	UNDP		
Water sanitation project - Niamey, Zinder, Maradi	Germany	481,000	Long-term loan
<u>RURAL HEALTH SERVICES</u>			
Medications, laboratory equipment, vehicles	UNED	450,000	
Transport - grain, milk industry	FAO		
Food assistance	PAM		
Dispensary construction & equipment	FED		
100 Hand pumps	Church World Serv.		
Mobile equipment, dispensary equip.	France		
Regional reinforcement of public Health services	USAID		
Health services development, Department of Diffa	USAID		
Wells construction	Canada	720,000	
<u>HOSPITAL SERVICES</u>			
Hospital modernisation	FED		
Hospital assistance - Niamey	PAM		
Hospital assistance - Niamey	CARITAS		
Hospital assistance - Niamey	USSR		
<u>MANPOWER</u>			
3 Physicians - Niamey	USSR		1975 - 1977
National public health school development	UNDP	138,422	
Fellowships	WHO		
Muslim university/Faculty of Medicine	Islamic Conference		
35 Physicians, 3 pharmacists, 1 dentist	France		

ANNEX B continued

<u>Project</u>	<u>Donor Agency or Country</u>	<u>Total Amount (\$US)</u>	<u>Other Information</u>
24 Health education volunteers	U.S. Peace Corps		
6 Physicians	Belgium	396,000	
5 Physicians, mechanic	Germany	600,000	
Medical teams: Tahova	RFA		
Maradi	URSS		
2 dispensaries	Saudi Arabia		
Niamey	Netherlands		
Zinder	Canada		
Niamey Hospital	China		
<u>DISEASE CONTROL</u>			
Smallpox eradication	WHO		1967-present
Cholera, meningitis projects	FED		
Smallpox	OCCGE		
Trypanosomiasis	FAO		
Onchocerciasis (regional)			

ANNEX C

STATISTICS

TABLE C-1

Crop Production in Niger

		Thousand metric tons															
		1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
MILLET	P	781	934	977	1,013	790	842	1,000	733	1,095	871	959	919	627	883	581	1,119
SORGHUM	P	275	315	353	315	266	277	342	215	289	230	267	209	126	218	253	300
RICE (paddy)	P	9.6	11.2	10.1	11.8	11.7	20.5	32.6	39.0	38.0	37.1	27.3	31.8	46.3	30.2	29.3	29.3

SOURCE: CRED, Marketing, Price Policy and Storage of Cereals in the Sahel, Niger Study

TABLE C-2

BEEF PRODUCTION AND CONSUMPTION IN NIGER 1/

Thousand Metric Tons

<u>YEAR</u>	<u>CONSUMPTION</u> <u>2/</u>	<u>PRODUCTION</u> <u>3/</u>
1971	26	40
1972	24	34
1973	19	36
1974	20	33
1975	22	35

1. Dressed carcass weight.
2. All meat slaughtered within national boundaries.
3. Includes meat equivalent of exported live animals.

SOURCE: FAO, Production Yearbook, 1973, 1975.

ANNEX D

RURAL EDUCATION PROGRAMS 1/

1. Ecole Nationale d'Administration: This school uniquely provides training for upper level (short of the license), intermediate and lower level personnel for the government and for its Nigerization program. It also accepts trainees from private business and offers special training courses in accounting and business management when there are enough students to form a class. The school is under the supervision of the Minister of Civil Service and Labor and its charger (Law No. 70-4 of January 22, 1970) states that its functions are to provide "training prior to employment and continued training after employment of personnel of government bodies and of the para-public and private sectors of the national economy." In addition, "The National School of Administration may be commissioned to do research work in public administration and organization and methods."

The school undertakes training which ranges from long-term, academically oriented programs to short-term, special, practical courses. In terms of civil service employment it trains people from the upper grade (class A), through classes B, C, and even D at the low end of the job classification spectrum. At the upper level the training is in general administration, while at the middle level there are regular general administration sections (with specialization in financial services, in fiscal and public property, and in labor and social security), a judicial section, a customs and exercise section, an accounting and enterprise management section and a secretarial section. The lower level options include a section for administration and judicial service agents, a section of commercial accounting and a typewriter section. There are lists of special courses given for government officials at all levels.

ENA has grown from 11 students in 1960 to 1,332 in 1973. By that year ENA had awarded 205 diplomas plus 409 brevets and certificates in addition to having had 2,105 participants who had received training in special courses. ENA is playing a major role in the implementation of the national Nigerization plan which, it is projected, will be completed by July of 1980.

2. Institut Pratique de Developpment Rural (IPDR) at Kolo: IPDR, created in 1933, now operates the only program available in Niger for the preparation of agricultural extension agents. At present IPDR provides training for employees in the Rural Development Services (Agriculture, Water and Forest, Animation, and UNCC) who are usually at the Class D civil service rating level (primary school plus two years of training). Those holding these positions were formerly called Moniteurs, but this category has since been ended. If those who enter IPDR by being recruited by other agencies can complete the two year program and pass the examination, they receive the BER (Brevet d'Etudes Rurales) which qualifies them for promotion to the C1 employment level--that of Agents Techniques. Normally, however, IPDR recruits directly from students between ages 17 and 22 who have their BEPC (Basic Primary Education Certificate, which means they have completed nine years of schooling and passed an examination), after which they, too, take the two-year program at Kolo.

1. Taken from AID, DAP FY 1975, Section III.

During the first year all students are required to take the following courses: general and special agriculture, machinery, zoology, botany, agricultural chemistry, natural sciences, rural development, economics (management and accounting), statistics, pedagogy and agricultural extension work, processing products, topography, and arboriculture.

Students are also required to take the necessary amount of language training in Zarma and Hausa to become proficient in both of these national languages.

Courses related to specializations are taught during the second year in the following: Rural Engineering Section: rural engineering, irrigation and drainage; Agricultural Section: more special agriculture; Waters Section: techniques for motivating and assisting farmers to improve agriculture; Cooperation Section: credit cooperation.

During the two years there is also practical work. Students work in the mornings in a garden (a collective garden with individual plots), they raise orchards, they work in the fields on crops watered by rainfall as well as on irrigated land, and they attend workshops where they work with machinery, with wood and with iron. They also learn how to dress beef and how to survey land.

The final element of the program is made up of training exercises away from Kolo. The first field experience is required of all students. It is held the first year from May 15 to August 15 (during the growing season) when students are assigned to their own native language area and learn the techniques of agricultural extension work. The second field experience, from October 15 to December 20 of the second year, is divided into three options determined by a student's specialization section: Self-help Commercialization of Peanuts (for those in Animation, Cooperation, and Agriculture); Waters and Forests and the Production and Commercialization of Arabic Gum (for those in the Waters and Forest section); and Management Training in Rice Cultivation (for the Rural Engineering section). The third and final field experience, from January 6 to February 28 of the second year, is in Animation Training in which all students participate in order to learn how to work with the farmers to teach them better agricultural techniques and to secure their cooperation in new agricultural efforts.

At the end of the second year, students take an examination which permits them to graduate with a Brevet d'Etudes Rurales degree. Very few students drop out during the program and very few fail to earn their degrees. Following graduation all students are employed by the government and assigned positions at the C1 level as Technical Agents (Agents Technique) generally responsible for a zone.

At present IPDR enrolls 125 candidates in the 2 year program; capacity is 150 students. In addition, they permit the other services of the Ministry of Rural Development (Agriculture, Waters and Forests, Rural Engineering and Animation) and UNCC to train their own aide-encadreurs (lowest level extension worker) at three to four month programs at Kolo. These other services use IPDR facilities but provide a substantial proportion of their own teaching staff.

3. School of Agriculture, University of Niamey: The first graduates in agriculture (Ingenieur Agronome) will receive their degrees from the University of Niamey in June, 1975. This capability in agriculture grew out of the School of Sciences (Ecole Superieure des Sciences) provided to Niger by FAC as part of

its commitment to the University of the Sahel. The School of Medicine of the University of Sahel was also to be placed in Niger, but the Letters, Law and Economic Sciences faculties were to be placed in Ouagadougou. While the University of the Sahel has apparently fallen victim to national jealousies, any effort which might make possible a sharing of costly faculties, such as Agriculture and Sciences, and sophisticated social science research institutes, would not only be desirable but almost obligatory for countries in such economic straits as Niger and Upper Volta. Judging from enrollment figures at Niamey, it may not be too late to have these facilities still serve both countries: of a total enrollment of 280 in 1973/74, 119 were Voltaiques and 131 were Nigeriens. The Voltaiques were almost totally in sciences and agriculture, and the enrollment of Nigeriens in languages and history was extremely limited. Almost all Voltaiques and Nigerien students attend the university on government scholarships and the Nigeriens are required to accept government assignments upon graduation for a minimum of 10 years or repay the government at 1,000,000 CFAF per year spent on university scholarship--otherwise the parents of the students are liable to pay. Although these regulations have not been enforced in the past, there is considerable feeling that they will be in the future.

The University of Niamey has plans to build the College of Agriculture on the Upper Volta side of the Niger River--in fact, the GON will eventually move the bulk of the university there. Since the institution is just starting, its needs are substantial, although FAC may be willing to continue its contributions for general university purposes. It appears assured that FAC will continue to support the Science faculty, which in turn satisfies substantial academic requirements within the College of Agriculture's program. Thus far, Upper Volta has not started a College of Agriculture--Voltaique students take the first two years in Ouagadougou, then go to Niamey to complete the License.

Within the College of Agriculture at Niamey there will also be a livestock specialization established as part of the program. The question of founding a College of Veterinary Sciences appears, however, to be open although a College of Medicine is being established also based on the College of Sciences' capabilities to provide required science courses.

ANNEX E

OFFICIAL DEVELOPMENT ASSISTANCE BY SECTORS

Millions of Dollars

Category of Commitment Sector of Destination	1974				1975				Partial 1976			
	Grants Dons	TC AT 1/	Loans Prêts	TOTAL	Grants Dons	TC AT 1/	Loans Prêts	TOTAL	Grants Dons	TC AT 1/	Loans Prêts	TOTAL
1. Multisector Rural Development Activities	1.82	1.05		1.82	1.13	1.06	10.70	11.83	2.99	1.39		2.99
1.1. Large-scale integrated projects							10.70	10.70	.91	.91		.91
1.2. River development schemes												
1.3. Other (nse)	1.82	1.05		1.82	1.13	1.06		1.13	2.08	.48		2.08
2. Agriculture	10.85	.24		10.85	12.91	2.78	2.44	15.35	26.08	2.06	2.50	28.58
2.1. Crop production - irrigated *	.23								3.49	.63		4.12
2.2. Crop production - Dry farming and undefined	7.01	.24			2.41	.20		2.41	18.25	1.39	2.50	20.75
2.3. Livestock	3.61				10.17	2.50	2.44	12.61	4.27	.04		4.27
2.4. Forestry and Reforestation					.21			.21				
2.5. Fisheries					.04			.04				
2.6. Agricultural institutions, services and training					.08	.08		.08	.07			.07
2.7. Unspecified												
3. Water Resources	2.51	.26		2.51	2.64			2.64	2.84	1.12	10.95	13.79
3.1. Rural Water Supply**	2.45	.26		2.45	2.58			2.58	.20	.15		.20
3.2. Urban Water Supply									.97	.97	6.72	7.69
3.3. Large-scale multi-purpose dam projects									1.67			1.67
3.4. Services, training	.06			.06	.06			.06				
3.5. Unspecified											4.23	4.23

Notes: * See also 3.1
 ** See also 2.1

1/: Technical Assistance Component of Grants.

Category of Commitment Sector of Destination	1974				1975				Partial 1976			
	Grants Done	TC AC 1/	Loans Prêts	TOTAL	Grants Done	TC AC 1/	Loans Prêts	TOTAL	Grants Done	TC AC 1/	Loans Prêts	TOTAL
4. Transportation and Infrastructure	10.44	.98	14.46	24.90	5.53	1.45	20.60	26.13	33.85	1.48	23.72	57.57
4.1. Rural roads	3.12		3.07	6.19			5.90	5.90	.11		2.50	2.61
4.2. Primary roads	5.27	.20		5.27	.42		7.00	7.42	31.09		15.60	46.69
4.3. Roads: maintenance, services and training	.22			.22	.79			.79	.92	.15		.92
4.4. Rail, Water, Air Transportation	.01	.01	5.0	5.01	.02	.02		.02				
4.5. Communications	.03	.03	.26	.29	2.23	.03		2.23	.52	.52	5.62	6.14
4.6. Energy	1.06	.01	6.13	7.19	.39		7.70	8.09				
4.7. Meteorology												
4.8. Unspecified	.73	.73		.73	1.68	1.40		1.68	1.21	.81		1.21
5. Education and Human Resources	9.84	7.34		9.84	14.54	9.87	5.00	19.54	8.28	6.37		8.28
5.1. Primary and secondary	2.58	.44		2.58	2.68	.46		2.68	1.20			1.20
5.2. University and higher technical	1.17	1.11		1.17	2.75	.70		2.75	.07			.07
5.3. Non formal education	.02	.02		.02	.39	.39		.39	.10			.10
5.4. Teacher training	.11	.11		.11	.03	.03		.03				-
5.5. Vocational and technical	.28	.20		.28	.21	.19		.21	.80	.26		.80
5.6. Cultural activities	.23	.23		.23	.29	.25		.29	.11	.11		.11
5.7. Unspecified	5.45	5.23		5.45	8.19	7.85	5.00	13.19	6.00	6.00		6.00
6. Health, Nutrition and Social Infrastructure	3.20	.98	.40	3.60	2.20	1.37	4.44	6.70	1.34	.80	3.20	4.54
6.1. Rural health services	1.98			1.98	.68	.24		.68	.17			.17
6.2. Urban health services									.07			.07
6.3. Nutrition					.04	.04		.04	.30			.30
6.4. Demography, family planning	.05			.05	.26			.26				
6.5. Community development, community facilities												
6.6. Housing			.40	.40							3.20	3.20
6.7. Unspecified	1.17	.98		1.17	1.28	1.09	4.44	5.72	.80	.80		.80

Note 1/: Technical Assistance Component of Grants.

Category of Commitment	1 9 7 4				1 9 7 5				Partial 1 9 7 6		Partial	
	Grants Dons	TC AC (1)	Loans Prêts	TOTAL	Grants Dons	TC AC (1)	Loans Prêts	TOTAL	Grants Dons	TC AC (1)	Loans Prêts	TOTAL
7. Industry and Tourism	.80	.67	.95	1.75	2.04		1.06	3.10	.13	.13	4.54	4.67
7.1. Mining	.07	.08	.95	1.04	1.22	.32	1.06	1.28			4.54	4.54
7.2. Manufacturing												
7.3. Agro-industry	.18	.18		.18	.09	.09		.09				
7.4. Construction												
7.5. Tourism												
7.6. Unspecified	.53	.41		.53	.73	.60		.73	.13	.13		.13
8. Activities non allocable by sector	11.75	.52	2.46	14.21	12.00	.67	3.25	15.25	6.51	1.38		16.51
8.1. Planning and administration	.35	.35		.35	.30	.30		.30	.45	.45		.45
8.2. Import financing	5.00		2.46	7.46	2.00		3.25	5.25				
8.3. Balance of payments assistance									6.76			6.76
8.4. Budget subsidy	6.23			6.23	9.33			9.33	8.37			8.37
8.5. Debt reorganization												
8.6. Research (nse)	.17	.17		.17	.37	.37		.37	.93	.93		.93
8.7. Other												
9. Emergency Aid	54.33			54.33	32.84			32.84	20.50			20.50
9.1. Food aid	42.45			42.45	15.82			15.82	13.66			13.66
9.2. Transport and storage Cereals	4.51			4.51	2.54			2.54	2.02			2.02
9.3. Livestock (reconstitution)	.60			.60	2.35			2.35				
9.4. Non-food aid	3.75			3.75	2.49			2.49				
9.5. Multipurpose activities	3.02			3.02	9.64			9.64	4.82			4.82
10. Unspecified development assistance	15.89	11.71		15.89	13.82	9.12		13.82	7.34	3.26		7.34
T O T A L	121.43	23.75	18.27	139.70	99.71	27.33	47.49	147.20	119.86	17.99	44.91	164.77

Note 1/: Technical Assistance Component of Grants.
Part de la coopération technique dans les dons.