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FOOD NEEDS ASSESSMENT: GUINEA

November 1989

GUINEA: FOOD NEEDS ASSESSMENT (1989/90)

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GUINEA

FOOD NEEDS ASSESSMENT: 1989/90

I. SUMMARY:

A food needs assessment for 1989/90 was conducted in Guinea, October 31 - November 14, 1989, covering seven commodities -- rice, wheat, maize, millet/sorghum, fonio, manioc, and vegetable oil. Data on the national food supply and utilization situation in Guinea should be interpreted with caution. Agricultural production estimates for the base period of analysis 1984/85 - 1988/89 are scarce; those series that are available are often inconsistent. Population estimates are likewise unreliable. The data used in this assessment should thus be viewed as indicative, providing a rough order of magnitude of the aggregate food deficit/surplus situation by commodity.

For 1989/90, cereal production in Guinea is estimated at 751,900 MT (unmilled), of which rice represents over 75% of the total at 620,600 MT. Per capita availability/consumption of staple cereals has risen rapidly in the past five years; to reflect this increase, a linear trend estimate for 1989/90 was used to estimate per capita availability. Given a production estimate for paddy of 620,600 MT -- assuming no increase in production over the 1988 harvest -- and commercial rice imports of 180,000 MT (milled), a deficit emerges for rice of 35,400 MT (milled). Assuming a level of imports equal to that of last year, both wheat and vegetable oil show deficits of 11,950 MT (milled) and 4,050 MT (refined) respectively. Surpluses are evident for maize, fonio, and manioc indicating that production levels are adequate to support the trend in consumption. It should be noted that deficits/surpluses were estimated prior to food aid. With the arrival of 21,000 MT (milled) of PL480-Title II rice in October 1989, the estimated deficit for rice in 1989/90 is reduced to 14,400 MT (milled). Tables 1 and 2 present the 1989/90 food balance situation by commodity.

II. METHODOLOGY:

1) Commodity Coverage.

In the past, food needs assessments in Guinea have focused on rice as the primary staple of the urban diet. For more comprehensive coverage, an effort was made in this assessment to include other cereals, as well as manioc and vegetable oil. FAO estimates of the share of each commodity in total calorie intake

GUINEA: FOOD NEEDS ASSESSMENT, (1989/90) TABLE 1:

	RICE	WHEAT	MAIZE	MILLET/SORHGUM	FONIO	MANIOC	VEG - OIL
FOOD DEFICIT *	54464	16592	-546	-134	-2926	-101852	4506
- FOOD AID COMMITMENTS:	32308	0	0	0	0	0	0
UNCOVERED FOOD DEFICIT:	22156	16592	-546	-134	-2926	-101852	4506
X MILLING EXTRACTION RATE	0.65	0.72	0.85	0.83	0.65	0.65	0.90
UNCOVERED FOOD DEFICIT: MILLED	14401	11946	-464	-111	-1902	-66204	4055

*: A NEGATIVE (-) FOOD DEFICIT IS A SURPLUS

NOTES:

A) ALL QUANTITIES IN METRIC TONS

B) ALL QUANTITIES IN UNMILLED TERMS UNLESS NOTED

C) BASE PERIOD: 1984/85 - 1988/89

YEAR: OCT/SEPT

D) PER CAPITA CONSUMPTION: LINEAR TREND OF PER CAPITA AVAILABILITY OVER THE BASE PERIOD

E) NON-FOOD USES:

	RICE	WHEAT	MAIZE	MILLET/SORGHUM	FONIO	MANIOC	VEG - OIL
SEED	0.05	0.00	0.03	0.02	0.03	0.00	0.00
FEED	0.00	0.00	0.00	0.00	0.00	0.05	0.00
WASTE/LOSSES	0.15	0.00	0.12	0.15	0.12	0.20	0.00
MILLING EXTRACTION RATE	0.65	0.72	0.85	0.83	0.65	0.65	0.90

F) POPULATION BASED ON WORLD BANK ESTIMATES (1986) WITH 2.2% GROWTH RATE.

G) UNOFFICIAL RICE EXPORTS ESTIMATED AT 18,000 MT (MILLED)

H) NET CHANGE IN STOCKS: 5,000 MT (MILLED) SECURITY STOCK ESTABLISHED BY THE GOVERNMENT, (NOVEMBER 1989).

GUINEA:

TABLE 2:

FOOD NEEDS ASSESSMENT: 1989/90

	RICE	WHEAT	MAIZE	MIL/SORGHUM	FONIO	MANIOC	VEG - OIL
PER CAPITA CONSUMPTION (UNMILLED KG/YEAR)	114.7	15.8	6.2	0.5	8.9	41.7	7.9
X POPULATION (THOUSANDS)	6907	6907	6907	6907	6907	6907	6907
= TOTAL CONSUMPTION REQUIREMENT	792482	109231	43059	3269	61589	287923	54284
GROSS DOMESTIC FOOD PRODUCTION	620600	0	51300	4100	75900	519700	40000
- TOTAL NON-FOOD USE	124120	0	7695	697	11385	129925	0
= NET DOMESTIC FOOD PRODUCTION	496480	0	43605	3403	64515	389775	40000
NET DOMESTIC FOOD PRODUCTION (FROM ABOVE)	496480	0	43605	3403	64515	389775	40000
- NET CHANGE IN STOCKS	7692	0	0	0	0	0	0
- TOTAL FOOD EXPORTS	27692	0	0	0	0	0	0
= DOMESTIC FOOD SUPPLY	461095	0	43605	3403	64515	389775	40000
TOTAL CONSUMPTION REQUIREMENT (FROM ABOVE)	792482	109231	43059	3269	61589	287923	54284
- DOMESTIC FOOD SUPPLY (FROM ABOVE)	461095	0	43605	3403	64515	389775	40000
= IMPORT REQUIREMENT	331387	109231	-546	-134	-2926	-101852	14284
- TOTAL COMMERCIAL FOOD IMPORTS	276923	92639	0	0	0	0	9778
= FOOD DEFICIT (UNMILLED)	54464	16592	-546	-134	-2926	-101852	4506
X MILLING EXTRACTION RATE	0.65	0.72	0.85	0.83	0.65	0.65	0.90
= FOOD DEFICIT MILLED	35401	11947	-464	-111	-1902	-66204	4055

NOTES:

ALL QUANTITIES IN METRIC TONS UNLESS NOTED

A NEGATIVE (-) FOOD DEFICIT IS A SURPLUS

for Guinea are presented in Figure 1.(1) Rice is clearly the dominant source of calories at 32% of daily per capita intake; all other cereals combined contribute approximately 16%. Manioc and vegetable oil likewise form a significant part of the Guinean diet at 16% and 8% of total calorie intake respectively.

2) Base Period of Analysis.

Five years of historical data on food production, imports/exports, and food aid were collected to serve as a base period reference and to generate trends. The base period includes the years 1984/85 - 1988/89; the 'consumption year' defined as October 1st - September 30th covers the principal rice harvest through the periode de soudure. The data used in this assessment are stored on diskettes left with the Program Office Economist, and should be revised/updated as more reliable estimates become available.

3) Adjustments for Non-Food Uses: Seed, Feed, and Losses.

Adjustments to gross production were made to account for non-food uses. Estimates of seed requirements and post-harvest losses for rice were provided by MARA, (Ministere de l'Agriculture et des Ressources Animales). Technical coefficients for other commodities include (i) FAO estimates, and (ii) information provided by MARA staff based on the first phase of the FAO project Projet de reduction des pertes apres-recolte. Milling extraction rates were applied to all commodities as follows: rice (.65), wheat (.72), maize (.85), millet/sorghum (.83), fonio (.65), manioc (.65), and vegetable oil (.90). Table 3 presents a breakdown of technical coefficients and milling extraction rates by commodity.

4) Data Sources and Limitations.

The principal source of agricultural production data used in this assessment was the Ministere de l'Agriculture et des Ressources Animales. Import data were those of the Ministere de l'Industrie du Commerce et de l'Artisinat, (MICA), and the Banque Centrale. Estimates of unofficial exports of rice were made based on discussions with government authorities and various donors. For 1989 estimates of rice exports to neighboring countries range from 5 15% of total imports. Population estimates are those of the World Bank (1986) factoring in a growth rate of 2.2%. A complete list of individuals contacted and data sources is presented in Annex 1.

As noted at the outset, national level crop production and population estimates are highly suspect in Guinea. As a consequence, reliable estimates of per capita food availability/consumption are non-existent except for the capital city of Conakry. In 1986 and 1988 the Ministere du Plan, (Direction Generale de la Statistique et de l'Informatique), conducted a

household expenditure survey in Conakry covering 300 households. This survey provides the most recent data on urban expenditure and consumption patterns; a discussion of the preliminary results as they pertain to rice are presented in Section IV below.

Given data limitations, estimates of food needs are calculated using two crop production scenarios: (i) the base case of stable production, i.e. no increase over last year, and (ii) an increase in production of 5% over the 1988 harvest. It should be noted that the World Bank estimates of population are somewhat higher than those currently used by the government. However, calculating the food balance using the lower population figures of the Ministere du Plan (based on the 1983 census) does not significantly change the deficit/surplus situation by commodity. Since the 1989/90 consumption requirement is based on the trend of availability over the past five years, the low population figures result in a higher annual per capita availability figure than the high population scenario.
(A compilation of population and growth rate estimates by data source is provided in Annex 2).

III. AGRICULTURAL SECTOR:

1) General Characteristics:

The economy of Guinea is primarily agrarian with over 75% of the population deriving a livelihood from agriculture; the share of agriculture in gross domestic product is approximately 40%. Small holder production characterizes the rural sector, with the vast majority of farmers using traditional cultivation techniques. The size of holdings varies across regions, averaging 2.5 hectares per production unit. (2). The area under cultivation in 1987 is estimated by MARA at 1,391,000 hectares. Rice is the dominant crop representing 40% of total area cultivated. Fonio follows rice as the second most important crop by area. Table 4 shows area cultivated and average yields by crop and region.

Guinea is divided into four principal agro-climatic regions: Guinee Maritime, Moyenne Guinee, Haute Guinee, and Guinee Forestiere. Rice is the staple food crop cultivated throughout the country except in Moyenne Guinee where fonio predominates. Manioc also represents a staple of the diet in certain regions. Despite the dominance of rice, diversity in crop production and cultivation methods is evident across agro-climatic regions. A breakdown of principal food crops by region is presented in Table 5.

2) Economic Policy Reform:

The agricultural potential of Guinea is immense given its natural resource base and favorable climate. The state-dominated economic system prior to 1984, however, provided few incentives for farmers to produce for the market. Under the Sekou Toure regime agricultural production declined as farmers reverted to subsistence production. From being a net-food exporter before independence in 1958, Guinea's position changed to that of relying on imports to supply a substantial part of urban cereal consumption.

The coup following the death of Sekou Toure brought with it a fundamental reorientation of political and economic policies. Since taking power in 1984, the new government has shown a strong commitment to reducing the role of the state and promoting a market-oriented economy. Under successive structural adjustment programmes with the World Bank (1986 and 1988), economic reform measures have focused on: (i) correcting the over valuation of the currency, (ii) price and market liberalization, and (iii) restructuring of the public sector.

Given the dearth of base-line data the effects of the reforms on agricultural performance are difficult to measure. Region specific studies, however, show some increase in production due to improved incentives. The supply response to changes in relative prices in the rural sector has been most notable for rice cultivation; a recent study in Guinee Maritime (Etude sur la filiere riz en Guinee Maritime, 1986) and preliminary results of the FAO agricultural census indicate an increase in area cultivated. Pending the implementation of a permanent system of agricultural data collection, however, these findings should be viewed as indicative. In Guinea the basis for improvements in agricultural performance will rely not only on remunerative prices for crops, but on addressing a host of binding constraints: weak infrastructure, high transport/marketing costs, inadequate access to credit, lack of inputs, (seed, fertilizer).

IV. SITUATION BY CROP:

1) Rice:

Production: Despite the late start of the rains in May, prospects for the 1989/90 harvest are favorable. Official production estimates for rice, the staple food crop, range from 600,000 MT to 650,000 MT (unmilled). For the purposes of this assessment, rice production is estimated at 620,600 MT based on data provided by MARA. It should be noted that area and yield estimates are scarce in Guinea; most official production and food needs estimates are extrapolated from the 1975 agricultural census

using a 3% growth rate to account for increases in population and area cultivated. A study of the agricultural sector by SCET-AGRI/AGROPROGRESS, Etude de Restructuration des Services Agricoles et de Schemas Directeurs Regionaux de Developpement Rural, estimated paddy production at approximately 508,000 MT, (330,000 MT milled) in 1985. The results of a 1988 national level agricultural census (Project PNUD/FAO: Recencement National de l'Agriculture, RNA) should be forthcoming at the end of this year. The RNA represents the first systematic collection of information on the agricultural sector since 1975. When officially released, the RNA estimates of staple food crop production should be used to update the 1989/90 food needs assessment.

Imports: Commercial rice imports (milled) have increased rapidly in the past five years, from a low of 67,021 MT in calendar year 1984 to a high of 162,039 MT in 1988. Indeed, for the period October 1988 - September 1989 the private sector imported 235,553 MT of rice. Since 1984 food aid imports of rice have formed a substantial though declining share of total imports averaging 34% per year. Given the influx of commercial imports in 1988, the share of food aid in total rice imports fell to 16%. According to the Banque Centrale, food imports for the period January 1 - November 3, 1989 represent 50% of the general import bill; of the foreign exchange allocated to food imports rice emerges as the dominant commodity at 43% of the total.(3)

Rice is considered a politically strategic good, and ensuring adequate supplies of rice to satisfy urban consumers in Conakry has preoccupied the government. In a study of rice marketing in Guinea, Lawrence Filippi-Wilhelm notes that approximately 80% of total rice imports is consumed in Conakry; in 1987 domestic rice represented only 6% of total rice consumption in the capital city. The Filippi-Wilhelm study, Circuits de commercialisation et de distribution en Guinee, 1988, also confirms that in recent years an increasing share of imported rice is reaching the interior of the country where it sells for less than domestically produced rice.

A breakdown of commercial rice imports by trader for the period October 1988 - September 1989 is shown in Tables 6.1 and 6.2.

Unofficial Exports: A significant portion of imported and domestic rice in Guinea is unofficially exported to neighboring countries. Estimates of exports range from 5% to 15% of total rice imports; although the flow of domestic rice exports to Mali, Guinea-Bissau, and Sierra Leone is widely acknowledged, actual amounts traded is unknown. A comparison of retail rice prices in several neighboring countries suggests that the price incentives for unofficial exports are high. In June 1989, for example, the retail price per kilo of rice was 210 F.G. in Conakry compared to 411 F.G. in Bamako, Mali. Retail rice prices for Guinea, Sierra

Leone, Mauritania, Senegal, Mali, and Guinea Bissau are presented in Table 7.

Per Capita Availability: Reflecting the increase in imports, per capita availability of rice has risen sharply over the past five years from a low of 51 kilos/year in 1984 to a high of 68 kilos/year (milled) in 1988. To reflect the increase in apparent consumption, per capita availability for 1989/90 was estimated using a linear trend of consumption over the base period.

Urban Food Expenditure/Consumption Patterns: Although regional variations exist, rice forms the primary staple of the urban diet. Rice is eaten as the base of the mid-day meal served with sauces of vegetables, peanut-butter, and meat. Left-over rice and sauce from the principal meal are then served in the evening. Consumer preference for rice is attributed to both taste and cost considerations; in contrast to other cereals rice does not need to be ground, and requires less time and fuel to prepare.

Data from a 1988 household expenditure survey conducted in Conakry by the Ministere du Plan show little variation in rice consumption across socio-economic groups. Rice is the preferred cereal consumed by both poor and wealthy households; apparently, the ingredients of the sauce rather than the staple cereal provide information relevant to ascertaining a household's economic status. Per capita rice consumption in Conakry is substantially higher than national availability figures. Based on the preliminary results of the 1988 survey, per capita rice consumption is estimated at 85.3 kilos (milled)/year with imported rice representing 96% of total rice consumption. The predominance of rice is clear as urban households on average allocate 23% of the food budget to this preferred cereal. Table 8 provides rice expenditure and consumption patterns for Conakry for 1986 and 1988.

Food Balance: With paddy production of 620,600 MT and an estimate of commercial imports of 180,000 MT (milled), rice shows a deficit of 35,401 MT (milled). The arrival of 21,000 MT (milled) of food aid rice in October reduces the 1989/90 deficit to 14,401 MT (milled). It should be noted, that based on past performance, the private sector has the capacity to fully cover the import requirement of 215,400 MT (milled); commercial imports for the previous year -- October 1988 to September 1989 -- surpassed this level reaching 235,600 MT (milled).

The above food balance assumes no growth in production over last year's harvest. For comparative purposes the food balance was estimated using a high production estimate of 651,630 MT, representing 5% growth in paddy production over 1988. Given higher production and 21,000 MT of food aid imports, the rice deficit is fully covered in 1989/90. (Annex 3 presents the high production scenario).

FOOD EXPENDITURE PATTERNS: CONAKRY — TABLE 8.1

HOUSEHOLD EXPENDITURE SURVEY: 1986 and 1988

	1986	1988
AVERAGE HOUSEHOLD SIZE:	9.3	11.2
HOUSEHOLD EXPENDITURE ON IMPORTED RICE, (FG)	100089	209400
PRICE/KILO, (FG) IMPORTED RICE	101	229
HOUSEHOLD EXPENDITURE ON DOMESTIC RICE, (FG)	12222	15855
PRICE/KILO, (FG) DOMESTIC RICE	188	386
PER CAPITA CONSUMPTION (KILOS), IMPORTED RICE	106.6	81.6
PER CAPITA CONSUMPTION (KILOS), DOMESTIC RICE	7.0	3.7
PER CAPITA CONSUMPTION (KILOS): IMPORTED + DOMESTIC RICE	113.5	85.3
RICE SHARE OF FOOD EXPENDITURE, (%)	0.20	0.23
RICE SHARE OF TOTAL HOUSEHOLD EXPENDITURE, (%)	0.10	0.09
FOOD SHARE OF TOTAL HOUSEHOLD EXPENDITURE, (%)	0.45	0.43
N =	300	300

NOTE: N = Number of Households

DATA SOURCE: 1986 & 1988 HOUSEHOLD BUDGET SURVEY (CONAKRY), MINISTERE DU PLAN ET DE LA COOPERATION INTERNATIONALE, (November 1989).

2) Wheat:

There is no domestic production of wheat in Guinea, and urban demand for wheat flour is met solely by imports. Similar to rice, annual wheat flour imports have increased in recent years reaching 66,711 MT in calendar year 1988. With an annual per capita availability figure of 11.4 kilos (milled) and imports equal to last year, a deficit of 11,947 MT (milled) emerges for wheat in 1989/90.

3) Maize, Millet/Sorghum, and Fonio:

In 1989/90, availability for maize, millet/sorghum, and fonio combined is estimated at 15.6 kilos (unmilled)/person/year. Of the three cereals, fonio predominates representing approximately 60% of availability/consumption on an annual basis. Given stable production, (i.e. no increase over the 1988 harvest), surpluses are evident indicating that current production levels are adequate to support the trend in consumption.

4) Manioc:

Production estimates for manioc show a steady increase over the base period from 355,600 MT in 1984 to 519,700 MT in 1988. Manioc figures prominently in the Guinean diet, and is prepared as a dough (from manioc flour) or the root is peeled and boiled. Availability for the current year is estimated at 41.7 kilos (unmilled)/person/year. As for the coarse grains, the food balance situation for manioc in 1989/90 is one of surplus; production levels appear adequate to support the consumption trend.

5) Vegetable Oil:

MARA estimates show little or no increase in production levels of palm oil over the base period; production is estimated as stabilizing at 40,000 MT in 1989/90. Imports, in contrast, have increased three-fold over the base period reaching 8,803 (refined) in 1988. In terms of consumption, vegetable oil is used in preparing the sauces served with staple cereals at the mid-day and evening meals. Given a per capita availability figure of 7.1 kilos (refined)/year and imports equal to the 1988 level, vegetable oil shows a deficit of 4,055 MT (refined).

V. ISSUES RAISED:

1) Data Reliability:

As noted at the outset, there is a lack of systematic data collection on the agricultural sector in Guinea. Although the most recent agricultural census should provide information for 1988, no system has yet been put into place to collect, synthesize, and analyze data on a permanent basis. Keeping in mind the problem of data reliability, the findings of this assessment should be viewed as indicative, providing a rough order of magnitude of the aggregate food deficit/surplus situation by commodity.

2) Per Capita Availability:

When 1988/89 per capita availability is converted from kilos into calorie equivalents, the seven commodities included in the assessment provided 1,702 calories/person/day. The FAO estimates that these commodities represent 72% of total consumption; accordingly, average per capita availability in Guinea is estimated at 2,364 calories/day. Per capita availability is a rough measure of what is available for consumption in a given year, however, and does not address the question of actual consumption or caloric intake at the level of the individual. Although availability in Guinea appears to be above the recommended FAO/WHO requirement of 2,200 calories/person/day, it should also be remembered that availability is an average figure; adequacy on an average basis masks large disparities in consumption by region, income group, and season.

3) Food Aid Rice: Measures to Minimize Disincentive Effects on Local Rice Production.

There is growing concern on the part of donors and the government that the influx of cheap rice imports is creating a disincentive to local rice production. Increasingly, imported rice is reaching markets in the interior of the country where it sells for less than locally produced rice. The existence of lower priced imports, particularly during the harvest period, discourages farmers from investing in domestic rice production. In past years, taxes/duties on commercial rice imports have not been applied to food aid rice; in addition PL 480 rice has consistently arrived in-country in the Fall (October-November) at a time when domestic rice is being harvested. Measures to minimize possible disincentive effects of food aid rice imports on local production include:

-- Appropriate pricing: applying the same level of taxes/duties to commercial and food aid rice imports.

-- Timing of food aid deliveries to coincide with the beginning of the soudure (June) rather than with the principal rice harvest in the Fall.

NOTES

(1) FAO, Food Supply Situation and Crop Prospects in Sub-Saharan Africa: Special Report, Special Report, (FAO/GIEWS: Global Information and Early Warning System on Food and Agriculture Rome: October 1989), and FAO, Food Balance Sheed: Guinea, (FAO: Rome, 1984).

(2) Banque Centrale de la Republique de Guinee, Bulletin Trimestriel d'Etudes et de Statistique, No 7. Data based on MARA estimates, (Republique de Guinee: Septembre 1988), p 3.

(3) Banque Centrale. Seance hebdomadaire du marche aux encheres de l'annee 1989, No. 1075/CH/N'FC/OKT, Republique de Guinee, November 1989.

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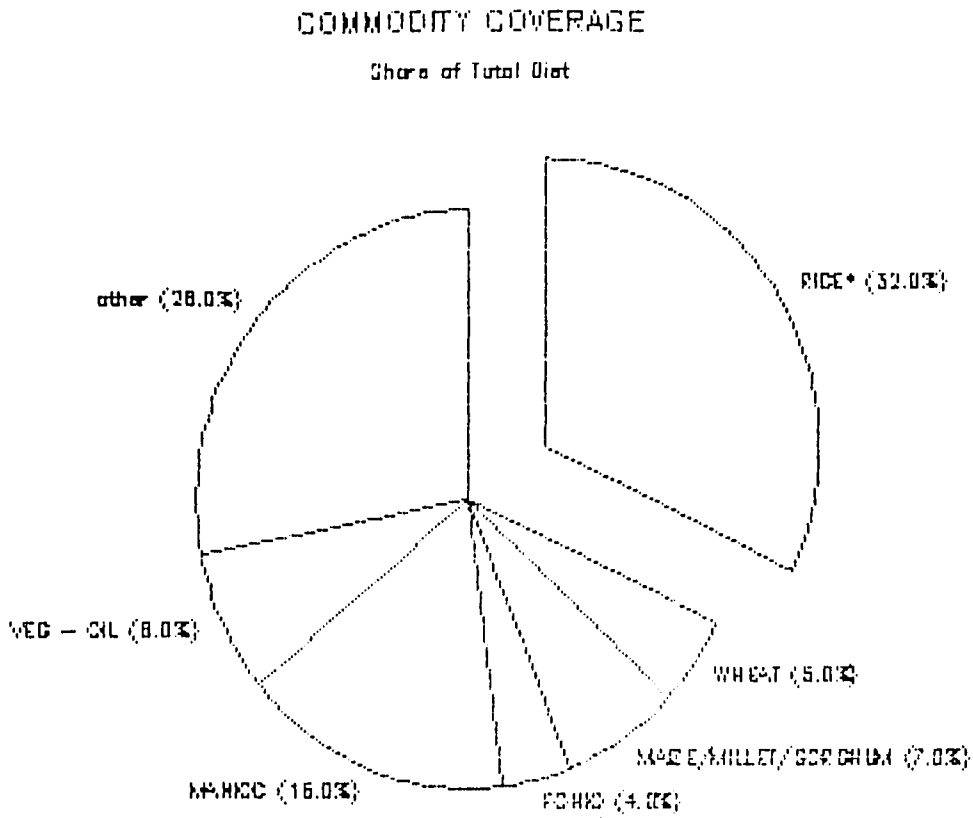
USAID. An Evaluation of United States Food Aid in Guinea. USAID/Conakry, August 1987.

World Bank. Guinea: Agricultural Sector Review. The World Bank, Washington, DC. April 15, 1984.

FIGURE 1:


COMMODITY COVERAGE
Share of Total Diet
RICE* (32.0%)
other (28.0%)
VEG — OIL (8.0%)
WHEAT (5.0%)
MAIZE/MILLET/SORGHUM (7.0%)
MANIOC (16.0%)
PORK (4.0%)

GUINEA:

TABLE 3:

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TECHNICAL COEFFICIENTS:

COMMODITY	CALORIES/ UNMILLED KILO	MILLING EXTRACTION RATE	SEED USE	FEED USE	POST HARVEST LOSSES	SHARE IN TOTAL CALORIE INTAKE
RICE, (PADDY)	3530	0.65	0.05	--	0.15	0.32
WHEAT	3320	0.72	--	--	--	0.05
MAIZE	3570	0.85	0.03	--	0.12	0.04
MILLET/SORGHUM	3430	0.83	0.02	--	0.15	0.03
FONIO	3300	0.65	0.03	--	0.12	0.04
MANIOC	1490	0.65	--	0.05	0.20	0.16
VEGETABLE OIL	8810	0.90	--	--	--	0.08

DATA SOURCES:

COEFFICIENTS:

1) Rice: MARA, (MINISTERE DE L'AGRICULTURE ET DES RESSOURCES ANIMALES).

2) Other Commodities:

i) MER: FAO, Technical Conversion Factors for Agricultural Commodities: Guinee, (FAO: Rome, 1972)

ii) Other Non-Food Uses: Estimates based upon
-- FAO, Food Balance Sheet: Guinea, (FAO: Rome, 1984), and
-- MARA/Conakry, Guinea.

SHARE IN TOTAL CALORIE INTAKE:

FAO, Food Supply Situation and Crop Prospects in Sub-Saharan Africa: Special Report, (FAO/GIEWS: Global Information and Early Warning System on Food and Agriculture, October 1989), and FAO, Food Balance Sheet: Guinea, (FAO: Rome, 1984).

GUINEA:

TABLE 4:

FOOD NEEDS ASSESSMENT:

AREA CULTIVATED BY REGION AND CROP, (HECTARES): 1987

CROP	GUINEE MARITIME	MOYENNE GUINEE	HAUTE GUINEE	GUINEE FORESTIERE	AREA BY CROP
RICE	117000	54000	188000	188000	547000
MAIZE	26000	68000	29000	18000	141000
FONIO	--	--	--	--	450000
MANIOC	32000	27000	36000	12000	107000
GROUNDNUTS	39000	46000	43000	18000	146000

YIELDS PER HECTARE, (WITHOUT FERTILIZER):

CROP	KILOS PER HECTARE
RICE:	
Riz pluvial	600 - 900
Riz de plaines	700 - 1100
Riz bas-fonds	700 - 1400
Riz mangrove	1000 - 15000
Irrigue	1000 - 3000
MAIZE	800 - 1500
MILLET	400 - 700
SORGHUM	500 - 800
FONIO	300 - 700
MANIOC	4000 - 10000

DATA SOURCE: MARA, MINISTERE D'AGRICULTURE ET DES RESSOURCES ANIMALES

GUINEA: TABLE 5:

FOOD NEEDS ASSESSMENT: 1989/90

FOOD CROP PRODUCTION BY REGION:

REGION	CROPS CULTIVATED	ANNUAL RAINFALL (millimeters)
GUINEE MARITIME	Rice: Mangrove/Swamp	2,000 - 4,000
	Rice: Rainfed	
	Maize	
	Groundnuts	
	Fruit	
MOYENNE GUINEE	Fonio	1,500 - 2,000
	Rice: Rainfed	
	Manioc	
	Maize	
	Millet/Sorghum	
	Fruit/Vegetables	
HAUTE GUINEE	Rice: Flood Recessional	1,300 - 1,700
	Manioc	
	Fonio	
	Maize	
	Millet/Sorghum	
GUINEE FORESTIERE	Rice: Rainfed	1,700 - 3,000
	Manioc	
	Groundnuts	

DATA SOURCE: The World Bank. Guinea: Agricultural Sector Review, April 15, 1984.

GUINEA:

TABLE 6.1

COMMERCIAL RICE IMPORTS BY MONTH (OCTOBER 1988 - SEPTEMBER 1989).

DATE	IMPORTS (Metric Tons)	IMPORTER
OCTOBER 1988	9202	S.C.F.
	12000	SATGUI
	4198	S.I.C.
NOVEMBER 1988	13000	SATGUI
	9495	BALLY ET FILS
DECEMBER 1988	11000	GOG
	7000	S.C.F.
JANUARY 1989	5365	S.C.F.
	11000	S.I.P.
	7000	S.I.C.
	9620	BALLY ET FILS
FEBRUARY 1989	12000	BOBO
MARCH 1989	10000	S.C.F.
APRIL 1989	13300	BALLY ET FILS
MAY 1989	18136	SAFIE
JUNE 1989	8000	SAFIE
	7100	BALLY ET FILS
JULY 1989	--	--
AUGUST 1989	22000	S.I.P.
	2000	BALLY ET FILS
	15000	S.C.F.
	10000	S.I.C.
	6000	SOCOPRESS
SEPTEMBER 1989	8137	SAFIE
	5000	OMAR TALEB
TOTAL COMMERCIAL IMPORTS	235553	

DATA SOURCE: MINISTERE DE L'INDUSTRIE DU COMMERCE ET DE L'ARTISINAT
DIRECTION NATIONALE DU COMMERCE, (Novembre, 1989)

GUINEA:

TABLE 6.2

COMMERCIAL RICE IMPORTS BY TRADER (OCTOBER 1988 - SEPTEMBER 1989)

TRADER	IMPORTS (Metric Tons)	SHARE OF TOTAL IMPORTS (%)
BALLY ET FILS	41515	0.18
BOBO	12000	0.05
GOG	11000	0.05
SAFIE	34273	0.15
SATGUI	25000	0.11
S.C.F.	46567	0.20
S.I.C.	21198	0.09
S.I.P.	33000	0.14
SOCOPRESS	6000	0.03
OMAR TALEB	5000	0.02
TOTAL IMPORTS:	235553	1.00

DATA SOURCE: MINISTERE DE L'INDUSTRIE DU COMMERCE ET DE L'ARTISINAT
DIRECTION NATIONALE DU COMMERCE, (Novembre, 1989)

GUINEA: FOOD NEEDS ASSESSMENT, (1989/90) TABLE 7:

RETAIL RICE PRICES: JUNE 1989

CITY/COUNTRY	PRICE/KILO (DOMESTIC CURRENCY)	PRICE/KILO (U.S. $)	PRICE/KILO (GUINEAN FRANC: G.F.)
Conakry GUINEA	210.00 F.G.	0.35	210
Freetown SIERRA LEONE	13.60 LE	0.30	179
Nouakchott MAURITANIA	35.00 UM	0.47	280
Dakar SENEGAL			
(Entier)	200.00 CFA	0.63	375
(Brisure)	130.00 CFA	0.41	244
Bamako MALI	216.00 CFA	0.69	411
Bissau GUINEA-BISSAU	1100.00 PG	0.72	428

NOTE: 1 U.S. $ = 595 F.G.

DATA SOURCE: UNDP/UNCTAD: Conakry, November 1989

MARKET FOOD PRICES:

TABLE: 8.2

CONAKRY: November 1989

COMMODITY	PRICE (FG/Kilo)
RICE:	
Imported	260
Imported: PL480	240
Domestic	400
WHEAT FLOUR:	
	160
VEGETABLE OIL:	
Imported	600 - 900
Local (Palm Oil)	600

DATA SOURCE: Informal market survey, (November 1989).

NOTE: The 20 GF price differential/kilo between imported and PL480 rice is attributed to quality differences. Urban consumers note that the PL480 rice, (riz caroline), does not provide as much bulk per kilo when prepared/cooked as other types of imported rice.

ADDITIONAL TABLES

FNA Template - General Data

GENERAL DATA REPORT

Food Needs Assessment: GUINEA

Consumption Year: OCT/SEPT

Current Year (year of analysis):	1989.90	Current Year Population:	6,907
Historical Years T-1:	1988.89	Historical Year T-1 Population (000)	6,758
T-2:	1987.88	T-2 Population (000)	6,613
T-3:	1986.87	T-3 Population (000)	6,470
T-4:	1985.86	T-4 Population (000)	6,331
T-5:	1984.85	T-5 Population (000)	6,195

Commodities Included in Assessment:	Base ==>	RICE	WHEAT	MAIZE	MIL/SORG	FONIO	MANIOC	VEG - OIL			
Caloric equivalent (calories/ UNMILLED kilogram)		3,530	3,320	3,570	3,430	3,300	1,490	8,810	0	0	0
/ Caloric equivalent of base commodity		3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530
= Base Commodity Equivalent Coefficient (.00)		1.00	0.94	1.01	0.97	0.93	0.42	2.50	0.00	0.00	0.00
Milling extraction rate (.00)		65%	72%	85%	83%	65%	65%	90%	0%	0%	0%

GUINEA:

FOOD NEEDS ASSESSMENT: 1989/90

RICE IMPORTS, (METRIC TONS): 1984 - 1990

YEAR	COMMERCIAL IMPORTS	FOOD AID	TOTAL
1984	67021	30400	97421
1985	86592	21400	107992
1986	68712	70353	139065
1987	58538	59346	117884
1988	162039	31429	193468
1989			

Commercial Imports: January - June, 1989 = 120554 MT

DATA SOURCE:

COMMERCIAL IMPORTS: MINISTERE DE L'INDUSTRIE DU COMMERCE ET DE L'ARTISANAT, DIRECTION NATIONALE DU COMMERCE, SECTION STATISTIQUE. (Novembre 1989)

FOOD AID: USAID/CONAKRY

GUINEA:

FOOD NEEDS ASSESSMENT: 1989/90

WHEAT FLOUR IMPORTS, (METRIC TONS): 1983 - 1989

YEAR	COMMERCIAL IMPORTS
1983	36530
1984	40157
1985	38196
1986	52037
1987	56125
1988	66711

Wheat Flour Imports: January - June, 1989 = 33402 MT

DATA SOURCE:

MINISTERE DE L'INDUSTRIE DU COMMERCE ET DE L'ARTISINAT.
DIRECTION NATIONALE DU COMMERCE, BUREAU D'ETUDES, SECTION STATISTIQUE.
(Novembre 1989).

GUINEA:

FOOD NEEDS ASSESSMENT: 1989/90

VEGETABLE OIL IMPORTS, (METRIC TONS): 1983 - 1989

YEAR	COMMERCIAL IMPORTS
1983	3094
1984	2308
1985	996
1986	3284
1987	9010
1988	8808

Imports, January - June, 1989: 4687 MT

DATA SOURCE:

MINISTERE DE L'INDUSTRIE DU COMMERCE ET DE L'ARTISINAT.
DIRECTION NATIONALE DU COMMERCE, BUREAU D'ETUDES, SECTION STATISTIQUE.
(Novembre 1989).

GUINEA: FOOD NEEDS ASSESSMENT, (1989/90) ANNEX 1:

Melanee Lowdermilk

I. CONTACTS:

1) FAO:

Bakary Rhissa, (Charge de Programme)

2) PROJET PNUD/FAO: RECENSEMENT NATIONAL DE L'AGRICULTURE (RNA).

Mr. Rakotomahefason

3) UNDP/UNCTAD:

Luis Reveco, (Conseiller en Politique et Planification, Ministere de l'Industrie et du Commerce).

4) WORLD BANK:

Hasan Tuluy, (Economist)

Jon Walters, (Economist)

Cherif Diallo, (Charge des Operations Agricoles)

5) USAID/CONAKRY:

Stephen Sposato, (Economist, Program Office)

Mamadou K. Diallo, (Economist, Program Office)

Loba Muhamady Kandey, (Program Assistant, Program Office)

Joe Hartman, (Agricultural Development Officer, ADO)

6) PROJET NUTRITION ET SECURITE ALIMENTAIRE, (CFNPP/USAID).

Carlo del Ninno, (Field Director)

7) MARA: MINISTERE DE L'AGRICULTURE ET DES RESSOURCES ANIMALES

Thierno Abdoul Barry, (Ingenieur Agronome, Division de la Protection des Vegetaux).

Bongaly Lenaud, (Division de la Production Agricole).

8) MINISTERE DE L'INDUSTRIE ET DU COMMERCE:

Mamadou Taire Balde, (Statistique).

Ibrahima Kalil Kouyate, (Prix).

9) DIRECTION NATIONAL DE LA STATISTIQUE ET INFORMATIQUE:

Bokar Cissoko, (Directeur National).

Oumar Diallo, (Chef: Division d'Enquete).

II. TRAINING IN FNA METHODOLOGY AND TEMPLATE/SOFTWARE:

1) MINISTERE DE L'INDUSTRIE ET DU COMMERCE:

Date: November 9, 1989

Participants: Mamadou Taire Balde
Mamadou K. Diallo, (USAID/Program)

2) MINISTERE DE L'AGRICULTURE ET DES RESSOURCES ANIMALES

Date: November 8, 1989

Participants: Thierno Abdoul Barry
Bongaly Lenaud
Mamadou K. Diallo, (USAID/Program)
Ibrahima Camara, (USAID/ADO)

GUINEA: POPULATION AND GROWTH RATE ANNEX 2:

Growth Rate = 2.8%

1983	5130000
1984	5273640
1985	5421302
1986	5573098
1987	5729145
1988	5889561
1989	6054469
1990	6223994

SOURCE: MINISTERE DU PLAN/DNSI

(Revised population estimates based upon 1983 Census)

GUINEA: POPULATION AND GROWTH RATE

Growth Rate = 2.8%

1983	5781014
1984	5942882
1985	6109283
1986	6280343
1987	6456193
1988	6636966
1989	6822801
1990	7013840

SOURCE: 1983 Census

GUINEA: POPULATION AND GROWTH RATE

Growth Rate = 2.2%

1984	6061366
1985	6194716
1986	6331000
1987	6470282
1988	6612628
1989	6758106
1990	6906784

SOURCE: WORLD BANK ESTIMATE: 1986

CONAKRY: POPULATION AND GROWTH RATE

Growth Rate = 5.0%

1984	737298
1985	774163
1986	812871
1987	853515
1988	896190
1989	941000
1990	988050

SOURCE: Cadre Demographique: Enquetes Socio-Urbaines.
Plan d'Urbanisme de Conakry 1987.

Food Needs Assessment

ANNEX 3: HIGH PRODUCTION SCENARIO

(5% increase over 1988 harvest)

CURRENT YEAR FOOD BALANCE — GUINEA

Current Year: 1989.90

Commodity	RICE	WHEAT	MAIZE	MIL/SORG	FONIO	CEREALS ALL	MANIOC	VEG - OIL	TOTAL	TOTAL BCE
Per capita consumption (UNMILLED kg/yr)	114.7	15.8	6.2	0.5	8.9	146.2	41.7	7.9	195.7	181.9
x Population (thousands)	6,907	6,907	6,907	6,907	6,907	6,907	6,907	6,907	6,907	6,907
= Total consumption requirement	792,482	109,231	43,059	3,269	61,589	1,009,631	287,923	54,284	1,351,837	1,256,524
Gross domestic food production	651,630	0	53,865	4,305	79,695	789,495	545,685	42,000	1,377,180	1,119,944
- Total non-food use	130,326	0	8,080	732	11,954	151,092	136,421	0	287,513	207,967
= Net domestic food production	521,304	0	45,785	3,573	67,741	638,403	409,264	42,000	1,089,667	911,977
- Net change in stocks	7,692	0	0	0	0	7,692	0	0	7,692	7,692
- Total food exports	27,692	0	0	0	0	27,692	0	0	27,692	27,692
= Domestic food supply	485,919	0	45,785	3,573	67,741	603,019	409,264	42,000	1,054,282	876,593
Total consumption requirement (from above)	792,482	109,231	43,059	3,269	61,589	1,009,631	287,923	54,284	1,351,837	1,256,524
- Domestic food supply (from above)	485,919	0	45,785	3,573	67,741	603,019	409,264	42,000	1,054,282	876,593
= Import requirement	306,563	109,231	(2,726)	(304)	(6,152)	406,612	(121,341)	12,284	297,555	379,932
- Total commercial food imports	276,923	92,639	0	0	0	369,562	0	9,778	379,340	388,454
= FOOD DEFICIT (UNMILLED)	29,640	16,592	(2,726)	(304)	(6,152)	37,050	(121,341)	2,506	(81,785)	(8,522)
x Milling extraction rate (m.e.r.)	65%	72%	65%	83%	65%		65%	90%		
= FOOD DEFICIT (MILLED)	19,266	11,947	(2,317)	(252)	(3,999)	24,644	(78,872)	2,255	(51,972)	(3,488)