

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT DATA SHEET

1. TRANSACTION CODE
 A = Add
 C = Change
 D = Delete
 Amendment Number _____

DOCUMENT CODE **3**

2. COUNTRY/ENTITY
 Republic of Zaire

3. PROJECT NUMBER
660-079

4. BUREAU/OFFICE
 AFR **06** Area Nutrition Improvement

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
 MM DD YY
09 30 87

7. ESTIMATED DATE OF OBLIGATION
 (Under 'B.' below, enter 1, 2, 3, or 4)
 A. Initial FY **82** B. Quarter **4** C. Final FY **84**

8. COSTS (\$000 OR EQUIVALENT \$1 =)

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(1,014)	()	(1,014)	(4,300)	()	(4,300)
(Loan)	()	()	()	()	()	()
Other U.S.	1.					
	2.					
Host Country		382.7	382.7		1,913.5	1,913.5
Other Donor(s)						
TOTALS	1,014	382.7	1,396.7	4,300	1,913.5	6,213.5

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	300	340				4300		4300	
(2)									
(3)									
(4)									
TOTALS						4300		4300	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
350 **390**

11. SECONDARY PURPOSE CODE
392

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
 A. Code **NUTR**
 B. Amount

13. PROJECT PURPOSE (maximum 480 characters).

The purpose of this project is to demonstrate cost-effective nutritional interventions capable of reducing by 10% the levels of acute malnutrition among children less than five years old in the Bandundu Region of Zaire within the next five years.

14. SCHEDULED EVALUATIONS
 Interim MM YY **09 84** Final MM YY **09 87**

15. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 941 Local Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

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17. APPROVED BY
 Signature *W. P. ...*
 Title **Director, USAID/Zaire**
 Date Signed MM DD YY **09 10 87**

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
 MM DD YY

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A. INTRODUCTION

This project is an outgrowth of former assistance in the nutrition sector of Zaire which created CEPLANUT, the National Nutrition Planning Center. Initial project considerations concerned whether or not to continue AID assistance to support efforts by the GOZ to plan actions in the nutrition sector of Zaire. Additional assistance would entail continued support for CEPLANUT, which to date, is the sole body in Zaire undertaking nutrition policy, planning and nutrition advocacy for the country.

The nutrition situation in Zaire is serious.

Nutrition planning alone will not remedy the problem.

Thus, the Area Nutrition Improvement project considered a design to intervene in the nutrition sector of Zaire in a tangible and measurable fashion, utilizing targeted nutritional interventions to ameliorate the nutritional status among the neediest population group in the country, children less than five years of age.

The sheer size of Zaire is a limiting factor in this project. The nine provinces of Zaire cover an area the size of the United States east of the Mississippi. Among the different provinces of the country, initial investigation found three areas most in need of nutritional assistance. The city of Kinshasa and its problems with urban poverty and food availability was one area. Another was the Kivu province near the Uganda border, where high rates of malnutrition in children have been reported. Finally, the Bandundu province was identified, both from CEPLANUT actions in the region and other projects which have noted high levels of malnutrition among children less than five years of age.

After assessing the considerations mentioned above, a project design was tailored toward a two fold approach to address the nutrition problem in Zaire. On one level, project assistance will support the actions of CEPLANUT on a national level to undertake nutrition planning and policy activities. CEPLANUT will also be assisted to work in areas where it has shown an expertise in the past, to serve as a center for the collection and analysis of nutritional data in the country, to undertake operational research in the nutrition sector, and to develop food and nutrition educational activities throughout the country.

On another level, this project is designed to tangibly reduce malnutrition in the Bandundu region of Zaire. If this project is successful, lessons learned will enable future assistance to extend throughout the country. The region of Bandundu was chosen as a project site for a variety of reasons. First, Bandundu is close to Kinshasa and will permit a greater ease of operations. The proximity of Bandundu to Kinshasa will also have an effect on the capital itself, for actions that improve agricultural production in Bandundu will be felt in Kinshasa given that Bandundu is a primary food supplier to the capital. Secondly, Bandundu has been the site of other CEPLANUT operations and the National Nutrition Planning Center has a number of contacts and working relationships in the region. Finally, other AID and donor agency assistance operating in Bandundu present a favorable situation for the planning and coordination of actions in the nutrition sector of the region that go beyond the scope of this project.

Collectively, actions stemming from assistance to CEPLANUT at the

national level and actions undertaken in the region of Bandundu under this project will be oriented towards developing a demonstrated cost-effective process of integrated nutrition planning and effective nutrition interventions that will reduce by 10% the levels of acute malnutrition among children less than five years of age in the Bandundu region of Zaire within the next five years.

B. BACKGROUND

1. The Problem

a. General

The nutrition problems of Zaire are hardly novel. On the contrary they are all too distressingly familiar, whether in the context of Zaire, Sub-Saharan Africa as a whole, or the third world tropical countries in general. The problems are as easily identified as the solutions are elusive: inadequate per capita availability of food; poor comprehension of the principles of nutrition; endemic infectious disease of every kind leading to repeated episodes of illness interfering with absorption of the nutrients that are consumed and increasing nutritional requirements; food taboos surrounding pregnancy and childbearing leading to denial of some of the most protective foods to those most in need and, most intractably, a growing population combined with declining

¹Dr. Sheila Pereira of the Christian Hospital in Tanjore, S. India, one of India's leading nutrition researchers, once estimated that a typical S. Indian pre-schooler might have minimum daily requirements of 50-75% more than FAO determined to allow for malabsorption. Dr. Jack Sexton of the USAID anti-malaria team in Zaire estimates that at least 80% of the population of Bandundu contracts malaria each year.

per capita food production.¹

In turn, there is increasing reliance on North America to offset world food deficits. The USDA recently estimated that total U.S. exports of all grains in 1981 will exceed 110 million metric tons, or about one-fifteenth of world production. Zaire is currently importing about 170,000 tons of wheat and about 150,000 tons of corn a year. A wide variety of other foodstuffs are imported in smaller quantities. And there is little reason for optimism that all these problems are on their way to early solution.

In this generally gloomy picture, there are some indications that Zaire's nutrition problems are of a particularly difficult order. For example, the ubiquitous "NCHS Standards" for anthropometric measurements of children provide a recognized benchmark for comparisons.

Under-Five Malnourishment: Under 80% Weight for Age
(NCHS Standards Selected Countries)²

Togo	19
Cameroon	20
Liberia	21
Egypt	22
Lesotho	23
Sierra Leone	25
Haiti	30

The list above includes some countries usually considered to be among the world's poorest. However comparative Zairian figures suggest even lower nutritional levels. Estimates of the number of malnourished

¹The World Bank (IBRD) recently estimated for sub-Sahara Africa as a whole, per capita production of foodstuffs is currently declining at the rate of 1% per capita per year. Quoted in the "International Herald Tribune", August 1981. The GOZ Department of Agriculture has estimated an increase in the "national protein gap" of 33% between 1970 and 1980. DOA: Food Balance Sheet.

²Data furnished by Dr. Jesus Rico-Velasco, National Nutrition Planning Center, Kinshasa, 1980."

children under five who are under 80% weight for age¹ reflect the dimensions of the problem:²

Kinshasa	39%
Popkabaka	65%
Kivu	57%
Bulungu/Bagata	56%

The group of undernourished children fall into 2 main types: those who are chronically malnourished and those who are acutely malnourished. The degree of malnutrition within each category can range from mild to severe.

There are an estimated 350,000 chronically malnourished children in the Bandundu region alone. These are children whose growth is stunted as reflected in a low height for their age. Chronic under-nutrition is the cumulative effect of continuous calorie and protein shortages in the child's diet.

Acute malnutrition which is defined as low weight for height or wasting is undernutrition of a short term nature. It is estimated that 80,000 children under 5 suffer from acute malnutrition in Bandundu, although the prevalence seems to vary widely from sub-region to sub-region and likely has a seasonal pattern.

While both types of malnutrition are measurable and controllable, acute malnutrition has been selected as the primary indicator of project progress. Acutely malnourished children are at a higher risk of death than chronically malnourished ones. Acute malnutrition is measured by comparing the height for weight, two objective body measures.

¹The measure of weight/age is a general indicator of groups of children who are chronically malnourished (stunted) and those who are acutely malnourished (wasted).

²Kinshasa: National Nutrition Planning Center (NNPC) 4/80
Popkabaka: NNPC 1/81
Kivu: CEMUBAC Annual Report 12/80
Bulungu/Bagata: FAO 10/80

This project aims to reduce the levels of acute malnutrition, as documented in the baseline survey, by 10%.

On balance, the data available argue that Zaire's malaise is severe, even by the standards of the LDC's. For example, FAO's food balance sheet for Zaire (1977) estimated about 1844 calories per person per day in total food available, or about 80% of FAO's recommendation of 2300 calories per day. The protein picture was proportionately worse, with an apparent supply of only about 50% of FAO's recommended requirements.¹ The nutrition problem already was severe ten years ago, when the Institute for Economic and Social Research survey of 1,471 respondents in Kinshasa found only 14% meeting daily protein and calorie requirements. As the table below shows, there is evidence that the picture continues to worsen:

Malnutrition Related Morbidity and Mortality Among Under Six Year Olds Admitted, Mama Yemo Hospital (Kinshasa)			
	1971	1973	1977
Primary Diagnosis of Malnutrition:	5%	9%	19%
Secondary Diagnosis of Malnutrition:	11%	18%	30%
Mortality for Admissions	15%	20%	36%

Food balance sheets are useful at the macro-level, but they do not underline inequalities of distribution of an already inadequate supply. For example USAID estimated in 1974 that 25% of the Kinshasa population consumed 50% of the available food, thus pushing consumption for the bottom 75% down sharply.²

¹Some 40 grams per person per day against a recommended 80. The greater protein deficit presents a particularly intractable problem. In many poor countries, India typically, the calorie gap is the larger (Calories 35%, protein 15%). Thus proportionate increases in foods already being grown and eaten would automatically tend to solve, both problems; but in Zaire changes in the mix of foods will have to take place as well.

²USAID Project Paper for 660-0054 project (7/74).

b. Bandundu

The Bandundu Region of Zaire will be the target area for project activities. The region is situated immediately South and East of Kinshasa and supports a population of about four million in an area only slightly smaller than France. Bandundu is composed of three sub-regions. The largest, Kwilu, has about 2.2 million or 55% of the regional population. Together with southern Kasai Occidental and the central Kivu sub-regions, Kwilu nutritionally speaking, generally is considered to be among the most deficient of major areas in Zaire. A recent FAO Study in Kwilu determined that residents consumed only about 1700 calories per day on the average, compared to nearly 1850 nationally.¹ Protein availability was proportionately even less.

The same study included a representative sampling of weights among children under three in two zones, Bulungu and Bagata. 56% fell below 80% on the Harvard Standard, with the proportion of malnourished increasing with age. There is some evidence that the situation in Bandundu may even be worsening. Since November 1978 the National Nutrition Planning Center has been sampling some 1800 children under five in Popokabaka. This work shows that the proportion of malnourished (under 80% on the Harvard Scale) has slowly advanced from 55% on the first round in 1978 to 65% according to the last data which is available (January 1981).² It should be noted, however, that there is a paucity of data describing the extent and severity of malnutrition in Bandundu. While complete dynamics of the nutrition situation are not fully understood, observation and field reports suggest the following factors are important:

¹FAO Rural Household Survey, Kwilu (1980)

²It is believed that a possible cause contributing to this trend is the factor of increasing cost of foodstuffs.

1) Production Constraints

There are a variety of production constraints facing the farmers of Bandundu which ultimately impact on food production and nutrition. Three major categories have been identified: natural, infrastructural, and incentive.

a) Natural Constraints

1. Soil Quality and Plant Disease: The poor soil quality of much of the Bandundu region coupled with a rash of plant diseases and insect decimation presents a severe constraint to improving food production. Disease, blight and insect decimation have severely crippled food crop production within the last few years. Manioc leaves and roots are often harvested before maturity either to avoid disease or satisfy consumer demand, thus decreasing the potential yield of the mother plant.¹ Poorer farmers are less likely to be able to afford such inputs as fertilizer, herbicides, or insecticides which could offset these factors. Therefore, the food production necessary to meet their nutritional needs is likely to be greater than their capacity. Specific interventions aimed at reducing this constraint which are considered reasonable within the life-of-the project are the financing and promoting of such crops as papaya, soybeans, and manioc. It is encouraged that manioc be prepared with maize or soybeans. However, this is a severe constraint and long-term research and work will be necessary before the constraint is significantly reduced.

2. Availability of Animal Protein: The scarcity of wild animals in the forest regions which were hunted historically by the men have contributed to the protein deficiency in the diet of much of the Bandundu

¹William Fiebig, PRONAM, Kikwit, 1982

population. This has placed a greater burden on food production to meet the protein requirements. Therefore, interventions which increase the protein content of the diet should be encouraged such as soybean production or the preparation of manioc with maize. Protein deficiency represents a crucial factor contributing to nutritional malnourishment; however, measures can be taken such as changes in food preparation practices or promotion of particular crops which will serve to reduce this constraint.

b) Infrastructural Constraints

1. Transport: The transport constraint is fairly complex. On the one hand, in many isolated areas of Bandundu, the evacuation of foodstuffs is hindered by a disintegrating road infrastructure.¹ In areas where food production has good potential, production is weak due to a lack of demand. On the other hand, in areas where an adequate road infrastructure exists, especially near the only tarred road leading east to Kinshasa, Bandundu farmers are given to selling much of their production. One estimate for the Idiofa zone of the Kwilu sub-region, is that only 20% of all food grown is consumed locally.² It appears that each area must be examined separately in order to recommend the optimal intervention. If foods are sold for money, then the purchase of nutritious foods should be encouraged. If foods cannot be sold to the market in the short term, the production of nutritious foods should be encouraged.

2. Extension: Throughout Bandundu, the lack of a trained agricultural extension service is noted. Where extension agents exist,

¹At independence, Zaire had 140,500 km of roads deemed in "satisfactory" condition. According to a recent World Bank report, only 25,000 km of roads in Zaire now are considered "satisfactory".

²Peter Mickelson, USAID Economic Consultant, 1982

they are generally underpaid or not paid at all. Lacking supervision and control, such agents support themselves by demanding "taxes" from local farmers who fail to comply with production quotas set by the government which they consider irrelevant.

3. Credit: Agricultural credit is almost non-existent for farmers in Bandundu, especially women. People are forced to make do with tools that they can't afford to replace. Basic hoes are so worn down that a double expenditure of effort is required to simply dig out a tuber of manioc.¹

4. Storage: In some areas of Bandundu, peanuts destined for consumption are inadequately stored at the household level. Losses are difficult to assess, but one estimate from the FAO considers that 20-30% of the peanut crop in Bandundu falls prey to insects and rats.

c) Incentive Constraints

This is a broad category which includes factors which influence the farmer's behavior in a way which works against nutrition improvement. Specific interventions can be designed to minimize their significance.

1. GOZ Price Controls: These price controls on food tend to favor urban consumers by fixing low farm gate prices which serve as a disincentive on local production.

2. Alternative Sources of Income: In the Southern regions of Bandundu, where production is probably weakest, diamonds have been discovered. Faced with the lure of instant wealth, men, women and children have given up tilling the soil for food and spend their days along riverbanks panning for diamond slivers. The effect is pernicious. Food prices in

¹Bob Gibson, OXFAM, Kikwit, 1982.

these areas are almost equal to those in central market in Kinshasa.¹

2) Consumption Constraints

Three major types of consumption constraints have been identified: purchasing power, dietary habits, and a lack of knowledge. Although the constraint of purchasing power may require a long-term solution, specific interventions can be designed to reduce the significance of a lack of knowledge or inappropriate dietary habits.

a) Purchasing Power

Perhaps the most salient consumption constraint in Bandundu is the declining purchasing power of inhabitants in the region. Inflation has averaged well over 30% in the region for the past five years, and one estimate holds that real rural incomes in the area have declined 75% in the last 10 years.² Thus, in areas where crop sales bring income to Bandundu families, money received is not re-invested in other edibles. Rather, more and more food is being sold for such things as buying soap, paying taxes or school fees.

b) Dietary Habits

Manioc (cassava) is the staple food crop in Bandundu. Corn, with about 800% as much protein (and a better amino acid quality) is not considered a prestigious food. Corn is rarely eaten in quantity in rural Bandundu, and almost never in the form of corn flour or meal. There is some consumption of corn on the cob immediately after harvest. Food habits, however, dictate that the majority of maize grown in Bandundu be sold and not consumed locally. In some urban areas such as Kikwit and Idiofa, corn meal is mixed with manioc flour.

1. Manioc in Suka-Tiembo sells for 125 Z/sack while 100 km to the north, a sack sells for 45 Z.

2. World Bank (IBRD) CODAIK Project Paper, 1982

c) Lack of Knowledge

What is known about food taboos for the Bandundu region indicates they generally have an adverse effect on nutrition. Among the Bateki and Bakongo ethnic groups, for example, pregnant women are forbidden many animal protein foods. Also, there seems to be a tendency among several ethnic groups to give sick children progressively less food as they get more ill.¹

In general, there seems to be a lack of knowledge among women in Bandundu about food values and the nutritional needs for themselves and their children in different age groups.

3) Health Constraints

a) Endemic and infectious diseases which worsen the nutritional status of children and to which the undernourished child is more vulnerable, are rampant in Bandundu. For example, it has been noted in Zaire that children hospitalized for Kwashiorkor have malaria, measles, intestinal worms and tuberculosis which severely affect young children in the region. Diarrhea is a frequent cause of infant morbidity and mortality. Anemia is common among pregnant and lactating women.

b) There is a general lack of preventive and promotive health services in Bandundu. Health units are plagued with shortages of medicines. Some private health centers are able to purchase medicines abroad or from local sources. The majority of state-run health centers, however, must rely on the DCMP, the government-controlled dispensing pharmacy of the Department of Health. Many believe that the DCMP is rooted in chaos and ineptitude. A Bandundu health center recently reported receiving a pair of rubber gloves from the DCMP as their monthly allotment of medicines.²

1. FAO food Taboo list, Louise Fresco, 1982

2. Chief Medical Officer, Suka Tiembo, 1982

c) Local Health centers are forced to turn over a large portion of their revenue from the sale of medicines to the government. Unfortunately, health centers often receive nothing in return. This lack of financial autonomy of local health clinics is a major stumbling block to the development of a viable health infrastructure in Bandundu and Zaire.¹

d) Personnel in Bandundu health clinics are poorly (or sometimes never) paid and generally underemployed, a description often used for government workers in Zaire. The health system has many older nurses on its payroll who should normally be pensioned. The government lacks the money to pay their pensions, and employs them to do nothing, and pays them rarely if at all. This blocks the opening of new positions to younger staff. Training in nutrition and preventive health services generally is deficient among most health clinic staffs in Bandundu.²

e) Given the shortages of medicines available through normal health services, small private pharmacies have sprung up around Bandundu and the rest of Zaire. These pharmacies charge high prices for drugs that are many times questionable and ineffective. Yet, many Zairians spend a large part of their disposable income on bad drugs rather than good food. The compulsive desire for medications, and the belief that the use of drugs will ensure good health, is ubiquitous in Zaire. Nothing has a higher priority than medicines (for any available cash), except paying funeral costs of a close relative. In turn, this tendency supports the poorly or seldom paid nurses (above), who, to live, must charge patients to administer the drugs the latter buy in pharmacies.

f) Traditional medicine, perhaps in many cases the best buy for the money, holds potential for some curative care. Severe deficiencies exist, however, in the diagnostic powers of the traditional healers. Many who diagnose effectively fail to utilize standard doses in their treatments.

4) In short, an imposing array of constraints on food production and consumption, and on health services and practices, combine to create the conditions for gross malnutrition in Bandundu. The economic, cultural and policy factors underlying these constraints present a formidable

1. Dr. Kabamba, CEPLANUT, 1982

2. Dr. Laruelle, Belgian Medical Officer (FOMECO), Kikwit, 1982

challenge to any effort to ameliorate the conditions.

2. Current Actions Addressing the Problem

a. General

Assistance in establishing the National Nutrition Planning Center (CEPLANUT) has been USAID's most direct institution-building involvement in addressing Zaire's nutrition problems to date. The Center's capabilities for data collection and processing; its dynamic stance as a nutrition advocate for the country; and its embryonic capacity for assisting other organizations involved in direct nutritional interventions, provide the starting point for the present project. Other USAID activities and other donor assistance also address nutritional concerns. Briefly, these include the following:

1) Agricultural Production and Marketing Interventions

a) A national project sponsored by the World Bank created the GOZ Office des Routes in 1973 with a mandate to repair and maintain the deteriorating major road infrastructure throughout Zaire. An auxiliary project, with monies funnelled through the Department of Agriculture, is just beginning to repair and maintain secondary farm-to-market roads throughout the country.

b) USAID currently supports an integrated rural development project in the Shaba region of the country (North Shaba Rural Development Project 660-0059). Since its inception, this project has increased corn marketing in the area eightfold.

c) Agricultural research and development is the aim of other USAID projects such as INERA Support (660-064), Cassava Outreach (660-0077) and Agricultural Sector Studies (660-0070). These projects seek to develop new varieties of seed adaptive to the Zairian milieu, and to strengthen the capacity of the Department of Agriculture to gather agricultural statistics and other data.

d) The need for protein production in Zaire is addressed in the USAID Fish Culture Expansion Project (660-0080). This project is implemented in various areas of Zaire with the assistance of the Peace Corps.

2) Food Consumption Interventions

a) Catholic Relief Service works in the Kinshasa, Bas Zaire and Shaba regions as the major delivery agent for Title II foodstuffs in Zaire. The CRS program is based upon nutrition education given to recipients of food aid to better their food consumption habits. The CRS/Title II strategy is being revised so that Title II is used only for rehabilitative or medicinal purposes. Other private organizations in Zaire, such as the Salvation Army and a variety of churches, make use of indigenous foods augmented with Title II food aid for demonstrations to mothers and feeding for their children under five, and offer programs in nutrition education.

b) Nutrition education materials have been produced in Zaire by a variety of sources, such as the center run by Dr. Courtejois in Bas Zaire, through the Peace Corps, and by other private groups. Road-to-health charts supplied by UNICEF and other donor agencies, are utilized in many private clinics, in an effort to improve the nutritional understanding of the Zairian population, and thus to better their food consumption behavior. Through non-formal education techniques in local markets and churches, some activities sponsored by the Peace Corps attempt to promote better food habits, and to address the need for protein in the Zairian diet.

3) Health Interventions

a) USAID currently implements two projects, Health Systems Development (660-0057) and Basic Rural Health (660-086), which are designed to develop low-cost, replicable techniques for delivering health services in rural Zaire. These projects work with the Zairian Department of Health and the ECZ network of mission groups to integrate preventive medicine practices into rural health clinics' services.

b) AID provides the GOZ with assistance in family planning. A recently proposed project, Family Planning Services (660-0094), will expand activities to 14 urban locations in the country.

c) USAID also sponsors an Endemic Diseases Control Project (660-058) which has established immunization programs for children under three in

most major cities in Zaire. Recent plans will incorporate this project into a scheduled umbrella project (CCCD). This project will aim at a three-pronged assault on endemic diseases. It will include the use of expanded vaccination coverage, the distribution of oral rehydration packets for diarrhea control, and malaria prophylaxis.

b. Bandundu

Recent development activities in Bandundu have been generated as a response to the severe nutritional problems that afflict the region. Efforts to address these problems are underway principally in the following sectors:

1) Agricultural Marketing and Production Interventions

a) Based on a two-year FAO baseline study, the World Bank recently created a Regional Development Authority (CODAIK) in Bandundu mandated to begin a process of integrated rural development in the region. CODAIK is authorized to work with both the governmental and private sectors to implement development activities. Major efforts are planned to repair and maintain farm-to-market roads in the region. CODAIK will also work to train local agricultural extension agents as well as provide them with supervision and support to do their work. Agricultural research and planning are also components of the CODAIK project, as well as assistance in livestock production.

b) PRONAM, an organization supported by the USAID Cassava Project (660-0077), has a regional base in Bandundu and is distributing improved varieties of manioc throughout the region.

c) Another USAID project, Agricultural Marketing Development (660-0026), will soon be implemented to stimulate food production and evacuation in the central area of Bandundu. This project will construct two major evacuation roads in the area and strengthen marketing structures.

d) The USAID-assisted Fish Culture Expansion project is operational in Bandundu with over 40 Peace Corps volunteers active in fish culture development throughout the region.

e) A rice production program (Programme Nationale de Rizculture) begun by the Chinese in Bandundu has extension agents and production stations throughout the region to increase the production of rice.

f) Private organizations sponsored by church groups and missions are working throughout Bandundu on small-scale agricultural development projects in livestock, farmer training and seed distribution. These agencies, especially those of the Catholic Church (Bureau Diocesan du Developpement in Kikwit) and the Protestant churches (Programme Agricole Protestant) have regional offices in Bandundu and undertake a host of agricultural activities through missions in the region.

g) OXFAM has a regional office in Kikwit and funds a variety of agricultural and health activities in Bandundu. The OXFAM staff in Kikwit will soon be expanded to include an agricultural advisor and a health advisor.

2) Food Consumption Interventions

a) Some efforts by mission groups in Bandundu center upon the introduction of milling machines to encourage local consumption of corn by facilitating the transformation process.

b) Food storage activities are being funded by OXFAM in Bandundu. These activities are oriented towards the effective storage of peanuts at the household level.

c) Nutrition education activities, especially in the hospital of Vanga (assisted under the Basic Rural Health Project 660-0086) and at the OXFAM-supported PPPK project in Kikwit are geared towards trying to change local food habits and taboos by demonstrating the use of indigenous nutritious food as a "medicine" to combat malnutrition.

d) Efforts by CODAIK are oriented towards food marketing schemes that try to ensure the preservation of an ample supply of food at the household level before marketing surplus food for sale.

e) Many missions have created church-operated stores to ensure stable prices for consumer goods, thus stabilizing family purchasing power. In some cases these stores also serve as marketing centers for agricultural production where a fair price can be obtained for agricultural produce.

3) Health Interventions

a) The USAID-supported Endemic Disease Control program, implemented through the Program Elargi du Vaccination (Expanded Program of

immunization), is operational throughout the Bandundu region. This project and the activities of the state and mission operated health centers supported by the Basic Rural Health and Basic Family Health Projects are perhaps the most viable health interventions currently undertaken in the Bandundu region.

b) Private health centers run by Catholic, Protestant and Kimbanguist churches in Bandundu are also active in the health sector. These mission-supported centers are the major deliverers of health care in the region. Many offer a limited range of preventive and promotive health services.

Even with the considerable efforts of the groups mentioned above, much remains to be done. The needs are enormous and the coverage is very uneven within this large region with its vast problems. It is anticipated that this project will compliment and increase the on-going activities through the BFNC to ensure positive nutritional impact.

3. The Institutional Setting

The National Nutrition Planning Center, CEPLANUT, a semi-autonomous unit of the Department of Health, was created with USAID assistance in 1977. CEPLANUT is mandated by governmental decree to:

- a) Coordinate agencies working in the nutrition sector to achieve multisectoral solutions to nutritional problems;
- b) Program nutritional activities and intervene where necessary to control the nutritional status of the country;
- c) Centralize and diffuse information relating to nutrition in the country;
- d) Evaluate nutritional activities operative in the country;
- e) Advise and formulate nutritional strategies for the country, under the authority of the Executive Council;
- f) Undertake studies relating to nutrition that go beyond the present capabilities of the Department of Health.

To date, CEPLANUT has mainly functioned as a data-gathering agent for the nutrition sector. As such CEPLANUT has been a strong advocate for nutritional concerns. It has undertaken studies on nutritional problems in

various regions of the country. However, as an institution, CEPLANUT is basically health-oriented and lacks a trained, multi-faceted staff capable of integrating agricultural concerns into effective nutrition planning.

CEPLANUT has served as an effective coordinator of nutritional activities, mainly in the realm of nutrition education. CEPLANUT also has produced nutrition education programs for local radio and television stations, although the quality and effectiveness of their messages sometimes has been questioned.¹

As an institution, CEPLANUT employs over 100 persons and has a central office in Kinshasa. It has a number of vehicles available for logistical support, although many are in a bad state of repair.

Most of CEPLANUT's activities are based in Kinshasa, where over 20 field agents are employed to monitor the nutritional status of the capital city's under-five population. Some training in nutrition education has been conducted by CEPLANUT staff for governmental and private health organizations in and around Kinshasa. CEPLANUT also employs 10 field agents in Bandundu, whose job is to monitor the nutritional status of the under-five population in the zone of Popokabaka.

The organization of CEPLANUT is three-fold. An administrative division supervises the everyday financial management of CEPLANUT. A studies division supervises the on-going collection of nutritional status information and data from other studies carried out by CEPLANUT. The intervention division supervises actions undertaken by CEPLANUT in the nutrition sector. These actions, are oriented towards nutrition education. The 18 full-time and part-time professional technicians who staff the three divisions at CEPLANUT all hold university degrees in nutrition-related fields.

Since the end of AID assistance in June 1981, there have been no expatriate staff at CEPLANUT. Some financing for CEPLANUT activities continues from GOZ/USAID counterpart funds. CEPLANUT has also managed to obtain a significant amount of operating capital from the GOZ national budget. Every year since its inception, CEPLANUT has gained more and more

1. For a more detailed evaluation of CEPLANUT activities, see USAID evaluation of CEPLANUT, April 1981.

governmental support. In 1978, CEPLANUT received 90,000 Zaires from the GOZ budget. In 1982 the GOZ contribution to support CEPLANUT will total 1.7 million Zaires--a significant increase, even allowing for inflation and devaluation.

Other than CEPLANUT, the GOZ lacks the institutional capacity to effectively manage substantially increased levels of development assistance in the nutrition sector. For example, the Department of Public Health has only nine hospitals to serve the four million inhabitants of Bandundu,¹ while the Department of Agriculture has only 63 fully trained agriculturalists for the 1.5 million inhabitants of the Kwilu subregion in Bandundu.²

Everywhere in Zaire, the governmental infrastructure is weak or has broken down entirely. Government workers are given little support to carry out their daily tasks. Selling medicine in health centers for example is one way to survive for government workers who may suffer delays of six months or more before receiving their pay checks.

The most effective development in Zaire is presently undertaken by private organizations working as de facto agents of the government. Churches and mission groups constitute a viable network for development assistance. These groups have organized systems of communication and logistic support among their members. Taken as a whole, this private network, albeit many times engaged in micro activities, seems to carry out the most effective interventions in the nutrition sector.

In the Bandundu region, for example, there are more than 70 private organizations involved in agriculture, health and/or nutrition programs. Taken together, this array of development forces constitutes a formidable resource, potentially at the service of nutrition improvement. These organizations are in place, with operational staffs, and they are presently functioning at some level of effectiveness.

Operationally, the capabilities of these private organizations should not be underestimated. A conference held by the Governor of the Bandundu region in January of 1982 called upon the private sector to aid

1. DOH, Bandundu, 1971

2. DOA, Kitwit, 1979

still further the development in the region.¹ Many of these private organizations, chiefly church and mission groups, are already de facto development agents of the GOZ. They are assuming more and more management of normal governmental operations in the nutrition sector, carrying out such diverse activities as the supervision of zonal health services² and the repair and maintenance of government roads.³

C. Detailed Project Description

1. Project Goal

The sector goal addressed by this project is the stated desire of the Zairian Government to eliminate acute⁴ malnutrition in the country by the year 2000. This is in accordance with WHO's comparable worldwide goal. To attain this goal for Zaire, a major commitment of human and financial resources will be required by the GOZ, as well as by concerned PVOs, international organizations and bilateral donors. In particular, this project will attempt to diminish present levels of acute malnutrition in one of the nine administrative regions of Zaire. If successful in demonstrating cost-effective means to achieve its objectives, project component activities and lessons learned might be expanded throughout the country by AID, GOZ and other donor assistance. The attainment of the sector goal of eliminating acute malnutrition will be measured by GOZ and private agencies health statistics, and by anthropometric surveys of nutritional status.

2. Project Purpose

The purpose of this project is to demonstrate cost effective nutritional interventions capable of reducing by 10% the levels of acute malnutrition among children less than five years old in the Bandundu region of Zaire within the next

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1. Conference Socio-Economique Regionale, Kikwit, January 18-21, 1982
 2. Vanga Mission Hospital presently supervises all government health centers in the medical zone of Bandundu.
 3. Suka-Tiembo Catholic mission supervises all road repair for the government in its zone.
 4. Acute malnutrition in this project is defined as the weight for height of a child less than 85% of NCHS standards.

five years and capable of self-sustaining action to further reduce malnutrition after project termination. This represents a realistic although challenging target since acute malnutrition has been increasing recently.

The principal vehicle for the purpose will be a strengthened and expanded National Nutrition Planning Center and the creation of a regional Food and Nutrition Council in Bandundu, mandated to carry out effective nutrition interventions throughout the region with project assistance. The project will assist both public and private organizations already operating in the Bandundu Region to cooperate and coordinate their actions in nutrition. With project assistance, these cooperating agencies will be able to strengthen and expand their nutrition activities. A baseline nutritional status survey will document the extent and severity of acute malnutrition in the Bandundu region at the outset of project activities. After five years, an end-line nutritional status survey will document the degree of success of project activities in attaining objectives.

The project will support interventions judged likely to contribute significantly to the project purpose. The Bandundu outreach aspect of the project is essentially experimental; therefore, it is difficult to predict precisely the effects of activities on nutrition status. However, USAID and CEPLANUT will cooperate with field agents and PVO's who have extensive experience in working closely with the rural population in Bandundu. It is expected that the information/experience sharing aspect of the Regional council will be an important means for improving the effectiveness of project activities. In turn, the project will help those groups with limited resources to increase the scope of their outreach.

3. Project Strategy

This project will work at both a national and regional level in Zaire to assist existing organizations to effectively plan and implement interventions in the nutrition sector. Given the number and diversity of factors that influence nutritional status in Zaire, the strategy of this project will be integrative and multisectoral.

On one level, project resources will be utilized to strengthen the capacity of the National Nutrition Planning Center (CEPLANUT) to monitor the nutritional situation of Zaire, to plan effective nutritional strategies and interventions and to maintain its role as the nutrition advocate in the country. CEPLANUT will also undertake a series of activities related to food and nutrition training and the development of nutrition education materials for the country.

On another level, project assistance will be used to carry out nutritional interventions within the Bandundu region of Zaire. A regional food and nutrition council will be created under the guidance of a satellite CEPLANUT office in Bandundu to coordinate, plan and implement effective nutrition strategies and interventions in the region. Existing institutions in Bandundu will be energized through project resources to undertake nutrition interventions capable of reducing by 10% the degree of acute malnutrition in the region. Bandundu will also be the target area for testing and implementing food and nutrition training programs and nutrition education materials developed by CEPLANUT at the national level.

A small group of nutrition planners cannot succeed in tackling the severe nutrition problems in this vast region. Neither can isolated groups with limited resources and inadequately trained field workers accomplish as much as a coordinated group with expert advisors.

CEPLANUT is charged with policy planning, advisory, coordination and support responsibilities on a national level. In order to be effective in guiding the ministries and non-governmental agencies, CEPLANUT must expand its capabilities and services. For this reason, the project will focus attention on building CEPLANUT to serve as a guide and resource to groups active in Bandundu. It is believed that CEPLANUT has advanced to the stage appropriate for a reasonable expansion of activities.

The approach chosen is a difficult one given the complexity of the problem and the challenging conditions in the national system and in the field. For this reason, a regional rather than a national expansion has been chosen. Also, the PVO's and MOH branches in the field will be used which will serve to minimize the required extension of CEPLANUT's institutional capacities. Nevertheless it is expected that the start-up of CEPLANUT's expansion will be slow in order to assure success.

4. Project Components

a. Assistance to the National Nutrition Planning Center

Project assistance to CEPLANUT at the national level will be oriented towards developing an institutional capability within CEPLANUT to collect and analyze nutritional data within the country. Project resources will be used to enable CEPLANUT to plan effective nutritional strategies and interventions applicable to the Zairian situation. CEPLANUT will be provided the means to expand its training and advisory role for nutrition education in Zaire with project resources aimed at developing training manuals and educational materials for use in the food and nutrition sector. Finally, CEPLANUT will be given the means to support ongoing operations and outreach activities. Project assistance to CEPLANUT will be the following:

1) Data Processing

Project resources will be used to purchase necessary equipment and software for CEPLANUT so that it can collect, store and analyze nutritional data for Zaire. Short-term training and technical assistance will be provided to train a central data processing staff to analyze nutritional data collected from this project. Data will be processed in the GOZ administrative computer located in the Department of Finance. Remote computer terminals will be purchased with project assistance so that CEPLANUT is assured constant access to the GOZ Finance computer. Given the unreliability of the telecommunications system in Zaire,

CEPLANUT will rent office space close enough to the Department of Finance to permit direct line linkage of CEPLANUT terminals with the GOZ Finance computer.

2) Nutrition Planning

Long-term technical assistance will be provided to CEPLANUT to develop within the institution a capacity to plan and implement effective nutritional strategies and interventions throughout Zaire. A nutrition planner will be assigned to CEPLANUT to work with CEPLANUT staff at all levels, and with other GOZ and private organizations to train and assist them in the nutrition planning process. Efforts will be made to work with other planning agencies, especially the agricultural policy analysis unit in the Department of Agriculture financed by USAID Agricultural Sector Studies project 660-0070, in order to develop a multi-sectoral basis for the collection and analysis of data relevant to the planning needs of Zaire.

Project assistance will also provide financing for various conferences, seminars and training workshops in the field of nutrition planning and related nutrition sector concerns. These events will be designed to sensitize and train governmental and private personnel working in the nutrition sector in Zaire about areas of interest relevant to their daily activities. One conference, seminar or training workshop will be convened each year by CEPLANUT throughout the life of this project. Five such events will occur and a total of five months outside technical assistance is envisioned to aid in their implementation.

These activities will be coordinated as much as possible with the AID-assisted Development Manpower Training Project 660-068. The training institution created under this project, CENACOF (Centre Nationale de la Coordination de la Formation) will be used whenever possible to provide facilities and training personnel.

The subjects to be treated by the conference, seminar and workshops will be determined every year by CEPLANUT in collaboration with AID, and other relevant GOZ and private organizations active in the nutrition sector. Illustrative subjects might be nutrition planning or food and nutrition policy analysis for high-, middle- and lower-level personnel, nutritional surveillance, the design and evaluation of nutrition interventions, or other subjects relevant to the nutrition planning process.

3) Food and Nutrition Training and Educational Materials Development

The purpose of this component is to adapt or create training and

educational materials which are effective and relevant to the Zairian situation. While some training manuals have been developed elsewhere for health and agriculture workers, there is a need to design an appropriate course or modules for Zairian field workers by drawing on existing materials and relating them to the local situation.

In addition, it is felt that primary school education should include practical lessons on food and nutrition. However, an adequate nutrition component for use in a primary school curriculum has not yet been developed in Zaire. This project will prepare a model curriculum to utilize the opportunity to improve community nutrition through youngsters attending school.

Thirdly, although community workers are charged with nutrition education responsibilities, they lack suitable materials which could help them increase the effectiveness of their lessons and guide them in the content. Nutrition education materials will be prepared using several media and will focus on priority messages, such as diet during pregnancy and weaning practices.

One long-term training/education specialist will be hired to assist CEPLANUT with development of these materials. This person will call on short-term technical assistance as needed for the various categories of materials. Field activities will be carried out by the training/education specialist and CEPLANUT central and field staff in Bandundu.

a) Nutrition Training Programs for Community Workers

Training packages, including teacher/trainer guides, will be created or adapted for three important categories of community agents:

- a. agricultural extension agents/community development workers
- b. auxiliary nurses in under-fives clinics
- c. village health workers/traditional birth attendants.

These key community agents, who have responsibilities and opportunities for affecting the nutrition status of the population, often do not have adequate training in practical nutrition concepts and skills.

Training for agricultural extension and community development agents will focus on the value of local foods in relation to nutritional requirements of families, improving food processing and storage methods, and the role of food crops, cash crops and animal production in satisfying food consumption needs. The auxiliary nurses will be taught child growth monitoring, nutrition education skills, and nutrition rehabilitation techniques. The training for traditional birth attendants and

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village health workers will include identification of children at nutritional risk, dietary counseling, particularly for the weaning period and during pregnancy, and oral rehydration therapy.

The training packages will be developed by CEPLANUT in collaboration with the appropriate ministerial departments and CENACOF (Centre Nationale de la Coordination de la Formation), the training institution created under the AID-assisted Development Manpower Training Project 660-068. These materials will be first pre-tested in Bandundu and then will be used in training workshops for field workers within the region. When the training packages have been perfected, they will be printed and made available from CEPLANUT for country-wide use. CEPLANUT's continuing role will be to guide interested agencies in the use of these materials for in-service education and to eventually integrate them into nutrition components of curricula in basic training institutions.

AID will provide short-term technical assistance to CEPLANUT for developing the training sets and initial training-of-trainers workshops. This project will also finance printing costs for 6,000 (2,000 each category) packages and 300 (100 each) trainer manuals to be used in the Bandundu Region. It is envisioned that at least six workshops for each category of workers will be held during the life of the project.

b) Applied Food and Nutrition Component for the Primary School Curriculum

A model food and nutrition component for a primary school curriculum will be designed, along with a teachers' guide. The content will be focused on applied food and nutrition topics, which will teach children the value of various local foods, how to grow vegetables, beans and fruit, how to preserve foods and simple health-related nutrition activities, such as preparing oral rehydration mixtures. Objectives and lessons will be elaborated for each primary school grade.

An estimated 72% of Zaire's children between the ages of 6 and 12 are enrolled in primary school. In Bandundu alone, an estimated 560,000 children attend primary school. Because children who attend school can influence their families by bringing home new ideas, they represent an opportunity to disseminate information in a cost-effective way. Teaching them practical aspects of nutrition can have a significant effect on family food availability and consumption behavior. In addition, primary school-age children often care for younger siblings and

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can thus influence their feeding and health status.

It is anticipated that the estimated 11,000 primary school teachers in the Bandundu Region will willingly cooperate with the project. They normally do not have sufficient teaching materials and thus will welcome the proposed nutrition lessons. Also, since many are not trained as professional teachers and do not receive in-service education, they are likely to be receptive to the learning opportunities available through workshop participation.

The applied food and nutrition component will be created by CEPLANUT, utilizing examples from other nations as references. The materials will be prepared in coordination with the Department of Education and with technical assistance provided by this project. CEPLANUT has been in close consultation with the Department of Education. The Department of Education is fully informed regarding the project and interested in collaboration with this project. A representative sample of primary schools in the three subregions of Bandundu will serve as test sites for incorporating the component into the existing curriculum. Teachers from these selected schools will receive training in techniques to use the materials and will be visited regularly by CEPLANUT field staff and Department of Education supervisors.

After one year of pilot testing, necessary revisions will be made and kits for 1,400 schools will be printed by CEPLANUT for widespread use in the Bandundu Region. CEPLANUT's role, as in the field working training, will be advisory and for training. It is anticipated that this component will be eventually integrated into the standard national curriculum.

c) Nutrition Education Prototype Materials Development

The third type of materials to be developed by CEPLANUT with the assistance of this project is for community nutrition education. A variety of media, including radio, will be utilized for disseminating nutrition information to families of the Bandundu Region.

Most nutrition/health experts agree that one major cause of widespread malnutrition in Zaire is informational. Families often do not know how to make the best use of available foods nor are they aware of the special needs of children and pregnant and lactating women.

Educational efforts to date in Zaire seem to be generally ineffective in changing behavior. The community workers are inadequately trained in teaching techniques, they lack suitable materials to attract their audiences' attention, and they often talk about nutrition theory rather than practical subjects.

It is proposed to select several priority nutrition messages based on baseline survey results and other data. Examples of likely messages would be related to weaning food practices, oral rehydration, diet during pregnancy, and planning for adequate food stocks to meet yearly needs. Flannel graph kits and flip charts will be developed on these selected topics. They will be pretested in Bandundu and when revised, printed and made available to field and clinic workers and school teachers in the Bandundu Region. Radio spots on the same subjects will be designed and broadcast in local languages from Kinshasa and Bandundu. CEPLANUT has worked with Radio Zaire in the past in creating radio nutrition programs, so this will build on that experience. Two thousand each of the flip charts and flannel graph kits and accompanying training manuals will be available for the Bandundu Region.

Traditional forms of communication, such as dramas and stories, will be explored for possible use in community nutrition education.

CEPLANUT's nutrition education subdivision of the intervention division will take the lead in creating nutrition education materials with collaboration from other indigenous health education specialists. Short-term technical assistance will be brought in as required. At the end of the project CEPLANUT will be able to provide copies of the printed materials to any interested groups who may request them and train people in their use.

4) Operational Research and Outreach

Project assistance will be given to CEPLANUT to undertake operational research on specific nutritional problems in the country. Specific areas of study will be determined every year after consultations with AID, GOZ governmental organizations and private institutions operating in Zaire. Research priorities will also center upon the needs of the Bandundu Food and Nutrition Council that will be created under this project. Operational research might be considered in the areas of goiter, growth charts and the development of a standard growth curve for Zaire, the effect of fruit seed distribution on the nutritional

status of children in urban centers, and other nutrition-related research topics.

Material and logistic support will be provided to CEPLANUT to carry out necessary field operations around the country, especially in Bandundu. Vehicles and motorcycles will be given to CEPLANUT to ensure a permanent outreach capability. Two-way radios will be purchased with project resources to establish a communications link between CEPLANUT and every province in Zaire.

b. Project Activities in Bandundu

Project resources will be concentrated in the Bandundu Region of Zaire in an effort to develop a process of regional nutrition planning and effective nutrition interventions capable of reducing by 10% the level of acute malnutrition among children less than five years of age in the region. Project activities will begin with a baseline nutritional status survey to measure the extent and severity of acute malnutrition in Bandundu. An endline survey will determine whether the project had a demonstrated effect after five years on reducing malnutrition. A satellite office of CEPLANUT will be created in Kikwit, a central town in the Bandundu Region. The CEPLANUT regional office will undertake field operations of CEPLANUT in BANDUNDU, pretesting and implementing the use of food and nutrition training packets and educational materials developed by CEPLANUT at the national level. The CEPLANUT regional office will also instigate a nutritional surveillance system throughout Bandundu capable of monitoring the nutritional status of the region. Finally, project resources will be used to establish a regional food and nutrition council composed of governmental and private organizations in Bandundu that currently undertake development efforts in the nutrition sector. Counterpart funds will be made available to members of the council to implement nutrition interventions targeted towards acutely malnourished children less than five years of age in the Bandundu Region. It is expected that project proposers will make contributions towards the expenses of the project.

1) Baseline and Endline Nutritional Status Surveys

These project activities will provide CEPLANUT with a trained staff capable of undertaking nutritional status surveys throughout Zaire. The baseline and endline surveys will collect and analyze simple nutritional data relevant to all development projects currently underway in Bandundu. The baseline survey will be carried out in concert with all development organizations working in the Bandundu nutrition sector.

An effort will be made to include these organizations in all phases of survey design, implementation and analysis. This process will lay the groundwork for the creation of a regional food and nutrition planning council. From the baseline and endline surveys, project success will be measured. Three months of outside technical assistance will be furnished from project resources to assist CEPLANUT with the design, implementation and analysis of the baseline survey.

Both the baseline and endline surveys will employ parameters of weight, height and age to measure nutritional status. The essence of the surveys will be to determine (with a degree of confidence of 95%) the nutritional status of children less than five years of age in the Bandundu Region. Since the projects' approach is experimental, it is particularly important to obtain adequate nutrition data to evaluate the project's impact on reducing acute malnutrition. It will also be useful to compare the results among different cooperating organizations that implement various interventions. The surveys will use a standard methodology and sampling techniques already developed and tested by AID in conjunction with the Center for Disease Control and the University of California at Los Angeles. A random sample of cluster sites will be drawn from the Bandundu region adequate in number to permit comparisons between the administrative and ecological subregions in the Bandundu area.

A standard questionnaire for the baseline study will be developed by CEPLANUT with the aid of technical assistance. This questionnaire will be discussed with local officials and development institutions throughout Bandundu to ensure local participation in the survey process. The core of the survey will be based on anthropometry, but other data that is simple, practical and not time-consuming to collect will be considered, in addition to the basic survey content. Examples of such data to be collected could be:

- a) Morbidity and mortality in children less than five years.
- b) vaccination coverage
- c) anemia

- d) 24-hour dietary recall or another suitable, simple method to obtain information on household consumption.
- e) duration of breast feeding
- f) incidence of fever measured by forehead thermometers
- h) incidence of parasitic infections
- i) socio-economic indicators of nutritional status
- j) food habits of pregnant/lactating women and their families.

Following the development and agreement upon a questionnaire, CEPLANUT, with the aid of technical assistance, will train field agents to undertake the survey work. Survey agents will be selected from existing CEPLANUT field staff. These agents are already trained in anthropometry and should require only a brief training period. Survey agents will pretest the questionnaire and revisions will be made to ensure viable data collection.

CEPLANUT Staff will supervise the collection of data in the field. Survey personnel will be tested throughout field operations to ensure standard and uniformly accurate anthropometric measurements.

All survey data will be analyzed in Zaire. Some technical assistance will be provided to CEPLANUT's data processing staff to train and assist them in the use of a computer methodology for survey analysis compatible with Zairian software.

Baseline survey results will be presented to national and regional authorities in Bandundu no later than six months after the beginning of survey activities.

An endline nutritional status survey of the same nature will be undertaken at the end of project activities to measure the degree of project success in improving the nutritional status of children under five years of age in the Bandundu region. This final survey will utilize the same sampling frame of the baseline survey, thus simplifying the sampling and logistical process of survey operations. No technical assistance is envisioned for the the endline survey.

2) Creation of a CEPLANUT Satellite Office in Bandundu

Project resources will be used to create a regional office for CEPLANUT in Kikwit, a central city in the Bandundu province.

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CEPLANUT regional office will be responsible for the supervision of all CEPLANUT activities in Bandundu. The regional office will be directed by a senior CEPLANUT representative responsible for managing all regional operations. Regional staff will be backstopped and supervised by periodic visits from CEPLANUT central staff.

Material and logistic support will be provided from project assistance to set up the regional office. Office supplies and materials will be furnished to maintain regional office activities. Office space will be rented with project assistance. A house will also be rented to provide lodging for CEPLANUT central staff and consultants when they work in Bandundu.

Initially, the regional office will coordinate the logistics and operations of the baseline nutritional status survey to be carried out in the Bandundu region. CEPLANUT central and regional staff will aid in the development of a survey instrument, identifying local governmental and private organizations in the region that undertake development activities in the nutrition sector and inviting them to participate in the survey design.

Following the baseline survey, the regional office will be staffed to supervise activities in the areas of nutritional surveillance, food and nutrition education and training and nutrition planning.

The details of the nutrition surveillance system to be created by this project will be described in the next section. The regional CEPLANUT office will set up this system and train field workers of cooperating agencies throughout Bandundu in nutritional surveillance techniques. The regional office will also produce periodic reports describing the nutritional status of the region which will be distributed to organizations in Bandundu. The regional office will be responsible for monitoring and evaluating the nutritional surveillance system in the region.

The regional office will also supervise the pretesting and implementation in Bandundu of the food and nutrition education and training component of this project that will be developed by the CEPLANUT central office. To this extent, the regional office will work with concerned

organizations in Bandundu to pretest food and nutrition education materials and training materials. The regional office will hold training workshops and seminars to implement the education component, and regional staff will be responsible for the distribution of finished materials throughout the region. Short-term technical assistance will be provided from project resources to aid in this process. The training/education specialist assigned to the CEPLANUT central office will also be expected to work at least half-time in the region. Finally, the CEPLANUT regional staff will be provided with a local hire technical assistant, probably chosen from terminating Peace Corps education volunteers, to assist in the implementation of these various food and nutrition training and educational activities.

The CEPLANUT regional office will become the permanent secretariat for a regional food and nutrition council to be created under this project. Regional office staff will identify prospective council members and schedule meetings of the regional food and nutrition council. The regional office will keep records of the council meetings and publish periodic reports of the council's progress. To this end, the CEPLANUT regional office will provide technical assistance to the regional council and its member organizations in nutrition planning and aid in the design and evaluation of effective interventions capable of reducing acute malnutrition in children less than five years of age in the region.

The long-term nutrition planner assigned to CEPLANUT's central office will be expected to work half-time in the Bandundu region, giving assistance to the regional office staff to undertake nutrition planning and the design and evaluation of nutrition interventions to be carried out in the region. A local-hire technical assistant, probably chosen from terminating rural development Peace Corps volunteers, will be assigned to the CEPLANUT regional office staff to assist in coordinating regional council activities and the design of effective nutritional interventions.

Four members of the regional office staff will undergo short-term training for their respective fields of work at training institutions in Africa. All regional staff will be provided practical on-the-job training before undertaking their assignments. This training will be structured in the form of informal internships for various staff members with organizations in Zaire that undertake activities relevant to the training needs of the individual regional staff members. The

content and duration of this training will be determined by the CEPLANUT central staff and the technical assistance team.

3) Nutritional Surveillance

The regional CEPLANUT office in Bandundu will be responsible for the administration of a nutrition surveillance system to be created with project assistance throughout the Bandundu region. Three months of outside technical assistance will be provided from project resources to aid in the design and implementation of this nutritional surveillance system. The nutritional surveillance system will monitor changes in the nutritional status of the Bandundu region and thus provide an ongoing measure of project impact. Eventually the nutritional surveillance system will become a tool for nutrition planning in the Bandundu region and provide the basis for an early warning system to prevent epidemic inadequacies of food consumption in the region.

The first activity in nutritional surveillance in Bandundu will be the baseline survey undertaken by this project. Following the survey, data from health centers in Bandundu which already have programs of infant weighing will be linked into a reporting system maintained by the CEPLANUT regional office. A simple method will be devised with the aid of outside technical assistance in collaboration with the regional food and nutrition council to be created by this project, whereby weight and age information for children already being collected in health centers in Bandundu will be channeled to the CEPLANUT regional office. The basic element of this system will be the extent of malnutrition (measured by weight for age less than 65% of standard) in children less than five years of age. The CEPLANUT regional office will collect and analyze this information on a monthly basis and publish quarterly reports to development organizations in the region describing trends in the nutritional status of children throughout Bandundu.

All data will be subsequently transmitted to the CEPLANUT central office in Kinshasa, where information will be stored in the CEPLANUT data bank for reference.

Following the initial phase of nutritional surveillance that will incorporate health centers that already weigh children, the CEPLANUT regional office will extend the surveillance system into areas not monitored by initial surveillance activities. Project resources will be used to provide scales and training for health centers that

wish to participate in the surveillance system. Training, scales distribution and supervision will be the responsibility of the CEPLANUT regional office with help from CEPLANUT/Kinshasa staff. CEPLANUT regional personnel will also monitor and supervise health centers that participate in the initial phase of surveillance operations to ensure a uniform and standard quality of data.

In addition to reports from participating health centers, the CEPLANUT regional office will extend the nutrition surveillance system to include other information relevant to describing the nutritional situation in Bandundu, and factors that influence it. This information will come from a variety of sources in Bandundu. Development projects such as CODAIK, AID-assisted projects in health and agriculture and private organizations on the regional food and nutrition council created by this project will be encouraged to contribute information into a surveillance system that will be enlarged to serve the planning needs of the regional council. Project resources will be used to provide materials and supplies necessary to implement this system. The system itself will be determined from priorities established by the regional food and nutrition council. Information that could be collected by such a system might be:

- a) income and expenditure data
- b) food production
- c) food crop under production
- d) local food prices
- e) rainfall data
- f) level of living indicators
- g) environmental indicators
- h) access to services indicators
- i) health-related indicators, such as birth weights, incidence of communicable disease, weight for height of primary school children

Quarterly reports of the expanded nutritional surveillance system will still be published by the CEPLANUT regional office. As the data base grows, more extensive and complex data will be analyzed by computer at CEPLANUT in Kinshasa. These reports will be enlarged to take the form of a newsletter on nutritional surveillance. The format of the newsletter will be determined by the regional food and nutrition council. The newsletter will also incorporate information gained from nutrition interventions in the region, describing projects and approaches to solving nutritional problems that have proved effective. The newsletter will be written by CEPLANUT regional staff and distributed to BFNC members. Articles will also be solicited from BFNC members and the CEPLANUT office in Kinshasa.

Nutritional surveillance supervision and training will be the responsibility of the CEPLANUT regional office. Technical advice and backstopping will be provided by CEPLANUT central staff and the technical assistance team.

The nutrition surveillance system established by this project in Bandundu will serve as a model for efforts on the national level by CEPLANUT to establish a nutritional surveillance system for the entire country. It is expected that certain surveillance activities, such as monitoring of malnutrition in children, will be the basis of CEPLANUT activities on the national level.

National-level activities in nutritional surveillance center upon the collection and analysis of data available around the country. This information will be collected, processed, analyzed and used for planning purposes by CEPLANUT staff in Kinshasa. Project reports describing the nutrition situation in Zaire will be published by the CEPLANUT office in Kinshasa.

4) Creation of the Bandundu Food and Nutrition Council (BFNC)

The Bandundu Food and Nutrition Council will be created to undertake regional nutrition planning and implement effective nutrition interventions throughout the Bandundu region. Members of the BFNC will be governmental and private organizations currently undertaking nutrition-related development efforts in Bandundu.

Several perspective members have been contacted and responded favorably to the concept of the council. As such members of the BFNC will be a viable network capable of planning and implementing nutrition activities in the region.

The CEPLANUT regional office will serve as a permanent secretariat for the BFNC, and CEPLANUT central and field staffs will be instrumental in providing the BFNC with the technical assistance necessary for a coordinated regional nutrition planning and intervention effort. As the project develops, a possible role for Peace Corps Volunteers to cooperate with CEPLANUT and the BFNC members will be explored, in such areas of liaison between participants groups providing direct assistance to specific interventions and the surveys and surveillance system.

There are more than 70 governmental and private organizations undertaking nutrition-related development efforts in Bandundu. Owing to the ecological and geographic diversity between the three subregions of Bandundu and the large number of organizations operating in the nutrition sector, the BFNC will be organized to permit members within the three subregions of Bandundu to meet together within their respective subregions once a year. At the end of each year a plenary session of all subregional BFNC members will be held in Kikwit.

CEPLANUT central and regional staff will lay the groundwork for the creation of the BFNC during the first year of project activities. The baseline nutritional status survey questionnaire will be discussed with all prospective BFNC member organizations in the region. This activity will offer organizations working within the nutrition sector in Bandundu a chance to comment on the survey instrument and also provide them with a way to piggy-back their own data collection needs on the surveys, if technically feasible. This initial forum will serve as the basis for the organization of the BFNC.

The baseline nutritional status survey results will be presented to the first plenary session of the BFNC at the end of the first year of project activities. Based on the survey results, the BFNC, with technical assistance from CEPLANUT, will design a regional strategy at this plenary session for reducing acute malnutrition affecting children less than five years of age in Bandundu, citing priority areas for nutritional interventions. A regional food and nutrition plan will also be developed by the BFNC at this plenary session with technical assistance from CEPLANUT which will serve as the basis for nutrition interventions to be carried out by BFNC members and financed through counterpart funds provided to this project.

Following the development of a regional nutrition strategy and a food and nutrition plan, subregional meetings of the BFNC will be held once a year in the three subregions of Bandundu. Subregional meetings will be oriented towards the development of effective nutrition interventions which the members of BFNC are capable of implementing to reduce the extent of acute malnutrition in children less than five years of age in the region. CEPLANUT regional staff, with technical backstopping from the central CEPLANUT office, will work with members of the BFNC at these subregional meetings to plan and design proposals for interventions to be financed by counterpart funds provided to this project.

Plenary sessions of the BFNC will be held once a year in Kikwit to discuss and evaluate actions carried out by BFNC members in the food and nutrition sector. All plenary and sub-regional meetings of the BFNC will be convened and organized by CEPLANUT regional field staff.

Plenary and sub-regional meetings of the BFNC will also be structured to permit a collaborative flow of information between individual council members. Member organizations will be invited to share ideas and perspectives they have found useful in their efforts to deal with malnutrition in Bandundu.

To this extent, development efforts already underway in Bandundu will profit from the creation of BFNC. The World Bank integrated rural development project, CODAIK, AID-assisted projects in health such as PEV, CCCD and Basic Rural Health; OXFAM-supported projects such as the PPPK effort in Kikwit, and AID agricultural activities like Agricultural Marketing and Development, Fish Expansion and Cassava Outreach will all be represented on the BFNC. The opportunity for representatives from these projects to meet together regularly within a regional nutrition planning context should stimulate the coordination of various project activities and thus reduce overlap and duplication of service.

Project assistance will support the operations of the BFNC, providing representatives of member organizations transport and lodging for BFNC meetings. Assistance to the CEPLANUT regional office will provide funding for a permanent BFNC secretariat.

5) Nutrition Interventions

Counterpart funds will be allocated at the beginning of every fiscal year of project activities by AID/Kinshasa to finance nutrition interventions in Bandundu. Proposals for nutrition interventions will be submitted to CEPLANUT by members of the Bandundu Food and Nutrition Council once a year at subregional meetings. These proposals will be solicited and designed with the assistance of the CEPLANUT regional staff and technical backstopping from CEPLANUT/Kinshasa.

Proposals will undergo an initial screening at the CEPLANUT field office in Bandundu and will then be transmitted to the CEPLANUT central office in Kinshasa. A review of the proposals will be done once a year by CEPLANUT central staff with the assistance of an advisory committee composed of a representa-

of the Governor's office in Bandundu, a representative of the Department of Plan incharge of counterpart funds, a representative of the Department of Health and a representative of the Department of Agriculture. Final decisions for funding,

however, will be decided upon by CEPLANUT in consultation with the AID-supported technical assistance team assigned to CEPLANUT.

Following this approval process, counterpart funds will be distributed to member organizations of the BFNC who have submitted proposals that are chosen to be financed. The disbursement of counterpart funds will be transacted by the CEPLANUT central and regional office administration.

Specific criteria for all proposals for nutrition interventions to finance will be drawn up by the BFNC with technical assistance provided by CEPLANUT central and field staff. All interventions financed by this project will be designed to have a demonstrable effect upon reducing acute malnutrition in children less than five years of age in the Bandundu region. Nutrition interventions will comply with the regional nutrition strategy and the food and nutrition plan developed by the BFNC and CEPLANUT following the results of the baseline nutritional status survey.

CEPLANUT field staff and representatives of the Bandundu Food and Nutrition Council will evaluate selected nutrition interventions once a year during the life of the project. Plenary sessions of the BFNC will discuss the evaluations among member organizations and modify BFNC actions in the food and nutrition sector as needed.

The following diagram illustrates the BFNC process: (See next page for diagram)

The nutrition interventions to be financed by this project are expected to be from the agricultural, health, and educational sectors as well as "traditional" nutrition activities. They will all be targeted to reduce levels of acute malnutrition in children less than five

The following diagram illustrates the BFNC⁻⁴³⁻

process:

Plenary Session
of BFNC

(Typical Project Year)

JAN FEB MAR APR MAY JUNE JULY AUG SEPT NOV DEC

Subregional BFNC
Meeting: Mai Ddombe

Implementation of
Nutrition Interventions
by BFNC Members

Evaluation of
Nutrition
Interventions

Subregional BFNC
Meeting: Kwango

Subregional BFNC
Meeting: Kwilu

Proposals for
Nutrition Interventions
Screened by CEPLANUT
Regional Office

Advisory Committee
Review and Allocation
of Counterpart Funds
by CEPLANUT Central Office

years of age in the Bandundu region. There will be two basic types of activities: experimental, where we are testing a new approach, and non-experimental, the expansion of those which have been demonstrated to work. Some illustrative nutritional interventions, based on the problems encountered with agricultural marketing and production, food consumption and health conditions in the Bandundu region discussed previously in this paper, might be the following:

a) Agricultural Marketing and Production Interventions

Women in Bandundu receive little assistance from governmental and private development projects in the area of agricultural marketing and production. It is the women of the Bandundu region, however, who are most involved in this sector. Benefits accrued by women through increased agricultural production and marketing should have a significant effect on their young children, since women have most of the responsibility for feeding the family and caring for their offspring.

Projects designed to increase the agricultural productivity of women might entail the distribution of disease-resistant manioc or agricultural extension aimed at helping women to increase their crop yields. Small tools could also be provided to women to increase their efficiency and agricultural productivity.

To date, efforts at increasing protein production have been oriented towards men and the development of fish ponds in Bandundu. Projects attempting to involve women in this field would have a beneficial effect on young children, especially if women were encouraged to fish their ponds daily for family consumption. Women could also be given

soya seeds or other locally available high protein seeds in an effort to stimulate protein production in the region.

In many urban areas of Bandundu, fruit production is discouraged due to a high incidence of theft. Women, however, could be given papaya seedlings on a mass basis to plant around their family courtyards. Fruit trees of this sort will produce in six months and with a plentiful supply in urban areas, theft would become insignificant. Young children would especially profit from this intervention, since they are often given fruit when it is available. Other fruits could include lemon, guava and avocado.

Pilot projects in different regions of Bandundu could be developed to create cottage industries in areas of moderate population density to produce and market low-cost local weaning foods for consumption by young children. Operational research for this intervention could be undertaken by CEPLANUT on a regional level and BFNC members could implement test sites in their respective subregions.

b) Food Consumption Interventions

In zones where acute malnutrition is shown to be prevalent by the surveillance system (i.e. a famine situation), BFNC members may support the use of Title II food for rehabilitative and medicinal purposes. Otherwise, the use of local, indigenous foods will be encouraged for supplemental feeding and the alleviation of malnutrition.

Efforts to increase the consumption of corn in the Bandundu region might be enhanced by projects designed to ease the difficult transformation process of pounding corn into flour. If more corn flour is consumed at the family level, children would most likely benefit, since corn is significantly higher in protein than cassava. The distribution of milling machines for corn could be considered as a possible nutrition intervention as well as the encouragement of other appropriate technology designed to aid in the food transformation process, such as rice threshers or squash seed dehullers for course, a significant source of protein in Bandundu.

c) Health Interventions

Interventions to consider in this area might be projects aimed at supplying health centers in Bandundu with a revolving stock of medicines to combat childhood disease, such as anti-malarial and de-worming pills. Initial stocks of medicines to treat common childhood illness would be given to health centers and then sold at cost to patients. Health centers in turn would take the money gained from the sale of medicines to replenish their supplies.

Interventions to control childhood diarrhea could be developed in conjunction with the CCCD/AID-assisted health project. The project will work in close collaboration with all AID funded projects referred to in this project paper. Oral rehydration packets could be distributed at cost to local pharmacies in the Bandundu region. The impact on reducing childhood diarrhea by using pharmacies as a distribution system could be evaluated as an alternative to the hospital and health clinic distribution system envisioned by the CCCD project.

Other health interventions that could be envisioned by this project might be designed to ameliorate sanitary conditions in the Bandundu region. Programs aimed at building latrines and constructing low-cost spring boxes to improve water sources would do much throughout the region to control endemic disease among children less than five years of age.

c. Nutrition Specific Interventions

"Traditional" nutrition interventions that can be supported include creation or expansion of nutrition rehabilitation centers. Such simple programs can be held on an in-patient or daily out-patient basis. They have the potential not only for saving seriously malnourished children, but also for educating their mothers at a moment when they are often susceptible to receiving new information.

Other nutrition activities may include financing start-up costs for village nutrition courses given by trained community workers, and creating community nutrition centers. Food demonstrations, child growth monitoring and other activities could be encouraged at these courses and centers.

d. Training Component

CEPLANUT, as a national planning organization charged with a number of functions touching several sectors, has need for professionals skilled in different aspects of nutrition. These specialties include: food and nutrition planning, public health nutrition, nutrition education, mass media communications, and nutrition surveillance. In addition, because of its role in data organizing and analysis, persons skilled in data processing are needed. Training programs for these areas do not exist at this time in Zaire.

In order to strengthen CEPLANUT and make it more effective in its advisory and planning roles, this project will emphasize staff training. Among the current CEPLANUT staff there are several nutritionists with basic degrees in nutrition from the University of Kinshasa as well as a few medical doctors. There is one medical doctor with an MPH who works part-time at CEPLANUT.

Three types of training are planned: in-service training, short courses, and degree programs. First, CEPLANUT will assign an appropriate counterpart to work closely with each long- and short-term technical advisor to ensure a transfer of skills. Each technician and consultant will be requested to focus on staff training in carrying out his or her assignment. To the extent feasible, seminars and workshops will be held for CEPLANUT staff by all technical advisors giving assistance to this project to upgrade knowledge and skills of their Zairois counterparts.

The second type of training will be short courses or study trips to other developing countries, other regions of Zaire or the U.S. for specialized instruction or learning programs. Six persons from CEPLANUT/Kinshasa and the Bandundu regional office will participate in courses or specially arranged study tours for the following skills: Nutrition planning, nutrition education and mass media, nutrition surveillance, and data processing. In addition, where individuals or groups exist in Zaire with particular expertise that is applicable to this project, e.g.,

community extension skills or nutrition surveillance, CEPLANUT field staff will be posted with them for a short "internship" period.

The third form of training will be education at the master's degree level. Nutritionists with solid in-depth training in three key areas are needed to reinforce CEPLANUT. The project will finance three participants for up to two years, and, if required, six months of English language training, to obtain a master's degree in nutrition planning, nutrition education, and public health nutrition. Excellent programs in international nutrition planning are offered by Cornell University, MIT, and Johns Hopkins University. Teachers College at Columbia University is suggested for both nutrition education and public health nutrition programs. Several other schools of public health offer nutrition specialization, including Tulane University, which already has established a relationship with CEPLANUT.

To the extent possible training will be staggered to avoid having too many people absent at once. Also, it is anticipated that technical advisors as well as AID will be involved in the selection of appropriate candidates for short- and long-term training.

e. Evaluations

Evaluations will be undertaken during the second year of project activities and at the end of the project to measure the success of attaining the stated goal of the project. A mid-term evaluation will assess the strengths and weaknesses of project activities and suggest recommendations for future direction. An end-of-project evaluation will draw upon the results of the endline nutritional status survey to measure the success of project activities to reduce acute malnutrition among children less than five years of age in Bandundu.

During the evaluations, intermediate program indicators will be selected according to factors included in the surveillance system. These indicators could include changes in weaning practices, maternal food consumption or anemia levels. Increases in the knowledge and skills of community health and agricultural workers could be measured as well.

5. Project Inputs:

a. USAID

AID will contribute a total of \$4.3 million over the five-year life of the project. These funds will be used to finance 108 months of long-term technical assistance in nutrition planning and nutrition education, pay salaries of two field coordinators for five years each, and fund 35 months of short-term consultancies. AID will pay costs of short- and long-term training, totalling \$252,000.

Project funds will also be used to purchase vehicles, motorcycles, office equipment, communications and data processing equipment, nutrition-related materials and supplies. AID will finance the midterm and final evaluation costs.

b. The Government of Zaire

The GOZ will continue to pay the salaries and other support costs for its staff at central headquarters. They will assign or recruit the personnel required for the Bandundu field office and support them. CEPLANUT

will rent facilities in Kinshasa for data processing and in Bandundu for a regional office and cover all operational expenses. GOZ funds will be used to finance all in-country training and meeting expenses under this project, as well as travel for its personnel. All consultant assistance from CENACOF and other government agencies will be provided at GOZ expense.

c. Members of the Bandundu Food and Nutrition Council (BFNC)

The government and private organizations who join the BFNC and collaborate with CEPLANUT will do so voluntarily. They will continue to pay salaries and support of their personnel when the project finances costs of interventions.

Finally, it is expected that facilities for BFNC meetings at the regional and subregional level will be offered by participating organizations.

6. Project Outputs:

The principal project outputs which will contribute towards realization of the project purpose are:

a. Improved nutrition planning capability within the GOZ and other agencies active in nutrition and related fields at the national and regional level in Bandundu.

b. A coordinated regional system of applied food and nutrition activities developed in Bandundu, which includes small-scale nutrition interventions, upgrading nutrition knowledge and skills of field workers and nutrition surveillance.

c. CEPLANUT's capacity strengthened to develop training programs and educational materials; to collect, store and analyze nutrition data; to undertake operational research; and to evaluate the effectiveness of nutrition interventions.

Rather than attempt to tackle acute malnutrition through direct contact with families, this project will work on several levels to strengthen the capacities of the institutions and field-workers responsible for combating undernutrition.

First, as described in the Project Components Section, considerable attention will be paid to assisting CEPLANUT to improve its nutrition planning capability. The long-term technical advisor will work closely with CEPLANUT staff. Annual seminars will be organized to upgrade skills of GOZ personnel in nutrition policy and planning. CEPLANUT will in turn work with the Bandundu Food and Nutrition Council (BFNC) to aid members in formulating nutrition interventions and strategies and evaluating their results.

Second, the BFNC will be created through this project as a mechanism for coordinating nutrition activities in the region. USAID and the GOZ will assist the members of BFNC, through the CEPLANUT regional office, to implement effective applied food and nutrition interventions in the Bandundu region.

In Bandundu, an estimated 450 community workers will receive practical nutrition training. A total of 8,400 primary school teachers will participate in workshops and receive materials to enable them to incorporate a nutrition component into their curriculum. Two types of nutrition education material will be made available to 250 field workers in the region, and radio messages targeted towards Bandundu residents will be broadcast. A nutrition surveillance system including regular feedback reports to all participating groups will provide ongoing information on the food and nutrition situation of the BFNC and assure data for measuring project progress.

Third, CEPLANUT as an institution will be strengthened in its capacity to advise and support agencies implementing nutrition-related activities. Most importantly CEPLANUT will be assisted through project resources to plan, develop, test and carry out training programs for a variety of community agents. CEPLANUT will also benefit from technical cooperation to design and field test a primary school nutrition component and nutrition educational materials.

CEPLANUT's role as a national planning and advocacy body will be strengthened with the creation of a central data processing unit.

This project will finance training and technical assistance as well as purchase necessary equipment to enhance CEPLANUT's capacities to

collect, store and analyze nutrition data. Project activities will also strengthen CEPLANUT's operational research and evaluation methods.

Project assistance will provide three members of CEPLANUT with long-term training in nutrition planning, public health and nutrition, and nutrition education. Short-term training will be provided for six members of CEPLANUT in the fields of data processing, nutrition planning, nutrition education, mass media, and nutritional surveillance.

Project 660-0079

Area Nutrition Improvement

Implementation Plan

5214

in Bandundu
(Continued)

<p>Purchase necessary monitoring equipment</p> <p>Extend surveillance system</p> <p>Publish quarterly reports in newsletter form</p> <p>Enlarge system to include complimentary indicators</p>		<p>X</p>	<p>X</p> <p>X</p> <p>X</p>	<p>→</p> <p>→</p> <p>→</p>	
<p>4. <u>Creation of Bandundu Food and Nutrition Council</u></p> <p>Identify participants</p> <p>Formulate regional strategy and food nutrition plan</p> <p>Hold annual meetings</p> <p>Hold sub-regional meetings</p>	<p>X</p> <p>X</p> <p>□</p>	<p>□</p> <p>□</p> <p>□</p> <p>□</p>			
<p>5. <u>Food and Nutrition Interventions</u></p> <p>Inform participating organizations</p> <p>Set up criteria for approval and funding mechanisms</p> <p>CEPLANUT advisory committee review</p> <p>Interventions funded</p> <p>Evaluation of interventions</p>	<p>X</p> <p>X</p>	<p>□</p> <p>X</p> <p>○</p>	<p>□</p> <p>○</p>	<p>□</p> <p>○</p>	<p>□</p> <p>○</p>

	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Long-Term T.A.</u>					
Nutrition Planner	X				→
Nutrition Education/Training Specialist		X			→
Field Education Coordinator	X				→
Field Food and Nutrition Coordinator	X				→
<u>Short-Term T.A.</u>					
Data Processing		X			→
Training Manuals		X			→
Primary School Curriculum		X			→
Nutrition Education Materials			X		→
Operational Research		X			→
Nutrition Surveys	X				→
Nutritional Surveillance		X			→
AD HOC	X				→

—————→ continuous
 - - - - -→ as required

<u>U.S. and Other African Training</u>				
<u>Central Staff</u>				
One person, data processing	X —			
One person, data processing	X —			
One person, masters in nutrition planning	X —			
One person, masters in public health and nutrition			X —	
One person, masters in nutrition education	X —			
<u>Regional Staff</u>				
One person, nutrition planning	X —			
One person, nutrition education and curriculum development	X —			
One person, mass media		X —		
One person, nutritional surveillance			X —	

Procurement Plan	1961	1962	1963	1964	1965
Vehicles	X				
Data processing equipment and materials	X	X	X	X	X
Two-way radios	X				
Office equipment and supplies	X	X	X	X	X
Nutrition surveillance equipment		X		X	
Survey materials and laboratory equipment	X				X
Operational research supplies		X	X	X	X
Nutrition education materials and supplies		X			
Mass media materials			X		
Seminar materials for nutrition planning conferences, seminars and workshops	X	X		X	X

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PROJECT 660-0079

ILLUSTRATIVE BUDGET

BUDGET SUMMARY

	AID (\$000)	GOZ (Z000)
Personnel	2,704	1,440
Commodities	1,067	-
Training	252	3,915
Facilities	-	480
Operations and Support	-	4,689.5
Contingency and Inflation	277	-
TOTAL	4,300	10,524.5¹

Note: At the current exchange rate of U.S. \$ 1= Z 5.5, the GOZ share is equivalent to \$ 1,913.5. Thus the \$ total is \$ 6,213.5.

1. This total does not include the cost of local interventions to be carried out by BFNC with local contributions augmented by local currency financing on an ad hoc basis throughout the life of the project.

AREA NUTRITION IMPROVEMENT

Project 660-9079
ANNUAL EXPENDITURES PROJECTION
 US \$ (000)

ITEM	1	2	3	4	5	TOTAL
<u>TECHNICAL ASSISTANCE</u>						
Planner	150	165	180	197	215	907
Educational specialist		150	165	180	197	692
Education coordinator	20	22	24	27.5	29	122.5
Food/nutrition coordinator	20	22	24	27.5	29	122.5
Baseline survey	60	-	-	-	-	60
Surveillance	-	20	20	20	-	60
Nutrition education	60	60	60	60	60	300
Mass media	-	20	20	20	20	80
Conferences/seminars/workshops	20	20	20	20	20	100
Ad hoc short-term	20	20	20	20	20	100
SUBTOTAL	350	499	533	572	590	2544
<u>COMMODITIES</u>						
Transport	136.5	-	-	-	-	136.5
Data processing	26	7	8	8	10	59
Communications	14	-	-	-	-	14
Operational research	25	25	25	25	25	125
Surveillance equipment	-	45	-	-	-	45
Survey materials	35	-	-	-	35	70
Office equipment	20	20	5	5	11	61
Nutrition education materials	50	100	200	100	61.5	511.5
Mass media materials	-	-	-	10	10	20
Conference materials	5	5	5	5	5	25
SUBTOTAL	311.5	202	243	153	157.5	1067
<u>TRAINING</u>						
Data processing	24	-	-	-	-	24
Nutrition education	60	48	24	-	-	132
Mass media	-	12	-	-	-	12
Nutrition planning	36	24	12	-	-	72
Nutrition surveillance	-	-	12	-	-	12
SUBTOTAL	120	84	48	-	-	252
<u>EVALUATION</u>						
	-	-	80	-	80	160
SUBTOTAL	-	-	80	-	80	160
<u>CONTINGENCY/INFLATION</u>						
	60	40	50	60	67	277
SUBTOTAL	60	40	50	60	67	277
GRAND GRANT TOTAL	841.5	825	954	785	894.5	4,300

COST SUMMARY BY COMPONENT

COMPONENT I: Assistance to the National Nutrition Planning Center

	AID (\$000)	GOZ (Z000)
1. <u>Data Processing</u>		
Materials/time	59	1860
Training	24	--
<u>Subtotal</u>	83	1860
2. <u>Nutrition Planning</u>		
Technical assistance ¹	453.5	--
Training ²	185	1050
<u>Subtotal</u>	638.5	1050
3. <u>Operational Research</u>	125	--
4. <u>Communications Equipment</u>	14	--
5. <u>Office Equipment</u>	20	--
6. <u>Transport</u>	36	216
7. <u>Nutrition Education</u>		
Technical assistance	1114.5	--
Training	120	2790
Materials/ ³ Production	511.5	--
Mass media	112	307.5
<u>Subtotal</u>	1858	3097.5
8. <u>Central Office Personnel</u>	--	990 ⁴
<u>Component total</u>	2774.5	7213.5 ⁵

1. Based on half time of nutrition planner for 5 years.
2. Includes nutrition planning seminars, conferences and workshops (technical assistance and per diems)
3. Includes materials, T.A., and training
4. Includes central office per diems for operations and support
5. Dollar equivalent is \$1,311,545.

COMPONENT II: Project Activities in Bandundu

	AID (\$000)	GOZ (Z000)
1. <u>CEPLANUT Regional Office</u>		
Technical assistance ¹	676	--
Personnel	--	720
Transport	100.5	750
Office Equipment	41	--
Facilities	--	120
Staff training	24	--
<u>Subtotal</u>	841.5	1590
2. <u>Bandundu Food and Nutrition Council</u>	--	450
3. <u>Interventions</u>	--	-0 ²
4. <u>Baseline/Endline Surveys</u>	130 ³	1196
5. <u>Nutritional Surveillance</u>		
Materials	45	--
Training	12	75
Technical assistance	60	--
<u>Subtotal</u>	117	75
<u>Component total</u>	1088.5	3311 ⁴
<u>COMPONENT III: Evaluation</u>	160	--
<u>CONTINGENCY</u>	277	--
<u>Project total</u>	4300	10524.5 ⁵

1. Includes ad hoc technical assistance

2. USAID/Zaire will make counterpart funding available for interventions and does not wish to fix limitations on this experimental project. In addition, local contributions from project proposers will complement counterpart funding.

3. Includes technical assistant funding.

4. Dollar equivalent is \$602,800.

5. Dollar equivalent is \$1,913,545.

AID FINANCED INPUTS1. TECHNICAL ASSISTANCE LONGTERM

One nutrition planner - Kinshasa 5 years x 150,000 base x 10%/year inflation factor	907,000
One curriculum/education materials development specialist - Kikwit 4 years c 150,000 base x 10%/year inflation factor	692,000
One food/nutrition development coordinator - Kikwit 5 years x 20,000 base x 10%/year inflation factor	122,500
One nutrition education coordinator - Kikwit 5 years x 20,000 base x 10%/year inflation factor	122,500

SHORT TERM

Baseline nutritional status survey 3 pm x 20,000	60,000
Nutritional surveillance 3 pm x 20,000	60,000
Nutritional education/curriculum development/evaluation 15 pm x 20,000	300,000
Mass media design/evaluation 4 pm x 20,000	80,000
Conference/workshops/seminars 5 pm/20,000	100,000
Ad hoc short term technical assistance 5 pm x 20,000	100,000
	<u>SUB TOTAL</u>
	<u>2,544,000</u>

2. COMMODITIESA. TRANSPORT

7 CJ7 Jeeps swb diesel w/50% spare parts 18,000 x 7	126,000
7 motorcycles 1,500 x 7	10,500
	<u>SUB TOTAL</u>
	<u>136,500</u>

B. <u>DATA PROCESSING</u>		
3 remote IBM terminals 4,000 x 3		12,000
Computer tape + material 5,000/year x 5 years x 10% inflation		35,000
Maintenance contract \$ 200/month x 12 x 5 years		12,000
	<u>SUB TOTAL</u>	<u>59,000</u>
C. <u>COMMUNICATIONS</u>		
10 2 way radios 1,400 x 10		14,000
D. <u>OFFICE EQUIPMENT</u>		61,000
E. <u>OPERATIONAL RESEARCH</u>		
Materials + supplies \$ 25,000/year x 5 years		125,000
F. <u>NUTRITIONAL SURVEILLANCE EQUIPMENT</u>		
Scales/materials		45,000
G. <u>BASELINE/ENDLINE SURVEY</u>		
Lab equipment/materials 35,000 x 2 surveys		70,000
H. <u>NUTRITION EDUCATION MATERIALS</u>		
Training packs for extension workers 6,000 packs x \$ 20		120,000
Training manuals for extension workers 300 x \$ 5		1,500
Primary school food + nutrition education kits 1400 schools x 6 grades x \$ 30		252,000
Training manuals for primary schools 1400 x 6 grades 1400 x 6 grades x \$ 10		84,000
Nutrition education health clinic materials		
2,000 flip charts x \$ 20		40,000
2,000 flannel graphs x \$ 5		10,000
2,000 training manuals x \$ 2		4,000
Mass media materials and tapes \$ 10,000/year x 2		20,000
	<u>SUB TOTAL</u>	<u>531,500</u>

I. MATERIALS FOR CONFERENCES, SEMINARS, WORKSHOPS

5,000 x 5 years 25,000

3. TRAINING

Central Office

Two persons in data processing 2 x 2,000/month x 6 months 24,000

One person in nutrition planning 1 x 2,000/month x 30 months 60,000

One person in public health/nutrition 1 x 2,000/month
x 30 months 60,000

One person in nutrition education 1 x 2,000/month x 30
months 60,000

Regional Office

One person in nutrition planning 1 x 2,000 month x 6 months 12,000

One person in nutrition education and curriculum develop-
ment 1 x 2000/month x 6 months 12,000

One person in mass media x 2000/month x 6 months 12,000

One person in nutritional surveillance
1 x 2,000/month x 6 months 12,000

SUB TOTAL 252,000

4. EVALUATIONS 2 x 80,000 each 160,000

5. CONTINGENCY 277,000

TOTAL 4,300,000

GOZ INPUTS

1.	<u>TRANSPORT</u>	Z
	Diesel for 7 vehicles 40,000 km x 7 vehicles x 5 years x .54 Z/km	756,000
	Gasoline for 7 motorcycles 1,000l/yr x 7 x 5yrs x 6 Z/liter	210,000
2.	<u>DATA PROCESSING</u>	
	Computer time/rental 300,000 Z/yr x 5 yrs	1,500,000
	Office rental 6,000 Z/month x 12 x 5 yrs	360,000
3.	<u>PERSONNEL</u>	
	<u>Central staff</u>	
	8 persons x 18,000/yr x 5 years	720,000
	per diems	
	3 persons x 12 trips/yr x 300 Z/day x 5 day x 5 yr	270,000
	<u>Regional staff</u>	
	8 persons x 18,000 Z/yr x 5	720,000
4.	<u>FACILITIES</u>	
	Regional Office Rental 12,000 Z/yr x 5	60,000
	Regional Guest House 12,000 Z/yr x 5	60,000
5.	<u>BASELINE/ENDLINE SURVEYS</u>	
	<u>Per diems</u>	
	10 chauffeurs x 50 days x 150 Z/day x 2 surveys	150,000
	20 interviewers x 50 days x 150 Z/day x 2 surveys	300,000
	3 supervisors x 50 days x 300 Z/day x 2 surveys	90,000
	<u>Gasoline</u>	
	20,000 km x 10 trucks x 1.5 Z/km x 2 surveys	600,000
	10,000 km x 7 motorcycles x .4 Z/km x 2 surveys	56,000
6.	<u>BANDUNDU FOOD + NUTRITION COUNCIL MEETINGS</u>	
	One regional meeting x 90 people x 2 days x 300 Z/person x 5 years	270,000
	Three subregional meetings x 30 persons x 200Z/person x 5 years	180,000

7. NUTRITIONAL SURVEILLANCETraining

250 people x 100 ₰/day x 3 days 75,000

8. NUTRITION EDUCATIONExtension Agent Training25 persons x 3 subregions x 2 workshops/year x 3 years
x 3 days x 100₰/day 135,000Primary School Training8400 teachers x 100 ₰/day x 3 days 2,520,000
100 administrators x 200 ₰/day x 3 days 60,000Nutrition Education Materials Training

250 people x 100 ₰/day x 3 days 75,000

9. MASS MEDIAAir Time

100 ₰/day x 365 days x 5 years 182,500

Studio Rental

2,500 ₰/message x 10 messages/year x 5 years 125,000

10. NUTRITION PLANNING CONFERENCES, SEMINARS, WORKSHOPS

Per diems for 50 persons x 300 ₰/day x 14 days x 5 years 1,050,000

TOTAL 10,524,500₰

= \$ 1,913,545

F. Technical Analysis

1. Assistance to the National Nutrition Planning Center

Assistance to CEPLANUT will center upon nutrition planning and the development of a capacity to extend ongoing activities in the domain of food and nutrition education and training. This assistance will have a direct impact, not only on strengthening CEPLANUT itself, but also, it will affect the Bandundu region of Zaire as well, since planning functions at the central level and all food and nutrition educational activities developed in Kinshasa will be oriented toward project operations in Bandundu. Assistance for nutrition planning supplied to CEPLANUT under this project will be directed to the national level and to the regional level in Bandundu to develop processes for integrated systems of nutrition planning. All food and nutrition training and the development of nutrition education materials done by CEPLANUT at the national level will be field tested and implemented at the regional level in Bandundu.

Since lack of correct nutrition information and inappropriate feeding practices are a major cause of undernutrition in Bandundu, project activities in food and nutrition education are expected to have the greatest impact on reducing acute malnutrition in young children under this component. Food and nutrition education and training activities will be oriented toward primary school children, a target group that influences the care and upbringing of children under five years of age in Africa; health personnel in villages and health clinics, who influence mothers of young children; and community extension workers who work with parents of young children throughout the Bandundu region.

CEPLANUT will also receive assistance to undertake field support and operational research at the national level. This activity will be oriented toward finding solutions to factors influencing malnutrition in children less than five years of age in the country and in turn will have application to efforts by the project to reduce malnutrition in children less than five years of age in Bandundu.

The ability of CEPLANUT to monitor and analyze the nutrition sector in Zaire at both the national and regional levels will be enhanced by strengthening its data processing capability. This is an essential func-

tion of both regional and national planning.

2. Project Activities in Bandundu

This project considers the role of CEPLANUT to be one of an advisor and advocate for nutritional concerns in Zaire. To this extent, CEPLANUT can undertake scientific research and data collection, develop food and nutrition educational materials and supervise training, and coordinate actions in the nutrition sector. CEPLANUT cannot implement nutrition interventions due to its limited staff. It can assist other organizations, however, in the analysis and planning of effective interventions.

Given this understanding, CEPLANUT's actions in Bandundu will be oriented toward coordinating efforts of governmental and private groups active in the region to effectively plan and target nutritional interventions capable of reducing by 10% the level of acute malnutrition among children less than five years of age. A regional office of CEPLANUT will be established in Bandundu to undertake this function.

Governmental and private organizations already working within the nutrition sector of Bandundu will be provided counterpart funds and guidance under this project to implement nutrition interventions. These organizations will be brought together with the assistance of this project to meet on a regular basis to coordinate their respective actions in the nutrition sector. With technical assistance provided by CEPLANUT, organizations in Bandundu will develop a regional nutrition strategy and a food and nutrition plan whereby effective nutritional interventions can be tailored and designed to reduce by 10% the level of acute malnutrition among children less than five years of age in this region.

Acute malnutrition is estimated to affect between 10%-15% of children less than five years of age in Bandundu. A simple and practical nutritional status survey will be undertaken by this project to ascertain a benchmark incidence of acute malnutrition in Bandundu at the onset of project activities. An endline survey will determine the incidence of acute malnutrition at the end of project operations to measure the success of project activities.

A reduction of this nature in the level of acute malnutrition in Bandundu is feasible, given this project's activities.

Interventions financed by this project will be designed specially to reduce levels of acute malnutrition in children less than five years of age in the Bandundu region. CEPLANUT will be instrumental in this process, working with organizations on the Bandundu Food and Nutrition Council to plan and design effective nutrition interventions. CEPLANUT and the AID-assisted technical assistance team will decide which nutrition interventions proposed by Council members to finance, providing further control over intervention decisions.

Women will be considered prime beneficiaries of nutritional interventions, given their importance in Bandundu in the agricultural sector and their responsibilities for the health care and nurturance of their young children. Other interventions will be designed to address factors affecting the nutritional status of children in Bandundu. Interventions will be multisectoral in nature and oriented to remedy constraints in agricultural production, food consumption and health status.

Project activities in Bandundu will also instigate a regional food and nutrition surveillance system to monitor project activities and provide data for the planning purposes of the regional Food and Nutrition Council. This activity will enable project activities to concentrate resources in areas of Bandundu shown to be most in need throughout project operations.

3. Technical Issues

a) Project goal and the use of Acute Malnutrition as an Indicator of Nutritional Status

The goal of this project is to tangibly reduce levels of acute malnutrition in the Bandundu region of Zaire.

Acute malnutrition which is defined as low weight for height, wasting or undernutrition of a short term nature, has been chosen as an

indicator of nutritional status because this is a measure of the most nutritionally and medically at-risk group of young children in Bandundu and Zaire as a whole. With a limited supply of resources, effectively targeted, acute malnutrition can be demonstrably affected in the short term. This has been born out in drought and famine situations around the world where feeding programs have reduced levels of acute malnutrition in a matter of months.

Chronic malnutrition, or the cumulative effect of repeated bouts of acute malnutrition or continuous shortage of daily caloric and protein requirements, reflected by low height for age (stunting) will also be influenced by this project. While chronic malnutrition was not chosen as the indicator of nutritional status for this project, project activities should also reduce levels of chronic malnutrition in Bandundu during the life of this project.

It is estimated that 80,000 children suffer from acute malnutrition in Bandundu. Chronic malnutrition affects possibly 350,000 children in the region. While less suffer from acute malnutrition, an effective targeting of resources and activities toward children in this group would probably do more during the life of this project to protect children from risk of death.

b. Regional Approach

This project is oriented toward a regional approach to solve nutritional problems. In Zaire, extreme cultural and ecological differences exist among the different regions of the country. By adopting a regional approach, this project will attempt to develop a process of regional planning and effective nutrition interventions that are capable of reducing levels of acute malnutrition in Bandundu. This process, and lessons learned from it will enable future actions to extend to other regions in Zaire. This project will also lay the basis for an extension of CEPLANUT's activities into different regions of Zaire. Furthermore, selection of one manageable target zone for strengthening CEPLANUT's outreach capability is administratively preferable.

c) The Scale and Range of Nutrition Interventions

This project will center upon giving assistance to development organizations in the Bandundu region of Zaire, energizing them with resources and technical assistance to enlarge their scopes of activities. Many actions will be small in scale. In Zaire, however, small scale activities that are effectively targeted and undertaken at the community level hold the most promise for beneficial results, given the country's lack of infrastructure at all levels.

With the creation of a regional Food and Nutrition Council, many small scale activities of development organizations in the regional nutrition sector will be coordinated. This project will attempt to cluster these activities toward areas of greatest nutritional need thus increasing their impact and elevating small scale operations into effective regional actions.

There will be guidelines for selection of the most appropriate areas for interventions. While the project designers do not wish to inhibit community initiative and creativity, it is felt that a certain amount of guidance would help focus resources on a range of interventions most likely to have nutritional benefits. Also, guidelines would help prevent submission of inappropriate proposals and the public relations problems that could result from a rejection.

4. Alternative Program Approaches Considered but Not Selected

a) Feeding Programs

Supplemented feeding programs will utilize local, indigenous foods to the greatest extent possible. If necessary, Title II foods will be used selectively for rehabilitative and medicinal purposes.

In addition, supplementary feeding programs in Zaire are normally clinic-based. By contrast, this project will take a different approach to improving nutrition through a variety of community-based initiatives.

b) Urban Approach

Project resources could have been directed at addressing the serious problems of urban malnutrition in Kinshasa. It was felt, however,

that the resources required to redress problems in urban poverty and food availability would be beyond the scope of this project.

In addition, while project resources are not focused on Kinshasa, CEPLANUT as a body with national responsibilities and located in Kinshasa, will continue its effort to improve the nutrition situation for the population of the nation's capital.

By focusing this project in the Bandundu area of Zaire it will affect the problems of urban malnutrition in Kinshasa to some degree since Bandundu is a major provider of food to the Kinshasa population and project activities on the Bandundu agricultural sector should have some impact on Kinshasa's food availability.

c) Food Availability

A major constraint to nutrition in Zaire is food availability in the country. Massive efforts to increase agricultural production are needed in Zaire that go beyond the scope of this project, especially in the areas of food production and marketing.

Bandundu will benefit from other AID and donor assistance in these areas and thus project activities in Bandundu will be oriented toward the effective coordination of these projects to better the nutritional status of the region.

Applied nutrition training and interventions under this project will include efforts to improve household food storage and reduce losses from processing and inadequate preservation. It is expected that these initiatives will enhance family food availability.

d) Health-Oriented Approach

Various actions were considered in the health sector of Zaire to combat childhood malnutrition. Water supply improvement, the distribution of measles vaccines, oral rehydration packets and de-worming medicines were contemplated as viable methods to reduce malnutrition in children less than five years of age. Various programs already exist to remedy these problems, such as the expanded program of immunization (PEM) and the newly developed CCCD project. Consideration was given to devoting project resources for use

in extending these operations. Due to the resources necessary to undertake these actions on a massive scale, it was thought that one region of Zaire could be chosen for project assistance in these areas. After considering how actions could be implemented, it was felt that efforts designed to coordinate health actions already underway with other nutrition interventions would be a more effective and suitable use of project resources.

G. Economic Analysis

I. Benefit-Cost Analysis Discussion

There are important reasons why project benefits can not be estimated at this stage. In traditional benefit-cost analysis, benefits are calculated as the positive change in the welfare of the society, usually gross income (GDP), as a result of the project. In other words, if a project entails a redistribution of existing resources to its activity from another activity where those resources were more productively employed and generated greater income for the society, then the project does not generate net benefits to the society. In order to estimate the projected benefits of a nutrition project for the society, a number of relationships must be quantified. First of all, the causal relationship between improved nutrition and increased welfare of society must be delineated and quantified. Accurate and precise data on levels of existing nutritional status of the population as well as data on the impact of improved nutritional status on such indicators as levels of morbidity, anemia, productivity, and learning capacity is necessary. Then, the relationship between these indicators and improved welfare and income of the society must be quantified in order to accurately measure the projected stream of benefits of the project. It should be obvious that such analysis would require a major research undertaking for each developing country in question. In Zaire, as in other African countries, nutritional planning and education is in the elementary stage; therefore, it is not possible to quantify the projected stream of benefits generated from this activity. However, as the project progresses, it is planned to

measure the impact of the project through intermediate and final indicators and thereby attempt to attribute a portion of these benefits to each of the various components of the project. The next section includes a qualitative description of expected benefits accruing from the project.

The discussion below elaborates upon the problems associated with quantifying the project benefits at this stage. First, it is not possible at this stage to objectively apply a monetary value to the reduction in acute malnutrition of a child. However, it is possible to delineate important qualitative benefits to the society. For example, a reduction in acute malnutrition of children should lead to a reduction in infant mortality which may reinforce a family's choice to reduce the number of births. It is believed that a reduction in high population growth rates is a necessary condition in many developing countries to improving the welfare of its existing population. This is especially true in countries, such as Zaire, that have been experiencing sustained negative economic growth rates. Also, a healthier child should be able to contribute more productively to its family and society.

There are many links in the above theoretical argument which can only be quantified on a case by case basis assuming that a great deal of reliable information is available. In the case of Zaire, there is insufficient data on these relationships to attempt an analysis within reasonable limits of precision. It is also important to note that, although it is conceptually possible to trace the relationships between the reduction in malnutrition and increased benefits for society, it is much more difficult to quantify the impact of one particular project on improving the nutrition of a population. There are numerous intervening factors which will positively and negatively affect the nutritional status of a population. It would be necessary

to measure these exogenous factors in order to distinguish their impact from that of the project.

In this regard, there are two factors which complicate a preliminary analysis of projected benefits. First, the specific nutrition interventions proposed by the project can not be identified or measured at this stage. The criteria for interventions will be established by the Food and Nutrition Council after the base-line survey has been completed. It may be advisable, if it is within the capacity of the Council and CEPLANUT to carry out an elementary analysis of projected costs and benefits of the local nutrition interventions proposed. This would be useful for the evaluation process as well as for future design of nutrition projects. Secondly, the service providers, PVO's and DOH branches, currently provide nutrition-related services of unknown costs and benefits to the society. It would be necessary to measure these benefits and costs in order to distinguish those of the specific project-related nutrition interventions.

2. Qualitative Discussion of Project-related Benefits

There are two types of project benefits which can be distinguished: long-run and short-run. Long-run benefits involve an investment whose potential returns will not be realized within the life of the project. These type of benefits are common among research projects and institution-building projects. There are three concrete outputs of the proposed project which involve significant long-term benefits for not only the project area but also the national environment.

First, the project will provide technical and material support to CEPLANUT which will allow it to develop the capacity to promote nutritional planning and education on a regional basis.

The purpose of this component is to improve the program and services in the project environment of Bandundu. However, it is recognized that the long-range impact of strengthening this institutional capacity may be to improve the quality of national nutritional programs in Zaire generally.

Second, as an extension of CEPLANUT's national base, the project will establish a regional office of CEPLANUT in Bandundu. This will serve to facilitate the flow of information and services between the central headquarters and the service providers in the field. Again, the potential benefits from strengthening the institutional structure will not be fully realized within the life of the project.

Third, the project will develop a formal institutional linkage between CEPLANUT and service providers in the field, through the structure of the regional Food and Nutrition Council. These service providers can serve to establish a two-way channel, by both delivering services to the project beneficiaries and furnishing feed-back about conditions and problems in the field. This component should lead to the improved coordination and quality of nutritional planning and education.

Short-run benefits will accrue to the target group within the life of the project. The end of project objective is to reduce acute malnutrition in children under five by 10%. In order to further measure the impact of the project on beneficiaries, a set of intermediate indicators will be identified by the baseline survey and monitored through the nutrition surveillance system.

These indicators will be refined to a form which permits quantification as the nutritional surveillance system develops. It is important to note that the benefits to the population of improved nutrition will not be confined to only children under

five. While this group represents the primary focus of the interventions, it is expected that other groups such as primary school age children and their mothers will benefit directly from education, interventions, and other project activities. For example, one criterion of the interventions will probably be that women, particularly mothers, are directly involved in selected interventions. Since women represent the members of society primarily responsible for food production and preparation, their involvement is necessary to reach the high-risk groups of children under five. Also, the nutrition of the mother directly affects the health of both the unborn infant and the young nursing infant. Second, the nutritional education component of the project should improve the awareness of the entire family about improved nutritional practices and habits.

H. Social Soundness Analysis

1. Sociocultural Feasibility

The major issue to be addressed here is whether the project activities can work successfully in the existing sociocultural environment in order to achieve the development objectives. It can be shown that the project activities fulfill a number of requirements associated with socio-cultural feasibility analysis.

First, the project activities will mobilize the expertise of indigenous, existant institutions rather than introducing major new structures. The establishment of the BFNC on the sub-regional level will mean that the needs and differences of the three diverse sub-regions in Bandundu will be covered adequately. On a sub-regional basis, the BFNC will be comprised of local PVO's and DPH units that have experience working with the social-political structures in their respective areas. At the level of the nutrition interventions, the BFNC members will be sensitive to the impact of proposed interventions. Since the BFNC will be able to rely on both its collective experience and knowledge as well as the results of the nutrition surveillance system, it is expected that project activities will complement rather than disturb the existing environment. Finally, the policy of encouraging and promoting the use of local, indigenous foods to improve nutrition will serve to increase the self-sufficiency capacities of the participating communities.

Second, the improved well-being of children is a recognized priority by Zairian families. In the past, greater emphasis has been placed on curative than on preventive care. The final goal of the project, the elimination of acute malnutrition among children under five, clearly is welcomed and supported by

the target population. However, the intermediate objectives, such as improved weaning practises and shifts in dietary habits, are not adopted easily. The nutrition education through the primary schools and the mass media will be instrumental in showing the linkage between the intermediate objectives and the final goals. In addition, the planned participation of local groups and agencies in nutrition interventions should serve to increase the motivation and understanding needed for the adoption of new practices.

2. Spread Effects

The project design encourages potential spread effects. First, the BFNC encompasses the breadth of contacts and experience possessed by the local PVO's and other participating agencies. The scope of coverage by the project activities will extend throughout the three sub-regions of Bandundu.

Second, the baseline survey and nutritional surveillance system will point to those priority areas where needs are the most urgent. Interventions will be selected for their ability to contribute to the achievement of the project goal.

Third, the nutrition education component will reach the majority of the region's population, directly or indirectly. Finally, and perhaps most importantly, the BFNC members are affiliated with community action groups throughout Zaire. Their experiences through this project will be shared widely, and the successful interventions and lessons learned will be readily available to communities in other regions that may wish to promote improved nutritional status.

3. Social Consequences

The direct beneficiaries of the project are children under five suffering from acute malnutrition. The project purpose

is to reduce the total number of cases by 10% during the life of the project. This is a challenging objective as evidenced by some reports in the Bandundu region that indicate that acute malnutrition among this age group is increasing. The exact number of children to be affected is difficult to pinpoint with precision; perhaps upward of 100,000 in the target group. At the conclusion of the baseline survey, a more precise number will be known. There are many indirect beneficiaries expected from the project as well. Improved maternal care will reduce acute malnutrition among newborn children. Many of the interventions will be targeted directly on women inasmuch as they play a major role in food production and preparation. These interventions should improve the nutritional status of the entire family. In conclusion, this project's objectives generally are shared by the target group; no radical social departures are envisaged in the project; and no adverse social consequences are anticipated.

I. PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Life of Project:
From FY 1983 to FY 1987
Total U.S. Funding \$4,300,000
Date Prepared: September 1982

Project Title & Number: ZAIRE AREA NUTRITION IMPROVEMENT PROJECT: 660-0079

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</p> <p>To eliminate acute malnutrition in Zaire by the year 2000</p>	<p>Measures of Goal Achievement: (A-2)</p> <p>Anthropometric measurements will indicate the absence of acute malnutrition.</p>	<p>(A-3)</p> <p>National nutrition status surveys. GOZ and private agencies health statistics reporting.</p>	<p>Assumptions for achieving goal targets: (A-4)</p> <p>The GOZ will commit the necessary manpower and material resources to achieve this goal.</p>

PROJECT DESIGN SUMMARY
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Life of Project: From FY 1983 to FY 1987
Total U.S. Funding: \$4,300,000
Date Prepared: September 1982

Project Title & Number: ZAIRES AREA NUTRITION IMPROVEMENT PROJECT 660-0079

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose: (B-1)</p> <p>To demonstrate cost-effective nutritional interventions capable of reducing by 10% the levels of acute malnutrition among children 0-60 months of age in Bandundu region within five years and capable of self-sustaining action to further reduce malnutrition after project termination.</p>	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</p> <p>Effective nutrition interventions will have been designed, tested, and implemented. There will be an integrated network of regional institutions capable of identifying nutritional problems and formulating appropriate responses.</p> <p>Anthropometric indicators will show a 10% reduction of acute malnutrition in the target group.</p>	<p>(B-3)</p> <p>Project evaluations.</p> <p>Minutes of regional council and sub-regional working groups, and observation of their functioning.</p> <p>Baseline and endline surveys. Clinical data from project instituted nutritional surveillance system.</p>	<p>Assumptions for achieving purpose: (B-4)</p> <p>No epidemics, droughts, famines, or natural disasters.</p> <p>Continuation of a reasonable degree of political, economic, and social stability.</p> <p>Implementing organizations already operating in Bandundu will participate in the project.</p>

PROJECT DESIGN SUMMARY
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PAGE 3

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1) 1. Improved nutrition policy and planning capability within the GOZ and other agencies active in nutrition and related fields in Bandundu.</p> <p>A). Inventory of regional organizations active in the nutrition health sector compiled for target area.</p> <p>B). Nutrition surveillance system in place in Bandundu health installations, and in use to monitor health and nutrition conditions and provide "early-warning".</p> <p>C). Food and nutrition council (regional level) and working groups (sub-regional level) in place and meeting regularly.</p> <p>D). Annual regional planning conference among public and private agencies operating in Bandundu to review the year's activities and develop indicative plans for the next year.</p> <p>E). Regional personnel from various sectors, GOZ and other agencies, trained in nutrition interventions.</p>	<p>Magnitude of Outputs: (C-2)</p> <p>Inventory includes substantially all organizations with significant outreach capabilities present or potential.</p> <p>Useable and consistent data flowing into CEPLANUT's regional office.</p> <p>Various organizations actually attending meetings; working groups functioning at least as coordinating bodies.</p> <p>Attendance at conferences of all relevant GOZ entities, and substantially all important non-GOZ organizations. Willingness of organizations to collaborate. Acceptance of annual indicative plan.</p> <p>Interventions being successfully carried out.</p>	<p>(C-3)</p> <p>All agencies described in a standard format.</p> <p>CEPLANUT reports.</p> <p>Minutes of meetings.</p> <p>Minutes of meetings. Annual plan.</p> <p>CEPLANUT evaluation reports.</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>Willingness of a wide variety of organizations to permanently cooperate with each other and with CEPLANUT.</p> <p>CEPLANUT capable of: efficiently establishing a regional office; gaining the respect of the cooperating agencies; improving its capability to do action-oriented research; and developing a new in-house ability to assist the cooperating agencies in designing, executing, and evaluating interventions.</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <p>2. A coordinated regional system of applied food and nutrition activities developed in Bandundu which includes small-scale nutrition interventions, upgrading nutrition knowledge and skills of field workers and nutrition surveillance.</p> <p>A). Nutrition and health education modules developed and integrated into primary schools and training institutions in the region; users trained.</p> <p>B). Health and nutrition education materials developed and disseminated for use in health installations and by village health workers throughout the region; users trained.</p> <p>C). Radio and TV spots developed.</p> <p>D). CEPLANUT staff trained to develop health and education packages and to train others in their use.</p>	<p>Magnitude of Outputs: (C-2)</p> <p>Acceptance of modules by national and regional Dept. of Education officials; their actual use by substantially 100% of schools and training institutions in the region.</p> <p>Acceptance of materials by national and regional Dept. of Health officials and directors of independent agencies; their actual use by substantially 100% of health installations and workers.</p> <p>Project-recommended quantity and quality of spots developed.</p> <p>Network of trainers to train sufficient numbers of people to cover the region's 1400 primary schools, plus other training institutions, and health installations.</p>	<p>(C-3)</p> <p>Reports by authorities concerned. On site observation.</p> <p>Reports by authorities concerned. On site observation. Adequate accountable delivery systems in place.</p> <p>Monitoring of broadcasts.</p> <p>Reports of training being carried out. On site observation.</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>Dept. of Education and Health will cooperate with CEPLANUT as will the various non-governmental groups actually managing most educational and health installations.</p> <p>CEPLANUT will recruit and train sufficient personnel to carry out needed instruction.</p>

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

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Project Title & Number: ZAIRE AREA NUTRITION IMPROVEMENT PROJECT 660-0079

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <p>3. CEPLANUT's capacity strengthened to develop training programs and educational materials; to collect, store and analyze nutrition data; to undertake operational research; and to evaluate the effectiveness of nutrition interventions.</p> <p>A). Baseline and endline surveys carried out, and data analyzed by CEPLANUT.</p> <p>B). CEPLANUT personnel trained to establish, manage, and supervise collection of data for nutritional early warning system.</p> <p>C). Continuous analysis of surveillance system data by CEPLANUT and production of quarterly reports accompanied by recommendations for action.</p> <p>D). CEPLANUT regional office established in the region, and serving as a coordinator of regional nutrition efforts</p>	<p>Magnitude of Outputs: (C-2)</p> <p>Statistically adequate regional nutrition status information collected and effectively analyzed.</p> <p>Enough personnel sufficiently well trained to enable CEPLANUT to obtain representative data.</p> <p>Reports are comprehensive, and lead logically to specific intervention recommendations. Reports and other nutritional information will be published in a newsletter.</p> <p>Regional office is sufficiently well staffed, quantitatively and qualitatively, to carry out the coordinating function.</p>	<p>(C-3)</p> <p>CEPLANUT reports,</p> <p>Review of quantity and quality of data obtained,</p> <p>Intervention agencies actually take up recommended interventions,</p> <p>CEPLANUT regional office actually in touch with regional organizations. The latter are participating in meetings, agreeing on indicative annual plans, and accepting CEPLANUT advice.</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>CEPLANUT with the help of the US AID provided technical assistance, will be able to improve present staff capabilities, and recruit additional staff sufficient to develop the competence to carry out new and increased functions.</p> <p>Independent agencies will be willing to cooperate, and will not find new demands on their resources -cooperating in surveillance system, participating in the regional council and working groups - beyond their capacities.</p>

AID 1020-28 (1-73)
SUPPLEMENT 1

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: From FY 1983 to FY 1987
Total U.S. Funding: \$4,300,000
Date Prepared: September 1982

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <p>E). Analysis of needs for trained management and technical personnel within CEPLANUT, and preparation and implementation of a training plan.</p> <p>F). Reports of administrative, logistical, personnel, and financial operations of CEPLANUT prepared quarterly.</p>	<p>Magnitude of Outputs: (C-2)</p> <p>Plan and implementation adequately done.</p> <p>Reports sufficient in depth and detail to adequately describe CEPLANUT's own progress.</p>	<p>(C-3)</p> <p>CEPLANUT staff successfully complete training programs.</p> <p>The reports on file.</p>	<p>Assumptions for achieving outputs: (C-4)</p>

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Inputs: (D-1)	Implementation Target (Type and Quantity) (D-2)	(D-3)	Assumptions for providing inputs: (D-4)
1. Personnel	108 person months of long-term TA; 35 person months of short-term TA; 19 CEPLANUT staff assigned directly to project operations. All personnel to meet minimum qualifications, including education, experience, and language skills.	Biodata, Selection procedures, Job performance,	Qualified personnel, expatriate and Zairian, can be recruited and hired as scheduled.
2. Commodities a. Vehicles	7 CJ7 Jeeps to be kept in operation in Zaire. 7 motorcycles. GOZ inputs for fuel and maintenance forthcoming.	Physical reception in Kinshasa. Observation of vehicles in operation.	Commodities designated are suitable for Zaire and can be procured on schedule.
b. Nutritional education materials.	2,000 health center packages. 1,400 primary school packages. 6,300 training institution pkg.	Purchase and delivery to CEPLANUT documented. Verifiable logistic system in place for delivery to end users.	
c. Mass media material	As needed to produce radio and TV spots \$20,000	Observation of production. Monitoring radio and TV.	
d. Supplies and equipment for office, lab, and operations.	\$326,000 10 radios 3 remote IBM terminals Computer tapes, materials, and service \$47,000	Physical reception in CEPLANUT offices. Observation of use during on-site visits.	
e. Training	Appropriate training programs developed and implemented. Budget allocations, committed on schedule. \$252,000; GOZ Z 2,865,000.	Review of curricula; observation of job performance; training records.	
f. Evaluations, (two	\$80,000	Evaluation reports.	

Job Description - Nutrition Planner

The nutrition planner will be responsible for the overall implementation of project activities. He will report to the USAID project officer, he will be assigned to CEPLANUT headquarters in Kinshasa, but will spend about half his time in the Bandundu Region.

This person, together with a Zairian counterpart, will organize all nutrition planning seminars and workshops. He will advise CEPLANUT's central and regional staffs on all aspects of the nutrition planning process.

The specific duties of this position will include:

Arranging in-country and external training for CEPLANUT staff;

Planning and conducting (with the Zairian counterpart) annual nutrition planning seminars;

Assisting the field coordinator and CEPLANUT regional staff to organize and conduct annual Bandundu Food and Nutrition Council meetings and subregional meetings;

Advising CEPLANUT Regional staff and field coordinator on evaluating interventions in a useful and timely manner.

Supervising nutritional surveys and assisting in the development of a nutrition surveillance system;

Advising CEPLANUT and USAID regarding recruitment of short term consultants as required, preparing their scopes of work, and coordinating their activities in country;

Supervising and supporting the work of the education/
training specialist and assisting in the supervision
of two Bandundu field coordinators;

Overseeing all aspects of data collection

as described under project component section of project paper.

Working closely with USAID and CEPLANUT to order project
commodities, supplies, vehicles, etc. in a timely fashion;
Directing, with CEPLANUT staff, a continuing internal,
evaluation of project activities;

Preparing quarterly progress reports for USAID's project
officer;

Organizing monthly status meetings with USAID project
officer, CEPLANUT Director and others as needed.

Qualifications:

The nutrition planner must be an experienced nutrition plan-
ner capable of collaborating effectively with professionals in
several other sectors, particularly in health, education and
agriculture. He should be able to work easily with statistics
and be familiar with computer programming. The planner must
be fluent in French(S3-R3) and English and should have experience
working in development programs, preferably in Africa. A BA or
BS in nutrition, or a related field, is essential. A master's or
PHD in nutrition planning is desirable, but competence acquired
through equivalent field experience is adequate.

Job Description- Curriculum/Education Materials Development

Specialist :

This person will be responsible for developing with CEPLANUT staff the nutrition training and educational materials. He will be posted in the CEPLANUT regional office in Bandundu, but will work in Kinshasa as required.

This specialist will supervise the day to day work of the 2 field coordinators in Bandundu and work closely with CEPLANUT nutrition educators. He will report to the nutrition planner.

The specific duties of this position will include:

Creating/adapting and field testing of nutrition training courses for three categories of community workers;

Developing a food and nutrition component for the primary school curriculum and organizing training for Bandundu primary school teachers in its application;

Prepares, pre-tests, and distributes nutrition education materials for the Bandundu Region.

Working with short term technical consultants and radio Zaire on radio nutrition education programs;

Designing the aspect of the internal evaluation for assessing the effectiveness of nutrition education and training programs;

Assisting the nutrition planner in preparing quarterly progress reports.

Qualifications:

This specialist must have a graduate degree in education, training or nutrition education. He should have experience in planning and implementing nonformal education programs, in Africa. Familiarity with the nutrition field is preferred, but previous

work in health, or agricultural sector is acceptable. This person should also be experienced in creation or utilization of educational materials for a non-literate population. French fluency is essential.

ACTION MEMORANDUM FOR THE MISSION DIRECTOR

FROM : *Richard Handler*
Richard Handler, PRM

SUBJECT: Project Authorization - Area Nutrition Improvement (660-0079)

Problem: Your approval is required to authorize a grant of \$4,300,000 from the Agriculture, Rural Development and Nutrition appropriation to the Government of Zaire (GOZ) for the Area Nutrition Improvement Project, 660-0079, subject to the availability of funds in accordance with the USAID OYB/allotment process.

Discussion:

A. Project Description

The purpose of this project is to demonstrate cost effective nutrition interventions capable of reducing by ten percent the levels of acute malnutrition among children less than five years old in the Bandundu Region of Zaire within the next five years, and capable of self-sustaining action to further reduce malnutrition after project termination. At the national level the project will improve and expand the capacity of the National Center for Nutrition Planning (CEPLANUT) to: a) collect, process, and analyze nutrition-related data; b) develop effective educational materials; c) plan and coordinate nutrition programs; and d) prepare policy determinations and guidelines. At the regional level, the project approach will be multi-sectoral with interventions in education, health, training, nutritional surveillance and agriculture.

The project will establish a satellite office of CEPLANUT in Kikwit and create a regional nutrition council for Bandundu. CEPLANUT will administer a baseline nutrition survey, provide training, develop a nutrition surveillance system, and coordinate government and private interventions in nutrition-related areas. The Bandundu Food and Nutrition Council (BFNC) will be formed to bring together the more than 70 government and private organizations currently undertaking nutrition-related efforts in the region. Collectively, members of the BFNC will constitute a viable network capable of planning and implementing nutrition activities in the region.

At the end of the project, a structure for planning and evaluating nutritional services will be in place at the national level and a coordinated regional system of applied food and nutrition activities will have been established in Bandundu.

B. Financial Summary

The total USAID contribution to the five year life-of-project cost is \$4,300,000. The Government of Zaire will contribute the equivalent of approximately \$1,913,000 in local currency for personnel, facilities and other operating costs. Total USAID/GOZ life-of-project cost is approximately \$6,213,000

C. Implementation

The GOZ implementing agency will be the National Center for Nutrition Planning (CEPLANUT).

D. Committee Action and Congressional Notification

The Project was reviewed by the Project Committee. As there were no unresolved issues, the Project Committee concluded that the project should be forwarded to you for authorization. The project is included in the FY 82 Congressional Presentation noting our intention to obligate funds in FY 82.

Recommendation: That you sign the attached Project Authorization and thereby authorize the Project.

^{TB}
DRAFTER:PRM:TBORN:pra:9-9-82

CLEARANCES:	DEO:LBRADDOCK <u>B</u>	DATE	<u>9/6/82</u>
	GDO:DSINGER <u>Ally:</u>	DATE	<u>9/10</u>
	CONT:RKING <u>D. Miller</u>	DATE	<u>9/10</u>
	D/DIR:WWBOEHM <u>W. Boehm</u>	DATE	<u>9/10/82</u>

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PROJECT AUTHORIZATION

Name of Country: Zaire

Project Name: Area Nutrition Improvement

Project Number: 660-0079

1. Pursuant to the Foreign Assistance Act of 1961, as amended, I hereby authorize the Area Nutrition Improvement Project with the Government of Zaire involving planned obligations of not to exceed \$4,300,000 in grant funds over the planned life of project of five years from the date of initial obligation subject to the availability of funds in accordance with the AID OYB/allotment process.

2. The project will improve and expand the capacity of the National Center for Nutrition Planning to prepare policy, plan, coordinate and monitor nutrition programs in Zaire. The project will also create a viable network for nutrition interventions in Bandundu, thereby reducing substantially the incidence of acute infant malnutrition in that region.

3. Source and Origin of Goods and Services

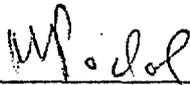
Goods and services, except for ocean shipping, financed by AID under the Project shall have their source and origin in the United States except as AID may otherwise agree in writing.

Ocean shipping financed by AID under the Project shall, except as AID may otherwise agree in writing, be financed only on flag vessels of the United States or the Republic of Zaire.

4. Covenant

The cooperating country shall covenant:

to make available all necessary budgetary and human resources needed by the GOZ's participating organizations in a timely fashion.



Richard L. Podol
Mission Director
USAID/Zaire