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FINAL EVALUATION OF ZAIRE
AREA NUTRITION IMPROVEMENT PROJECT
(660-0079)

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USAID/Kinshasa

Submitted by:

Neen Alritz, Team Leader
Cit. Chirume Mendo

EXECUTIVE SUMMARY

Purposes of Area Nutrition Project 660-0079

This project had two major goals. The first, revised after the midterm evaluation in 1984, was to promote cost-effective nutrition interventions and a method for conducting them capable of reducing by 25 percent the prevalence of acute malnutrition among children five years of age and under in Bandundu by the end of FY 1987. The principal vehicle for achieving this goal was to be the creation of a Regional Food and Nutrition Council in Bandundu (CRANB) which would function as a regional planning body for nutrition in Bandundu and select and monitor the small projects chosen to receive funding. The second goal of this project was to build the institutional capabilities of CEPLANUT, Zaire's National Nutrition Planning Center.

Purpose of this evaluation and methodology

The present evaluation was designed for the following purposes:

To determine whether the project's objectives as outlined in the project paper and supplement have been met; to ascertain whether their achievement has contributed to project purpose and goals; to document the catalysts or inhibitors of project achievement; to record the lessons learned from this project.

In an attempt to fulfill the above objectives, the evaluation team read project documents, reports and memoranda; consulted with project staff -- both Zairian and American -- in Kikwit and Kinshasa; talked with the USAID project officer; members of the project committee; staff of other USAID projects; members of the international community; and health personnel.

Project Performance

The evaluators based comments on achievement of overall project objectives on accomplishments within each project component: nutrition surveillance, CRANB interventions and nutrition education. In addition, the evaluation addressed the issue of overall increased institutional capabilities due to training and skills transfer, equipment purchased on behalf of the project and experience gained through implementation of the above three project components.

Nutrition surveillance. CEPLANUT regularly collected and analyzed monthly reports from 11 health zones in the Bandundu area.

Objectives achieved: A methodology was established to use existing health zone information, available through the monthly preschool health consultations (CPS), to supply data which CEPLANUT could analyze and use as a basis for nutrition surveillance of communities or regions. CEPLANUT has developed a capacity to analyze nutrition data. CEPLANUT will have the potential to fully manage studies and surveys once all the longterm trainees have returned.

Objectives not achieved: Information about data collected in the rural health zones was not made available regularly and in a timely fashion to health zones and other planning units. The baseline survey contained much irrelevant material, was not analyzed in a timely manner and was never published.

CRANB Interventions. A Regional Food and Nutrition Council (CRANB) was established composed of groups and individuals working in the Bandundu Region in the area of food and nutrition. Fifty-one small projects were funded on a grant basis between 1982 and 1985; 10 small projects were funded on a reimbursable loan basis in 1986 and 1987. Nutrition education messages were developed and given in the intervention areas of some CRANB-funded projects.

Objectives achieved. CEPLANUT funded through CRANB experimental and non-experimental projects in the areas of agricultural and production interventions, food consumption interventions, health interventions and nutrition specific interventions. Nutrition related messages were developed related to a number of these interventions.

Objectives not achieved. A major project purpose of showing measurable impact on nutritional status within the intervention areas due to projects-related effects was NOT achieved as no evaluations of any kind were conducted on the projects or in the project areas. No self-financing mechanisms were found to continue these interventions after the PACD, so that sustainability of these projects is unlikely, even though some are now financially profitable and seem to be having nutritional consequences for the area in which they work.

Nutrition education. The project developed a primary school curriculum, flip charts, nurses training manual, growth monitoring module, nutrition training module for the medecins chef de zone and conducted large numbers of community outreach activities.

Objectives achieved. CEPLANUT expanded its training and advisory role in nutrition education by developing materials for health workers and school children.

Objectives not achieved. For a variety of reasons, including inflation and priorities in other sectors, the flip charts designed to accompany the primary school curriculum and the nurses manuals have not been printed. There are presently no funds to do so.

Institution building. The project provided for long term training of eight CEPLANUT employees and short term training of scores of others. The project now has access to data processing equipment capable of carrying out sophisticated data analyses. The project possesses more than 1200 scales for use in promoting growth monitoring in Zaire's rural health zones.

Objectives achieved. The amount of training provided for in the project paper and amendment was exceeded.

Lessons Learned

1. Collection and use of data in USAID projects.

Methodology for surveys and studies should be planned so that data collection does not overwhelm analysis capacity, especially in the initial phases of the project when little training has been done.

2. USAID Management issues

a. Institutional contractors should be used to ease USAID management burdens when the administrative elements of the project are complicated.

b. Effective expatriate technical assistance is crucial, requiring an appropriate blend of experience, technical skill and language proficiency. Even with 8-month hiring lead-times, technical advisor positions went unfilled for as much as a year. Inadequate language or technical skills by some advisors impeded project progress initially.

c. Project advisors should be expected to play an important role throughout the project in teaching skills, such as proposal writing, that will promote institutional capabilities. In addition, consultancies addressing these issues should begin well before the end of the project.

3. Training

a. Academic majors of long term trainees should be planned carefully to achieve project goals. In this project, more emphasis on statistics, research methods and data analysis would have been appropriate.

b. Host country project staff who have received long term training should be in place before the loss of project advisors and resources to lengthen training period and skills transfer.

4. Budget

a. The dollar and counterpart budget should relate clearly to project objectives and be elaborated as fully as possible in the project paper.

b. The project paper should address fiscal sustainability issues so that gradual assumption of project finances can be taken over by the government as the project winds down.

Recommendations

1. USAID should allot counterpart funds to permit the printing of flipcharts which were designed to accompany the primary school nutrition manuals. Approximate cost: 1.257.800 zaires.

2. USAID should allot counterpart funds to permit the printing of the nurses manual which were designed by the project staff. Approximate cost: 320.000 zaires.

3. USAID should explore collaborating with CRANB projects where appropriate. Possible mechanisms could be through the SANRU Rural Health Project, agriculture project 102 which has just begin working in the Bandundu area, or the future small project assistance project (0125).

4. USAID should establish an internal mechanism within the project development office to assure that nutrition concerns are integrated into new USAID project designs in all sectors, especially agriculture.

5. The project has identified a number of nutrition-related needs in Zaire. These include implementing growth monitoring/promotion activities through health worker training and appropriate nutrition education of mothers in the areas of weaning practices and dietary treatment of diarrheal disease. If funds remain in Project 079, USAID/Kinshasa should consider funding follow on activities which support these areas. Possible mechanisms for programming of these funds might be through the HEALTHCOM project, which will soon have a project in Zaire, or through collaboration with the Nutrition Education and Social Marketing Project recently awarded by S&T/Nutrition to the Academy for Educational Development.

Conclusion

The Area Nutrition Improvement Project attempted to achieve its goals through a multiplicity of activities. While not all of the individual activities envisioned by the project planners occurred, the members of the evaluation team felt that the lasting importance of USAID's input through this project has been to develop the institutional capacity of CEPLANUT to function independently as a planning and research organization. Other Departments in the GOZ are increasingly looking to CEPLANUT to provide information and collaborate in countrywide project feasibility studies and project designs. Additionally, other international organizations are beginning to look to CEPLANUT as a collaborator in both nutrition research and intervention activities.

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I. INTRODUCTION

Host country economic, political and social context

The developmental setting of Zaire is similar to that of other African developing countries with widely diffused weaknesses in public and private institutions, shortages of professional, managerial and technical expertise, high urbanization and population growth rates, and poor health and nutrition. Endemic diseases and malnutrition are the major causes of morbidity and mortality and rates are highest among children under five years of age and pregnant women.

Agriculture is the source of employment and income for three-quarters of the population, although commercialized and subsistence agricultural production account for only 10 percent of gross domestic product. Production indicators reveal a worsening of conditions over recent years.

The Bandundu region, site of CEPLANUT field activities is situated immediately east of Kinshasa and supports a population of about four million people. Of Bandundu's three subregions, Kwilu is the largest with about 50 percent of the regional population. Kwilu is considered among the most nutritionally deficient subregions in Zaire together with southern Kasai Occidental and Central Kivu.

While the dynamics of the nutrition situation are not fully understood, observations and field reports point to the following factors as determinants of malnutrition in the region:

Production constraints related to poor soil quality, plant diseases, and unavailability of protein;

Infrastructural constraints indicated by the absence of extension services and lack of credit;

Incentive constraints to farmers who, though price controls no longer exist, are at the mercy of merchants;

Consumption constraints based on lack of purchasing power and knowledge;

Health constraints due to endemic and infectious diseases. Health centers are not yet fully operational to provide preventive and promotive health services. Medicines are frequently in short supply and health workers are underpaid and often unmotivated.

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

Purpose of Project 079

The Area Nutrition Improvement Project (660-0079) was designed in 1982 as a follow-on project to the Nutrition Planning Project (660-0055) which created Zaire's National Nutrition Planning Center (CEPLANUT) in 1978. Project 055 trained Zairians in nutrition fields and implemented nutrition interventions in two demonstration areas. The 079 project was designed to further CEPLANUT's outreach capacity in Bandundu by supporting nutrition interventions capable of reducing by 10 percent the levels of acute malnutrition among preschool children in the region over the 5-year life of the project.

To attain this purpose the regional office of CEPLANUT in Kikwit would concentrate on three main activities: nutritional surveillance, nutrition education and the creation of the Regional Food and Nutrition Council (CRANB) to support nutrition interventions of small grassroots organizations which were already working in a variety of sectors with nutrition-related goals.

Midterm evaluation modifications

When the midterm evaluation was conducted in November, 1984, it was recognized that the original project purpose to reduce malnutrition over such a large region had been unrealistically ambitious. The project purpose was revised to apply only to project specific sites which could "demonstrate cost-effective interventions and a method for conducting them capable of reducing by 25 percent the prevalence of acute malnutrition among children five years of age and under in Bandundu by the end of FY 1987."

This revised purpose acknowledged the fact that measurement of nutrition impact due to project interventions could not be shown on a regionwide basis. The best that might be expected was evidence showing some reduction in malnutrition at the project sites that could be attributed to the project intervention.

A second project purpose of strengthening CEPLANUT institutional capability, was to be achieved through.

- o Improving technical capabilities of existing staff through long and short term training and technical assistance and through purchase of data processing equipment;
- o setting up the framework for a national nutritional surveillance system based on health zone age for weight data of preschool children;
- o developing nutrition education curricula for primary schools;
- o assisting CRANB in finding other financing mechanisms to fund nutrition intervention projects after the close of project 079;

- o establishing standardized procedures for growth monitoring;
- o establishing a curriculum for primary health care personnel which can be incorporated into inservice and formative training.

Evaluation Purpose

The purpose of this final evaluation is to figure out what happened over the 5 years of this project. Were the objectives attained? If not, why not? Most importantly, what has been learned from the design and implementation of this project that can help CEPLANUT, USAID/Kinshasa, and Zaire benefit from the experience in order to better design and manage future projects.

II. PROJECT COMPONENTS

A. NUTRITION SURVEILLANCE

Objectives

According to the project paper, ongoing nutrition and socioeconomic data collected in the Bandundu region was to be used as a baseline indicator of nutritional status, to provide information for nutrition planning, to become a basis for an early warning system for food insufficiency and to measure project impact.

Midterm recommendations

Midway through the project, in line with evaluation recommendations, USAID objectives for the nutrition surveillance activities in Bandundu were revised. Recommendations were:

- o to finish analyzing baseline data collected on a multitude of indicators at the beginning of the project;
- o to work through existing preschool clinics (CPS) in health zones to obtain information which would be used to describe prevalence of malnutrition in the region and to make available to health zones and other planning units the information collected about the nutritional status of children in the affected areas;
- o to cease collection of certain indicators; to eliminate a regional endline survey of nutritional status and to discontinue efforts to use surveillance information as an early warning system for food deficits;

Project performance:

1. The baseline survey completed in 1983 was finally analyzed in late 1986. Part of the delay was because at the beginning of the project, there was no equipment and little technical capacity among the staff to complete such an analysis. It has never been formally published. The midterm evaluators recommended eliminating the endline survey so publication of the baseline information was not considered a priority in light of the other demands of the project.

2. Eleven of 38 health zones in the Bandundu region sent monthly reports of children measured at CPS sessions reflecting several indicators requested by CEPLANUT. Data were assembled monthly, by health zone, on the number of children born in maternity clinics, the percentage considered to be low birthweight (less than 2.5 kg.); the age, sex, weight, height, and arm muscle circumference of each child attending CPS that month; and the number of children who were under the M line (representing -2 S.D. for girls) on the national growth chart. CEPLANUT coupled information on rainfall and market prices collected by other government agencies with CPS data and periodically published reports containing short analyses of the results. CEPLANUT continued to collect data on birthweights, rainfall and market prices, since it was readily available and actually gathered by other agencies. In addition, FAO data analysis systems rely on such data and CEPLANUT wanted to conform to worldwide standards.

3. In September, 1987, a methodology to assess nutritional considerations in CRANB interventions funded since 1986 was approved, but for reasons described elsewhere in this evaluation no assessment of nutritional impact was conducted on any of the CRANB projects.

Issues

1. Nutrition surveillance in Bandundu. For a nutrition surveillance system to be useful, it must have accurate and appropriate data and analyses of the data collected should be reported to clients, health workers and planners. Preliminary studies done by PRICOR II project have indicated that, in fact, health workers are weighing children and charting age with reasonable accuracy and we could expect the age for weight data to reflect accurately the situation in the CPS sites.

On the other hand, in 1986 CEPLANUT began including measures of height and arm muscle circumference in the report requested from the health zones, but it is unclear how many health workers take such measures each month, or if taken, what the accuracy might be. CEPLANUT, while recording these measures, did no analyses based on height or arm muscle circumference. Similarly, rainfall measures and market prices figure prominently in surveillance reports, but no assertions are made which link them to nutritional status of children.

Knowledge about location and severity of nutrition problems can be a powerful planning tool at local, regional and national levels. If made available on a timely basis by CEPLANUT, these reports which document the changing nutritional situation in Bandundu and elsewhere in Zaire could be useful to public and private groups involved in the health, agriculture and rural development in Zaire. It was unclear how and when the synthesized information was filtered back to the medecins chef de zone who should be among the first to need and use such information. A constraint to adequate utilization of the CEPLANUT surveillance data collected in Bandundu was that no data were analyzed in Bandundu. After collection, all data were sent to Kinshasa for analysis and printing.

2. Sustainability of CEPLANUT in conducting nutrition surveillance. This objective was based on two criteria: the ability of CEPLANUT to develop a uniform method for obtaining health data from existing health zones and increasing CEPLANUT's technical capacity to manage and analyze nutrition data.

The first objective was achieved in that CEPLANUT scaled down an ambitious surveillance program for Bandundu based on collecting data from 38 health zones and relied on sentinel posts of 11 HZs for its surveillance information. However, these posts were not selected for their representativeness of the region, but for more practical reasons, i.e., the MCZ supported the program and agreed to send in the information. Nevertheless, a methodology has been established for figuring out how to work within the existing system of synthesizing such data as exists rather than setting up a labor intensive, parallel system for collecting nutrition data.

As far as achieving the second objective, the existing CEPLANUT staff -- including those who have returned or will shortly return from training in the U.S. -- has the potential to complete design and analysis of nutrition research. As yet, however, their ability to work together as a team is unknown. Technical and administrative capabilities of CEPLANUT are addressed in other sections of this report.

Lessons Learned/Recommendations

Data collection activities can take on a life of their own with much effort placed on the gathering of information and little emphasis placed on actual analysis or followup resulting in action to deal with the problems identified. Future USAID projects involved in surveys or data collection should carefully elaborate the parameters for data analysis and not permit vast data gathering activities to overwhelm project resources.

B. CRANB INTERVENTIONS

Objectives

The Bandundu Food and Nutrition Council was created to undertake regional nutrition planning and implement effective nutrition interventions throughout the Bandundu region. This regional council was to be composed of

individuals representing an estimated 70 private and governmental organizations in the region involved in nutrition-related development efforts. It was envisioned that CRANB activities would build on or potentiate development efforts already underway in Bandundu through such groups as CODIAK, a World Bank Project, Oxfam, etc. The goal was to fund both experimental and non-experimental projects in the areas of agricultural marketing and production interventions, food consumption interventions, health interventions and nutrition specific interventions.

Midterm recommendations

The midterm evaluators recommended better targeting of the projects which were funded to achieve project purpose. CEPLANUT was instructed to:

- o design a methodology for selecting, comparing and evaluating individual nutrition interventions to be funded by CRANB; to actually evaluate the projects to see if a measurable impact on nutritional status had been made in the project areas; and to report on the findings;
- o modify certain administrative procedures to include, for example, financial reporting requirements for projects, disciplinary measures for inappropriate funds use by recipients, and streamline application procedures for previous successful recipients who might reapply for funds;
- o attempt to link CEPLANUT's nutrition education efforts with specific CRANB interventions. For example, if the project had funded soya production, to design a nutrition education module to inform village mothers about appropriate preparation and use of soya as a weaning food.
- o help identify financial resources so that CRANB could become self-financing after the closeout of project 079.

Project performance

1. Between 1982 and 1985, the project funded 51 small projects in the region of Bandundu ranging in cost from 3,000 zaires to 790,000 zaires. A total of 3.9 million zaires was expended on these interventions. As of December 1987, 23 of those first projects are still sending in progress reports and are viewed by CEPLANUT/Bandundu staff to be functioning "well". Three of the original 51 projects were refunded on a loan basis in 1986. Of the remaining projects, 13 were projects run by an individual rather than a group. Most are no longer functioning due to a variety of management, technical and financial problems. None of these original projects underwent any form of evaluations, either formal or informal.

2. In 1986, CRANB's funding mechanism was changed from grants to loans. 1.2 million zaires has been loaned to a total of ten projects. A strict accountability system has been instituted requiring the funded CRANB organization (no more loans are made to individuals) to submit financial reports to the CRANB secretariat at CEPLANUT. From the original loan fund of 1.2 million, 200,000 zaires has been repaid by four of the projects since September 1986. Repayment schedules vary from project to project based on harvest, production schedule and sales.

No evaluations, either formal or informal have occurred in any of the new projects. However, anecdotal success stories abound. For example, the UPAM project is an agricultural production unit which serves 56 communities. The project produces and sells food stuffs. The project has made possible the creation of eight nutrition rehabilitation centers where 229 malnourished children are being treated.

3. The CEPLANUT Education Service in Kikwit devised nutrition education messages and integrated them, where appropriate, into CRANB projects and project areas. Examples include: teachers in a CRANB funded school gardening project were helped to introduce students to gardening; teaching and cooking staff in a rehabilitation center were helped to identify local food staples to improve diets of malnourished children; the health zone of the city of Bandundu was assisted in the elaboration of an informational brochure and a play about good nutritional practices; talks, cooking demonstrations and animations were given to Mamans Bongisa of several areas where the CRANB-financed project "Developpement Kimbanguiste" functions; talks were given about fish in diet during training of fish farmers by Project Pisciculture Familiale. Nutrition education activities related to CRANB activities were held in a total of eleven health zones.

4. CEPLANUT/Kikwit staff identified and contacted several development organizations with goals similar to those of CRANB, but no financial resources were found to be immediately available to continue CRANB activities on the current level in the near future. While several organizations voiced possible interest, official contact must be arranged by CEPLANUT/Kinshasa. However, continuation of CRANB activities is not a priority for CEPLANUT/Kinshasa in 1988.

Issues

1. Evaluation. The fact that no evaluations of the individual projects were carried out is a very serious shortcoming of this aspect of the project. The project paper supplement of 1984 eliminated the endline survey in the entire Bandundu region but proposed impact measures at the intervention sites. In March, 1987, a written memo of understanding between USAID and CEPLANUT noted that a written evaluation and comparison of CRANB activities would be a 1987 priority. Since nutrition status indicators were not available for all projects, use of other indicators of success such as cost per beneficiary was suggested. In addition, a narrative discussing positive results of CRANB funding was to be submitted prior to July, 1987.

2. Cost. The administrative costs of running CRANB were very high. A CRANB annual meeting for 80 people cost between 500,000 and 1 million zaires in per diem and travel expenses. This was totally out of proportion to the small amounts of grants extended to the projects which the CRANB members represented. There were high per diem and fuel costs to CEPLANUT staff and subregional councils for site investigations, feasibility studies, and follow up site visits to funded projects in all subregions. Even though CRANB has now initiated a revolving loan fund rather than a simple award of grants, it represents too little available, too late in the game to permit CRANB to continue as it is presently structured.

A CRANB-like organization composed of local groups already involved in a common issue represents an attractive model for a "bottom up" development scenario. The difficulty in CRANB's role as a "regional planning organization" was that while it functioned for a time as a sort of NGO, it relied on the intermediary of CEPLANUT for survival, i.e. money. CEPLANUT/Kinshasa clearly did not view CRANB as a priority. In fact, it was seen as funnelling off excessive funds that could have been better used elsewhere.

3. Who's in charge here? Communication between project officer, American advisors in both Kikwit and Kinshasa, Kikwit CEPLANUT staff, Kinshasa CEPLANUT staff was tortuous. For example, the midterm project revision required that that individual CRANB projects be evaluated in an attempt to show project impact. These USAID project objectives were never translated into CEPLANUT priorities, either by the Kinshasa staff, who were ultimately responsible for the overall supervision of the project, or the Kikwit staff, who were to implement the evaluation.

While the project officer was responsible for communicating AID's expectations about meeting objectives and for monitoring the programming of counterpart funds, she was not required to sign off on final expenditure of counterpart funds. Even when completion of certain activities were agreed to by all parties, money programmed for one activity was frequently used for other activities based on Kinshasa priorities. The project officer, unless told specifically by American Advisors or Zairian staff was unaware of implementation delays or problems. American advisors clearly could have played a more assertive role in orienting CEPLANUT toward the achievement of specific project objectives.

Lessons Learned

1. Funding and administering micro-level intervention projects is very costly. In this case, the initial "giveaways" of project funds, high administrative costs and generous funding of CRANB executive committee functions, set up spending levels that could not possibly be maintained by available project resources. Self-financing must be a MAJOR goal from the beginning of such projects; in this case it was not.

2. Effective communications at all levels, official and unofficial, formal and informal, are crucial to effective project implementation. The role of American advisors is important. While they should clearly remain "advisors", they have a clear responsibilities to focus on achievement of project objectives.

Recommendations

Given Zaire's 1986 CDSS goal of undertaking village level development projects supported and managed by rural institutions, it may be appropriate to explore ways of integrating successful CRANB projects with USAID agriculture project 102 which has just begun to function in the Bandundu region.

C. NUTRITION EDUCATION

Objectives

The project paper provided for CEPLANUT to expand its training and advisory role in nutrition education in Zaire by developing training manuals and educational materials for use in the food and nutrition sector, since no training manuals existed which were relevant to the Zairian situation. These materials were to be targeted to primary school children, community workers and health workers. They were to cover nutrition and agriculture issues including food production, food processing, storage methods and food consumption. The manual for nurses was to encompass growth monitoring, nutrition education, nutrition assessment, dietary counselling and dietary management of diarrheal disease.

CEPLANUT was to design the primary school materials in collaboration with the Ministry of Education, to pretest the materials in selected schools in three Bandundu subregions and to eventually incorporate them into the existing curriculum throughout Zaire. Provisions were made to train trainers, to finance printing costs and to organize teacher training seminars on use of the materials.

The project envisioned development of a multi-media component to diffuse nutrition information to families in the Bandundu region through radio, newsletters, brochures, plays, flannelgraph kits, and flipcharts.

Midterm recommendations

The midterm evaluators recommended eliminating certain activities and targeting the remainder to attain revised project objectives. A scaling down of nutrition education activities was advised since two years after the initiation of project 079, nutrition education activities were behind schedule and had used a disproportionate share of the budgeted resources. Revised objectives included:

- obtaining short term technical assistance to help in developing the primary school curriculum and hiring a field nutritionist;

- confining primary school materials testing and implementation to the Kwilu sub-region;
- eliminating development of training materials for agricultural and community health workers; flip charts for adult education and nutrition messages for radio;
- linking nutrition education activities to CRANB interventions;
- strengthening of training materials for nurses.

Project Performance

1. Primary School Curriculum. As of December, 1987, primary school manuals had been written for all six grades, field tested in ten primary schools in Kwilu and Kikwit, revised, and approved for inclusion in the school curriculum by the Department of Education. They are now ready for printing. Printing costs have been paid. However, because of lengthy delays and concomitant inflation, there is some uncertainty about the total number which will be printed. It was planned that 800 schools would receive two full sets of the manuals, a total of about 90,000 manuals.
2. Flip charts. These illustrations, designed to accompany the primary school curriculum are complete and ready for printing. No funds are available to cover printing costs for approximately 14,000 which will be distributed to the primary schools.
3. Nurses' training manual. The manual was designed for training nurses in nutrition assessment and growth monitoring. Throughout 1986 and 1987, 6-day programs for trainers was held in 11 health zones. Approximately 25 nurses and health workers participated in each session. Based on the results of these sessions, the nurses' manual was revised and is now ready for printing. No funds are available to cover printing costs.
4. Growth monitoring module. In 1986, CEPLANUT, in conjunction with UNICEF, designed, printed and released a new growth card with no accompanying directions for use. Thus, a users' guide was needed to instruct health workers in use and interpretation of the card. CEPLANUT developed the module and UNICEF funded the printing of it.
5. Nutrition Training module for the Medecins chef de zone. As a part of an ongoing FONAMES activity to train Medecins Chef de Zone in primary health care basics, CEPLANUT designed a nutrition module to be included in training seminars which are held subregionally. CEPLANUT trains MCZs using this module.
6. Nutrition Education Department community outreach. In addition to the collaboration with CRANB projects outlined briefly elsewhere in this paper, meetings, conferences and presentations were held with health agents, village volunteer workers, school children and others during the course of this project. Some of these activities are outlined in the final report of Sylva Etian. (See Annex C).

Issues

1. Appropriateness of curriculum development as a USAID-funded activity. Work on the primary school nutrition curriculum began in 1983. The cost of developing this curriculum in terms of person years of CEPLANUT staff time, short term advisory consultancies, and long term American advisors was enormous. There were other costs, such as pretesting in the community to ascertain baseline knowledge levels. An endline knowledge study, planned for two years after the institution of the curriculum in the schools, would only have been possible if teaching of the curriculum had started in 1985. Since the curriculum will be taught beginning in the 1988 school year, Project 079 funding will not be available in 1990 to test effectiveness of this resource intensive project output.

2. Technical assistance.

Hiring project advisors with the right blend of technical skills, experience and French language facility was a problem. In some instances, not all three criteria were fulfilled. Even with 8-month hiring lead-times, technical advisor positions went unfilled for as much as a year. TDY consultancies often occurred months before or after they were needed and in one instance, conflicting advice was given by visiting consultants, causing discontentment and confusion within the project staff.

Lessons learned/recommendations

1. USAID should allot counterpart funds to permit the printing of flipcharts which were designed to accompany the primary school nutrition manuals. Cost: 1,257,800 zaires.

2. USAID should allot counterpart funds to permit the printing of the nurses manual which were designed by the project staff. Cost: 320,000 zaires.

3. Institutional contractors might be an appropriate way to ease USAID management burdens, especially when hiring and maintenance of numerous expatriate staff is envisioned.

D. INSTITUTION BUILDING

Project Performance

1. Training. Eight technicians have received masters level training in the U.S. in international nutrition (two M.P.H.), in nutrition planning (two M.S.), and in nutrition education and business administration (four M.A.) Another group of eight underwent short term training programs in areas of program planning and design, community health and microcomputers. A total of 45 participants attended short term training programs with local institutions including the School of Public Health and CENACOP. The U.S. Bureau of the Census provided hands-on computer training. In addition, all scopes of work for consultancies from INCS, Manoff, Tufts and other institutions included specific provisions for training of Zairian counterparts. The project goals for training were exceeded.

2. Establishment of data processing unit. CEPLANUT now possesses seven micro-computers and appropriate software packages.

3. Other commodities. Before the end of the project, CEPLANUT will receive 400 pediatric scales, 400 hanging children's scales, and 400 stand up scales. These scales, which will be programmed in collaboration with the Basic Rural Health Project, should be instrumental in supporting CEPLANUT's continuing activity in the promotion of growth monitoring in health centers. This will be done through training and retraining of health workers and encouraging the continued cooperation of the rural health zones to provide information from CPS to be used in CEPLANUT nutrition surveillance reports.

Issues

1. CEPLANUT capabilities

The evaluation team interviewed staff of NGO's, international organizations and other USAID projects who have worked with CEPLANUT in the past or who envision future collaboration. Comments centered on CEPLANUT's ability or deficiencies in two areas: technical and administrative.

a. Technical capacity. CEPLANUT's technical ability to conduct surveys, handle and analyze data is perceived positively when compared to other Zairian organizations. A feasibility study conducted in July 1986 for USAID's agriculture project 102, found that CEPLANUT could function adequately as a collaborating institution to carry out a baseline consumption survey. It was, in fact preferred over the Institut National de Statistique (INS) and the Division de Statistiques Agricole (DSA), provided a technically strong manager from CEPLANUT was put in charge of the survey.

Will CEPLANUT be able to provide such technically competent managers? Only half of CEPLANUT's long term training team has returned home. With the benefit of hindsight, it now appears that CEPLANUT might have been better served if the academic majors chosen by the members of the group had been more oriented to statistical analysis and less oriented to softer subjects. Of that group, only one individual who has returned has thus far exhibited the depth of technical training and experience in statistics and data analysis required to run and analyze the kinds of surveys that might be required by outside organizations. Annex E lists the training received by the core CEPLANUT staff.

b. Administrative capacity. This was identified as a major weakness midway through the project. Disparate program objectives of the field and Kinshasa offices necessitated two different sets of program and operational budgets which had to be planned, requested, approved, modified, reconciled and reported throughout the year. An American advisor has ably served as project administrator since January 1986. She is presently working only one-third time in CEPLANUT and in March will be disassociated completely from the project. Her designated counterpart will not return from longterm training until August. No other staff member has been trained.

If other organizations are going to work successfully with CEPLANUT, they need assurances that financial and administrative details will be managed according to agreed-upon schedules. To do this, CEPLANUT must be able to schedule its staff and resources appropriately. In the past, some CEPLANUT collaboration (with SANRU, for example,) has had to be curtailed due to inadequate CEPLANUT staff time. Being able to maintain commitments when faced with numerous demands will require that CEPLANUT develop an administrative capability not currently in place to manage staff and other resources.

One of the last technical consultancies in this project will be to help CEPLANUT develop the internal capacity to write proposals. This is a key organizational skill. USAID could have appropriately expected that this would have been one of many skills emphasized throughout the life of the project by the Senior American Advisors. Since this did not happen, outside technical consultancies in this area should have been begun much earlier.

2. GOZ support.

Government of Zaire support to CEPLANUT has steadily increased over the life of this project. In 1982 it received 573,000 zaires; in 1986 it received 7.3 million zaires (75% of its budget request). As of December, 1987, CEPLANUT has received 9.8 million of the 11.9 million requested in budget ordinaire. Of that amount, 6.3 million has been consecrated to salaries and 3.5 million to administrative costs and project activities. Even with full GOZ support, CEPLANUT will need additional resources to support research or intervention activities.

3. CEPLANUT's future

The issue of CEPLANUT's role as a planning or research or advisory or implementing organization was a focus of the midterm evaluation. It has been repeatedly stated that it is inappropriate for CEPLANUT to be involved in implementation of nutrition projects. This is an issue that is now outside of A.I.D.'s purview. CEPLANUT has set its goals and objectives for 1988 and has indicated a willingness to work in all aspects of nutrition in Zaire, be it research, planning or intervention programs.

CEPLANUT has established a strong role for itself among the other government departments. Requests for collaboration on nutrition related issues come increasingly from the Departments of Plan, Health and Education. Other collaborative projects which have been identified for the near term include:

o School of Public Health. CEPLANUT has been designated as a major subcontractor in a collaborative effort of the SPH and Sante Pour Tous to carry out an operations research and intervention activity in the area of growth monitoring. While the specific scope of work has not yet been drawn up, the payment of overhead and release of funds will be handled based strictly on timely achievement of benchmarked objectives as in "real world" consultancy arrangements.

o PRICOR II. CEPLANUT will collaborate with PRICOR II in an operations research on growth monitoring in selected health zones.

o SANRU. CEPLANUT will work with SANRU in operations research on growth monitoring in rural health zones. CEPLANUT will participate in SANRU-sponsored subregional conferences for medecins chefs de zone. A CEPLANUT-designed nutrition module in use and interpretation of the growth chart will be used to train doctors as trainers for nurses and health workers.

o World Health Organization. WHO is planning to fund a \$3 to \$4 million intervention project to decrease incidence of goiter in Zaire in collaboration with CEPLANUT. In addition, CEPLANUT is currently working with WHO in a study of diarrheal disease in the Bandundu region.

o UNICEF will continue to work with CEPLANUT to develop nutrition education materials and brochures

Lessons learned/recommendations

1. The cutoff of all USAID project resources--particularly of technical advisors--before the return of half of the Zairian trainees decreased skills transfers and was a loss for both CEPLANUT and USAID.
2. More attention should be paid to the hard skills needed when the academic majors of long term trainees are being chosen. These majors should be agreed to in advance and the project officer should exercise a vigilant veto power over stateside changes that would have an adverse effect on the total skills mix desired at the end of the project.
3. Senior project advisors, on the job every day, should be expected to play a major role in helping develop institutional skills such as proposal writing. Inputs of outside technical assistance to develop these skills should occur before the very end of the project.

III. PROJECT DESIGN

This final evaluation team has been asked to comment on the effectiveness of using a "free standing" nutrition project as opposed to one which "integrates" nutrition issues into programs designed for agriculture, health, or rural development sectors. This question was discussed in detail in Annex D of the midterm evaluation.

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Intersectoral integration of nutrition objectives into projects across sectors is desirable. However, this does not seem to be happening to any extent in Zaire. There is no mechanism to assure that nutrition or consumption issues will be fully addressed in projects designed for other sectors.

With the closeout of Project 079, there will be no nutrition components in any project with three exceptions: a small MCH component in the ORT weaning food processing project, the recent child survival funded growth monitoring research and intervention activity to be carried out by the School of Public Health in collaboration with CEPLANUT and a small operations research analyses done in connection with the PRICOR II project. In the absence of real intersectoral collaboration which includes nutrition as more than a small, add-on component, and given the importance accorded nutrition in the Africa Bureau's Child Survival Strategy, specific "nutrition" interventions continue to be appropriate.

Whether nutrition activities are done through a stand alone or integrated mechanism, a real concern of the evaluation team is how to build on knowledge that has been or is being gained through present activities. For example, how will the findings of weaning practices study or growth monitoring operations research be used to institute appropriate interventions be they focused nutrition education for mothers, training of rural health workers?

The evaluators found that problems with the design and midterm redesign of this project fell into two categories: management and money.

A. Management

1. CEPLANUT Management. Designed as a centrally supervised project, there were two geographically separate sites with separate objectives, priorities, personnel and fiscal needs. Very early in the project it became clear that although the Kinshasa CEPLANUT office was officially responsible for the project activities in Kikwit, there were massive communication problems and conflicting priorities that have continued to the present.
2. USAID Management. The USAID project manager has estimated that in the first two years she managed this project, she spent more than 60 percent of her time dealing with project-related issues. The management burden of recruiting and hiring 5 long term advisors, seeking and hiring dozens of short term consultants, ordering commodities, plus the day-to-day handling of administrative and financial details of two offices with two different programs and a multitude of project objectives, argues convincingly that an institutional contractor might have been a reasonable investment for USAID.

Throughout the project there have been concerns about both the management styles and technical skills of the American advisors. In response to criticisms from the midterm evaluators that the American advisors were too aggressive in pursuing project goals and not collaborative enough with Zairian counterparts, new scopes of work were designed, and a new team of advisors was hired. The second group, with clear mandates to act only as advisors, are seen in this evaluation as not promoting aggressively enough project objectives.

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A related issue was the appropriateness of the technical skills of the some of the longterm advisors. Particularly in the area of curriculum development, it can be argued that no one involved had sufficient background or experience to develop an appropriate curriculum in a timely fashion.

B. Money

1. Overall project objectives were not clearly linked with project counterpart funding. While programming of project counterpart funds was done by CEPLANUT, there was no one clearly responsible for assuring that benchmarks for project activities fulfilling project objectives were set or met.

2. Inflation was not adequately foreseen. In spite of the 250 percent inflation which has occurred in Zaire since the beginning of the project in 1982, many of the outputs of the project were attained.

Lessons learned.

1. Institutional contractors should be considered when projects have many elements and much technical assistance, particularly many in-country advisors.

2. Match as closely as possible contractor skills and project needs.

3. Elaborate in the project paper a detailed budget clarifying benchmarks for local currency funds release based on completion of project objectives. The dollar budget should be as specific as possible.

4. Project papers should address fiscal sustainability by setting up a financial plan so that through the life of the project, counterpart fund charges can be taken over by budget ordinaire under a progressive phaseout mechanism such as: second year - 25 percent; third year - 50 percent; fourth year - 75 percent; and fifth year - 100 percent.

Recommendations:

1. Establish an internal USAID mechanism to assure that nutrition concerns are integrated in USAID project designs in other sectors, especially agriculture.

2. The project has identified a number of nutrition related needs in Zaire. These include implementing growth monitoring/promotion activities through health worker training and appropriate nutrition education of mothers in the areas of weaning practices and dietary treatment of diarrheal disease. Should funds be available at the close of this project, USAID should consider financing follow on activities in the areas. Possible mechanisms for programming of these funds might be through HEALTHCOM which will soon have a project in Zaire or through collaboration with the Nutrition Education and Social Marketing Project recently awarded by S&T/Nutrition to the Academy for Educational Development.

IV/ CONCLUSIONS

The Area Nutrition Improvement Project attempted to achieve its goals through a multiplicity of activities. Not all of the activities envisioned by the project planners occurred. Although a number of promising projects in a variety of sectors were funded, the difficulty and expense of administering small projects on a regional basis was shown. It was not possible to show decreases in malnutrition due to project effects.

On the other hand, the project developed an effective methodology for nutrition surveillance, training modules which are already being used in training health workers at all levels and educational materials that will be installed in the primary school curriculum beginning in 1988.

While CEPLANUT's future as a vigorous research, training or implementing institution depends on adroit management, creative administration, future government funding, and a little luck, the members of the evaluation team felt that the lasting importance of USAID's input through this project has been to vastly increase the capacity of CEPLANUT to function independently as a nutrition planning and research organization in Zaire.

The decision of USAID/Kinshasa to terminate this project as scheduled in the original project papers is related to increasing demands on scarce financial and personnel resources. The evaluation team is hopeful that future USAID/CEPLANUT collaboration will be considered, particularly in the areas identified as priorities under this project: growth monitoring/promotion, weaning practices and dietary management of diarrheal disease.

PERSONS CONTACTED

Kinshasa

USAID

John Bierke, Chief, Program Office
 John Wiebler, Program Officer
 Stephen Vance, Evaluation Officer
 Carol Payne, Project Officer, HPN
 Glenn Post, Chief, HPN
 Cheryl McCarthy, Project Officer, ARD
 David Olson, Project Manager, Agriculture Project 660-0102

CEPLANUT

Dr. Banea Mayambu, Directeur
 Ms. Abeba Gobezie, Senior Nutrition Advisor
 Cit. Bikangi Nkiabungu, Chef de Division, Recherches et Etudes
 Hannaye Bisson, Administrative Advisor
 Cit. Kinjanja Kakyinge, Chef de Division, Planification

Other Agencies

Phyllis Gestrin, Nutrition Advisor, UNICEF
 Dr. Butera, Representative, World Health Organization
 Dr. Mimi Garnier, Medical Director, Santé pour Tous
 Franklin Baer, Project Advisor, SANPU
 Dr. Tswakata Masam, Chef de Div., Formation, Santé pour Tous
 William Bertrand, Co-Director, School of Public Health

Kikwit

CEPLANUT

Cit. Kalengai Muladi, Coordinateur CEPLANUT/Kikwit
 Cit. Nunga, Matadi, Chef de Service, Interventions
 Allyn Writsel, Conseiller Technique, Interventions
 Mary Porter, Conseiller Technique, Education Nutritionnelle
 Cit. Mpoy wa Mpoyi, Chef de Service, Surveillance
 Cit. Diasolwa Ngudi, Chef de Service, Education Nutritionnelle
 Cit. Ndombe Lute, Agronome, CRANB
 Cit. Longomo Lushima, Superviseur des Enquêtes
 Cit. Ngytuka Mwana, Encadreur Piscicole
 Cit. Munsie wa Lubie, Conseiller, Education Nutritionnelle
 Cit. Mayo Pulu, Animateur, Education Nutritionnelle

Other

Cne. Gashama Lwamba, BUPROF/UNTZA, CRANB Executive Committee member

I. Activity to be Evaluated

Area Nutrition Improvement - 660-0079
LOP Funding - Dols 3,300,000
PACD - March 1988

II. Evaluation Purpose

The purpose of this final evaluation is to document the catalysts or inhibitors of project achievement and to record significant lessons learned during the life of the project.

III. Background/Project Description

The Area Nutrition Improvement Project was designed as a follow-on to the Nutrition Planning project, which created Zaire's National Nutrition Planning Center (CEPLANUT). With the institutional groundwork laid by the first project, the second was designed to strengthen CEPLANUT's capacity to monitor the nutritional situation in Zaire; to provide long-term assistance to CEPLANUT to develop its capacity to plan and implement effective nutritional strategies and interventions throughout Zaire; to adapt or create effective training and educational materials; and to create a regional food and nutrition council (CRANB) that would support micro-level nutritional interventions in the region of Bandundu.

The mid-term evaluation, which was held in 1984, identified a number of weaknesses in the project's design that would have made achievement of original objectives an unattainable goal. The revised project purpose reflects these changes and now reads: 1) to demonstrate cost-effective interventions and a method for conducting them capable of reducing by 25 percent the prevalence of acute malnutrition among children five years of age and under in Bandundu by the end of FY 1987; and 2) to build the institutional capabilities of CEPLANUT.

IV. Specific Issues to be addressed

A. Project Implementation

Determine whether project's objectives as outlined in the project paper and project paper supplement have been met, and the extent to which the achievement of the objectives has contributed to the revised project purpose and goal.

1. Nutritional Surveillance

Determine whether surveillance activities have been reduced to conform to the institutional capacity of CEPLANUT. Comment on nutritional surveillance system for the region of Bandundu. Review and assess Data collection and analysis capabilities. What data are being collected? Has a standardized system been established? How are these data being used? Is project coordinating with CRANB and other organizations? Has baseline survey data been analyzed? Will project conduct endline survey in pilot or control villages?

2. CRANB

To what extent have CRANB activities and budget been augmented? Has the process of selecting micro-intervention sub-projects been improved? Are these interventions more effective? Can improvement in nutritional impact be measured? How do these interventions help to achieve project purpose? Examine the link between a sub-project's immediate objective and the overall project goal.

3. Nutrition Education

Comment on the effects of the reduction in range and number of nutrition education activities. To what extent have nutrition-education efforts been focused on a) refining the primary school curriculum, b) training health personnel, c) supporting CRANB nutrition interventions. Following the 1984 evaluation, the nutrition education activities were reduced to include: subregional rather than region-wide testing and implementing of primary school curriculum; strengthening of training materials for nurses only; linking of these activities to CRANB interventions; modifying the newsletter, Saka-Saka.

B. Institution Building

Assess the changes resulting from the implementation of mid-term evaluation recommendations. Assess overall quality of project's assistance to strengthening CEPLANUT as a national nutrition planning organization. Comment on institutional linkages and coordination among CEPLANUT, other USAID Projects, GOZ Agencies, and other non-governmental entities.

Examine in particular: Participation of national staff in project management; quality of short and long-term training of national staff in both technical and managerial areas.

C. Project Design

Examine effectiveness of using a free-standing nutrition project as a means of addressing Zaire's nutritional problems. Would it have been more effective to have incorporated nutrition components in agricultural development or rural health projects?

Make recommendations as to how the Mission might continue to support nutrition activities in the absence of a free-standing project.

D. Sustainability

Since the 1984 evaluation, USAID has focused its efforts on strengthening CEPLANUT as a consulting and research organization. With this change and the reduction of project activities in mind, assess sustainability of project outputs after the 1988 PACD.

V. Methods and Procedures

The evaluation of this project will take approximately three weeks, beginning on November 29 and ending on December 18. Team members will be authorized to work a six-day week. The itinerary is as follows:

Sunday, November 29	Team leader arrives
Monday, November 30 to Wednesday, December 2	General orientation; meetings with USAID and project personnel
Thursday, December 3 to Sunday, December 6	Field visit to Kikwit and CRANB locations
Monday, December 7 to Saturday December 12	Preparation of draft report; additional meetings with staff
Monday, December 14	Draft report due
Wednesday, December 16	Review draft report with project personnel and USAID staff
Thursday, December 17	Revisions, preparation of final report
Friday, December 18	Review results of evaluation with USAID Director and concerned staff;
Saturday, December 19	Submission of final report Departure of team leader

List of persons to be interviewed

<u>USAID</u>	Dr. Glen Post, Dir. HPN Carol Payne, Project Officer Hanaye Bisson, Project Officer
<u>CEPLANUT</u>	
Kinshasa	Dr. Banea, Director Abeba Gobezi, Advisor
Kikwit	Dr. Kalengaie, Coordinator Mary Porter, Ed. Bureau Cit. Diasolua, Ed. Bureau Allyen Writesel, CRANB Cit. Munga Matadi, CRANB

VI. Team Composition

The evaluation team will be composed of two external evaluators: a team leader with specific health/nutrition project experience and a management/training specialist with evaluation experience. A French language proficiency level of R/3, S/3 is required, as is in-country experience.

VII. Reporting Requirements

The team leader will submit a draft evaluation report to USAID's evaluation officer four days before the end of his/her contract. This report will include the following: 1) Executive Summary of no more than two pages (including purpose of activity evaluated; purpose of evaluation and methodology used; findings and conclusions; recommendations and lessons learned); 2) Table of Contents; 3) Body of the Report of no more than 15 pages (should include a discussion of the purpose and study questions of the evaluation; the economic, political, and social context of the project; team composition and study methods; evidence/findings of the study; conclusions drawn from the study; and recommendations/lessons learned); and, 4) Appendices (should include a copy of the scope of work, the most current logical framework, as pertinent; a list of documents consulted; and individuals and agencies contacted).

Two separate meetings will be held to review the draft report. The first will be held with the evaluators, the evaluation officer, the project officer, and project personnel; the second with the evaluators, the USAID Director, the evaluation officer, the project officer and other concerned USAID staff members. Major findings and recommendations will be discussed during these meetings. The team leader will be responsible for submitting the final evaluation report, which will include consideration of issues discussed during the course of the above mentioned meetings, prior to his/her departure.

**NUTRITION EDUCATION AND RELATED ACTIVITIES
OF THE CEPLANUT REGIONAL OFFICE**

Final Report: Oct. 1, 1983 - Sept. 30, 1987

by Sylva Etian

In the fall of 1983, I signed a contract with USAID to work as Co-Director of the Regional CEPLANUT office in Bandundu Region and Educational Materials Development Specialist. Shortly after my arrival in Kinshasa (October 1983), I contacted various offices seeking information on existing health and nutrition programs in Zaire. Offices contacted include the departments within the Ministry of Education (Direction des Services Pédagogiques, Inspection de l'Enseignement Primaire et Secondaire, SAMAFOS), SANRU-86, RATELEMO, Peace Corps. Other offices were contacted for the availability of education materials: CEPAS for health and appropriate technology materials, Peace Corps for agriculture and health visual aids; CEPI Imprimerie and St. Paul Imprimerie were contacted for the reproduction of instructional texts, and Voix de Zaire for diffusion of educational radio programs.

During these visits, I discovered that the Ministry of Education, Pedagogical Division, published a series of teacher guides to be used in primary school education on a national level, and that there is a health component (cours d'hygiène) and a school garden program (travaux manuels) in the national curriculum. A concerted effort has been made by Peace Corps to introduce health, sanitation, hygiene and nutrition courses in primary schools on an experimental basis in select locations. Peace Corps Health Education volunteers had developed a basic health course, complete with flipcharts and assorted visual aids. At the printing establishments, I found excellent publishing facilities for future duplication of books, manuals, brochures. And, I was informed by ministry officials that extended infrastructure in both the health and education sectors was in place throughout Bandundu.

When I arrived in Kikwit, I found the Nutritional Education Work Group, composed of Robert DeWolfe, Cit. MUDERHWA, Cit. MAYO already in place, gathering existing educational materials related to health (flipcharts, posters, booklets, flannelgraph materials). Bob DeWolfe had already contacted Coordinators of various primary school systems in the Kikwit region and had observed several hygiene courses at the local Baptist primary school.

In our initial group meeting, we reviewed the existing materials gathered, and decided that CEPLANUT representatives should be sent to various health centers where these materials were being used to observe their effectiveness on the target population. After contacting local medical authorities, Bob and MUDERHWA wrote a questionnaire and a guide for our interviewers to use in their observations. Four teams of two members each were sent to eight sites representing the four zones in the Kikwit sub-region.

The nutrition work group decided that Phase I of our program would be devoted to research. Didactic materials were collected, letters to numerous organizations working in the areas of educational material development were sent, and group members were assigned to investigate the activities of various local organizations (i.e. OXPAN, UNICEF, CODAIK, Catholic Diocese, Canadian Technical Assistance, the Kimbanguists, Belgians, Chinese, PAO, etc.). A list of educational materials production facilities was made with the intent of visiting as many of them as possible to seek collaboration and guidance in the production of didactic materials.

During the first annual CRANB Conference, the nutrition education work group asked participants to identify the causes of malnutrition in their respective regions and to suggest educational approaches to attacking these specific causes. Questionnaires seeking information on the educational needs of these various regions were also distributed to the physicians, health workers and agronomists representing the whole of Bandundu region.

We invited representatives of health and educational institutions to give us a realistic appraisal of health conditions in their areas and to discuss their respective approaches to health problems.

Members of the nutrition education bureau observed hygiene and school garden courses in Catholic, Protestant, Kimbanguist and public schools in hopes of integrating CEPLANUT-produced nutrition materials into the existing education system.

When two consultants sent by Partners in Productivity visited Bandundu to investigate the possibilities of developing local cottage industries, a CEPLANUT nurse and I visited health centers, nutrition rehabilitation centers, and primary schools throughout the Kwilu Sub-region to ascertain the prevalent nutrition problems. Several months later, visits were made to production facilities outside Bandundu (i.e. Kangu-Mayombe where Dr. Courtejoie has worked for many years developing health aids, Kabeya-Kamwanga where Peace Corps Volunteers supervise a health education project in primary schools, Brazzaville's CARE-CONGO project, Kinshasa's Bureau for Education and Voc program in the secondary schools, CEPAS, etc.).

During this time, a remarkable amount of administrative and logistic work was accomplished. The regional office was established and inaugurated with the presence of the U.S. Ambassador to Zaire. Repairs were made to both the CEPLANUT offices and the CEPLANUT Guesthouse. The logistics of housing for the personnel and storage goods were taken care of. Workgroups within CEPLANUT were formed, administrative tasks assigned, office procedures established.

Contact was made with Ministry of Education officials in 1984. Nutritionist MODERUWA accompanied me in my visit to the Directors and Division Heads of the following departments: School Program, Production and Promotion of Educational Materials, School Textbooks, Plan, Documentation, School Radio and CEREDIS. The Ministry of Agriculture was consulted for information on the rural radio program.

and the Ministry of Information for the educational television (RATÉLESCO) and radio programs (Voix de Zaïre). The National School Coordinators as well as private and public organizations were visited. Regional Chief of Education (REGED), Regional Inspector General for Primary and Secondary Schools, regional coordinators of schools, director of the "Centre de Recyclage Pédagogique de Maîtres," officials of the Voix de Zaïre were called upon in Bandundu-ville. These contacts were made to gather information on existing programs and facilities, to seek advice on how to develop a national nutrition and agriculture curricula acceptable to national authorities, and to solicit collaboration from all interested parties in our efforts to develop appropriate and effective nutrition education interventions.

In mid 1984, the nutrition education group developed the non formal education strategy for training health personnel in nutrition throughout the region: at the request of Bandundu Médecin-Chefs-de-Zone, a CEPLANUT team made up of a nutritionist and health educator would facilitate a week-long training program to nurses and community health workers responsible for the health centers and health posts within each health zone. By the official project deadline date of September 1987, a dozen of the approximately 40 health zones (well over 200 health personnel) have benefitted from these training programs.

In addition to training health personnel in the rural health zones, CEPLANUT has been asked to participate in training programs sponsored by other organizations (i.e. GTER/ECZ, UNESCO, DEVEKI Rimbangulsts, Vanga Nursing School, Kajiji Nursing School, Kikwit Town Hall, various Catholic and Protestant Missions, Department of Social Affairs, etc.). These training activities will continue throughout the life of Kikwit's regional office.

To gain first-hand knowledge on agricultural methods in preparation for developing the agriculture course, three members of the nutrition education work group, Cits. MAYO, ILUWA, and MAYAMBA actively participated in a week-long training program designed especially for them at The Agricultural Technical Institute of Isingiro.

A delegation from CEPLANUT comprised of Dr. Banca, Citne. WABO, Cit. MUKENGE, Bob DeWolfe and me, made an official visit to the Governor of Bandundu, Chief Regional Officer of the Ministry of Education and Regional Inspector for Primary and Secondary Schools and succeeded in seeking their support for our education programs. While in Bandundu-ville, Dr. Banca and I spoke extensively of CEPLANUT's activities in the region on Radio Bandundu. After the broadcast, Citne. WABO and I spoke with radio directors about our intentions of using radio to disseminate nutrition messages throughout the region. Unfortunately, Radio Bandundu signals do not reach a great part of the Kwilu sub-region. And, AID/PDO's Small Farmer Survey indicated that very small percentage of Bandundu residents have radios or the means to purchase them.

To assist the education workgroup in identifying priority messages to be diffused in the region, a number of development

specialists were consulted. Dr. Judith Brown elaborated strategies for message development; Catholic Fathers and Sisters recommended nutritional messages adapted to their respective areas; Health workers in a number of centers proposed their ideas; PEV and PSND contributed their expertise on oral rehydration therapy and family planning strategies. To gather information from the target population, four members of the education work group headed by nutritionist Citne. WABO, conducted a survey in five villages representing four of the major ethnic groups. Armed with the information collected, the education group elaborated a list of priority messages to be used as the basis of the nutrition and agriculture curricula.

In August 1984, consultants Dr. Yvonne Sheline and Dr. DIAWAKU began writing nutrition and agriculture lesson plans based on an outline of principal themes and priority messages developed by the education group. Two agronomists were hired to assist Dr. DIAWAKU in elaborating the agriculture manuals. Familiar with his work at I.S.P./Kikwit, I asked that Cit. MWANADEKB, French professor and Chairman of the Pedagogical Department at the Institut Supérieur de Pédagogie de Kikwit be hired as a consultant to review the drafts for pedagogical content and French language accuracy.

When informed that Citne. WABO was accepted to participate in a six month nutrition-training course in Belgium, I asked Project Planner Dr. Brown to look for another nutritionist for the education bureau. Cit. DIASOLUA joined the group in August 1984, just in time to assist the CEPLANUT staff in making recommendations to the consultants on the agriculture and nutrition manuals at weekly review sessions.

While Drs. Sheline and DIAWAKU wrote the manuals, education team members contributed to a number of conferences and seminars. Bob and WABO went to the AID-sponsored conference in Abidjan on primary health care. WABO then participated in OXPAM's week-long seminar which addressed community participation in orienting village-based development projects. DIASOLUA and ILUWA spent a week at a health conference in Vanga discussing how individual organizations could collaborate to help improve the health standards of the rural population. Bob worked with CEPAS to introduce strategies that local physicians and health supervisors could follow to set up community-based health committees in the newly established health zones. The entire group participated in the second annual CRANB Conference: WABO informed regional health and agriculture authorities of on going nutrition education activities; DIASOLUA addressed rehabilitation issues; MAYO displayed educational materials gathered locally throughout the year.

In our efforts to collaborate with members of the Interventions Bureau (CRANB), the nutrition education group has been called upon a number of times to provide nutrition training to CRANB-sponsored project participants. To assist CRANB members in their deliberations to award funds on specific projects (i.e. Kimbimbi Agriculture Investment Project which centers around the use of primary school

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While Drs. Sheline and DIAWAKU wrote the manuals, education team members contributed to a number of conferences and seminars. Bob and WABO went to the AID-sponsored conference in Abidjan on primary health care. WABO then participated in OXPAM's week-long seminar which addressed community participation in orienting village-based development projects. DIASOLUA and ILUWA spent a week at a health conference in Vanga discussing how individual organizations could collaborate to help improve the health standards of the rural population. Bob worked with CEPAS to introduce strategies that local physicians and health supervisors could follow to set up community-based health committees in the newly established health zones. The entire group participated in the second annual CRANB Conference: WABO informed regional health and agriculture authorities of on-going nutrition education activities; DIASOLUA addressed rehabilitation issues; MAYO displayed educational materials gathered locally throughout the year.

In our efforts to collaborate with members of the Interventions Bureau (CRANB), the nutrition education group has been called upon a number of times to provide nutrition training to CRANB-sponsored project participants. To assist CRANB members in their deliberations to award funds on specific projects (i.e. Kimbimbi Agriculture Investment Project which centers around the use of primary school

pupils in agriculture and fish culture interventions), education group members review projects with an education orientation and present the CRANB Secretariat their recommendations. Another example of collaboration centers around the CRANB-financed Kimbanguist Manioc Multiplication project. Health educator MAYO was asked to lead animated nutrition demonstrations (weaning food preparations, songs & chants incorporating nutritional messages etc.) to over 60 Mama Bonglissas (influential village women) representing over 23 villages. When Bandundu-ville's Medecin-Chef de Zone asked CRANB to finance a theatrical production and a nutrition brochure promoting positive nutrition behaviors, the nutrition education team went to Bandundu to assist. Over a dozen successful performances have been given in both Kikongo and French in the northern sector of the Kwilu sub-region. The Interventions Bureau continues to work closely with the Education Bureau to develop educational components that can be integrated in CRANB-financed projects.

By mid-June 1985, the six manuals for nutrition and agriculture had been written, were translated into Kikongo and were ready for the pilot testing in four representative schools (i.e. Catholic, Protestant, Kimbanguist, Government schools). Over sixty teachers, along with their school directors, and village authorities participated in the week-long training sessions carried out by the nutrition education team at the various sites. At the same time, copies of the manuals were deposited with the Ministry of Education for their evaluation and approval. And division chiefs in the Departments of School Programs and School Manuals were invited on separate occasions to observe the follow-up observation visits to the rural schools. The bi-monthly visits were valuable: the teachers at all grade levels were indeed teaching the nutrition and agriculture courses as well as they could, given the circumstances (lack of nutritional information previous to CEPLANUT curricula, minimal financial and material support, unpredictability of teacher transfers, theft of school garden produce...). The Kikwit team followed the observations with meetings with the teachers, and occasionally, with the parents of the students.

In early 1986, Ms. Mary Porter, the Field Education Advisor, joined the team, as did Cit. MUTALA, back from the University of Massachusetts with a Masters Degree in Education. Cit. MUTALA returned later to Kinshasa and became the liaison for the Kikwit education group.

A number of consultants came to Kikwit to review our nutrition and agriculture drafts. Christine Myers worked with the education team to develop an evaluation strategy: teachers and student knowledge tests as well as student attitudes tests were pre tested and administered in all four pilot schools. Team members monitored the pace of the lessons taught, student attendance, changes in staff, class participation, use of visual aids. Based on findings from the tests and class observations, Dr. Judith Brown developed a baseline observation study on the village level to measure behavior change that could be attributed to the agriculture and nutrition curricula. Other consultants came to help restructure the course content, to strengthen

the relationship between the two courses, to help codify the knowledge tests so that analysis could be performed by computer (in Kinshasa).

Drs. Banca and Kalengaie, and members of the Nutrition Education Bureau met with seven high-level Ministry of Education officials to discuss the future of the manuals. CEPLANUT succeeded in having the officials restructure the national primary school program in the area of nutrition and agriculture, thereby creating a program more comprehensive and relevant to the needs of the rural population. However, the officials asked for major changes in the format of the manuals. They criticized the team for developing individual, detailed lesson plans which in effect discouraged teachers' initiative in lesson preparation, rather than developing general school textbooks.

A delegation of four division heads came to Kikwit to help elaborate a new format for the school manuals, to identify course contents, and to elaborate prototype lessons. After their departure, the Kikwit nutrition bureau, under my supervision and made up of Cit. DIASOLUA, MWANADEKE, MUNSIE, Ms. Mary Porter, and Cit. MAYO feverishly set out to rewrite the six nutrition manuals. I was able to find an excellent artist, Cit. BONKELA, to draw the majority of the illustrations (which were pre-tested and revised). The first two grades of the course were translated into Kikongo. Six pilot schools were added to the original four, and the series of knowledge tests and regular observation visits were reinstated for the 1986-87 academic year. Once again, teachers and directors were trained at five of the ten pilot schools prior to the beginning of classes. A second month-long village-level observation study was carried out and supervised by Cit. MUTALA.

Once again, six copies of the revised nutrition school manuals were officially delivered to the Ministry of Education and meetings held with the Division Heads on their use in the national primary school program. A page by page analysis of all six manuals took place, and at the end of the week-long sessions, all eleven participants walked away feeling that indeed the CEPLANUT/Kikwit developed nutrition course would receive the official stamp of approval.

The Regional Principal Inspector, who supervises all primary school inspectors in the Bandundu Region, was contacted for authorization to train all the Sub-Kwilu region inspectors. The months of August and September 1987 were devoted to the training of over 200 school inspectors and their division heads on the use of the nutrition manuals in schools in their jurisdiction.

At the end of September, I will be leaving the Area Nutrition Improvement Project 660-079, which created the regional CEPLANUT office. As chief technical advisor for the Nutrition Education Department, I have enjoyed working for the last four years with my enthusiastic, dedicated and competent colleagues to develop a nutrition course acceptable to the Ministries of Education and Public Health as well as to USAID. Meetings with Kinshasa CEPLANUT and other personnel as well as a host of development workers throughout Zaire

research on available educational materials, needs assessment on the village level, message development, lesson and text preparation, pilot testing in 10 representative schools, evaluation strategies to test knowledge, attitudes and practices have all played important roles in the production of the nutrition school textbooks to be used for all six grades on the primary school level. On July 29, 1987, the Secretary-General of the Department of Primary and Secondary Schools of the Ministry of Education, Cit. KUPI KILANGA wrote a letter to the Medical Director of CEPLANUT authorizing the distribution and use of the nutrition manuals in primary schools.

ANNEX D

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No. 47/1987
2. CEPLANUT Rapport d'activites Project 660-0079/US/AID/CE Region de
Bandundu-Kikwit 1983-1987
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classique et rapports des C.S./Ville de Kinshasa
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CEPLANUT STAFF TRAINING

U.S. LONG TERM TRAINING - MASTERS' LEVEL

NUNGA MATADI	International Health; management	Tulane University 9/84 - 5/86
MBUYI MUTALA	Non-Formal Education; communication, mass media, nutrition	U. Mass./Amherst 1/84 - 12/85
MUDERWA RUNHESHA	Public Health Nutrition	Tulane, 9/84 -5/86
NAHIMANA GITEBO	Nutrition Planning; statistics, data analysis	Tufts, 9/86-5/88
BIKANGI KIABUNGU	Nutrition Planning; statistics, data analysis	Tufts 9/84 - 12/86
MUKENGE BIKADI	Public Health Education; nutrition	University of North Carolina 9/86 - 5/88
MWALIE FATAKI	Education; curriculum development	University of Georgia 9/86 - 5/88
KANYINDA TSHIENDA	Public Health Administration	Tulane 7/86 - 8/88

SHORT TERM TRAINING

BIKANGI KIABUNGU	Nutrition data analysis, Primary health care in LDC's	5.5 months, Boston University 2 courses, in conjunction with long term training
MUKENGE BIKADI NTAMBWE MUSALU KANYINDA TSHIENDA	Comm. Hlth. Dev.; Program Plng. & Design	U. of North Carolina 1 month, July 1985
BANEA MAYAMBO	Nutrition Surveillance	Nairobi, Kenya 1 month, May 1984
MULADI KALENGAI BANEA MAYAMBO	Oral Rehydration Therapy Training	Washington, D.C., Atlanta, Georgia 4 days

IN-COUNTRY SHORT TERM TRAINING

12 CEPALNUT STAFF	Project evaluation and planning	CENACOF 5 days, 3/85
10 CEPLANUT STAFF	Staff seminar on CEPLANUT's mission and role	CENACOF 3 days, 5/85
5 CEPLANUT STAFF	Computer training at CEPLANUT	8 months, on-the-job
3 CEPLANUT STAFF	Library science training	LOP
15 CEPLANUT STAFF	English language training	LOP
3 CEPLANUT STAFF	Computer Training, SPH	LOP
2 CEPLANUT STAFF	Trained Zairien television (OZRT) in audio visual methods	3 weeks
2 CEPLANUT STAFF	Cancer seminar	UNIKIN 4 days, 5/87
5 CEPLANUT STAFF	Management	CENACOF
5 CEPLANUT STAFF	Planning/proposal development	TDY consultant 2 weeks, 4/85