

1. PROJECT TITLE  Area Nutrition Improvement	2. PROJECT NUMBER 660-0079	3. MISSION OFFICE USAID/EL Salvador
	4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 85-01	
<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION		

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	7. PERIOD COVERED BY EVALUATION	
A. First PRO-AN or Equivalent FY 85	B. Final Obligation Expected FY 85	C. Final Input Delivery FY 87		A. Total \$ 6,213,500	From (month/yr.) 09/82
			B. U.S. \$ 4,300,000	Date of Evaluation (M/Y) 11/20/84	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., telegram, SPAR, PIO, which will present detailed request.	B. NAME OF OFFICIAL RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
<p>See recommendations in body of evaluation report.</p>		

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input checked="" type="checkbox"/> Project Paper	<input checked="" type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Financial Plan	<input checked="" type="checkbox"/> PIO/T	_____
<input checked="" type="checkbox"/> Logical Framework	<input checked="" type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Project Agreement	<input checked="" type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A.  Continue Project Without Change

B.  Change Project Design and/or  Change Implementation Plan

C.  Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Name and Titles)

Evaluation team is listed on page 1 of report.

12. Mission/AID/W Office Director Approval

Signature: *Richard L. Podol*

Typed Name: Richard L. Podol

Date: 29 Jan 85

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

November 27, 1984

USAID/Kinshasa

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## EXECUTIVE SUMMARY

1. Project Title and Number

Area Nutrition Improvement Project (660-0079)

2. Project Development Problem and Description

Very high rates of acute and chronic malnutrition among rural Zairians are inhibiting improved agricultural productivity, are contributing to learning difficulties in children, and are depressing the overall quality of life. The Area Nutrition Improvement Project was designed to fund micro-level nutritional interventions within the Bandundu Region of Zaire through a council of religious and non-religious private institutions operating in the region. The project also is designed to strengthen the capacity of the National Nutrition Planning Center (CEPLANUT) to monitor the nutritional situation in Zaire. It will provide long-term assistance to CEPLANUT to develop its capacity to plan and implement effective nutritional strategies and interventions throughout Zaire. Finally, it will adapt or create training and educational materials that are effective and relevant to the Zairian situation. The purpose of this project is to demonstrate cost-effective nutrition interventions capable of reducing by 10% the levels of acute malnutrition among children less than five years old in the Bandundu region of Zaire by the end of FY 1987 (PACD, five-year LOP).

3. Purpose of Evaluation

This evaluation is intended as an initial review to assess planning assumptions and to suggest re-directions based on the lessons learned so far.

4. Evaluation Methodology

The team was composed of nine persons, four of whom were Zairians familiar with, but not employed by, CEPLANUT. Two weeks before the evaluation began, the team leader sent background materials to team members. After initial briefings in Kinshasa, the team leader and two team members developed detailed scopes of work for the team, identifying key issues to be addressed. The team conducted extensive field visits, interviewing project personnel as well as individuals not connected with the project. In Kinshasa, interviews were held with government Departments and other institutions collaborating with or interested in CEPLANUT, as well as with CEPLANUT employees. Anonymous questionnaires, distributed to all CEPLANUT staff and project implementors, were used to verify conclusions of the team. The team met frequently to share thinking and findings, and to reach consensus. First drafts of findings were written by individual members, then revised by the team leader to form the body of the evaluation document. Next, the team leader submitted the revised draft to each member for refinement. Finally, the team debriefed the Mission and the CEPLANUT staff.

## 5. Findings

- a. The purpose of 079 is very ambitious. First, the difficulty of travel in Bandundu, given its size, would make it difficult to implement project activities throughout the region in five years. Second, due to ethnic, agro-climatic, and rural infrastructural diversity, the causes of malnutrition are site-specific, discouraging uniform regional approaches to the problem. Last, addressing acute malnutrition requires targeting the poorest subpopulation in each Bandundu village. The project does not have the resources for addressing acute malnutrition on a village basis for the entire region.
- b. The Food and Nutrition Council of Bandundu (CRANB) organized by 079 has already demonstrated success in channeling resources to micro-level interventions which increase food production. In only a year of existence the CRANB has become a viable working group and has funded ten sub-projects in Bandundu. However, the methodology of CRANB procedures is not closely linked to nutritional impact. Stronger ties between the CRANB, nutrition education, and data-gathering components of the project could significantly accelerate positive outcomes.
- c. The project is not notably strengthening the institutional capacity of the National Nutrition Planning Center (CEPLANUT) in Kinshasa (in contrast with institution-building through the field activities).
- d. At present there is no stated strategy for CEPLANUT activities nor is there a plan for staff development and training.
- e. Nutrition surveillance work has evolved into widescale data collection on variables ranging from market prices to monthly rainfall. The relationship between project data collection and attainment of the project purpose is tenuous.
- f. Nutrition education activities were included in the project design without a prior determination that lack of knowledge is a significant factor accounting for malnutrition in the Bandundu region.

## 6. Lessons Learned

- a. An ambitious project purpose has resulted in a concentrated focus on output. The Senior Project Advisor undertook to fulfill to the letter the project paper's implementation plan. To meet deadlines of optimistic project sub-objectives, implementing staff were impelled to work long days and weekends. The American staff members were obliged to redelegate formal institution-building activities, such as transferring skills and technical capacity to Zairians, to a lower priority. This, in some cases, led to low morale and resentment among Zairian counterparts. In addition, the project became unfocused. On the other hand, this determined pursuit of implementation schedules allowed this evaluation, itself accelerated from the original evaluation schedule, to draw conclusions valuable at this early stage in redesigning the project to conform with lessons learned so far.

- b. The capacity of this nutrition project to perform well is handicapped by its separation from the Departments within the Government of Zaire with which it must coordinate. This is a common liability in Zaire, a very large country with weak communications systems.

For example, the primary school nutrition curriculum must be approved by the Department of Education before it can be used in the schools. Nutrition education materials are being developed in Kikwit. Conferences with the Department of Education on the progress of the curriculum require a round-trip drive of sixteen hours. Had it been housed in the Department of Education, the project might have benefited from local technical expertise in Kinshasa (although then the liability might have been weaker collaboration with CEPLANUT and the Department of Health). Project staff members have made a concerted effort to assure interdepartmental communication between CEPLANUT and the Department of Education while developing the curriculum. Once the final draft of the primary school nutrition curriculum has been completed, however, there is no guarantee it will be approved by the Department of Education for use in the schools of Zaire.

As another example, in the area of nutrition surveillance, insufficient collaboration with the Ministries of Public Health and Agriculture, as well as a determination to adhere strictly to the project implementation plan, prevented implementors from appreciating the potential danger of setting up a surveillance system outside of the health framework officially sanctioned by the government.

Obtaining data through the rural health zones which are now being set up throughout the Bandundu region would have made it difficult to adhere to the established project implementation schedule. Project staff therefore asked that private institutions report anthropometric data to them. Since reporting is currently on a voluntary basis and is not being institutionalized, there is the danger that volunteers will eventually tire of this extra assignment and the system will collapse. Moreover, neither CEPLANUT nor the current project staff have the field agents required to monitor and maintain standards of accuracy in the taking of these measurements. Finally, the possibility exists that when the project terminates, the Kikwit office may close. There would then no longer be a receiving station for tabulating and forwarding the data, which would probably lead to a breakdown in the surveillance system.

To guide the end-of-project evaluators, a preliminary finding regarding the strengths and weaknesses of nutrition projects in general is included as an annex to this report. At this juncture, it is not appropriate to take a definitive position on how nutrition effects can best be achieved. To determine whether free-standing nutrition projects, such as this one, are to be preferred over the explicit integration of nutritional components into other sectors will be a responsibility of 079's endline evaluators.

7. Recommendations

1. Re-align staff roles and responsibilities to foster institution-building and improve Zairian-American working relations. In accordance with a revised implementation plan agreed to by USAID and CEPLANUT, Zairians should direct project activities with the advice, support, and -- in the case of fiscal as well as technical and administrative matters -- joint signature of the American counterparts.
2. Re-define the project purpose to make it more likely of attainment and to promote project focus. The new purpose should have two parts: (1) to demonstrate cost-effective interventions, and a method for conducting them, capable of reducing by 25% the prevalence of acute malnutrition among pre-schoolers in Bandundu by the end of FY 1987; and (2) to build the institutional capabilities of CEPLANUT in accordance with objectives informed by project experience.
3. Cease activities in surveillance that exceed, both structurally and technically, the institutional capacity of CEPLANUT.
4. Focus nutrition education efforts on supporting CRANB nutrition interventions, training health personnel, and refining the primary school curriculum already drafted by the project.
5. Improve CRANB preliminary review procedures so that CRANB can target its interventions and can influence the design of proposed interventions in a way that will maximize their nutritional impact.

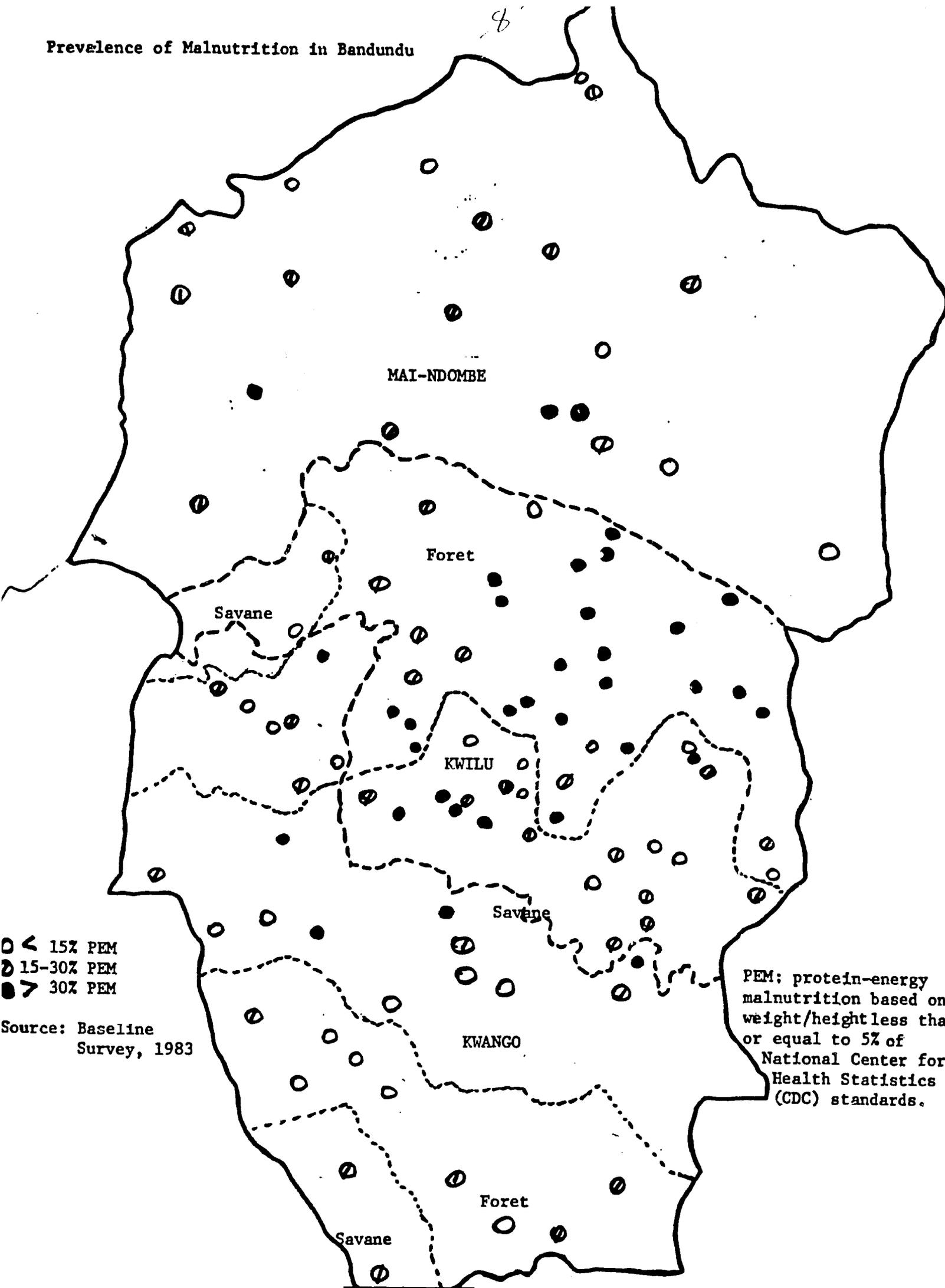
#### ACKNOWLEDGEMENTS

The evaluation team would like to thank the General Development Office for its excellent support through all phases of preparing this report.

We are also grateful to the staffs of CEPLANUT/Kikwit and CEPLANUT/Kinshasa for collaborating with us in such a collegial and professional way.

The team benefited greatly from having both Zairians and Americans as evaluators. This final report is an elaboration of the general consensus reached among all of the team members.

Prevalence of Malnutrition in Bandundu



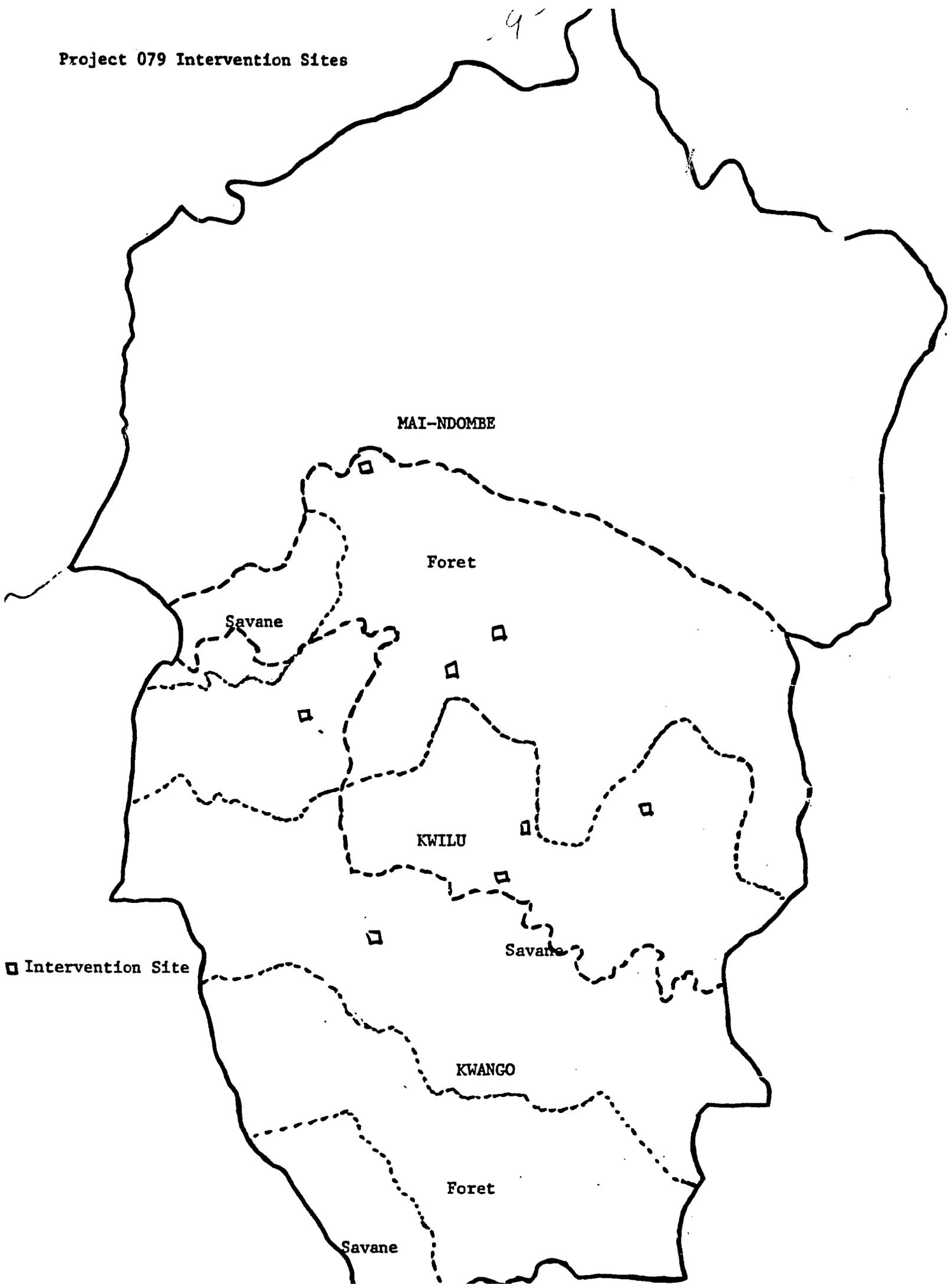
- < 15% PEM
- ◐ 15-30% PEM
- > 30% PEM

Source: Baseline Survey, 1983

PEM: protein-energy malnutrition based on weight/height less than or equal to 5% of National Center for Health Statistics (CDC) standards.

Project 079 Intervention Sites

9



MAI-NDOMBE

Foret

Savane

KWILU

Savane

KWANGO

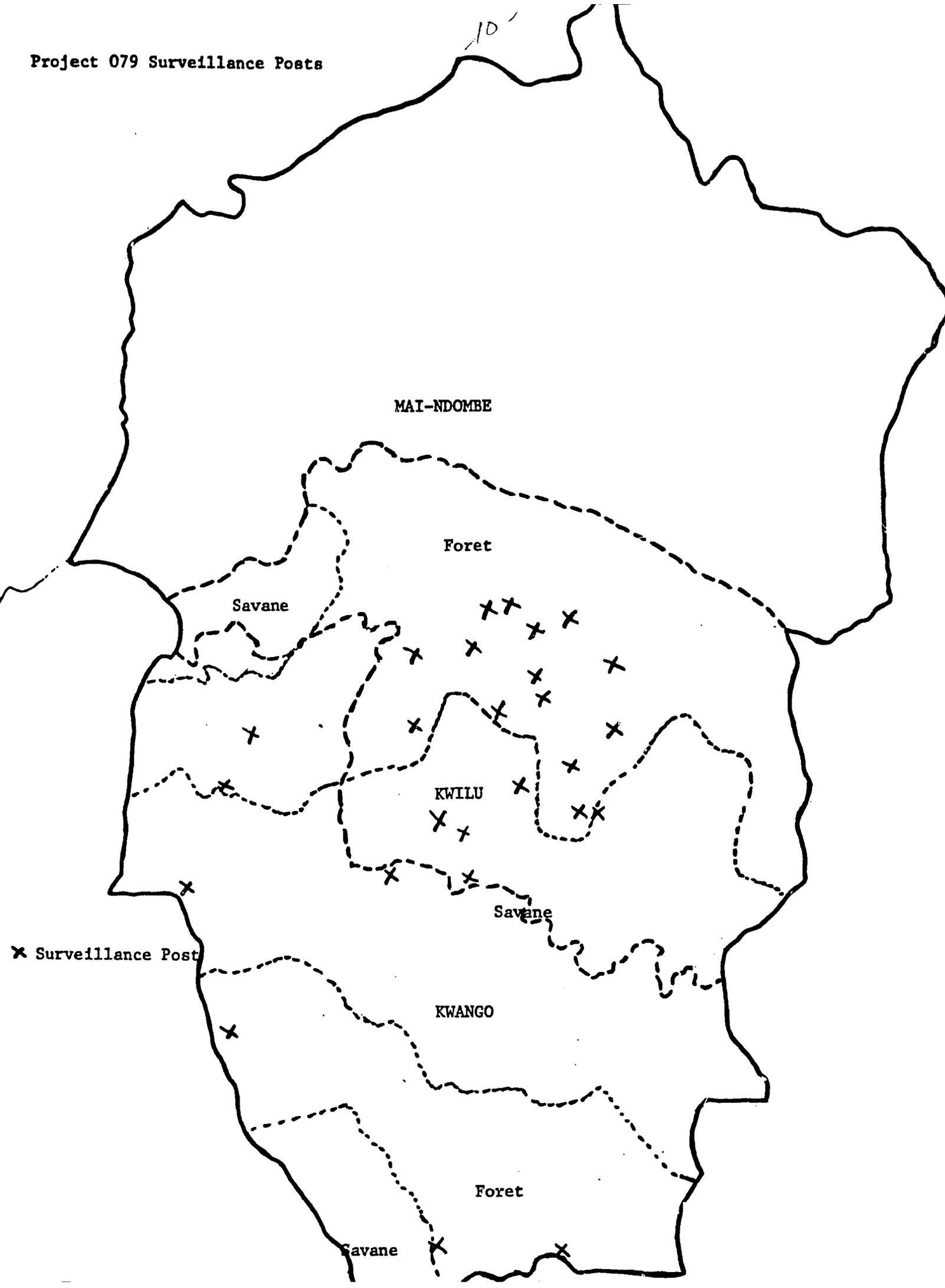
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□ Intervention Site

Project 079 Surveillance Posts

10



MAI-NDOMBE

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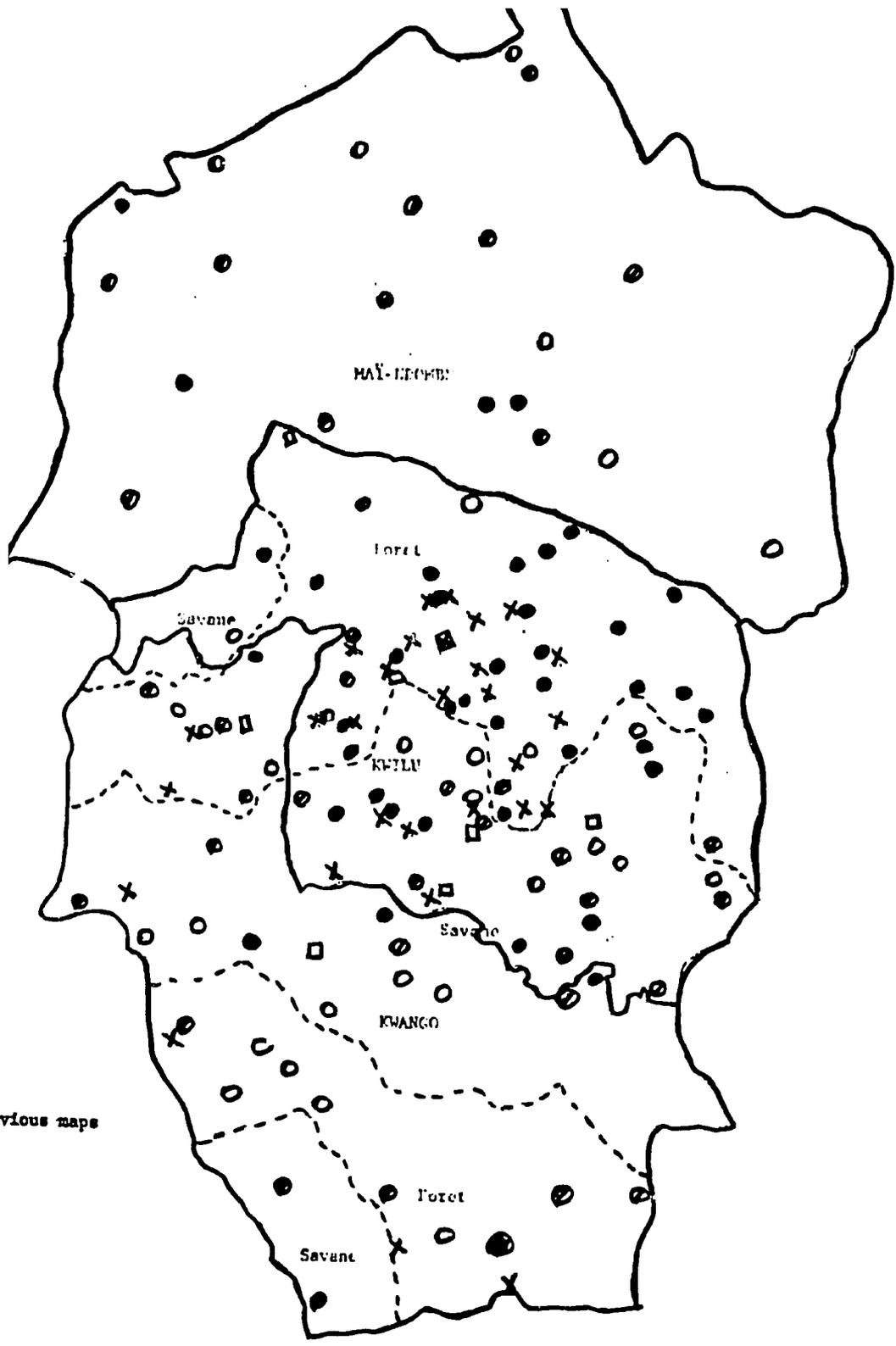
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x Surveillance Post



For key,  
see previous maps

## INTRODUCTION

The Area Nutrition Improvement Project (660-0079) was designed to be a follow-on to the Nutrition Planning Project (660-0055) which created Zaire's National Nutrition Planning Center (CEPLANUT). As part of the process of establishing CEPLANUT, 055 trained Zairians in nutrition-related fields and implemented nutrition interventions in two demonstration areas.

With the institutional groundwork laid by 055, the current project was designed to achieve nutritional effects in the Bandundu region as a way of furthering and testing CEPLANUT's appropriate outreach capacities. The designers set the project's purpose at demonstrating cost-effective interventions capable of reducing by 10% the levels of acute malnutrition among pre-school children in the entire region over the five-year life of the project.

A three-pronged approach to attaining this purpose was envisioned. After a regional office of CEPLANUT in Kikwit was established, the project was to concentrate on three main activities: nutritional surveillance, nutrition education, and the creation of a Regional Food and Nutrition Council (CRANB) to support nutrition interventions of small grassroots groups -- such as rural religious missions -- in the area.

By the time of this evaluation, certain problems in purpose and design had already begun to surface. All of the three activities of the regional office were expanding in scope, yet the number of implementing staff stayed relatively constant. Rather than being fortified by a dynamic regional office, CEPLANUT in Kinshasa was feeling increasingly estranged and distracted by it. Lines of authority concerning the regional office became confused; it was not clear whether the Director of CEPLANUT or the Senior Project Advisor was in charge of project activities. Despite the fact that the CRANB appeared to be succeeding from very early on, project implementors placed no additional priority on CRANB servicing. Instead, they continued to give equal weight to numerous surveillance and education activities.

The evaluators believe that the root cause of these difficulties rests with a project design that could not directly lead to achievement of the purpose. Not until the project team was assembled on site did the difficulty, given available resources, of covering such a vast region in the five-year life of project begin to be acutely perceived. Even though the original concept of a national program was reduced in scope to target only one of Zaire's nine regions, that region alone is over 114,000 square miles in area and characterized by a weak communications infrastructure. Even with the project's planned geographic phasing of activities, the target area has proven too expansive for a fair test of a concentrated pilot endeavor. Because the causes of acute malnutrition in this region are site-specific, any large-scale and uniform strategy would make little progress toward achieving the project purpose.

In some respects, nutrition education was intended from the beginning to be just such a large-scale strategy. One curriculum, translated into several local languages, was to be taught in primary schools throughout the region, and perhaps eventually nationwide. Much effort has been put into this endeavor, even though designers of the project had never determined if nutritional ignorance was indeed a major cause of malnutrition in Bandundu. Of course, part of the rationale for the project was to ascertain the various causes of malnutrition and their relative importance. For this reason the original concept of a simple nutrition education project was expanded to include other activities in order to inform decision-makers about the causes of, and the recommended (tested) responses to, rural malnutrition.

Nutritional surveillance, perhaps unintentionally, also has begun to develop into a large-scale strategy. Surveillance posts are being erected across the region to collect market prices, rainfall data, and birthweights. This is being done without a prior determination that these variables will indicate increases or decreases in malnutrition throughout the region.

Burdened with an ambitious main objective, the project -- intended as a pilot -- has not developed the flexibility to respond and routinely adjust project design to lessons learned during implementation. Implementing staff have been encouraged to execute to the letter all project activities. Institution-building has been neglected in the rush to meet project milestones. Consequently, insufficient efforts to transfer skills and capabilities to Zairian counterparts have led to low morale among Zairian implementing staff.

The evaluators recommend that the project's purpose be revised, and that project activities be more carefully focused toward achievement of this revised purpose. The revised project purpose should have two components. The first part should read: "To demonstrate cost-effective nutritional interventions capable of reducing by 25% the prevalence of acute malnutrition among children less than five years old."

The second part of the project purpose should read: "To strengthen CEPLANUT's institutional capacity in accordance with objectives informed by project experience.

In the first element, the word "level" has been changed to "prevalence" to make it clear that the aim is to reduce the current percentage of malnourished children by 25% by the end of FY 1987. For example, in a project area where the level of acute malnutrition is 20%, the project will reduce this level by (.25) (.20), or a total of 5%. Post-project level of malnutrition should therefore be 20% minus 5%, or 15%. The evaluators feel that if activities are focused, and interventions are more stringently designed and monitored, a 25% reduction in the prevalence of malnutrition at interventions sites is not unreasonable. Furthermore, the suggested new wording removes the implication in the original project purpose that the reduction in malnutrition must be region-wide. Based on this revision, impact will be measured only at interventions sites.

The second element will lead to a CEPLANUT capability to:

- 1) set up the framework for a national nutritional surveillance system based on health zone age-for-weight measurements of pre-school children;
- 2) set up and service an office which will organize Regional Food and Nutrition Councils that will be able to seek other outside financing for nutrition interventions after the close of the project;
- 3) develop nutrition education curricula for primary schools for diffusion within the national education curriculum; and
- 4) establish standardized procedures and curriculum for primary health care personnel within the national health zones to be incorporated into in-service and institutional training.

By modifying the purpose in this way, the evaluators believe that the current activities of 079 -- if altered as recommended in this report -- will successfully continue both to strengthen CEPLANUT and to provide USAID, CRANB and other donors with models of interventions that can have significant nutritional impact on the micro level.

I. INSTITUTIONAL ANALYSIS OF CEPLANUT/KINSHASA

The National Human Nutrition Planning Center, CEPLANUT, was created under an ordinance dated September 6, 1978. According to this Ordinance, CEPLANUT's mandate is to:

1. Coordinate among Departments and organizations interested in solving nutritional problems;
2. Program nutritional activities and determine the food value of local products. Rehabilitate the malnourished through specific interventions and permanently monitor the country's nutritional situation;
3. Centralize and organize the dissemination of nutrition-related information;
4. Monitor the implementation of nutritional activities;
5. Issue nutrition-related information and formulate propositions for consideration by the Executive Council;
6. Carry out studies related to nutrition and respond to nutritional questions which do not fall in the sphere of other divisions within the Department of Health.

At the time of its formation, CEPLANUT was envisioned as an agency which would not only plan, coordinate and monitor nutrition-related activities, but would implement them as well. A final role was to inform and advise other governmental departments regarding nutrition matters. There is little question that this is an extremely broad, and somewhat vague, mandate.

It is the opinion of the evaluators that CEPLANUT must, first of all, examine carefully this mandate to more narrowly define its own role. CEPLANUT should critically examine its projected resources and staff levels and formulate its institutional priorities and objectives.

CEPLANUT, given its current levels of funding and expertise, can best fulfill the role of nutrition advisor to other departments within the GOZ. CEPLANUT should, for example, formulate and provide nutritional standards for other departments. CEPLANUT should serve as a clearinghouse for nutrition information in Zaire. Using this approach, CEPLANUT would be responsible for suggesting or demonstrating models to address nutritional problems, rather than implementing the model itself. This specialized approach, that of helping to organize, inform and guide others to perform nutrition related tasks, would allow CEPLANUT activities to have maximum impact employing limited resources.

In the area of nutritional surveillance, for example, CEPLANUT's role should be to suggest the design for a surveillance system, not to implement such a system. Similarly, in the case of a food emergency CEPLANUT should not be responsible for mobilizing a response at the national level. In this situation CEPLANUT would be best suited to perform a rapid assessment of nutritional status in the affected area to determine the severity of the problem and necessary resource levels.

CEPLANUT should not attempt to implement project-level nutrition interventions to reduce levels of malnutrition. Again, CEPLANUT's more appropriate role would be to provide a pre-project assessment of levels and possible causes of malnutrition. During the course of such a project CEPLANUT could respond to technical questions and, at its end, assist to evaluate impact, if necessary. CEPLANUT has taken precisely this approach with its Bandundu Regional Food and Nutrition Council, CRANB. Project 079 staff provide technical assistance and funding through CRANB to groups in Bandundu implementing projects designed to reduce the prevalence of malnutrition. This is an excellent example of CEPLANUT playing the role of organizer, as opposed to implementor.

One aspect of CEPLANUT's mandate, that of centralizing and organizing nutrition-related information, is, in the opinion of the evaluators, an essential responsibility for CEPLANUT. The evaluation team was reminded time and time again, for example, of the need for nutritional standards for training health workers. CEPLANUT should be responsible for establishing these standards. It is clear that other Departments within the GOZ look to CEPLANUT for this type of information.

The previous examples have been cited to demonstrate the evaluators' perception of CEPLANUT's ideal role given limited resources. The first step is for CEPLANUT to examine and define its mandate in a realistic way. Once CEPLANUT has defined its mandate, it must develop an implementation plan for its nutrition activities in Zaire. This plan must take into account the activities which CEPLANUT can realistically organize, given its staffing level and financial resources, both local currency and foreign exchange. This plan would, ideally, serve as the nutrition sector of the GOZ 1986-1990 National Plan.

These two activities are so central to the institutional development of CEPLANUT that the evaluators recommend they receive immediate attention. The evaluation team recommends that CEPLANUT take as its most immediate priority the definition of its role and the formulation of a five year implementation plan for nutrition activities in Zaire. Selected staff members at CEPLANUT/Kinshasa, CEPLANUT/Kikwit, and USAID/Kinshasa should participate in this process, with activities facilitated possibly by CENACOF. The evaluators recommend that these working sessions of two to four weeks in duration be project-funded.

During the course of the evaluation members of CEPLANUT staff frequently made a distinction between CEPLANUT activities and project 079 activities. It was not clear to the evaluation team just how or why CEPLANUT and Project 079 activities were viewed as divergent. Every attempt should be made during the course of the working sessions to integrate Project 079 activities with other CEPLANUT activities. The project presently represents CEPLANUT's principal vehicle for testing and refining the art of the possible in the implementation of its mandate. It is likely that as CEPLANUT more narrowly defines its mandate, and establishes priorities that reflect resource availabilities, the two categories of activities will converge. CEPLANUT should also make available to USAID the plan for its non-project 079 activities. A clear idea on the part of both USAID and CEPLANUT regarding other priorities and responsibilities will greatly improve communication.

CEPLANUT's role as nutrition planning agency becomes more clearcut as its role becomes more specialized. If CEPLANUT does not implement projects and activities it will have to play its planning role through the other GOZ Departments with which it cooperates. For this reason, CEPLANUT should develop closer linkages with other GOZ Departments, particularly the Department of Plan.

Project 079 activities should also emphasize CEPLANUT's role as an advisory agency. To best achieve this purpose, in subsequent sections of this report the evaluation team has outlined a number of recommendations designed to focus activities and accelerate project impact. The evaluation team further recommends that Project 079 assistance directed to strengthening CEPLANUT as an institution be concentrated on the following:

1. The development of nutritional standards for use by the Departments of Plan, Health, and Agriculture.
2. Requests for technical assistance from other GOZ departments in which CEPLANUT plays an advisory role.
3. CEPLANUT's surveillance, nutrition education and other functions described in the remainder of this report.
4. Collaboration with the Department of Plan to develop the nutrition section of the 1986-1990 National Plan.
5. Within the context of a long-term staff development program, which itself should reflect the priorities established within CEPLANUT's mandate, funding for short and long-term technical and managerial training of CEPLANUT staff.

## II. INSTITUTIONAL ANALYSIS OF CEPLANUT/KIKWIT

To meet the revised, two-fold project purpose, CEPLANUT/Kikwit should be restructured so as to: (1) ensure that priority concerns of 079 be given priority attention, even at the cost of abandoning certain activities; (2) assist Zairian counterparts in assuming full direction of the regional office; and (3) improve Zairian-American working relations.

The dedication, enthusiasm, and perseverance displayed by the project implementors in Kikwit is to be commended. Despite serious environmental constraints such as periodic lack of electricity and inoperative vehicles, the staff has worked productively and made major gains since the project began. Their most significant accomplishment so far has been the efficiency with which they set up the regional office and organized the Regional Food and Nutrition Council (CRANB). The evaluators consider the CRANB a model for achieving grassroots nutrition interventions, and heard much praise of the CRANB by local individuals in the course of preparing this report.

Yet in light of rapid expansion in all facets of CEPLANUT/Kikwit activity, it is becoming increasingly clear that the current attempt of the project implementors to fulfill all the project paper's suggested objectives -- without setting priorities, such as the optimum servicing of CRANB -- diminishes project effectiveness. Additionally, by being asked to place chief emphasis on meeting all objectives, the American staff in Kikwit has not been able to devote adequate time to training Zairian counterparts and assisting them in becoming the decision-makers for the project. In other words, the institution-building component of 079 has been sacrificed in the singleminded effort to attain project milestones. This has had deleterious effects on Zairian-American working relations.

### A. CEPLANUT/Kikwit's structure and budget need to be altered to reflect priority concerns of the revised purpose of 079.

#### 1. Put a priority on CRANB servicing.

Given that the first component of the revised purpose of 079 is to demonstrate cost-effective interventions capable of reducing acute malnutrition by 25%, the energies of CEPLANUT/Kikwit should be concentrated on assisting and informing the institution that selects interventions to be funded by 079 -- namely, the CRANB. The evaluators have noted three trends: (1) an expansionary trend both in the number of CRANB members and in the number of interventions proposed for financing; (2) an increasing trend toward permitting baseline survey data to accumulate without being coded, tabulated or analyzed; and (3) a trend away from standardization of initial visits to the sites of proposed interventions, in which different individuals assess the sites without a common methodology. These visits provide the basic information required by the Executive Committee of CRANB in deciding which proposals to finance.

The evaluators believe the first trend to be indicative of project implementors' success in organizing CRANB and in continuing to seek additional cooperating organizations so as to achieve wider coverage of the Bandundu region. CEPLANUT/Kikwit is encouraged to continue these efforts in areas where acute malnutrition is the greatest.

The second trend, however, threatens to impede the attainment of the first component of the revised project purpose. Without analysis of data, nutritional impact cannot be demonstrated. To counteract this trend, the evaluators recommend that most surveillance work cease, permitting the Field Nutrition Intervention and Surveillance Coordinator to devote full-time energies to CRANB servicing and CRANB-connected data analysis. This would also permit the supervisor of the surveyors to devote more time to collecting, tabulating, and graphing data of concern to CRANB members. Because the CRANB Secretariat will need to conduct endline surveys of intervention sites in the near future it is imperative that the data already collected be processed as soon as possible. Data analysis findings will be essential to the CRANB secretariat as it develops a method for measuring the cost-effectiveness of individual nutrition interventions.

Likewise, the third trend diminishes 079's ability to achieve its purpose, because it reduces the utility of the trip visit reports in CRANB decision-making. The evaluators recommend that every pre-acceptance trip visit include (1) a sociologist or anthropologist (part-time contract), (2) nutritionist or epidemiologist, (3) a member of the CEPLANUT/Kikwit Education Bureau (to assess the potential role of nutrition education in the proposed project), (4) an agronomist, fish culture specialist, sanitation engineer, or other technical expert (part-time contract), and (5) at least one surveyor to collect arm-circumference data (to be hand-tabulated with a calculator in the field, or in Kikwit if time does not permit). The evaluators recognize that a significant re-orientation of time commitments and budget may be necessary to standardize site visits in this way, but are convinced that this kind of team visit would yield significant findings to the CRANB Executive Committee. The evaluators believe that site visits to proposed projects even in distant areas of the region must be team endeavors of 2-3 days each, or else the information collected will not be comparable with that available for other projects under consideration. The comparison of arm circumference data will indicate relative malnutrition levels from site to site, thereby assisting the Executive Committee to decide where projects are most needed.

2. Alter the project budget to reflect this new priority.

To adequately service CRANB, the evaluators recommend that funds be used for the following: (1) the purchase of an additional vehicle within the next six months; (2) additional part-time contracted Zairian expertise to participate in the in-depth pre-funding assessments of proposed projects (including assessing of the site-specific causes of the nutrition problem, and advising on appropriate mechanisms for improving nutritional status); and (3) air transportation, if feasible, of CRANB Executive Committee Members to meetings more than 250 kilometers away from the members' residence.

In contrast to increasing the CRANB budget, the surveillance budget should be restricted to paying for one or two members of CEPLANUT-Kikwit to work with SANRU (the basic rural health program) and the health zones in setting up surveillance systems. One person would travel regularly to Bandundu-City, where he would assist the Bandundu Regional Bureau of the Health Zones in collecting and tabulating nutritional status data from the zones, and in sending them on to CEPLANUT/Kinshasa for analysis and back to the Zones for use. The evaluators recommend that no other surveillance data collection activities be funded from 079's budget.

Finally, to ensure coordination between CEPLANUT/Kinshasa and CEPLANUT/Kikwit on matters pertaining to budget management, the evaluators recommend that the CEPLANUT/Kikwit Administrateur-Gestionnaire regularly participate in budget allocation decisions in Kinshasa.

### 3. Build capabilities of Zairian Counterparts in CEPLANUT/Kikwit

In line with the second component of the revised project purpose, the evaluators believe that it is time for Zairian counterparts in CEPLANUT/Kikwit to assume a greater decision-making role. Conversations with Zairians in Kikwit and numerous anonymous responses to an evaluation questionnaire convinced the evaluators that the Americans generally have not been able to transfer skills and authority to Zairian counterparts. Yet for CEPLANUT/Kikwit to continue its work when 079 ends, it is essential that this transfer become a major objective of the American staff, even if it necessitates a slowing down of activities. To facilitate this new emphasis, the evaluators have recommended modifying or eliminating certain 079 activity targets, as described elsewhere in this report.

As project implementation has evolved, the American staff have been assuming increasingly complex decision-making tasks, while the Zairians' work has remained relatively unchanged. To cite a typical questionnaire comment (translated): "The Americans concentrate all the work in their own hands, which explains why we cannot make proposals or discuss what they want to do. We cannot take any initiative."

To counteract this tendency, the evaluators recommend that new lines of authority be drawn which emphasize the Americans' original support functions. It should be recalled that every American's statement of work mandates that their jobs have four components: 1) to provide support to CEPLANUT/Kinshasa; 2) to provide support through CEPLANUT (Bandundu Region); 3) to train and develop staff; and 4) to support project evaluation activities. The evaluators believe that CEPLANUT/Kikwit needs to be formally structured so that the Americans return these roles.

Consequently, the evaluators propose that a Zairian be named the Coordinator of the Kikwit office. Under this person, the office might be divided as follows: Administration (headed by a Zairian, advised and assisted by the Senior Field Advisor who will countersign checks); CRANB Secretariat (headed by a Zairian, assisted by Field Nutrition Interventions and Surveillance Coordinator, who will provide support and technical assistance); Education (headed by Education Materials Specialist, assisted by the Field Education Coordinator with skills being transferred to nutritionists; and Surveillance Liaison (consisting of one or two Zairians, with occasional technical assistance by the Field Interventions and Surveillance Coordinator).

The Kikwit Office Coordinator should work with the Project Director, the Senior Project Advisor, and CEPLANUT/Kinshasa staff to determine budget requirements, personnel needs, and project priorities. Ideally, s/he would eventually draft scopes of work for Kikwit personnel (temporary and permanent), and evaluate contractor performance (for the long-term contractor, annual performance evaluations also will be prepared by the Senior Project Advisor.) The Coordinator should make local hiring decisions, all with the advice of the senior American technical assistant on site.

It is recommended that the Coordinator also supervise the activities of the Kikwit office divisions and hold frequent staff meetings to obtain a closer collaboration among them. The evaluators believe that communication between Kikwit and Kinshasa would be considerably improved if the Project Director and the Senior Project Advisor were to attend these staff meetings at least once a month.

4. Assign a USAID staff member part-time responsibility for CEPLANUT/Kikwit logistical support.

Due to unclear lines of communication and delineation of responsibilities, an inordinate amount of time continues to be spent by the General Development Office at USAID in preparing procurement documents, following-up with vendors, receiving commodities, and performing related support tasks. The Senior Project Advisor was to work closely with USAID and CEPLANUT "to order project commodities, supplies, vehicles, etc., in a timely fashion." Yet the evaluators have noted that a USAID recommendation made in June of 1984 to improve logistic support services has not yet been implemented.

To remedy this situation, the evaluators recommend that more effort be put into providing logistical support for project 079. USAID should assign a staff member (part-time) responsibility for procurement and logistics tasks as specified in the scope of work recently drawn up by USAID/GDO. These tasks include writing specifications for goods, following-up with vendors, processing invoices for payment, monitoring the inventory system at CEPLANUT/Kinshasa and CEPLANUT/Kikwit, and performing other logistical services (such as assisting with arrangements for consultants) required by 079.

5. Increase the time spent by the Senior Project Advisor on field activities and meetings with CEPLANUT/Kikwit staff.

Although the Senior Project Advisor's statement of work calls for him to spend one-half of his time in the Bandundu Region, the evaluators have noted that most of his time is spent in Kinshasa. The Senior Project Advisor explained that the reason for this is twofold: first, the staff at CEPLANUT/Kikwit is so competent that they do not require much management and assistance; and second, his vehicle did not arrive until August.

To the evaluators, it seems that one of the reasons for the frustrations of the Zairian staff at CEPLANUT/Kikwit is that Americans occasionally consult with the Senior Project Advisor separately in Kinshasa, and then bring back to Kikwit orders and decisions. The evaluators are convinced that if policy and budget meetings were held in Kikwit, involving both Americans and Zairians, decisions would tend to be reached by consensus and not unilaterally. The capabilities of Zairians would be strengthened in this process.

Additionally, the evaluators envision that in the future the Nutrition Planner/Senior Project Advisor, in conjunction with a team from CEPLANUT/Kikwit and CRANB members, will be more regularly involved in monitoring and evaluating project interventions in the Bandundu region.

B. Improve Zairian-American working relations and heighten morale.

Through conversations with members of CEPLANUT/Kikwit and via the anonymous questionnaires, it became evident to the evaluators that all staff members -- both Zairian and American -- should strive to improve interpersonal relations and avoid "giving orders" to counterparts and co-workers. The evaluators propose the following specific ways that relations could be ameliorated and morale boosted. Of course, more important than any of these items is for all staff to respect the various capabilities of and constraints on each individual in Kikwit, and to make special efforts to collaborate on and explain fully the activities of the office.

1. Develop a training plan for all staff at CEPLANUT/Kikwit, with special focus on transferring technical and administrative skills to Zairians.

The evaluators suggest that the Kikwit Office Coordinator, in conjunction with the Senior Project Advisor, develop training schedules for all CEPLANUT/Kikwit staff. Emphasis should be on short-term intensive training, of one week to two months in duration, on topics ranging from accounting to management to data analysis. It is recommended that special efforts be made to hire Zairian professionals in the Bandundu region or Kinshasa to come to Kikwit to provide this training.

2. Accomodate the professional needs of both Zairians and Americans wherever feasible.

- In the opinion of the evaluators, staff needs for work equipment have generally been accomodated. Yet other valid needs, such as that of the CEPLANUT surveyors for raingear to protect their data, have not been met.

- In addition, the evaluators recommend that eight-hour workdays be the norm at CEPLANUT/Kikwit. The slowing down and re-orienting of 079 activities should reduce the expectation of overtime and week-end work, which contributes over the long run to declining morale.

- Social activities and official ceremonies in Kikwit and Bandundu which require CEPLANUT representation should be attended by CEPLANUT/Kikwit staff in rotation, so as to avoid burdening any one or two staff members with social or official commitments.

3. Reduce misunderstandings of project activities, goals, methodology, etc.

Misunderstandings have occurred concerning the role of the American staff in Kikwit; the roles of outside consultants; the nature of CRANB activities; and so on. Care must be taken to clear up these misunderstandings through open discussions on these issues, and on others as they may arise. A crucial step in building the capacity of the CEPLANUT/Kikwit Zairian staff and the CRANB to make wise decisions concerning project implementation is for all to be clearly informed of the goals and methodology of the project. For this reason, the evaluators recommend that a detailed project description in French be distributed to both project staff and CRANB members; and further, that this document be discussed freely in CEPLANUT/Kikwit staff meetings and at the annual CRANB meeting.

### III. THE REGIONAL FOOD AND NUTRITION COUNCIL (CRANB)

To achieve the revised project purpose, the Secretariat of CRANB needs to be restructured. The methodology for insuring nutritional impact of CRANB interventions must be improved; the Secretariat budget must be increased; its personnel, financial and administrative structure must be refined and expanded.

Project implementors have succeeded in initiating a system that funds chosen activities of local institutions engaging in development work which will improve nutritional status. Within the first year of 079's implementation, potential cooperating institutions were identified and CEPLANUT's Secretariat functions for a regional council of these institutions began to be utilized. The first annual meeting of the CRANB was held in November 1983. Since then, approximately \$100,000 in CRANB financing has been accorded to ten subprojects in the Bandundu region. Subprojects involving the extension of improved seedlings and cultural techniques are already reaching completion, and showing significant achievements.

In December 1984, members of the CRANB will hold their second annual meeting, to explore ways to alleviate malnutrition in the region. The evaluators hope that the recommendations contained in this section will be presented at this or a future CRANB meeting. If these recommendations are incorporated into CRANB procedures, the evaluators predict that there will be two important outcomes: (1) the administrative structure of CRANB would be refined, thus rendering it a desirable model for international donor support in other regions of Zaire (e.g. for USAID support in Central Shaba Region); and (2) the revised project purpose of demonstrating interventions capable of reducing by 25% the prevalence of acute malnutrition in pre-school age children would be attained.

1. Augment and make more comparable the information available to the CRANB Executive Committee on projects requesting assistance.

In order to attain 079 goals, it seems to the evaluators that the CRANB needs to possess the following information on proposed projects before granting funds:

- a description of the breadth and depth of the nutrition problem in the subproject area;
- a qualitative analysis of the micro-level causes of malnutrition in the subproject area;
- a feasibility report assessing the capacity and capability of the submitting institution to perform the proposed work;
- a strategy for relating project benefits (often from increased agricultural production) to increased food consumption by the target group (malnourished children);

a logical framework incorporating: phased funding; a work plan that includes commodity, training, and salary costs; intermediate objectives to be verified before financing of the final phase; and an evaluation plan that will assess success on the basis of appropriate direct and indirect indicators.

A suggested methodology for obtaining the above information follows.

- a) Members of the Executive Council receive written proposals and make initial eliminations through desk reviews.
- b) A carefully-structured site visit is performed, to assure that complete, adequate and comparable information is provided on the "Formulaire de Demande d'Assistance auprès du Comité Exécutif du CRANB," as amended. (See Annex A.)

The expanded site visit team outlined in section II of this report will also include the CRANB member who proposed the project and, if possible, an appropriate local authority.

- c) All completed site visit reports are sent to Executive Committee members at least one week before the scheduled meeting.

2. Modify some of the administrative structures and procedures of CRANB, its Executive Committee, and its CEPLANUT Secretariat.

- a) Currently, a conflict of interest situation exists with one person acting in a CEPLANUT Secretariat function (visiting and evaluating proposed projects) as well as in an Executive Committee function (voting on the projects). This person should become responsible for Secretariat functions only. Another CEPLANUT staff member (for example, the Coordinator) should be selected to sit on the Executive Committee.
- b) At the next CRANB meeting, members might consider the possibility of imposing disciplinary measures on recipient institutions for inappropriate use of CRANB funds. Such measures would contribute to CRANB's reputation as a well-managed organization, thereby encouraging growing participation in CRANB activities.
- c) A streamlined proposal application process should be developed for those institutions previously awarded CRANB funds and whose activities have produced the expected results. Example: An agronomist trained with and partially supported by CRANB funds has finished extending new varieties of cassava stock and culture methods in his project area. He seeks CRANB funding to do the same with soya. His new proposal should not require the extensive site visit recommended above.

- d) Ways should be established to design and amend interventions to promote effective use of CRANB funds, leading to achievement of the 079 project purpose. Example: Near the end of a project's life it is found that soya culture technology has been successfully extended. However, to achieve enhanced food consumption a way is still needed to teach villagers methods for soya preparation and storage.

These "links" between a subproject's immediate objective (e.g. increased production of soya) and increased food consumption should be identified and addressed during initial subproject assessments. For these current projects which have demonstrated competence and success in reaching immediate objectives, but which lack this final direct link to improved food consumption, the Secretariat should provide assistance to forge this link. Such assistance would include an analysis of the site-specific causes of malnutrition, a follow-on work plan to lead from increased production to increased consumption (if that is the indicated remedy), and an amendment to the original subproject to provide the additional funding or technical assistance necessary.

#### IV. NUTRITIONAL SURVEILLANCE

The objective of nutritional surveillance is to provide relevant and timely information to decision-makers so that informed decisions can be made about matters which affect nutrition. This information is obtained from ongoing data collection, with individual variables determined by the decisions to be made. Nutritional surveillance systems (NSS) can provide data for purposes of planning; project monitoring and evaluation; or early warning of impending food crisis. These three types of systems have different data requirements in terms of data to be collected, frequency of reporting, and precision of information produced. It is very difficult to merge these systems without distorting or weakening them individually.

The 079 project paper calls for a nutrition surveillance system that would (1) provide data for nutrition planning in the region, (2) form the basis of an early warning system to prevent epidemic inadequacies of food availability, and (3) provide an ongoing measure of project impact. Project implementors have attempted to combine the elements of each information system into one comprehensive system in order to meet the terms of the project paper. Unfortunately, this is not feasible. The current nutritional surveillance system needs to be reduced in scope so that staff can meet other project requirements while supporting the production of essential surveillance data.

The NSS initiated by the project consists of setting up "surveillance posts" in at least every health zone in Bandundu region to collect data on: local market prices of maize, manioc, beans, rice, peanuts, kerosene, sugar, sardines and beer; rainfall; movement of produce from the region; prevalence of birthweights less than 2500GM; arm circumference-for-height (QUAC stick) measurements of primary school children; and percentage of preschool children in Under-5 clinics with weight-for-age below the "M" line on the new Road-to-Health card. These data are collected by volunteers, teachers, and clinic staff, and reported monthly to CEPLANUT/Kikwit.

Although a system to collect this wide range of surveillance information is currently being implemented, no one has defined the pertinent questions to be answered by the data. Nor has it been determined exactly which decisions, and by whom, are expected to be influenced by the information produced. For this reason, it is impossible to determine which indicators might prove most useful, how precisely to measure them, how frequently to report them, what type of analysis to use and how best to report the findings. These crucial preparatory tasks have been set aside in the rush to collect the data.

Currently, most of the effort in surveillance activities is devoted to collecting data, rather than tabulating and analyzing it. Only the first part of the original region-wide baseline survey has been analyzed, and a substantial amount of raw data describing the nutritional status of villagers in project areas funded by the CRANB still awaits preliminary sorting.

The complexity of data collection efforts threatens to undermine the successful establishment of any region-wide system. The data currently being collected includes certain parameters which require interministerial cooperation and others which exceed the non-nutritional technical competence of most nutrition institutes. Until such time as pertinent questions to be answered by a surveillance system are made explicitly, the best use of available resources would be to provide answers to nutritional questions of general interest to the nation and of use to the project. Nutritional status by area would be of interest and use. The baseline survey answered the question, "Where is nutritional status of preschool children the worst?" Subsequent question could be, "How is nutritional status changing? What are the trends in the various areas?" A system could then be set up to answer these questions.

In line with this approach, the evaluators also recommend waiving the project paper requirement to establish a regionwide triple function NSS. Instead, we recommend establishing a system to provide basic nutritional status data for regional health system planning purposes. This same data could be used to assist CRANB to target and monitor its interventions.

- A. Working through the health zones at the local and regional level, organize and graph trends in malnutrition among preschool children seen in under-five clinics. This data and any further analysis should be made available by CEPLANUT to the health zones for their use.

Cease collection of data on birth weights.

Preschool children are the target for this project. To attain the larger objective of building CEPLANUT's capability to report on the trends in malnutrition for this age group, the project should limit itself to one single nutritional status indicator.

Weight for age was recently selected as the official Zairian nutritional measure. Malnutrition in preschool children can readily be determined using the "M-line" on the new Road-to-Health Cards. CEPLANUT should report findings on pre-school malnutrition in terms of the percentage of children whose weight-for-age falls below the "M" line. Using this indicator will require close cooperation between CEPLANUT and the "Zones de Santé".

Health zones are being established throughout Zaire with considerable government support. The NSS can take advantage of this gradual build-up to establish a reporting system for monitoring the levels of acutely malnourished children seen in the clinics. If this proves feasible in Bandundu, CEPLANUT/Kinshasa could gradually expand the NSS into a sustainable national nutritional surveillance system within the health sector, in pace with the progress of rural health zone creation. Some suggestions for setting up such a system are given in Annex B.

- B. Cease collection of QUAC stick measurements on primary school children. Cease the accompanying studies comparing QUAC stick measurements of malnutrition in primary school children to anthropometric measurements of malnutrition in pre-school children.

The use of primary school children as proxies for the nutritional status of pre-school children represents an attempt to meet the project paper requirement of setting up and administering a surveillance system for the whole of the Bandundu region within the life of the project. Faced with an insufficient health center population of preschoolers from which to draw observations, the implementors opted to create their sample out of a population which is available for measurements, primary school children.

According to Dr. John Mason of the Cornell Nutritional Surveillance Program and Dr. Frederick Trowbridge of the Centers for Disease Control (STATE 335481), primary school data is a useful indication of long-term problems but will be relatively insensitive to acute problems more characteristic of, and evident in, pre-school populations. The project focuses on acute protein-energy malnutrition in pre-school children. This is best measured directly and not by proxy. The evaluators feel that monitoring clinic weight-for-age data for preschoolers will provide a more accurate measure of acute malnutrition in Bandundu.

- C. Cease efforts to create an early warning system; stop the collection of rainfall, market price and movement of produce data.

An early warning system requires the active collaboration of all governmental institutions that would eventually be required to stage an intervention. An investment of resources to produce a system of this complexity is not a government priority at this time. Historically, the GOZ has relied on reports of food shortage from the field. It next has sent in teams to verify the breadth and depth of the problem, and then organized the transport of food. If establishment of an early warning system were to become a government priority and an interdepartmental program were to be organized, the role of CEPLANUT (representing the Department of Health) would be to join the interdepartmental efforts of the Departments of Agriculture, Plan and Social Affairs in designing and setting up the system after determining which indicators would best predict a crisis. In the meantime, CEPLANUT can continue in its role of providing a rapid nutritional assessment of crisis situations.

- D. Provide impact evaluation support to CRANB activities.

To demonstrate that it has met its purpose, the project requires more precise, localized information on changes in nutritional status in the CRANB project areas. One must be able to link improvements in nutritional status to the individual CRANB interventions. Clinic data from the entire area will not provide the degree of sensitivity necessary for these measurements. Baseline and endline surveys should be performed on both the villages which are sites of interventions and control villages. (To the extent possible, control villages should be matched to project site villages by similar characteristics).

This data should be collected and analyzed in a standardized manner to facilitate comparison of the impact of different CRANB-funded interventions. Data from a health post in the vicinity could be used to document changes in the nutritional status of the entire area over time, indicating the presence of outside factors that might affect the impact of the intervention.

Because of the current backlog of data to be processed, it is suggested that any new data collection be limited to that which is absolutely essential to the project. All other data collection activities should be given a low priority and only begun once the more crucial data intervention and baseline survey data have been adequately analyzed. The road survey planned for early 1985 should be eliminated.

- E. There should be no endline survey of the entire Bandundu Region at the conclusion of the project.

Given the insensitivity of a regional survey to local changes in the nutritional status of pilot and control villages, the relatively small population size of the villages under study, and the revised project purpose, there is no reason to conduct this survey (at least not for explicit project purposes). The revised project will aim to produce local, not regional, changes in nutritional status. To complement this change in focus an improved, localized evaluation mechanism has been proposed.

- F. The remaining portions of the Baseline Survey should be analyzed as soon as possible.

The baseline survey data represents a significant resource for nutrition planning which has been underutilized to date. Partial analysis of this survey may be responsible for erroneous conclusions adopted by project implementors. Notably, there may be no significant association between roads and malnutrition as has been postulated by project personnel. Table 1 demonstrates that when one controls for the location of roads in savanna and forest areas there does not appear to be any relationship between access to roads and prevalence of malnutrition. The people who live along the roads in the savanna are no worse off than the people in the savanna who do not live along the roads. However, among those children living along the road, there is a very significant difference between those living in the savanna and those in the forest. The ones in the forest are more malnourished (cells a and c). The same relationship holds for children living off the road in the savanna and the forest (cells b and d). In other words, it seems that an important factor in a child's nutritional status is whether (s)he lives in the savanna or forest not on or off the road. For targeting purposes, one should attribute the highest priority to those people living in the forest.

The incomplete analysis of the survey may have influenced the investment of time and resources in activities which may not contribute to meeting the project purpose. Moreover, the data not yet analyzed could provide information important to the CRANB Executive Council in awarding its funds. Therefore, it is recommended that these data should be analyzed as soon as possible by a qualified data analyst. An analysis of the forest section should be given highest priority, as the rate of malnutrition and the population density are highest there.

Table 1  
Malnutrition Prevalence\* by Access to Road  
and Ecological Area in Bandundu

	<u>On Road</u>	<u>Off Road</u>	<u>Total</u>	
	a	b	g	
Savanna	18.8%	21.1%	20.4%	
	n	234	527	761
	c	d	h	
Forest	27.2%	29.0%	28.2%	
	n	394	538	932
	e	f		
Total	24.0%	25.1%	24.7%	
	n	628	1065	1693

Key:

n = number

ns = not significant

p = level of significance

a:b  $X^2 = 0.51$ , NS

c:d  $X^2 = 0.38$ , NS

e:f  $X^2 = 0.22$ , NS

a:c  $X^2 = 5.61$  p 0.025

b:d  $X^2 = 8.92$  p 0.01

g:h  $X^2 = 10.5$  p 0.01

\*These data differ somewhat from those in the report of the Baseline Survey. Malnutrition is here defined as weight-for-height of preschool children less than or equal to 5% NCHS standards. The Report uses less than 5%.

## V. INFORMATION AND NUTRITION EDUCATION

To best address the project's nutrition education priorities, the evaluators recommend that certain activities proposed in the project paper be eliminated and that the remainder be targeted so as to best attain project objectives.

The project paper charges the implementors with a broad range of nutrition education activities. These include the development of: (1) a primary school curriculum, (2) training manuals for agriculture extension agents, nurses, and community health workers, and (3) messages and programs for radio education. Yet, as noted earlier, there has never been conclusive evidence that improved nutrition knowledge could be a significant determinant of improved nutritional status in Zaire.

Research studies have indicated that nutrition education has maximum impact when integrated with other activities designed to reduce levels of malnutrition. Although Project 079 represents an excellent opportunity for such integration, the nutrition education component of the project and the nutrition interventions mounted through CRANB have remained largely separate activities.

The Nutrition Education Group has expended enormous energy to meet the terms of the project paper. Its members have now accumulated valuable experiences and insights regarding their mandate. Certain activities have been found not to be feasible; others will probably have weak, if any, impact. At the same time more focused opportunities, not previously envisioned in the project paper, have presented themselves. Finally, considerable investment has already been made in some activities whose potential impact is unknown.

For these reasons, the evaluators recommend that selected Project 079 nutrition education activities be continued with the purpose of measuring, if possible, their impact on malnutrition in Bandundu. If successful, these same activities could be modified for use in other regions of Zaire at a later date. In addition, the evaluators recommend that project interventions and nutrition education activities be integrated to maximize the impact of project resources.

### Target Nutrition Education Efforts

Project implementors should produce nutrition education materials only when the effective use of these materials is assured and when their development does not duplicate similar efforts by other groups. The responses to the evaluators' questionnaires concur in the desirability of this recommendation.

1. Confine testing and implementation of the primary school curriculum to the Kwilu subregion.

The Kwilu subregion warrants priority attention due to its high malnutrition rates. Because it supports the highest population density of all Bandundu, potential for impact increases. Moreover, impact may more easily be measured with a large sample in a limited area. In the evaluators' view, curriculum impact should be assessed before a costly region-wide or nation-wide effort is initiated. A positive impact analysis would increase the likelihood that this curriculum will be approved by the Minister of Education. Extensive reproduction of the curriculum should not be initiated until ministerial approval is secured. Project implementors should follow national policies concerning the choice of languages to be used.

2. Do not develop training materials for agricultural extension agents.

The CODAIK project is producing educational materials for agricultural extension agents. The Nutrition Education Unit should restrict its activities to providing advisory services to CODAIK as requested.

3. Do not develop training materials for community health workers or community development workers.

Currently, the cadre of these community workers is very small. It is uncertain whether their numbers will increase during the life of the project. Investment of resources and time for this group would yield a very low impact for money and effort invested.

4. Concentrate on strengthening training materials for nurses.

This group is already quite numerous and active in the region. Given recent GOZ support for Public Health, the number of nurses may rise, thereby significantly increasing the number of Zairian citizens contacted. The Nutrition Education Unit should continue to assess existing nutrition training manuals for nurses. Depending on the quality of these materials, the Education Unit should either adapt them, annotate them, or create improved materials more appropriate to the current health zone structure. The Nutrition Education Unit should not develop flip charts for training nurses.

5. Do not develop nutrition messages and programs for radio.

The USAID Small Farmer Profile Survey reports that radios are found in only 22% of rural households in Kwilu subregion, and that one-third of the radios found in rural households do not work. Inquiries made by project implementors disclosed that the listening audience tunes in foreign radio stations more frequently than the national stations. These findings suggest that the potential impact of a mass media intervention is so low and the cost of mounting a campaign so high that this activity is infeasible.

6. Cease all flip chart production except that destined to complement primary school lesson plans.

The flip chart didactic tool is inappropriate for adults. It encourages rote memorization and not problem-solving skills. Moreover, it does not appear to influence behavior. For these reasons, the evaluators recommend that flip chart production for the purpose of adult nutrition education not take place.

7. Explicitly link nutrition education efforts to CRANB interventions so as to increase project impact.

Although nutrition education services are potentially available to groups funded through CRANB, project implementors have not promoted the usefulness of nutrition education in teaching about the practical aspects of processing, preparation or storage of traditional and/or newly re-introduced crops.

Similarly, CRANB has not required project proposers to describe the step-by-step mechanism that will lead from increased production to increased food consumption by the malnourished. This failure to link technical and educational activities is already evident in some CRANB projects, in which obstacles to consumption are preventing nutritional impact. The Nutrition Education Unit should assist CRANB members to incorporate this "last link" into their projects (see section II of this report).

8. Amend the project to hire a field nutritionist with training and experience in agricultural extension, nutrition education, and non-formal educational methods.

Specific criteria for the selection of this person should be formulated by the Nutrition Education Unit/Kikwit in collaboration with CRANB. This individual should have two major responsibilities. He or she should serve as a member of the CRANB team performing the pre-funding assessment of the sub-project proposals. He or she should assess nutrition education needs in the sub-project area and plan appropriate nutrition education activities to be linked to the proposed intervention. This individual should also serve as the "Kikwit correspondent" for the Saka-Saka newsletter (see recommendation no. 10). The Nutrition Education Unit/Kikwit should contribute its recommendations for the final selection of this person.

9. Obtain a consultant to review the primary school curriculum and develop an evaluation methodology to measure impact.

In addition to developing an evaluation methodology, the consultant should review curriculum materials in terms of how well they target messages to achieve the maximum possible reduction of acute malnutrition levels. The consultant should also examine ways of motivating primary teachers to use the curriculum.

A separate methodology should be constructed to evaluate the impact of non-formal education.

Before any consultants are hired, the rationale for hiring them should be discussed with the Kikwit staff. Misunderstandings regarding the role and function of consultants appeared frequently in responses to the evaluators' questionnaire. Imported consultants appeared to have exerted a demoralizing effect on the Kikwit staff.

10. Saka-Saka should be modified to become more useful to its readers

To be of greater use to its readers, the Saka-Saka audience should be well-defined. The newsletter should be distributed to every health post and health zone in Zaire. Copies should also be sent to every member of CRANB. Several copies should be sent to colleagues in collaborating Departments or institutions (such as the Departments of Public Health, Plan, Agriculture, and Social Affairs).

The content of the newsletter should be varied enough to make it useful to all its readers. For those working in the field, for example, Saka-Saka could describe how one area has dealt with a nutrition training problem, or how nutrition surveillance data collection problems were resolved in a particular health zone. That is, it should be a vehicle to convey concrete field-level solutions to problems encountered while implementing nutrition programs and interventions. The "Kikwit correspondent", a proposed member of the Nutrition Education Unit/Kikwit, should, in collaboration with Kikwit staff, be responsible for the preparation of the major part of each issue. For Department of Health readers, Saka-Saka could contain news of the activities of individual CEPLANUT members, especially of their achievements. It could contain announcements of newsworthy events related to nutrition which are occurring in Zaire, and could summarize the findings or recommendations of relevant studies or conferences. However, the newsletter's chief concern should be imparting nutritional news and findings to health zone personnel. Saka-Saka should not serve as a popular forum for nutrition education.

## VI. ROLES, RESPONSIBILITIES AND RELATIONSHIPS AT CEPLANUT

For CEPLANUT to continue growing into a viable and significant institution in the Zairian government, it needs to develop a long-term strategy. This would enable it to: 1) set priority goals, 2) develop a staff training plan, and 3) re-align responsibilities.

It is not uncommon for a new organization to experience disagreement on the directions it should follow and the goals it should pursue. Organizations start out with a set of objectives and a plan for achieving them, but situations may change, new needs may be identified, and new demands may be made upon the organization. It takes discipline and wisdom to maintain continuity in the pursuit of goals and still be flexible in modifying activities to meet changing conditions.

These principles apply to CEPLANUT. Its charter calls for it to be a national nutrition planning center, but how to do this is left to the management of the center. This is as it should be.

### A. CEPLANUT should focus on achieving its priority goals and activities.

The Center Director will need to be vigilant to recognize and exploit opportunities that may help the Center reach its goals. At the same time, he will need to be disciplined so as to reject proposals which may seem appealing in some respects, but which could end up diverting staff time and energy from its priorities and thereby weaken the organization.

For example, a request from the Government of Zaire Planning Department to help prepare a nutrition chapter for the upcoming five-year plan provides an opportunity to demonstrate CEPLANUT's capability and usefulness in an area of work directly related to its charter. Conversely, a proposal to become involved in food technology -- even if accompanied by a promise of funding support -- should be rejected at this time since creating a capability in this area would be a complex, expensive, and time-consuming operation which would siphon off staff resources and thereby make it even more difficult for CEPLANUT to realize its immediate goals.

In light of the above, the evaluators recommend that:

1. CEPLANUT continue on its present course of working to (a) build its capacity to develop a national nutrition plan and strategy for the 1986-1990 period, and (b) develop a viable nutrition planning and interventions model for Bandundu that could be replicated in other areas; and
2. CEPLANUT write a paper for the Department of Plan that describes the additional structure and resources required to provide the nutrition information this Ministry requires for planning on a national level.

Under current conditions the general thrust of CEPLANUT's activities is ambitious. There is a need to strengthen its capability to contribute to the country's overall development plan. The level of resources needed is so great and resources available so modest that planning and project implementation would prudently begin on a regional rather than national level. It makes sense to begin in one region to develop a model that can be replicated in other regions. The development of a nutrition plan even for a single region such as Bandundu is a difficult and complex task; expecting to do more than that at this time would be unrealistic.

B. CEPLANUT should develop greater capability among its staff.

As conceived, the Area Nutrition Improvement Project (660-0079) offers an excellent opportunity for CEPLANUT to achieve a quantum jump in its capability to do nutrition planning. In practice, however, the project is falling short of its potential as an instrument to strengthen CEPLANUT. The major reasons are:

- insufficient attention to training, and
- insufficient participation by Zairian staff in the work of the project.

1. CEPLANUT should pay greater attention to training.

CEPLANUT, AID, and the technical advisors agree that there is a clear and urgent need to upgrade CEPLANUT staff capability at all levels, but the training program does not reflect a sense of high priority or urgency to provide such training. Hence, the evaluators recommend the following:

a. More emphasis should be given to conducting short, intensive courses of one to four weeks duration at CEPLANUT/Kinshasa and CEPLANUT/Kikwit. Once CEPLANUT has developed a feasible action plan and staffing pattern, a training plan complementing the action plan and revised staffing pattern should be developed. In-service training should encompass both technical and managerial subject areas. Possible topics include:

- project design, including building in provision for evaluation
- principles of management, bookkeeping and accounting
- evaluation of nutrition-related projects
- assessing food consumption at community and household levels
- assessing nutritional status
- changing food-related behavior through nutrition education
- developing and implementing strategies to address iron deficiency, anemia and goiter

These and other short-term courses should become an ongoing part of the CEPLANUT in-service training program. The areas to receive first consideration should be those identified as weak by the Price-Waterhouse audit report of October 29, 1984. The courses should be conducted by local professionals or by international experts who would come to Zaire for this purpose.

(Mechanisms currently exists for acquiring such services in a simple way through "buy-ins" to existing contracts). CEPLANUT should also utilize the expertise of staff members for short-term in-service training. Staff should be motivated to take such courses by making clear that only the better qualified individuals can be retained and/or promoted as CEPLANUT develops.

b. The number of long-term trainees at CEPLANUT/Kinshasa should be doubled, if justified based on discussion regarding CEPLANUT's long-term role. Operating under a relay mechanism, a new group should be slated to depart three to six months following the return of the first group. This would not only produce several additional highly-trained personnel; it would also make CEPLANUT less vulnerable should events lead to the loss of one or two of the newly-trained people.

2. CEPLANUT should increase staff participation in the work of the current project.

One of the best ways to develop skills is to work alongside others who have had training and prior experience in these skills. Development of skills will not occur by merely observing the work of others; it requires participation in the thought processes that lead to the selection of various activities and in the carrying out of the activities selected (assessing ongoing activities and making adjustments as needed are another part of this process). People learn best by doing.

This participation was intended to be a feature of project 079. The language in the Project Grant Agreement (PGA) dated September 20, 1982, gives the impression that contracted technical advisors were to be advisors to CEPLANUT.

For example, its states (Emphasis added):

"The project ... will assist the Department of Public Health and the National Center for Human Nutrition Planning..." (P.G.A. Section 2-1)

"Project resources will be utilized to strengthen the capability of CEPLANUT..." (P.G.A. Annex I, Part III)

"A nutrition planner will be assigned to CEPLANUT to work with CEPLANUT staff at all levels to train and assist them..." (P.G.A. Annex I, Part III, 2)

However, the Statement of Work for the Senior Project Advisor, which is part of an agreement between USAID/Kinshasa and the Advisor but not a part of the Project Agreement between USAID/Kinshasa and the Government of Zaire, contains two statements which could be construed as conflicting with one another.

The first statement reads: "the planner, working...under the supervision of CEPLANUT..." (Par. B.1.2)

In the same section, however, it is stated that: "(s)he will be responsible for overall implementation of project activities..." (Emphasis added.)

This confusion of lines of authority has led to numerous misunderstandings and a breakdown in rapport between the Senior Project Advisor and the Director and staff of CEPLANUT. This is because the Senior Project Advisor has become more of a project director than an advisor.

Theoretically, carrying out project activities in Bandundu should strengthen CEPLANUT. However, the evaluators found that to achieve specific objectives within specific time periods, both senior and junior level advisors are making decisions and taking actions unilaterally without adequately consulting their Zairian counterparts. This lack of participation by Zairian staff compromises their professional growth and development and thereby slows down the development of CEPLANUT's institutional capability.

Some of the recommendations made in this interim evaluation call for increasing the time allotted for some project activities while significantly decreasing others. This should ease the workload of the technical advisors to permit more time to conduct training activities and involve Zairians in more aspects of project implementation. In addition, the evaluators recommend that:

- a. the agreement between USAID/Kinshasa and the Senior Project Advisor be modified and a directive issued to make clear to all parties that ultimate responsibility for project implementation rests with the Director of CEPLANUT;
  - b. a de facto change in the relative responsibilities of the Senior Project Advisor, his counterparts and the CEPLANUT Director also occur; and
  - c. the roles of the Senior Project Advisor in Kinshasa and the technical advisors in Kikwit be revised to ensure that they provide assistance to CEPLANUT and work under its supervision to carry out the project activities approved by CEPLANUT and USAID.
3. CEPLANUT and USAID/Kinshasa should take steps immediately to re-align administrative responsibilities.

Re-aligning the roles of CEPLANUT and its expatriate advisors need not affect the close monitoring of budget disbursements. The Price-Waterhouse audit report underscores the need for continued close monitoring of disbursements and improved skills in budgeting, accounting and bookkeeping. The present arrangement requires agreement by both CEPLANUT and the responsible technical advisor before any expenditure can be made. The evaluators maintain that the sound financial practice of duplicate signatures should be continued. Yet they recommend these alterations take place:

- a. The procedure should be that CEPLANUT initiates funding proposals and the Senior Project Advisor is asked to concur. The Senior Project Advisor may suggest how funds should be used in his role as an advisor, but CEPLANUT should ultimately initiate all funding requests and solicit the advisor's concurrence.
- b. USAID/Kinshasa should make it clear to all concerned that the Senior Project Advisor is acting on the U.S. Government's behalf and following USAID guidelines in deciding whether or not to concur in disbursements. These guidelines should be made available to CEPLANUT. In the event that CEPLANUT and the Senior Project Advisor are unable to agree on a funding decision, it should be submitted to USAID/Kinshasa for a determination.

It may be expected that this new procedure will not work out smoothly right away. Disagreements will arise and there will be differences of opinion on funding and other decisions. These will have to be resolved as they arise. Making this procedure work will require that all of the concerned parties -- the Ministry of Public Health, CEPLANUT, USAID/Kinshasa, and the contract advisors -- exercise professional objectivity, tolerance, patience, and a spirit of compromise and goodwill.

USAID/Kinshasa will need to monitor this new procedure closely over the coming months. An outside consultant should be brought back to Zaire after an interval of three months to evaluate how a revised budget and action plan, as well as the above-recommended procedures, are working out. If they are not working out, additional measures will need to be taken promptly.

4. CEPLANUT should resolve other administrative issues.

Currently, information does not flow satisfactorily among Kikwit, CEPLANUT/Kinshasa and USAID. In Kinshasa, information from Kikwit is not shared with all CEPLANUT staff members. Requests made by the CEPLANUT office in Kikwit are not "processed" quickly enough by CEPLANUT/Kinshasa. The CEPLANUT office in Kikwit sometimes receives contradictory commands from different staff members in Kinshasa which are not countersigned. Furthermore, there is a very sharp separation between CEPLANUT and 079 project administration, which undermines morale and good collaborative relationships between CEPLANUT's non-project and project staff. The responses to the evaluators' questionnaire contained repeated references to this communication problem.

To address these problems, the evaluators offer the following recommendations:

- a. More effective lines of communication need to be developed to inform CEPLANUT's Comité de Gestion and the USAID Project Officer of project activities prior to or as they occur.
- b. All directives or requests sent to the Kikwit office should be in writing and countersigned.

- c. The project design as revised should make the 079 project an integral component of CEPLANUT's program. Increasing CEPLANUT staff's access to information regarding the project and expanding opportunities for their participation in support capacities would improve morale and assist the Kinshasa staff in understanding the dynamics of regional coordination.
- d. These proposed re-alignments of project responsibilities should be accompanied by clear job descriptions, for both American and Zairian staff, that explicitly distribute responsibilities.
- e. Problems detected by the Price-Waterhouse audit should be corrected. Many of these errors, such as the failure of the administration to impose state taxes on certain salaries, are negatively affecting morale of CEPLANUT staff.

## CONCLUSION

The Area Nutrition Improvement Project includes three elements which, in combination, are designed to reduce levels of acute malnutrition in children under five years of age in the Bandundu region of Zaire. The three elements are: design and implementation of a broad range of nutrition education activities; implementation of a region-wide nutritional surveillance system; and formation of a regional nutrition council. In the year since its formation, the regional nutrition council, CRANB, has served as the vehicle for funding ten micro-level nutrition interventions in Bandundu. A nutritional surveillance system has been designed and data collection begun. Nutrition education curricula and activities have been designed to meet a broad range of educational needs. After studying the project interventions, surveillance system and educational activities, the evaluation team has made a number of recommendations designed to coordinate and focus project activities, and, hence, accelerate project impact.

It is noteworthy that 079 has not been directed solely to perform micro-level nutrition interventions. The project has also been charged with institution-building -- a macro-level activity, yet one that does not directly relate to the project's purpose as originally stated. The project should provide long-term assistance to CEPLANUT to develop its capacity to plan and implement effective nutritional strategies throughout Zaire. This institution-building could take the form of the advisors' day-to-day technical and managerial assistance to CEPLANUT counterparts; long- and short-term training for CEPLANUT staff; and a concerted and consistent effort to assist CEPLANUT to define and achieve its institutional objectives.

It is this institution-building component of 079 that is really falling short of its mark. The evaluators attribute this failing in part to the implementing team (CEPLANUT/Kikwit) being outside of the headquarters of the institution it is to strengthen (CEPLANUT/Kinshasa). The other reason that institution-building with its attendant linkages is not occurring sufficiently relates to project implementors' attempts to work outside of appropriate governmental infrastructures, such as the nascent Health Zones. An unofficial nutrition surveillance system, for example, has little use: not only is it unsustainable when 079 ends, but it also undermines CEPLANUT/Kinshasa's ability to coordinate with the Ministry of Public Health in developing a national surveillance system.

The evaluators believe that the timing of this report is propitious. After a month of study, the evaluators have recommended a revision of 079's purpose, accompanied by extensive redesign of the project. In addition, it is suggested that a consultant be engaged after three months have elapsed, to review progress toward implementing the major recommendations, as well as to assist in the process.

In closing, the evaluation team proposes that 079's endline evaluators examine how these recommendations were implemented and what resulted from them. On this basis, the endline evaluators should be able to determine whether the comparative advantage in addressing malnutrition lies with free-standing nutrition projects based on direct micro-interventions, or with agriculture and health projects imbued with nutritional components (See Annex D).

ANNEX A

SUGGESTED FORMAT FOR CRANB QUESTIONNAIRE

FORMULAIRE DE DEMANDE D'ASSISTANCE AUPRES DU  
COMITE EXECUTIF DU CRANB EN VUE D'UN PROJET  
DE LA LUTTE CONTRE LA MALNUTRITION

- 1) TITRE DU PROJET : \_\_\_\_\_
- 2) EMPLACEMENT :
- Dans quelle Zone travaillez-vous ? \_\_\_\_\_  
\_\_\_\_\_
  - Dans quelles collectivités s'étend votre rayon d'action ?  
(citez-les). Combien de ménages zairois comptez-vous toucher avec  
les bénéficiaires du projet? \_\_\_\_\_  
\_\_\_\_\_
- 3) DOMAINE D'ACTIVITE : - Agriculture
- Développement rural
  - Santé Publique
  - Education
  - Oeuvres Sociales
  - Autres (citez)
- 4) Quel est le niveau de malnutrition protéino-énergétique chez les enfants  
en dessous de cinq ans dans la communauté ? (L'enquête sera menée par  
l'équipe). Quelles sortes de personnes sont malnourries ?  
(Décrivez-les). \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 5) Quelles sont les causes de la malnutrition dans votre rayon d'action?  
(L'équipe et le proposant vont s'occuper de cette enquête suivant un  
formulaire déjà établi par la Section Education Nutritionnelle et les  
questions suivantes sur des aspects socio-culturels).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6) Qu'allez-vous essayer de faire ?

a. Description du projet par étapes. Chaque étape correspond à un versement de fonds, comprend un plan de travail et les frais nécessaires à l'achat de matériaux, à la formation, etc.

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b. Quand effectuera-t-on le travail ? (précisez le calendrier des activités indiquant le début et la fin).

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7) Comment voyez-vous que les bénéficiaires du projet peuvent finir par augmenter la consommation des denrées alimentaires ou améliorer autrement l'état nutritionnel parmi le groupe identifié malnourri ?

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a. Existe-t-il des obstacles dans le roulement des bénéficiaires du projet jusqu'au moment où les gens n'en auront plus besoin ? Décrivez-les.

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b. Comment peut-on structurer le projet pour faire parvenir les bénéficiaires aux gens les plus malnourris ?

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8) Quels sont les indices ou les critères pouvant nous permettre de mesurer l'impact du projet dans votre milieu ? Les critères de succès dans la réalisation du but du projet ?

a. Objectifs indirects (par exemple, le nombre de personnel formé, le nombre de bouchées de manioc distribuées, le nombre de villages atteints, les espèces d'habitudes changés).

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b. Objectifs directs : les mesures anthropométriques, vérifier les autres signes cliniques de malnutrition comprenant la diarrhée, vérifier la qualité de la consommation alimentaire. Ces critères de succès doivent être inscrits dans le plan de travail logique.

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9) Quelles ressources aurez-vous besoin pour réaliser votre projet ?

1. Matériel

Liste de Matériel disponible	Liste de Matériel à pourvoir	Estimation du coût
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2. Personnel

Personnel disponible et leur qualification	Personnel à pourvoir et leur qualification	Durée d'enga- gement	Estimation du coût
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3. Aide totale sollicitée auprès du Comité Exécutif du CRANB ?

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4. Aide totale sollicitée auprès d'autres donateurs ?

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10) Pensez-vous que votre projet sera à même de s'autofinancer après notre assistance ? Si oui, expliquez et après combien d'années.

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11) Si votre projet est approuvé et si les ressources vous sont allouées où et comment devons-nous les envoyer ?

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## ANNEX B.

### SOME SUGGESTIONS FOR THE NUTRITIONAL SURVEILLANCE SYSTEM

1. Project staff should read two documents on a similar system in Botswana (available from Carol Payne, USAID). Both documents, one written by UNICEF, the other by Cornell, explain methods for evaluating the surveillance system.
2. Staff should list the questions it hopes to answer and the data it needs to provide the answers. This will help define the limits of the system. Clinic data, for example, would not be sufficiently precise to evaluate project interventions, but it could provide background information on levels of malnutrition and changes in these levels. Drawing up dummy tables can help define exactly what it is one plans to report.
3. Goals to strive for are: 100% of Under-5 clinics in an area weighing 100% of the preschool children every month; all weights accurately recorded on charts; an accurate tally of those under the "M" line collected, compiled monthly, and reported promptly to the health zones; data compiled from all clinics in a health zone and sent promptly to the regional health office in Bandundu City. Ideally, once all the reports are in and tabulated, a report of the results by health zone would be sent immediately to CEPLANUT/Kikwit. There it would be compared with the previous months' data and graphs would be updated. Every quarter a report from the system would be published in Saka-Saka, indicating levels of malnutrition by health zone and highlighting any important changes. Dramatic changes of any kind would be investigated immediately. Every clinic would receive Saka-Saka. Clinics would retain and graph monthly totals so that they would know when to alter their programs, following the steps learned in their training courses (developed by CEPLANUT). All data would be recorded in a master file and would be made available on request.
4. The above is an ideal scenario. The evaluators recognize that in reality problems such as the following may occur:
  - a) Clinics' scales are inaccurate -- off by as much as a kilogram or more.
  - b) Not all patients have the new health cards so nurses use as a standard any line which appears to be the "M" line. Thus, two children with the same weight-for-age may be classified differently depending on the health card used.
  - c) Clinics weigh children differently: some remove all of the children's clothes, while others leave the child clothed; some consider all children with a weight for age falling on or below the "M" line as malnourished; others consider only those falling below the "M" line to be malnourished.
  - d) Reports arrive late, or not at all.
  - f) Only 10-20% of preschoolers attend clinic.

5. Some of these problems can be avoided by careful planning, adequate staff training, and good lines of communication among CEPLANUT/Kikwit, the health zones, the health department, and individual clinics.
6. The evaluators recommend that the project staff work with SANRU and/or the local missions in developing and testing a method of recording and reporting the data. Djuma, Vanga, Panzi, Kajiji or Kasongo-Lunda might be good sites in which to test the methodology, as contact has already been made with these clinics.
7. It is unlikely that many clinics will have made a detailed census of their area. However, it may be possible to use data from the national census (July 1984) to estimate the number of pre-school children in a catchment area's clinics, and thus determine the clinic coverage rate.
8. Ultimately, one would hope that data on nutritional status would become part of the routine reporting system of the health department.
9. Nutrition Education Unit staff should try include information on how data on nutritional status can be used to better target or plan their clinic activities in the curriculum developed for nurses.
10. Project staff should retain the goal of establishing one surveillance post per health zone. It is much more realistic than 100% coverage of clinics.
11. Project staff and others who use the surveillance data should be cognizant of its limitations. The data indicate not true prevalence of malnutrition in the population but rather the prevalence of malnutrition among preschoolers who attend the clinic. There may be groups of malnourished children who do not attend clinics. When a clinic is well-established it may be useful to do a survey in its area to estimate what the true prevalence of malnutrition is and how closely the clinic reflects this true rate. (See the Botswana reports.)

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ANNEX C

MEETINGS WITH OTHER INSTITUTIONS

079 EVALUATION TEAM VISIT TO MINISTRY OF PLAN  
NOVEMBER 13, 1984

USAID: Dr. Martin Forman  
Mrs. Christine Babcock  
Dr. Lusamba

PLAN: Cit. Botswali  
Cr. Kishmir  
Cit. Mukanga

Forman: (Introduction)

Botswali: I am responsible for the socio-economic section in the Ministry of Plan. We are now in a diagnostic phase, evaluating among other things the health and nutrition status of our citizens. Our National Plan will begin in 1986 and run to 1990. A complete draft will be ready by June 1985. In the second semester of the calendar year we will work on getting it through the approval process.

Forman: What types of data are you collecting?

Botswali: Data on principal diseases, prevalence, and the state of the hospitals: their equipment and management.

Forman: Do you collect nutrition information?

Botswali: Yes, through CEPLANUT. We have asked them to write the whole section on nutrition in the Plan.

Forman: Will you integrate your nutrition data and health data to see a relationship?

Botswali: First, a program of nutrition has to be linked to the Health Zones. Second, in the past, the Department of Plan had been mostly involved in economics. Now we are expanding into other sectors and becoming more global.

Forman: How will you decide how best to spend the money among various health activities?

Botswali: We will concentrate on ORT, vaccination, nutrition education and water quality to combat diarrhea.

Forman: Have you examined the returns of water quality given the very high costs of providing potable water?

Botswali: For rural water, we are working on tapping springs. UNICEF has experience in low-cost spring management. They estimate that it costs 5-10 zaires per family per month to cap and maintain a spring.

Forman: I would like to ask if, in general, you are doing cost/benefit analyzes?

Botswali: No, we are trying to do what is most urgent.

**Forman:** Does Zaire have the capability to do these analyses?

**Botswali:** No, not at Health. However, at the Department of Plan, we will create teams of analysts.

**Forman:** Where will these analysts be trained? In Zaire?

**Botswali:** No, most will be trained at the World Bank in Washington and others will go to the Centre d'Etudes Economiques in Paris. We also have a project with UNDP which is supplying us with experts to provide the training. These experts can already do the analysis.

**Forman:** If Zairians get this training, will there be any rewards to encourage them?

**Botswali:** You need to understand the Zairian context. We are operating under public function regulations. Initially, the Ministry of Plan had been exempt, operating under its own statute. In the last year, we have been integrated into the public function so our privileges have been eliminated. The Minister of Plan has been studying the possibility of giving bonuses. It is becoming necessary because when we train personnel they leave to go to work for banks.

**Forman:** Do you have other contact with CEPLANUT other than receiving their products? Do you check their figures?

**Botswali:** No, we rely on them to perform the technical job. UNICEF also makes analyses that we use to cross-check. We want to create a National Committee of Food and Nutrition. We are studying CEPLANUT's possible future role. However, this proposal has not yet been approved by the President. In January, we created an office to take care of Nutrition Planning in the Ministry of Plan.

**Forman:** So you are satisfied with CEPLANUT?

**Botswali:** Yes. We know that time is short and that they may not be able to give us all the information. However, we will have an opportunity to reevaluate our plan every year.

**Babcock:** CEPLANUT has expressed concern over their ability to continue to receive the data they will need to perform their analyses. What might be done about this?

**Botswali:** On November 30, we will have a meeting of the Ministry of Public Health, Plan and all non-governmental institutions involved in Primary Health Care. USAID shall be invited. Its objective will be to analyze problems in the functioning of health centers. We think nutrition is important. If we have to put nutritionists into Health Zones, we will do it. We currently have trained nutritionists that are not utilized.

**Forman:** Would you like anything from us?

**Botswali:** Yes, a copy of our Evaluation Report.

**Forman:** Are there any activities that CEPLANUT is performing that you consider to be out of their mandate?

**Botswali:** No, because nutrition is multisectoral and complex. On the level of Health, I have spoken at length. We need nutrition education. For example, in the Kwango they have had eating habits. My mother refuses to eat goats, chickens or cattle. We have to change these habits. CEPLANUT should work with Promotion Sociale on this.

Forman: How do you feel about the quality of your information exchange with CEPLANUT?

Botswali: This will be a subject of our next meeting. For example, we don't always know what USAID is doing, nor the other foreign agencies for that matter. We have efforts that duplicate each other in one region, yet are totally neglected other regions.

Forman: Our evaluation purpose is to evaluate how the project is functioning and, if necessary, to adopt modifications. We are evaluating work quality. We are also interested in the institution of CEPLANUT. Thank you for coming and sharing your opinions with us so freely.

Botswali: Thank you. We also appreciate the opportunity. As you know, our focus in the next years will be on social problems.

November 13, 1984: 079 Evaluation Team Visit to SANRU

USAID: Dr. Martin Forman  
Mrs. Christine Babcock  
Dr. Lusamba

SANRU: Dr. Franklin Baer  
Dr. Kalambay

Forman: (Introduction)

Baer: In this project, the Protestant Church has been chosen to administer activities on behalf of Zaire. It will continue to 1991. The Five Year National Plan calls for the formation of:  
146 health zones by 1996,  
256 - " - 1990, and  
300 - " - 2000.

One hospital is named the reference hospital for each zone and has about 20 satellite primary health care posts. There are about 1,000 people per zone. The project will promote eight essential components of health care, one of which is nutrition. However, no one has taken responsibility for this at the national level. Each health zone will have a central office to do its planning, in regard to four categories:

1. prenatal health,
2. delivery services,
3. pre-school health, and
4. family planning.

The larger national-level entities will define the strategy and we shall plan on how to implement it. For example, the National Office of Tuberculosis defines a strategy for combatting T.B. and we try to implement it. The PEV is responsible for malaria and we have received their strategy. We are still open for Family Planning and CEPLANUT.

Forman: What happens to mission hospitals not selected as a reference hospital?

Baer: We thought a bigger problem would be to get missions to limit their far-flung dispensaries. They agree that they are not supervising them as they should. They now accept their primary health care center reporting to a new hospital. However, they will work with their dispensaries until our system really gets into place.

Forman: Is it responsible for the government to set up its own facilities?

Baer: The GOZ says this whole complex should be auto-financing. SANRU feels that medicines and salaries might be possible but that a subsidy will be necessary to cover supervision.

Forman: Could they raise funds to support themselves?

Baer: With zones, they would have a delegation of power. The problem is that no legislation exists to authorize the health zones to do management.

Forman: Are there some incentives for doctors to work in this system?

Baer: Yes, Health Zones will determine policy. Doctors are coming out from the National School of Medicine. They graduate 100 people per year. Doctors are required to put in 2 years of service. But once they get out they tend to stay because they are a kind of a health zone. When they graduate, they have no experience. Therefore, they have to do a "stage" in a functioning center. Nurses are now trained in public health and nutrition. For example, the nutrition curriculum now comprises 60-90 hours. For older nurses not trained in primary health care, we are scheduling in-service training.

Forman: What does the training involve?

Baer: "Comment Battre la Santé" is our Bible for developing lesson plans for training. Chapter 3 of Werner's Helping Health Workers Learn is also good. The centers submit a budget for training needs to SANRU. They define this with SANRU and we finance it.

Forman: How can you insure consistency of message for your different levels of trainees?

Baer: We use the Fiche Technique. For example, PEV tells us "when you retrain workers in vaccinations, here are the guidelines you should use." The person at health zone adopts the message to the level of the trainees. We have the same guidelines for T.B. but not for Family Planning or Nutrition. This would be a potential role for CEPLANUT. CEPLANUT headed up efforts to standardize the pre-school curve although it has no real mandate in this area. But it could justify it as part of surveillance. At the Abidjan conference, I suggested they prepare a fiche for pregnant women.

Forman: What motivation do health personnel have to apply for training?

Baer: Monetary.

Forman: If they get better training do they get more?

Baer: No, but work is more boring on the outside. They have few materials to work with. At the village-level, even if trained, health workers are volunteers. (They may get village in-kind payments). When villages are really far away from their health center and they have to dispense medicines, they will get a commission on the drugs.

Forman: What is the Nutrition component of your primary health care?

Baer: Training of nurses in nutrition education. We do not have supplementary feeding centers. We do not promote nutrition rehabilitation centers. Within pre-schools clinics, we do surveillance of the growth of children. For the pre-natal clinic, we do nutrition education.

Forman: How about early identification of pre-natal high risk cases or children with nutrition deficiency?

Baer: At pre-school clinics, surveillance is performed by nurses taking measurements, looking at hair and looking for social conditions. On the fiche we have a space for special care. There they can identify twins or children of unmarried women, etc. I don't know what nutrition interventions we would have outside the pre-natal, pre-school, delivery and family planning groups.

Forman: Have you seen any difference resulting from their work?

Kalambay: They were the catalyst to help sensitize doctors in basic health care. However, they need to direct a strategy now. This does not necessarily mean that they have to have a field-level capability. They could transmit their strategy to us to apply. We would like to ask CEPLANUT to tell us what elements of information they want. Then we would put it all into the same language. We are now looking at structures for getting information to and fro. We do not have time to analyze the growth curves. If they could get a first analysis at the zone level, then when they transmit the information to Kinshasa they would know what it means, instead of simply giving us numbers. The most important thing we need from CEPLANUT is for them to train other trainers. This is what all of us need in order to get good data.

Babcock: What is your policy on the use of fiches?

Kalambay: There is not a consensus yet. Some say give them to the mother. Others say give them to the mother and keep another one on hand in the clinic. We also need nutrition education materials for applied nutrition in primary health care.

## ANNEX D.

### GENERAL OBSERVATIONS ON NUTRITION PROJECTS

- Christine Babcock -

(Annex D represents the personal view of the Evaluation Team Leader)

The essential differences between a strictly nutrition project, and a health or agriculture project integrated with nutrition, relate to the level of action and the target group. A nutrition project with a purpose like 079's needs to reach the grassroots level. To be effective, it must work not only with poor villages in general, but with the poorest minority within those villages -- the children who express the clinical signs of starvation.

Health and agriculture projects, however, can work on a broader level. It is easier for them to engage in institutional-strengthening activities because they represent recognized sectors of development, where governments have already established ministries. Generally, the goals of these projects consist of developing the context wherein micro-interventions can occur. Typical examples are:

- (1) An agricultural research project to improve crop variety. Once developed, the improved variety is intended to be multiplied and distributed through the nation's agricultural extension network, right down to the agronomist in the field.
- (2) An agricultural production project that provides smaller institutions with farm implements, technical assistance, and the like. These smaller institutions are in turn responsible for sub-contracting local extension agents to disseminate the agricultural inputs on a micro-level.
- (3) A health project that sets up a health infrastructure, by organizing and/or equipping hospitals or clinics. These hospitals or clinics then hire the health professionals who will treat individuals.

The goals of these projects are broad rather than narrowly defined. For example, a health project such as the one described above is not charged with reducing tuberculosis by 10%. If this were the case, the project would probably abandon its institution-building activities in favor of performing tuberculosis check-ups and treating infected individuals. Instead, the health project seeks to develop the necessary environment for reducing the prevalence of tuberculosis. Similarly, the goal of the agricultural projects described is to create the context in which more food can be consumed. If nutritional considerations are incorporated into broad health or agricultural projects, the context created by the projects will also probably be favorable to enhanced nutritional status.

It is generally more useful to regard nutrition as an outcome, rather than as a sector, of development. Reduction in the level of malnutrition is often a reliable indicator of improvements in the living standards of the poor. However, for nutrition projects standing alone to combat malnutrition, studies show that they must consist of micro-level interventions that deal with individuals. The individual-by-individual approach is costly in terms of the human resources and management required. It is questionable whether AID has a comparative advantage in doing these types of projects, given the large sums it must program and the ever-shrinking cadre it has to perform this work. It could be argued that private voluntary organizations have a better comparative advantage when working at the micro-level.

ANNEX E.

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ANNEX F.

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