

EVALUATION OF  
BASIC RURAL HEALTH PROJECT  
(660-0086)  
AND  
BASIC RURAL HEALTH II PROJECT  
(660-0107)

Kinshasa,  
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## EXECUTIVE SUMMARY

I. PROJECT TITLE: Basic Rural Health Project 660-0086 (SANRU I) and Basic Rural Health II Project 660-0107 (SANRU II)

### II. PROJECT DESCRIPTION:

The purpose of the Basic Rural Health (SANRU I) Project was "to establish a self-sustaining, community-supported system of primary health care effectively offering prevention and treatment for the 10 most prevalent health problems in 50 zones (RHZs) in Zaire". Within these zones, SANRU was to assist with the conversion of 250 dispensaries into full service rural health centers. The Project was designed to promote the GOZ strategy of community participation in the organization, management, delivery and financing of services. The Project also supported technical assistance, supervision, and training at every level of the health zone structure.

The Basic Rural Health II Project (SANRU II) calls for expanding into 50 new RHZs and further strengthening the 50 zones assisted by SANRU I. New activities include support for regional and sub-regional supervision through the Ministry of Health (MOH), national planning and intensification of field activities in environmental sanitation and water supplies, and provision of essential equipment needed to upgrade reference health centers and hospitals.

### III. EVALUATION PURPOSE

The purpose of this evaluation is to determine whether the objectives listed in the Grant Agreement have been met, to identify problems, to record significant lessons learned, to make recommendations which might benefit the SANRU II activities, to reassess its strategy and to review its new components.

### IV. EVALUATION METHODOLOGY

The Evaluation Team met in Kinshasa with Project Staff, USAID, and GOZ officials and reviewed project documents. The Team prepared questionnaires for the sub-regional medical offices, rural water stations, rural health zones, health centers and villages. Sub-teams travelled to 3 separate regions and conducted the interviews. The teams returned to Kinshasa, shared their findings, revised the survey forms, met with more officials and interviewed regional and zone health officers studying at the UNIKIN School of Public Health. Sub-teams then visited the other 5 regions. They returned to Kinshasa, completed discussions with Project, USAID and GOZ staff. The Team's draft report was circulated to USAID, SANRU, MOH, and the Ministry of Rural Development. After considering their comments, the Team prepared its final report.

### V. FINDINGS

The Project is to be highly commended for its success in strengthening health care services amongst the rural population of Zaire.

The Evaluation Team assessed SANRU I inputs in terms of personnel, training, commodities, finances and GOZ contribution. All personnel inputs were provided in accordance with the GA; approximately one-half of the

short-term TA consisted of local expertise. The development of human resources for the various PHC levels remained one of SANRU's major foci, with the emphasis during the last years on regional training. Additional efforts must be made to strengthen supervision, financial and logistic management, and monitoring at all levels of RHZs. US-made vehicles and bicycles proved ill-adapted for rural use and many items arrived after long delays. The use of US dollars and CPF generally reflected Project objectives. GOZ contributions satisfied the terms of the GA.

Outputs due to SANRU I inputs were assessed in terms of training, PHC activities, and the development of infrastructure and information systems. Training outputs ranged from 66% of the target for physicians to 167% percent of the target for traditional birth attendants. Training suffered from lack of standard curricula, evaluation and followup. The Project recorded considerable success in reaching its quantitative PHC service goals, but sometimes did not meet qualitative standards. The Project capped more than 1500 springs and promoted broad-based "village sanitation programs" in 1985, which deserve to be continued. The classroom construction target was surpassed. Based on expert advice, the installation of laparoscopes for voluntary surgical contraception has been discontinued. Internal service record systems have not been standardized and annual zone reports have not received feedback from the Project; SANRU actively participates in the development of a national health information system.

The three purposes of SANRU I were to promote the prevention and treatment of the ten most important health problems in each zone, to develop sustainable health systems and to ensure community involvement in Project activities. The Project helped transform 220 curative dispensaries into full-service health centers and played a major role integrating national disease prevention and control programs into HC activities, but the success in attacking the most important health problems varied greatly; the acceptance rate of family planning has been very low and measles remains a major problem in many regions. "Sustainable health systems" have in fact been developed in a number of health zones; however the legal status of health zones has not been established. Although community involvement is excellent in many zones, the Project needs to document changing zone tactics and to examine basic issues of community organizing. The goal of the Project was to improve health as measured by reduced mortality and birth rates; impact studies are underway, but results are not yet available.

The Evaluation Team also considered the SANRU II strategies to strengthen the Ministry of Health, rehabilitate health zones and promote environmental health and water supplies. FONAMES must be encouraged and supported in its role of coordinating agencies and projects involved in primary health care in Zaire. The advanced training of subregional medical officers to help them undertake (new) supervisory functions should be continued. New planning tools should be introduced to strengthen coordination and cooperation between FONAMES, MOH and the Project. Health zone rehabilitation procedures should be rationalized and improved, and FONAMES should be fully integrated into the zone selection process. In implementing the environmental sanitation and water supply component, priority should go to upgrading the GOZ field units so that they are properly equipped and staffed to carry out their duties; at the same time the cooperative mechanisms foreseen in the Project strategy should be articulated.

## VI. LESSONS LEARNED

The Project has given some initial proof that RHZ operations may become self-financing. External assistance in the form of training, basic commodities ("seed stocks") and capital items is required. PHC impact can also be enhanced through collaboration with other community-based development activities. Program quality and impact should be emphasized equally with quantity of services delivered.

## VII. RECOMMENDATIONS

The team identified the following major recommendations that entail project reorientations. The numbers in parentheses refer to the sections of the Evaluation Report where the recommendations are explained. (The team also developed other recommendations involving project operations. They are contained in the annexes and are identified by underlining.)

A. USAID, GOZ, AND ECZ SHOULD REVIEW THE PROJECT ORGANIGRAM AND AGREE TO MODIFICATIONS LEADING TO A CLEAR DISTINCTION BETWEEN POLICY AND OPERATING LEVELS. NO INDIVIDUAL SHOULD SERVE AT BOTH LEVELS. USAID WOULD NAME REPRESENTATIVES TO BOTH LEVELS, AS WOULD GOZ/MOH BY NAMING A FONAMES OFFICIAL IN ADDITION TO THE MOH REPRESENTATIVE. JOB DESCRIPTIONS SHOULD BE UPDATED/OR ADDED. THE PROJECT SHOULD INTRODUCE A SYSTEM OF PERFORMANCE APPRAISAL, AS A BASIS FOR PROMOTION POLICY. KEY POSITIONS SHOULD, WHERE POSSIBLE, BE DESIGNED TO PARALLEL THOSE OF FONAMES COUNTERPARTS. (II A)

B. OWNERSHIP OF COMMODITIES AND BUILDINGS FUNDED BY THE PROJECT SHOULD BE CLARIFIED NOW RATHER THAN WHEN THE PROJECT ENDS. (II D)

C. THE USAID CONTROLLER SHOULD: REVIEW THE CURRENT PRACTICE OF COMINGLING GOZ FUNDS AND CPF, ARRANGE FOR PERIODIC PROJECT AUDITS, AND REVIEW THE ADEQUACY OF THE PROJECT'S INTERNAL ACCOUNTING SYSTEM. (II D)

D. THE PROJECT SHOULD (1) DEVELOP A MECHANISM OF EVALUATION FOR ALL COURSES; (2) INITIATE FOLLOW-UP EVALUATION FOR KEY COURSES SO AS TO ASSESS THE EFFECTIVENESS OF NEWLY LEARNED SKILLS; (3) CONTINUE EFFORTS TO ORGANIZE STUDY TOURS TO OTHER AFRICAN COUNTRIES AND BETWEEN RHZs; AND (4) CONTINUE DEVELOPING AND REVISING STANDARD CURRICULA. (III A)

E. EMPHASIS SHOULD BE GIVEN TO REINFORCING PHC TRAINING AND SUPERVISION IN EXISTING HEALTH CENTERS TO MAINTAIN SERVICE QUALITY. ASSESSMENTS OF PROJECT PERFORMANCE IN PHC SHOULD EMPHASIZE QUALITATIVE CRITERIA. (III B)

F. THE PROJECT POLICY BOARD SHOULD MEET WITH THE PROJECT MANAGER AND A FONAMES REPRESENTATIVE AT THE EARLIEST POSSIBLE OPPORTUNITY TO DEFINE THE PROJECT'S GUIDELINES IN RELATION TO: 1) THE ACQUISITION AND DEVELOPMENT OF COMPUTER EQUIPMENT AND SOFTWARE; AND 2) THE ULTIMATE LOCATION AND MANAGEMENT OF THE DOCUMENTATION CENTER. (III D)

G. FP ACTIVITIES SHOULD BE STRENGTHENED BY: 1) ASSURING REGULAR SUPPLIES OF CONTRACEPTIVES TO HEALTH ZONES; 11) COORDINATING WITH PSND AND HEALTHCOM TO INCORPORATE EFFECTIVE COMMUNICATION STRATEGIES INTO ITS ONGOING PROGRAM AND 111) REINFORCING TRAINING OF HEALTH PERSONNEL. SANRU, IN COLLABORATION WITH FONAMES AND PSND, SHOULD ADD A MODULE DEALING SPECIFICALLY WITH FP (PARTICULARLY IEC IN FP AND AIDS) TO THE MEDECIN CHEF DE ZONE (MCZ) TRAINING COURSE. INTRAH SUPPORT SHOULD ALSO BE CONSIDERED IN MODULE DEVELOPMENT. (IV A)

H. IN CONJUNCTION WITH PEV THE PROJECT SHOULD IMPROVE THE COLD CHAIN BY THE STRATEGIC DISTRIBUTION OF REFRIGERATORS IN MORE HC'S. STUDYING THE USE OF SUPERTHERMIC VACCINE CARRIERS AS TO HOW THEY CAN AUGMENT THE COLD CHAIN SHOULD ALSO BE DONE (IV A).

I. THE PROJECT SHOULD HELP ZONES, HEALTH CENTERS AND COMMITTEES DEVELOP PROCEDURES AND UPGRADE BASIC ACCOUNTING SKILLS FOR FINANCIAL MANAGEMENT AND LOGISTICAL CONTROL. (IV B)

J. THE SANRU PROJECT AND USAID SHOULD EXPRESS AT THE APPROPRIATE GOZ LEVEL THEIR CONCERN OVER THE ABSENCE OF AN ORDINANCE VESTING THE HEALTH ZONES WITH LEGAL STATUS. (IV B)

K. DETAILED IMPLEMENTATION PLANS FOR EACH PROJECT FUNCTIONAL AREA SHOULD BE DEVELOPED VIA CRITICAL PATH-TYPE METHODOLOGY. THE PROJECT POLICY BOARD SHOULD REVIEW PROGRESS ON A QUARTERLY BASIS. (IV B)

L. THE PROJECT SHOULD HIRE SHORT-TERM CONSULTANTS TO WORK WITH THE PROJECT, FONAMES, AND THE FIFTH DIRECTION OF THE THE MOH TO CLARIFY THE GOALS AND OBJECTIVES OF THE COMMUNITY PARTICIPATION COMPONENT OF THE PROJECT AND TO DEVELOP IMPLEMENTATION STRATEGIES AND EVALUATION PROCEDURES. (IV C)

M. USAID AND SANRU SHOULD SUPPORT FONAMES IN ENSURING COORDINATION AND COLLABORATION BETWEEN SANRU, OTHER PROJECTS AND NATIONAL PROGRAMS, SUCH AS PEV, PSND, CEPLANUT, AND SANTE POUR TOUS. (VI A)

N. THE HEALTH ZONE SELECTION PROCEDURES SHOULD BE STRENGTHENED BY: 1) FULLY INTEGRATING FONAMES INTO THE SELECTION PROCESS AND 2) DEVELOPING CRITERIA BASED ON NEED OF THE POPULATION. CONSIDERATION SHOULD BE GIVEN TO FOCUSING THE PROJECT ON THE PRIORITY REGIONS OF THE OVERALL USAID PROGRAM IN ZAIRE. (VI B).

O. THE ESTABLISHMENT OF PROJECT SUPPORT TO NEW RHZ'S SHOULD BE CONTINGENT ON THE AVAILABILITY OF ADEQUATE TRAINED STAFF, EQUIPMENT, SUPPLIES, AND COORDINATION WITH OTHER GOZ AND DONOR AGENCIES INVOLVED. ADHERENCE TO THESE STANDARDS MAY RESULT IN A TEMPORARY SLOW-DOWN OR HALT IN ADDING NEW ZONES. (VI B)

P. IN IMPLEMENTING THE ENVIRONMENTAL SANITATION AND WATER SUPPLY COMPONENT OF SANRU II FIRST PRIORITY SHOULD BE GIVEN TO UPGRADING FIELD UNITS. IN HEALTH ZONES, THIS REQUIRES RECONSIDERING THE BASIC QUALIFICATIONS AND IMPROVING THE IN-SERVICE TRAINING AND SUPERVISION OF RURAL WATER AND SANITATION COORDINATORS AND RELEASING THEM FROM OTHER DUTIES. IN THE SNHR, HYDRAULIC STATIONS SHOULD BE EQUIPPED, BROUGHT UP TO OPTIMAL STAFFING AND BE GUIDED TO IMPROVED MANAGEMENT PROCEDURES. A STUDY SHOULD DEFINE PNA'S RURAL PROGRAM AND POTENTIAL CONTRIBUTION TO SANRU IN OPERATIONAL TERMS AND DETERMINE WHAT INPUTS ARE NEEDED TO IMPLEMENT IT. (VI C)

Q. THE FIELD LEVEL COOPERATIVE MECHANISMS INVOLVING HEALTH ZONES, HYDRAULIC STATIONS AND PNA REGIONAL STAFF, WHICH ARE AN ESSENTIAL PART OF THE SANRU SANITATION AND WATER STRATEGY, SHOULD BE PUT IN OPERATION; FOR EXAMPLE, HYDRAULIC STATIONS SHOULD PROVIDE TECHNICAL BACKSTOPPING TO RWCS IN SPRING PROTECTION WORKS. (VI C)

## ABBREVIATIONS

<u>English</u>		<u>French</u>
ACNM	American College of Nurse-Midwives	-
ARI	Acute respiratory infections	-
ASN	Assainissement (abbreviation used in health zone report on environmental sanitation and water supply activities)	ASN
AVSC	Association for Voluntary Surgical Contraception	-
CCCD	Combatting Childhood Communicable Diseases	
CENACOF	Centre national de Coordination de la Formation au Développement	CENACOF
CEPAS	Centre d'Etudes pour l'Action Sociale	CEPAS
CEPLANUT	Centre de Planification de Nutrition Humaine (National Nutrition Planning Center)	CEPLANUT
CPF	Counterpart Funds Fonds de Contrepartie	FCP
CNAEA	Comité National d'Action et de l'Eau et de l'Assainissement (National Action Committee for Water Supply and Sanitation)	CNAEA
CNND	Comité National de Naissances Désirables (National Committee for Desired Births)	CNND
CNSBE	Conseil National de la Santé et du Bien-Etre	CNSBE
CPM	Critical Path Methodology	-
DSPAS	Département de la Santé Publique et des Affaires Sociales (Ministry of Health and Social Affairs)	DSPAS
ECZ	Eglise du Christ au Zaïre (Church of Christ of Zaïre)	ECZ
ECZORT	Organization for Rehabilitation through Training (ORT) Project with ECZ	-
EPI	Expanded Program on Immunization Programme Elargi de Vaccination	PEV
FONAMES	Fonds National pour l'Assistance Médico-Sanitaire (National Health Foundation)	FONAMES

<u>English</u>	<u>ABBREVIATIONS</u>	<u>French</u>
FP	Family Planning	-
GA	Grant Agreement	-
GOZ	Government of Zaire	
HC	Health Center Centre de Santé	CS
HEALTHCOM	Communication for Child Survival	-
HGR	Hopital General de Reference	HGR
IEC	Information Education, Communication	-
IPPF	International Planned Parenthood Federation	-
INTRAH	Program for International Training in Health	-
JHPIEGO	Johns Hopkins Program for International Education in Gynaecology and Obstetrics	-
MCZ	Médecin Chef de Zone	MCZ
MBH	Master of Public Health Degree	-
MRD	Ministry of Rural Development	
OR	Operations Research	-
ORS	Oral Rehydration Salts	-
ORT	Oral Rehydration Therapy	-
RHC	Primary Health Care	-
RHO	Public Health Office	-
PRICOR	Primary Health Care Operations Research	-
PRITECH	Technologies for Primary Health Care Project	-
PS/DISP	Poste de Sante/Dispensaire	PS/DISP
PVO	Private Voluntary Organization	-
REACH	Resources for Child Health	-
RHC	Reference Health Center	

<u>English</u>	<u>ABBREVIATIONS</u>	<u>French</u>
RHZ	Rural Health Zone Zone de Santé Rurale	ZSR
RWC	Rural water and sanitation coordinator	-
SNHR	Service National d'Hydraulique Rurale (National Rural Water Service)	SNHR
SNIS	Systeme National d'Information de Santé (National Health Information System)	SNIS
SSS	Sugar salt solution	-
TA	Technical Assistance Assistance Technique	AT
TBA	Traditional Birth Attendant	
UNAZA	Université National du Zaire	UNAZA
UNIKIN	Université de Kinshasa	UNIKIN
USAID	United States Agency for International Development	-
VH W	Village Health Worker Agent de Santé Communautaire	ASC
WASH	Water and Sanitation for Health Project	-

## EVALUATION REPORT

### I. INTRODUCTION

The Basic Rural Health Project (SANRU I) began in August 1981 and ends in March 1987. The Mid-Project Evaluation in May 1984 (p.5) found the project to be "well-designed as a strategic project that provides technical assistance to 50 Health Zones, rather than services directly to the population." The Evaluation recommended a 4-5 year extension of the project with assistance to an additional 50 Health Zones.

The Basic Rural Health II Project (SANRU II) was designed in 1985 and covers the period August 1985 - September 1992. Besides continuing development of rural health zones, SANRU II emphasizes strengthening the Ministry of Health (MOH) in primary health care (PHC) and also contains a large component for environmental sanitation and water supply.

The present evaluation (December 1986) serves two purposes. First, it is the final evaluation of the SANRU I project. Second, it examines the SANRU II project strategy to determine whether SANRU I experiences call for any major changes.

The present document contains the Evaluation Report on SANRU I, organized according to the USAID Logical Framework Analysis (Inputs, Outputs, Purpose, Goal). A final section (VI) deals with the three major components of the SANRU II project. The Evaluation Team's major recommendations are highlighted in the text in capitals. The Team's further recommendations are underlined in the various Annexes.

Annex 1 explains the evaluation methodology. Each of the Annexes 2-13 treats in detail one section of the Evaluation Team's scope of work.

### II. SANRU I INPUTS

#### A. Personnel

1. All personnel inputs were provided in accordance with the Grant Agreement (GA). USAID provided a long-term technical assistant, equivalent to 48 person months (pm) who served as Project Manager. USAID also furnished short-term technical assistance, much of it through other institutions, such as PRICOR, WASH and ACNM. In some cases, local expertise proved to be more cost-effective. Hence, only approximately 12 pm of the anticipated 24 pm of short term technical assistance was provided directly by USAID.
2. ECZ provided a part-time Project Director (30 pm), a full time family planning trainer and an operations and logistics officer. In addition to personnel, ECZ provided office space for the Project in Kinshasa.
3. The SANRU I Project anticipated a Peace Corps contribution of \$350,000 over the life of the Project, quantified as up to 720 person months (p. 9) in the GA. SANRU and Peace Corps records indicate an actual contribution of over 740 pm.

4. PVO assistance to the SANRU I Project was to be the equivalent of \$2,795,000. Protestant and Catholic churches provided 4 types of in-kind contributions:

- a. Salaries and support of expatriate (missionary) personnel
- b. Salaries of local medical personnel
- c. Use of infrastructure belonging to the churches
- d. Services, such as repair and maintenance of vehicles

5. The Team noted a lack of distinction between policy and operational responsibilities in SANRU's organigram and the absence of a sound system for personnel evaluation. This factor becomes more evident as, with the transition from SANRU I to II, the original staff of 7 expands to 40 employees (Annex 2).

USAID, GOZ, AND ECZ SHOULD REVIEW THE PROJECT ORGANIGRAM AND AGREE TO MODIFICATIONS LEADING TO A CLEAR DISTINCTION BETWEEN POLICY AND OPERATING LEVELS. NO INDIVIDUAL SHOULD SERVE AT BOTH LEVELS. USAID WOULD NAME REPRESENTATIVES TO BOTH LEVELS, AS WOULD GOZ/MOH BY NAMING A FONAMES OFFICIAL IN ADDITION TO THE MOH REPRESENTATIVE. JOB DESCRIPTIONS SHOULD BE UPDATED OR ADDED. THE PROJECT SHOULD INTRODUCE A SYSTEM OF PERFORMANCE APPRAISAL, AS A BASIS FOR PROMOTION POLICY. KEY POSITIONS SHOULD, WHERE POSSIBLE, BE DESIGNED TO PARALLEL THOSE OF FONAMES COUNTERPARTS.

B. Training (Annex 6)

The development of human resources for the various PHC levels remained one of SANRU I's major foci. Given its multifaceted approach, the Project has made good use of complementary activities also financed by AID (e.g. JHPIEGO, ACNM etc). Much needs to be done, both at the central level, in the zones and in the villages.

As a result of the Mid-Term Evaluation, the Project made a number of changes in its training approaches. The most important shift was that from central to regional training. This has been expanded to the MCZ's, trainers of village health workers (VHWs) and midwives, pharmacists, mechanics and zone water coordinators. The advantages of this approach are twofold: it provided a natural rural setting without the cultural dislocations involved in national training and, equally important, proved much more cost-effective. The Project largely relied upon a very limited number of trainers (except in water and sanitation) who were not always available.

The Project supports the University's new School of Public Health (SPH). This facility will meet SANRU's core needs for medical and other personnel with MPH level training. The Team considers that the recommendations of the Mid-Term Evaluation have been largely implemented. However, the Team has identified the need for: 1) additional inputs in the FP element; 2) training and motivation of village volunteers; 3) major upgrading of efforts directed at zonal management, both financial and logistic; 4) developing a module to train

simple village committees in the "hows" of Health Center (HC) supervision; and in-service training of RWCs. There may be merit in setting up one or two "flying squads" to work with the new zones for 1-2 weeks (Annex 5). Similarly, to stimulate cross-fertilization among zones, it may be advantageous to select in each SANRU sub-region one pilot and demonstration HC. Thus, representatives from other zones, including village committees, would have the opportunity to observe the actual functioning of a RHZ as opposed to classroom instruction.

#### C. Commodities (Annex 4)

By the end of SANRU I most items had arrived, however, in many instances key items of the "standard package," e.g. adult scales, hemoglobin meters and kerosene burners had not been distributed to the HCs. Contraceptives are in short supply in the zones. The Project provided office equipment to SANRU beneficiaries as projected. U.S.-made vehicles and bicycles (key elements to project mobility and supervision) proved ill-adapted to local road conditions and suffered from the lack of a local distributor and/or spare parts network. Other items, generally procured through GSA, experienced lengthy delays, at times did not conform to specifications (wrong voltage, U.S. dosages, no seat belts etc.) or arrived in split shipments (e.g. stethoscopes separated from blood pressure cuffs). USAID has taken corrective actions which should avoid these constraints in SANRU II. Local counterpart funds (CPF) procurement presented few obstacles except periodic drug shortages, largely due to foreign exchange restrictions.

The Project has set up a computerized system to track procurement actions which will be further expanded when additional equipment is received. The Team draws attention to two areas that merit further review by the Project and the USAID/Controller.

1. Establishment of minimum end-use record and inspection requirements, especially for commodities (e.g. drugs) that become comingled with those of other donors or were bought with converted U.S. dollars.
2. Additional studies of pharmaceutical supply and distribution circuits.

#### D. Finances

The Project's finances were assessed by a USAID/Washington financial analyst in the form of a pre-audit. Project management expressed certain objections and reservations. The findings of the Evaluation Team's review of the issues are included in Annex 3.

The Evaluation Team found generally that uses of US dollars and counterpart funds (CPF) reflected project objectives. Some areas require joint consideration by the USAID Controller and SANRU. A counterpart contingency fund line item should be maintained and some budget flexibility between line items should be introduced.

Problem areas include the ownership and ultimate use of project-funded construction, building improvements and commodities and the comingling of GOZ budget funds and CPF (Annex 3).

OWNERSHIP OF COMMODITIES AND BUILDINGS FUNDED BY THE PROJECT SHOULD BE CLARIFIED NOW RATHER THAN WHEN THE PROJECT ENDS.

THE USAID CONTROLLER SHOULD: REVIEW THE CURRENT PRACTICE OF COMINGLING GOZ FUNDS AND CPF, ARRANGE FOR PERIODIC PROJECT AUDITS; AND REVIEW THE ADEQUACY OF THE PROJECT'S INTERNAL ACCOUNTING SYSTEM.

E. GOZ contribution:

The GA called for CPF contributions by the GOZ in the amount of \$2,691,000. Figures furnished by SANRU indicate that 2112 million (rounded) were released. Using averaged exchange rates for each year, the equivalent would be \$3,000,000; i.e. approximately 10% more than the projected contribution. The terms of the GA can be considered to have been satisfied.

III. OUTPUTS DUE TO SANRU INPUTS

A. Training (Annex 6)

Two major groups of health personnel were to be trained: salaried personnel (physicians, supervisors and nurses) and voluntary workers at the village level (TBAs, Village Health Workers and Committee Members).

While much of the training that took place was on a short-term (1-3 weeks) basis, there was also long-term training (MPH level) for health planners and educators, all of whom happened to be physicians. Of the thirty people to be trained, fifteen have completed the MPH degree in the US and sixteen are still being trained (fifteen at the UNIKIN SPH, one in the US).

The percentage of the target number of people to be trained on a short-term basis varied from one category of personnel to another: the lowest and the highest achievements were recorded in the physician (MCZ) and the traditional birth attendant categories respectively (66% and 167%).

SANRU financed the participation of 59 MCZs in PEV recycling courses and also sent nurses to other francophone countries as recommended by the Mid-Term Evaluation.

Major constraints in training salaried personnel were the high cost of seminars at the national level as compared to local and regional training and the lack of a standard curriculum (especially for nurses and supervisors). The training for the second group (village volunteers) was conducted within Health Zones. Objectives for VHWS and Committee members were not met, whereas most other objectives were exceeded. While SANRU made available teaching materials for some of the training sessions, none of the MCZs visited reported receiving financial aid from SANRU to conduct training sessions for VHWS, committee members and TBAs.

The absence of salaries and incentives for voluntary workers was a severe constraint to their performance in many zones. This problem could hamper the entire training program and the capacity of the trained personnel to perform in the future.

Mechanisms for evaluating training materials and activities in the field were not developed by SANRU I, so the team could not assess the quality of the training provided.

The Project has implemented reasonably well the mid-term recommendations for training health personnel, both in-country and abroad. The project was less successful in organizing study tours to other African countries and visits among RHZ's to share experiences (Annex 6).

THE PROJECT SHOULD (1) DEVELOP A MECHANISM OF EVALUATION FOR ALL COURSES; (2) INITIATE FOLLOW-UP EVALUATION FOR KEY COURSES SO AS TO ASSESS THE EFFECTIVENESS OF NEWLY LEARNED SKILLS; (3) CONTINUE EFFORTS TO ORGANIZE STUDY TOURS TO OTHER AFRICAN COUNTRIES AND BETWEEN RHZs; AND (4) CONTINUE DEVELOPING AND REVISING STANDARD CURRICULA.

#### B. Primary Health Care Activities.

This section compares SANRU I objectives with the results. The Project results reported below are based largely on 1982-1985 activity reports and do not represent true end-of-project numbers. The Team noted that even though the Project often achieved its quantitative goals, the success of services delivered was uneven and sometimes below qualitative standards due to lack of resources, supervision and training (Annex 7).

EMPHASIS SHOULD BE GIVEN TO REINFORCING PHC TRAINING AND SUPERVISION IN EXISTING HEALTH CENTERS TO MAINTAIN SERVICE QUALITY. ASSESSMENTS OF PROJECT PERFORMANCE IN PHC SHOULD EMPHASIZE QUALITATIVE CRITERIA.

Objective 1. 250 health centers (HCs) opened or converted from dispensaries and focusing on preventive, promotive health practices: With SANRU's assistance 220 HCs have been established. The Project provided basic equipment and an initial stock of medicines for each HC to be assisted; information, education, communication materials; training for health personnel; vehicles and CPF subsidies to establish supervisory capacity for the rural health zones.

Objective 2. 250 Family Planning (FP) Clinics opened: The 1985 data showed 262 FP units operational in 38 reporting rural health zones. These units included not only health centers but also general reference hospitals which have FP activities. The Project provided technical training, equipment and contraceptives to start FP units.

Objective 3. 250 Maternal and Child Health (MCH) clinics opened/converted: The 1985 data from 38 reporting RHZs showed that of a total of 400 HCs and reference HCs, 277 had MCH clinics providing prenatal, maternity and under-five services.

Objective 4. 50 Mobile Medical Teams initiated/expanded: This objective was not realized due to excessive transportation costs. A few zones continued

the "mobile team" approach by having a team from the reference hospital travel by car to do monthly vaccinations at HC and village levels. The exact number is not available. The emphasis is now on decentralized vaccination services.

Objective 5. 4,000,000 total population benefited: The 1985 data from 33 reporting zones showed that 2,686,806 or 68% of the total population in those zones utilized (and presumably benefited from) the primary health care services provided by reference HCs, HCs, health posts and dispensaries.

Objective 6. 1,000 Vaccination Programs in Villages: Exact data were unavailable. The annual report indicated only the number of HCs which had Expanded Program on Immunization (EPI) activities and not the number of vaccination programs/clinics in villages. The typical HC held vaccination clinics in one to three villages within its radius of action. The 1985 annual reports from 38 RHZs indicated that 347 of 400 HCs had an EPI program. Assuming an average of two vaccination clinics at the village level per HC, an estimated 694 vaccination programs/clinics had been established in the 38 RHZs. In addition, the mobile vaccination teams based at hospitals complement the vaccination programs at the HC level. The Project financed technical EPI training for nurses at the zonal level, links RHZs and PEV/Zaire, and facilitates distribution of EPI information, education and communication (IEC) materials.

Objective 7. 250 Pro-Pharmacies (village drug supplies): The original target of 1000 pro-pharmacies was changed at the Mid-Project Evaluation to 250, essentially in the nature of a pilot effort. There is no current count of pro-pharmacies in operation. Further progress depends on the evolution of the village health worker concept, which at the end of SANRU I is still in flux. Health zones are not agreed on the desirability of village drug supplies.

Objective 8. Family Planning: 40 RHZs registering 1% of the women of reproductive age (WRA) group as new acceptors of contraceptive methods each year of project participation. (This is the revised objective of the Mid-Project Evaluation).

Data from 1985 showed 11 RHZs among 38 reporting zones registering 1% of the WRA group as new acceptors. Progress in this area was slow because of the unavailability of contraceptives (especially Depo-provera which is popular) due to irregular supply lines, low acceptance due to cultural and religious inhibitions and lack of knowledge or incorrect information.

Objective 9. Two health education/family planning films produced: Specific films dealing with health education/family planning were not produced, but one film concerning traditional birth attendant (TBA) training was produced in collaboration with American College of Nurse Midwives.

### C. Infrastructure

1. 50 Rural Health Zones: By the end of 1985, 50 SANRU I zones had begun training and organizational activities.

2. Environmental Sanitation: In 1985, the Project shifted its emphasis from latrine building to broad-based village sanitation programs. The objective was changed from "30,000 latrines constructed and in use" to "1000 villages which have successfully completed a village sanitation program and in which 90 percent of the households have a usable latrine." These programs include use of water from improved sources and other measures of domestic hygiene. SANRU estimates that this objective has been 88 percent achieved. Since only 2 of the health zones queried by the Evaluation Team provided figures, the Team could not verify the coverage. The Team observed that latrines are widely used and most of those inspected were clean and free of flies. It recommends that the new approach be continued (Annex 13).

3. Water Supply: SANRU reports that from 1982 to October 1986, the Project provided financing to health zones for protecting 113 percent (1697/1500) of the target number of springs and for constructing 66 percent (66/100) of the target number of alternate water supplies (dug wells and rainwater systems). The Evaluation Team considers the coverage figures are commendable. It notes, however, (i) few of these works were quantitatively or technically controlled by SANRU technicians, (ii) many of the springs seen by the Team were poorly constructed and unprotected from human, animal or rainwater contamination and (iii) there was little evidence that they were being monitored by the staff of health centers and zones or regularly cleaned and maintained by their users.

These shortcomings may be traced to some over-optimism in the original project design, which included provision for short-term advice on technology and training, but not for full-time specialized personnel at health zone or central level to guide and monitor the project's environmental sanitation and water supply activities. Following the Mid-Project Evaluation, the SANRU central staff was strengthened and a more structured training program was initiated in April 1986 for health zone staff; little or no direct technical assistance to zones has yet been provided.

4. Classrooms: The target of providing 12 classrooms was achieved and for practical purposes, surpassed as other project-improved structures provide multipurpose facilities, including classrooms.

5. Laparoscopes: The Project Paper called for 20 laparoscopes installed and in use. To upgrade reference hospital operating rooms to facilitate voluntary surgical contraception (VSC), 12 laparoscopes were installed, of which 3 have been relocated to urban sites because of low usage. After site visits by the Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO), a decision was made to install laparoscopes only in major urban institutions under the Projet des Services de Naissances Desirable (PSND), and that minilaparotomy should be the procedure of choice for female surgical contraception in RHZs. Thus, no more laparoscopes have been installed in rural hospitals (Annex 7).

#### D. Information System

1. Objective 1: Service record system in place: The only service record system in place is the Zone Annual Reporting Form. It has basically not

changed since the 1984 evaluation which criticized it for being too long (p. 29). The record system within the zones is largely left to the discretion and ingenuity of the MCZ. The Central Office has provided the zones with wall calendars-activities charts, but they are not always being used effectively. They could be an extremely useful tool for setting service objectives and monitoring their progress during the periodic visits to the centers by Zone supervisors. The only feedback the zones receive from the Central Project office is negative, the forms are returned to the zones if they are incomplete or contain inconsistencies. Many zones perceive no benefit in completing the forms, compliance is perfunctory and the quality of the data poor (Annex 9.A). Delays in getting the results and the low data quality renders the reporting system of little use as a planning and evaluation tool at the national level.

The SANRU Planning Office is an active participant in a MOH-sponsored effort to standardize a national health information system (SNIS) (Annex 9.B). A needs assessment study was conducted and the data analysis is underway by Project personnel. This process offers no immediate relief at the zone level, although long-term benefits should be considerable. Needed short-term help includes stepped-up training, supervision and improved documentation. The Planning Office should be brought up to its projected staffing complement. The two new staff members will provide the needed supervision and feedback to the zones.

SANRU II is to develop a documentation center to collect and disseminate PHC reference materials and media. A WASH consultant recently provided technical suggestions (Annex 11.4). Project Management has been progressing on the acquisition and development of computer equipment and software (Annex 9.C) and the development of the Documentation Center (Annex 11.4). Clearly defined policy guidelines for the transfer of these functions and resources to the GOZ have not yet been formulated.

THE PROJECT POLICY BOARD SHOULD MEET WITH THE PROJECT MANAGER AND A FONAMES REPRESENTATIVE AT THE EARLIEST POSSIBLE OPPORTUNITY TO DEFINE THE PROJECT'S GUIDELINES IN RELATION TO: 1) THE ACQUISITION AND DEVELOPMENT OF COMPUTER EQUIPMENT AND SOFTWARE; AND 2) THE ULTIMATE LOCATION AND MANAGEMENT OF THE DOCUMENTATION CENTER.

2. Objective 2: Hold 5 National Conferences: The Project sponsored national health conferences in 1982, 1983 and 1986 and 2 regional conferences during this period (Annex 9.E).

3. Objective 3: Produce 5 Comprehensive Annual Reports: the Project produced annual reports in 1982 and 1984. It has completed the quarterly USAID Project Implementation Reports on a regular basis.

#### IV. SANRU I PURPOSES

A. Prevention and treatment of the 10 most prevalent health problems:

The Project-assisted health zones deliver a wide range of primary health care

services aimed at prevention and treatment of prevalent public health problems in Zaire. SANRU's contribution towards realization of this component of the project purpose is by:

1. Assisting in the transformation of 220 curative dispensaries into full-service health centers offering prenatal services, maternity services, family planning, under-five clinics, vaccinations, health and nutrition education, control of local endemic diseases and basic curative services including simple laboratory examinations.
2. Playing a major role as a horizontal project by assisting and reinforcing other national programs such as Expanded Program on Immunization (PEV), Centre de Planification de Nutrition Humaine (CEPLANUT), Bureau National de la Tuberculose (BNT), Projet des Services des Naissances Désirables (PSND), to integrate their "vertical" expertise into the HC activities.

The degree of success in carrying out specific activities varies. To date, the progress of the family planning (FP) component of SANRU's PHC activities has been very weak and the acceptance rate extremely low. Important contributing factors are irregular contraceptive supplies, lack of knowledge and incorrect information. Success of FP services will depend on the Information, Education, Communication (IEC) strategy used and on the capabilities of health personnel (Annex 7.3).

FP ACTIVITIES SHOULD BE STRENGTHENED BY: 1) ASSURING REGULAR SUPPLIES OF CONTRACEPTIVES TO HEALTH ZONES; ii) COORDINATING WITH PSND AND HEALTHCOM TO INCORPORATE EFFECTIVE COMMUNICATION STRATEGIES INTO ITS ONGOING PROGRAM AND iii) REINFORCING TRAINING OF HEALTH PERSONNEL. SANRU, IN COLLABORATION WITH FONAMES AND PSND, SHOULD ADD A MODULE DEALING SPECIFICALLY WITH FP (PARTICULARLY IEC IN FP AND AIDS) TO THE MEDECIN CHEF DE ZONE (MCZ) TRAINING COURSE. INTRAH SUPPORT SHOULD ALSO BE CONSIDERED IN MODULE DEVELOPMENT.

Measles is still a major problem. Vaccination clinics should be scheduled more frequently than once a month and children should be vaccinated whenever they have contact with the HC. These approaches are not currently feasible at the HC level due to lack of refrigerators. The team noted an insufficient quantity of refrigeration equipment and vaccine carriers in most zones visited, as well as kerosene procurement problems for kerosene-powered refrigerators. Most RHZs visited had only one refrigerator located at the reference hospital (Annex 7.4).

IN CONJUNCTION WITH PEV THE PROJECT SHOULD IMPROVE THE COLD CHAIN BY THE STRATEGIC DISTRIBUTION OF REFRIGERATORS IN MORE HC'S. STUDYING THE USE OF SUPERTHERMIC VACCINE CARRIERS AS TO HOW THEY CAN AUGMENT THE COLD CHAIN SHOULD ALSO BE DONE.

**B. Sustainable System**

**1. Zones and Health Centers (Annex 5)**

a. Most Health Centers visited by the team showed the potential for recovery of operating costs. In some cases, the uncertainty of GOZ salary support caused understaffing (especially of GOZ centers) and slowed the preventive outreach program. Financial management of zones needs strengthening. The health centers' accounting was rudimentary with little protection against (and little concern over) "skimming" of receipts. Health and village development committees, are evolving. A major problem is their inability to monitor HC finances and inventories. Villagers are appreciative of Project-sponsored improvements.

b. Rural health zones, with SANRU subsidies, hospital subsidies and small health center contributions are generally funding their on-going operations. Even when zones show some operational surpluses, these will rarely suffice to replace capital investments; continued reliance on outside assistance remains unavoidable.

A great variety of styles (fee structures, treatment of needy patients, of roles of committee members) was observed. It appears important to respect local autonomy in attaining common project objectives rather than to super-impose solutions for every problem (Annex 5).

THE PROJECT SHOULD HELP ZONES, HEALTH CENTERS AND COMMITTEES DEVELOP PROCEDURES AND UPGRADE BASIC ACCOUNTING SKILLS FOR FINANCIAL MANAGEMENT AND LOGISTICAL CONTROL.

**2. Regional and sub-regional medical offices**

The reinforcement of these offices was not among SANRU I objectives. The Team, however, heard a number of problems expressed by sub-regional medical officers. They complained that they were frequently by-passed when the zones and the Project central office communicated directly. Often they did not receive copies of the annual reports that the Zones sent to the Project. They also felt the Project office should have notified them of major commodities and assistance sent to the zones. The Project staff is aware of these problems and is taking steps to correct them.

**3. National Level**

a. The Mid-Project Evaluation in 1984 contained the following major recommendation (No. 15): "USAID should enter discussions with the GOZ to resolve issues about the legal status of health zones."

The SANRU Project financed a conference at Nsele in June 1985, that produced a document "Travaux préparatoires au Statut de la Zone de Santé". The document, which gathered comments from the field, probably raised more questions than it answered. The proposed statute has since been sent from the MOH to the Prime Minister's Office and back to the MOH, where it awaits further revisions.

b. The Evaluation Team, during its visits to rural health zones, learned that the lack of clear legal status of health zones is, indeed, causing problems in the field:

1) Questions of legal ownership of zone office buildings, health centers, and vehicles are complicated by the absence of a statute.

2) Bank accounts cannot be opened in the name of a non-existent zone.

3) Employees of zone offices and of Health Centers are unsure of their employment and pension status.

4) Zone medical chiefs do not have clear authority to plan zone activities, nor to coordinate donors and partners within their zones.

The Team is concerned that the continuing legal vacuum in which the SANRU effort is conducted may jeopardize the survival of the GOZ health zone strategy.

THE SANRU PROJECT AND USAID SHOULD EXPRESS AT THE APPROPRIATE GOZ LEVEL THEIR CONCERN OVER THE ABSENCE OF AN ORDINANCE VESTING THE HEALTH ZONES WITH LEGAL STATUS.

c. The Mid-Project Evaluation also recommended (No. 19): Assistance should be provided to the Fifth Direction (Primary Health Care) of the MOH in coordinating primary health care in Zaire.

The latter phases of the SANRU I project coincided with internal efforts by the MOH to redefine the roles of the Fifth Direction and of FONAMES (National Health Foundation). SANRU I funded two national conferences. The first was an attempt by the Fifth Direction to define its own role. The second, in May 1985, redefined FONAMES, giving it many of the functions previously assigned to the Fifth Direction.

New tools are needed to strengthen the coordination and cooperation between FONAMES, MOH and the Project (Annex 11).

DETAILED IMPLEMENTATION PLANS FOR EACH PROJECT FUNCTIONAL AREA SHOULD BE DEVELOPED VIA CRITICAL PATH-TYPE METHODOLOGY. THE PROJECT POLICY BOARD SHOULD REVIEW PROGRESS ON A QUARTERLY BASIS.

#### C. Community Involvement.

Community-based health activities (including committees and village health workers) are under way in most zones. Some older zones, on the basis of several years' experience, have made major changes in their strategies. Ironically, though, the newer zones are still following the old models.

The project is producing training materials for zone staff members who work directly with communities. Future activities should include studying cases of

evolving zone strategies, and also examining basic issues of community organizing. The project then needs to clarify its objectives and set strategies.

To carry out these tasks, technical assistance is needed. Both in-country and international expertise is available and should be used (Annex 8).

THE PROJECT SHOULD HIRE SHORT-TERM CONSULTANTS TO WORK WITH THE PROJECT, FONAMES, AND THE FIFTH DIRECTION OF THE MOH TO CLARIFY THE GOALS AND OBJECTIVES OF THE COMMUNITY PARTICIPATION COMPONENT OF THE PROJECT AND TO DEVELOP IMPLEMENTATION STRATEGIES AND EVALUATION PROCEDURES.

#### V. SANRU I GOAL

The goal of the project is to improve the health status of rural Zairians as measured by reductions in mortality and birth rate. It has not yet been able to demonstrate this.

Impact indicators in the SANRU zone report are 8 diseases and percent of underweight children. The former are useful for ranking health problems but cannot be used to calculate incidence rates. The nutritional indicator is neither population-based nor age-standardized and 3 different calculations are permitted. An impact evaluation based on statistical analysis of population-based surveys was proposed in 1983. The proposal was judged too time consuming and costly, and the results are only as valid as the ability to specify the correct model and measure all relevant variables. A recent PRICOR-SANRU operations research (OR) project demonstrated how this methodology can lead to uninterpretable results.

The 1984 evaluation stipulated that "SANRU should organize resources to do local impact studies on specific health problems." SANRU created a Research Division to establish priorities and guidelines and to coordinate activities. A 3-tiered research strategy was developed: 1) TA in response to requests from zones (Kirotshé); 2) centrally funded OR studies on specific topical areas (REACH and PRICOR); 3) and a methodology for a Project Office-directed impact study developed in conjunction with PRITECH (Annex 9.D). All of these strategies utilize the survey approach. The family census ("fiche familiale") should be explored as a research tool. The three research methodologies should be more closely integrated with the curriculum so that MCZs are better able to request specific TA, follow guidelines and collaborate on studies.

#### VI. SANRU II ISSUES

##### A. Strengthening the Ministry of Health

National: During its early years, the SANRU I project provided major assistance to the MOH in coordinating and supervising primary health care activities and in developing the Five-Year Plan (1986-1990). These roles, formerly vested in the Fifth Direction, have now been officially assigned to FONAMES. Project personnel continue to participate in FONAMES conferences and work sessions to

assure SANRU's coordination with other national and donor agencies involved in primary health care. The SANRU II project has made available funds for FONAMES central office rehabilitation. AID should consider offering FONAMES the services of an expert in development administration under a Host-Country Contract (Annex 11).

USAID AND SANRU SHOULD SUPPORT FONAMES IN ENSURING COORDINATION AND COLLABORATION BETWEEN SANRU, OTHER PROJECTS AND NATIONAL PROGRAMS, SUCH AS PEV, PSND, CEPLANUT AND SANTE POUR TOUS.

Regional: FONAMES is encouraging sub-regional medical offices to perform more supervision of health zones and primary health care activities. The project will provide a vehicle to some sub-regional offices to help them better supervise the health zones. The Project currently sponsors one regional medical inspector and three sub-regional medical officers in the one-year post-graduate course at the SPH.

Health Zone: Project-assisted zones are increasingly functioning as the basic units of primary health care in Zaire. Their planning and coordinating functions are strongest in zones that have Administrative Councils, including representatives of all health agencies within the zone.

For Management and supervision functions, wide variation exists between zones. In GOZ-managed zones in particular, church organizations often continue to directly supervise the affiliated HCs.

Few zones have integrated fully all budgets and finances. The finances of the reference hospital, the zone central office and the centers are usually separate; the zone staff often knows only their own financial status and that of the health centers they directly supervise.

The national health strategy establishes general directions for zone functioning, but they also allow for flexibility. Each zone has its own traditions and mode of operating. As long as Project-assisted zones follow basic national guidelines and strategies, they should be encouraged to experiment and to share their experiences with others.

#### B. Zone Selection and Rehabilitation

Zone Selection: SANRU I zones were widely scattered across the country's rural regions, and there were valid reasons for this national approach. The SANRU II project is moving towards clustering of zones within selected sub-regions. This will facilitate coordination and supervision while promoting the development of vertical methodologies and structures (information, planning and supervision). The Team agrees with this approach. However, the degree of active involvement of FONAMES in the selection process is difficult to establish. The Team understands that FONAMES is to participate in zone selection but not in the choice of facilities to be upgraded.

In addition, SANRU is a USAID-assisted project and USAID is increasingly

concentrating its resources in the Bandundu and Shaba regions (CDSS 1986). The Project may be able to increase its potential contribution to the success of the USAID policy by focusing on the same two regions (Annexes 10 + 12)

THE HEALTH ZONE SELECTION PROCEDURES SHOULD BE STRENGTHENED BY: 1) FULLY INTEGRATING FONAMES INTO THE SELECTION PROCESS AND 2) DEVELOPING CRITERIA BASED ON NEEDS OF THE POPULATION. CONSIDERATION SHOULD BE GIVEN TO FOCUSING THE PROJECT ON THE PRIORITY REGIONS OF THE OVERALL USAID PROGRAM IN ZAIRE.

THE ESTABLISHMENT OF PROJECT SUPPORT TO NEW RHZ'S SHOULD BE CONTINGENT ON THE AVAILABILITY OF ADEQUATE TRAINED STAFF, EQUIPMENT, SUPPLIES AND COORDINATION WITH OTHER GOZ AND DONOR AGENCIES INVOLVED. ADHERENCE TO THESE STANDARDS MAY RESULT IN A TEMPORARY SLOW-DOWN OR HALT IN ADDING NEW ZONES.

SANRU uses a set of weighted criteria, including existing physical infrastructure, in the zonal selection process which determines aid for rehabilitation and construction of health facilities. It is not clear to what extent zones with better facilities may be favored over others.

Within RHZs, facilities are selected for upgrading and equipping by SANRU on the basis of criteria which include the MCZ's recommendations, their location (ability to serve 5,000 villagers within a defined distance), ease of supervision, and availability and qualifications of the professional staff. SANRU has a review process for rehabilitation proposals received from RHZ's including site visits by the project staff. Virtually all field construction work is done with village-center-hospital resources and by hiring local specialists (masons, carpenters) as needed. GOZ contracting procedures are employed for construction work at ECZ and FONAMES locations. SANRU procedures call for incremental payments for rehabilitation projects of hospitals, offices and pharmacies exceeding Z500,000. Better procedures are needed, however, for accounting, tracking and end use inspection (Annex 12).

C. Environmental Sanitation and Water Supply (Annex 13)

The environmental sanitation and water supply component has been considerably strengthened in SANRU II. This is to be accomplished by adding critical national and external resources, while continuing the activities within the context of primary health care strategy. As in SANRU I, the foundation for all interventions should be the existence of well-developed individual and community interest, i.e. willingness to contribute materials and labor and to take responsibility for the maintenance of new works. The health zone is to furnish additional construction materials and technical know-how. The National Sanitation Program (PNA) and the National Rural Water Supply Service (SNHR) are to assure technical guidance and support to the health zone and assume executive responsibility for large or technically complex projects. SANRU II inputs include intensified training and technical instruments and equipment for rural water and sanitation

coordinators (RWCs) as well as supplies, equipment (including three drilling rigs), technical assistance and salary supplements for SNHR headquarters and field staff. Operational support by the Project to PNA is under consideration.

The Evaluation Team considers that the strategy is sound; it has nevertheless identified five areas which merit special attention so that Project targets can be met:

1. Competent field units. Many field units need to be established or upgraded so that they are self-contained and can perform their technical functions in the project. The RWCs are generally not qualified and trained and are not assigned exclusively to water and sanitation duties; a number of RWC posts are still vacant. The hydraulic stations are not adequately staffed and equipped to carry out project studies and designs, organize and supervise medium size construction works and provide technical backing to the RWCs in their working area. Rural PNA field units have not yet been created.

2. Cooperative activities. Success of SANRU's water supply and sanitation strategy depends to a large extent upon a number of cooperative actions by health zones, hydraulic stations and eventually subregional PNA staff. These actions concern priority localities, workplans, inventories of water resources and needs, choice of technologies, consultations with local authorities, in-service training and technical backstopping for RWCs, pre-approval site visits for large projects, and monitoring maintenance and repair of completed installations. To articulate these cooperative activities, two or three-day regional workshops for MCZs, RWCs and station chiefs would be a useful beginning.

3. Workplans. The current work of both rural water coordinators and hydraulic stations is neither scheduled nor reported systematically and does not fit into a predetermined health zone "priority action plan" for water supply and sanitation. All health zones and hydraulic stations should establish workplans for 1987, coordinate them and draft joint zone-level action plans. A primary necessity is good quality large-scale topographical or other geographical maps; such maps could not be found in any of the hydraulic stations visited by the Evaluation Team and only rough tracings were seen in the health zones. The most urgent need for forward planning is to determine reasonable workrates for field units. The "ASN" workrates for health zones cannot be accurately determined from supplies requested or from the annual reports. The calculation of hydraulic station workrates is made difficult by the 1985-1986 slowdown imposed by lack of construction materials. The workrate assumed for drilling rigs cannot be verified at present (Annex 13).

4. Project preparation. The Evaluation Team questioned field staff of 19 health zones and 4 hydraulic stations about design assumptions, technologies and project preparation and approval processes; the team inspected five gravity systems, four rainwater systems and about 25 improved springs. Water is accessible in most areas. The immediate objective is to protect it from contamination and improve its accessibility. Where more than one type of

system is feasible, the choice should be based on sociological and cost considerations. The average amount of water carried to the house in villages visited by the Team was 10 liters per capita per day. The present standard (30 lcd) set by the CNAEA is justified for pressure schemes, but should not be used for rejecting a village spring or borehole which could serve actual needs for some years. Project preparation and approval procedures detailed in the Project Paper are not yet operational; in particular, hydraulic stations do not prepare complete project designs and pre-approval site visits by representatives of SANRU, health zone, SNHR, hydraulic station and the local authority for large projects are not made.

5. Monitoring and control. Water supply works constructed with SANRU assistance are being utilized, but not adequately maintained, by villagers. The monitoring and control of completed village environmental sanitation programs and water supplies is only being undertaken sporadically by health, sanitation and water supply authorities. Procedures need to be set up to ensure daily cleaning, periodic preventive maintenance, financing and repair of broken installations. SANRU and SNHR also need operational procedures to monitor and control the technical performance of the water supply and sanitation field units (Annex 13).

IN IMPLEMENTING THE ENVIRONMENTAL SANITATION AND WATER SUPPLY COMPONENT OF SANRU II FIRST PRIORITY SHOULD BE GIVEN TO UPGRADING FIELD UNITS. IN HEALTH ZONES, THIS REQUIRES RECONSIDERING THE BASIC QUALIFICATIONS AND IMPROVING THE IN-SERVICE TRAINING AND SUPERVISION OF RURAL WATER AND SANITATION COORDINATORS AND RELEASING THEM FROM OTHER DUTIES. IN THE SNHR, HYDRAULIC STATIONS SHOULD BE EQUIPPED, BROUGHT UP TO OPTIMAL STAFFING AND BE GUIDED TO IMPROVED MANAGEMENT PROCEDURES. A STUDY SHOULD DEFINE PNA'S RURAL PROGRAM AND POTENTIAL CONTRIBUTION TO SANRU IN OPERATIONAL TERMS AND DETERMINE WHAT INPUTS ARE NEEDED TO IMPLEMENT IT.

THE FIELD LEVEL COOPERATIVE MECHANISMS INVOLVING HEALTH ZONES, HYDRAULIC STATIONS AND PNA REGIONAL STAFF, WHICH ARE AN ESSENTIAL PART OF THE SANRU SANITATION AND WATER STRATEGY, SHOULD BE PUT IN OPERATION; FOR EXAMPLE, HYDRAULIC STATIONS SHOULD PROVIDE TECHNICAL BACKSTOPPING TO RWCS IN SPRING PROTECTION WORKS.

## ANNEX 1

### EVALUATION METHODOLOGY

Phase 1 (4 days): The Evaluation Team met with SANRU project staff, the USAID Deputy Director, the Minister of Health, and the Director of the National Rural Water Supply Service. Team members studied project and Government of Zaire documents. They designed five questionnaires to use during field trips.

Phase 2 (9 days): Three sub-teams travelled to the regions of Equateur, Haut-Zaire, and Kivu. They visited and interviewed key persons in 2 sub-regional medical offices, 3 sub-regional water stations, 12 Rural Health Zones, 19 health centers, and 28 villages. Interviews lasted one to three hours each.

Phase 3 (3 days): Back in Kinshasa, the team shared their trip findings. Evaluators met with staff at SANRU, Ministry of Health, Ministry of Rural Development, Church of Christ in Zaire (ECZ), the Catholic Medical Office and the National Health Foundation (FONAMES). They also met with regional and health zone personnel studying at the School of Public Health.

Phase 4 (10 days): Again as 3 sub-teams, the evaluators travelled to the Bas-Zaire, Bandundu, Shaba, West Kasai, and East Kasai Regions. They visited 2 sub-regional medical offices, one sub-regional water station, 9 Rural Health Zones, 15 health centers, and 15 villages.

Phase 5 (10 days): In Kinshasa, the evaluators completed discussions with SANRU and USAID staff members. They talked with several agencies and projects involved in primary health care in Zaire. The evaluators drafted their report, then circulated it to USAID, SANRU, the Ministry of Health, and the Ministry of Rural Development. These agencies presented their comments in a series of debriefing meetings, and memos, and the evaluators prepared their final report.

#### MEMBERS OF EVALUATION TEAM FOR SANRU PROJECT, 1986

The evaluation team consisted of the following members:

1. Dr. Ngay Aben, Management Training Specialist
2. Dr. Judith Brown, Social Anthropologist, Team leader
3. Ms. Linda Brown, USAID/Washington, Financial analyst
4. Mr. Harvey Gutman, Management Systems Specialist
5. Dr. May Post, Maternal and Child Health Care Physician
6. Dr. Musinde Sangwa, Director of Training and Supervision, National Health Foundation (FONAMES)

7. Mr. Prescott Stevens, Water and Sanitation Engineer
8. Mr. Stanley S. Terrell, Health Information Systems Specialist

The team was assisted during field trips by the following resource people:

1. Mr. Felix Awantang, USAID Project Officer (Water Component)
2. Dr. Franklin Baer, Administrator, Project SANRU
3. Dr. Okwo Bele, Coordinator of Evaluations, Expanded Programme of Immunisations (PEV)
4. Mr. Steven Brewster, Project ECZORT
5. Dr. Kalambay Kalula, Representative of the Ministry of Health, Project SANRU
6. Cit. Sowa Lukono, Director of National Rural Water Service (SNHR)
7. Cit. Mukanga Lushima, Chief of the Health Division, Department of Plan
8. Cit. Luvula Agnen-a-Mbap, National Rural Water Service (SNHR)
9. Cit. Munkatu Mpese, Coordinator of Studies, Project SANRU
10. Dr. Kahozzi Sangwa, Coordinator of Supervision and Planning, Project SANRU
11. Dr. Kidinda Shandungo, Coordinator of Training and Documentation, Project SANRU
12. Ms. Rhonda Smith, USAID Acting Project Officer (Health Component)

PERSONS INTERVIEWED IN KINSHASA BY EVALUATION TEAM

SANRU Project

Cit. Nlaba Nsona, Director, Representative of ECZ  
 Dr. Kalambay Kalula, Representative of Ministry of Health  
 Dr. Franklin Baer, Administrator  
 Dr. Kidinda Shandungo, Coordinator of Training and Documentation  
 Dr. Kahozzi Sangwa, Coordinator of Supervision and Planning  
 Mrs. Florence Galloway, International Training  
 Cit. Itoko, Water and Sanitation Training  
 Rev. Ralph Galloway, Finances

Ministry of Health

Dr. Ngandu Kabeya, Minister of Health (Commissaire d'Etat)  
 Dr. Luvivila Kapata, Secretary General  
 Cit. Bofenda Bokumu, First Direction - General Services  
 Dr. Massamba Matondo, Director of National Council for Health and Well-Being (CNSBE)  
 Dr. Matundu Nzita, Acting Director General, National Health Foundation (FONAMES)  
 Dr. Mbuyi, Director of Planning, FONAMES

USAID/Kinshasa

Mr. Arthur Lezin, Deputy Director  
 Dr. Glenn Post, Chief of Division, Public Health Office  
 Mr. Felix Awantang, Project Manager, Water & Sanitation Component  
 Ms. Rhonda Smith, Acting Project Manager, Health Component  
 Mr. Darrell Dolley, Controller

Ministry of Environment

Cit. Kabeya, Director of National Sanitation Program (PNA)  
 Citne Kabamba, Projects Manager, PNA  
 Cit Ngoy, Chief of Study and Evaluation Service, PNA

Church of Christ in Zaire (ECZ)

Bishop Bokeleale, President  
 Rev. Ilunga Mutaka, Director of Christian Education  
 Dr. David Sauter, Acting Director of Medical Office

Ministry of Rural Development

Cit. Sowa Lukono, Director, National Rural Water Service (SNHR)  
 Cit. Luvula Agnen-a-Mbap, Technical Assistant, SNHR

Other agencies

Ms. Robin Steinwand, Public Health Advisor, U.S. Peace Corps  
 Ms. Ruth Deer, Sanitary Engineering Advisor, U.S. Peace Corps  
 Dr. M.M. Gerniers, Santé Pour Tous, Kinshasa  
 Mr. Akmanoglu, World Health Organization  
 Dr. Okwo Bele, Coordinator of Evaluations, Expanded Programme on  
 Immunizations (PEV)  
 Soeur Mulwahali, Masika, Director, Medical Office of Catholic  
 Interdiocesan Center  
 Dr. Abeba Gobezie, Nutrition Planner, National Nutrition Planning Center  
 (CEPLANUT)

FIELD VISITS AND INTERVIEWS BY EVALUATION TEAM

<u>Region</u>	<u>Unit</u>	<u>Health Centers</u>	<u>Villages</u>
Bandundu	Moanza Health Zone	1	
	Idiofa Health Zone	2	
	Misele Rural Water Station		4
Bas-Zaire	Lukaya Sub-regional medical officer		
	Sona-Bata Health Zone	2	2
	Nselo Health Zone	2	2
Equateur	Karawa Health Zone	2	5
	Pimu Health Zone	1	1
	Businga Health Zone	2	1
	Gemena Health Zone		
	Loko Health Zone	2	2
Haut-Zaire	Ituri Sub-regional Medical Officer		
	Bunia Health Zone		
	Nyankunde Health Zone	4	3
	Drodro Health Zone	2	4
	Rethy Health Zone	2	3
	Bunia Rural Water Station		
Kasai Occidental	Bulape Health Zone	2	2
	Tshikaji Health Zone	2	2
Kasai Oriental	Tshudi Loto Health Zone		
Kivu	Nord-Kivu Sub-regional Medical Officer		
	Kirotshe Health Zone	2	2
	Rutshuru Health Zone	2	1
	Rwanguba Health Zone		2
	Kirotshe Rural Water Station		2
	Rutshuru Rural Water Station		2
Shaba	Haut-Lomami Sub-regional Medical Officer		
	Kamina Health Zone	2	2
	Kaniama Health Zone	2	1
Total	4 Sub Regional Medical Officers		
	4 Rural Water Stations		
	21 Health Zones		
	34 Health Centers		
	43 Villages		

MAJOR DOCUMENTS STUDIED BY EVALUATION TEAMSANRU Project Documents

- P - 1 Project Paper SANRU I, 1981
- P - 2 Project Grant Agreement SANRU I, 1981
- P - 3 Mid-Project Evaluation SANRU I, 1984
- P - 4 USAID Project Status review, 1985
- P - 5 Project Paper SANRU II, 1985
- P - 6 Project Grant Agreements SANRU II (Water Component, Health Component), 1985
- P - 7 Evaluation of SANRU assistance by Zone Medical Chiefs, Nsele 1986
- P - 8 Carte de délimitation des zones de santé au Zaire, 1986
- P - 9 REACH Report on health zone financing, 1986
- P -10 Actions taken in response to Mid-Term Evaluation, Nov. 1986
- P -11 Child survival action program (cable/Kinshasa)
- P -12 Procédures administratives SANRU

Government of Zaire Documents

- G - 1 Plan d'action sanitaire 82 - 86
- G - 2 Plan d'action du DSP 1984
- G - 3 Forum sur le role et les attributions de la 5ème Direction du DSP, CENACOF, April 84
- G - 4 Conclusions générales des travaux de la Table Ronde sur les SSP, décembre 1984
- G - 5 Plan d'action du DSP 1985
- G - 6 Texte sur FONAMES, Nsele, mai 1985
- G - 7 Travaux préparatoires au statut de la Zone de Santé, Nsele, juin 1985
- G - 8 Plan quinquennal santé 1986 - 1990
- G - 9 Plan quinquennal eau/assainissement 1986 - 1990

## ANNEX 2

### PERSONNEL

(Ngay Aben)

1. Examine the Central Office Staffing Pattern. Have staffing patterns been designed to facilitate attainment of program objectives? Is there adequate staff within each of the central office program divisions to implement and manage project activities effectively. Determine if there are any additional short-term or long-term technical assistance needs.

Sanru has created five major divisions. Until recently, the project has been working with a very limited staff. Provision has been made for hiring people to fill vacant positions within the proposed organigram. It is important that the hiring take place immediately, given that several activities have been hampered by a shortage of personnel.

Though the project does still need more staff, it has been doing well in recruiting qualified personnel. Rigorous procedures have been used during the selection phase.

Among required personnel, there is a particularly urgent need for long term technical assistance to reinforce the Administrative Division, as the initial \$10 million project has now grown to become an over \$65 million project. So far, that position has been filled by the project manager himself, which has overburdened him and has left the impression that he is "doing everything." One major job attribution of the position being the distribution and the monitoring of counterpart funds and commodities, it is imperative that the incumbent be a person who can effectively resist outside pressures.

Although the project should avoid cumbersome administrative procedures, the proposed organigram does not make provision for a personnel administration position. It is recommended that such a position be created and filled immediately.

A number of positions do not have job descriptions. It is recommended that detailed job description be written for each position.

Given that SANRU activities will have to be taken up by FONAMES, it is imperative that key staff member within the Projects work hand in hand with their FONAMES counterparts.

2. Do current technicians provide an appropriate mix of skills to effectively assist in achieving project objectives?

The project has used personnel of varied background to fill in key positions. Full time specialists in fields directly connected to the project are now on duty or are scheduled to be hired. Specialists in fields such as solar energy, library science and documentations are among

top priorities for immediate hiring. The Project has understood the need for mixed skills and is committed to hire full time staff as required. However, there is a need for a full time secretary to handle correspondence for the Training and Supervision Divisions. The load of technical work involved in those divisions does not at present permit their staff to respond effectively to letters and provide feedback to the Project assisted Health Zones. (In effect, one major finding of the field trip was that the project Central Office gave little, if any, feedback to the Health Zones.)

Much of the Project training effort is aimed at Health Center nurses, who in turn are in direct contact with other target groups, namely the village health workers and traditional birth attendants. It is essential that a nurse be hired at Headquarters and trained as a trainer and community development specialist. She would assist the training division in developing curricula for those target groups, conduct some training seminars and follow up on training given in the field.

3. Clarify the need for a Deputy Project Manager

During the first three years of the project, there was a very limited staff; many functions were taken up at the project management level. With that initial structure of the Project, the need for a Deputy Project manager might have been strongly felt and justified. In the last year, however, the Project has hired qualified technicians to head most divisions (with the exception of Administration). Subsequently, remarkable effort has been made at the project management level to delegate authority and responsibility to division chiefs. In line with this new move, the specific duties that would be attributed to the Deputy Project Manager can and should be fulfilled by the Administrative Division Chief. There is little, if any, argument for retaining the position of Deputy Project Manager for SANRU II.

## The Project Organization

(Harvey Gutman)

### A. Present Organization

#### 1. Policy Level

The attached organigram, provided to the Team by SANRU, shows a policy level committee (without name), composed of an ECZ Representative (Cit. Nlaba Nsona) with the title "Project Director", a GOZ Representative (Dr. Kalambay) and an "AID Contractor" (Dr. Baer). The latter's attributions and title in this context are not clear. He agreed, in a recent exchange of memos with the USAID PHO chief, that USAID was represented by two project officers from its Public Health Office (Ms. R. Smith, for the MOH component and Mr. F. Awantang for the MRD/SHNR component) and not by him. In discussions Dr. Baer described his role, in this connection, as one of assuring that USAID policies and guidelines are properly considered in SANRU's management and operations. This interpretation reflects the fact that Dr. Baer is employed and payrolled by USAID. The Committee's structure is rather unusual. One of the major partners (USAID) is unrepresented. Conversely, SANRU has two representatives, of whom one is the other's superior. Yet both are the equals of the MOH policy level representative. (Note: None of this discussion is meant to detract from the fact that Dr. Baer clearly is a highly professional, dedicated manager who should be given major credit for SANRU's success to date.)

#### 2. Operating Level

The attached SANRU organization chart shows a Management Committee (Comité de Gestion). It is composed again of the above three members of the policy level committee plus SANRU's Division Chiefs and a USAID Project Officer who has "observer" status.

#### 3. Observation

As staff expands, new organizational structures may be called for. SANRU is now growing into an organization with 40 employees. Another look at its organigram seems appropriate. Presumably, there should be a distinction between policy and operations. When the identical individuals staff both committee levels, the distinction, of course, becomes meaningless. Presently, the SANRU Management Committee (Comité de Gestion), composed of Division Chiefs, their 2 superiors and the MOH representative, must refer unresolved issues and problems largely to themselves, i.e., to the self-same superiors and to the same MOH representative. These have transformed themselves into the policy-level committee (with slightly changed titles in the case of the SANRU members) and, presumably take up the problem or issue once more, without the presence of a USAID observer.

## B. Proposal for Reorganization

### 1. Policy Level

A Policy Board would consist of a MOH policy level representative (presumably from the Minister's office or the Fifth Direction), an ECZ representative and a senior USAID representative (Chief, PHO). MRD/SNHR and (possibly) PNA would have full membership status, whenever water-related subjects are on the agenda. The Committee would meet quarterly (and at other times at the request of a member). Illustratively, its terms of reference might include these subjects:

- Review and approval of program activity projections
- Review and approval of annual budget proposals (\$ and local currency)
- Monitoring of progress and constraints (CPM/PERT-type track chart)
- Approval of major policy matters
- Approval of major personnel actions
- Consideration of matters that could not be resolved at lower levels
- Review of major audit and evaluation findings and monitoring corrective actions

Note: In exceptional cases when the Committee cannot agree or the issue surpasses the attributions of its members, the matter would be referred to their principals (Minister of Health, ECZ President, USAID Director or their designates).

### 2. Executive Level

An Executive Committee would be composed of MOH (operational-level MOH representative, presumably from FONAMES), USAID (PHO Project Officers) and SANRU (Project Manager); MRD/SNHR and MENV/PNA would have membership status concerning water-related agenda items. Division Chiefs would serve as resource persons; Policy Committee members could attend meetings ex-officio. The Committee would meet bi-weekly or more often, whenever a member so requests.

The terms of reference, illustratively, might include:

- Formulating and monitoring actions to implement guidelines and tasks received from the Policy Committee
- Review and coordinate program implementation (CPM/PERT-type track system)
- Review periodic financial reports
- Approve dollar and CPF expenses in excess of designated amounts
- Approve/resolve non-routine personnel actions
- Refer unresolved problems and issue to Policy Committee

### 3. Operating Level

This level is concerned with the Project's day-by-day routine operations and management. The need for internal committees, task groups, etc. should be left to the Project in accordance with the G.A. The structure must permit it to effectively carry out its operational tasks. These would include preparation of routine and special materials for consideration by the Executive Committee and the creation of (additional) joint technical working groups with FONAMES.

USAID, GOZ and ECZ should review the present organigram and agree to modifications leading to a clear distinction between policy and operating levels. No individual should serve at both levels.

#### Note:

It can be argued that the MOH/FONAMES should be involved in the day-to-day management of the Project, especially since FONAMES will carry on its concept and any residual functions when SANRU terminates. However, as specifically stipulated in the GA's for SANRU I and II, the GOZ/MOH has designated the ECZ as their implementing agent. Any change in this attribution may require restructuring of the Project. By all indications, ECZ would not look favorably upon a diminution of its present responsibilities and authorities. The Team believes that the balance of advantage lies with the status quo and the use of the proposed Executive Committee to provide "checks and balances" in the authorization and monitoring of CPF expenditures exceeding a designated amount in Zaires.

SANRU ORGANIZATION

(Harvey Gutman)

The attached organigram provided to the Team by SANRU shows a policy level unit composed of an ECZ representative (Cit. Nlaba Nsona) with the title "Project Director", the GOZ (Primary Health Division) representative (Dr. Kalambay) and a "AID contractor" (Dr. Baer). The latter's attributions and title in this context are not clear. He agreed, in a recent exchange of memos with the USAID PHO chief, that USAID was represented by project officers from its Public Health Office Ms. R. Smith for the MOH component) and Mr. F Awantang for the MRD/SHNR element.

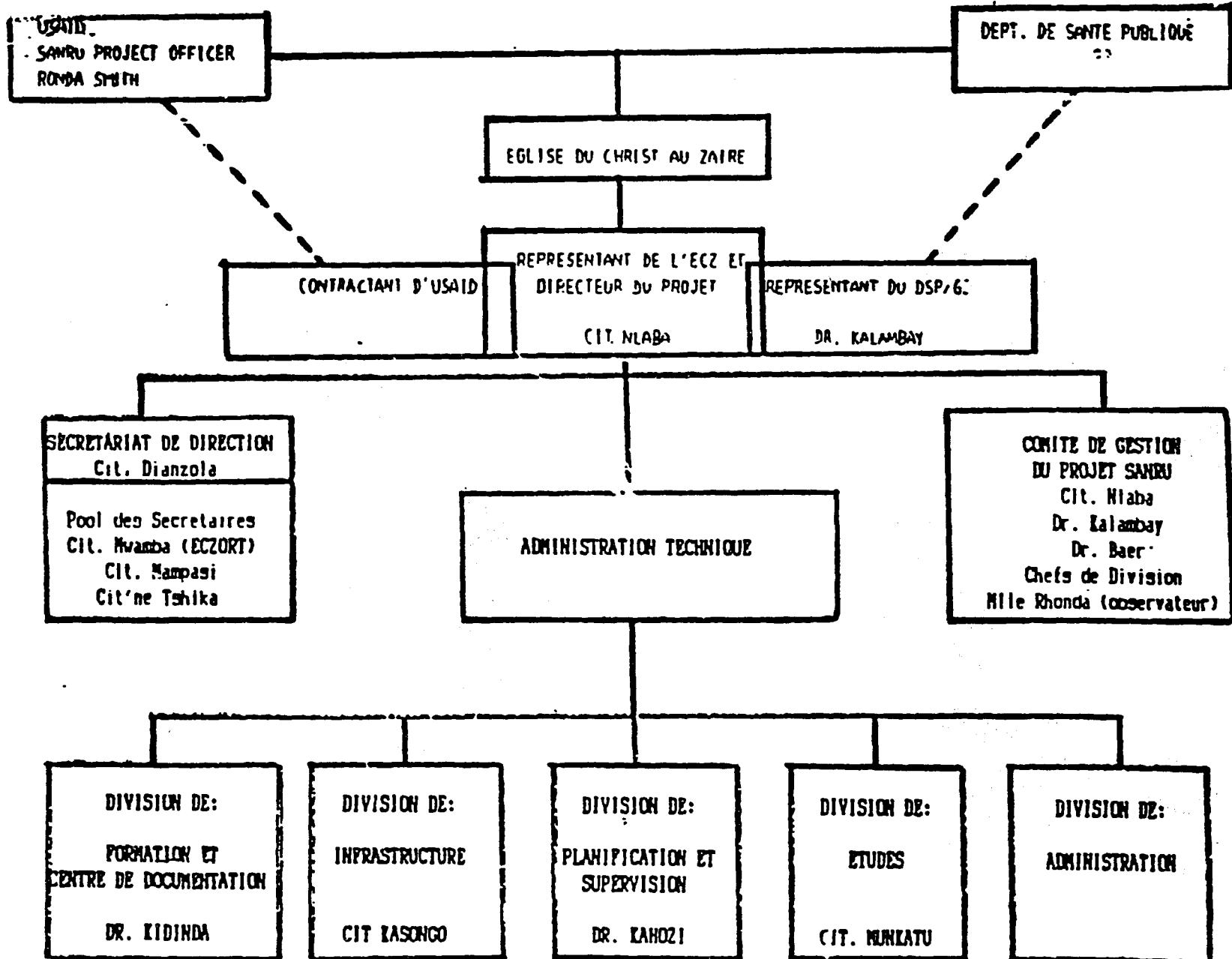
Below this top level, the diagram shows a Management Committee composed of the same 3 persons (all division chiefs) plus Ms. Smith as "observer". At the same level as the Management Committee is the Office of the Central Technical Administration, headed by Dr. Baer, who in this capacity carries the title of Project Manager, in addition to a designation as acting chief of the Administrative Division. Dr. Baer's name appears here only incidentally. He is clearly a highly professional, dedicated manager who must be given major credit for SANRU's accomplishment to date. However, looking at the organigram with a 'depersonalized' view, the coordinate rank of the Project Manager with his Director and the GOZ representative is not quite logical, as the 2 former individuals are both representing the project. It might be more appropriate to compose the policy level of a senior USAID representative (the Chief PHO) with the Project Manager acting as the Committee's executive secretary, and elevate the 2 USAID project officers to full status (each one limited to his project component) on the Management Committee.

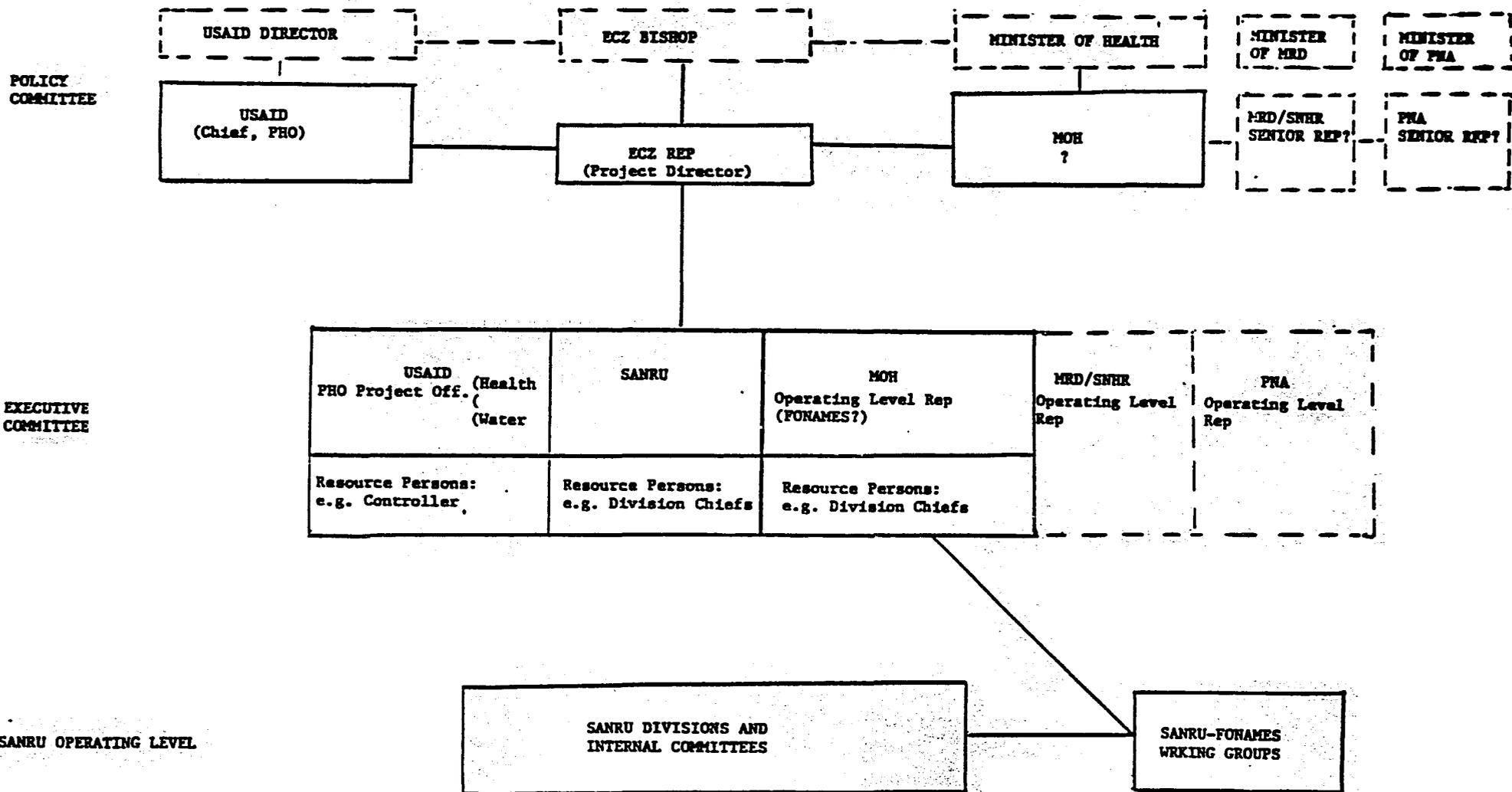
The latter would be responsible for day by day operating decisions. It may be appropriate for Dr. Baer to occupy the chair of the management committee and for his office to provide secretarial support. The Project Director whose responsibilities essentially concern policy rather than operations would attend meetings in an ex-office capacity. The GOZ might appropriately be represented by a FONAMES official, in view of its implementing (as opposed to policy) responsibilities. Division Chiefs would attend meetings as resource persons. Thus, there would be balanced representation from the major operating partners. Problems or disagreements that could not be resolved at this level would be referred to the "policy-triumvirate" for guidance or decisions. A MRD/SNHR representative should attend all meetings involving matters that relate to water and eventually an MI/PNA representative should attend meetings including sanitation. The present system may have worked well when SANRU counted between 6 and 17 employees. However, with a staff now being projected at 40 employees, a more structured approach seems called for. Simultaneously, working groups should be established by SANRU and FONAMES to bring about a more symbiotic relationship in related areas such as training, information systems, OR studies and the documentation center, to facilitate the eventual integration into FONAMES of residual activities upon the termination of the Project.

Recommendation:

USAID, GOZ and SANRU should review the present organigram and agree to modifications leading to a distinction between policy and operating levels. USAID would name representatives at both levels, as would the GOZ/MOH (by a FONAMES representative).

Organigram for Sanru II





## ANNEX 3

### FINANCES

(Linda Brown, Harvey Gutman, Judith Brown)

#### Scope of Work: Questions:

1. Is there a budget planning cycle? Does it meet the needs of the project financiers?
2. Do budget expenditures reflect project objectives in terms of participant training, commodities and supplies, pharmaceuticals, vehicles, reconstruction, water/sanitation equipment, IEC materials, and technical assistance for dollar and counterpart budget funds?
3. Is there an adequate accounting system? Determine whether audit recommendations have been implemented.

#### Method of Evaluating Finances

The assessment of the above questions was conducted by a USAID/Washington financial analyst. The evaluation of the 3 SOW questions was cast in the form of a pre-audit. (An Inspector General audit of the Project is scheduled for January 1987).

The Analyst's other duties and limited TDY in Zaire precluded the full integration of her findings into the overall Team approach to the Evaluation. In preliminary discussion of the Analyst's report, SANRU Project Management expressed certain objections and reservations. The Analyst made some modifications to her report, which is reproduced in full below. After the Analyst's departure from Zaire, the Evaluation Team reviewed both her report and SANRU's comments.

#### Conclusions of the Evaluation Team

- a. The SANRU budget planning cycle represents reasonable projections based on the quantified objectives of the GA. Generally speaking, uses of US dollars and counterpart funds were consistent with the needs of project financiers and reflected project objectives. However, as detailed in the Financial Analyst's report (see below), a number of areas (including contingency funds, internal controls, and accounts receivable) require joint review by the USAID Controller and SANRU.
- b. The Team is in full agreement that the Project must fully meet all applicable AID regulations and reasonable (as opposed to optimum) standards of financial and administrative management.
- c. Despite the potential merits of eliminating the counterpart fund contingency line item, other considerations favor maintaining a contingency availability, subject to strictures to be established by the USAID Controller. SANRU management should also be given some flexibility (for example, up to 15% or up to X Zaires, whichever is smaller), permitting shifts between line items within the approved budget ceiling. Larger shifts should require USAID concurrence.

- d. One unresolved issue is the ownership of commodities and buildings constructed or improved with Project funds. The Team notes the Memorandum of Understanding dated 24 August 1985, which states (unofficial translation):

"Moreover, it is understood that at the end of the Project, USAID, the MOH and the ECZ will negotiate the continual use of Project offices and commodities to assure the administration of primary health care in Zaire."

The memorandum is signed by USAID, MOH, and ECZ. This issue should be resolved now, rather than at the end of the project. A formula might be considered under which the GOZ titles Project-funded buildings and commodities to churches and other non-state entities, on the condition that the facilities be used for purposes of primary health care without regard to religious or other distinctions. Unauthorized discontinuance of this policy by the beneficiary obliges it to reimburse the construction and equipment costs (in constant zaires, less accumulated depreciation) to the GOZ.

- e. Another issue is the comingling of GOZ budget funds and counterpart funds (CPF). The normal practice of GOZ entities is to deposit GOZ budget ("budget ordinaire") funds in a commercial bank account. However, for the Sanitation and Water sub-project of SANRU II, the Ministry of Rural Development/SNHR deposits funds from the GOZ budget into the sub-project's CPF account, which is jointly managed by the SNHR and the USAID project manager. (The GOZ funds are mostly intended to pay Civil Service salaries). All checks written on the account (no longer a true CPF account) are signed by both parties. The purpose of this procedure is to avoid periodic GOZ freezes of government-owned balances on deposit with commercial banks.

The Evaluation Team understands that these temporary freezes are intended to enable the GOZ to meet certain conditions of the IMF Agreement to qualify for additional release of funds. Since it is basic US policy to support the GOZ's efforts to meet IMF conditions, USAID's collaboration with a GOZ service to circumvent GOZ efforts, appears contradictory. (The concept of comingling accounts was elaborated at the Min AG/SNHR/USAID operational rather than policy level).

The current procedure raises several questions:

- (1) Does the joint administration of the Host Country's own budget funds impose special fiduciary responsibilities upon the US partner?
- (2) Are appropriate accounting records kept to satisfy both Ministry of Finance and Ministry of Planning standards (on the assumption that both are in accordance with the "hybrid" account).
- (3) Are accounting records set up to show sub-balances in sufficient detail to safeguard against the use of CPF for GOZ salary payments?
- (4) Does the SNHR use of the CPF account to avoid periodic, temporary GOZ impoundments contravene U.S. Mission policies?

The Evaluation Team offers the following recommendations:

Maintain a CFP contingency line item, subject to strictures imposed by the USAID Controller.

Clarify ownership of commodities and of new and improved buildings funded by the Project now, rather than when the Project ends.

The USAID Controller should:

- review the current practice of comingling GOZ budget and counterpart funds.
- arrange for periodic audits of all project funds
- review the adequacy of the Project internal accounting control system.

Consider a formula titling facilities, i.e., building improvements and equipment, to churches and other non-governmental entities, provided the facilities, will continue to be used for primary health care purposes without regard to religious or other distinctions. Discontinuance of this policy, without prior GOZ authorization, shall obligate the beneficiary to reimburse the cost of the facilities (less depreciation) to the GOZ.

Report of USAID Financial Analyst

1. **OBJECTIVE:** To determine the adequacy of SANRU I and II budget to meet the needs of the Project.

**RESOURCES:** Project Paper, Local Currency Budget as maintained by SANRU Offices.

**METHODOLOGY:** Work necessary to answer the following questions in the Evaluation Scope of Work.

Is there a budget planning cycle? Does it meet the needs of the project financiers?

Do budget expenditures reflect project objectives?

FINDINGS:

1.1. **SUMMARY STATEMENT CONCERNING THE COUNTERPART FUND (CPF) BUDGET.** A review of SANRU's budget and how it was used in comparison to the original intent of CPF as planned in the Project Paper revealed several irregularities in the use of CPF. SANRU management obtains counterpart funds by presenting an annual budget to USAID for review and approval. USAID then requests the GOZ to release counterpart funds for project management's use. Questionable expenses as to the contribution they make to project objectives had been charged off to a contingency line item in the CPF budget. Other expenses had also been charged off to contingency rather than to more appropriate budget line items. Contingency funds were also used to loan CPF to other AID projects.

Both USAID/Z and SANRU are at fault in allowing these types of budget expenditures to have occurred. Primarily, fault lies with SANRU for inadequate budget planning. Secondly, fault lies with USAID/Z for inadequate budget review and monitoring of quarterly financial statements.

Another concern is the SANRU building built with CPF. As the building has been built on church leased/owned properties the question of ownership of the building comes into play once the project has ended.

1.2. **CRITERIA:** Page 55 of the Project Paper states under Specific Responsibilities for Financial Management:

\* The Medical Bureau of the ECZ will be responsible for the receipt, expenditure, and accountability for counterpart funds for local costs. These will be expended for specific project needs...ECZ Medical Bureau will also be responsible for the preparing of a detailed budget for the expenditure of the counterpart funds to be used..."

- 1.3. **QUESTIONABLE EXPENSES CHARGED OFF TO THE CONTINGENCY LINE ITEM.** The following are charges to the contingency line item for SANRU I and II during 1986. Those items with question marks (?) represent questionable charges as to the specific project needs it meets and those items with asterisks (\*) represent charges to the contingency that should have been charged to a more appropriate category.

**SANRU I.**

- 8,550 - changing electrical wiring because of rain damage
- \* 387,918 - curtains for the first floor
- ? 621,171 - additional construction work
  - 37,600 - electrical installation
- ? 72,150 - additional construction work
- \* 600,000 - geographic maps
  - 12,483 - loss of petty cash
- ? 95,557 - curtains for ECZ's part of the SANRU building
- 1,160,000 - lodging costs for participants at School of Pub. Health
- ? 158,806 - construction of drivers room

**SANRU II**

- 261,800 - electrical installation of computer
- ? 60,279 - 53 meters of carpeting for the library
- \* 12,226 - Air plane tickets
- ? 386,140 - carpeting for the first floor
- \* 200,000 - airplane tickets
  - 7,107 - SANRU building sign
- \* 1,572,000 - books for primary school
- ? 878,077 - construction work for the garden around SANRU building

Total questionable charges are equivalent to approximately \$74,000 using a current exchange rate of 68Z equals \$1.

Contingency funds were also used to loan CPF to other projects. According to the cumulative disbursement report (attached), 828,947 Z has been disbursed to PRICOR in 1985 and 1986. During the evaluation, PRICOR did make a partial payment on this loan.

In its defence, SANRU project management stated that USAID/Z project management had approved the SANRU budget, had been aware of all quarterly charges, and had not provided guidance on the use of contingency line items. As part of its monitoring responsibility, it is incumbent upon USAID/Z to monitor the use of CPF for this and all USAID projects in accordance with PP guidelines.

- 1.4. **CONCLUSION ON QUESTIONABLE COSTS:** As noted in the Project Paper on page 13, one concern that was brought up during the PID review meetings in September 1980, was that the Mission would be supporting and strengthening the missionary system in lieu of reinforcing the GOZ's health structure". This remains a concern today since several

of the above questioned charges seem to directly benefit the ECZ rather than the project. For example, the charge for 878,077 Z represents payment for 60 percent completion on constructing a garden as contracted by the ECZ. (See attached invoice and contract copy).

A contingency charge should only be used to meet unexpected, but critical needs. As shown in the above listed charges, it appears doubtful whether many of the questioned items would fall into this category. Therefore, it is recommended that:

\*\* Both USAID/Z and SANRU project management establish specific criteria for the uses of each budget line item; deleting the need for a contingency line item.

\*\* USAID/Z Controller's Office become involved with the review of the SANRU budget to ensure: (a) compliance with the established budget criteria and (b) adequacy of the justification presented.

\*\* USAID/Z contract for yearly audits of SANRU funds initially covering those accounting periods since the last audit to ensure correct accountability of funds in accordance with approved budgets.

- 1.5. SANRU BUILDING. Although this building was not planned in the Project Paper, according to USAID officials, it was later approved and built with CPF which legally belongs to the GOZ. This raises the issue of legal ownership of the building since it has been constructed on ECZ/leased/owned property with GOZ funds. According to the management specialist on the evaluation team, this is also an issue of construction at field sites where buildings are constructed with CPF on church owned or leased property. Therefore it is recommended that:

\*\*a legal determination be made now as to the ownership of the building.

- 1.6. SUMMARY STATEMENT CONCERNING US \$ BUDGET. Dollar budget expenditures as maintained by USAID/Z do not adequately reflect project objectives and should be corrected. The project financial reports do not report expenditures by line items which in turn means that the project manager cannot determine what has been spent or remains to be spent for each project component. The Controller who had just arrived, is aware of this deficiency and plans to correct it soon.

2. OBJECTIVE: To determine the adequacy of SANRU's accounting system.

RESOURCE: Price Waterhouse Audit performed in 1984 and review of SANRU budget.

METHODOLOGY Work necessary to answer the following questions in the Evaluation Scope of Work.

Is there an adequate accounting system? Determine whether audit recommendations have been implemented.

**FINDINGS:**

2.1. **SUMMARY STATEMENT.** SANRU maintains adequate documentation to support claimed expenditures reported in their financial statements. However, the accounting system does not have adequate internal accounting controls. For example, there is no method to ensure advances to the field are justified or loans made to other organizations are recouped. Also, there is a lack of checks and balances in the use of CPF.

2.2 **CRITERIA: Generally Accepted Accounting Practices (GAAP)**

The 1984 Price Waterhouse Internal Control Recommendations:

a. Expense reports should be introduced to control travel expenses by administrative staff.

b. Receivable accounts for all unsupported advances and for loans of special records to control the recovery of these amounts should be introduced.

c. When advances are made on the basis of estimated future costs (for zone supervision, fuel, water project materials, and training courses) clear instructions should be issued requiring the recipients to submit supporting documentation and/or final reports justifying the expenditure.

2.3 **DEFICIENCIES FOUND.** None of the above cited recommendations have been effectively implemented: expense reports are not routinely completed, there is no justification of advances made to the field.

a) **EXPENSE REPORTS.** According to SANRU accounting personnel, a travel voucher form was introduced after the Price Waterhouse audit, but employees who travel aren't filling out the travel voucher form when they return. Since the evaluation, a new form has been introduced and according to SANRU's project manager advances for travel are maintained and monitored as petty cash until justified. It was suggested that instead of advancing the full amount of travel funds requested, only 90 to 95 percent be advanced, the remaining amount being paid when the voucher is completed and submitted.

b) **RECEIVABLES AND ADVANCES.** SANRU's accounting department does not have an established procedure to track loans or advance recoveries. When advances or loans are made they are recorded as an expenditure. See the cumulative disbursement report concerning the PRICOR loan as discussed in the budget workpaper. In this particular example, approximately 828,000 Z had been loaned and only a partial recovery of approximately 600,000 Z had been received. However, there was no way to reflect either the recovery or outstanding amount. Another example was an advance made out to one of the health zones for the capping of ten springs. The advance was made for the amount

requested and it was routinely recorded as an expense. According to the SANRU accounting personnel, no further documentation was received justifying the expenditure although they thought that perhaps the contract project manager or engineer may receive some report. However, there is no routine procedure established as normally dictated by generally accepted accounting practices to track advance justifications or to ensure that receivables are in fact, recouped. SANRU project management stated that each of the project divisions track justifications of advances to the field rather than the accounting division which should have this monitoring responsibility.

c) LACK OF CHECKS AND BALANCES. According to SANRU II's Project Paper (page 44) the project manager's Zairian counterpart is supposed to play a major role in project implementation. In comparison, according to the GOZ representative, he has played a very minor role in the use of CPF. For example, he was not aware of the use of CPF for the construction work for the garden around the SANRU building. Project management, the ECZ and the GOZ must share project implementation responsibilities to guarantee institution building in the GOZ and to establish adequate checks and balances over the use of the project's CPF.

2.4. CONCLUSION. To ensure that SANRU has an acceptable internal accounting system, it is recommended that:

USAID/Z contract with a local accounting firm to establish an adequate internal accounting control system with appropriate involvement of the GOZ representative.

## ANNEX 4

### RESOURCE MANAGEMENT

(Harvey Gutman)

1. Is there a realistic procurement plan? Does the plan reflect budgetary constraints? Is there a system for determining relative priorities among project objectives. Discuss.

2. Have commodities been procured, delivered, and distributed in a timely and efficient manner? If not, recommend how these systems might be improved. Discuss with reference to USAID, project office, and zone levels.

The procurement plan is patterned on the GA whose overall objectives have proven reasonable and feasible, with some exceptions in the areas of drugs and contraceptives. First priority was given to the commodities identified in the GA Annexes; add-on's were accommodated subject to the availability of funds. Difficulties arising from the procurement of American 4-wheel drive vehicles and bicycles were already noted by the last Evaluation. The unsuitability of these products to African conditions, further aggravated by a lack of dealerships and parts distributors, has been a bane of AID African program for over 25 years. The decision, nevertheless, to go ahead with these makes was based on information that these vehicles and bicycles would soon be assembled in Zaire. However, the plants were never constructed and SANRU found itself with inappropriate equipment.

Commodity orders were largely routed through GSA whose record, on behalf of AID's Africa Program is, at best, spotty. Long delays (also of shipments procured through UNICEF), non-conformance with specifications (drug dosages, unauthorized substitutions, wrong voltage, lack of bicycle carriers, seat belts etc.), split shipments (e.g stethoscopes and blood pressure cuffs) caused endless headaches. It is to SANRU's credit that most basic objectives were attained in spite of these hindrances. These dollar procurement actions were managed by USAID. Appropriate waivers and recourse to a commercial procurement agent, hopefully, will avoid these difficulties in SANRU II.

In the course of visits to the RHZ's, the team learned of several instances where SANRU assistance included supplies (e.g. microscopes) that had already been furnished by other sources. SANRU management maintains that the composition of the initial package is based on inventory and serviceability of equipment reports from the RHZ's.

Local purchases were managed by SANRU and presented fewer problems. Irregular CPF releases and sporadic local shortages due to foreign exchange shortages were beyond SANRU's control. One of the more serious aspects is the lack of assured pharmaceutical supplies. Gifts in kind are received from many donors (ranging from multi and bilateral organizations to public and private charities, both religious and secular). But quantities, arrivals and distribution factors are often hard to predict. SANRU uses two large importers and local manufacturers and has been successful in obtaining price concessions based on quantity purchases. An expatriate businessman is apparently negotiating arrangements that would lead to a large expansion of in-country capacity to produce generic drugs.

**Recommendation:**

- a. SANRU and the USAID Project Office's should make a priority effort to identify funds for the replacement, during SANRU II, of troublesome, cost-ineffective vehicles and bicycles furnished under SANRU I.
- b. A recent World Bank study considered certain aspects of the pharmaceutical supply situation. It should be reviewed, and if needed, amplified to help provide, a) projections of donated, imported drugs related to SANRU requirements, b) and an assessment whether SANRU should temporarily shift resources from other line items to stock appropriate drugs or alternatively finance the import of basic chemicals for local manufacturers in return for pledges of assured supplies at pre-agreed prices.
- c. SANRU should review the methodology of selecting initial supplies and equipment furnished to the RHZ's to assure that assistance, to the extent feasible, is custom-tailored to the needs of each zone.

3. Has a system that provides status reports on procurement actions been set up? Have receiving and end-use tracking systems for supplies been established? Is there a mechanism for providing feedback on distributed commodities? How effectively do these systems work? Discuss with reference to medical and laboratory equipment, water/sanitation materials, vehicles, medicines, and education materials.

Status reports have been largely computerized and indicate the achievement (as of 11/30/86) of most of the project's specific commodity targets, e.g.

	<u>Target</u>	<u>Provided</u>
Vehicles	50	45
Bicycles	500	477
Motorcycles	100	96

Some difficulties were encountered in the distribution of initial stocks of medicines to the RHZ's as U.S. imports did not conform to specified dosages, quantities and packaging. Contraceptives were provided to 34 zones; the remaining zones either had been supplied through CNND or did not wish to participate in family planning programs.

Receipt forms are to accompany all shipments from SANRU to the field though they arrive sometimes separately. Upon return of the signed receipt to SANRU it is reconciled with the shipping document. This system works effectively and will further improve as the enlarged computer system will record all commodities and provide easy print-out access. It should be noted, though, that this only partially meets the needs of the zone level and RHCs'.

The MCZ is responsible for the entire health zone, i.e. 3-4 times the number of SANRU-supported centers. In addition, the zone and/or individual RHCs' receive commodities from a variety of sources which will make it increasingly difficult to identify SANRU-supplied items in inventory reconciliations. As noted elsewhere, a microcomputer capability at the zone level would greatly assist effective administrative, financial and logistic management. At this point, adequate paper records of SANRU-supplied commodities, both expendable and capital-type exist. Physical reconciliation at the zone level is a matter of supervision and appears to be handled less systematically. This is due to a combination of factors: insufficient training and inadequate staffing (partially due to lack of GOZ financing of certain zonal and center level positions) which adds record-keeping and supervisory functions to normal workloads. The team could not analyse these matters in depth. However, it was left with the impression that these are areas that could and should be strengthened by the Project as early as possible.

Recommendation: The USAID Controller should advise SANRU and SNHR regarding minimum end-use record/inspection requirements, especially for commodities that:

- a) serve as "seed" stock (e.g. drugs) and/or become comingled with those of other contributors.
- b) were or will be bought locally with converted U.S. \$ (e.g. pipes, taps) for the water supply sub-project.

4. Assess the project's contribution toward improving health zones' regional supply systems.

Both at SANRU and in the field there is recognition of the need to move in the direction of regional supply centers. This is an area in which further work and coordination is required. There are informal understandings that given hospitals will supply a geographic area (not necessarily identical with the administrative region). Some areas rely on supplies from Kinshasa, churches have their own networks and yet others obtain supplies from near-by Bangui or Kenya.

The Central Pharmacy in Kananga could serve as a model for other areas. Under Protestant management, the pharmacy supplies hospitals, health centers, and health zones throughout the East and West Kasai Regions. No distinction is made between Protestant, Catholic or GOZ zones. Project funds are being used to improve office and warehouse facilities. In addition, project medicine subsidies to a zone are credited directly to the RHZ account with Central Pharmacy.

Recommendation:

A study should be undertaken to clearly delineate present supply circuits of current and future SANRU-RHZ's and how to rationalize them through consolidation, account should be taken of the Central Pharmacy in Kananga which could serve as proto-type for regional pharmacies.

5. Assess the adequacy of project assistance toward establishing mechanism for the ongoing maintenance and repair of capital investments? Comment on the availability of technicians and spare parts for solar refrigerators, large transport vehicles, bicycles, and medical/laboratory equipment.

Most zones visited by the Team members had mechanics of whom at least one had received a one-week SANRU training course. While helpful, the effectiveness of this instruction in subjects ranging from vehicles to refrigerators and laboratory equipment was proportional to the students' general familiarity with repairs and maintenance. Further training and recycling for some is needed. However in many zones the hospitals have experienced mechanics who can tackle virtually any type of car repair, provided spare parts are available. (Yet, the brake system of the US bicycle is said to defy all of them). No solar refrigerators have been distributed to date by SANRU. Locally manufactured with a local back-up system and a SANRU installation/maintenance trainer, they should present a lesser problem than the frequently cited American vehicles.

## ANNEX 5

### DEVELOPMENT OF SUSTAINABLE HEALTH CENTERS AND HEALTH ZONES

(Harvey Gutman)

1. What criteria has the Project used in selecting health zones with which it will work? Are these criteria appropriate?

The Project initially sought to identify RHZ's with attributes permitting a rapid "take-off". These included the existence and serviceable condition of a reference hospital, management capacity, and medical staffing, with weights attached to the various factors. Other considerations included previous preventive health experience as well as training capacity. The first stage encompassed 15 Protestant hospitals. Subsequent mixes involved increased percentages of GOZ hospitals and eventual extension to Catholic-sponsored institutions. These criteria were appropriate, at the time, to get started quickly and, indeed, are validated by the overall success of SANRU I. However, in retrospect one might consider, for possible application to SANRU II, the merits of including more needy zones and greater geographic concentration as opposed to the dispersal of zones with the attendant and persisting problems of supervision, logistics and costs.

To achieve maximum cooperation, a "Memorandum of Understanding" should be executed between individual RHZs and SANRU, setting forth the "rights and obligations" of both parties. This will avoid misunderstandings and unjustified expectations by the partners..

2. Review the findings of the REACH cost-recovery study. Is there evidence that health centers are self-financing in terms of drugs and other recurrent costs? Discuss.

The very cursory "look-see" cost data collected by the Team generally bear out the REACH study's well-documented conclusions. However, the RHZ's and centers visited by the Team gave rise to a few optimistic nuances. The REACH study estimates that only 50% of the health centers are operationally self-financing (disregarding amortization and free expatriate services). In the Team's experience, most health centers in recent months (the period covered by its questionnaire) managed to break even. This extended to cases where the center had to pay the wages of GOZ employees whose salaries, for whatever reason, had stopped months ago. Frequently, receipts of centers are to be turned in to the zone office at the end of the month. Zone offices then send back salaries to the center, replenish drug supplies, charge for other supplies and retain a fixed amount or a percentage (10%-50%) of the balance for their support and supervisory services. The remainder is credited to the zone.

In actual practice, centers frequently do not turn in their receipts at the end of the month and can be in arrears by as much as 4 months. Further, center personnel frequently take out their salaries in the form of "advances" (sometimes amplified by "loans") before turning in the balance. In one RIZ, several centers (including 2 SANRU-assisted ones) turned in less than what the cash book called for. The zonal administrator explained that the RHC nurse had told him that "this was all that was left". There is general agreement that a good deal of "skimming" is going on. Consultation receipts are not recorded or understated. One nurse freely admitted that he was "moonlighting" in the evening rather than taking care of the patients during office hours. These observations are merely cited to indicate that additional self-financing resource potentials exist that will not burden the population (except an occasional nurse).

Lack of GOZ budget support greatly strains or may limit important RIZ activities such as supervision of health centers. This situation, even in the case of self-financing RIZ's, would be greatly aggravated if sub-regional or national MOH levels try to finance their own administration partly by requiring (percentage) payments from the RIZs.

#### Recommendations:

#### A. Additional financial management training is urgently needed at various levels: the zone, health center, and Health Center Committee.

- (1) At the zone level, the MCZs simply do not have the time to correct and audit entries for the various centers (both SANRU-assisted and others) and the zonal administration. The administrators generally need more exposure to basic accounting and record keeping as well as standard operating procedures (SOPs) on how to deal with recalcitrant centers.
- (2) At the health center level, the nurse(s) need instruction in rudimentary bookkeeping and inventory controls.
- (3) Finally, the Health Center Committee should identify its most literate members. These should get precise instructions how to monitor the center's finances and inventory. A trainer should help them to conduct their own case study in place rather than explain theories of monitoring.

(4) SANRU might consider an adaptation of the McDonald's approach: It should a) designate one or more model zones where cadres of new RHCs are shown practical examples of what makes a successful zonal operation and b) set up a "flying squad" to assist new (and existing) RIZ's zones for 1-2 weeks in "hands on" fashion. McDonald's considers these 2 approaches vital complements of training at its "Hamburger Academy". There may be a lesson for SANRU.

- B. Every effort should be made to avoid imposing 'levies' on the RIZs to support senior administrative levels of the MOH system.
  - C. SANRU should reinforce its support for supervision from and at the zonal level.
  - D. Zones have been receiving annual supervision subsidies from SANRU (80-180,000 Z) which were phased down 20% per year. 1987 will be the first year, in some cases, without any subsidy. Operations research should be initiated to determine the effect of reduced and phased-out subsidies on zones' supervisory activities.
3. Assess the capacity of RIZ committee members to design and monitor health center auto-financing systems. Examine and comment on the technical assistance being provided by the project.

The RIZ management committee members encountered in the field did not consider it their responsibility to monitor health centers. In their opinion this task belongs to the committee (health or development) linked directly to the center. However, the contact sample perhaps was too small to permit generalizations. Committees at all levels need further training. SANRU-trained specialists should assist MCZ's in the field, and visits to properly operating RIZ's should be facilitated to provide "live" examples.

4. Examine the actions taken and the general capability of the Ministry of Health to support some costs at the zone level.

This question is interpreted as referring to GOZ budget funds as opposed to CPF. SANRU I was designed with minor reliance on GOZ budget contributions. Vaguely quantified projections called for continued funding of the salaries of health personnel detailed to "GOZ dispensaries and hospitals", as well as salaries of Zairian doctors and some nurses in institutions jointly operated by churches and the GOZ. In addition, the GOZ budget was to pick up the recurrent costs of vehicles furnished to its institutions after

funding by SANRU during the initial 3 years. The SANRU I GA (p9) foresaw some difficulties but cited the GOZ's firm intent to move resources from urban to rural hospital systems. "These additional costs are accepted by the ECZ and GOZ as part of the commitment to move resources to rural areas." The mid-term Evaluation noted that the GOZ made across-the board budget cuts. This resulted in providing funds "for only 2 out of a projected 25 health zones."

During the remainder of SANRU I, the GOZ continued to be beset by fiscal difficulties which resulted in reduced support for SANRU. On the other hand, the GOZ's inability to provide budget funds has resulted in greater and earlier emphasis on auto-financing at the zone level.

The SANRU II GA calls for GOZ assumption of six salaries in all 100 SANRU-assisted zones level (including those of rural water coordinators), of 2 nurses at every RiC and funding, at least partly, of recurrent costs, e.g. "real" Z 75,000/year for vehicles at the (sub)-regional level. It may be unrealistic to count on these commitments. There exists already widespread recognition that the RiZs must rely increasingly on their own resources. Many zones are even paying GOZ-employees who, for whatever reason, do not get their salaries and are 'topping off' others to complement the meager GOZ pay scales. Thus, a blessing-in-disguise may attach to the GOZ's budgetary plight.: accelerated self-sufficiency of RiZs.

The Team is not qualified to discuss the over-all allocation of GOZ budget resources or of those at the disposal of the MOH. Moreover, there is a great difference between national budget allocations at the beginning of the FY and the amounts actually released during the year. This, of course, leads to unsettling ripple effects throughout the GOZ fiscal system.

The Team believes that the combination of the GOZ's macro-economic constraints and overriding policy factors in the allocation of limited resources must be evaluated in the context of the over-all USAID program and total U.S. objectives in Zaire. The situation should not and cannot be considered in isolation at the level of a single project such as SANRU. The Team believes, however, that SANRU inputs, e.g. vehicles for the (sub)-regions, should be made only when the funding of their operating costs is assured by the GOZ budget in accordance with the GA (unless dependable, alternate sources can be identified).

5. Assess the existing management structures of RiZs. How do these structures compare to the structural design proposed by the National Level? What appears to be working best?

Zones that have recourse to non-governmental assistance (i.e. churches) are generally better staffed. The full zone staff as

blueprinted in the Grant Agreement (MCZ, administrator, pharmacist, supervisor, water and sanitation coordinator, and mechanic) is rarely found. Much depends on the training and motivation of the MCZ and on the zone's situation.

The zonal committees (the Team had no opportunities for face to face meetings) appear to advise rather than set policies and monitor activities. Surely, there will be exceptions but the Team can only provide general impressions on this point. It is in a better position to discuss health center management. Committees (who call

themselves variously health or development committees) show a good deal of motivation and goodwill. In many cases they have mobilized villagers to assist in construction work. They are also active, to varying degrees, in sensitizing fellow villagers to preventive promotive health care activities conducted from the center. However, most of the committees encountered do not seem to enter really into the management of the center, its finances and inventory.

Different zones have different systems and practices involving fee schedules (ranging from free treatment or referral to the Salvation Army dispensary to virtual indenture until payment is received). It appears important to permit the zones maximum flexibility in applying local options as long as they conform to national policies and use standardized reporting and accounting formats. Imposition of uniform molds would not be considered supervision but regulation without providing apparent benefits.

ANNEX 6

TRAINING ASSISTANCE

(Ngay Aben)

1. Has the project succeeded in attaining the training objectives as stated in the project paper?

According to the PP, two major groups of health personnel were to be trained: salaried zone personnel (physicians, nurses, supervisors, health educators and planners) and voluntary workers at the village level (TBAs, village health workers, and committee members).

The training was provided both on a short and a long term basis. The following table presents the number of people trained with the project's direct or indirect assistance.

Type of training	Category of Personnel	Target Number to be trained	Number of Personnel actually trained	Percentage of achievement
<u>Long term</u>	MCZs			
	(Health Educator)	15	31*	103
	(Health Planners)	15		
<u>Short term</u>	Physicians (MCZs)	50	33**	66
		-	59	
	Supervisors	50	54	108
	Nurses	750	1245	166
	TBA Trainers	-	74	
	TBAS	400	669	167
	VHW Trainers	-	62	
	VHWs	1500	1128	75
Committee Members	3000	2592***	86	

Notes: \* Sixteen of those are still being trained: one in the US; fifteen at the UNIKIN/SPH.

\*\* This number includes both MCZs and Administrators.

\*\*\* Data reported early in 1986.

Large numbers of health personnel at different levels have been trained directly by SANRU I, especially MCZs, Supervisors, and Administrators. SANRU financed the participation of 59 MCZs in the PEV recyclage module. Health centers nurses were trained within zones with SANRU financial assistance.

Of the physicians and Administrators, thirty-three were trained in Zaire (66% of the target number) and 15 were trained abroad in various U.S. schools for the MPH degree (50% of the target); however, the mid-project evaluation approved an extension to 1988 to complete the foreseen objective. Nurses were also sent to other francophone countries as recommended by the mid-term evaluation.

Training for the voluntary health personnel received less support from SANRU and was left to the MCZ'S initiative.

While all of the visited MCZs during field trips reported receiving training materials from SANRU, none of them recalled receiving financial aid for training TBA, VHWS and committee members.

Major constraints in training salaried personnel were the high cost of seminars organized at the national level as compared to local and regional training, and the lack of a standard curriculum (especially for nurses and supervisors).

Overall, SANRU has successfully implemented the mid-term recommendations for training health personnel, both in country and abroad. There was much less success in organizing study tours to other African countries and visits for the sharing of experiences between RHZs.

It is recommended that

- (1) SANRU takes a more active part (both technically and financially) in the training of the voluntary health personnel and ensures that the latter receives some form of incentives.
- (2) SANRU takes appropriate actions to reinforce study tours in other countries and visits between RHZs.
- (3) SANRU accelerates the elaboration of standard curricula for all training courses to be used at the national, regional and local levels

2. Assess the Training of Trainers (TOT) and Regional training strategies used by SANRU.

Decentralized training of regional trainers for certain health workers (such as village health agents) allowed a multiplier effect of training resources. Training of trainers (TOT) at the regional level appears to be the best strategy for SANRU to effectively spread the message and deliver essential actions for primary health care activities to the targeted rural people.

However, the TOT program scheduled for 2-3 weeks did not emphasize communication and pedagogical techniques for adult learning. The participant estimated cost was projected to an average of 15,000 Z per person, which is only 1/3 of actual cost in 1986. There is need to strengthen the program and to review its budget.

One major constraint encountered in the regional training strategy was the difficulty in recruiting qualified trainers whose own work schedules could allow them to conduct regional training programs. It is recommended that a larger pool of qualified trainers be identified and trained.

3. Are there mechanisms built in to training programs to provide for follow-up and evaluation of training materials?

No systematic and standardized mechanism for training or for follow-up of training programs has been designed. SANRU staff is aware of this need, but implementation plans have not yet been made.

Follow-up evaluation in particular should be emphasized to determine whether training programs have been effective in allowing participants to use newly learned skills. Follow-up evaluation for key courses organized during SANRU I should begin immediately, so as to help refine the SANRU II training program.

4. Comment on the sustainability of training and retraining programs at the village level.

Training programs at the local level have chances of sustainability, given continued interest shown by the beneficiaries. Costs are minimal since training is done in the villages.

A major problem is that of voluntary work in the community. There is no evidence that community members will continue to participate in training sessions in the absence of material incentive, nor that they will perform the tasks learned during the training sessions. The Project should consider a system of incentives (e.g. free or reduced fee for medical care) to encourage community participation.

To date there is also a lack of a standardized curricula for those programs. Each health zone relied more on its own experience; the program has been somewhat weak, especially in the absence of sound field research on community participation in the Zairian rural context. The Project should initiate a study on community development (Annex 8) to provide guidelines for the development of curricula materials.

## ANNEX 7

### TRANSFORMATION OF CURATIVE DISPENSARIES

(May Post)

The project paper objective called for two hundred and fifty health centers opened or converted from dispensaries and focusing on preventive, and promotive health practices. With SANRU's assistance 220 dispensaries have been transformed into full-service health centers (HCs) offering services aimed at prevention and treatment of the ten most prevalent public health problems - namely malnutrition, anemia, malaria, measles and other vaccine preventable diseases, diarrhea, intestinal parasites, respiratory infections, tuberculosis, complications of pregnancy, and local endemic diseases. Primary Health Care (PHC) services provided by HCs include: prenatal clinics, maternity services, family planning, under-five clinics, vaccinations, health and nutrition education, control of local endemic diseases, and basic curative services including simple laboratory examinations.

SANRU assists in transforming curative dispensaries into full service HCs through provision of: i) basic equipment and an initial stock of medicines (for approximately six months), ii) information, education, communication (IEC) materials, iii) training for health personnel, and iv) vehicles to establish supervisory capacity for the rural health zones.

The HC services are discussed in turn below and the issues in the scope of work related to this annex are all addressed in these discussions.

#### 1. Prenatal Clinics

The 1985 data from 39 RHZs showed 43% of the total number of all pregnant women in the zones received prenatal care at prenatal clinics. (All data available are based on the total population of the zone. The denominator, therefore, includes persons who do not have access to SANRU health facilities. If only persons with access to SANRU health facilities were considered, coverage would be higher). At these clinics, the expectant mother is registered, the history taken, and physical examination including abdominal and pelvic examination performed. Essential prenatal laboratory examinations are carried out to screen and control risk factors and to prevent complications of pregnancy. Some HCs visited did not have hemoglobinometers or hemoglobin strips to measure hemoglobin. A few did not have sphygmomanometers to measure blood pressure and some lacked reagents to determine urine albumen. Other prenatal services include: malaria prophylaxis, tetanus immunization, and prenatal education. However, the Combatting Childhood Communicable Diseases Project (CCCD) is now suggesting a lower priority to malaria chemoprophylaxis in pregnant women because of several practical problems that limit the effectiveness of chemoprophylaxis during pregnancy. Since pregnant women make up about 4% of the total population, the purchase and distribution of sufficient weekly chloroquine doses for all pregnant women would present major budgetary and logistic challenges. In addition, the rapid spread of chloroquine - resistant malaria raises question about the effectiveness of weekly chemoprophylactic chloroquine.

Tetanus immunization usually is not administered at the prenatal clinics owing to lack of refrigeration equipment to store the vaccines. Tetanus toxoid is administered at the same time as the under-one vaccinations at vaccination programs/clinics. In areas where goiter and cretinism are endemic problems, prophylactic iodine injection is given to the expectant mothers. However, this is carried out under a Belgian funded project. Iron tablets are also provided to prevent and treat anemia. The majority of HCs hold prenatal clinics twice every month. The evaluator noted, however, that the majority of pregnant women attending prenatal clinics were already in their 8th month of pregnancy. There should be increased health education and motivation at the community level aimed at getting pregnant women to attend prenatal clinics by the sixth month of pregnancy.

### Recommendations

- a) SANRU should ensure that all HCs should have the basic equipment to measure hemoglobin, blood pressure, and do urine albumen. These are essential prenatal diagnostic measures for early identification of high risk cases.
- b) The project should coordinate with PEV/Zaire regarding change of policy for malaria chemoprophylaxis in pregnant women.

## 2. Maternity Services

Nurses provide supervised deliveries at health centers with maternity services. Not all HCs have maternity services. According to 1985 data only 181 of 400 HCs have maternity services in 38 reporting zones. A significant number of deliveries are performed at hospitals or attended by traditional birth attendants (TBAs) who may or may not be formally trained. Some SANRU-assisted RHZs have already trained TBAs to upgrade their skills in detecting high risk pregnancies and to perform improved, sanitary home deliveries. The TBAs are also trained to distribute oral rehydration salt (ORS) packets and contraceptives (condoms). The TBA training program is excellent and uses the "Training of Trainers" (TOT) strategy. SANRU financed a portion of the regional-level TOT program and training was done in collaboration with the American College of Nurse Midwives (ACNM) as recommended in the mid project evaluation. The trained trainers then start training of TBAs in their own zones. Unfortunately, TBA training programs have not taken place in all zones, in part because some medical chiefs of zones (MCZs) are not convinced of the value of trained TBAs while other MCZs feel TBAs are too difficult to supervise.

The project paper objective to train 400 TBAs has already been achieved. Altogether 74 trainers of TBAs and 669 TBAs have been trained in some SANRU-assisted zones. The regional level TOT is done at the reference hospital over a period of 8 to 10 days. The zonal level TBA training is also done at the hospital, mainly because of logistic considerations for the trainer. This is not an ideal situation. It would be better to train TBAs at the village level (where TBAs have been practicing for centuries). The TBA training is done 3 days per week over a course of 10 weeks. After the training, the TBAs are presented with a local midwifery kit containing basic essentials. SANRU eventually plans to give them the UNICEF midwifery kits.

Close monitoring and supervision of TBA activities is essential. The nurse supervisor from the RHZ central team usually supervises them from time to time.

Recommendations:

- a) The project should consistently motivate and finance RHZs to organize zonal level TBA training programs.
- b) SANRU should look into the possibility of organizing TBA training programs at the village level and not at the hospital.

3. Family Planning

Family planning (FP) is often the last PHC component to be integrated into the HC program. Progress is still slow. FP services are more prevalent at reference hospitals than at the HCs. According to 1985 data, 202 of 400 HCs have FP services in 38 reporting zones. Services offered at HCs consist mainly of FP education with referral to the FP clinic at the reference hospital for contraceptives or for tubal ligation. A few HCs have contraceptive supplies such as pills, condoms, spermicides and some reference health centers have nurses trained to insert intrauterine devices (IUDs). Most reference hospitals have minilaparotomy capabilities for voluntary surgical contraception (VSC). The most popular contraceptive methods in order of preference are pills, Depo Provera injections and IUDs. SANRU contributed the initial stock of contraceptives to begin a FP program and the Comité National de Naissances Desirables (CNND), the local International Planned Parenthood Federation (IPPF) affiliate was to provide free replacement stocks. But owing to a change in CNND's policy, SANRU is trying a new procurement approach in collaboration with the USAID-supported Projet des Services de Naissances Desirables (PSND). This approach should be carefully monitored. If a continuous supply cannot be ensured, SANRU should be accorded the flexibility to try other options, e.g. procuring contraceptives using SANRU dollar funds (which was not planned in the PP). SANRU should continue free contraceptive distribution and resupply to RHZs which establish a nominal fee to cover the services.

In most HCs, FP counselling and services are not routinely provided. Counselling is given at prenatal sessions and under-five sessions only if the woman shows an initial interest and asks for information.

The revised project objective for FP is: 40 RHZs registering 1% of the women of reproductive age as new acceptors of contraceptive methods during each year of project participation. This objective has not yet been achieved. The 1985 data showed only 11 RHZs among 38 reporting SANRU I assisted zones registering 1% of the women of reproductive age as new acceptors. SANRU II will continue trying to achieve the 1% per year new-acceptor objective.

To date, the FP component of SANRU's PHC activities has been very weak and the acceptance rate extremely low. In some zones where there was moderate acceptance, contraceptives were not available. But in most zones there was little acceptance because of cultural and religious inhibiting factors, lack of knowledge, or incorrect information. Resistance to FP programs is very strong in RHZs working in collaboration with the Catholic Church. Success of

FP services will depend firstly on availability of contraceptives, secondly on IEC capabilities of all levels of health personnel and the IEC strategy employed, and thirdly on the distribution strategy - for example, health center versus community-based distribution, male nurse versus female nurse. Community-based distribution in some areas using village women - "Matrones" in Bas Zaire, and TBAs in Equateur - seem to be working successfully. The evaluator also noted that FP education and services delivered by female nurses resulted in more acceptors than those delivered by male nurses.

Regarding IEC, SANRU in conjunction with CNND, the USAID-supported PSND Project and Fonds Nationale pour l'Assistance Medico-Sanitaire (FONAMES) will carry out a three-year comprehensive IEC plan which will include mass media and extra-clinic motivation in addition to traditional health education strategies.

SANRU has also implemented certain mid-term recommendations concerning family planning objectives and training assistance strategies. As recommended, SANRU together with PSND and CNND have developed and printed a flipchart to be used in FP education/training programs. Also as recommended, SANRU has organized regional conferences with support from the Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO) to promote integration of FP at the HC and village levels. Another PP objective related to FP was to upgrade services in 20 reference hospitals to include tubal ligations via laparoscope and/or mini laparotomy. Only 12 laparoscopes were installed, of which 3 have been relocated to urban sites, because of low usage. Moreover, following JHPIEGO site visits, it was recommended that laparoscopes be installed only in major urban hospitals, because of low usage and maintenance difficulties in rural health zone hospitals. Therefore no more laparoscopes have been installed in rural hospitals. As recommended after the mid-term evaluation, minilaparotomy is now the procedure of choice for female surgical contraception in most RHZs. Fifteen SANRU phase I hospitals have been upgraded to provide minilap capabilities with AVSC (Association for Voluntary Surgical Contraception) support. In-country short-term training in minilap procedures has not yet been initiated. However, under a new AVSC-supported program, six model minilap sites are being established - three in SANRU zones and three in urban areas. Staff for the model sites are receiving out-of-country training. Eventually, the sites will host in-country minilap training.

SANRU's role in support of family planning services has been in the form of training, educational materials, and contribution of an initial stock of contraceptives to begin an FP program.

Recommendations:

- a) The project should continue to coordinate with AVSC/JHPIEGO to train physicians in minilap procedures.
- b) SANRU should promote community-based distribution of contraceptives based on lessons learned from the Tulane University Family Planning Operations Research.

- c) Family planning activities should be strengthened by i) assuring regular supplies of contraceptives to health zones; ii) coordinating with PSND and HEALTHCOM to incorporate effective communication strategies into its ongoing program and iii) reinforcing training of health personnel. SANRU in collaboration with FONAMES and PSND should add a module dealing specifically with FP (particularly IEC in FP and AIDS) to the MCZ training course. INTRAH support should also be considered in module development.

#### 4. Under-five clinics

Under-five clinics are scheduled once a month at the health center and at 1-3 satellite communities located about 8-10 km from the HC. The HC nurse conducts the clinics with assistance from village health workers (VHWs) in zones with trained VHWs. The major activities of the under-five clinics are nutritional surveillance, health and nutrition education, immunizations, oral rehydration therapy and presumptive treatment of malaria (chloroquine for fevers). These are all components of AID's child-survival strategy. The 1985 data showed that 36% of the total number of under-fives in 39 reporting zones attended the under-five clinics and received care.

##### 4.1. Nutritional Surveillance

Growth monitoring is done routinely at under-five clinics. Children are weighed and the weight/age of the child is recorded. A child found to be undernourished is assessed and given health education. The HC nurse or the trained VHW is responsible for subsequent follow-up of the case, home visits, and nutrition education. The evaluator noted inadequacy of follow-up services and visits. Growth monitoring activities are of limited value if follow-up services are inadequate.

Although nutrition is one of the key child survival services, SANRU's emphasis on nutrition is not strong. The project paper contains no specific objective related to malnutrition or the establishment of a nutrition surveillance system. The project's assistance to this activity has been to provide basic equipment such as infant scales and to assist CEPLANUT (Centre de Planification de Nutrition Humaine) in conducting a national workshop to standardize and distribute the weight chart which is now in use throughout the country.

In addition to continuing growth monitoring, zones should also look into the feasibility of establishing nutrition rehabilitation centers providing nutrition education, demonstrations, on-site feeding programs and continuous motivation to mothers. The evaluator was very encouraged by the success of a nutrition rehabilitation center established in Loko, Equateur. This center is a prime example of achieving maximum impact through collaboration and integration with another community-based activity, in this case, a community agriculture project. Owing to the mothers' increased knowledge on agricultural activities resulting in backyard gardens, there was an increase in the availability of local vegetables in the village which in turn produced an increase in nutritional activities (both practical and educational) at the rehabilitation center.

Recommendation:

- a) The project should consider financing operations research and pilot community based interventions to promote nutrition surveillance and rehabilitation.

## 4.2. Health and nutrition education

Health and nutrition education is another primary health care activity provided by HCs - at HC consultations, prenatal clinics and under-five clinics. At the village level, VHWs and TBAs with guidance by the HC personnel, provide community/group education or individual education. The HC programs the subject matter to be presented. Typical topics for HE are: malaria, tuberculosis, diarrhea, intestinal parasites, personal hygiene, and nutrition. Nutrition education, however, is almost always limited to general information on the three main food groups, which in the evaluator's view is not adequate nutrition information. The evaluator believes the nutrition education package should also emphasize subjects such as improved weaning practices using local resources, dietary management of diarrhea and the importance of breast feeding.

SANRU's role in support of health and nutrition education activity has been to provide IEC materials to enable the zones to carry out health and nutrition education activities. Some zones however were found to lack sufficient IEC materials. SANRU has also established a reference library of books and health education materials for RHZs and HCs.

## Recommendations:

- a) The project should increase support for the development and purchase of IEC materials on immunization, ORT, growth monitoring, and FP for use at the HC and village level, and also for staff training purposes.
- b) SANRU should coordinate with HEALTHCOM in developing communication strategies to more effectively deliver and coordinate the project's child survival related various education activities.

## 4.3. Immunizations.

The PP objective called for 1,000 vaccination programs organized in villages. The 1985 annual report indicates that 347 of the 400 health centers have EPI (Expanded Program on Immunization) programs. Vaccination programs/clinics are scheduled at the HC and at satellite villages (usually 1 or 3). If one assumes an average of 2 vaccination clinics at the village level per HC, one can estimate that a total of approximately 694 vaccination programs/clinics have been established in the 38 RHZs.

Immunization activities are aimed at reducing morbidity and mortality caused by six vaccine-preventable diseases - measles, tuberculosis, diphtheria, poliomyelitis, tetanus, whooping cough - in children under one and preventing tetanus in pregnant women. Vaccination services are decentralized - the strategy followed is the fixed strategy for vaccinating at the HCs with outreach activities scheduled at peripheral sites. This strategy appears to provide adequate access. Immunization coverage rates are moderate but increasing. The 1985 data from 36 reporting zones showed the following results:

<u>Vaccine</u>	<u>Coverage</u>
BCG	39%
DPT (1)	36%
Polio (1)	32%
DPT (3)	25%
Polio (3)	22%
Measles	34%
Tetanus (1)	43%
Tetanus (2)	30%

Improvement of the immunization program cold chain is essential. The evaluator noted an insufficient quantity of refrigeration equipment and vaccine carriers in most zones visited, as well as kerosene procurement problems for kerosene-powered refrigerators. Most RHZs visited had only one refrigerator at the hospital level for the whole zone. Reinforcing the cold chain with solar refrigerators as the solution to the problem remains to be proven. The team observed that three solar refrigerators installed at HCs were not functioning after only a year of use. The principle stock of vaccines comes from PEV/Zaire. Stocks of vaccines are stored in the refrigerator at the reference hospital and vaccine supplies are transported to the HCs and satellite sites by the HC nurse on bicycles using vaccine carriers.

Although the zone receives EPI training for zonal level personnel by PEV before receiving vaccines and equipment, many problems were encountered in the vaccination sessions at the village level. These problems concerned organization of the vaccination sessions and proper sterilization techniques. A related problem is the inadequacy of needles and syringes. With insufficient quantities, health workers cannot be expected to follow the preferred sterilization strategy of "one needle, one syringe, one vaccine, one child." With the growing concern about AIDS which could be transmitted by unsterile injections, the importance of proper sterilization techniques cannot be overemphasized.

Measles is still a major problem. The EPI target group for childhood vaccination in Zaire is all children one year of age and below. Specifically for measles, the target group is infants 9 months of age. However, from the registers, the evaluator noted that more children from the 12-23 months age group were vaccinated against measles than from the target group of under-ones. Since measles often strikes children under one, vaccination teams should increase efforts to vaccinate children in the target group against measles.

It would also be advantageous to schedule vaccination clinics more frequently than once a month or to vaccinate children whenever they have contact with the HC. These approaches currently are not feasible because of inability to keep vaccines at the HC level.

AID's 5 year Child Survival Strategy stresses immunization and oral rehydration therapy (ORT) as the "twin engines" of the strategy. SANRU's support for immunization activities is to provide communication and information link between health zones and PEV/Zaire, to finance technical EPI training at the regional and zonal level and to facilitate distribution of EPI IEC materials.

Recommendations:

In collaboration with PEV,

- a) The cold chain must be improved by the strategic distribution of refrigerators in more HCs. Studying and assessing superthermic vaccine carriers as to how they can augment the cold chain should also be done.
- b) SANRU should proceed cautiously with installation of solar refrigerators in areas where monitoring is feasible. The project should establish a monitoring system and coordinate with European Economic Community (EEC) to benefit from their experience in implementation and monitoring of solar systems.
- c) USAID should procure additional reusable needles and syringes in order to facilitate correct sterilization practices.
- d) RHZ central teams should consistently and frequently supervise, monitor and guide vaccination sessions at the village level.
- e) Zones should provide inservice refresher training to the HC and village - level vaccination teams. The training should specifically emphasize organization of sessions and proper sterilization techniques. The project should provide assistance to the training.
- f) Vaccination teams should increase efforts to vaccinate children against measles at 9 months of age.
- g) In addition to coverage surveys, the effects of the EPI program should also be measured in terms of maternal knowledge, attitude and, practices (KAP) surveys. (This would include maternal knowledge of a) EPI diseases, b) the immunization schedule, c) possible side effects and appropriate actions, d) when next follow-up visit is expected, e) importance of keeping the vaccination card).

4.4. Oral rehydration therapy (ORT activities)

ORT activities provided by the HCs include assessment of diarrhea and of dehydration, distributing and administering oral rehydration salts (ORS) packets, and demonstrating/preparing and administering sugar-salt solutions for diarrheal management. Since ORT is an important child survival intervention, the evaluator believes more ORT activities are warranted. Community-based ORT activities are also important and should be encouraged. Such activities include outreach visits to families with children under 5 (which may be routine, or for case finding, treatment or follow-up) to promote/demonstrate ORT, community/group education sessions, and group meetings on ORT. Establishment of oral rehydration treatment centers at the reference HC level should also be considered.

SANRU finances training for nurses at the zonal level, distributes ORT IEC materials and ORS packets procured from PEV/Zaire.

### 5. Basic curative services

HCs offer basic curative services including simple laboratory examinations. These services are aimed at prevention and treatment of prevalent public health problems in Zaire - such as malaria, diarrhea, intestinal parasites and acute respiratory infections. For malaria, most zones administer weekly chemoprophylactic chloroquine (5mg/kg) to pregnant women. Other zones prefer not to give chemoprophylaxis, due to the rapid spread of chloroquine resistance as well as poor patient compliance. (The problem of chemoprophylaxis during pregnancy is discussed under "Prenatal Clinics"). CCCD's recommendation of single dose presumptive treatment with 10mg/kg chloroquine for all cases of fever is followed in almost all zones without significant chloroquine resistance. In areas with resistance, 25 mg/kg three day course is the first line treatment. A few zones still follow non-recommended treatment regimes, e.g. with daraprim, to which resistance rapidly develops. Malaria treatment and chemoprophylaxis are child survival interventions which generally are provided by HCs. For diarrhea/dehydration ORS packets are sold for management of minor and moderate cases of diarrhea (see 4.3.). Acute respiratory infections (ARI) are among the leading causes of death in children not only in Zaire but in all third world countries. The evaluator was pleased to note that some zones have developed and distributed standardized strategy manuals to HCs for treating common illnesses including ARI. These manuals described signs and symptoms, specific treatment at each level of disease and indications for referral. SANRU financed the development of the manuals. Simple laboratory examinations are also done at the HCs - mainly urinalysis, stool examinations and hemoglobin determinations. Cervical smears and urethral smears are also performed at some HCs, and a few HCs can do malaria smears. None of the HCs visited had required laboratory reagents to do acid fast bacilli (AFB) examination for tuberculosis. SANRU currently does not provide these supplies but the team considers HCs should be able to do simple basic laboratory examinations (e.g. malaria smears, AFB examinations) necessary in the control of important local endemic diseases.

The project's contribution toward curative services has included training for health zone and health center personnel, financing development of standardized strategy manuals, supplying microscopes and slides and providing the initial stock of medicines to enable HCs to establish revolving funds for medications.

#### Recommendations:

- a) The project should assist all zones to develop and distribute standardized strategy manuals to HCs within their zones.
- b) Additional supportive measures to control ARI should be taken - such as, training mothers and village health workers for early identification of ARI and timely intervention, based on simple signs such as rapid respiration and chest indrawing.

- c) All HCs should be provided with necessary laboratory supplies to do malaria smears and AFB examinations. The project should consider procuring the initial stock of basic laboratory supplies and should investigate local mechanisms to assure replenishment of these supplies.

## 6. Control of endemic diseases

The project has promoted a multi-faceted approach to endemic disease control in the RHZs. The under-five clinics, vaccination program, health education, water and sanitation activities, and basic curative services worked together to combat endemic diseases namely malaria, diarrhea and other water-borne diseases, vaccine-preventable diseases, acute respiratory infections.

Tuberculosis control is integrated into the HC services in the form of case finding and referral to the hospital with subsequent treatment and follow-up of the case. Case finding and treatment of sexually transmitted diseases (STDs), case finding and referral of leprosy, schistosomiasis and trypanosomiasis are also carried out based on local endemicity. AIDS is also a rapidly emerging problem which has yet to be addressed. In zones with endemic cretinism, CEMUBAC, a Belgian agency administers prophylactic iodine injections to pregnant women and children under 5.

### Recommendation:

- a) SANRU should consider developing IEC materials and initiating a health education program aimed at preventing AIDS transmission.

## 7. Conclusion

SANRU's degree of success in carrying out specific activities varies. On the whole SANRU is to be commended for ensuring delivery of a wide range of primary health care services aimed at prevention and treatment of the prevalent public health problems in Zaire.

## ANNEX 8

### VILLAGE-LEVEL HEALTH SERVICES AND COMMUNITY PARTICIPATION

(Judith Brown)

1. Review to what extent and in what ways village level health workers are contributing to the zone health care delivery system, particularly to delivery of child survival interventions.

Village health workers (VHWs) are active in many zones, and their roles and duties vary widely. In some places, VHWs or health promoters (animateurs) are attached to the health center and travel out to surrounding villages. Elsewhere, a VHW lives and works in each village. Some VHWs do only preventive and promotional work -- publicizing pre-school and pre-natal clinics, oral rehydration, health education, sanitation campaigns and village water projects. Some zones train VHWs in simple curative medicine as well; the VHW keeps a stock of basic drugs in the village to treat the most common complaints. Few, if any, zones or health centers offer salaries to VHWs. Some zones allow them to receive small stipends or payment in kind.

Traditional birth attendants (TBAs) have been trained in some zones. Some are attached to health centers, while others live and work in their own scattered villages. They encourage women to get pre-natal care, and they attend home deliveries; some teach about family planning.

The evaluators were struck by the fact that some of the zones with the longest experience have drastically changed their strategies for village health workers. A few years ago, for example, the Nyankunde Health Zone was a model zone for training VHWs to provide curative and preventive services in their own villages. More recently, however, the zone has eliminated curative services from the work of VHWs, because of what the zone considered insoluble problems: nearly all trained VHWs demanded salaries for their work; many purchased antibiotics and injections on their own and offered curative services for which they were not trained; some left their villages to practice their trade where they would be paid.

Ironically, many of the newer zones are following models that have already been abandoned by older zones. Descriptions of village-level programs dating from the SANRU I project paper (1981) or the Yoder comparative study of 5 zones (1983) are no longer current or valid. Updated case histories of zone experiences are needed.

2. During field visits, record the extent to which the health care system responds to the perceived needs of development committee members and village health workers. Make recommendations for the proposed study of CDCs, VHWs and TBAs.

When asked about community health projects, most village committees mentioned improving water points. The initiative came sometimes from staff of the health zone or the health center, sometimes from the village committee or the population in general. Several local committees had initiated the construction of a health center or maternity, or the planting of a communal field. Nearly these all water and construction projects involved contributions (money, labor, materials, and maintenance) from three or four levels. On the other hand, it was often the zone or health center staff that had suggested the selection and training of VHWs or birth attendants.

Some community requests had been refused or indefinitely delayed by health zone offices: ambulances, radios, motorcycles, salaries or other compensation for committee members or VHWs, and (in some zones) village stocks of medicines. In general, though, committee members felt they were making their own decisions.

The type of research needed on village involvement (committees, VHW's, and TBA's) is qualitative, rather than quantitative. Several case histories over 3-10 year periods will be most valuable. Researchers will have to collect oral histories, as well as study written records. They will need to talk at length with villagers, health center nurses, and zone personnel.

The local situations and stories are often complex, and they will not all emerge in one conversation. The questions to be examined are not just "What happened?" but also "Why? What motivated that action? How did people feel about it?" A minimum of one week is needed per zone. Two researchers, one male and one female, should work together. The 5 zones studied in 1983 should be re-studied, and others may be added.

3. Review the types of assistance SANRU is providing to help zones achieve community involvement. Assess with specific attention to training, logistics, supervision and technical assistance. Is the level of investment appropriate?

The mid-project evaluation in May 1984 (pages 23, 33) noted shortcomings in working with committees and communities, and it suggested special assistance to health zones. Since then the project, in collaboration with FONAMES, has developed modules or sections of modules on how to work with communities. The materials are destined for Médecins Chefs de Zone, trainers of village health workers, and coordinators for water and sanitation. Several modules are still in the testing stage, so only a few zones have benefitted from them so far. Besides training, the project has aided community work in the zones with project vehicles and supervision subsidies.

The SANRU II project paper recognized a number of important issues and needs for community involvement in primary health care. The project paper provided for a long-term technical assistant in community organization and training. The project has decided not to hire a long-term expatriate for this position. Instead short-term international and in-country experts are called for specific tasks. The evaluators agree with this decision.

Nevertheless, more concentrated study and effort are required. The project training and research divisions need technical assistance in analyzing zone success and failures, and in setting project objectives and strategies for community involvement. A full-time staff member is not necessary.

Several short-term consultants, who can be called on regularly, may be more effective. In-country specialists can be sought through the Institut Supérieur de Développement Communautaire (Kivu), CEPAS (Kinshasa), the divisions of anthropology and rural sociology (UNAZA, Lubumbashi), and the Centre de Recherche en Sciences Humaines (Kinshasa).

The project should hire short-term consultants to help the Project, FONAMES, and the Fifth Direction of the MOH to clarify the goals and objectives of the community participation component of the project and to develop implementation strategies and evaluation procedures.

4. Do project village training materials address the following questions:

- What is the prime purpose for organizing a village development committee?
- What is the committee expected to accomplish?
- Who decides which activities will be undertaken by the committee?
- To whom are the village committees accountable?

The training modules currently being developed cover the above questions. They also explain how to approach village leaders, how to conduct a community diagnosis, and how to choose committee members.

The materials, however, do not adequately address the more basic questions of community organizing, for example:

- How does one discover the existing organization and power structure of a community?
- Is a "development committee" the appropriate vehicle for popular involvement in every village?
- Can effective existing groups (radio clubs, church groups, party cells) take on health functions as well?
- Is it better to have a structure before undertaking a village activity, or better to start an activity and then identify the motivated, hard-working leaders?
- What stages do communities and health workers pass through as the months and years go by?

These questions have been debated in recent conferences. The case history research (section 2 above) should aim to answer them. Future training materials should deal with them.

## ANNEX 9

### HEALTH AND MANAGEMENT INFORMATION SYSTEMS

(Stanley Terrell)

1. Examine the project's reporting forms. Determine whether the mid-term evaluation recommendation to focus on a few indirect indicators of improved health services, such as coverage, accessibility, and participation of villages in health programs has been implemented.
2. Verify that key indicators are being collected and tabulated in a routine manner. Is this information being analysed and presented in a way that is useful to project decision makers? Supervisors and managers in the field? Comment on the system's capacity to provide feedback to health care personnel who are collecting data in the zones.
3. Is the project collaborating with Ministry of Health Staff in designing a simple and uniform information system to be used throughout Zaire? Considering the proposed expansion of microcomputer use for data analysis at the regional level, assess the need for any additional technical assistance.

#### A. HEALTH ZONES ANNUAL REPORT

Early in SANRU I, project staff designed a form for the health zones annual report. The form was criticized for being too lengthy in the 1984 evaluation report (pp. 28-29), but has not undergone any major revisions since that time. Difficulties in filling out the report include variation in understanding, training, and data collection capability at the levels of the zone and the health centers. The MCZs often regard the report as imposed upon them by SANRU as a requirement for receiving material assistance, rather than as a planning-supervision-evaluation tool. It should be noted that the SANRU annual report is only one of many reports which most zones are required to make to a variety of donor agencies and vertical programs. Compliance is perfunctory and the quality of the data poor. Common errors are that many items are left blank, zone totals are not the sum of the individual figures, and improbable indices result when they are calculated from the individual data elements, (it is not unusual to see coverage figures of over 100% for some PHC activities). Furthermore, the only feedback that the zones have received until now has been negative, i.e. reports which are incomplete or contain inconsistencies are returned for correction and verification. As of this date, SANRU is still receiving corrected 1985 reports from the zones. For all these reasons, the utility of this data for program monitoring and planning at the national level has been severely curtailed.

The health zone annual report form (see example contained in this annex) contains the following sections:

#### 1. Identification

This section contains simple descriptive items which identify the zone, reference hospital and MCZ, etc.

## 2. Demography

Background information on the area, population, number of administrative localities (villages), per cent of the population 0-59 months (a norm for Zaire of 19% is provided if the local rate is unknown), birth rate (a norm of 47/1000 is provided if unknown) and the rates of infant (0-11 months) and child (12-59) mortality. The last figures could be left off the reporting form because they are rarely known at the zone level.

## 3. Infrastructure of the health zone

a) The number of health service institutions presently operating in the zone and the number anticipated during the coming year by category: (hospital, health center, dispensary, etc.). This information has been used by the SANRU office to estimate the amount of material support necessary to provide the zones during the coming year.

b) The number of health areas for the zone.

## 4. Personnel for the zone

Basic inventory of personnel presently in the zone and anticipated for the coming year by category. This section also includes number of committees (health and development), village health workers and traditional birth attendants.

## 5. Equipment for the zone

Basic inventory of equipment presently in the zone and anticipated for the coming year by category.

## 6. Infrastructure of the individual health institutions

Classification of each health institution in the zone by type, managing agency (church, state, business) and population in their catchment area. The zone total should be the sum of these figures, however, because the zone does not yet have the legal status to define catchment areas, the sum of the individual data is often much larger than the zone figure due to overlapping perceptions of the various institutions as to what their respective catchment areas are.

## 7. Personnel of the individual health institutions

Numbers in each category:

## 8. Activities

a) A qualitative assessment of the level of each of the activities of PHC in the zone (on a scale of 0-3).

b) Supply

Whether the health institutions were regularly supplied with drugs by the Zone Office (yes/no).

c) Supervision

Number of supervisory visits the health institution has received from the zone office or some other health network to which it might belong (mission, Salvation Army, etc.). This datum should probably be restricted to supervisory visits from the Zone Office.

9. Equipment of the health institutions

Same as for the zone.

10-17. Activities in PHC for the zone.

These sections permit the calculation of the various indices of coverage and accessibility for each PHC service. The indicators on water and sanitation must be revised to reflect the upgraded status of this component of the project in SANRU II and to specify that the operational figures reported are for works completed during the reporting year and not the cumulative total. SNHR has started to computerize their own information system, but their staff expertise is way below that of SANRU. Therefore, SANRU should take the lead in coordinating efforts to standardize coding of geographic and other entities, to ensure the compatibility of these two systems and avoid the duplication of efforts.

18. Curative Medicine

A total for the zone of clinical diagnoses and deaths due to 8 common diseases, from within and without the catchment areas. This latter figure is rarely recorded, and deaths by diagnostic category are rarely known. Elimination of these two parts of this section should simplify the work for the zones without degrading the quality of the information coming to the SANRU office.

19. Training of Personnel

Number of personnel by category who have received initial training or refresher training during this year and the number planned for the coming year.

20. Sources of supply for the zone

Principal and secondary sources of essential medications, forms and laboratory supplies.

21. Health Education

Qualitative assessment in order of priority of the 10 most pressing health problems in the zone.

## 22. Supervision

Number of supervisory visits to institutions made by: a) the MCZ; b) a non-medical supervisor; or c) a mobile team. Either this item or item 8.c should be dropped from the annual report.

## 23. External Support

Type and source of external assistance received by the zone.

Although the annual report is indeed long and could stand some pruning, most of the indicators contained therein are potentially of value in the planning and monitoring of PHC. This fact was acknowledged by a panel of 4 MCZs interviewed at UNIKIN/SPH. The main obstacle to the report's acceptance and effective implementation at the zone level is not its length. Problem areas encountered included:

(a) The lack of a standard vertical reporting system designed to channel the data from the health centers into the format required by the annual report. Information systems found at the zone level depend heavily on the creativity of the MCZ and vary widely in their effectiveness and implementation.

This would have to be considered to be the most serious problem encountered in the evaluation.

(b) The lack of understanding of the elements contained in the form, how to calculate the requisite indices from this data, and how to apply them in an integrated system of program planning and evaluation.

The two instructives provided by the central office, "Explanatory notice of the annual report" and "Analysis of the data contained in the annual report" are generally very clear and of high quality. The problem here is that even though they were sent to every zone office, in many cases the statistician or person responsible for filling out the report has never seen them. SANRU should provide each zone with a high grade looseleaf binder for a reference manual which would literally be chained to a desk in the zone office. This manual should contain detailed instructions including samples of all forms for the collecting, gathering, reporting, analyzing, and most importantly, using the data at every level of the health system. Revisions could be handled the same way computer software manufacturers update their manuals, by simply replacing or inserting the required pages rather than reprinting the whole manual. This would provide all zone personnel with constant and permanent access to the necessary documentation. Similar looseleaf manuals should be developed for all other Project operational areas (finance, management, personnel, community participation, etc.). This is well within the wordprocessing capability of the SANRU central office.

The MCZ should be trained in how to sit down with the nurses for the individual centers and use the indicators of accessibility and coverage to develop targets for each PHC service in a modified management by objective

(MBO) procedure. The monthly average of the target can be drawn as a straight line on the wall calendars provided to the centers by the SANRU office. Monitoring the outputs attained as compared to the target can be a simple and rapid part of the monthly supervision by the Zone Office.

(c) the only feedback ("retroinformation") which the Zones receive from the Central Office is criticism for incorrectly filling out the reports;

The most important contribution which SANRU can make to the zones is to develop their capacity to provide their own retroinformation. This can be accomplished by improved training, documentation and supervision. The UNIKIN/SPH will be extremely helpful in this area. The zones would also like to receive some commentary as to how they are doing, where they could improve and how they compare with the other zones. This is not an unreasonable request. Unfortunately, they are caught up in a vicious cycle in that their slow response time and the poor quality of the data they submit has hampered the central office's ability to turn around a report. A summary statistical report for 1984 with commentary and a provisional report for 1985 should be returned to the zones as soon as possible. This type of feedback will hopefully stimulate the zones and encourage them to take the reporting process more seriously. The Planning Office should also take advantage of the Documentation Center's projected newsletter to provide further feedback and instruction on the information system (Annex 11.4).

#### B. NATIONAL HEALTH INFORMATION SYSTEM COMMISSION (SNIS)

In recognition of the problems mentioned above, in November 1985, the Minister of Health directed the Secretary General of the Health Department to set up a commission to develop a uniform reporting system. In December, representatives of the related projects, programs and departments held their first meeting. At that time they decided to form a working group of 5 people and selected Dr. Yahozi of SANRU as the secretary. This working group was charged with developing a plan for a SNIS that would be:

- complete: It should take into account the different programs and levels of service delivery in the country;
- a planning tool: It is recognized that it will be necessary at times to conduct surveys, the committee, however, is to focus its efforts on the development of a routine data collection system;
- monitoring and evaluation: It should permit the continuous monitoring and evaluation of the MOH strategy of Health for All by the Year 2000.

The committee held a total of 9 meetings during the succeeding months and came up with 9 specific objectives. In June 1986, the committee presented a formal report to the full commission including a detailed work plan. One of the first activities of the plan was to conduct a needs assessment survey of the various participants at all levels of the health delivery system in Zaire. A detailed survey was sent to a sample of nearly 100 respondents and the data has been entered onto the IBM microcomputer at the MOH and is in the process of being analyzed by SANRU personnel.

The active role which SANRU played in this multisectorial approach to such an important problem is highly commendable and can serve as a model for the other functional areas within SANRU as they expand their collaboration with various government entities. This is also one of the few areas within SANRU with a detailed written work plan which can be compared against achievements. The work plan for the development of the national health information system, however, needs to be updated. The analysis of the survey, which is still underway, was scheduled to be completed by the end of October. The plan should not only be revised but its format and structure should also be completely modified. Simple chronograms do not suffice for complex activities which involve the coordination of the efforts of multiple organizations and the assignment of individual responsibilities. The plan should be developed using the critical path type methodology (CPM) with the identification of critical paths, required resources (including personnel), responsibilities and potential bottlenecks. IBM/PC compatible software for this purpose is available through UNIKIN/SPH. This plan should be reviewed and revised on a quarterly basis for the duration of the planning, testing, implementation, and revision of the SNIS, which will take at least another 5 years.

The original SNIS work plan included an appropriate amount of outside technical assistance for feasibility study, systems and cost analysis, data base design and planning for systems testing and implementation. This short-term technical assistance, which is slightly more than what was allowed for in the SANRU II budget (section 15.2,p. 15), should be included in the SNIS project CPM so that it can be budgeted and planned for.

By opting for the methodologically correct procedure, the working committee has chosen the long route, i.e., there will be no quick solution for what has become a chronic problem. They have also take a calculated risk. By including all of the related entities in the process they will have to satisfy a number of competing demands. At some point an authority will have to step in and make some tough decisions. Once the SNIS is implemented, the vertical programs should no longer be permitted to demand direct reporting from the individual centers. For example, the PEV immunization data should be produced by the SNIS and not require a separate information system. Vertical programs which require more detailed data than that provided by the SNIS always have the option of conducting special surveys or setting up sentinel posts (as in the case of the malaria program's detection of drug resistant facliparum malaria). A single information system providing data to multiple users and programs requires complete computer hardware and software compatibility. The MOH should be encouraged to move as rapidly as possible to make official what in the past few months has become the de facto standard in Zaire, namely full IBM/PC compatibility. Another issue which will have to be faced is standardized coding systems for zones, health centers, and villages, etc.

The following steps should be included in a CPM type implementation plan to continue the progress already made in the development of the SNIS:

1. Elaborate a CPM and present it to the working committee for approval.

2. Identify a competent computer programmer and send him for extensive advanced training in data base management with an emphasis on dBASE III and C language programming. This training could last for 6 months.

3. Complete the analysis, prepare the report, disseminate it and hold the planned seminar to discuss the results.

4. Begin the design of the first sample forms starting with the registers for the health centers, their monthly reports to the zone and the process for summarizing the results at the zone level. The use of the indicators in the planning and supervision process at the local levels should be stressed at this point.

5. Pretest the system with the MCZ students at UNIKIN/SPH and involve them in writing the documentation and manuals to be used in the field. The students now enrolled in the SPH represent an impressive pool of captive talent and should be exploited to the maximum at every opportunity.

6. Perform field tests of the manual information system in the zones with the first year's graduates from the SPH.

7. Begin development of the computer software to manage the information system at the zone level and test with the second year's group of SPH students. The computer programmer should be finishing his training by that time.

8. Standardize the family census form ("fiche familiale") and pretest it in conjunction with the second year's group of students at the SPH. When used in the proper circumstances this can be an extremely effective means of programming work and educating the community, especially when it can be integrated with the village level health worker approach. In the zones where it can be implemented properly, it will allow for the maintenance of a longitudinal data base of community level data which will permit a variety of impact studies and operational research. Every effort should be made to identify these zones, develop the methodology and expand it into other zones.

9. Test the computer driven information system in the field in the zones with the first 2 years' graduates from the SPH.

10. Test the family census forms in the appropriate zones.

11. Begin development of the software for the sub regional and regional levels in conjunction with the third year's students at the SPH.

#### C. COMPUTER APPLICATIONS

Microcomputer technology can alleviate many burdensome and repetitive tasks, improve turnaround time for information management and permit new analyses which were not previously feasible. The most obvious application at the zone level would be entering data from the monthly health center report

and the automatic production of routine reports and analyses, such as the indices calculated from the annual report. This would greatly facilitate the planning and monitoring of PHC service activities. However, computers cannot solve problems whose elements have not been clearly specified by the managers. Such is the current case with the projected SNIS. There is clearly a lot of preparatory work which needs to be done before one can consider its computerization. The most common causes of failure in the implementation of computerized information systems which can be avoided through careful planning and preparation include:

- Lack of top management support;
- Failure to clearly specify problems and objectives;
- Overoptimism and underestimation of errors;
- Premature acquisition of hardware; and
- Failure to take into account behavioral factors.

The computer training that the MCZs and other levels of health personnel will receive at the SPH should be extremely helpful in overcoming these problems.

Computers have many other appropriate uses at the zone level besides data management. Some of the applications foreseen by the SANRU project manager include:

- Wordprocessing for correspondence and training materials;
- Inventory control and financial management; and
- Computer-assisted training for MCZs and other personnel in the zones.

It is premature to consider using microcomputers to drive a zone level information system which has yet to be specified. It would be reasonable for the first year's graduates of the SPH to return to the field with microcomputers as long as standardized software has been developed for them to control their finances and inventory without the need for further programming on their part. The UNIKIN/SPH has been testing the new generation of IBM/PC compatible portable microcomputers with extremely low power requirements, which would be appropriate for this type of application.

SANRU is in the process of making a major investment in a multiuser computer system for the central office consisting of a Wang minicomputer linked to a number of terminals and personal computers. The acquisition of this computer is an expensive proposition. The initial purchase price is \$122,825 and the maintenance cost of just the service contract will be \$673 per month. A June 4, 1986 memo from the project manager to the USAID project officer justifies the purchase to "facilitate project management, reinforce the national information system (FONAMES) and link with regional/sub-regional offices."

None of the entities with which SANRU needs to coordinate its activities uses the proposed system. Therefore, great care should be taken that all software developed for the proposed national health information system (SNIS) and the Documentation Center be directly compatible with, and transportable to, the system chosen by MOH, FONAMES, UNIKIN/SPH and WHO.

Computer compatibility exists at more than one level. For the purposes of this discussion it will be broken down into 1) hardware compatibility; 2) software compatibility; and 3) data compatibility. Hardware compatibility means the ability to literally replace components of one computer with those from another. This kind of redundancy can be very useful in a resource poor environment. Manufacturers whose machines require proprietary replacement parts violate the principle of hardware compatibility even though they might still be software compatible.

Software compatibility means the ability to run a computer application or program developed on one computer on another computer without modification. With the emergence of the IBM/PC as the de facto standard, this type of compatibility is becoming increasingly common. This is extremely important in an environment where the available pool of skilled applications programmers is limited, since it means that different entities will be able to share application programs (bibliographic systems, accounting systems, etc.).

With the standard protocols for data interchange, it is now possible to transfer data between software applications on the same computer (e.g. from a spreadsheet to a data base manager) as well as between most of the popular brands of computers via a variety of media. However, it is of little use to someone to have a data file on his computer if he does not also have an application program capable of accessing and manipulating this data. In practice, it often requires more than a beginner's expertise to transfer data between otherwise incompatible systems. For example, the Evaluation Team was unable to locate anyone in the AID/Kinshasa office who knew how to transfer standard text files written on a IBM/PC compatible microcomputer to their Wang minicomputer, for wordprocessing, even though the requisite computer hardware and software has been in place for over a year.

Software compatibility should be a minimum criterion for the acquisition of computer equipment and hardware compatibility should be sought after whenever feasible.

After reviewing the documentation on the proposed computer system provided by Project Management, the information systems evaluator is convinced of the technical soundness of the plan. The proposal also passed a technical review by AID/SER/IRM in Washington. It represents a logical vertical expansion of their present Wang/PC driven computer system. Any deviation from this plan and adoption of another system would inconvenience project staff by creating a need for: 1) conversion of some existing software applications to the new system; 2) some retraining of project personnel; and 3) a delay in implementation of the projected applications.

What was not clear from the documentation provided was an implementation plan for how this system would be used to achieve the project's mission of coordinating with and developing the capacity of FONAMES and the GOZ to carry out this function. The representatives interviewed from each of these organizations, who would be responsible for the system's maintenance and operation at the termination of the project, were not convinced of its suitability to their needs and expressed an interest in reviewing the matter. This appears to be a case where technical decisions are being made in advance of the elaboration of clear policy guidelines. A policy review board consisting of the, SANRU Project Director and the GOZ and USAID/PHO Representatives should meet with the Project Manager to define the Project's policy goals in relation to the acquisition of computer systems. If this review board decides that the overriding consideration is to serve the Project's short-term internal needs for information management and project tracking, the proposed system could be acquired since it appears to be the technically optimal (if expensive) solution. Otherwise, alternatives should be explored and the final proposal reviewed by an outside technical committee.

One alternative not covered in the feasibility study is the application of appropriate technology currently available in Kinshasa. Fully IBM/PC compatible computers can be assembled on site for a fraction of the cost of the proposed equipment. 80286 microprocessor-based machines have a processing speed over nine times (as measured by the Norton utilities Sysfile) that of the older micros. 80386-microprocessor computers now available promise to be that much faster again and have the hardware capacity to place the power of the Wang minicomputer on a manager's desk top.

The computer industry has heavily committed to this particular architecture and future developments will be increasingly along this evolutionary path. Although this strategy would not immediately provide project management with the multiuser simultaneous access to data files that it desires, this would have to be labeled a very major convenience rather than a necessity. However, the strategy of adopting the 80286-80386 hardware standard would still permit the development of this capacity within several years. With the savings in hardware costs, the project would be able to install several fully compatible and equally powerful systems in government agencies which would be able to use the software developed and tested by the Project during the first few years of SANRU II. These computers can be assembled locally from off-the-shelf components. Besides the considerable savings in costs, the project and associated programs will then have the capacity to perform in-house maintenance. Training in the assembly of the components typically takes less than two weeks. Experienced operators can be trained to run the basic diagnostics software in one to two weeks. Faulty or broken components under warranty are swapped out with the vendors under the purchase agreements. Out of warranty parts are often discarded in the U.S. due to high labor costs, but it might be feasible to explore doing lower level computer repair in Zaire. In any event, this would eliminate the need for outside service contracts and the dependence on proprietary replacement parts from a single manufacturer. This conforms to the concepts and principles of appropriate technology.

The strategy briefly outlined above would not serve the immediate needs of the Project as well as the proposed minicomputer system. It would cause inconvenience to the project management staff and it would be discouraging for them to have to abandon a proposal in which they had invested considerable effort. These are non-trivial considerations. Yet, given the Project's mission to support the capacity of government organizations to carry out this work, it would seem to make sense for it to apply the considerable computer skills that it has built up to support the efforts of these other organizations, rather than focusing on its internal computing needs.

#### D. IMPACT STUDIES/OPERATIONS RESEARCH

Although the SANRU reporting form contains same data on disease and malnutrition, none of the information is population-based which mitigates against its suitability for impact studies. In compliance with the 1984 evaluation recommendation to pursue OR studies on impact, SANRU has set up a Division of Special Studies under the direction of Cit. Munkatu, from the National Institute of Statistics. The Division is responsible for establishing priorities, guidelines and coordinating activities with other projects. The Division created a 3-tiered research strategy to accomplish this goal:

- 1) Develop the technical capability to respond to specific requests from the field. An example where this has worked was in the development of a methodology for carrying out and analyzing a study of the impact of a water project on diarrheal disease incidence in Kirotse.
- 2) Bilateral OR studies in specific topical areas:
  - a) REACH studies on autofinancing in the health zones.
  - b) PRICOR/UNIKIN OR studies focusing on immunizations, oral rehydration therapy, and malaria.
3. A centrally directed research strategy utilizing a methodology developed in conjunction with PRITECH. The study design involves baseline and follow-up surveys in 4 health areas in each of 6 zones. For each zone, the study will be conducted in two HC areas expected to have new programs and in two others which will serve as controls. Furthermore, in 3 of the health zones the control areas will be HCs which do not have and are not expected to have active health programs within the next 2-3 years. Indicators of impact are child mortality under age 5 and a simple measure of nutritional status (upper arm circumference).

The study design mentions that "the test and control areas should be matched as carefully as possible in terms of other factors affecting health". The experience of the Evaluation Team is that this will be no trivial task, given the multiplicity of health interventions and networks operating within any zone, not to mention the exogenous factors related

to mortality (infrastructure, education, economy, etc.). The ability of the study design to produce valid and interpretable results will largely depend on the investigators' ability to a priori specify and then measure these factors.

All of the three major research efforts listed above share a methodological emphasis on extensive field surveys. Another approach to impact studies not currently anticipated would be to strengthen the use of the household census ("fiche familiale") already employed with varying success in many of the zones. The effective implementation of this instrument would create a permanent longitudinal community level data base. This would not only serve as a research tool but would greatly improve the zone's ability to promote and deliver PHC services at the community level. The data in the family census can also be linked to a monitoring of community level contextual variables and the level of service activities from the ongoing recordkeeping systems.

The project research strategies should be more closely integrated into the SPH curriculum so that the MCZs being trained there are better able to request TA, follow guidelines and collaborate on studies. A teaching module should be designed to compare and contrast the project's three major research strategies.

Annex 9.E.National Health Conferences

<u>Date</u>	<u>Place</u>	<u>Participants</u>
1. May 1982	Nganda	Phase I (15 MCZs)
2. March 1983	Nganda	Phase I & II (36 MCZs, 20 trainers)
3. March 1986	Nsele	Phase I, II, & III (60 MCZs)

Regional Conferences

<u>Purpose</u>	<u>Zones</u>	<u>Participants</u>
1. Delimitation of Zones	Bas-Zaïre, Bandundu	1 M.D. from each hospital in the region
2. Delimitation of Zones	Kasaï-Occ., H. Zaïre, Equator, Shaba, Kivu	1 M.D. from each hospital in the region

ANNEX 10

GENERAL ISSUES

(Harvey Gutman)

1. Is the current rate of implementation of RHZ's and sub-regional water stations appropriate?

SANRU has helped 65 RHZ's to organize and begin activities. An additional 15 zones are scheduled to begin in 1987, then 10 in 1988 and 10 in 1989, for a total of 100.

By the end of 1986 eleven rural water stations exist of which ten are supported by SANRU and one is supported by the Shaba Refugee Project. In each of the years 1987 and 1988, ten new stations are scheduled in the National Plan, six of them each year are scheduled in the GA for support by SANRU.

The Evaluation Team sees indications that the planned rate may be too rapid:

- Several of the RHZ's scheduled for the next few years will have logistic and management.
- The current RHZ's supervisory staff of SANRU is inadequate. New staff members are being recruited, but will need time to become effective.
- Supervision of the RHZ's is not adequately coordinated between SANRU, FONAMES, and sub-regional medical inspectors. Strategies for supervision are not written and made uniform.
- Existing water stations are not functioning effectively yet, and the SNHR should review the pace of establishing more stations in the immediate future

The Evaluation Team recommends:

- a) The establishment of SANRU support to new RHZ's should be contingent on the Project having assured itself that
  - proposed RHZ's and hydraulic systems can be provided with adequate trained staff, equipment, supplies and, where needed, workshops, stores and garages
  - the need for cooperative actions with other entities, involved in water supply programs, has been considered.

In the Team's opinion, adherence to these standards may result in a slow-down or temporary halt in adding new RHZ's.

**SANRU should use this period to:**

- clarify the SANRU II organization chart and position responsibilities
- emphasize coordination of Project organization and functions, including supervision, with those of FONAMES in a move towards gradual integration
- under FONAMES auspices, coordinate plans and strategies with SNHR, PNA, and other donors

2. Assess the strategy of financing specialized studies to measure service utilization and health impact outcomes of PHC services as proposed by the mid-term evaluation.

The Evaluation Team agrees that utilization and health impact studies are important and should be focused on one or specific zone(s).

The Team offers the following suggestions:

- Studies should be immediately applicable. Before starting, researchers and zone staff should define clearly how the results will be applied to strategies and actions for health care. (For example: If the study shows A, we will continue to do B. But if the results show C, we will alter the program to include D).
- Impacts on health cannot be expected too soon. Baseline studies should be done as early as possible, but follow-up phases may need to wait several years.
- Research, centrally-funded studies, and visiting consultants must not be allowed to overburden the SANRU project central office nor the RHZ's.

3. Assess the roles that the ECZ and the Project office have played in the administration of the project. Is the utilization of an NGO an effective way to manage a GOZ-USAID bilateral project?

The Church of Christ in Zaire (ECZ) has proven very effective in managing the SANRU I Project. The ECZ and its member Protestant groups were already managing a large number of health facilities and outreach programs. The SANRU Project gave 30 Protestant-related zones the opportunity to intensify their efforts throughout their health zones. At the same time the Project office, with its combined ECZ-GOZ-USAID staff, managed project activities with 10 government-related zones, 5 Catholic zones, and 5 government-Catholic zones.

In this particular project, a non-governmental organization (NGO) was a most appropriate and effective implementing agency. However, appropriateness of using PVO's to implement GOZ-USAID bilateral projects needs to be analysed on a case by-case basis.

**Is the project overburdening the ECZ's absorptive capacity?**

In the early years of SANRU I, the ECZ provided 3 of the 7 central office staff; the GOZ provided one, and the project hired 3. As the tasks increased faster than the staff, the central personnel were unable to travel and supervise as needed. The mid-project evaluation (1984) recommended staff expansion (Major Rec. No. 9). The Project has hired about 20 new Zairian staff members at all levels and plans to hire about 10 more. The Evaluation Team agrees with this staff expansion and with the practice of hiring all staff on term-contracts. At the end of the Project, neither the ECZ, GOZ, nor USAID will be obligated to engage SANRU employees.

**ADDITIONAL ISSUES NOT INCLUDED IN SCOPE OF WORK  
(Harvey E. Gutman)**

Project Grant Agreement

To the extent that the GOZ and the Peace Corps are not meeting their obligations under the GA (for whatever reasons), the Agreement should be amended to reflect the situation and any implications. Availability of substitute resources, adjustments to overcome gaps by alternative approaches, target modifications or changes in timing and funding, should be shown.

SANRU and the GOZ

SANRU I contemplated GOZ involvement at 2 levels in Kinshasa:

a) Advisory Committee membership (Project Grant Agreement, Annex 1, p.14)

"a representative of the GOZ Ministries of Health, and other representatives as needed" (the PP p. 59 specifically added CEPLANUT and the Ministries of Education, Agriculture and Social Services).

This Committee was to meet twice a year to advise on policy, technical and legal matters, coordinate with other providers of services to develop mutual support, and "provide a major contact with the Government". Sub-committees or work groups were to meet on an ad hoc basis "to deal with special tasks or problems".

According to SANRU's institutional memory, the Committee met only twice; no sub-committees or working groups were ever activated. While never abolished, the Committee has, de facto, ceased to exist.

b) Ministry of Health Representative

The following is a quote from the Project GA (SANRU I), P.9, which identifies a sole GOZ contribution under Technical Assistance:

"The GOZ Department of Health will actively participate by nominating a representative who will work as counterpart to the Director of the ECZ Medical Bureau. The counterpart will have the following duties and responsibilities:

- act as liaison between the Department of Health and the ECZ and AID;
- represent the GOZ on the Project Advisory Committee;
- prepare in collaboration with the Director of the ECZ Medical Bureau the commodity needs for the participating GOZ hospital systems;

- make policy recommendations to the ECZ and GOZ;
- assist the GOZ participating hospitals with the preparation of their action plans and insure that these plans are carried out;
- adopt and disseminate training materials and curricula developed under the Project;
- identify suitable candidates from GOZ hospitals for training under the Project;
- utilize experience gained in this project to improve the program planning, monitoring, and evaluation of the GOZ's recently delineated rural health strategy.

In the performance of these duties it is expected that the GOZ representative will visit each participating GOZ hospital system at least once every 6 months and a report of each visit will be made."

It should be noted that the GOZ representative was to act as part-time counterpart to the Director (also serving part-time) of the ECZ Medical Bureau (the SANRU I implementing agency) rather than to the Project Manager. The GOZ representative had been detached from the MOH's Fifth Directorate whose role subsequently was changed when a part of its responsibilities was assumed by FONAMES.

Under the SANRU II Project Grant Agreement (5.5.1. p.20) "a senior official will be seconded by MOH to work full time as a member of the SANRU II staff. "This MOH official will serve as the Zaïrian counterpart to the Project Manager and play a major role in project implementation." The Project Agreement does not include a position description or an enumeration of functions as appears in the SANRU I agreement. SANRU itself drafted a somewhat anemic outline of responsibilities, dated August 8, 1986. It is not evident who in MOH, if anybody, has cleared the document. In unofficial translation, it states: "Major Attributions of the MOH Representative to SANRU:

1. Sign all documents involving commitments by the PHC Division to USAID
2. Liaison for communications between SANRU and MOH
3. Member of Management Committee
4. Resolve legal and administration problems in the RHZ.
5. Strengthen the management capacity for PHC in the MOH"

It is important to note that the GOZ representative is no longer the counterpart of the Project Director (now serving full time) but of the Project Manager.

During discussions with the Team, SANRU management appeared unaware of this change and uncertain as to its rational and implications. It made the point that by express agreement, ECZ serves as the GOZ's implementing agent for the project. To further add to the murky lines of the organigram, the GOZ

representative is now reporting neither to FONAMES nor the 5th Direction but directly to the Minister's office. FONAMES, which at the end of SANRU is to absorb its residual functions, has no direct links to the Project except for ad hoc meetings. At the same time, it is one of SANRU II's stated aims to strengthen FONAMES' role in the primary health sector where SANRU plays an important, if not the leading, role.

It is difficult to make recommendations without carefully considering the precise intents and desires of GOZ/MOH, SANRU and USAID to bring about (a) a strengthening of FONAMES, partly through the organization of paralleling administrative structures in SANRU and FONAMES (which is not limited to the SANRU project) and (b) the gradual withering away of SANRU as its functions can be progressively integrated into and absorbed by FONAMES over the next 6 years. SANRU, like many efficient organizations, of course, has taken on a life of its own. It would be contrary to the traditions and practices of bureaucratic institutions to sublimate themselves by deferring and ceding to another organization, possibly correctly perceived as less efficient, less effective and less apt to continue the effort at the same level of excellence.

The USAID Director should request the Minister of Health to convoke a meeting of USAID, SANRU, MOH/FONAMES and the Fifth Directorate senior representatives to obtain a clear understanding of where to head and how to get there. A subsidiary issue, of primary importance to SANRU, should be the definition of the GOZ's links/representation vis-à-vis SANRU. Presumably, there should be one GOZ official representing the GOZ policy counterpart (Min Health office or 5th Directorate). Another GOZ representative should be involved at the operational level (presumably representing FONAMES) and serve as counterpart to the Project Manager. Other GOZ representatives might represent the Ministry of Rural Development/SNHR and of Environment/PNA, as needed.

The USAID Director (through the GOZ representative to SANRU) should request the Ministry of Health to call a meeting of all organizations (senior officials) concerned to clearly define GOZ relationships, present and future, with SANRU (and other health projects).

Project Information Track

(Harvey E. Gutman)

SANRU's pace is accelerating, new zones are being added, existing ones expanded, training increased, the sanitation and water dimension greatly augmented, and more commodities scheduled. It now becomes vitally important that these actions be coordinated, their interdependence be clearly understood, critical points be identified so that timely actions can be taken to avoid bottle-necks. There is little point in providing equipment and facilities without training for their use or buildings without equipment, or equipment without warehousing. SANRU has good computer tracking experience and facilities. The time has come to bring various project components into closer systematic relationships through a multi-line, time phased tracking system (a simplified PERT approach) that shows critical paths and intersections.

The "Religious" Issue

(Harvey E. Gutman)

The SANRU I PID proposed that the Project be implemented through a grant to the Church of Christ in Zaire (ECZ). To allay concerns that the project "would be supporting and strengthening the missionary system in lieu of reinforcing the GOZ's health structure (PP page 9), the Project was approved as a bilateral USAID/GOZ project with the ECZ becoming the grantee's implementing agent. The Project Description (Annex I of the GA) states that "the Project will assist those GOZ and ECZ hospital systems that have demonstrated a capacity to absorb and manage assistance and whose own public health philosophy and program plans correspond to the new GOZ policy orientation". This definition limited the Project initially largely to ECZ-supported installations. However, increasing emphasis was put on GOZ hospitals, and eventually on cooperating Catholic institutions. By the end of SANRU I, benefitting hospitals sponsorship showed:

GOZ	Protestant	Catholic
12	30	

including 3 joint Catholic/GOZ hospitals

Thus, the implementation of SANRU I, in fact, took on an ecumenical character that was not foreseen at the time of the GA signing.

When meeting the Team, the Secretary General of FONAMES referred to the religious character ("caractère confessionnelle") of the Project and "a common perception" that it was a church project. Historically, as discussed above, the latter observation pertains primarily to the initial phases of the implementation. The "religious character" allegation was discussed with Bishop Bokeleale (ECZ) who rejected it by pointing to the inclusion of Catholic and GOZ hospitals in the rehabilitation and other aspects of the SANRU. A Team member subsequently discussed the subject with the Directrice of the Catholic Medical Office at the Interdiocesan Center. The Sister expressed her appreciation for SANRU's support and stated in answer to a specific question that there had been no instances where SANRU had denied a request for assistance from one of her installations. The Sister however, did express reservations and misgivings concerning SANRU's general approach to family planning and, in particular, of contraceptive aspects.

In sum, the Team has found no evidence that would validate apparently lingering perceptions of undue religious favoritism.

## ANNEX 11

### SANRU II INTEGRATION OF PROJECT ACTIVITIES AT ZONE, SUB-REGIONAL, REGIONAL AND NATIONAL LEVELS

(Judith Brown, Ngay Aben, Stanley Terrell)

1. Is the project making progress toward providing technical and rehabilitation assistance to the National Health Foundation (FONAMES)?

During its early years, the SANRU I project played a major role in coordinating and supervising primary health care activities in Zaire and in developing the Five-Year Plan (1986-90) with the Ministry of Health. These roles are now largely lodged with FONAMES rather than the 5th Direction. SANRU continues to participate in FONAMES conferences and work sessions as a major donor agency with wide experience in primary health care.

FONAMES is a young organization with little institutional experience but with highly qualified senior staff. FONAMES staff members are still feeling their way; they appear somewhat uneasy in coordinating with the donor community and are unsure of the extent of their authority and leverage in the planning, approval and supervision processes. FONAMES, at this stage, might welcome the services and advice of a senior expert with practical experience in international development administration and coordination. At the same time, FONAMES may be reluctant to obtain such assistance from a project which it is to oversee. Moreover, an expert under contract to a specific project, e.g. SANRU, might face conflict-of-interest situations. One solution might be a host-country contract in which an advisor would be a direct employee of GOZ/FONAMES and would provide objective counsel to that organization without (a perception of) dual loyalties.

SANRU II project has made funds available for FONAMES office rehabilitation, and work has begun. For technical assistance, the Evaluation Team recommends two actions not included in the GA.

SANRU II should offer training at the UNIKIN School of Public Health for staff members of the central office of FONAMES.

USAID should consider offering FONAMES the services of an expert in development administration under a host-country contract.

2. Assess the progress made in strengthening regional and sub-regional medical inspection offices to better accommodate the supervisory and coordinating needs of the rural health zones.

SANRU II is currently sponsoring one regional medical inspector and three sub-regional medical officers in the one-year post-graduate course at the UNIKIN School of Public Health.

FONAMES is giving priority to sub-regional medical offices in the field supervision of health zones and primary health care activities and SANRU II plans to follow this decision. The project, in cooperation with FONAMES, has increased the concentration of its zone activities in several specified sub-regions.

The sub-regional medical officers interviewed by the Team recognize the aid of the Project to the health zones. They regret, however, not being included in the planning process nor being informed of Project and zone activities. For example zones often send annual reports directly to the Project central office without copies to the sub-region. The sub-regional medical officers cannot use the information for planning or for feedback to other zones. Furthermore, the Project has failed to notify the sub-regions of assistance (funds and commodities) sent to the zones. The Project recognizes these problems and has begun sending copies of its correspondence to the appropriate sub-regions; it is also encouraging the zones to do so.

3. Are mechanisms being established between the project and the FONAMES training and supervision division to provide assistance for training lower, middle and upper level personnel in the planning, organization, delivery and supervision of PHC services?

Training is undoubtedly one area of close cooperation between FONAMES and the Project. In addition to financing workshops and training sessions initiated by FONAMES, SANRU has assisted the latter in conceiving and elaborating training modules for the MCZ's. The modules have dealt with subjects ranging from the PHC concept itself and health planning to management of human, financial and material resources in a health Zone.

A formal agreement has been signed by the heads of the Training Divisions at FONAMES and SANRU specifying joint actions that will help FONAMES carry out its training function throughout the country. The agreement addresses such issues as elaborating training modules for supervisors and VHWS, harmonizing training schedules, and producing audiovisual aids in family planning. It is also understood that SANRU will make training materials available to FONAMES so as to help the latter implement courses in non-SANRU assisted HZs.

4. Assess the strategy for coordination with FONAMES to establish a national documentation center which will provide access to PHC reports and resources. Should the documentation center be located at the project office, FONAMES' or elsewhere?

The documentation Center has already been physically located at the Project Headquarters. The ultimate location of the Documentation Center should be determined as soon as possible by the policy review board. A planned transfer of the Documentation Center's equipment and resources to the final location, if different from the present location, should be phased systematically so that adequate physical facilities with appropriate security are made available, and GOZ personnel, trained to operate and manage the center, are in place well before the end of the project.

A WASH consultant submitted a draft report "Recommendations and procedures for organizing and operating SANRU Documentation Center and SNHR Library", dated August 22, 1986. The final WASH report should be expedited so that work can be continued and the recommendations implemented. The report envisioned 6 activities for the Center:

- Current awareness bulletin or newsletter;
- Conducting meetings, showing films, etc.;
- Handling information requests;
- Developing a data base of primary health care organizations in Zaire;
- Referral services; and
- Rural health zone files.

Descriptions and suggestions for each of these activities are in the draft. Most of the technical suggestions in the report appear to be well thought out. However, it treated SANRU as an institution and not a project and did not deal with the issue of transferring the Management of the Center to FONAMES. Both the Project Manager and the Director of the Documentation Center acknowledge this project goal, but no implementation plan has yet been developed. Furthermore, neither of the people interviewed in SNHR or FONAMES was aware of the existence of the draft report.

The WASH report included a brief 6 month implementation plan (p. 23). Amongst the list of activities to be completed by Oct. 31, 1986 was "a complete annual plan stating goals, objectives, and programs". This has yet to be done and should be the topmost priority for the Documentation Center. A simple chronogram will not suffice for a project which must coordinate the activities and resources of a variety of institutions and individuals. An implementation plan using critical path type methodology (CPM) should be developed and approved by all key institutions that will be coordinating their activities with the Documentation Center (SANRU, FONAMES, SNHR, UNIKIN/SPH, and WHO). A steering committee of representatives of each of the key institutions should be established to review and revise the CPM on a quarterly basis.

Some issues not dealt with in the WASH report or requiring further elaboration include:

- Newsletter: this will be the key instrument for providing the zones with the feedback ("retroinformation") which has been lacking until now. Priority status should be attached to putting it out on a bimonthly basis. Coordination of the contents with the other functional units within and without the project SANRU is essential. The planning division should utilize the newsletter to provide information on statistics collected and the functioning of the planning system. Likewise, the research unit should keep the zones updated of their plans, activities, and services.

The Project should explore the use of the IBM/PC based technology now available for "desktop publishing". This would require the acquisition of some software and a laser printer. The Center would then have the in-house capability to perform the typesetting and page composition tasks involved in producing camera ready copy for all of its publications and educational materials. This could reduce the turnaround time necessary to produce these materials while increasing their quality. The UNIKIN/SPH has been keeping abreast of this rapidly improving technology and should be consulted on this matter.

- Data base and bibliography standardization: this is a golden opportunity to standardize the library systems in all of the related organizations, not only as far as the bibliographic systems are concerned, but also in regard to software and hardware for storing and retrieving the information. The various library reference centers should have the capacity to periodically update each other on their holdings in both hard copy and diskette formats. They should also all have the capability to do computer searches on topics that would provide lists of all related materials available in Kinshasa and in which reference center they are to be found.

In order to accomplish this goal, it will be essential that the Documentation Center adhere to the IBM/PC computer software standard already accepted by the other entities.

- A holding of computer-assisted instructional materials which will be available to be tried out in the Resource Center: This is another area for collaboration with the Microcomputer Laboratory at the UNIKIN/SPH.

The project staff has made a very impressive start in developing a documentation/resource center at Project Headquarters, and the director has a good grasp of the services it will provide. It now needs to develop its planning capability and improve its integration and coordination with other entities in Zaire.

5. To what extent are project-assisted health zones operating as the operational units of the health system? Examine in reference to planning, budgeting, managing, and supervising.

For planning and coordinating functions, the health zones are, indeed, the basic units of primary health care in Zaire. These functions are strongest in zones with an administrative Council that includes representatives of all agencies having health activities within the zone.

For management and supervision functions, the Team found wide variation between zones. In GOZ-managed zones, in particular, church organizations often supervise directly the health centers related to them.

For budget and finance functions, the Team saw few, if any, situations where the zone is the operational unit. The finances of the reference hospital, the zone central office, and the health centers are usually separate; the zone staff often knows only their own financial status and that of the health centers they directly supervise.

The Team views favorably the variation and flexibility in health zone functioning. Each zone has its traditions, its own patterns, and its own mode of operating. As long as zones observe basic national guidelines and strategies, they should be encouraged to experiment with forms and functions and to share their experiences with others.

ANNEX 12

STRATEGY FOR ZONE SELECTION AND REHABILITATION PROJECTS

(Harvey Gutman)

1. Have specific criteria been established for the selection of health centers, reference hospitals, and pharmaceutical centers which are to receive rehabilitation assistance?

SANRU uses a set of weighted criteria, including the existence and condition of physical infrastructure, in the process of selecting zones for inclusion in the SANRU Project. It is not clear to what extent zones with better facilities may be favored over those with a low base of departure.

Once the decision has been made to add a zone to the Project-assisted system, SANRU carefully reviews the zone's (MCZ's) specific recommendation for the physical upgrading of the local infrastructure. These proposals are considered in terms of their geographical location within the RHZ. For instance, a HC must be easily accessible for purposes of supervision, as well as be within a defined walking distance of an aggregate population of approximately 5000 villagers. If there is more than one potential Reference Health Center, the choice will be based on the MCZ's justifications, location, improvement and equipment needs, and the availability and quality of professional staff.

2. Is there a system for providing funds and monitoring approved projects? Do mechanisms exist for: a) assisting with construction contract negotiations; b) supervising building construction; and c) assuring that payments will be linked to construction productivity.

SANRU has a review process for rehabilitation proposals received from RHZ's which includes site visits by project staff. Virtually all field construction work is conducted with village-center-hospital resources and by hiring local specialists (mason, carpenter), as needed. GOZ contracting procedures are employed for construction work at ECZ and FONAMES locations. SANRU procedures call for incremental payments for rehabilitation projects of hospitals, offices and pharmacies exceeding 50,000Z.

USAID and the Project should review accounting, tracking, and end-use inspection procedures for advances in cash or in kind.

Location of Sanru II RHZ's

(Harvey Gutman)

The team recognizes that the list of RHZ's selected for future support by SANRU is provisional. In particular, growing involvement by FONAMES may result in changes. SANRU I zones are widely scattered across the country's 8 rural regions. Undoubtedly there were valid reasons for this national approach. Zones could serve as catalytic demonstrations for neighboring zones. Politically, a wide distribution of benefits may have been appealing, both to the GOZ and to the ECZ's membership. Importantly, the country-wide choice of zones offered a greater reservoir of sites that could meet SANRU I criteria. At the same time, this approach was costly, provided fewer economies of scale, and produced logistic and supervision problems. As SANRU II is activated, it is advisable to review once more the merits of starting widely-scattered new zones. The Evaluation indicates that supervision is both a key element and one of the weaker links of the Health Zone concept. Greater geographical grouping of zones clearly would ease the strain on supervisory activities, enhance vertical information systems, permit greater rationalization of logistics, especially transport, and partially counter neighboring RHZ's question "Why not us?".

Finally, SANRU is a USAID-assisted project. USAID is increasingly concentrating its resources on Bandundu and Shaba (CDSS 1986). Yet, the provisional SANRU II RHZ map would indicate that only 13 of the 50 SANRU I zones and 17 of the proposed 50 new SANRU II zones are in Bandundu and Shaba. There appear to be powerful arguments for SANRU to maximize its potential contribution to the success of the USAID focus on 2 regions.

The Health zone selection procedures should be strengthened by: 1) integrating FONAMES into the selection process; and 2) developing criteria based on needs of the population. Consideration should be given to focusing the project on the priority areas of the overall USAID program in Zaire.

ANNEX 13

ENVIRONMENTAL SANITATION AND WATER SUPPLY

(Prescott Stevens)

Competent field units

1. Determine whether the National Rural Water Service (SNHR) brigade members and RHZ water and sanitation coordinators are technically capable of offering the proper support and assistance for successful project implementation.

Most rural water and sanitation coordinators (RWC) are nurses who are undergoing short formal training (three two-week courses) in protection of waterpoints, construction of latrines, planning and management. The water and sanitation evaluator was unfortunately only able to interview only one trained RWC in the seven health zones he visited, his impression is that the training envisaged is insufficient. RWCs should preferably be qualified sanitary technicians and should undergo a period of about 6 months inservice training as apprentices in hydraulic stations or understudies to qualified RWCs in health zones.

Peace Corps volunteers (PCV) who are assigned to health zones can undoubtedly play an important role in this in-service training process and at the same time assist the MCZ and RWC in inventorying needs and resources and in mapping out long term zonal programs. PCVs can also temporarily fill gaps in those zones where no RWC is yet available. Twelve of the originally planned 40 PCVs are now in place.

Hydraulic station chiefs and technical assistants should be civil or hydraulic engineers or engineering technicians; administrative assistants should have a qualification in accounting or commerce. The technical performance of each member of the station staff should be continually checked by the chief and formally evaluated once a year. Headquarters staff should participate in the annual reviews from time to time, for example in the course of site visits. The impression gained by the water and sanitation evaluator in visits to four hydraulic stations was that station chiefs and technical assistants are in general capable of satisfactory technical performance.

2. Review and assess the manpower needs of SNHR teams. Are they performing adequately? Discuss.

The station personnel consists of up to 17:

chief	masons	)	
technical assistant	plumbers	)	variable
administrative assistant	carpenters	)	numbers
clerk	well diggers	)	
storekeeper	surveyor-draftsman	(in some teams)	
driver/mechanic			

The composition of each team is determined by the prevalent types of installation (spring, gravity system, well, rainwater system.) Two or three working groups may be set up, for prospecting, surveying, construction, etc. A large part of most teams are contractual or temporary staff. Only one of the four stations visited had a surveyor, whose work was not exceptionally good; this is a need for all stations. All stations visited had vehicle problems; a competent mechanic appears to be a common need. The Director of SNHR considers that a third engineer should be recruited for each existing station, in order to accelerate the inservice training process to replace chiefs and technical assistants who are reassigned to new stations in coming years; this is a good idea.

The staff of the hydraulic stations visited were not performing adequately for some or all of the following reasons:

- basic office space and furniture is lacking
- garage and basic shop facilities are lacking
- protective clothing (e.g. boots) is lacking
- need a larger truck (3t) and several motorcycles
- there is no agreed workplan
- there are few standard operating procedures and responsibility for certain work has been withdrawn from station chiefs (e.g. drafting and costing of project studies)
- there is no large scale map of the working area of the station, showing roads, villages and physical features

The Evaluation Team considers that urgent steps are needed to remove these personnel, organizational and resource constraints in SHNR.

An additional reason why some hydraulic stations are not performing adequately - on which SNHR management has less control - is the delay in delivery of construction materials entailed by the procurement procedures (especially of other donors.) The team recommends that USAID should as much as possible exchange procurement information with the other principal donors in the water sector.

3. Examine the organizational structure of SNHR and National Sanitation Program (PNA) and comment on their capacity to effectively organize and implement project activities. Assess the sub-regional infrastructure proposed by PNA to support PHZs. To what degree should SANRU assist in creating/supporting a sub-regional and national PNA structure?

The SNHR consists of a headquarters and 11 field stations 10 of which are supported by SANRU. The National Rural Water Supply and Sanitation Plan 1986-1991 foresees that 39 new field stations will be created of which 16 will be supported by SANRU. New hydraulic stations proposed for SANRU support should be located where they can benefit several health zones. The existing hydraulic station at Bikoro is far from any present or future health zone and its support by SANRU may be questioned.

SNHR headquarters consists of a direction, a technical unit (responsible for projects and supervision), an administration and financial unit and a supply unit. Headquarters professional personnel are at present a director, three Zairian professionals and two expatriate professionals, one provided by USAID. This staff includes four engineers experienced in rural water supplies, and can directly supervise the existing 11 field stations. It is planned to establish regional SNHR posts when this becomes necessary to ensure support and supervision of new stations, but no SANRU budgetary support is foreseen for these offices.

The PNA has the objective "to improve physical conditions so as to reduce or eliminate sickness and death from diseases related to the condition of the environment." It is responsible for:

- (a) planning, coordinating, executing and evaluating environmental health activities including:
- control of industrial pollution
  - disposal of solid and liquid domestic and municipal wastes
  - healthy housing
  - insect and rodent control
  - protection of the quality of drinking water and food
  - storm water collection
  - protection of water, soil and air resources
  - health education
- (b) operation and control of individual and collective sanitation systems
- (c) surveillance and follow-up of related projects
- (d) related human resources development

PNA headquarters consists of a direction, a unit of studies and evaluation, a unit of operations and surveillance and a unit of administration and finance. Eleven professionals work at the headquarters, 30 in Kinshasa city and 9 in regional offices. PNA has been essentially concerned with urban problems. It has participated during 1986 in training rural water coordinators from SANRU-assisted health zones in the construction of latrines and other environmental health subjects. PNA plans to extend its collaboration with SANRU and SNHR in the field of rural environmental health: this collaboration would consist of training, advice and demonstration on all aspects of the subject (latrine design and construction, protection and surveillance of drinking water quality and food, hygienic disposal of wastes, insect and rodent control) and direct intervention in projects beyond the scope of the rural water coordinator such as community storm water drainage and insect control schemes. As a start, PNA proposes to assign ten sanitarians to SANRU-assisted field units. It has not been agreed whether they would be most effective if assigned to health zones, to hydraulic stations or to sub-regional or regional offices.

The Evaluation Team notes that PNA staff lack experience in analysing and solving rural problems and designing rural projects. Experimental work may be needed to develop and optimize standards, designs and construction methods for different parts of the country. If SANRU is to support the development of PNA's rural programme, a study should be made to define the program and its potential contribution to SANRU and to determine what training, short and long term TA and commodity inputs are required.

4. Determine whether the water stations are adequately equipped, both quantitatively and qualitatively, to perform their duties.

Lack of equipment is hampering the work of all hydraulic stations visited by the Evaluation Team. None of the stations had workshop space, with equipment for repairing handpumps, bicycles and motor vehicles and this is a basic need. All stations had one 1-ton pickup truck; a second truck is needed to mobilize a second (construction or survey) team and it is recommended that the second be a 3-ton truck for those teams engaged in gravity scheme construction. In those regions like Kivu which have several hydraulic stations a large truck (e.g. 8 ton) is desirable to ensure prompt delivery of supplies to the stations; such a vehicle would normally be fully utilized. All teams had one motorcycle; at least two additional motorcycles are needed. Station offices are incompletely equipped with basic furniture, cabinets for files and plans, drafting tables, pressure lamps or solar lamps, glazed windows, and painted walls and ceilings; these should be provided to improve working efficiency. Some stations lack adequate secure and dry stores. No station had complete basic surveying and drafting equipment. A transit and level are needed for all but the smallest gravity systems. Radiotelephones will be supplied shortly to all stations, which it is hoped will accelerate many administrative and operational actions. Power generators are requested by some stations; their need for office and workshop purposes might be justified for some stations. Since little or no equipment has yet been furnished by SANRU to hydraulic stations, no comments were obtained on its quality.

#### Cooperative activities

5. Evaluate the adequacy of collaborative mechanisms between SNHR, PNA, UNICEF, USAID, the National Action Committee for Water Supply and Sanitation (CNAEA), Peace Corps and the BRH II Project Office in planning project implementation.

The National Water and Sanitation Coordinating Committee, including the above and other external organizations, (which is referred to in the G.A. has not met regularly. The CNAEA on the other hand has convened a subcommittee which has met regularly since the beginning of this year to formulate the National Rural Water Supply and Sanitation Plan 1986-1991, and UNICEF, USAID and SANRU representatives have participated in most of these meetings. Bilateral meetings between SANRU management and USAID and SNHR take place regularly on policy and operational matters. Ad hoc meetings take place with Peace Corps, UNICEF and CNAEA when needed.

**6. Review and assess the adequacy of collaborative arrangements for project implementation between the SNHR, PNA, health zones and the beneficiary communities.**

A number of essential collaborative actions in the SANRU environmental health and water supply component are not being achieved:

a) Communities which deserve priority attention for water supply and sanitation improvements are not being systematically identified (on the basis of epidemiological information, willingness to cooperate, etc), located on large scale maps, and notified by health zones to hydraulic stations;

b) Long term and annual work plans for village sanitation programmes, spring and well protection works, rainwater catchment systems, gravity systems, stormwater drainage and insect control schemes, drinking water quality surveillance etc. have apparently never been developed either by health zones, hydraulic stations, or regional PNA officers. There is no exchange of planning information between health zones, hydraulic stations and PNA regional officers and no effort to develop joint workplans responding to priority needs and optimizing the use of scarce expertise and material resources available in the zone.

c) Inventories of village water points and drinking water needs are being sporadically collected by health zones and hydraulic stations, but there is no exchange of resulting information nor agreement between them on the division of work; the databanks being developed by SANRU and SNHR are not being harmonized to accommodate such information coming from different sources and ensure consistency of village identification symbols;

d) Health zones and hydraulic stations consult separately with villagers on the choice of technologies, location of new water points and extent and type of village inputs for construction and maintenance;

e) Preapproval visits to important project sites by representatives of health zone, hydraulic station, PNA, SANRU and local officials are not taking place;

f) arrangements are not being made for apprenticeships or inservice training of newly appointed rural water coordinators in nearby hydraulic stations or health zones;

g) hydraulic station personnel are not in contact with RWCs to provide them advice and technical backstopping in nearby health zones (observed by the Evaluation Team in Nyankunde, Rwanguba and Mwanza); and

h) arrangements are not being made with benefitting communities to ensure regular cleaning and maintenance of completed works.

The Evaluation Team recommends that short coordination meetings (2-3 days) be organized at regional level to enable zone medical officers and water coordinators, station chiefs, and PNA regional staff to discuss informally ways and means to articulate these collaborative actions and processes.

### Workplans

7. Review the data collection forms for each type of water system. Is the data sufficient for creating a data bank and information system for rural water supply and sanitation?

The water and sanitation evaluator has suggested to SANRU and SNHR engineers that the present forms could be improved in a number of ways to facilitate their use by the different services:

(a) A single "fiche de village" could combine information on all village-constructed water points, and improved water points;

(b) the village coordinates (latitude, longitude and elevation) would be marked to facilitate its identification and eventually permit computer mapping;

(c) water point information should include static depth of well water, difference in elevation of water point and village center, protection from contamination, evidence of daily maintenance; and

(d) the back of the same form could be used to record general socio-cultural information helpful for classifying the village's priority for improvements and for a sketch map of the village showing road, public buildings, distance and direction to water points.

8. Determine whether the current rate of project implementation is likely to lead to achievement of project objectives by the end of the project.

The verification of health zone workrates at SANRU headquarters has been impeded because the instructions for filling in the annual health zone report form do not specify whether the figures requested are for the report year, or cumulative from the start of SANRU assistance, or cumulative general. As concerns "villages assainis" the definition given in the instructions is clear, but is not apparently being followed by most health zones. One MCZ pointed out that a "village assaini" will not remain so without vigorous follow-up and he therefore declines to report this statistic. As concerns improved springs, the water and sanitation evaluator understands that SANRU assistance is only provided for "durable" construction; figures for "semi-durable" construction should therefore not be recorded in these reports.

The rate of project implementation by SANRU during 1984 and 1985 was very low; with supplies received during 1986 the hydraulic stations have started work at various times on various projects, but the Evaluation Team was not shown station records from which it could estimate workrates. With improved reporting procedures, SNHR should be able by mid-1987 or end-1987 to provide workrate figures for all types of construction and all stations, on the basis of which project projections can be checked. The Evaluation Team recommends that special attention be focused on the workrates achieved by the new drilling teams, since "downside" for these units represents important unproductive capital.

9. Review the process of developing and approving annual workplans at the central, brigade and rural health zone levels. Is the process adequate?

Most health zones do not currently prepare annual workplans for water and sanitation activities. Instead they prepare ad hoc requests for supplies, justified by numbers or lists of villages in which the work is to be carried out over an unspecified period. The Evaluation Team was told that hydraulic stations initially prepared detailed workplans, but discontinued them when work slowed down due to lack of supplies. SNHR Direction told the Evaluation Team that in 1986 and 1987 it is informing each hydraulic station what workload it should plan for, based on the total financial and material resources available to the Service, that each hydraulic station then informs headquarters the programme (localities, studies and works) which it proposes to carry out and finally headquarters modifies or approves the plan.

The health zones need to prepare annual workplans, including surveys, promotional work, source protection work and collaborative work with hydraulic stations and eventually PNA. They then should begin mapping priority villages and areas and preparing long-term plans, to be discussed and finalized with hydraulic stations and PNA. On the basis of their own surveys and discussions with the health zones, hydraulic stations should prepare annual workplan proposals to assist SNHR headquarters in determining allocations of resources to the stations. These proposals should be submitted respectively to SANRU and SNHR by end-October each year to enable them to make their consolidated workplans.

Maps are needed by all services at all levels to assist them in reconnaissance studies, inventories, priority determinations, and workplans. The Evaluation Team recommends that large scale (1:200,000 or 1:50,000) maps be procured by SANRU, SNHR and PNA and distributed to all their field units. Wherever topographic maps are available (Bas Zaire and eastern areas) they should be preferred. Field units should be encouraged to complete and correct the maps and exchange corrected information. In due course, health zones should submit copies showing current zone and health center boundaries.

Project preparation

10. Review and validate the design assumptions for the water and sanitation component.

The Evaluation Team observed that water is accessible in all areas of the country and that the immediate objectives are to protect it from contamination and improve its accessibility. The limit of 500m set by the CNAEA is desirable, especially where, as in Bas Zaire and Bandundu, villagers must climb down as much as 60m or more to fetch water from springs. The average amount of water carried to the house from about 25 springs visited by the Team was 10 liters per capita per day. The Team concluded therefore that the present standard of 30 lcd may be justified for large villages and small towns where water is piped to standpipes and to some houses. On the other hand wells and springs with lower than 30 lcd yield should not be rejected where they are of good quality and are the most accessible sources.

11. Assess the appropriateness of chosen technologies and interventions in meeting project objectives. Review and assess the adequacy of processes used to determine the type of technologies chosen for water improvement at the village level.

Wherever perennial springs of good quality are accessible they are the preferred water source because they can be improved relatively cheaply and provide safe water. In Kivu and Haut Zaire springs are often found above villages and can and should be distributed by gravity schemes. Where villagers are obliged to climb down long distances to springs as in Bas Zaire and Bandundu, the alternative of drilled or dug wells should be considered if it can be justified economically. Where villagers have access to contaminated water (lakes, streams, shallow wells) special attention should be paid to health education and locating new waterpoints where villagers prefer them.

12. Examine the quality control measures used to review and approve studies prior to financing and constructing water systems.

No quality control measures are applied in the case of small works such as spring and well protection. It would be a good idea from time to time to check the quantity of cement requested and used for spring cappings by health zones. The number and quality of completed works should be verified.

SNHR currently requires hydraulic stations to submit their project proposals in the form of field notes. In general these notes include elevations of spring, reservoirs, and standposts, determined by altimeter, yield observed at one or two visits, directions and distances run by transit from spring(s) to proposed reservoir and thence to locality center and to proposed standposts. The notes sometimes include a sketch not to scale of the layout. In a few cases an engineer's level is borrowed to run the profile. SNHR headquarters completes the design, calculates the costs and prepares the project proposal. After discussion with SANRU, SNHR obtains materials and funding. The Evaluation Team considers that the project studies ought to be submitted by field teams in complete form, for checking and if necessary redrafting at headquarters. Also the site visit foreseen in the Project Paper should be instituted. The quality of completed works should be verified.

13. Assess the adequacy of community involvement in the identification, implementation and maintenance of water systems.

It appears to the Team that villagers are fully involved in planning and implementation of water schemes, but that, perhaps due to insufficient followup by health personnel, they are not carrying out daily cleaning and maintenance in most cases.

Some statistics from the Evaluation Team's field observations

(a) 55 percent of the improved springs which were inspected were protected from accidental contamination by people, animals and surface water.

(b) 35 percent of the improved springs which were inspected appeared to be regularly cleaned and maintained.

(c) The average distance from village center to spring in villages inspected by the water and sanitation evaluator (in BZ and BD) was 600 meters; the average difference in elevation was about 60 meters below the village.

(d) The average quantity of water carried by villagers to their house for domestic use from all springs inspected by the Evaluation Team was 9.95 liters per capita per day.

(e) 85 percent of the latrines inspected were clean and free of flies and odor.

### Project Outputs

	<u>Target</u>	<u>Achievement</u>	<u>Percent</u>
<u>SANRU I (rural health zones alone)</u>			
protected springs	1500	1697	113
alternate water systems	100	66	66
village sanitation programmes	1000	880	88
<u>SANRU II (RHZ assisted by SNHR and PNA)</u>			
protected springs	3000		
drilled or dug wells with handpump	1705		
gravity or pumped distribution system	172		
village sanitation programmes	1000		

### Notes:

(1) Water supply achievements of SANRU I are the units for which SANRU provided financing.

(2) SANRU defines a village with a sanitation programme as one in which at least 90 percent of the households use water from an improved source, protect their dishes in a cupboard, use a latrine and a garbage pit, and keep the space around their houses free of weeds.

ANNEX 14

LOGICAL FRAMEWORK

BASIC RURAL HEALTH PROJECT I (660-0086)

ANNEX I. LOGICAL FRAMEWORK

<u>Narrative Summary</u>	<u>Objectively Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
<p><u>A.1. Goal</u></p> <p>To improve the health status of the rural population by increasing the proportion of rural Zairians that have access to basic health services.</p>	<p><u>A.1. Measurement of Goal Achievement</u></p> <ul style="list-style-type: none"> <li>-Infant mortality and child mortality rate reduced by 20% in project areas.</li> <li>-Mortality due to measles and neonatal tetanus reduced 50% in those areas served by hospitals.</li> <li>-Births reduced by 5% in project areas.</li> </ul>	<ul style="list-style-type: none"> <li>-Sample surveys</li> <li>-Review of death records</li> <li>-Review of birth records</li> </ul>	<p>Political stability continues.</p> <p>Economic situation does not worsen.</p> <p>There are no famine, draughts, or other natural disasters.</p>
<p><u>B.1. Purpose</u></p> <p>To establish a self-sustaining community supported system of primary health care effectively offering prevention and treatment for the 10 most prevalent health problems in 50 zones in Zaire.</p>	<p><u>B.1. EOPS</u></p> <ul style="list-style-type: none"> <li>-System offering basic prevention and cure for diseases in place and functioning on a self-financing basis.</li> </ul>	<ul style="list-style-type: none"> <li>-Reports</li> <li>-On site visits</li> <li>-Sample surveys</li> </ul>	<p>ECZ system continues current level of support to health sector.</p>
<p><u>C.1. Outputs</u></p> <p>A well functioning institutionalized system of retraining low and mid-level workers in the delivery of community based primary health care.</p> <p>A system for collecting, organizing and sharing the experiences of ECZ and GOZ hospital systems in the provision of primary health care.</p> <p>250 Health Centers opened or converted from dispensaries following the GOZ Neele Model.</p>	<p><u>C.2 Output Magnitude</u></p> <p>250 Family Planning clinics opened</p> <p>150,000 new acceptors in Family Planning</p> <p>250 MCH Clinics opened/converted</p> <p>1,000 vaccination programs in villages</p> <p>750 nurses trained/retrained</p> <p>50 physicians retrained</p> <p>3,000 health committees formed and active</p> <p>500 wells dug</p> <p>1,500 water sources protected</p> <p>30,000 latrines constructed and in use</p> <p>20 laprascopes installed and in use</p> <p>1 data collection system (service records) installed.</p>	<ul style="list-style-type: none"> <li>-Reports</li> <li>- Field visits/persons fulfilling jobs</li> <li>- Review of dispensary records and planning records</li> <li>- Interviews with village committees</li> </ul>	<p>GOZ policies on Family Planning does not change.</p> <p>ECZ hospitals are permitted to expand their program as planned.</p> <p>Project inputs are provided in a timely fashion.</p> <p>Villagers will be motivated to undertake latrine and water source construction</p>

1,000 pro-pharmacies installed and  
operating on a self-financing basis  
15 health educators trained at  
Masters level and working in  
their field  
15 health planners at Masters level  
trained and working in their field  
5 National Health Conferences held  
5 Comprehensive annual reports (PCZ)  
400 traditional midwives trained  
2 health education/family planning  
films produced  
5,000 rural villages benefiting from  
health services  
4,000,000 total population benefiting  
directly or indirectly  
1,500 village health workers trained  
50 mobile medical teams initiated/  
expanded  
12 classrooms constructed

D.1. Inputs

I. AID (dollars U.S.)

- A. Technical Assistance - One (1) LT - Technical Advisor for four years (48 MM) at 12,000 MM  
- Short term technical advisors (24 MM) at 15,000 per MM

D.2 budget

(936,000)  
576,000  
360,000

D.3 Assumptions

Project receives funding at requested levels  
Specialists with necessary skills identified, recruited

B. Training

- LT Academic Training (1 yr.) at Masters level outside country in Health Education, Health Administration for 30 (360 MM) at 1,800 per MM  
ST Academic Training outside country for 55 (110 MM) at 3,500 per MM

(1,033,000)  
648,000

Appropriate waivers granted

C. Commodities

- 50 wheel drive vehicles at 19,000 ea with spares  
100 motorcycles at 1,500 ea with spares  
500 bicycles at 300 ea with spares  
Audio-visual supplies (projectors, flipcharts, books)  
Contraceptive commodities for 150,000 acceptors  
Pharmaceuticals for 250 Health Centers and 1,000 village health workers  
Medical equipment (examining tables, Ob-Gyn materials, microscopes, scales, freezers and refrigerators)  
Office equipment (copying machines, stencil cutters, mimeograph machines)

(2,775,000)  
950,000  
150,000  
150,000  
275,000  
325,000  
350,000  
500,000  
75,000

Qualified candidates identified available for training

D. Other Costs

- Foreign exchange costs in connection with conferences, travel, per diem, other misc. costs, transport, seminars, construction costs, cement, tools, pumps, spare parts

120,000

Total AID

4,864,000

II. ECZ (Central Organization) - (Equivalent in dollars U.S.)

- A. Technical Assistance - 1 Project Director (part time) 1,650/yr x 5 yrs. (30 MM)  
- 1 Family Planning Trainer/co-ordinator (60 MM) 16,500/yr x 5 yrs.  
- Operations Officer/Logistics Coordinator (60 MM) 16,500/yr. x 5 yrs.

24,750  
82,500  
82,500

118

	B. <u>Office space in Kinshasa</u> - \$3,300 yr/for 5 yrs.	16,500
	C. <u>Salaries support costs of ECZ staff in 50 hospitals to support project</u>	2,589,000
	Total ECZ	2,795,250
XII.	<u>GOZ (Zaires)</u>	(8,595,000)
	A. <u>Counterpart Funds Total</u>	(6,995,000)
	A1. Personnel	
	A2. Commodities	
	A3. Training	
	A4. Other Costs	
	B. <u>Direct Budget Support</u>	
	B1. Personnel - salaries for DSP Kinshasa project representative; salaries for personnel in GOZ participating hospitals; support costs for GOZ participating hospitals	,600,000
IV.	<u>Peace Corps (dollars U.S.)</u>	
	Subsistence, training and support costs for 540 MM of volunteer services	350,000

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## ANNEX 15

### Scope of Work

**For the Evaluation of  
Basic Rural Health Project (660-0086)  
and  
Basic Rural Health II Project (660-0107)**

#### I Project Description

The purpose of the Basic Rural Health I (SANRU) Project was to "establish a self-sustaining, community-supported system of primary health care effectively offering prevention and treatment for the 10 most prevalent health problems in 50 zones (RHZs) in Zaire". Within those 50 zones, SANRU is assisting with the conversion of 250 dispensaries into full service health centers that serve the rural population. Coincident with the GOZ strategy to decentralize control of the health services, the project was designed to promote community participation in the organization, management, delivery and financing of services. The project also supports technical assistance, supervision, and training at every level of the health zone structure.

The Basic Rural Health II project (SANRU II) is the successor to the Basic Rural Health Project. SANRU II proposes to expand present SANRU I activities into 50 new rural health zones, effectively doubling the scope of its predecessor. Continued support will be provided to further strengthen the 50 zones assisted by SANRU I. In addition, important new activities include support for national and regional coordination of regional/sub-regional supervision through the Ministry of Health, national planning of water systems, intensification of water and sanitation activities and provisions of essential equipment needed to upgrade reference health centers and hospitals.

SANRU I and SANRU II are bilateral projects between the GOZ, represented by the Ministry of Health (MOH), and USAID. The projects are administered on behalf of the MOH and USAID by the medical office of the Church of Christ of Zaire (ECZ). The SANRU I grant agreement was signed in August 1981, and is funded through March, 1987. The SANRU II agreement was signed August 1985 and will be funded through September 1992.

#### II. Evaluation Purpose

This evaluation is a final evaluation for the Basic Rural Health Project (660-0086) to determine if the objectives listed in the project agreement have been met. The evaluators will also identify problems impeding the accomplishment of objectives, record any significant lessons learned, and make recommendations which might benefit the SANRU II activities.

The Basic Rural Health II (660-0107) evaluation is a preliminary evaluation and will be undertaken in tandem with the final evaluation of SANRU I. The primary purpose is to focus on the transition from SANRU I to SANRU II.

The team will reassess the SANRU II strategy in view of the achievements and weaknesses of SANRU I. The team will also review the new components of

SANRU II, including the water and sanitation component, the institutionalization of activities, and the strategy for zone rehabilitation projects.

### III. Evaluation Team and Itinerary

The evaluation team will be composed of five external evaluators and two GOZ evaluators who have not previously worked in any direct capacity for the SANRU project. The team includes a Primary Health Care Specialist, a Water and Sanitation Engineer, a Maternal and Child Health Care Physician, a Management Systems Specialist, an Anthropologist, one physician representing FONAMES, one Training Specialist from the Department of Plan, and one Engineer from the National Rural Water Service.

During the first week, the team will remain in Kinshasa and will: a) conduct interviews with relevant project, USAID, and National Level personnel; b) review project documentation; c) organize field work; and d) divide into two groups. Weeks two through four will be spent in the field with the exception of a three-day session mid-way at which time the members will regroup in Kinshasa to discuss preliminary findings. The last two weeks will be devoted to writing the final report and debriefing USAID staff and project personnel. The evaluation is scheduled for six weeks starting November 3.

### IV. Evaluation Report

The Team Leader will submit a final evaluation report by the end of his contract in country. This report will be limited to 15 pages and will be prefaced by an executive summary of no more than two pages. Additional comments and analyses may be appended to the report. The evaluation report will address the questions and issues listed below, as well as pertinent evaluation issues listed in the Zaire FY87 ABS

### V. Evaluation Issues

The evaluators will examine the projects' present status and will determine if scheduled progress has been made in meeting the project objectives. The evaluators will comment on, but will not be restricted to, the following issues and questions.

#### I. Project Management:

The evaluators will review the general organization and management of the project and will discuss any constraints that have impeded implementation or precluded attainment of project objectives.

##### A. Personnel

1. Examine the central office staffing pattern. Have staffing patterns been designed to facilitate attainment of program objectives. Is there adequate staff within each of the central office program divisions to implement and manage project activities effectively. Determine if there are any additional short-term or long-term technical assistance needs. Discuss.

2. Do current technicians provide an appropriate mix of skills to effectively assist in achieving project objectives.

3. Clarify the need for a Deputy Project Manager. Discuss with specific attention to the need for any additional overall project management and supervision.

#### B. Finances

1. Is there a budget planning cycle? Does it meet the needs of the project financiers?

2. Do budget expenditures reflect project objectives in terms of participant training, commodities and supplies, pharmaceuticals, vehicles, reconstruction, water/sanitation equipment, IEC materials, and technical assistance for dollar and counterpart budget funds?

3. Is there an adequate accounting system? Determine whether audit recommendations have been implemented.

#### C. Resource Management

1. Is there a realistic procurement plan? Does the plan reflect budgetary constraints? Is there a system for determining relative priorities among project objectives. Discuss.

2. Have commodities been procured, delivered, and distributed in a timely and efficient manner? If not, recommend how these systems might be improved. Discuss with reference to USAID, project office, and zone levels.

3. Has a system that provides status reports on procurement actions been set up? Have receiving and end-use tracking systems for supplies been established? Is there a mechanism for providing feedback on distributed commodities? How effectively do these systems work? Discuss with reference to medical and laboratory equipment, water/sanitation materials, vehicles, medicines, and education materials.

4. Assess the project's contribution toward improving health zones' regional supply systems.

5. Assess the adequacy of project assistance toward establishing mechanisms for the ongoing maintenance and repair of capital investments? Comment on the availability of technicians and spare parts for solar refrigerators, large transport vehicles, bicycles, and medical/laboratory equipment.

## II. Development of Sustainable Health Centers/Health Zones

1. What criteria have the project used in selecting the health zones with which it will work? Are these criteria appropriate?

2. Review the findings of the REACH cost-recovery study. Is there evidence that health centers are self-financing in terms of drugs and other recurrent costs? Discuss.

3. Assess the capacity of zone committee members to design and monitor health center auto-financing systems. Examine and comment on the technical assistance being provided by the project.

4. Examine the actions taken and the general capability of the ministry of health to support some costs at the health zone level.

5. Assess the existing management structures of RHZs. How do these structures compare to the structural design proposed by the National Level? What appears to be working best? Comment on any relevant structural or operational differences noted among zones.

### III. Training Assistance:

1. Has the project succeeded in attaining the training objectives as stated in the project paper? Examine the appropriateness of training assistance for each of the following levels:

#### a. Rural Health Zone

Medical chief of Zone/Sous-Region/Region (physicians)  
 Administrators (physician or A1 graduated nurse)  
 Supervisors (often A2 diploma nurse)  
 Pharmacists  
 Mechanics  
 Water/Sanitation Coordination

#### b. Health Center

Nurse (A2 diploma or A3 auxilliary nurse)  
 Aides in nursing/sanitation  
 Health Committees (Representatives from surrounding villages)

#### Village

Village Health Workers (VHWs)  
 Traditional Birth Attendants (TBAs)  
 Village Development Committee (local residents)

2. Assess the Training of Trainers (TOT) and Regional training strategies used by SANRU.

3. Are there mechanisms built-in to training programs to provide for follow-up and evaluation of training materials? Training activities in the field? Have training materials been designed/revised to accommodate the needs of training participants.

4. Comment on the sustainability of training and retraining programs for health care personnel at the National, Regional and Zone levels. Discuss the sustainability of village training programs.

#### IV. Transformation of curative dispensaries

1. Review health center clinical records and statistical reports. Is there evidence that health centers are providing the following preventive, promotive, and curative services:

- a. health and nutrition education
  - b. under-five clinics (CPS)
- c. maternity services (CPN)
- d. family planning
  - e. vaccinations
- f. control of endemic disease  
(e.g., malaria, acute respiratory infections and diarrhea)
- g. basic curative services including simple laboratory examinations?

In general, are services being provided in a routine, consistent manner?

2. Do pre-natal, maternity, and under-five clinics include routine physical examinations, documentation of findings/treatments (i.e., growth-weight charts, vaccination cards, etc.), referrals when appropriate, oral rehydration therapy, and basic hygiene and nutrition classes? Discuss.

3. If vaccines are provided, examine the vaccine program strategy. Comment on the strategy's strengths and weaknesses.

4. Assess the project's emphasis on child survival interventions. Is the level of assistance appropriate?

5. Examine the project's role in supporting family planning programs. Have mid-term recommendations concerning family planning objectives and training assistance strategies been implemented?

#### V. Village Level Health Services and Community Participation

1. Review the types of assistance SANRU is providing to help zones achieve community involvement. Assess with specific attention to training, logistics, supervision and technical assistance. Is the level of investment appropriate?

2. Review to what extent and in what ways village level health workers are contributing to the zone health care delivery system, particularly to delivery of child survival interventions.

3. Do project village training materials address the following questions:

What is the prime purpose for organizing a village health committee?

- What is the committee expected to accomplish?
  - Who decides which activities will be undertaken by the committees?
  - To whom are the village committees accountable?
4. During field visits, record the extent to which the health care system responds to the perceived needs of development committee members and village health workers. Make recommendations for the proposed study of CDCs, VHWS and TBAs.

#### VI. Health and Management Information Systems

1. Examine the project's reporting forms. Determine whether the mid-term evaluation recommendation to focus on a few indirect indicators of improved health services, such as coverage, accessibility and participation of villages in health programs has been implemented.
2. Verify that key indicators are being collected and tabulated in a routine manner. Is this information being analysed and presented in a way that is useful to project decision-makers? Supervisors and managers in the field? Comment on the system's capacity to provide feedback to health care personnel who are collecting data in the zones.
3. Is the project collaborating with Ministry of Health staff in designing a simple, uniform information system to be used throughout Zaire? Considering the proposed expansion of micro-computer use for data analysis at the regional level, assess the need for any additional technical assistance.

#### VII. General Issues

1. How has SANRU acted upon the mid-term evaluation recommendations made in 1984? If recommendations have not been implemented, note reasons for non-completion of requested actions.
2. Is the current rate of implementation of health zones appropriate? Discuss.
3. Assess the roles that the ECZ and the project office have played in the administration of the project. Is the utilization of an NGO an effective way to manage a GOZ-USAID bilateral project.
4. Assess the strategy of financing specialized studies to measure service utilization and health impact outcomes of PHC services as proposed by the mid-term evaluation.
5. Is the project overburdening the ECZ's absorptive capacity?

Specific Issues Pertaining to Basic Rural Health II (660-0107)

VIII. Integration of Activities at the Zone, Sub-Regional, Regional and National Levels

1. Is the project making progress toward strengthening technical and rehabilitation assistance to FONAMES (Fonds National Medico Sanitaire)?

2. Assess the progress made in structuring regional and sub-regional medical inspection offices to better accommodate the supervisory and coordinating needs of the rural health zones.

3. Are mechanisms being established between the project and FONAMES training divisions to provide assistance for training lower, middle and upper level personnel in the planning, organization and delivery of PHC services?

4. Assess the strategy for coordination with FONAMES to establish a national documentation center which will provide access to PHC reports and resources. Should the documentation center be located at the project office, FONAMES, or elsewhere?

5. To what extent are project-assisted health zones operating as the functional units of the health system? Examine in reference to planning, budgeting, managing and supervising.

IX. Strategy for Zone Rehabilitation Projects

1. Have specific criteria been established for the selection of health centers, reference hospitals and pharmaceutical centers which are to receive rehabilitation assistance?

2. Is there a system for providing funds and monitoring approved projects? Do mechanisms exist for: 1) assisting with construction contract negotiations; 2) supervising building construction; and 3) assuring that payments will be linked to construction productivity.

X. Water Supply and Sanitation Component

The evaluator will review project activities in the Basic Rural Health and Basic Rural Health II projects and make recommendations to improve project implementation and to facilitate the achievement of stated objectives.

1. Basic Rural Health (660-0086)

a. Assess the level of successful implementation of recommendations made in the mid-project evaluation concerning the water and sanitation program component.

b. Has the project achieved those end-of-project objectives as stated in the project paper?

**2. Basic Rural Health II (660-0107)**

- a. Review and validate the design assumptions for the water and sanitation component.
- b. Assess the appropriateness of chosen technologies and interventions in meeting project objectives.
- c. Review and assess the adequacy of collaborative arrangements for project implementation between the National Rural Water Service, PNA, health zones and the beneficiary communities.
- d. Review and assess the adequacy of processes used to determine the type of technologies chosen for water improvement at the village level.
- e. Examine the quality control measures used to review and approve studies prior to financing and constructing water systems.
- f. Determine whether SNHR brigade members and rural health zone water and sanitation coordinators are technically capable of offering the proper support and assistance for successful project implementation.
- g. Review and assess the manpower needs of SNHR teams. Are they performing adequately? Discuss.
- h. Examine the organizational structure of SNHR and the National Sanitation Program (PNA) and comment on their capacity to effectively manage and implement project activities.
- i. Review the process of developing and approving annual workplans at the central, brigade and rural health zone levels. Is the process adequate?
- j. Evaluate the adequacy of collaborative mechanisms between SNHR, PNA, UNICEF, USAID, CNAEA, Peace Corps, and the BRH II project office in planning project implementation.
- k. Assess the sub-regional infrastructure proposed by PNA to support RHZs. To what degree should SANRU assist in creating/supporting a sub-regional and national PNA structure?
- l. Determine whether the current rate of project implementation is likely to lead to achievement of project objectives by the end of the project.
- m. Assess the adequacy of community involvement in the identification, implementation and maintenance of water systems.
- n. Review the data collection forms for each type of water system. Is the data sufficient for creating a data bank and information system for rural water supply and sanitation?

- o. Determine whether the water stations are adequately equipped, both quantitatively and qualitatively, to perform their duties.
- p. Record any other observations and make any recommendations that would be helpful for improving project implementation.