PD-AAU-429

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: 92480

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: ZAIRE

3. PROJECT NUMBER: 660-0107

4. BUREAU/OFFICE: AFR — 06

5. PROJECT TITLE (maximum 40 characters): Basic Rural Health II

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 03 DD 30 YY 92

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)
A. Initial FY 85 B. Quarter 4 C. Final FY 89

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

A. FUNDING SOURCE	FIRST FY B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	4,250		4,250	19,750		19,750
(Grant)	(3,850)	(400)	(4,250)	(16,750)	(3,000)	(19,750)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1. Peace Corps	500		500	6,400		6,400
Other U.S. 2.						
Host Country	3,000		3,000	24,000		24,000
Other Donor(s) & ECZ, OtherNGOs	2,000		2,000	13,000		13,000
TOTALS	9,750		9,750	63,150		63,150

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) HE	534	510		0		19,750		19,750	
(2)									
(3)									
(4)									
TOTALS				0		19,750		19,750	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 440

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	BR	PVON	TNG
B. Amount			

13. PROJECT PURPOSE (maximum 480 characters)

To establish in 100 rural health zones a sustainable system of community-supported preventive, promotive, and basic curative primary health care services to combat the ten most prevalent public health problems in rural Zaire.

14. SCHEDULED EVALUATIONS
Interim MM 11 YY 86 MM 06 YY 89 Final MM 07 YY 92

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

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

17. APPROVED BY
Signature: [signature]
Title: Mr. Richard L. Podol, Mission Director
Date Signed: MM 08 DD 19 YY 85

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

AID 1330-4 (8-79)

SANTE POUR TOUS

SANRU II

PROJETS DE SOINS DE SANTE PRIMAIRES EN MILIEU RURAL

TABLE OF CONTENTS

	Page
Project Data Sheet	
List of Tables and Figures	iv
Abbreviations	v
1. INTRODUCTION	
1.1. Summary	1
1.2. Action Memorandum for the Director	3
1.3. Project Authorization	5
2. PROJECT BACKGROUND AND RATIONALE	8
2.1. Health Background	8
2.2. The GOZ Primary Health Care Strategy	9
2.2.1. History	9
2.2.2. Rural Health Zone Concept	10
(1) Structure/Organization	10
(2) Management	12
(3) Community Activities	14
2.2.3. Ministry of Health Primary Health Care Structure	15
2.3. Rural Water and Sanitation Strategy	17
2.4. SANRU I	18
2.4.1. Brief Description	18
2.4.2. Major Achievements	19
2.5 Rationale for SANRU II	20
3. LOGICAL FRAMEWORK NARRATIVE	23
3.1. Goal and Purpose	23
3.2. End of Project Status	23
3.3. Project Outputs	24
3.3.1. Training	24
3.3.2. Primary Health Care Activities	24
3.3.3. Infrastructure	25
3.4. Inputs	25
3.4.1. AID Inputs	25
3.4.2. Peace Corps Inputs	27
3.4.3. National Contributions	27
3.4.4. NGO and Other Donor Inputs	28

Page

4. PROJECT ACTIVITIES 29
4.1. Rural Health Zone Development 29
4.1.1. Infrastructure 29
4.1.2. Organizations, Management, and Supervision 30
4.1.3. Delivery of Services 31
4.1.4. Community Participation 33
4.2. Strengthening the Ministry of Health 35
4.2.1. Planning 35
4.2.2. Training and Supervision 35
4.2.3. Administration and Finance 36
4.2.4. Information and Operations Research 36
4.3. Water & Sanitation 37
4.3.1. Strengthening the National Rural Water Service 38
4.3.2. Development of Rural Water Brigades 38
4.3.3. RHZ Water & Sanitation Coordination 39

5. COST ESTIMATES AND FINANCIAL PLAN 41

6. IMPLEMENTATION PLAN 44
6.1. Administration Plan 44
6.2. Monitoring Plan 50
6.3. Disbursement Procedures 52
6.4. Implementation Schedule 53

7. SUMMARY OF PROJECT ANALYSES 56
7.1. Technical Feasibility 56
7.2. Financial Analysis 60
7.3. Economic Analysis 65
7.4. Social Soundness Analysis 68
7.5. Administrative Analysis 71

8. CONDITIONS AND COVENANTS 74

9. EVALUATION PLAN 79

4

ANNEXES

10. Annex 1 PID APPROVAL/RESPONSE TO ISSUES

11. Annex 2 GRANTEES' REQUESTS FOR ASSISTANCE

12. Annex 3 LOGICAL FRAMEWORK MATRIX

13. Annex 4 STATUTORY CHECKLIST

14. Annex 5 CERTIFICATIONS

15. Annex 6 PROJECT ANALYSES
15.1. Technical Feasibility
15.2. Financial Analysis
15.3. Economic Analysis
15.4. Social Soundness Analysis
15.5. Administrative Analysis
15.6. Environmental Analysis

16. Annex 7 SUPPLEMENTARY PROJECT INFORMATION
16.1. Peace Corps Participation
16.2. Collaboration with Non-governmental Organizations
16.3. Water & Sanitation Component

17. Annex 8 PROJECT STAFFING AND TRAINING
17.1. Detailed Training Plan
17.2. Job Descriptions for Long-term TA

18. Annex 9 ACQUISITION PLAN AND WAIVERS
18.1. Acquisition Plan
18.2. Waivers

19. Annex 10 EQUIPMENT AND SUPPLY LISTS
19.1. Medical Equipment and Supplies
19.2. Basic Medicines for Health Centers
19.3. Office Equipment and Supplies
19.4. Training & IEC Equipment and Supplies
19.5. Water & Sanitation Equipment and Supplies

LIST OF TABLES AND FIGURES

Table No.		Pages
2.1	SANRU I: Achievement of Training Objectives, 1985	19
4.1	SANRU II: New Health Centers by Year	30
5.1	Summary Cost Estimates and Financial Plan	42
5.2	Projection of Expenditures by Fiscal Year	43
6.1	New Health Centers by Year	51
15.1	Recurrent Costs of SANRU II (in 1985 Zaires)	15.2(3)
15.2	Recurrent Costs of SANRU II (in Nominal Zaires)	15.2(4)
15.3	MOH Budget for SANRU II	15.2(10-15)
15.4	MOARD Budget for SANRU II	15.2(16-19)
15.5	Training Budget	15.2(20-22)
15.6	Quantification of Benefits	15.3(2)
15.7	Hypothetical Deaths Averted and Population Consequences of Project Interventions	15.3(4)
15.8	Present Cost of Deaths Averted	15.3(6)
16.1	Sources of Assistance to Hospitals in Zaire	16.2(1)
16.2	Assistance to Functional Health Zones at the end of 1985, by Source	16.2(2)
16.3	Current SNHR Stations and Personnel	16.3(2)
16.4	Estimated Recurrent Costs to be Assumed by SNHR	16.3(11)
17.1	Training Plan, by Year	

Figure No.		
2.1	Components of a Rural Health Zone, Zaire	11
2.2	Organization Chart of the Rural Health Zone	12
6.1	Organization Chart of SANRU II Rural Health Services Administration	46
16.1	Map of Projected Rural Water Stations, 1985-1988	16.3(3)
16.2	Organization Chart of SANRU II Rural Water Component	16.3(8)
16.3	A Spring Box	16.3(13)
16.4	Three Protected Springs Connected to a Silt Trap	16.3(15)
16.5	Wide Diameter Hand-dug Well	16.3(16)
16.6	The India Mark II Pump	16.3(18)
16.7	Development of a Spring in a Shallow Water-bearing Area	16.3(20)

ABBREVIATIONS

ACNM	American College of Nurse-Midwives
A-1	Graduate Nurse
A-2	Diploma Nurse
A-3	Auxiliary Nurse
A-4	Nurse Aide
AID	Agency for International Development
AVS	Association for Voluntary Sterilization
BOM	Bureau des Oeuvres Medicales
CCCD	Combatting Childhood Communicable Diseases (Project 698-0421)
CDC	Centers for Disease Control
CEPLANUT	Centre de Planification de Nutrition Humaine (National Nutrition Planning Center)
CIF	Cost Insurance, and Freight
CNAEA	Comité National d'Action de l'Eau et de l'Assainissement (National Action Committee for Water Supply and Sanitation)
CNND	Comité National de Naissances Désirables (National Committee for Desired Births)
CTB	Technical Cooperation of Belgium
DCMP	Dépot Central Médical Pharmaceutique
DSP	Departement de la Santé Publique (Dept. of Public Health) (Ministry of Health)
ECZ	Eglise du Christ au Zaïre (Church of Christ of Zaire)
ECZORT	Organization for Rehabilitation through Training (ORT) Project with ECZ
EOP	End of Project
EOPS	End of Project Status
EPI	Expanded Program on Immunization (also known as PEV)
FBI	Fonds du Bien-être Indigène (Local Improvement Fund)
FONAMES	Fonds National pour l'Assistance Médico-Santaire
FSI	Foreign Service Institute
GOZ	Government of Zaire
HC	Health Center
HCC	Health Center Committee
HIS	Health Information System
IEC	Information, Education, and Communication
IPPF	International Planned Parenthood Federation
IQC	Indefinite Quantity Contract
JHPIEGO	Johns Hopkins Program for International Education in Gynecology and Obstetrics
LOP	Life of Project
MOARD	Ministry of Agriculture and Rural Development
MCH	Maternal and Child Health
MOH	Ministry of Health
MPH	Master of Public Health Degree

NGO	Non-Governmental Organization
OR	Operations (or Operational) Research
ORS	Oral Rehydration Salts (or Solution)
ORT	Oral Rehydration Therapy
OXFAM	Oxford Famine Relief
PACD	Project Assistance Completion Date
PCV	Peace Corps Volunteer
PEV	Programme Elargi de Vaccination (also known as EPI)
PHC	Primary Health Care
PIO/C	Project Implementation Order/Commodities
PIO/P	Project Implementation Order/Participant Training
PIO/T	Project Implementation Order/Technical Assistance
PNA	Programme National de l'Assainissement (National Sanitation Program)
PRICOR	Primary Health Care Operations Research
PROAG	Project (Grant) Agreement
PSA	Procurement Services Agent
PSC	Personal Service Contract
PSND	Projet des Services de Naissances Désirables (Family Planning Services Project)
PVO	Private Voluntary Organization
REGIDESO	Regie de Distribution d'eau de la République du Zaïre (National Water Company)
RH	Reference Hospital
RHC	Reference Health Center
RHZ	Rural Health Zone
RMI	Regional Medical Inspector
RWC	Rural Water Coordinator
SNHR	Service National d'Hydraulique Rurale (National Rural Water Service)
SPH	School of Public Health
TA	Technical Assistance
TBA	Traditional Birth Attendant
TOT	Training of Trainers (Strategy)
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
UNIKIN	Université de Kinshasa
USAID	United States Agency for International Development
VDC	Village Development Committee
VHW	Village Health Worker
VIP	Ventilated Improved Pit (Latrine)
WASH	Water and Sanitation for Health Project
WHO	World Health Organization

1. INTRODUCTION

1.1. Summary

The Basic Rural Health II Project (660-0107) known as SANRU II (Projet des Soins de Santé Primaires en Milieu Rural) is the successor to the Basic Rural Health Project (660-0086) known as SANRU I. SANRU I successfully assisted in establishing a sustainable community-supported primary health care (PHC) system in 50 rural zones, to combat the 10 most prevalent public health problems in Zaire. Project assistance was provided in the form of basic equipment and medicines needed to transform 250 dispensaries into full-service health centers, technical assistance, educational materials, and training for health personnel, as well as office equipment and vehicles to establish supervisory capacity for the rural health zones (RHZs).

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 will be initiated. These activities include support for national and regional coordination of PHC activities, regional/sub regional supervision through the Ministry of Health, national planning of water systems, intensification of water and sanitation activities and provision of essential equipment needed to upgrade reference health centers and hospitals. SANRU I's project life basically coincides with the GOZ's first five-year National Health Care Plan; SANRU II's project life will coincide with the second five-year plan. Like SANRU I, the successor project will be a collaborative effort between the Government of Zaire (GOZ), the Eglise du Christ au Zaire (ECZ), participating rural health zones, Peace Corps, and USAID. The ECZ will be the implementing agent for the rural health activities; the National Rural Water Service (SNHR) will be the implementing organization for national and regional water activities.

The project responds to the GOZ policy decision to improve the health status of the rural population by increasing the proportion of people that have access to basic health services. The increased access will result from the continued reorientation of a curative health care delivery system to one emphasizing preventive, promotive, and basic curative services at the village level. Specifically, the project will assist participating health zones to transform curative dispensaries into full-service prevention-oriented health centers. The services offered will generally include:

- health and nutrition education
- under-five clinics
- pre-natal clinics
- maternity services
- family planning
- vaccinations
- control of endemic diseases
- basic curative services, including simple laboratory examinations

In addition, health centers will promote community-based PHC activities such as oral rehydration, growth monitoring, malaria treatment/prophylaxis, the improvement of water sources, and sanitation measures.

Village development committees will be organized to promote community-based PHC activities. Volunteer village health workers (VHWs) and traditional birth attendants (TBAs) will be identified and trained, or, in some instances, village development committee members themselves will be trained to deliver these services and to make appropriate and timely referrals to the next level of health care.

Training will be a major component of the project. The project will train or retrain some 5,000 personnel who will provide supervision and/or support in the planning, organization, and delivery of PHC. The project will utilize the approaches developed and refined in SANRU I for retraining various levels of health personnel and for identifying and training VHWs as well as traditional birth attendants.

The project will set up a system for collecting and sharing experiences of participating health zones and will support the development of a national health information system and an improved drug distribution system. Assistance will also be provided to strengthen the capability at national level to plan and coordinate water activities in Zaire and to develop sub-regional water brigades.

EMBASSY OF THE
UNITED STATES OF AMERICA

Agency for International Development
Kinshasa

1.2. ACTION MEMORANDUM FOR THE DIRECTOR

Date: August 19 , 1985

To: Richard L. Podol, Mission Director

From: John Wiebler, Acting Program Officer

Thru: Arthur S. Bekin, Deputy Director

Subject: Basic Rural Health II (660-0107)

Problem:

Your approval is required to authorize a grant of $19,750,000 from the Health appropriation to the Government of Zaire (GOZ) for the Basic Rural Health II project (660-0107) subject to the availability of funds in accordance with the USAID OYB allotment process.

Discussion

A. Project Description:

The primary focus of the project will be the development of rural health zones. This will include further strengthening of the fifty zones assisted under Project 0086 and the creation and development of fifty new zones. The development of fifteen new zones will be initiated during each of the first two project years and ten each during each of the next two years. In total, 720 health centers will be developed, including 100 reference health centers. The project will provide training, technical advice, construction/renovation, and financial support to health centers and health zones as well as to regional and national supporting services, stressing financial and program management, logistic support, (especially for pharmaceuticals), and regular statistical reporting. A major emphasis will be strengthening community participation through formation of village development committees and training of village-level health workers. The project will promote a multi-faceted approach to endemic disease control in the rural health zones. Under-five clinics, vaccination programs (in close collaboration with the CCCD Project), health education, and water sanitation activities will be programmed to combat endemic diseases including malaria, measles, tuberculosis, malnutrition, and diarrheal and other water-borne diseases. Water and sanitation improvements will receive major support through spring capping, drilled and hand-dug wells, water-system installation, and latrine construction. Support to the National Rural Water Service (SNHR) and sub-regional rural water brigades will ensure technical back-up for rural water activities and strengthen the brigades' capacity to continue providing such technical assistance after the project ends. The project will be implemented in close collaboration with existing NGO-sponsored health activities whenever feasible.

11

B. Financial Summary

The total USAID contribution to the seven-year life-of-project cost is $19,750,000. The Government of Zaire will contribute the approximate equivalent of $24,000,000 in local currency for personnel, facilities, and other operating costs. The USAID/GOZ life-of-project cost is therefore approximately $43,750,000. In addition, the Peace Corps will provide volunteer assistance to the project valued in excess of $6 million. Other bilateral and multilateral donors, the ECZ and other NGO's are also participating with support estimated to value about $13 million.

C. Implementation

The project will be implemented through two bilateral grant agreements between USAID and the GOZ: one agreement will be signed with the Ministry of Health naming the Church of Christ of Zaire (ECZ) as the implementing agency for execution of the rural health services component; the other agreement for the water component will be signed with the Ministry of Agriculture and Rural Development to be implemented by the SNHR.

D. Committee Action and Congressional Notification

The project was reviewed by the Project Committee. As there were no unresolved issues, the Project Committee concluded that the project should be forwarded to you for authorization. A Congressional Notification was submitted, and cleared on August 2, 1985.

Recommendation:

That you sign the attached Project Authorization and thereby authorize the project.

Drafter: PRM: J. Wiebler

Clearances: PHO: G. Post

DEO: H.L. Braddock

CONT: R. King

1.3. Project Authorization

Name of Country: Zaire

Project Name: Basic Rural Health II

Project Number: 660-0107

1. Pursuant to the Foreign Assistance Act of 1961, as amended, I hereby authorize the Basic Rural Health II project with the Government of Zaire involving planned obligations not to exceed $19,750,000 in grant funds over the planned life of project of seven years from the date of initial obligation, subject to the availability of funds in accordance with the AID OYB allotment process.

2. The project will establish in one hundred rural health zones a sustainable system of community-supported preventive, promotive, and basic curative primary health care services to combat the ten most prevalent public health problems in rural Zaire.

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

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

4. Prior to any disbursement, or the issuance of any commitment documents under the project agreements, the cooperating country shall furnish, in form and substance satisfactory to AID, a statement naming the person holding or acting in the office of the Grantee specified in Section 8.2 of the project agreements, and of any additional representatives together with a specimen signature of each person specified in such statement.

5. Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, for any purpose other than to finance the services referred to in Section 4.1 of the project agreements, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D., the evaluation program referred to in Section 5.1 of the project agreements.

6. In the project agreement with the Ministry of Health, the cooperating country shall covenant:

   a. to establish an evaluation program as part of the project;

   b. to agree that prior to the initiation of project-funded construction or water/sanitation activities, these activities will be subject to an environmental review conducted by A.I.D., and that decisions and recommendations resulting from this review would be reflected in the implementation of such activities.

c. to budget for and make available in a timely manner all necessary budgetary and human resources needed at participating rural health zones, at the offices of thirteen project-assisted sub-regional medical inspectors, and at the offices of the eight (rural) regional medical inspectors;

d. to assume the costs of transport (fuel and maintenance) and supervision to be performed by the staff of the eight regional medical inspection offices and the thirteen project-assisted sub-regional medical inspection offices;

e. to provide from its own budgetary sources (i.e., excluding counterpart funds) sufficient funds to maintain adequate supervision/transport within the RHZs as the Grantee counterpart-funded subsidy for these costs is phased out;

f. on condition that the University of Kinshasa nine-month certificate public health training program (considered equivalent to Master of Public Health training) begins in 1986,

(i) to ensure that the primary health care (PHC) physicians (chef de bureau for PHC) posted at the eight rural regional medical inspection offices will, by the end of 1987, have undergone MPH training or equivalent;

(ii) to ensure that the sub-regional medical chiefs posted at the thirteen subregions selected for SANKU II assistance will, by the end of 1989, be physicians who have undergone MPH training or equivalent;

(iii) to make all efforts to ensure that the eight (rural) regional medical inspectors will, by the end of 1988, be physicians who have undergone MPH training or equivalent;

g. to agree that the project shall play a major role in the development and management of the restructured FONAMES or any other Governmental body that is established to plan and coordinate primary health care in Zaire, particularly in developing and managing selected activities of this organization (such as the health information system and training programs) as described in the project paper; and,

h. to agree that the ECZ will be the primary implementing agent for the project.

7. In the project agreement with the Ministry of Agriculture and Rural Development, the cooperating country shall covenant:

a. to establish an evaluation program as part of the project;

b. to agree that prior to the initiation of project-funded construction or water/sanitation activities, these activities will be subject to an environmental review conducted by USAID, and that decisions and recommendations resulting from this review would be reflected in the implementation of such activities.

c. to create a Coordinating Committee with responsibilities for reviewing project progress, resolving implementation problems, and providing policy and strategy guidance to the national rural water program;

d. to budget for and make available in a timely manner all necessary budgetary and human resources needed to support National Rural Water Service (SNHR) participation in project activities;

e. to agree to the institution of management, financial, and organizational reforms at SNHR in order to improve its performance and make it more responsive to its mandate to coordinate, plan, and deliver rural water services;

f. to agree to close and intensive supervison of the activities of SNHR field stations and brigades;

g. to provide SNHR with additional office space either by relocating to more spacious premises or by refurbishing and expanding the current SNHR central office;

h. to provide, or cause to be provided, in a timely manner, adequate and secure office and equipment space for all 26 SNHR water brigades to be assisted during the life of project; and

i. to identify and assign in a timely manner at least one counterpart for each long-term technical advisor and provide office space for use by each long-term technical advisor.

8. The project assistance completion date (PACD) of this project is September 30, 1992.

19 AUG 85
Date

Richard L. Podol
Mission Director
USAID/Zaire

15

2. PROJECT BACKGROUND AND RATIONALE

2.1. Health Background

Zaire, which extends over an area almost as large as Western Europe, has a total population estimated at 30 million. This makes it the most populous nation in Central Africa with the fourth largest population on the continent. The crude birth rate is estimated at 48 per 1000 and the crude death rate at 16 per 1000, resulting in an annual rate of natural increase of 3.2 percent. At this rate, the population of Zaire will double in about 22 years. The total fertility rate is 6.2, which means the average woman in her reproductive lifetime will bear approximately 6 children. The rapid population increase dictates a corresponding increase in the need for delivery of health services, particularly to the most vulnerable groups - mothers, infants, and children.

Malaria is the leading cause of death in Zaire. Malnutrition is widespread. An estimated 40 percent of the children under five are chronically malnourished, while 6 to 10 percent are acutely malnourished. The National Nutrition Planning Center (CEPLANUT), developed through the collaboration of the GOZ and USAID, estimates that more than 50 percent of the morbidity and mortality of the Zairian population is directly or indirectly attributable to malnutrition. The infant mortality rate is currently estimated at 114 per 1000 live births. Measles accounts for about 12 percent of the deaths of pre-school children, ranking second only to malaria. Acute respiratory infections and diarrheal diseases are also major causes of morbidity and mortality.

Maternal mortality is also high, largely as a result of complications of childbirth and the deleterious effects of maternal malnutrition and endemic diseases (especially malaria). These are compounded by the low level or lack of prenatal care, untrained traditional midwives, unsanitary delivery conditions, and closely spaced pregnancies.

Many problems that result in morbidity and mortality particularly among mothers and children, could be prevented through wider access to basic health services - especially maternal and child heath services - as well as to improved water, environmental sanitation, and health and nutrition education.

The GOZ inherited from the colonial period a complex system of health services offered through a mixture of state, Protestant, Catholic, and private hospitals and dispensaries. Fundamental financial, structural, organizational and managerial problems, and the lack of sufficient numbers of trained personnel limited the capacity of the health system to provide essential services. In addition, the system was primarily curative and hospital based, and was estimated to reach no more than 15

percent of the population. Thus, in order to meet the challenge of improving the health status of the population, the GOZ recognized that an entirely new strategy would have to be introduced that would provide basic preventive, promotive, and curative services in the communities, particularly in the rural areas where more than 70 percent of the population resides.

2.2. The GOZ Primary Health Care Strategy

2.2.1. History

Since 1975, efforts have been made to completely reorganize the health services in Zaire to reorient both the public and private sectors toward primary health care, and to standardize the administration of health services throughout the country.

National seminars sponsored by the Protestant and Catholic Churches respectively were held in 1974 and 1975 to discuss the problems of community health. The latter seminar resulted in a document, "Health and Community in Zaire," which described the need for "health zones" and encouraged the GOZ/Ministry of Health (MOH) to begin a nationwide initiative. While the GOZ was receptive to the idea, resources to finance such a major program were not available. As a result this first "health plan" was never implemented on a national basis. During the period 1975-1980 a few pilot programs began decentralizing curative care from the hospital to satellite health centers and organizing preventive and promotive PHC activities at the community level. Programs in Kasongo, Kisantu, Vanga, Bwamanda, Kimpese, Katana and elsewhere were trying out the primary health care and health zone concepts. These pilot programs later served as models for the development of a five-year National Health Plan (1982-1986).

In 1981, the MOH of Zaire officially adopted the Alma Ata objective of "Health for all by year 2000" through promotion of decentralized primary health care. Primary health care (PHC) is defined as essential promotive, preventive, and basic curative health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation, and at a cost that the community and country can afford.

The GOZ's primary health care strategy is designed to combat the major diseases that can be controlled by preventive and basic curative interventions. Although primary health care activities may vary from community to community, ideally they should include:

- maternal and child health care, including under-five clinics, vaccinations, prenatal care, maternity services, and family planning
- health education
- promotion of nutrition and agriculture
- control of endemic diseases
- water and sanitation
- basic curative care
- referrals

The GOZ has recognized that three basic support elements are necessary to implement and sustain an effective primary health care program: appropriate training and continuing education of health and community personnel; regular supportive supervision; and the reliable provision of basic drugs and supplies.

2.2.2. Rural Health Zone Concept (RHZ)

(1) Structure/Organization

The first five-year National Health Plan (1982-1986) mandates the decentralization of the health care system by the creation of approximately 300 well-defined rural health zones (RHZs). The health zone concept was developed to coordinate and standardize the administrative and technical supervision of all health services within a specified geographic area, and to ensure coverage of the entire population with preventive, promotive, and basic curative services. Prior to the introduction of the health zones, within a given geographic area, state, Catholic, Protestant, and private dispensaries coexisted, each with an independent adminstration, overlapping coverage, and few, if any, preventive or promotive activities.

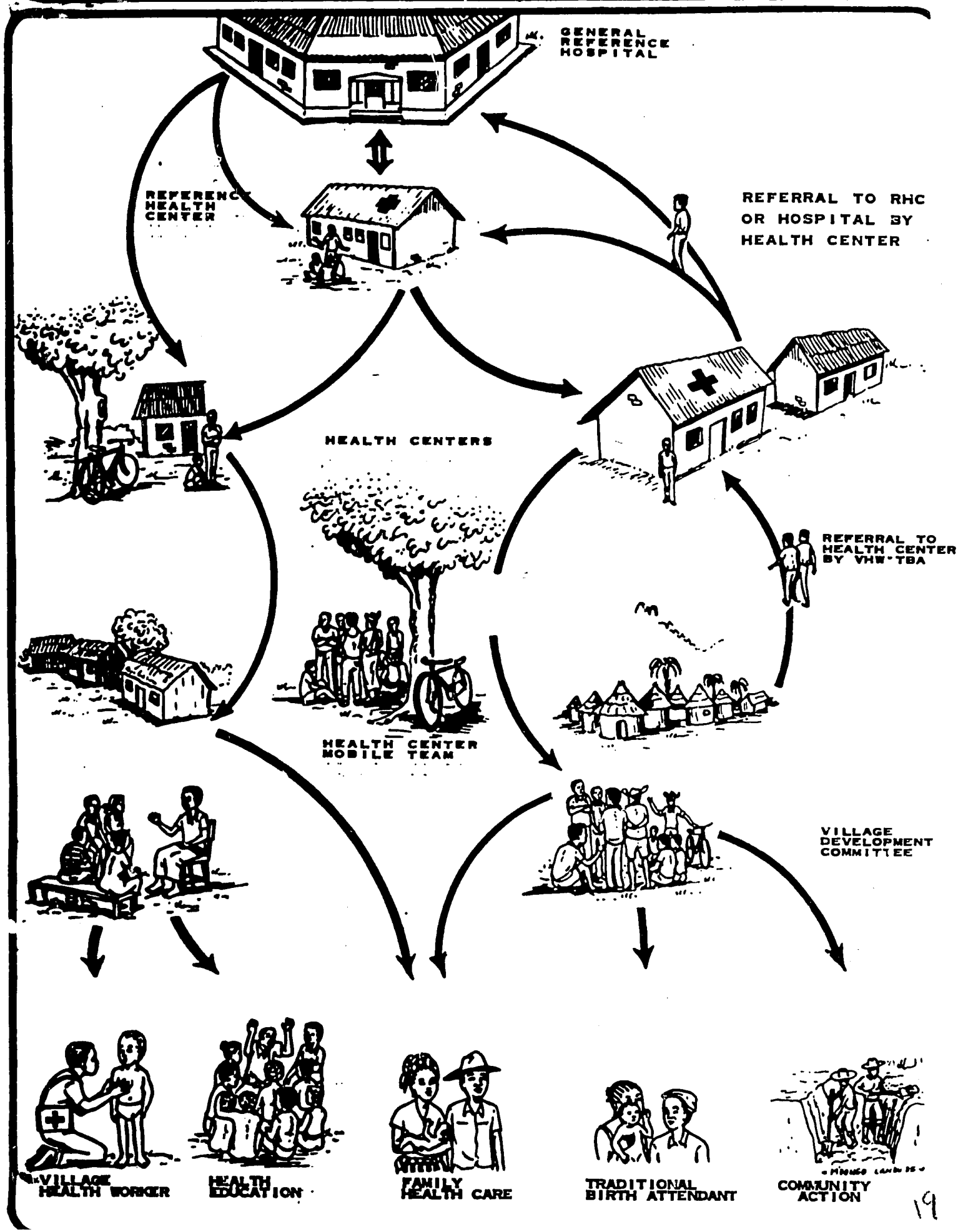
The objective of the National Health Plan is to begin 30 new health zones per year with the goal of 140 health zones functioning by 1986, and approximately 300 RHZs operating by 1991. The plan proposes that every year each operational health zone would transform 3 dispensaries into health centers with functioning primary health care programs. At this rate, approximately 70% of the population would have access to primary health care services by the end of 1991.

Each rural health zone serves a population of 60,000-150,000. The boundaries of the RHZs do not necessarily correspond to political-administrative divisions but are planned to respect ethnic and/or geographic areas that can reasonably be supervised by the RHZ team. The health zone limits are proposed by the zone reference hospital and approved at the regional level. Each RHZ has a reference hospital, which includes the central office of the zone, 1-3 reference health centers, and 15-25 health centers, each with a catchment area of 3,000-10,000 people. Each health center serves 5-10 villages with populations of 400-2,000 per village. (See Figure 2.1)

FIGURE 2.1.

COMPONENTS OF A RURAL HEALTH ZONE

ZAIRE



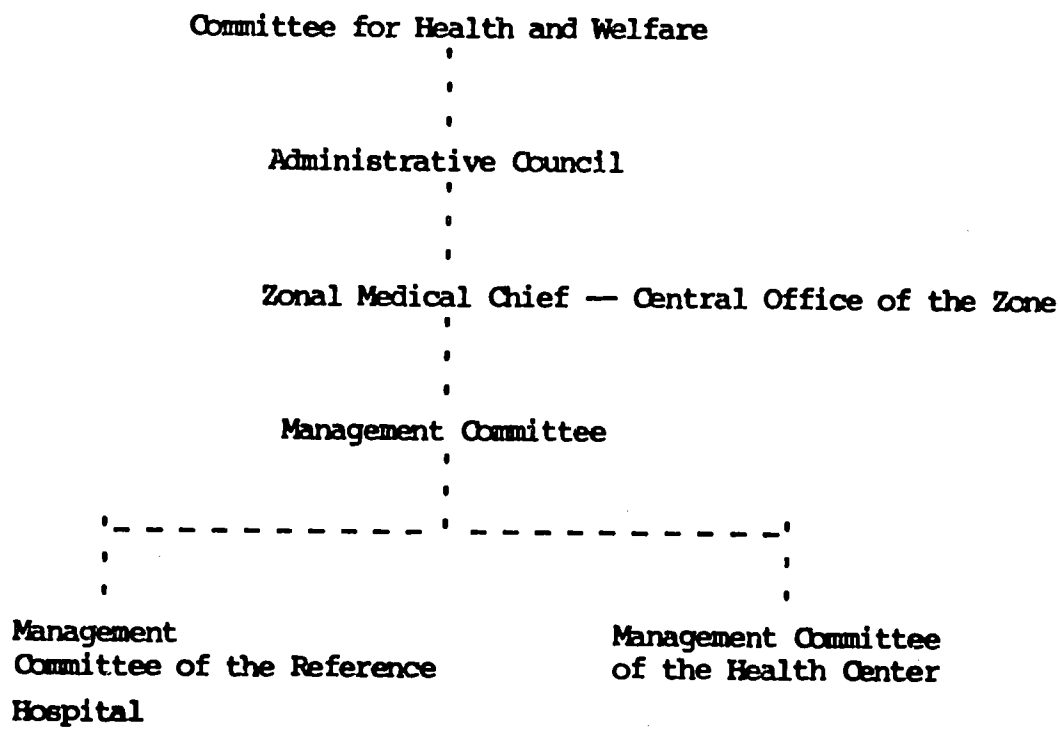
The health center is the key link in the health zone structure. The health center catchment areas are carefully delineated to ensure complete coverage of the population without overlap. Health centers are staffed by at least one nurse and several aides who are responsible for providing basic PHC services and for supervising community-based activities within the catchment area. Approximately 90 percent of health problems can be treated at the health center; the remaining 10 percent are referred to a reference health center or to the reference hospital.

Reference health centers (RHCs) are established as intermediate structures in areas of health zones that are relatively far from the hospital. A reference health center is staffed and equipped to treat all but the most serious referred cases (which require specialized services). The RHC also serves as a supply depot for vaccines and medications that are required by surrounding health centers.

(2) Management

Rural health zone activities are coordinated and supervised by the medical chief and the central office of the zone. Each zone has a Committee for Health and Welfare, with representation from the traditional health sector and communities within the zone, which has oversight reponsibility for health activities. An Administrative Council is responsible for administration of the health zone. The council includes the sub-regional medical chief, the zonal medical chief, the medical director of the reference hospital, and respresentatives from every organization in the zone that is involved with health activities. A Management Committee, which assists the medical chief with the execution of the program formulated by the Administrative Council, includes the zonal administrator, supervisors, pharmacist, as well as representatives from all of the health centers (See Figure 2.2).

Figure 2.2 Organization Chart of the Rural Health Zone



The RHZ central team generally includes a medical chief, a public health administrator, a secretary, and one or more nurse supervisors. There is also a person responsible for coordinating drug distribution; frequently this is the same person who manages the hospital pharmacy. Some RHZs have a mechanic, and the GOZ also foresees the addition of a water and sanitation supervisor to the central zone office.

The principal responsibilities of the RHZ team include:
- coordinating all health-related activities within the zone
- mapping of the health zone
- training and continuing education of health personnel
- technical supervision of the health centers
- maintaining a secure supply line
- overseeing the financial management of the health centers
- collecting and analyzing statistical reports from the health centers and providing feedback to the HCs

The RHZ team is responsible for coordinating all health-related activities within the zone. Once the zone is officially recognized, the team delineates catchment areas of the health centers, generally with a radius of 10-15 kilometers. The RHZ team ensures that the personnel are trained to carry out the primary health care program, and it coordinates all specialized programs at the zonal level (e.g. tuberculosis, family planning, vaccinations, etc.).

Training and continuing education are of primary importance not only from a technical point of view but also to provide continuing motivation to the health personnel. While pre-service formal training of nurses, adminstrators and physicians in Zaire is in the process of being reoriented to primary health care, the immediate efforts focus on retraining the health care providers already in place. To accomplish this, members of the RHZ team participate in a "training of trainers" course. They are then responsible for training the health center nurses and others in the zone who are involved in the primary health program and who in turn train village development committees (VDCs), village health workers (VHWs), and traditional birth attendants (TBAs).

Regular supervision has been identified as an essential element for sustaining an effective primary health care program. Thus one of the most important activities of the central office is to maintain a schedule of regular visits to each health center by one or more members of the RHZ team to provide technical and administrative supervision of every health center in the zone.

The central office of the zone is also responsible for maintaining a secure supply line. The health zone establishes a central pharmacy from which the individual health centers are supplied on a monthly basis. Usually these supplies are transported on foot or by bicycle. Assuring maintenance of the cold chain for vaccinations is of utmost importance and is the reponsibility of the national Expanded Program on Immunization (EPI). It is planned that four to six kerosene or solar refrigerators will be situated strategically throughout the zone. Each health center would have its own coldbox to permit temporary storage of vaccines supplied from the nearest available refrigerator.

Centralization of statistical reports is another important central office function. Prior to 1982, different medical services (state, Catholic, Protestant) designed their own reporting forms and reported only their own, principally curative activities. In general, there was no regular reporting; consequently no reliable national statistics have been available. In 1983, an important step toward rationalizing the system was taken with the design of a national reporting form indicating what information to collect and how to analyze the data locally to provide immediate feedback and evaluation of the services. The system, which is still undergoing testing and refinement, provides data on:

- Accessibility of services -
  (e.g., what percent of health centers have under-five clinics?)
- Utilization of services -
  (e.g., what percent of children attend the under-five clinics?)
- Impact of services -
  (e.g., what percent of children have adequate growth curves?)

(3) Community Activities

Community participation in initiating and carrying out village-level services is critical to the development of an effective primary health care system. There are a number of preventive, promotive, and basic curative services that will have a significant effect on improving health status that can be delivered at village level. In particular, essential services such as oral rehydration therapy, nutrition surveillance, promotion of immunizations, presumptive malaria treatment and prophylaxis, and water and sanitation improvements will result in widespread benefits to the rural population if they are available close to where people live.

Recognizing the importance of providing services at the village-level, rural health zones have introduced community-based primary health care activities. Two somewhat distinct models have evolved. In one, the RHZ team has encouraged the formation of village development committees. Members of these committees are trained and supervised by the health center staff. Each member of the committee performs one or

more tasks, such as health education, the promotion of environmental sanitation, water source improvement, encouraging participation in maternal and child health (MCH) services, or follow-up home visits (e.g., to ensure that tuberculosis patients continue therapy). This model is more common in zones that are relatively densely populated, where villages are less than ten kilometers from the health center, and the population has access to the services provided by the nurse at the center.

The other model emphasizes the selection by the village development committee of one or two persons to be trained as village health workers. This approach is typically found in zones that are sparsely populated and/or have fewer dispensaries or health centers. In these zones, the RHZ teams and health center staff train VHWs and, in some cases, TBAs to provide basic services. The village-level workers conduct under-five clinics, engage in health promotion, and are trained to recognize and treat a few common symptoms, such as fever and diarrhea. TBAs are trained to recognize and refer high-risk cases and to provide safer home deliveries. The VHWs are administratively supervised and supported by the village development committee and are technically supervised by the health center nurse. Any compensation the VHW receives for his/her services comes from the VDC rather than the RHZ. Some VHWs sell a few basic medicines and are permitted to keep a portion of the charges. TBAs are generally compensated for their services, frequently in kind.

Some zones have also promoted the establishment of health-center committees composed of members of the VDCs in the catchment area. These committees are responsible for managing health center activities and finances.

2.2.3. The Ministry of Health (MOH) Primary Health Care Structure

Responsibility for the rural health zones falls under the regional medical inspectors (RMIs) for the eight rural regions, who are directly responsible to the Secretary General of the MOH. The RMI, assisted by sub-regional medical inspectors, coordinates all medical activities in the region. He/she has responsibility for:

- delimitation of heath zones within the region
- evaluation of health zone programs
- supervision of health zones
- organization of in-service training and seminars for personnel in the region
- requesting personnel for the region and appointing them to their positions
- coordination of operations research
- collection and analysis of health statistics

There are six technical departments under the Secretary General. The Fifth Department, which is the Department of Primary Health Care, was established in 1982 to provide support to the PHC activities of the RHZs. However, this department has been weak. In order to further strengthen the MOH capability to support and coordinate PHC, the MOH has drafted a proposal to create a semi-autonomous governmental organization which would be attached to the MOH but would have an independent budget and staff. According to the proposal, the organization will have four divisions with well-defined responsibilities:

(1) Administration and Finance
- general administration
- personnel management
- financial management
- logistic supply systems

(2) Planning
- planning the integration and coordination of the activities of national programs
- providing assistance to the RHZs in programming, budgeting, evaluation, and planning logistic support
- coordination of donors
- coordination of responses to epidemics and other catastrophes

(3) Training and Supervision
- coordination of training activities
- training of RHZ personnel
- selection of candidates for scholarships
- support for introducing systems of supervision at national and regional levels

(4) Information and Operations Research
- collection, analysis, and distribution of health information
- support for developing a national health information system
- coordination of operations research
- establishment of a primary health care documentation center

In addition, there are several specialized national programs that support PHC activities, including immunizations, nutrition, family planning, and tuberculosis.

2.3. Rural Water and Sanitation Strategy

At the time of independence, the agency responsible for rural water development, "Fonds du Bien-Etre Indigene" (FBI), was disbanded. Thus, there was no organization to install and maintain rural water services. Some scattered efforts, supported by religious and other non-governmental organizations and the GOZ agency, REGIDESO, organized a few water supply projects for non-urban but densely populated areas. However, between 1960-1980, the rural population experienced a decline in access to potable water as FBI installations fell into disrepair and little new activity took place.

Since 1980, there has been a notable turn-around in support for rural water activities in Zaire. In response to the United Nations Decade of Water and Sanitation: 1981-1990, programs in rural development were intensified, primarily with assistance from UNICEF. In 1981, several rural hydraulic stations were reactivated by the GOZ Ministry of Agriculture and Rural Development, in collaboration with UNICEF. In 1983, the National Rural Water Service (SNHR) was established within the Ministry to coordinate rural water activities.

On December 5, 1984, in his inaugural address, President Mobuto stressed the need for and his committment to an expanded rural water program. He also announced the GOZ's objective of providing 50 percent of rural inhabitants with potable water by the end of his third term in office, 1991. This directive called upon all the development agencies in Zaire to contribute to achieving this goal under the coordination of SNHR.

In May 1985, a national conference on Policies and Strategies for Rural Water and Sanitation (in Zaire) was held with USAID support. Starting with a draft policy and strategy that had been developed by Zairian experts with USAID and WASH assistance in February 1985, the conference participants reviewed, revised, and adopted a basic policy and strategy document for rural water development. The conference document has been approved by the National Action Committee for Water Supply and Sanitation and will be presented to the Executive Council for official GOZ approval. The document calls for a National Water Planning Unit to be headquartered at SNHR. The proposed Planning Unit will be composed of representatives from all major agencies involved in water and sanitation development. The unit, which will serve as an information clearinghouse, will develop a coordinated strategy for implementing the rural water program to be carried out by SNHR, along with participating non-governmental organizations and donors.

2.4. SANRU I

2.4.1. Brief Description

The USAID-funded Basic Rural Health Project (660-0086) is known in Zaire as SANRU I or SANRU 86 (Project des Soins de Santé Primaire en Milieu Rural). The project grant agreement was signed in August 1981. SANRU I became operational in January 1982, and is funded through September 1986. SANRU I is a bilateral project between the Government of Zaire, represented by the Ministry of Health (MOH), and USAID. The project is administered on behalf of the MOH and USAID by the medical office of the Church of Christ of Zaire (ECZ).

SANRU I was launched shortly after the MOH officially adopted the WHO goal of "Health for All" and the project life is coincident with the first National Health Plan (1982-1986). SANRU I was designed to support this strategy by providing assistance to 50 rural health zones (RHZs) to develop an effective program of preventive, promotive, and basic curative services. Within those 50 RHZs, SANRU I is assisting with the conversion of 250 dispensaries into full service self-sustaining health centers that serve the rural population.

SANRU I support includes technical assistance, commodities, the development of training materials as well as the organization of training sessions, transportation, and temporary financing of some operational costs. SANRU provides technical assistance to the zonal team in the areas of management, logistics, health information collection and analysis, and supervision. The project also supplies basic office equipment for the central office, motorcycles, vehicles, and subsidies for gasoline to support supervision of the health centers. Limited funds are also available to the zones for construction materials used in spring capping. In addition, funds have been made available to SANRU from the GOZ investment budget for rehabilitating health centers.

The project assists RHZs by training medical chiefs of zones and zone supervisors in PHC management. Financial assistance is also available for training programs for health center nurses, VHWs, TBAs, and village development committees. SANRU support is primarily for teaching materials and supplies and for subsidizing trainers from neighboring health zones. According to SANRU policy, 30-50 percent of training costs are supported by local contributions.

At the health-center level, SANRU provides basic medical equipment, an initial stock of medications (for approximately 6 months), bicycles to enable the staff to visit neighboring communities, and health education materials. Health center charges for consultations and medications are meant to ensure that the centers will be self-financing after the initial SANRU support.

2.4.2. Major Achievements

SANRU I has made excellent progress in extending coverage of primary health care services. To date, SANRU I has helped to set up 45 rural health zones and to convert 150 dispensaries to full-service health centers. By the end of the project, 50 RHZs will have been assisted and 250 health centers created. ECZORT, a complementary project that is also administered by the ECZ, and is funded by the PVO Economic Support Project (660-0097), will have supported the development of another 200 health centers within the 50 SANRU I-assisted zones. Thus, based on the need for an average of 20 health centers per RHZ to provide total coverage, by the end of the project an additional 45 percent of the population of project zones will have access to services. (Approximately 150 health centers were functioning at the outset of the project and other donors have supported about 100 centers bringing total coverage by the end of the project to almost 70 percent.)

Training will probably have the most far-reaching impact of all of the SANRU I activities. To date, SANRU I has achieved a high proportion of the anticipated project training objectives. (See Table 2.1) Specifically, SANRU I has been very successful in training a large number of medical chiefs of zones and health center nurses, the key personnel in developing effective RHZ programs. In addition, SANRU I has supported national and regional seminars and workshops that have been instrumental in promoting the implementation and coordination of primary health care in Zaire, and numerous training-of-trainers sessions, and zone-level training efforts.

Table 2.1 SANRU I Achievement of Training Objectives, 1984

	Anticipated over LOP	Output 1984	% of LOP objective
Village Health Workers	1,500	1,000	67%
Traditional Birth Attendants	400	300	75%
Village Development Committees	3,000	1,800	60%
Nurses	750	650	87%
Supervisors	50	19	38%
MD/Administrators	50	45	90%
Master of Public Health	30	4	13%

SANRU I has made an important contribution toward developing a decentralized national health care system. Some RHZs already have a nearly full complement of trained personnel, effective community development committees, and VHWs throughout the zone. In some zones, the health centers are fully self-financing; a few are even able to contribute to supervision costs. However, not all SANRU-assisted RHZs have been equally successful in implementing the program. In some, only one or two health centers have been created. In others, the requisite community participation has been slow to materialize. Elsewhere logistic support has been inadequate or effective management systems have not been implemented. Thus, in order to fully realize the potential of SANRU I, continuing donor assistance to the rural health zones will be necessary for some time.

2.5. Rationale for SANRU II

Although SANRU I has been a successful project according to project indicators and has played the major role in building a strong foundation for a national primary health care system, continued USAID financing in the health sector is warranted. SANRU I focused on initiating and developing community-based activities; these need to be expanded and reinforced. In addition, a follow-on project is necessary to build up the regional and national planning, supervisory, and logistic support systems necessary to ensure a sustainable primary health care program.

SANRU I resulted in increased coverage of primary health care services in 50 rural health zones. However, barely one-sixth of the rural health zones in Zaire have been affected and only a small proportion of the requisite health centers have been established. It will take more time and additional resources to create a nucleus of well functioning health zones throughout the country and to fully institutionalize the necessary training and management systems.

The GOZ is strongly committed to primary health care both philosophically and materially. The second National Health Plan (1986-1990), covering the period of the SANRU II project, reiterates the primary health care strategy and reinforces the decentralized rural health zone concept. The GOZ has also demonstrated its commitment by making a major contribution of resources, primarily by personnel, to the RHZ structure, and by allocating funds from the investment budget. The commitment is manifested by the enthusiasm and dedication of GOZ personnel at national, regional, and rural health zone levels.

The Government is also establishing a semi-autonomous governmental organization which will support primary health care activities. SANRU II assistance to this organization will strengthen the capability of the GOZ to coordinate national and donor inputs to PHC, to develop a national information system for monitoring and evaluating the health services, and to document and disseminate information on PHC activities in Zaire.

The major recommendation of the midterm evaluation of SANRU I, in May 1984, was to expand and extend the project: "The Basic Rural Health Project should increase the number of Rural Health Zones to be developed from 50 to 100, and the Rural Health Centers to be converted, from 250 to 650. The project should be extended 4-5 years, with new funds starting in FY 86." SANRU II will add 50 more RHZs to the 50 that have received SANRU I assistance. The selection of RHZs for SANRU II assistance will be made in collaboration with the regional medical inspectors, using criteria established by the MOH. The criteria include: official delimitation of the zone, a functioning reference hospital with a record of good management, at least one physician on full-time resident staff, an expressed interest in PHC demonstrated by existing activities, a capacity for training personnel, demonstrated need for SANRU II assistance, and a capacity for program sustainability.

A strong referral system is essential to establish the credibility and effectiveness of a community-based primary health care system. This has been recognized by the GOZ, which has allocated funds for the rehabilitation of hospitals and health centers. Renovation of health centers and reference hospitals will be a significant component of SANRU II. The emphasis will be on upgrading clinical maternal and child health services that most directly support primary health care. Also, recognizing that a secure supply line of pharmaceuticals is critical to the support of rural health services, SANRU II will provide assistance to the MOH and the regions to ensure a more reliable drug distribution system.

In addition to the direct benefits that SANRU II will provide to the rural health zones, the project will act as a catalyst, attracting funds and technical assistance from other donors thus further enhancing the effects of AID financing. By the end of SANRU II, approximately one-third of the RHZs in the country will have been strengthened with AID assistance. These zones will be well distributed throughout the country and will provide an example to others.

SANRU I-assisted RHZs have experimented with numerous diverse approaches to the organization and delivery of primary health care services at the community level. By the end of SANRU I, some zones will have had enough experience to begin analyzing and evaluating their approaches. The documentation and dissemination of information concerning reasons for achievements and for shortcomings, and the application of lessons learned, will be a very important component of SANRU II which should have a major effect on the long-term potential for community-based primary health care services in Zaire.

The family planning program is at a very nascent stage in Zaire, particularly in the rural areas. The Family Planning Services Project (PSND) (660-0094), which is supporting the promotion of birth spacing in urban areas, is collaborating with SANRU I to provide training in family planning. SANRU I is also providing contraceptives. However, the rates of acceptance are still very low. Increasing the prevalence of family planning will require continued effort by SANRU II over the next few years and an expansion of the network of functioning health centers.

SANRU I has a relatively minor water component — the provision of materials for spring capping in some of the RHZs. However, access to adequate quantities of safe water is critical to the long-term success of the primary health care program. As very few of the communities in SANRU I-assisted RHZs have an adequate source of water, a significant effort to improve access to water is envisioned for SANRU II.

In conclusion, SANRU II will further strengthen the efforts begun in SANRU I to develop an effective primary health care program that is coordinated by the GOZ and implemented by an array of state, religious, and private organizations. SANRU II will continue to provide technical assistance and commodities to increase the number of functioning RHZs and health centers and to upgrade the preventive, promotive, and basic curative services that are available. SANRU II will strengthen national and regional planning and management, regional supervision, and the coordination of diverse health services at all levels. The project will assist the GOZ to institutionalize a sustainable national health care system that is acceptable to and supported by the population.

3. LOGICAL FRAMEWORK NARRATIVE

3.1. Goal and Purpose

The overall goal of SANRU II is to improve the health status of the rural population by increasing the proportion of rural Zairians that have access to basic health services. The goal supports both the GOZ's health goal of "health for all by the year 2000" and USAID's mandate to develop programs to improve the quality of life of the rural poor. The project will attain its goal by assisting the GOZ with the development and reinforcement of those elements of the health care delivery system that will have the most significant effect on improving the health of the greatest number of people: village-based primary health care services and rural health centers.

The purpose of the project is to establish in 100 rural health zones a sustainable system of community-supported preventive, promotive, and basic curative primary health care services to combat the ten most prevalent public health problems in rural Zaire. These problems are:

- malnutrition
- anemia
- malaria
- measles and other vaccine-preventable diseases
- diarrhea
- intestinal parasites
- respiratory infections
- tuberculosis
- complications of pregnancy
- local endemic diseases (cretinism, schistosomiasis, sexually-transmitted diseases, trypanosomiasis, leprosy, etc.)

The major emphasis will be directed toward 50 new rural health zones and continued support will be provided to further strengthen the 50 RHZs assisted by SANRU I.

3.2. End of Project Status (EOPS)

By the end of the seven years of AID assistance programmed under SANRU II, a system offering basic preventive and curative services will be in place and functioning on a sustainable basis in 100 rural health zones, including 50 RHZs assisted by SANRU I and 50 additional zones.

Water supply systems will be provided to nearly 1,500,000 people by simple technologies such as wells, spring capping, and gravity-flow distribution systems.

Various supporting systems will be in place in order to sustain these services:

- A functioning institutionalized system within the Ministry of Health of regional and sub-regional supervision and coordination of health zones.

- A functioning institutionalized system at the health zone level for training lower and middle level personnel in the planning, organization, and delivery of PHC.

- A national system for coordinating, supervising, as well as gathering and sharing information on PHC activities among health zones throughout Zaire.

- A national unit for planning and coordination of water activities in Zaire.

- A national and regional support system for sub-regional water brigades.

3.3. Project Outputs

The projected outputs, based on increasing coverage in 50 SANRU I-assisted rural health zones by 20 percent and in 50 SANRU II-assisted zones by 52 percent, are as follows:

3.3.1. Training

- 88 physicians and administrators trained at M.P.H. level in primary health care management at the School of Public Health (660-0101)
- 200 nurse supervisors trained as trainers and supervisors of community-based PHC activities
- 125 water and sanitation supervisors trained for the rural health zones
- 2,140 health-center nurses and auxilaries trained in health center management and community organization
- 2,000 village health workers trained to provide PHC services
- 1,000 traditional birth attendants trained to provide improved deliveries

3.3.2. Primary Health Care Activities

- 3,000 village development and health-center committees formed and active
- at least one percent of the women of childbearing age in an RHZ accept family planning each year after the second year of SANRU II assistance to that RHZ
- 52 percent of children under five living within 50 SANRU II-assisted RHZs have access to under-five clinics
- 52 percent of women of childbearing age living within 50 SANRU II-assisted RHZs have access to prenatal clinics
- 1,000 villages successfully complete a village sanitation program with at least 90 percent of households having a usable latrine
- 3,000 local water sources protected/improved

3.3.3. Infrastructure

- 50 new RHZs established
- Central offices for 50 rural health zones constructed/rehabilitated
- 150 hospitals/health centers equipped with solar-powered refrigeration
- 720 health centers opened or converted from dispensaries and providing basic preventive, promotive and curative health services following the GOZ's model
- 1,705 wells installed
- 172 gravity-fed or hydraulic-ram water-distribution systems constructed

3.4. Project Inputs

3.4.1. AID Inputs

Technical Assistance

Twenty-six years of long-term technical assistance will be provided including: the project manager (6 years, beginning in 1987 when SANRU I funding of the project manager ends); a deputy project manager/rural PHC coordinator (5 years); a community-development specialist/training advisor (3 years); a water and sanitation planner to work with the National Rural Water Service (2 years); a rural-water field-operations advisor (5 years); a deputy project officer for the USAID Public Health Office (5 years).

Eighty-seven months of short-term technical assistance will be provided with an approximate breakdown as follows: training (11.5 months); water and sanitation (19.5 months for the SNHR and 10 months for the MOH totaling 29.5 months); drugs/logistics (13 months); social science (6 months); operations research (6 months); health information system (6 months); management/financial management (6 months); health economics (3 months); and external project evaluation (6 months).

Training

Approximately 75 national health officials, SANRU staff members, RHZ medical chiefs, and sub-regional water and sanitation engineering technicians will attend short courses and conferences out-of-country. Fourteen faculty members of nursing and medical schools will be sent for 3-month training in the African region. Six national health officials, including two water-sanitation engineers, will be sent to the U.S. for a 1-to-2 year master degree program.

Commodities

A standard complement of medical equipment and supplies will be provided to 720 health centers and 50 reference hospitals; 100 reference health center and 50 reference hospitals will be equipped with solar refrigerators. Basic office equipment and supplies will be provided to 50 RHZ offices, 21 regional

or sub-regional medical inspection offices, 6 regional or sub-regional pharmaceutical warehouses, 30 rural water brigades, and the National Rural Water Service. Micro-computers, printers, and software will be provided to regional and sub-regional offices and pharmaceutical warehouses. One hundre RHZs will receive solar calculators. Training materials and audio-visual equipment will be furnished to 50 RHZ offices, and information, education, a communication (I, E, and C) materials to 720 health centers.

The project will provide four-wheel drive vehicles to 21 regional and sub-regional medical inspectors' offices, and to 50 rural health zones. SNH will also receive 12 such vehicles. Four motorcycles will be provided to ea of 50 RHZs, 58 motorcycles will be provided to water brigades, and 70 motorcycles will be provided to Peace Corps volunteers (PCVs), while 720 health centers will receive 3 bicycles each.

Thirty rural water brigades will be supplied with light equipment for installing water systems; three brigades will receive intermediate-level well-drilling equipment. Supplies for 3,000 spring boxes, 1,705 wells, 172 water distribution systems, 2,000 ventilated improved pit (VIP) latrines, an approximately 250 rainwater-catchment cisterns will be furnished to rural health zones.

In addition, there will be indirect AID inputs to SANRU II through AID centrally-funded projects and other AID-funded projects in Zaire.

(a) AID Centrally-funded Projects

The Water and Sanitation for Health (WASH) Project will provide technica assistance in training, national water and sanitation planning, engineering, and commodity procurement. (Through "buy-ins," SANRU II will share with WAS the costs of the TA.) The Primary Health Care Operations Research (PRICOR) Project will provide technical assistance in developing an operations resear capability. Other projects such as Population Communications Services (PCS) and the John Hopkins Program for Information and Education in Gynecology and Obstetrics (JHPIEGO), will provide technical assistance and training in I, E, and C and family planning. The Association for Voluntrary Sterilization wil provide equipment for upgrading operating-room services.

(b) Other AID-funded Projects in Zaire

Several other AID-funded projects in Zaire will collaborate with and contribute to SANRU II, including the School of Public Health Project (660-0101); the Area Nutrition Improvement Project (CEPLANUT) 660-0079); Combatting Childhood Communicable Diseases Project (CCCD) (698-0421); the Family Planning Services Project (PSND) (660-0094); and the PVO Economic Support Project (660-0097). The types of collaboration are specified in sections 4.1.3., 4.2.2., 4.2.4., and 2.4.2.

3.4.2. Peace Corps Inputs

Peace Corps will provide approximately 150 health and water volunteers to project-supported rural health zones. These volunteers will assist with: training health zone personnel, VHWs and TBAs, promoting creative approaches to health education; setting up and improving management information systems at the central office of RHZs; and the supervision of health activities in the health centers and communities. The water volunteers will provide technical assistance and training to rural water and sanitation supervisors in the rural health zones. Two to four volunteers will be recruited to work with the rural water brigades that have drilling equipment.

3.4.3. National Contributions

(1) Government of Zaire (GOZ) - Operational and Investment Budgets

The GOZ will pay the salaries of MOH personnel at the regional and national levels, including central and regional staff of the Department of Primary Health Care (Fifth Direction), the regional and sub-regional medical inspectors and their staff, and individuals who are seconded to work full-time with the project. At the rural health zone level, the GOZ will pay salaries of the RHZ medical chiefs, other members of the RHZ central office, and two nurses in each SANRU II-assisted health center.

Funds will be available from the GOZ investment budget for the renovation of reference hospitals and for the construction/renovation of additional health centers within SANRU-assisted RHZs. The GOZ provides some operating funds directly to hospitals.

(2) GOZ - Counterpart Funds

GOZ counterpart funds will be used to support most in-country local currency project activities. This will cover the operational costs of the SANRU national office including salaries of non-GOZ personnel, supervisory visits to health zones, operational costs of the health information system, general supplies, and transportation costs. Fuel subsidies provided to health zones will be gradually phased out over five years.

In-country training will include short courses, workshops, and seminars/conferences, as well as the nine-month certificate course at the School of Public Health in Kinshasa. Approximately 900 rural health zone staff will participate in short training sessions, including RHZ medical chiefs, administrators, secretaries, pharmacist technicians, mechanics, water and sanitation supervisors, supervisors/trainers of health center nurses, trainers of village-level workers, and organizers of VDCs. Approximately 100 teachers in medical and nursing schools and 90 sub-regional brigade water and

sanitation technicians will be trained in short courses. Altogether 88 RHZ medical chiefs and regional and sub-regional medical officers will participate in the certificate course at the School of Public Health. At the community level, the project will subsidize short training sessions for 2,140 health-center nurses and auxiliaries, and 3,000 VHWs and TBAs.

Counterparts funds will also be provided to each of the 50 SANRU II assisted RHZs for: the construction or renovation of the RHZ office and warehouse, limited renovation of clinical and laboratory services in 40 reference hospitals, and for the construction or renovation of 500 rural health centers. Six regional or sub-regional warehouses will be renovated or constructed.

(3) Community Contributions

Communities will pay the salaries of some health-center personnel, including auxiliaries and other workers. They will pay for medicines, oral rehydration salts, and consultations to cover the total cost of the medicines, as well as some operating costs of the health centers and supervision by the RHZ central office. Communities will compensate VHWs and TBAs and donate their time to primary health care activities. They will contribute labor and local materials for the construction or renovation, and maintenance of health centers, and water and sanitation installations. Communities will absorb at least half of the costs of training VDCs, VHWs, and TBAs.

3.4.4. NGO and Other Donor Inputs

SANRU II will receive critical support from the Church of Christ of Zaire (ECZ) to administer the project, and provide personnel and office space. In addition, a large proportion of the health services in Zaire are run by Protestant and Catholic missions, including 44 percent of the hospitals. Thus most RHZs which the project will be assisting will include hospitals and health centers run by mission groups or other private organizations. These NGOs provide infrastructure, some personnel, and financial support to operate the health services.

Numerous other donors are expected to contribute to project-assisted activities. SANRU II will collaborate with these donors to ensure that all inputs are complementary. Donors, such as OXFAM and UNICEF, will make significant contributions to the renovation and equipping of health centers within SANRU-assisted zones and to assisting with the procurement and distribution of medical supplies and pharmaceuticals. UNICEF is planning to provide equipment, vehicles, and training to some project-supported rural water brigades. Other organizations will provide technical assistance and support to SANRU II-assisted training programs.

4. PROJECT ACTIVITIES

4.1. Rural Health Zone Development

The primary focus of SANRU II will be the development of rural health zones. This will include further strengthening of the 50 RHZs that were assisted under SANRU I and the creation and development of 50 new RHZs. The project objective is to increase coverage in SANRU I-assisted zones by 20 percent and in SANRU II-assisted zones by 52 percent.

4.1.1. Infrastructure

SANRU II will support the establishment of 50 new RHZs by 1992. The development of 15 new RHZs will be initiated during each of the first two project years and 10 each during each of the next two.

In total, 720 health centers will be established during the project including 100 reference health centers. Most of them will be created by transforming dispensaries that are providing primarily curative care into full-service health centers; in some cases this will entail merging several dispensaries. In a few instances, health centers will be established in places where there were no health units previously. Most reference health centers will be developed by converting dispensaries or upgrading ordinary health centers. Some will be secondary hospitals that will serve as referen health centers.

In the 50 health zones already assisted by SANRU I, an average of one ne health center will be added each year for four years. On average, two new health centers will be added each year of the project to each new RHZ assiste under SANRU II, except for the final year of the project when only one healt center will be added. Thus the zones established in the first year of SANRU II will have an average of 13 health centers by the end of the project (See table 4.1). The design team believes that, within the project timeframe, the proposed rate of expansion can be accomplished. The SANRU II mid-term evaluation will assess the rate of expansion and consider whether it would be advisable to increase or cut back the project's scope.

Table 4.1. SANRU II: New Health Centers, by Year

	86	87	88	89	90	91	92	Total
SANRU I-assisted RHZs*								
Health Centers		45	45	45	45			180
Reference Health Centers		5	5	5	5			20
SANRU II-assisted RHZs								
(New RHZs)	(15)	(15)	(10)	(10)				
Health Centers	24	52	70	88	88	84	34	440
Reference Health Centers	6	8	10	12	12	16	16	80
TOTAL	30	110	130	150	150	100	50	720

* SANRU I ends September 30, 1986

The project will contribute to the construction or renovation of 500 health centers. The community will provide the labor and necessary materials that are available locally. SANRU II will provide roofing and other essential materials that are not available locally. The project will support the construction or renovation of a central office and warehouse for every rural health zone. In addition, the SANRU II will finance limited renovation of clinical and laboratory services in 40 reference hospitals to ensure the necessary back-up to community and health-center level PHC services.

4.1.2. Organization, Management, and Supervision

As a first step in implementing a new rural health zone program, the medical chief, in collaboration with other members of the RHZ team and the Administrative Council, draws up a preliminary plan for phased development of the zone. A schedule for establishing new health centers is developed which reflects the readiness of individual communities to participate in and support the centers. As most rural health zones include services that are provided under state, religious, and/or private auspices, these groups work out an approach to coordinating zonal activities, according to guidelines established by the MOH.

At the RHZ level, the project will provide training and technical support to assist the RHZ central-office team (i.e., medical chief, administrator, pharmacist, supervisors) to establish systems of financial and program management, supervision, logistic support, and regular statistical reporting. The RHZ team helps new health centers establish fee structures for health-center activities so that as they become functional they move toward self-financing. Each new center receives an

initial supply of medications from the project. The proceeds from consultations and from the sale of the drugs will enable the health center to replenish these stocks and also to finance other operating costs, including the salaries of auxiliaries. The team also schedules regular supervisory visits to the health centers and is responsible for planning and coordinating all training activities within the zone.

The project will also support training of water and sanitation supervisors for the rural health zones who will be responsible for involving communities in the water and sanitation program, planning and scheduling water and sanitation activities in the zone, and coordinating the implementation and maintenance of new installations (see section 4.3.3.).

At the health-center level, 1 or 2 nurses and auxiliaries will be trained to administer the health center, to deliver PHC services at the center and within the communities, to motiviate the communities, and to collect and report statistics on health-center and village health activities. The staff will also be trained to organize the health-center committee and to train and supervise the village development committees, village health workers, and traditional birth attendants.

4.1.3. Delivery of Services

SANRU II will provide training and technical advice, and support the requisite supervision to assist health centers to become fully functional. By definition, a functioning health center provides the population within its catchment area access to a full complement of primary health care services. In general, primary health care includes: under-five clinics; vaccinations; prenatal clinics; supervised deliveries; family planning; health and nutrition education; nutrition rehabilitation (in areas where malnutrition is a significant problem); basic curative services, including simple laboratory exams; support for water and sanitation activities; and the control of endemic diseases.

Under-five clinics are a fundamental component of the GOZ and SANRU PHC strategy and will be introduced as soon as a health center is established. Generally, under-five clinics are scheduled several times a month at the health center and once a month at each of several satellite communities. These clinics are conducted by the health center nurse with the assistance of village-level health workers. The major components of the under-five clinic are nutritional surveillance, immunizations, family planning, oral rehydration therapy, presumptive treatment of malaria (single-dose chloroquine for fevers), and health and nutrition

education. A nationally accepted child growth chart, developed in collaboration with the Area Nutrition Improvement Project (660-0079), is used for monitoring health and nutritional status. Children at risk or ill are given appropriate nutrition education and treated or, if necessary, referred for curative health services and/or nutritional rehabilitation. Promoting breast feeding and the use of appropriate weaning foods is an important element of health education activities in under-five clinics. Children that cannot be treated at the health center are referred to a reference health center or hospital.

The Combatting Childhood Communicable Diseases Project (CCCD) (698-0421) will provide, in collaboration with SANRU II, training, commodities and logistic support to expand vaccination coverage, presumptive malaria treatment and chemoprophylaxis for pregnant women, and oral rehydration therapy (ORT). Immunizations are administered against six childhood diseases: tuberculosis, diphtheria, whooping cough, tetanus, poliomyelitis, and measles. The objective is to introduce a full vaccination program into each RHZ by the second year of SANRU assistance and to strive toward the national goal of 80 percent coverage of the target population.

Prenatal clinics include prenatal education, the examination of pregnant women to screen and control risk factors, tetanus immunizations, and malaria prophylaxis. Supervised deliveries are provided by nurses or trained auxiliaries in most health centers. As a significant number of births are attended by traditional birth attendants (TBAs), many SANRU-assisted RHZs will train TBAs to upgrade their skills in detecting at-risk pregnancies and in performing deliveries at the village level.

SANRU II, in conjunction with the local IPPF affiliate (Comité National de Naissances Desirables: CNND) and the USAID-supported Family Planning Services Project (PSND), will facilitate training in family planning for RHZ supervisors and will ensure the provision of contraceptives and educational materials. The PSND will contribute the contraceptives to SANRU, but the project will be responsible for their distribution to the RHZs. SANRU II will also make use of the PSND/CNND network of trainers, basic family planning curriculum, and clinical training sites. The objective of SANRU II is to recruit an average of one percent of women of childbearing age in an RHZ as new acceptors of family planning each year after the second year of project assistance to that RHZ. Health centers offer family planning education and services, while the health center nurse also trains village development committees, VHWs, and TBAs in family planning promotion. In some project-supported zones, these village-level workers will distribute contraceptives.

The project will train RHZ supervisors and provide information, education, and communication (I, E, and C) materials to enable the zones to carry out a program of health and nutrition education at the health-center and community levels. The RHZ trainer will train the

health-center personnel who, in turn will organize and train village development committees, village health workers, and traditional birth attendants. Health education is critical in developing the community's awareness of the responsibility individuals must take for their own health care.

Curative services (especially malaria treatment, ORT, and antibiotic treatment of acute respiratory infections) are essential to improve health status and gain the confidence of the population. The various services that will be upgraded with project assistance will enable nearly all patients to be appropriately treated or referred for treatment within the RHZ system, according to the nature and severity of the illness. SANRU II contributions toward improving the system of curative services from the village level to the reference hospital will include: training trainers of VHWs, TBAs, and health-center personnel, introducing standardized strategies for treating common illnesses, and providing diagnostic equipment to reference hospitals and health centers as well as the initial stock of drugs to enable them to establish revolving funds for medications.

The focus of water and sanitation activities at RHZ level will be to sensitize the communities to the importance of community action to improve access to clean water and to teach preventive practices that will reduce the incidence of waterborne diseases. A major focus will be the promotion of latrine construction in villages with the objective of attaining at least 1,000 villages in which 90 percent of the households have a usable latrine. SANRU II, in conjunction with UNICEF, will support water and sanitation interventions in the communities, including spring capping, wells, and gravity-fed reticulation systems (see section 4.3.). The project will also train RHZ water and sanitation supervisors who will coordinate community participation and water and sanitation activities within the zones.

SANRU II will promote 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 will combine to combat endemic diseases, including malaria, diarrheal and other waterborne diseases, vaccine-preventable diseases, acute respiratory infections, etc.

4.1.4. Community Participation

SANRU II will support the fundamental principle of the GOZ strategy to decentralize control of the health services and to ensure that the communities themselves take responsibility for the organization, management, delivery, and financing of those services. At every level of the rural health zone structure, the project will support TA, supervision, and training to reinforce community participation. This includes assistance at the RHZ level for the Administrative Council and the Management Committee which are responsible for the administration and implementation of primary health care in the zone. At the health-center level, the project will encourage formation of health committees which include representation from all communities within the catchment area and are responsible for ensuring that the health center is accountable to the communities it serves.

The major emphasis on strengthening community participation will be at village level. The success of the RHZ model depends on extending primary health care into the communities and making basic preventive, promotive, and curative services accessible to the rural population. Organizing village development committees and training VHWs and TBAs are high priorities of the project. SANRU II aims to establish 3,000 village-development and health-center committees and train 3,000 VHWs and TBAs by 1992.

The project will organize training-of-trainers courses for the RHZ nurse supervisors who are responsible for training health-center personnel. SANRU II will also provide didactic materials and assist the zone with the costs of training health center nurses and auxiliaries, who in turn will supervise community activities. The project will subsidize the training of VHWs and TBAs by the health-center staff; the community will absorb the remaining costs.

The village development committees are responsible for community action in supporting the health center and in initiating and sustaining water and sanitation and health-service activities at village level. The VDCs also select TBAs and potential VHWs for training, and administratively supervise them. The health-center staff is responsible for the technical supervision of VDC, VHW, and TBA health activities. The RHZ water and sanitation supervisors will be responsible for technical supervision of water and sanitation activities.

Village-level organization will vary from zone to zone. Some zones will emphasize the organization of VDCs and train the committee members themselves to take on the major responsibility for village-level activities; most zones will also promote the training of VHWs and TBAs to provide services at the community level. In general, village-level activities will include:

- under-five and prenatal clinics provided by the health-center nurse, with assistance from the VHWs, TBAs and/or members of the VDC;
- recruitment of clients for preventive programs, especially immunizations, by VHWS, TBAs, and VDCs;
- health education by VHWs, TBAs, VDCs;
- home visits by VHWs and TBAs for health education, the provision of medicines and contraceptives, and follow-up of clients who have dropped out of programs requiring sequential visits;
- childbirth by trained TBAs;
- oral rehydration therapy, presumptive malaria treatment, and other basic curative services provided by VHWs;
- in some communities VHWs will stock and sell a few basic medicines;
- improvement and maintenance of water sources and installation of latrines with VHWs and members of the VDC taking major responsibility for motivating the community.

The project will support research on the various strategies employed to augment community participation in primary health care in Zaire. Systematic analysis of SANRU I-assisted RHZs' experiences and dissemination of the findings will enable all zones to benefit from the lessons learned.

4.2. Strengthening the Ministry of Health

Strengthening the Ministry of Health to better support the delivery of services in the RHZs will be a major objective of the SANRU II project. This will involve support in four principle areas which correspond to the four divisions of the proposed semi-autonomous governmental organization that is expected to coordinate and supervise all primary health care activities in Zaire. The divisions are: Planning; Training and Supervision; Adminstration and Finance; and Information and Operations Research. These SANRU II activities will be fully integrated into the MOH by the end of the project.

4.2.1. Planning

SANRU II will participate in the technical and planning committees of the MOH that will be responsible for coordination of national and donor activities in PHC. This will enable the MOH to ensure that SANRU II and other donor-assisted activities are complementary, and that the planning and execution of these activities are coordinated within the RHZs.

The SANRU II Project will provide technical advice to assist national and regional planning for PHC and support planning, budgeting, and evaluation activities in the RHZs. The project will also support national and regional seminars to discuss PHC issues, such as defining the structure and organization of functioning RHZs, delimiting the boundaries of RHZs, determining appropriate job descriptions for RHZ personnel, and establishing criteria for evaluating RHZ activities.

4.2.2. Training and Supervision

SANRU II will play a major role in training RHZ personnel (see Sec. 4.1.). The project will coordinate this training at the national level in collaboration with other donor agencies and national programs.

SANRU-assisted national and regional training activities will be institutionalized by appropriate national institutes such as the School of Public Health, the National Rural Water Service, and the national family planning program, as well as by regional nursing schools. One of the most significant training efforts in terms of institutionalizing the SANRU II program will be workshops for teachers of medical institutes and nursing schools. The workshops will enable participants to refine the PHC components of the curricula of health-care training institutes, particularly nursing schools. This will minimize the future need for the type of in-service training provided under SANRU II.

Other in-country training will include a nine-month certificate course for 88 regional health officials and RHZ medical chiefs at the School of Public Health (USAID Project 660-0101), which is considered critical to effectively institutionalize the capability to manage the PHC system in Zaire. SANRU II-sponsored out-of-country short-term training for project staff, zonal and regional medical chiefs, and national health and water officials, will include international conferences and programs in PHC, community organization, and nursing education. The project will support six national officials, including two water and sanitation managers, for out-of-country masters-level courses.

Regional coordination and supervision of the RHZs is a key element in sustaining an effective PHC program. SANRU II will support seminars on management and supervisory techniques, and health information systems for regional and sub-regional medical inspectors as well as regional chiefs of PHC. The project will provide office equipment, including micro-computers, as well as vehicles and spare parts so regional officials can travel in their regions. The project will also assist in organizing field trips for national, regional, and RHZ personnel to learn about other regions so they can more effectively supervise their own. SANRU II staff will reinforce regional officials by carrying out regular visits to the RHZs with these officials.

4.2.3. Administration and Finance

The project will strengthen regional logistics systems for the procurement and distribution of medical supplies and medications. SANRU II, in collaboration with other donors, including OXFAM and UNICEF, will provide technical assistance and financial support for national and regional conferences on policy issues. These issues include development of a national formulary with specific drug lists for each health-unit level, procurement and distribution of essential basic drugs, and examination of the relative costs of local production versus importation of pharmaceuticals.

At the regional level, SANRU II will assist in the construction or rehabilitation of six regional (or sub-regional) warehouses and will provide an initial stock of pharmaceuticals to supply the health zones. The project will also provide technical assistance to the regional pharmacies to introduce efficient inventory-control procedures and to help rationalize their procurement and distribution operations.

4.2.4. Information and Operations Research

SANRU II will assist with the development of three sub-components in the field of information and operations research: introducing a national health information system; establishing a PHC documentation unit; and developing an operations research capability.

SANRU II will provide technical assistance to further refine, simplify, and standardize the health information system that has been developed under SANRU I. Using this system as a base, the project will support national-level workshops aimed at obtaining a consensus among all the various health programs on a simplified, uniform health information system. SANRU II will provide technical assistance, training, and material support at national, regional, and RHZ levels for introducing the system. Basic office supplies, as well as micro-computers, will be furnished to regional and sub-regional medical inspectors. At the national level, SANRU will participate in analyzing and reporting national health information.

The PHC documentation unit will collect, catalogue, and disseminate relevant information on primary health care activities in Zaire and throughout the world. SANRU II will support studies of PHC activities in Zaire to make information available on the lessons learned. For example, the project will sponsor a study of different approaches to community participation which will be useful to the RHZs in Zaire and may provide insights that benefit PHC programs in other countries. SANRU II will also acquire select materials for international sources and set up a library which will be open to the public. The project will also publish a newsletter and special reports that will circulate throughout the country. The documentation center and library will be developed jointly with the School of Public Health, which will develop a comprehensive reference library emphasizing international materials.

SANRU II will develop an operations research (OR) capability through technical assistance, training, and financial support. The project will offer short courses in OR to regional medical chiefs, and other zone-level, regional, and national personnel. A small grants program will be set up to support SANRU-related OR projects initiated and carried out by Zairians. SANRU II will provide TA in developing proposals, implementing the research, and analyzing the results. The documentation center will facilitate dissemination of the findings.

4.3. Water and Sanitation

The water and sanitation component of SANRU II is composed of two distinct but closely interrelated elements. The project will strengthen the National Rural Water Service (SNHR), under the jurisdiction of the Ministry of Agriculture and Rural Development, which is responsible for implementing rural water programs throughout the country. In addition, support will be provided to SANRU II-assisted rural health zones to strengthen the capabilities of the RHZs and the communities to plan and carry out water and sanitation activities.

45

4.3.1. Strengthening the SNHR Planning and Operations Units

The project will provide technical assistance and training to the Planning and Operations Units of the SNHR to develop a strategy for implementing the national water and sanitation program. The SNHR central office will house the Planning Unit and support it administratively and logistically. The unit's technical and policy guidance, however, will come from the National Action Committee for Water Supply and Sanitation (CNAEA) as well as the National Water and Sanitation Coordinating Committee, which will include donor agencies and NGOs active in the sector. The Planning Unit's mandate, which will be national in scope rather than project-specific, will include the formulation of technical standards, research and development, as well as information collection and dissemination. A water and sanitation planner will be engaged for two years to provide TA to the Planning Unit.

Five years of technical assistance as well as material resources will be provided to the SNHR Operations Unit to plan and implement the SANRU II water and sanitation activities. This unit (which consists of the Departments of Technical and Logistic Services) will work closely with the NGO and SNHR brigades, the zonal rural water coordinators (RWCs), and the SANRU Office to ensure that the project water and sanitation targets are met. The Operations Unit will collaborate closely with the Planning Unit to ensure that feedback from the field applications of various water-system designs is used to refine the original plans.

4.3.2. Development of Rural Water Brigades

The project will provide technical assistance, training, and equipment to SNHR to develop sub-regional rural water brigades. These brigades will have the technical and managerial capability to install water systems in rural communities, to explain basic maintenance and repair techniques to the local development committees, and to manage and account for all material and personnel resources. In addition to supporting a gradual increase in the number of SNHR brigades from 10 to 26, the project will support about four NGO brigades to be developed, building on existing NGO water capabilities. The brigades will help the communities install 1,705 large-diameter shallow wells and drilled wells fitted with handpumps, and 172 distribution systems (largely gravity-fed), primarily in SANRU-assisted RHZs.

The rural water brigades, will generally consist of one or two engineers plus a complement of technicians and support staff. The SANRU II Project will provide basic office equipment and supplies for the brigade headquarters. The project will also supply well-drilling equipment to 2 brigades, which will also receive technical assistance from technically qualified Peace Corps volunteers. All brigades except the 2 with drilling rigs will be supplied with light equipment for the installation of water systems.

National and regional seminars will be held to train the engineers and technicians in technical skills and supervision of community-level activities. The brigades will work closely with the zonal rural water coordinators (RWCs) and the communities. Together with a brigade supervisor/engineer from the SNHR central office, the RWC, a community representative, and others, the brigade team leader will review and approve proposed water activites that would require brigade assistance. Each brigade will develop quarterly work plans based on approved water activities in the RHZs in its catchment area. Once the schedule is fixed, the brigade, in collaboration with the RWC, will ensure that the communities are prepared to participate in the activities. During installation, the brigade will train the local development committee in the technology and basic maintenance of the system.

A comprehensive system for the planning, management control, and accountability of the brigades is essential to ensure that they efficiently use project support and continue to function effectively after the project ends. National SNHR staff, with the assistance of long-term TA and Peace Corps volunteers, will supervise the brigades and ensure that their reports are accurate. These reports will be cross-checked with those submitted by the RWCs to the SANRU II Office. The project will support long-term masters-degree training in environmental or public health for two national water and sanitation engineers. SANRU II will provide technical advice to assist with the organization and implementation of accounting and management-control systems and will support national and regional seminars for brigade personnel in planning and management techniques.

4.3.3. RHZ Water and Sanitation Coordination

The SANRU II Project, with technical assistance from SNHR and the National Sanitation Program (PNA), will train a rural water coordinator (RWC) in each project-assisted RHZ who will be responsible for coordinating water and sanitation activities within that health zone. Peace Corps volunteers (PCVs) will be assigned to approximately 40 SANRU II-assisted RHZs to provide technical and programming back-up to the RWCs. The project will support technical training for RWCs in latrine construction, spring capping, and the maintenance of simple wells, handpumps, and gravity-fed water systems. RWC training will also include planning, management, and the techniques of promoting community participation and training village health workers. To reach SANRU-II target outputs, the communities, with the guidance of the RWCs, will cap 3,000 springs, and 90 percent of the households will have latrines in at least 1,000 villages. In addition, 2,000 improved ventilated improved pit (VIP) latrines will be constructed at hospitals, health centers, and schools.

A close working relationship between SANRU-assisted RHZs and SNHR will be essential to ensure that the project water and sanitation objectives are attained and facilitate a smooth transition to a sustainable rural water and sanitation program. Both the RHZ infrastructure and the water brigades must be strengthened to protect the capital investments in water systems. These systems will be the property of the communities in which they are built, and each community, with technical assistance from the RWCs, will take primary responsibility for their maintenance. However, the SNHR brigades will provide technical assistance with repairs and improvements that are beyond the village technicians' capabilities.

The RWC's primary functions will be to sensitize the communities to the desirability of water and sanitary facilities and coordinate the implementation of water and sanitation activities in the zone. Initially, the RWC will meet with communities throughout the zone. He will identify communities that are motivated to participate and assess their need for water-point improvement, based on population density, difficulty in obtaining water, etc. The RWCs, in collaboration with the RHZ medical chiefs, the local health committees, and the water brigades, will develop an implementation plan for the zones.

The rural water coordinator will provide technical support in latrine construction, spring capping, and maintenance of other water systems. When the intervention of a water brigade is warranted, the RWC will act as the liaison between the community and the brigade. The RWC will also be responsible for controlling and accounting for all materials supplied to the zone. SANRU II will provide motorcycles and fuel to the RWCs and their PCV counterparts so they can travel regularly within their zones.

Communities participating in water activities will provide labor and local materials. The community will bring sand, haul rocks, dig trenches, and transport materials to the water-installation site. SANRU II will supply pipes, cement, shovels, and other necessary materials not available in the communities. The community will also provide a modest financial contribution as a down payment on spare parts and/or to defray supervisory costs.

During the installation, the RWC and the SNHR technicians will explain technical principles and maintenance requirements of the system to the village development committee. The RWC will ensure that the local committee and VHW are prepared to carry out a program of water and sanitation education within the community. SANRU II will provide I, E, and C materials to the RWCs during their training sessions to facilitate the education program.

5. COST ESTIMATES AND FINANCIAL PLAN

This section summarizes by source and project year the cost of planned project activities. The cost estimates are based on experience during the Basic Rural Health I Project, which undertook many of the same activities, the report of a WASH consultant, and experience with other projects in Zaire. Costs are inflated at an annual rate of 5 percent for services and commodities to be purchased both in the U.S. and locally. The projected local inflation rate is expected to be 25 percent. However, local purchases will be financed out of counterpart-fund resources, denominated in dollars, or dollars converted to local currency for shelf-item purchases. Since the Zaire is floating, the dollar is expected to appreciate at the difference between local and U.S. inflation. Hence, the expected U.S. inflation rate is used for both types of purchases. Contingency funds are estimated at 7 percent of total project cost.

Recurrent costs supported during the project by the GOZ, will come partly out of counterpart funds and partly out of ordinary budget allocations. A substantial portion of recurrent costs will be paid by beneficiaries of improved health services through user fees. AID dollars are not used to support recurrent costs. The recurrent cost per beneficiary of the activities assisted by the project at the end of the project in 1985 Zaires is expected to be: 69.7 million Z/3.6 million people = 19.4 Z ($US 0.39). In addition, beneficiaries are expected to spend an average of 50 Z per illness for medicines. A complete discussion of recurrent costs is found in the financial analysis.

The project's financial plan is summarized in Tables 5.1 and 5.2. The tables show only project spending, not GOZ recurrent spending or community contributions through user fees. The summary budgets are divided into the portions to be used by the MOH and the MOARD and into dollar and local currency expenditures as well. Table 5.1 summarizes expenditures by source and use. Table 5.2 shows projected project spending by fiscal year. The GOZ's contribution of counterpart funds amounts to about 43 percent of total project costs.

An estimated $US 3 million of AID funds will be used for conversion to local currency for the purchase of shelf items.

Summary Cost Estimates

Table 5.1: Summary Cost Estimates and Financial Plan
($US 000)

Source:	AID	GOZ	Peace Corps
Use:			
Water and Sanitation			
Supervision		268	
Shipping		30	
Support for SNHR Office		776	
Training	188	63	
Equipment	1,052		
Vehicles	314		
Technical assistance	1,269		
Water volunteers			3,515
Inflation Factor (5%)	329	239	841
Contingency	197	89	0
Sub-Total Water & San (MOARD)	3,349	1,456	4,356
Source:	AID	GOZ	Peace Corps
Health			
Renovation/construction		3,054	
Supervision		452	
Initial drug stocks	740	864	
Support for SANRU Office		3,335	
IE & C materials		144	
Training	640	2,144	
Water/sanitation systems	777	3,708	
Shipping		185	
Impact studies	275	150	
Equipment	5,029		
Vehicles & bicycles	2,179		
Computers & calculators	113		
Technical assistance	3,353		
Health volunteers			1,650
Inflation Factor (5%)	2,395	3,213	383
Contingency	920	983	0
Sub-Total Health (MOH)	16,401	18,232	2,033
TOTAL	19,750	19,683	6,389

NOTE: The exchange rate used is: 50 Z = $US 1.00
Elements may not sum to totals shown exactly because of rounding.

Table 5.2: Projection of Expenditures by Fiscal Year
($US 000)

Fiscal	AID			GOZ*			Peace Corps		
Year	MOARD W/S	MOH Health	Total	MOARD W/S	MOH Health	Total	W/S	Health	Total
1986	1,108	2,242	3,350	147	1,255	1,402	248	165	413
1987	812	2,809	3,621	164	1,989	2,153	495	248	743
1988	354	2,389	2,743	196	2,174	2,370	528	248	776
1989	299	2,260	2,559	206	2,442	2,648	561	248	809
1990	222	1,529	1,751	190	2,158	2,348	561	248	809
1991	14	1,004	1,018	121	2,108	2,229	561	248	809
1992	14	869	883	113	1,910	2,023	561	248	809
Sub-Total	2,823	13,102	15,925	1,137	14,036	15,173	3,515	1,650	5,165
Inflation	319	2,382	2,711	239	3,213	3,452			1,224
Contingency	197	917	1,114	80	983	1,063			0
TOTAL	3,349	16,401	19,750	1,456	18,232	19,688	3,515	1,650	6,389

*Includes only GOZ counterpart-fund contribution.

NOTE: Elements may not sum to totals shown exactly because of rounding.

6. IMPLEMENTATION PLAN

6.1. Administration Plan

The project will be implemented through two bilateral grant agreements between USAID and the GOZ: one agreement will be signed with the Ministry of Health naming the Church of Christ of Zaire (ECZ) as the implementing agency for execution of the rural health services component; the other agreement for the water component will be signed with the Ministry of Agriculture and Rural Development to be implemented by the National Rural Water Service (SNHR).

The director of the ECZ Medical Office will be the project director of the rural health services component with overall responsibility for that component in accordance with the grant agreement as well as with GOZ and AID policies and procedures. He will be assisted by an AID-funded project manager and a representative of the MOH who will work full-time as a member of the SANRU II staff. This MOH official will serve as the Zairian counterpart to the project manager and play a major role in project implementation.

The director of SNHR will be the GOZ official responsible for the implementation of the water component. He will be assisted by AID-funded technical advisors.

USAID will also be responsible for ensuring that the overall SANRU II Project is implemented in accordance with the grant agreements and AID policies and procedures. The project officer for SANRU I, who is a local-national direct-hire health professional, is expected to continue as project officer for SANRU II. He will be assisted by a PSC deputy project officer to be funded by the project.

The project will have two discrete administrative units: one that is responsible for implementation of the rural health services component, to be carried out under agreement with the Ministry of Health; the other responsible for the water component, to be carried out in collaboration with the Ministry of Agriculture and Rural Development.

6.1.1. Rural Health Services Administration

(1) Organization

The administration of SANRU II, like that of SANRU I, will be a collaborative effort between the Ministry of Health, the Church of Christ of Zaire (ECZ), and AID. Each collaborating organization will be represented on the Project Management Committee, which will consist of the project director (ECZ medical director), the project manager (an AID

contractor), and the designated representative of the Ministry of Health. The USAID project officer will participate in the weekly committee meetings as an observer. Working under the guidance of their respective agencies, the committee members will be responsible for overall project policy, planning, and implementation including identificaton of problems impeding project progress and actions to ameliorate such problems. The members will be responsible for keeping their respective agencies informed on all aspects of project activities. When appropriate, other observers from the contributing agencies (such as GOZ, USAID, ECZ, BOM, and Peace Corps) will also participate in the committee meetings.

Although the management of SANRU II will be similar in structure to that of SANRU I, some expansion and reorganization is planned to better support SANRU II, which will be a considerably larger project. Working under the direction of the project director, project manager will be responsible for implementation. As depicted in Figure 6-1, there will be two operational departments. A third department will be responsible for coordination with complementary projects that are also administered by the ECZ and carried out in SANRU II-assisted rural health zones.

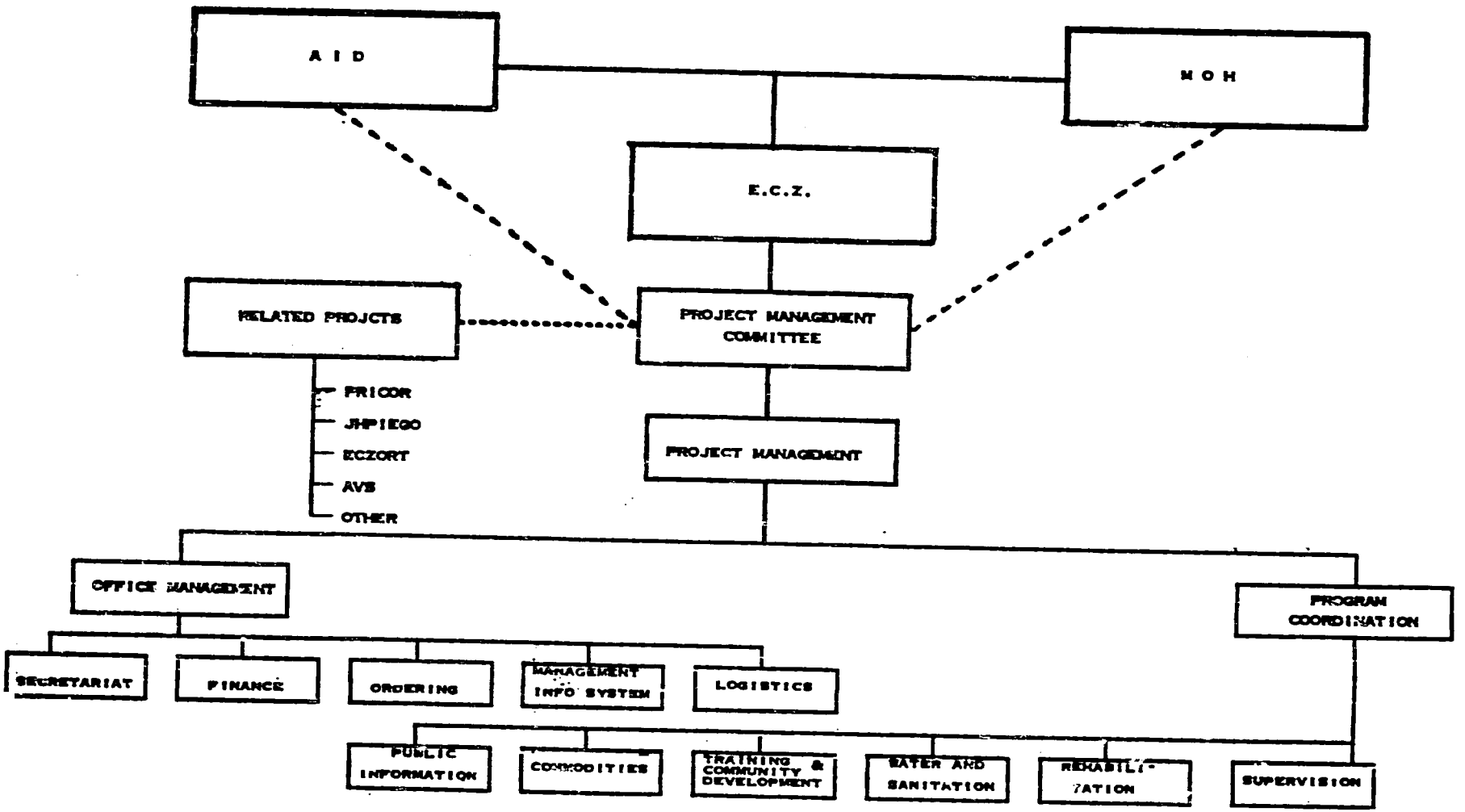
The Department of Office Management will provide the support services. This department will develop standardized procedures for all project operations, ensure the accountability of project resources, and monitor and report on all transactions and programmatic activities.

The Department of Program Coordination will support the implementation of rural health zone activities, as well as related activities at regional and national levels. The Division of Public Information will provide assistance to the national health information system, the documentation unit, and operations-research activities. The Commodities-Management Division will be responsible for receipt, inventory control, and distribution of commodities to the RHZs. The Division of Training and Community Development will coordinate all training activities and provide technical assistance in training and community development. The Water and Sanitation Division will coordinate water and sanitation activities in the rural health zones and maintain close communication with the SNHR to ensure that the interventions of the brigades are well coordinated with the rural health zone system. The Rehabilitation Division will manage GOZ investment-budget allocations to SANRU II and coordinate construction and renovation activities carried out under the project. The Division of Supervision will provide technical support to the regions and rural health zones, assisting primarily with the implementation, management, and supervision of the RHZ primary health care programs.

The Department of Related Projects, which will have a coordinating function, will be attached to the ECZ Medical Office, but, through the Project Management Committee, will receive administrative support from the Department of Office Management. The role of this unit will be to ensure close collaboration with complementary projects and facilitate the requisite adminstrative support from SANRU II.

6.1. TENTATIVE ORGANIZATION CHART FOR SANRU II.-

RURAL HEALTH SERVICES ADMINISTRATION.-



(2) Technical Assistance

Three long-term technical advisors will be recruited to work within this structure: a project manager to head the Office of Project Management (see Figure 6-1), a deputy project manager/rural PHC coordinator to work with the Department of Program Coordination, and a community-development specialist/trainer for the Division of Training and Community Development. The project manager (7 years) will carry over from SANRU I initially, and, in fact, will be funded under SANRU I for the first year of SANRU II. Working under the direction of the project director, he will be responsible for overall project management, and coordination with AID, the MOH, and other donors. In SANRU II, the project manager is also expected to play a more significant role in providing technical assistance to strengthen MOH support of primary health care activities. In particular, he will represent the project on the technical and planning committees of the MOH unit that will be responsible for coordination of national and donor activities in PHC, as well as advise the MOH on developing the national health information system, the PHC documentation unit, and an operations-research capability.

The deputy project manager/rural PHC coordinator (5 years) will be responsible for the planning, coordination, management, monitoring, and evaluation of project assistance to the regions and rural health zones. He/she will oversee the scheduling of orders, inventory control, as well as distribution and accountability of equipment, supplies, medicines, and other commodities. The deputy project manager will be responsible for coordinating renovation/construction activities and for maintaining close communication with the SNHR to ensure the efficient coordination of water brigade support to the RHZs. He/she will also have oversight responsibility for the local currency budget.

The community-development specialist/training advisor (3 years) will provide technical assistance with the promotion, organization, and evaluation of community-based PHC activities, including the organization and training of village development and health-center committees, village health workers, and traditional birth attendants. He/she will help develop models for integrating community action in water and sanitation, and health, with RHZ and regional support structures. The community-development/training specialist will also provide technical assistance in training, including the introduction of PHC-oriented curricula in nursing schools throughout the country. He/she will collaborate closely with SNHR to develop training courses for regional and RHZ-level training of water and sanitation personnel. This advisor will assist with the development of courses for national, regional, RHZ and community health workers in PHC management, supervision, community organization, and delivery of services. He/she will also coordinate requests for short-term TA to help with the development of specialized courses and to advise on pedagogical techniques, training materials, and evaluation.

The project will also finance a deputy project officer (5 years) for USAID. He/she will help the USAID project officer carry out his responsibilities, including: project monitoring; coordinating the disbursement of project funds, procuring commodities, and facilitating U.S. and third-country participant training, as well as short-term TA.

6.1.2. Rural Water Services Adminstration

(1) Organization

The National Rural Water Service (SNHR; through its central office) in the Ministry of Agriculture and Rural Development, will be responsible for the implementation of project-supported rural water-brigade activities. The SNHR will receive policy and strategy guidance from the National Action Committee for Water and Sanitation (CNAEA) which was created by the GOZ in response to the United Nations Water Decade initiatives. Oversight of project implementation will be the responsibility of a coordinating committee composed of representatives of GOZ, non-governmental, and international agencies concerned with rural water activities.

Organizationally the rural water brigades are directly responsible to the director of SNHR. Three departments within the SNHR provide support to the brigades: Administration and Finances, Technical Services, and Logistic Services. In addition, a planning unit is being established to provide guidance on national planning of water activities, the identification of priority tasks, formulation of standards and norms for rural water work, and ensuring effective coordination among various national and donor-supported activities in the sector.

(2) Technical Assistance

Two long-term technical advisors will be recruited to work within SNHR: a planning specialist to work with the Planning Unit and a field-operations advisor to assist the Technical and Logistic Services Departments in the expansion of rural water-brigade activities.

The planning specialist (2 years) will provide full-time organizational and programming assistance to the Planning Unit. He/she will help the SNHR develop the unit, providing advice on organization, policy-making procedures, developing long- and short-term goals and objectives, preparing norms and standards for water interventions, documenting the current level of rural water coverage, and evaluation of the program. UNDP may provide the planning specialist.

The rural-water field-operations advisor (5 years) will be responsible for assisting with the development of the sub-regional water brigades, including resource management and accountability, evaluation of productivity, training and equipment needs, and coordination with the rural health zones. He/she will participate in the scheduling of orders, inventory control and distribution of equipment, and serve as technical advisor and liaison between SNHR and SANRU. This advisor will spend about 50 percent of his/her time in the field with the brigades and a minimum of 10 percent of his/her time working with SANRU to ensure coordination of brigade and rural health zone activities and to advise the SANRU staff on the rural water program.

(3) Implementation Arrangements

The purpose of U.S. assistance to the GOZ through the MOARD is to build that Ministry's technical capability to achieve SANRU II water objectives. The MOARD National Rural Water Service (SNHR) is the GOZ agency with the mandate to coordinate the planning and development of the rural water sector. A substantial portion of project inputs for water activities will be implemented through SNHR. To ensure optimal benefits for participating communities, these inputs will need to be closely coordinated temporally and spatially with water inputs implemented through the MOH. The following planning and coordination mechanisms are envisaged.

National Water and Sanitation Coordinating Committee: At the national level, the following organizations with significant inputs into the project and rural-water sector will meet at least once every two months under the direction of the CNAEA executive secretariat to develop properly phased implementation schedules:

(1) SNHR
(2) SANRU II Project Office
(3) CNAEA representatives
(4) PNA
(5) UNICEF
(6) USAID
(7) Other bilateral donors
(8) UNDP
(9) NGOs represented in Kinshasa
(10) Peace Corps
(11) WHO

Regional Planning: Since the health zones are the self-contained functional units of the health system, the water programs of the different RHZs will operate independently (although this does not preclude cooperation between zones in training). The SNHR brigades will, however, cover several RHZs in their operational area. This overlap of brigade responsibilities across RHZs makes it imperative to institute frequent planning sessions between each brigade and the RHZs in the brigade's area of activity. This situation would also necessitate the joint development of integrated annual work plans between brigades and RHZs. The planning sessions and workplans must be cognizant of the different roles and responsibilities of the cooperating parties. For example:

(1) The RHZ water coordinator is responsible for planning and coordinating all project-financed water interventions in his/her zone.

(2) The RHZ health authorities will serve as the guardians of project materials.

The brigades will work in RHZs following a workplan established together with the rural water coordinator for each zone. Based on decisions and procedures to be made jointly by the SNHR, Peace Corps, SANRU II Office, and RHZ health authorities, prior review and approval may not be required for community projects involving the simpler technologies such as spring capping and spring boxes. When such procedures for simple interventions are adopted, it would be important that the Planning Unit of the SNHR provide plans and technical literature to assist the work of the local technicans. For the more sophisticated technologies, such as cisterns, gravity-fed systems, wells (wide-diameter or drilled), infiltration galleries, etc., it will be essential that a technical review and approval be carried out in the field prior to constructing the system. This would be accomplished by a RHZ-based committee composed of the following:

(1) Area brigade team leader
(2) Rural water coordinator
(3) Community representative
(4) Brigade supervisor/engineer from Kinshasa
(5) Peace Corps representative
(6) PNA representative (if present)

A field review permits on-site verification of costs, and site inspections that would be impossible if the review were carried out in Kinshasa. After the technical approval has been obtained, the RHZ water coordinator and the brigade team leader would together schedule the construction of the water system.

To facilitate planning and information gathering, the SNHR Office, NGO brigades, and the SANRU Office will jointly develop forms to be used in collecting background information needed for decision-making concerning each type of village water system. This information will be useful in determining whether special on-site visits and studies are required before undertaking an intervention.

6.2. Monitoring Plan

Monitoring is an essential management tool for tracking project implementation to ensure the efficient coordination of inputs, the accountability of project resources, and the timely, effective execution of project activities.

Monitoring is dependent on a reliable information system which transmits essential data through the following levels:

- community to health center
- health center to central office of the health zone
- health zone to SANRU Office/Kinshasa
  (for water activities, health zone to SNHR Office/Kinshasa as well)
- SANRU Office (SNHR Office) to contributing agencies

The health information system (HIS), which will be operating in SANRU-assisted RHZs within a year after the zone has been established, will provide information for monitoring the accessibility and coverage of PHC services. The HIS will ensure collection and reporting of statistics on the population living within the catchment areas of established health centers, i.e., having access to services. In addition, the service statistics will indicate utilization of PHC services i.e., coverage. With these indicators, the project staff will be able to assess the need for programmatic changes that would increase accessibility and utilization.

Progress toward the achievement of project targets will be monitored at the end of each year. Since the development of functional health centers is the focus around which other project activities are oriented, the planned and actual establishment of health centers will be the basic benchmark against which other outputs will be measured. Table 6.1 indicates that by the end of the second project year, 19 percent of all planned health centers are expected to have been established. Other outputs, such as training, might also be expected to have achieved 19 percent of expected targets at that time, or at least to have kept pace with health-center development, if that is less. However, some activities will have a faster or slower start-up than others. For example, the training of nurses should proceed more quickly than the training of VHWs and TBAs since the nurses play a role in training the VHWs and TBAs. Nonetheless, the formula will be useful as a general guideline for monitoring project achievements and for indicating which activities need to be increased in order to reach project targets.

Table 6.1. New Health Centers, by Year

PROJECT YEAR	NUMBER OF NEW HEALTH CENTERS	CUMULATIVE NUMBER OF NEW HEALTH CENTERS
1986	30	30 (4%)
1987	110	140 (19%)
1988	130	270 (38%)
1989	150	420 (58%)
1990	150	570 (79%)
1991	100	670 (93%)
1992	50	720 (100%)

The project staff will monitor the project for administrative and program-planning purposes as well as to generate the information required by AID. The project will maintain a computerized management information system that tracks the receipt and deployment of all project resources as well as the implementation of project activities. Quarterly reports will be submitted to USAID, the GOZ, and ECZ from the SANRU/ECZ Office and from SNHR. In addition, project management staff will communicate frequently with their respective agencies and keep them apprised of issues as they arise.

Project monitoring by the USAID project officer will include management of the dollar budget. This person will be responsible for the following aspects of project implementation:

- disbursement of AID funds (dollar and counterpart) in a timely manner
- commodity procurement from outside of Zaire
- short-term and long-term participant training
- accountability of the dollar budget
- coordination of timely and appropriate short-term TA
- performance of short-term and long-term TA
- coordination of inputs from other AID-funded projects
- organization of internal and external evaluation activities

Other project activities will be monitored jointly by the GOZ and USAID officers. These include:

- USAID and GOZ fulfillment of agreed-upon responsibilities, in particular the assignment and support of personnel
- accountability of financial resources including both dollar and counterpart funds
- local commodity procurement
- accountability of material resources including imports and local purchases
- the timely implementation of project components.

6.3. Disbursement Procedures

6.3.1. Local Currency for In-country Costs - The ECZ Medical Office will request an initial advance from USAID, which upon review, will forward the request to the Ministry of Plan, Counterpart Funds Secretariat, which will transfer the funds to the project account. Thereafter the account managers may request quarterly advances according to programmed activities. Under signature of the project director and one technical advisor, funds from the account will be transferred by check, bank transfer, or hand-carried to the participating RHZ. As expenditures are justified to the Ministry of Plan and USAID, additional blocks of local currency can be requested. Salaries for the project local hires willl be paid out of this account.

Similarly, the SNHR counterpart-fund requests will be prepared jointly by SNHR and USAID personnel. USAID will forward the requests to the Ministry of Plan. Project staff will request quarterly advances according to procedures agreed to by the USAID Controller's Office.

6.3.2. Commodity Procurement in Foreign Currency - Standard USAID procurement procedures will be followed. USAID will prepare the documents necessary for USAID procurement, and USAID will arrange direct payment to the suppliers according to standard procedures.

6.3.3. Participant Training - In accordance with established USAID procedures, payment will be arranged directly to the training institutions. Monthly living allowances will be provided directly to the participants.

6.3.4. Technical Assistance (AID-funded via Personal-Services Contracts)

The USAID voucher system will be used for direct payment to the technical advisors. The USAID Public Health Office will certify that services have been rendered.

6.4. Implementation Schedule

A detailed implementation schedule has been prepared for the first eighteen months of the project. Annual workplans for each calendar year will be prepared in October of the preceding year.

Month	Task	Responsible Agency
August 1985	- PP approval	USAID
	- ProAg signed	USAID/GOZ
	- Vehicle commodity waiver obtained from AID/W	AID-W
September 1985	- Advertise PSC positions	USAID
	- Submit commodity requests/lists for FY '86	ECZ/SNHR
October 1985	- Submit 1986 counterpart-fund budget	ECZ/SNHR
	- PIO/Cs for FY '86 commodities prepared	USAID
	- Finalize short-term TA requirements for 1986-87	ECZ/SNHR
	- Prepare PIO/T for short-term TA to develop water & sanitation training plan	USAID/WASH

61

December 1985	- PSC selection	USAID/GOZ/ECZ/SNHR
	- Identify regional/sub-regional pharmacies & medical inspection offices for 1986 assistance	ECZ/GOZ
	- Identify MPH candidates for 1986	SNHR/ECZ/MOH
	- Finalize regional/national training plan for 1986	ECZ/SNHR
January 1986	- Submit commodity requests/lists for FY '87	ECZ/SNHR
	- Select candidates for short-term participant training	ECZ/SNHR/MOH
	- Submit quarterly implementation report: Oct.-Dec. '86	ECZ/SNHR
February 1986	- Open PHC documentation center	ECZ
	- Arrival of PSCs	USAID/ECZ/SNHR
	- Selection of 15 RHZs for 1986 assistance	ECZ/GOZ
	- PIO/Cs prepared for FY '87 commodities	USAID
	- Establish national training team for water and sanitation	SNHR
	- Arrange for TA to assist with baseline impact study; prepare PIO/T	USAID/ECZ
March 1986	- Begin financing training at RHZ level	ECZ
	- Arrange for TA to study VDCs, VHWs, and TBAs	USAID/ECZ
	- Select of 30 health centers for 1986 assistance	ECZ/GOZ
April 1986	- Submit quarterly implementation report: Jan.-Mar. '86	ECZ/SNHR
	- Training of PCVs for water and health	Peace Corps
	- Begin training regional brigades	SNHR
May 1986	- Study of VDCs, VHWs, and TBAs begins	TA
	- Identify candidates for physician EPI/CCCD training	ECZ/MOH

June 1986	- Select candidates for School of Public Health/Kinshasa	ECZ/MOH
	- Arrival of FY '86 project commodities; begin distribution	USAID/ECZ/SNHR
	- Submit annual report for 1985	ECZ/SNHR
July 1986	- MPH candidates leave for training	USAID
	- Baseline impact survey initiated	TA/ECZ/USAID/MOH
	- Submit quarterly implementation report: Apr.-June '86	ECZ/SNHR
October 1986	- Arrival of FY '87 commodities; begin distribution	USAID/ECZ/SNHR
	- Submit quarterly implementation report: July-Sept. '86	ECZ/SNHR
	- Finalize workplan for 1987	ECZ/SNHR
	- Send first group of candidates to School of Public Health	ECZ
November 1986	- SANRU I/II Evaluation	USAID/ECZ/SNHR/GOZ
December 1986	- Select 15 RHZs for 1987 assistance	ECZ/GOZ
	- Select 110 health centers for 1987 assistance	ECZ/GOZ
January 1987	- Submit quarterly implementation report: Oct.-Dec. '86	ECZ/SNHR

7. SUMMARY OF PROJECT ANALYSES

This section presents summaries of the five major project analyses carried out to determine the overall feasibility of the project and its relative chance for success. The analyses include:

- Technical feasibility
- Financial analysis
- Economic analysis
- Social soundness analysis
- Administrative feasibility

Each summary in the subsections below highlights the major findings of the corresponding analysis which may be found in Annex 6, section 15.

7.1. Technical Feasibility

The Basic Rural Health II project (SANRU II) responds to the GOZ policy decision to improve the health status of the rural population by increasing the proportion of rural Zairians that have access to basic health services. In addition, the project relates to both the GOZ's health goal of "health for all by the year 2000" and to USAID's intention of promoting the welfare of the neediest segments of the population — especially women and children - through community-based health services.

SANRU II will assist the GOZ to institutionalize a sustainable national health care system by strengthening and upgrading the MOH's administrative and health management skills. At the same time, the project will address the country's most serious and prevalent public health problems through promotion of PHC interventions that have been tried and proven effective in numerous projects worldwide.

7.1.1. Village-level Health Activities

The experience gained in SANRU I shows that the primary health care strategy is feasible in Zaire. SANRU II builds upon existing SANRU I village-level health activities by reinforcing positive aspects of the activities while addressing current weaknesses and needs.

(1) Village Development Committees (VDCs)

The VDC concept promoted during SANRU I has now gained wide acceptance not only in the field but also at the ministerial level. VDCs will be the keystone of SANRU II's village-level support for PHC activities. However, there must be more continuous and stronger supportive supervision of the VDCs by the health-center and health-zone personnel in order to insure strong motivation and commitment.

(2) Village Health Workers/Traditional Birth Attendants

SANRU I has shown that many PHC activities can be carried out at the community level by VHWs and TBAs. The SANRU II strategy of continuing to train and utilize VHWs to carry out village-level health activities is appropriate because of its emphasis on community involvement and making maximal use of locally available resources at the village level. However, to ensure long-term viability of service delivery by these voluntary health workers, financial and/or in-kind support from the communities and villages will be necessary.

The project has not overlooked the potential effectiveness of TBAs in the delivery of MCH services in rural areas. SANRU II, like its predecessor, will continue to train TBAs. Training of TBAs will be simplified, focusing mainly on upgrading their skills and on improved home-delivery techniques in the village (where TBAs have been practicing for centuries).

7.1.2. Training

SANRU II's regional and national level "training of trainers" (TOT) strategy will produce cadres of well trained trainers who are expected to have a positive ripple effect on the quality of health-worker training throughout the project area. SANRU II will continue to intensify regional TOT activities already been initiated and proven technically feasible by SANRU I.

In addition, the project will support both short- and long-term training in PHC administration and management skills for zonal medical chiefs and administrators which should greatly enhance the management capacity and sustainability of RHZs. Long-term training in PHC management will be completed within Zaire at the new School of Public Health (project 660-0101).

65

7.1.3. Supervision

Supervision and support of village-level workers are critical to their continued effective performance and must be ensured through the provision of adequate numbers of well-trained supervisors who have sufficient transportation and logistical support. The transportation provided by the project should be appropriate for rural Zaire. To assure long-term maintenance of vehicles, the project intends to purchase only vehicles for which spare parts have been locally commercialized.

7.1.4. Establishment of Rural Health Zones and Health Centers

The creation of health zones has far-reaching implications at all levels of PHC management in Zaire. Uniformity of planning, supervision, and statistical reporting within a geographical area is based entirely on the health zone concept. SANRU I has demonstrated that the establishment of health zones is technically feasible. SANRU II will expand the geographical scope of its successful predecessor with support to 50 new RHZs.

7.1.5. Supply Line

There must be a secure supply line to ensure the long-term sustainability of the RHZ and the success of the PHC activities. However, existing supply lines are weak. The strategy which appears technically feasible is to create regional and subregional pharmacies. This has already been done successfully in three regions.

SANRU II will assist at the regional and subregional levels by financing the construction or rehabilitation of warehouses and provision of an initial stock of medicines. The project will also provide training, technical assistance, and micro-computers to support implementation of efficient inventory control procedures and improved procurement and distribution.

At the RHZ level, SANRU II will train RHZ-pharmacy staff and fund rehabilitation of warehouse space. In addition, the project will establish a credit line for each RHZ to cover the initial supply of medicines for each new project-assisted health center in the zone.

These strategies aim to ensure a secure supply, and in turn, the long-term sustainability of the RHZ.

7.1.6. Health Information System

The project will continue efforts begun in SANRU I to make the health information system (HIS) more simple and uniform throughout Zaire. SANRU II will also extend the use of micro-computers for data analysis to the regional level as well as to selected health zones. In a decentralized system, micro-computers can do much to make local management more efficient. SANRU II will also work in coordination with the MOH and the National Department of PHC to set up a national documentation center which will centralize and provide access to PHC reports and resource materials from all the health zones. The establishment of the documentation center should be technically feasible as it will be developed in conjunction with the comprehensive public health library at the School of Public Health. This project component of SANRU II aims to institutionalize the HIS at the national level, and will be integrated progressively into the MOH.

7.1.7. Water and Sanitation

An analysis of the technical capability of the three main implementing agents of the water and sanitation component of the project (SNHR, NGOs, RHZs) indicates that additional technical expertise will be required to strengthen these sources of technical back-up to ensure successful project implementation. Seven years of long-term TA and 30 months of short-term TA in construction, design, training, and program planning have been budgeted to meet the needs of the implementing agents. Training in a variety of skill areas and at the national, regional, RHZ, and community levels has also been planned to ensure that constructed water points meet quality standards which will be established by the SNHR. These inputs will ensure the construction of water systems that will bring improvements in water quality, quantity, and accessibility.

The project technologies will not, however, yield concurrent improvements in all three parameters of water quality, quantity, and accessibility in every single intervention. Yet, most constructed water systems will offer improvement over existing conditions in at least two of three criteria. The technologies chosen represent a compromise based on the socio-economic constraints in the project area, expected community support and maintenance, and available technical competence to construct the systems. The health benefits resulting from these water systems will vary by type of intervention, individual, and community behavior in response to the new systems, and other factors influencing health that are not under the direct control of the project. The interventions have, however, been demonstrated to bring about an improvement in health and the quality of life for rural inhabitants.

7.1.8. Conclusion

This project as designed is technically sound, feasible, and appropriate. Issues identified but not resolved are not critical to project design, but are appropriate concerns for project implementation.

7.2. Financial Analysis

7.2.1. Profitability Analysis

This project's expected direct output is an improved health delivery structure; its indirect output is expected to be reduced morbidity and mortality for the people served by that structure. It will not produce monetary revenues greater than costs, hence it is not subject to profitability analysis.

7.2.2. Use of Project Revenues

Even though the project is not expected to earn net profits, some revenues will be earned from the sale of medicines and from consultation fees. These receipts will be used to defray some costs of the delivery of health-care services. Fees in cash or in kind may be charged for the services of VHWs and TBAs. Beneficiaries of services are expected to pay for consultations at health centers (HCs) and hospitals and for medicines. The revenues will pay the full cost of medicines and part of the staff, maintenance, and supervision costs at the HCs. Some non-personnel costs at reference hospitals and salary supplements for doctors are paid out of hospital consultation receipts.

7.2.3. Recurrent Costs

The recurrent costs of the project interventions include salaries, medicines, fuel and maintenance, and amortization of capital goods. The expected funding sources for these costs are GOZ spending, PVO support (principally religious missions), user fees, corporations, the beneficiary population, and continued donor support. (Throughout this section the term community will be used to refer to the beneficiary population.)

7.2.3.1. Salaries

There are five levels of salaries that will continue after the project ends. They are: (1) national, regional, and sub-regional personnel of the Ministry of Health (MOH); (2) RHZ staff; (3) HC staff; (4) VHWs and TBAs; and (5) national and bridgade water and sanitation personnel of the Ministry of Agriculture and Rural Development (MOARD).

The salaries stated throughout this section are base salaries at the time the report is written. The GOZ's commitment to pay salaries should be based on the number and types of positions described at whatever salary scale is in effect during the life of the project.

(1) National, Regional, and Sub-Regional. The GOZ will pay the salaries of MOH personnel at the national, regional, and sub-regional levels, including personnel seconded to work with SANRU II. The annual cost of adding of an assistant administrator for PHC resources utilization to each of the eight regional inspection offices will be 172,800 real Z at the end of the project. Since personnel already on the payroll will be used for the remaining positions, there will be no additional cost to the GOZ. At the end of the project, about ten positions will be transferred from the SANRU II Project Office to the MOH. This will mean an annual increase in the MOH payroll of about 240,000 real Z.

(2) Rural Health Zone. The GOZ will pay the salaries of the RHZ medical chief and other RHZ central-office cadres in the 50 new RHZs to be established during the project. Secretaries and aides are hired locally by the RHZs. Salary supplements are usually paid to medical chiefs in zones headed by PVOs or corporations. By 1988, all of the new RHZs will be in operation. The annual salary cost of the project-assisted RHZs' personnel to the GOZ thereafter will be about 11,299,000 real Z.

Medical chiefs and many other RHZ personnel will be drawn from those already on the payroll. The GOZ will hire the personnel necessary to fully staff the RHZs.

The RHZ hospitals will have no new functions added to them by the project; hence no additional recurrent costs will be created.

(3) Health centers. HC staffs will be paid partly by the GOZ, partly by non-governmental organizations, and partly by the communities through user fees. The total annual recurrent cost of these personnel in the 720 HCs at the end of the project will be 42,750,000 real Z.

Of the health-center staff, the A2 nurse and one of the A3 nurses are to be paid by the GOZ. The others will be paid by the community served, out of the receipts from consultation fees. Health centers with NGO sponsors may also benefit from subsidies.

(4) Villages. VHWs and TBAs trained during the project will be recompensed by the communities they serve. TBAs traditionally are paid in case or in kind for their services. The VDCs will decide whether the VHWs should be compensated through charging fees for their services, through the sale of medicines, through an honorarium paid by the committee, or whether they should work as volunteers.

(5) Water and Sanitation Personnel. The GOZ will pay the salaries and operational support costs of the national staff at SNHR (National Rural Water Service) and of the SNHR water brigades supported by the project. Four brigades will be operated by non-governmental organizations. Twenty employees on the SNHR central staff as well as 17 employees on each brigade will be supported. Operational support will amount to about 20 percent of salary costs. The annual cost when the full set of 26 government-supported brigades are operational (1989) will be 7,084,000 real Z. However, the GOZ will not have to support brigades with a full complement of personnel after the project ends since teams of only about one-third the size will be needed to maintain the water interventions completed by the project. Thus, only one-third of the full cost of the brigades is attributable as a recurrent cost of the project. The recurrent cost of maintenance brigades in 1993 will be 2,361,000 real Z to the GOZ and 363,000 real Z to PVOs.

7.2.3.2. Medicines

Medicines used at all health-care levels will be sold at their full cost, so that the receipts earned can be used for resupply and the medicines will be self-financing. The project will supply initial stocks of medicines to HCs, RHZ hospitals, and sub-regional drug warehouses which thereafter will all be self-financing for medicines. Two exceptions are vaccines and contraceptives. The Expanded Program on Immunization will continue to provide donor-supplied vaccines without charge to the RHZs for the foreseeable future. Similarly the Family Planning Services Project will supply the contraceptives.

7.2.3.3. Fuel and Maintenance

The project will result in fuel and maintenance costs at the national, regional, sub-regional, and RHZ levels. Vehicles will be supplied at all levels; motorcycles will be supplied to RHZs for supervision of health and water activities. A 6-ton truck will be supplied to the SANRU Office for transporting water and sanitation supplies and equipment to RHZs. The project will supply spare parts for the vehicles, truck, and motorcycles.

(1) National. At the national level, the project will pay fuel and maintenance costs for supervisory visits of SNHR staff to brigades for the first five years of the project. After that, the MOARD will be responsible for these costs. The annual cost of fuel and maintenance will be 600,000 real Z in 1991.

The national water and sanitation supervisor will coordinate supervision of each of the project RHZs twice a year. The SANRU national office will pay the costs of this supervision for the duration of the project. After the project ends, the MOH will pay the annual costs of national water supervision: 1,150,000 real Z.

The costs of fuel and maintenance for the delivery of water and sanitation supplies and equipment to RHZs using the 6-ton truck will be paid by the project. These are one-time costs, so there will be no recurrent costs at EOP.

(2) Regional and Sub-Regional. The project will supply vehicles to 21 regional and sub-regional offices over LOP. The MOH will be responsible for financing the fuel and maintenance. At EOP, the annual cost will be 1,575,000 real Z.

Regional and sub-regional water brigades will receive motorcycles for travel to help RHZs with installations and maintenance. The project will support their fuel and maintenance costs for the first five years. Thereafter, the costs will be the responsibility of MOARD. After the project ends, only travel for maintenance will be necessary, so the cost will be only about one-third of that incurred during the intervention stage. The recurrent costs in 1993 will be about 732,000 real Z.

(3) RHZ. Each RHZ assisted by the project will receive a vehicle and three motorcycles for supervising health activities; each will also receive a motorcycle for supervising water activities. RHZs will be allocated a subsidy of 12,000 Z per month for each HC in its first year of operation. Each year thereafter, the subsidy will drop by 20 percent. As the subsidy declines, the costs will be supported by receipts from HCs. As a health center matures, the need for supervision is expected to diminish to once every two months. At EOP, the supervising the HCs will cost 4,620,000 real Z annually.

7.2.3.4. Amortization of Capital Goods

Neither the GOZ nor the communities are currently able to pay for the amortization of capital needs such as vehicles, major equipment, and buildings. Hence, continued reliance on donor support for the replacement of capital goods will be necessary.

7.2.3.5. Conclusion

The GOZ or the beneficiaries of the activities wi lk of
recurrent costs throughout the project. Donors will h n to
finance vaccines, contraceptives, and the replacement oods.
Counterpart funds will be used during the project to s
recurrent expenditures. These expenditures will, in n
gradually be shifted over to the GOZ ordinary budget. res the
total recurrent cost of the project-assisted activitic 11 be
69.7 million Z or 19.4 Z($US 0.39) per beneficiary. I
beneficiaries are expected to pay about 50 Z per episc s for
medicines. The burden on the GOZ budget after the enc ect is
estimated to be 37.2 million real Z($US 750,000) per y

7.2.4. Sustainability

Overall GOZ spending will be constrained by the pr the
agreement between the GOZ and the International Moneta is
unlikely that real spending by the MOH and MOARD will y
increase over the near term. However, the MOH plans t ith its
plans to establish 300 RHZs by 1991. The project will MOH in
establishing 50 additional RHZs with 520 new HCs in th sifying
activities in the 50 RHZs established during SANRU I h
establish 200 new HCs in those zones, and in improving anning
and management of the PHC system. The project will al e MOARD
in carrying out a variety of water and sanitation inte the
RHZs assisted by SANRU I and II.

Minimization of additional recurrent costs will bc d by
retraining existing personnel to the maximum extent pc ost
recovery through charging user fees for services, and ng
water interventions requiring maintenance that can be
entirely by direct beneficiaries using local materials ated
real recurrent cost of project-assisted activities to 993
will be 37.2 million Z (10.3 Z per beneficiary). The st
burden to communities will be about 32.2 million Z (8.
beneficiary), while private voluntary organizations wi illion
Z in recurrent costs plus bonuses to many physicians a nel,
and subsidies to hospitals and HCs.

7.2.4.1. User-fee System

GOZ/MOH policy states that user fees are to suppo ing
costs of service delivery at the HC level and below, e e
salaries of two nurses at HCs who are paid by the GOZ. eceipts
will also pay the fuel costs of health-center supervis y RHZ
personnel.

72

Experience in SANRU I shows that user fees rarely support all these costs. However, the principle that full costs of medicines should be paid by users is nearly universally accepted, and paying a consultation fee is widely accepted as well.

SANRU II will facilitate the GOZ efforts at mobilizing community resources to finance health care by helping the MOH better understand the possibilities for and limitations of the user-fee system. The project will support operational research into the various types of user-fee systems in place (especially investigation of the level of costs that can be covered and the effect of fees on use of services). SANRU II will institute improved training methods of medical chiefs, so they can better train nurses in establishing fee schedules to balance cost recovery and use of services. The project will also support efforts to cut operating costs while maintaining quality of care delivered (such as the support for the pharmaceutical-supply system). Finally, SANRU II will support a national-level conference(s) to consider modifications in the cost-recovery policy based on the findings of the operational research.

7.3. Economic Analysis

This economic analysis consists of two parts. The first explains the benefit-cost technique's limitations for this project's analysis, attempts to identify benefits and costs, and does some indicative calculations. The second part discusses the cost-effectiveness of the project-supported package of interventions.

7.3.1. Application of Standard Benefit-Cost Criteria to the Project

For most development projects, economic analysis involves the application of standard benefit-cost methods. The streams of adjusted project costs and benefits over time are compared by calculation of the present value of net benefits or the internal rate of return.

Ideally, one or both of these methods would be applied in the economic analysis of this project. However, such analyses are somewhat inappropriate here for two reasons. First, the project intends to expand and improve the structure of the primary health care (PHC) delivery system rather than directly deliver services. Second, benefit-cost analysis cannot address some important aspects of health-sector interventions. The pure-utility values of reduced morbidity and mortality and the value of improved work or school performance are nearly impossible to estimate. Given that a complete benefit-cost analysis is not applicable, the manner in which quantifiable benefits could be measured is discussed, and non-quantifiable benefits are described.

7.3.1.1. Benefits from Project-Assisted Interventions

The project will assist in the establishment of PHC services to address the ten most prevalent public health problems in rural Zaire and promote the acceptance of family planning. It will provide improved access to clean water as well. The interventions may be categorized as producing six types of benefits: reductions in mortality, morbidity, and malnutrition, changes in treatment, reductions in fertility, and general improvement in the quality of life. Within each type of benefit there are both quantifiable and non-quantifiable elements.

7.3.1.1.1 Non-quantifiable Benefits

The benefits which cannot be quantified in money terms, using generally agreed-upon techniques, are pure-utility gains and productivity effects. The productivity effects of reduced fertility and time savings from better access to water are exceptions. There is a pure utility gain from averting deaths and illness, from reducing malnutrition, from reducing unwanted and untimely fertility, and from the improved quality of life resulting from better access to clean water. There are possible productivity gains from postponing deaths of those who are at or below working age and from improvement of school and work performance through reduced malnutrition and morbidity. Since these benefits cannot be quantified in money terms, they can be described only as impacts: numbers of deaths, illnesses, cases of malnutrition, and unwanted pregnancies averted and numbers of people having access to greater supplies of clean water. The water interventions will directly affect 1.5 million people.

Estimation of the other impacts can only be speculative without the baseline studies that will have to be done to assess the current situation with regard to these indicators. It is expected, however, that child mortality will decline by 10 to 50 percent. An indicative calculation shows that between 2,600 and 13,000 young children's deaths would be averted each year once interventions reach their full impact in the population of 3,000,000 persons affected. Not enough is known about other morbidity and mortality rates to make similar rough calculations.

7.3.1.1.2. Quantifiable Benefits

The benefits that are quantifiable, in principle, are the avoided costs of treatment, savings in medicine costs where less costly treatments are used, the effects of reduced population growth, and time savings from better access to water. However, little is known about the before-project status of the target population with regard to these quantifiable benefits.

7.3.1.2. Costs

The project costs are shown in Tables 15.3 and 15.4. The real recurrent costs of the activities assisted by the project are given in Table 15.1. No adjustments need be made in these costs for distortions in the prices and wages.

However, there is a non-monetary cost that should be considered. Population growth would increase because of expected reductions in mortality. Rough calculation of the population growth resulting from expected reductions in child mortality indicates the population growth rate would rise from 3.20 percent to 3.29-to-3.62 percent.

The expected acceptance rate of family planning under the project implies a long lag before the impact of improved child survival on population growth will be compensated for by reduced fertility. In the intervening years, many children will have been added to the population.

However, decreased child mortality is an important factor leading to a desire to control fertility, hence to accept family planning. Thus, there may be a necessary delay between reductions in child mortality and the eventual reduction in population growth through acceptance of family planning. This delay or "demographic transition" has been observed in many other countries.

7.3.1.3. Calculation of Benefits and Costs

Since even those benefits which are measurable in principle are not measurable in practice, it is not possible to calculate even a partial benefit-cost ratio or rate of return. However, it is possible to calculate an indicative present cost of a death averted. This calculation shows that the present cost of a death averted would be between $517 and $2,489. These costs fall well within the range of costs per death averted found for other types of health interventions in other settings: from $445 for ORT in Egypt, Zaire, and Honduras, to $9,000 to $27,000 for water supply and sanitation worldwide.

7.3.2. Cost-Effectiveness Analysis

Three types of cost-effectiveness analysis are done. The project as a whole is compared to alternative interventions; PHC's package of interventions is compared to individual interventions; and some individual components of the project are examined.

75

7.3.2.1. The Project Versus Alternatives

The economic analysis of the predecessor to this project, Basic Rural Health I (SANRU I), compared the project to several alternatives:

1. assistance to central hospitals;
2. assistance to vertical programs;
3. assistance to the GOZ alone;
4. assistance through Catholic or Kimbanguist mission networks; and
5. provision of medicines and equipment alone in lieu of technical assistance.

The project was expected to be superior to each alternative. This proved to be so for SANRU I and should be so for SANRU II as well. Each alternative is briefly discussed in the Economic Analysis.

7.3.2.2. The PHC Package

It is impossible to make a quantitative analysis of the PHC package versus individual intervention alternatives since there are few cost and impact data available. However, two studies of the cost-effectiveness of PHC interventions show that the SANRU II PHC approach combines all the elements which demonstrate consistently positive results in reducing morbidity and mortality, and which are "clearly effective and known to be feasible and affordable." In addition, the package approach can spread the overhead costs over many interventions.

7.3.2.3. Individual Components of the Project

The various ways the project minimizes costs and improves cost effectiveness include use of existing resources (e.g., TBAs) and voluntary labor, the training-of-trainers approach, and management training to improve resource utilization. The project also takes advantage of the previous investment made in 50 RHZs during SANRU I by assisting the establishment of an additional 200 HCs in those RHZs. This raises the cost-effectiveness of the RHZs.

7.4. Social Soundness Analysis

7.4.1. Socio-cultural Context

Zaire is geographically vast and culturally diverse. Rural residence patterns, for example, vary from large villages surrounded by many kilometers of open land, to small villages or individual homesteads in densely populated areas. Some local political systems have a hierarchical organization with a high-level chief or king; others have many family or lineage groupings with no traditional unifying structure. Organized Christianity is an intergral part of rural Zairian life, but again with diverse ways of structuring churches, school systems, and health care.

Five years ago, just before the inauguration of the SANRU I Project and the GOZ's primary health care plan, health coverage with curative and preventive services varied markedly from one rural area to another. The challenge was to offer much wider coverage without sacrificing the quality of the good programs already working.

The new plan called for decentralization of authority to several hundred newly created rural health zones. The concept, though logical and admirable, is not always easy to work out in its details. Each zone must have a defined area for which it is responsible, and traditional areas of influence and supervision sometimes conflict.

7.4.2. Socio-cultural Feasibility

Can the health zone concept and the SANRU Project succeed in this complex context? Five years ago the answer was uncertain, but now we know that many rural health zones are working, and working well. We can now identify certain danger points and say that SANRU II is a feasible project if the following trends are watched closely:

(a) SANRU II, the GOZ, the NGOs and other donor agencies must continue to view health zones as autonomous entities, able to decide their own priorities, make their own plans, and carry out their own programs. SANRU II will help zones develop certain common approaches, but it must resist the temptation to over-standardize or control their activities.

(b) SANRU II will examine the various ways health zones are organizing their activities, in order to learn lessons and help new zones with this process.

(c) SANRU II will encourage zones to experiment with different ways of supplying and financing their work, and to document and publicize their successful and unsuccessful experiences.

7.4.3. Participation

Zairians have long been accustomed to paying for health services, both curative and preventive, so financial participaton is already established. As for participation in health projects and management, a few zones have had remarkable success with village committees and health center committees, while others have not; both sorts of experiences need to be documented and studied for the benefit of all health zones in Zaire. Overall, community participation is said to be a keystone of primary health care in Zaire, but it is one of the least developed aspects and will be emphasized by the SANRU II Project.

At the regional and national level, dozens of Zairian health personnel with experience under the SANRU I Project have participated in all phases of planning the SANRU II Project. The project will depend very heavily on Zairian expertise at the highest levels of planning, teaching, administration, and techical consultations.

7.4.4. Motivations

Observers of rural health zones related to SANRU I are often struck by the high level of enthusiasm and motivation among the physicians and nurses. They seem to be motivated mainly by the continuing education, stimulation, challenges, contacts with colleagues and supervisors, and the equipment and supplies they received to do their work. They are definitely not motivated by financial gain, for they receive ridiculously small salaries, and primary health care requires of them extra work while offering them little opportunity for extra income. As for village health workers and committee members, in some zones they function as volunteers; in some zones they receive a small recompense in money or services.

The SANRU II Project will not offer financial incentives of any kind to health workers, but it will not ignore the perennial problem of insufficient pay for good, honest work. The project will actively encourage zones and communities to find creative ways to compensate their health workers (in goods, services, or money). The entire health zone concept, successful as it has been so far, could eventually fail if this issue were not addressed openly, honestly, and with imagination.

7.4.5. Beneficiaries

The immediate beneficiaries of the SANRU II Project will be the Zairian health workers who receive training, equipment, stimulation, and supervision in their work. They include 50 young physicians; some 2500 nurses, auxiliaries and technicians (about 32 percent of them women); and 3000 village workers (about 50 percent of them women).

The ultimate beneficiaries, of course, are the 3,600,000 people in the villages served by the 720 health centers. They will all have better access to improved curative and preventive care. About 1,500,000 will have better water supplies. The most intensive health programs will reach the target populations of 700,000 children under age 5, and the 800,000 women of child-bearing age.

Finally, this project will make hundreds of rural communities more attractive places to live. Their residents will begin taking control of parts of their lives where they currently feel they have little control or choice: child-bearing, water supplies, and basic health services.

7.4.6. Spread Effects

Many training programs developed under SANRU I and II will be replicated and expanded to the other 200 health zones of Zaire. Experiences in financing, zone organization, and community participation will be documented and shared.

SANRU II will directly affect the national health system by involving and building consensus among various regional and local groups. It will continue to lead in developing a workable information system to be used by all health programs. The project will also help nursing schools integrate primary health care subjects and practice into their regular curricula.

SANRU II will help disseminate Zaire's experiences and lessons to other countries through church and government channels, international conferences, publications, and through receiving visitors on study tours. Through all these means, the project will show how Zaire's health program struggles with, yet capitalizes on, the nation's diversities.

7.5 Administrative Feasibility

The SANRU II Project administration will build upon the same premise as that of SANRU I, i.e., a major bilateral project is administered through a non-governmental agency, the ECZ (Church of Christ of Zaire). This novel approach to management of a bilateral project has been recognized as extremely efficient for several reasons:

1) Day-to-day project management decisions are made by a team of representatives including ECZ, (project director), GOZ (MOH representative), and the AID-funded TA project manager. The USAID project officer closely monitors these activities. Each partner thus has a fair say in project management in a structure independent of any one administrative bureaucracy. Each person is responsible for reporting and dealing with inquires/problems pertinent to his respective organization.

2) The administration of SANRU provides a flexibility in planning and budgeting which enables the project to react quickly to the needs of health zones. Time lags for responding to requests for assistance are thus kept to a minimum.

3) The project has an excellent track record of getting financial and material assistance quickly and safely to the implementing agencies at the health-zone level.

4) SANRU has provided a structure through which other AID centrally-funded projects can work. Projects such as PRICOR, AVS, and JHPIEGO are each able to sign agreements with an NGO such as ECZ while profiting from the umbrella management structure of the SANRU Project.

5) The SANRU II Project, in providing assistance to 100 health-zone programs, provides a mechanism to distribute the resources of a large bilateral project without overwhelming the beneficary beyond its absorptive capacity.

The implementation of the greatly expanded activities of SANRU II, using an administrative structure similar to that of SANRU I, is feasible. However certain issues must be resolved including personnel, office and warehouse space, logistical and supervisory support, and relationships with other projects.

SANRU I, as the principal health project within the central medical office of ECZ, has established both internal administrative and external assistance capabilities. The tendency has been for other AID centrally-funded projects to attach their assistance programs to SANRU I administration. Examples of this are AVS equipment assistance for operating rooms, JHPIEGO training in family-planning, and PRICOR operations-research projects, all of which were established by agreements signed with ECZ and administered through SANRU. The ECZORT Project represented a similar situation but required establishment of separate administrative procedures according to the guidelines specified by ORT.

The attachment of a large water and sanitation subproject to SANRU II will be a further step in collaboration, with a subproject component based within another ministry. The water and sanitation activities constitute a SANRU II subproject with two major components - the development of the national, regional and sub-regional capability of the National Rural Water Service (SNHR), and the financing of water/sanitation interventions within the health zones. The first of these components is to be implemented under a separate grant agreement with the Ministry of Agriculture and Rural Development, and managed by the SNHR. This will include an administration completely separate from the central SANRU II Office (located at ECZ). Coordination of activities between SNHR and SANRU II will be essential.

Two AID-financed long-term technical advisors will be based at the SNHR, one of whom will spend at least 10 percent of his time at the SANRU II Office. In addition, SANRU II staff will be involved in joint planning meetings with the SNHR and the National Sanitation Program (PNA) to integrate water and sanitation activities into the health-zone structure. In short, the two components of the water/sanitation subproject of SANRU II will be closely coordinated; at the same time, they will have clearly defined scopes of work to assure that administrative overlap is kept to a minimum.

8. CONDITIONS AND COVENANTS

To facilitate implementation of the project in accordance with the implementation schedule, the following conditions and convenants will be included in the grant agreements with the Ministry of Health (MOH) and with the Ministry of Agriculture and Rural Development (MOARD).

8.1. Grant to Ministry of Health

8.1.1. Conditions Precedent

1. First Disbursement

Prior to the first disbursement under the Grant or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee shall, except as the Parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(a) A statement of the name of the person who will serve as the Ministry of Health primary representative, and of any additional representatives, together with a specimen signature of each person specified in such statement, to interface with USAID and the ECZ on project implementation activities.

2. Additional Disbursement

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant, to which disbursement will be made, for any purpose other than to finance the services referred to in Section 1. of 8.1.1. (above), the Grantee will, except as the parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(a) The evaluation program referred to in Section 1. of 8.1.2. (below).

8.1.2. Covenants

1. The Parties agree to establish an evaluation program as part of the Project. Except as the Parties otherwise agree in writing, the program shall include, during the implementation of the Project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the Project;

b) identification of problems impeding accomplishement of objectives and recommendations for their amelioration;

(c) analysis of project costs and recommendations for more efficient project operations; and

(d) analysis of project impact on overall demographic and economic development to the degree feasible and when indicated.

2. The Grantee agrees that prior to the initiation of Project-funded construction or water/sanitation activities, these activities will be subject to an environmental review conducted by A.I.D., and the decisions and recommendations resulting from this review would be reflected in the implementation of such activities.

3. The Grantee shall budget for and make available in a timely manner all necessary budgetary and human resources needed at participating rural health zones, at the offices of thirteen Project-assisted subregional medical inspections and at the offices of the eight (rural) regional medical inspections. Specifically the Grantee shall ensure that the following positions are filled and shall ensure payment of salaries for each:

(a) At 8 Regional Medical Inspection Offices:
- medical inspector
- primary health care physician
- general services administrator
- assistant administrator for primary health care resource utilization
- pharmacy inspector

(b) At 13 (Project-assisted) Subregional Medical Inspection Offices:
- subregional medical chief

(c) At 100 Rural Health Zones Offices:
- medical chief
- administrator
- nurse supervisor
- pharmacist/assistant pharmacist
- water and sanitation supervisor
- driver-mechanic

(d) At 720 Health Centers:
- nurse (A2 level)
- nurse (A3 level)

4. (a) The Grantee shall assume adequate costs of transport (fuel and maintenance) and supervision to be performed by the staff of the eight regional medical inspection offices and the thirteen Project-assisted subregional medical inspection offices.

(b) As the (Grantee counterpart-funded) subsidy for supervision/transport costs within the rural health zones (RHZs) is gradually phased out over five years (starting from the year each zone is established), the Grantee shall provide from its own budgetary sources (i.e., excluding counterpart funds) sufficient funds to maintain adequate supervision within the RHZ.

5. On condition that the University of Kinshasa nine-month certificate public health training program (considered equivalent to Master of Public Health training) begins in 1986, the Grantee shall:

(a) ensure that the primary health care (PHC) physicians (chefs de bureau for PHC) posted at the eight rural regional medical inspection offices will, by the end of 1987, have undergone MPH training or equivalent.

(b) ensure that the subregional medical chiefs posted at the thirteen subregions selected for SANRU II assistance will, by the end of 1989, be physicians who have undergone MPH training or equivalent.

(c) make all efforts to ensure that the eight (rural) regional medical inspectors will, by the end of 1988, be physicians who have undergone MPH training or equivalent.

If the University of Kinshasa nine-month certificate public health training program begins later than 1986, the above dates (under (a), (b), and (c)) would be set back accordingly.

6. The Grantee agrees that the Project shall play a major role in the development and management of the restructured FONAMES or any other Governmental body that is established to plan and coordinate primary health care in Zaire, particularly in developing and managing selected activities of this organization (such as the health information system and training programs) as described in the Project Paper.

7. The Grantee agrees that the ECZ will be the primary implementing agent for the Project.

8.2. Grant to Ministry of Agriculture and Rural Development

8.2.1. Conditions Precedent

1. First Disbursement

Prior to the first disbursement under the Grant or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee shall except as the Parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(a) A statement of the name of the person who will serve as Project Director and the Ministy of Agriculture and Rural Development's representative to the Project, and of any additional representatives, together with a specimen signature of each person specified in such statement. The Project Director should also hold the position of Director of the National Rural Water Service (SNHR).

2. Additional Disbursement

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant, to which disbursement will be made, for any purpose other than to finance the services referred to in Section 1. of 8.2.1. (above), the Grantee will, except as the parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(a) The evaluation program referred to in Section 1. of 8.2.2. (below).

8.2.2. Covenants

1. The Parties agree to establish an evaluation program as part of the Project. Except as the Parties otherwise agree in writing, the program shall include, during the implementation of the Project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the Project;
(b) identification of problems impeding accomplishment of objectives and recommendations for their amelioration;
(c) analysis of project costs and recommendations for more efficient project operations; and
(d) analysis of project impact on overall demographic and economic development to the degree feasible and when indicated.

2. The Grantee agrees that prior to the initiation of Project-funded construction or water/sanitation activities, these activities will be subject to an environmental review conducted by A.I.D., and the decisions and recommendations resulting from this review would be reflected in the implementation of such activities.

3. The Grantee agrees to the creation of a Coordinating Committee which will meet bimonthly under the direction of the executive secretariat of the CNAEA. The Coordinating Committee will be responsible for reviewing project progress, resolving implementation problems, and providing policy and strategy guidance to the national rural water program. The committee will be composed of representatives of SNHR, CNAEA, UNICEF, USAID, other bilateral donors, WHO, UNDP, PNA, Peace Corps, NGOs supporting rural water programs, and the SANRU II Project Office.

4. The Grantee shall budget for and make available in a timely manner all necessary budgetary and human resources needed to support National Rural Water Service (SNHR) participation in Project activities. Specifically the Grantee will assume payment of staff salaries and limited operating costs (in amount equal to at least 20 percent of salary costs) for the following numbers of SNHR brigades and SNHR central office personnel who will be engaged in Project activities:

	1986	1987	1988	1989	1990	1991	1992
SNHR Brigades	10	16	22	26	26	26	26
SNHR Brigade Personnel	170	272	374	442	442	442	442
SNHR Central Bureau Personnel	20	20	20	20	20	20	20
Total SNHR Personnel	190	292	394	462	462	462	462

87

5. In view of the expansion of staff and activities, as well as the complexity of SNHR's program in the rural water sector, the Grantee shall:

(a) agree to the institution of management, financial, and organizational reforms at SNHR in order to improve its performance and make it more responsive to its mandate to coordinate, plan, and deliver rural water services;

(b) agree to close and intensive supervision of the activities of SNHR field stations and brigades;

(c) provide SNHR with additional office space either by relocating to move spacious premises or by refurbishing and expanding the current SNHR central office; and

(d) provide, or cause to be provided, in a timely manner, adequate and secure office and equipment space for all 26 SNHR water brigades to be assisted during the life of Project.

6. The Grantee shall identify and assign in a timely manner at least one counterpart for each long-term technical advisor and shall provide office space for use by each long-term technical advisor.

9. EVALUATION PLAN

9.1. Overall Evaluation Plan

Internal evaluation will be an integral part of the SANRU II Project. SANRU II will continually assess project organization, management, and implementation so that adjustments can be made frequently during the project to increase the effectiveness of project activities. In addition, there will be three external evaluations: a preliminary evaluation of SANRU II which beginning of year two will be done at the as part of the final evaluation of SANRU I; a major mid-term evaluation which will be scheduled in the latter part of the fourth year, and the final evaluation which will take place a few months before the project ends.

Internal on-going evaluation will be carried out using data from the health information system, the findings of SANRU-supported operations research projects and other special studies, and also from the observations and analyses of project staff. The results will be used by the project staff to recommend modifications or to strengthen project activities. A major objective of internal evaluation activities will be to institutionalize applied-research and evaluation capabilities within the GOZ.

Community participation will be an important focus of the internal evaluation activity. Although community involvement is essential to the successful implementation of PHC, it is still a relatively new concept in Zaire. However, some zones have already had long enough experience in community-involvement activities. Thus, an analysis of the strengths and weaknesses of their individual approaches would be extremely useful to other zones. SANRU II will therefore support an in-depth study of village development committees, VHWs, and TBAs in the first year of the project and will continue to evaluate community participation throughout the life of the project.

Training is the most important component of SANRU II in terms of institutionalizing PHC in Zaire, and a large number of training activities will be carried out. Therefore training will be evaluated so that appropriate modifications can be made in successive courses to ensure the maximum effect of each one. SANRU II will provide specialized technical assistance to introduce sound techniques of evaluating curricula, didactic materials, pedagogical techniques, and outcome based on the performance of participants.

SANRU II will also evaluate alternate approaches to financing the delivery and supervision of services in the RHZs in order to identify viable models that can assure the sustainability of PHC after the project ends. Similarly, pharmaceutical distribution systems will be studied, including the role of VHWs in selling a few basic medicines.

The health information system will be fully operational in project RHZs within the first year or two of the project assistance. Therefore, the project staff, in collaboration with the MOH, will have the statistics to evaluate accessibility and coverage in these areas. The data will also be useful for macro-planning by the MOH. SANRU II will use these process indicators to measure the progress of project implementation. Outcome measures generally are costly to obtain and frequently unreliable; therefore, accessibility and coverage, in conjunction with qualitative assessments of service delivery, will be considered proxy indicators of project impact. However, the project will also commit significant resources to supporting baseline and end-of-project community-based sample surveys to assess impact on changes in health status, particularly changes in infant and child mortality.

The first external evaluation, carried out together with the final SANRU I evaluation, will focus on the transition from SANRU I to SANRU II. The team will reassess the SANRU II strategy in view of the achievements and weaknessess of SANRU I. The team will also review the new components of SANRU II, including the water program and strengthening the Ministry of Health.

The second evaluation will study the project in depth and recommend modifications in the project plan for the remaining three years. The evaluation will require approximately six weeks. The team should include several outside consultants and representatives from AID/W, REDSO/WCA, and the GOZ with expertise in health economics, community participation, training, health information systems, logistics, and water and sanitation. The USAID project officer, as well as SANRU II technical advisors and staff, will serve as resource personnel.

The evaluation team will recommend modifications in the project design, as appropriate. The team will identify project elements that should be reduced or eliminated and will also assess the absorptive capacity of the MOH and the SNHR to determine whether some activities should be increased and whether new activities should be added. For example, the degree to which the planned rate of establishing new health centers was realistic will be examined, and recommendations made for increasing or decreasing the pace, if appropriate. Clearly, changes in the level of project activities could have implications for increasing project funding levels in the final years as well as for extending the life of project.

This evaluation will assess the potential for project activities to be institutionalized and project outputs to be sustained. The evaluation will focus on specific issues including:

- the degree to which community participation results in increased access to and utilization of primary health care services;
- the credibility of VHWs and TBAs and their sense of "job satisfaction";
- the appropriateness and institutionalization of in-country training activities;
- the extent to which rural health zones can be self-financing;
- the reliability of logistic supply systems;
- the maintenance of adequate supervision at all levels;
- the long-term viability of continued water and sanitation installations and maintenance;
- the provision of essential budgetary support from the GOZ;
- the replicability of rural health zone activities in RHZs not receiving outside support.

The final evaluation will be a comprehensive assessment of project achievements compared with expected outputs, and of the project's contribution toward the overall goal and purpose. Specifically, the evaluation team will review and assess project-funded studies aimed at determining project impact. The team will identify lessons learned that will be useful to future primary health care programs in Zaire and other countries. The team will also make recommendations about future USAID/GOZ collaboration in the health sector.

9.2. Evaluation Plan for Water and Sanitation

There will be an annual project review by representatives from USAID, the MOARD, the CNAEA, and the MOH to review progress made in achieving project water and sanitation output targets. No annual review will be performed when the mid-project external evaluation for the whole project is performed.

Evaluation criteria:

The annual reviews and mid-term evaluation for this component of the project will consider the following in assessing project performance:

- Number and types of water systems constructed
- Number of beneficiaries for systems constructed
- Quality of systems installed
- Cost of systems
- Level of community participation in planning, construction, and maintenance
- Institutional maintenance systems organized for each water system
- Level of institutionalization of RHZ water program
- Training for all levels of water staff
- Compliance with Zaire's rural water and sanitation policy and strategy document

This project component will also be critically reviewed annually from the standpoint of program planning, administration, and logistic support to field teams. A conscious decision has been made not to evaluate the morbidity and mortality impact of this specific project component as is sometimes the case in free-standing water and sanitation projects. The reasons for this decision are:

(1) Since there are other PHC inputs to the project at various levels, it would be difficult, if not impossible, to selectively attribute disease and/or mortality reductions to the water component of the project.

(2) The cost and technical requirements of an evaluation designed to demonstrate the health impact of this project component alone would be beyond the scope of this project.

(3) The project impact studies would not be able to consider water supply and sanitation inputs separately. Rather, these are seen as only one of several PHC inputs which would have to be considered collectively.

ANNEXES

6) ACTION AID2 INFO AMB DCM ECON CERON

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PP RUEHKI
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BT
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ANNEX 1

LOC: 153 374
25 APR 85 1854
CN: 21275
CHRG: AID
DIST: AID

ACTION TAKEN
NAME ..... DATE .....

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: ZAIRE BASIC RURAL HEALTH PID (660-0107): ECPR GUIDANCE CABLE

1. THE ECPR WAS HELD ON MARCH 21, 1985, CHAIRED BY DAA/AFR, JAY P. JOHNSON. THE ECPR RECOMMENDED THE APPROVAL OF THE PID, NOTWITHSTANDING IMPORTANT CONCERNS IDENTIFIED, AND PROCEEDING WITH DESIGN OF THE PP, BUT ALSO RECOMMENDED MISSION PROVIDE TO AID/W, DURING THE DESIGN PREPARATION, CLARIFICATION (BY CABLE OR MEMORANDUM) OF THE MISSION'S POSITION REGARDING CONCERNS OUTLINED BELOW.

2. THOSE IN ATTENDANCE AT ECPR FELT THAT IT WOULD BE HELPFUL TO HAVE A FULL DESCRIPTION OF AID'S INVOLVEMENT IN THE RURAL HEALTH SECTOR IN ZAIRE AND OF HOW THE PROJECT FITS (THIS SHOULD BE BRIEF; NOT MORE THAN 3-4 PAGES); INCLUDE A SUMMARY OF WHAT OTHER PROJECT ACTIVITIES ARE IN RURAL HEALTH. THIS MIGHT BE PROVIDED BY CABLE RESPONSE SOONER OR IN PREPARATIONS FOR THE MAY PORTFOLIO REVIEW.

3. THREE CONCERNS WERE THOUGHT TO BE CRUCIAL TO CONTINUED SUCCESS OF THE PROJECT: PROJECT PERFORMANCE CRITERIA, SUSTAINABILITY AND OBLIGATION FOR U.S. TO CONTINUE FUNDING PROJECT IN FUTURE.

4. PERFORMANCE CRITERIA FOR PROJECT. RECENTLY, IN A NUMBER OF PHASE II PROJECTS, BUREAU FOCUS HAS BEEN DRAWN TO SUFFICIENCY OF EFFORT TO ADDRESS PHASE I EVALUATION FINDINGS. THE EVALUATION OF BASIC RURAL HEALTH I, WHICH WAS HIGHLY FAVORABLE, RAISED SEVERAL OPERATIONAL AND MANAGEMENT PERFORMANCE PROBLEMS. WE DO NOT HAVE A FULL PICTURE OF HOW THEY HAVE BEEN ADDRESSED. THE ECPR ADDED A CONCERN REGARDING CAREFUL ATTENTION TO AREAS IN WHICH QUALITY OF PERFORMANCE OF EXISTING SERVICES MIGHT BE STRENGTHENED WHEN PREPARING TO EXPAND THE GEOGRAPHIC SCOPE IN A PEASE II PROJECT.

USAID/ZAIRE

ACTION	INFO
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4/27/85

5. SEVERAL CONCERNS EMERGED FROM THE ECPR:

A. WHILE THE PROJECT DESIGN OF PHASE II SHOULD INCLUDE

CURRENT AND PLANNED ACTIONS TO ADDRESS EVALUATION FINDINGS OF BASIC RURAL HEALTH I, AID/W WISHES THE USAID TO SUBMIT A PRELIMINARY OUTLINE OF THESE ACTIONS. 10 (2)

B. A MORE CURRENT EVALUATION OF ALL COMPONENTS OF THE BASIC RURAL HEALTH PROGRAMS IS NEEDED FOR GUIDANCE IN IMPLEMENTING PHASE II. AID/W ACCEPTS THAT THE EVALUATION MAY NEED TO BE DEFERRED UNTIL AFTER THE START UP OF PHASE II BUT WISHES THE USAID TO ADVISE WHEN SCHEDULING WILL BE POSSIBLE.

C. THE ROLE OF PCV'S IN THE PROJECT SHOULD BE CLARIFIED.

D. THE DESIGN NEEDS TO SPECIFY PERFORMANCE CRITERIA AGAINST WHICH PROJECT ACCOMPLISHMENTS MAY BE MEASURED. THESE MAY NEED TO BE REFINED FOLLOWING FINDINGS OF THE EVALUATION. THE LOP EVALUATION SCHEDULE NEEDS TO BE MORE DETAILED.

6. SUSTAINABILITY OF PROJECT. WE RECOGNIZE THE DIFFICULTY OF THIS PROBLEM AND THAT ANSWERS WILL NOT BE FOUND IN THE NEAR-MEDIUM TERM. THE USER FEE SYSTEM AND SALES WILL NOT GENERATE ADEQUATE REVENUE TO COVER THE COSTS OF OPERATING AND SUPPLYING THE RURAL HEALTH ZONES. YET, THE PROJECT IS CURRENTLY PROVIDING LARGE QUANTITIES OF VEHICLES, MOTORCYCLES, MOTORBIKES, PHARMACEUTICALS AND EQUIPMENT FOR THE RURAL HEALTH CENTERS AS WELL AS COVERING SOME STAFF AND OTHER OVERHEAD EXPENSES. THIS FACT CREATES TWO PROBLEMS:

A. HOW WILL THE PROJECT ADDRESS THE FUTURE GENERATION OF REVENUES THROUGH FEES, GOZ COMMITMENT, AND BROADENING OF THE DONOR BASE OF SUPPORT, SO THAT MAJOR COSTS (E.G., PHARMACEUTICALS, SERVICES, AMORTIZATION, ETC.) CAN BE COVERED?

(B) HOW CAN THE UNIT SERVICE COSTS BE CONTAINED OR REDUCED? THESE ISSUES SHOULD BE ADDRESSED IN FINANCIAL AND ECONOMIC ANALYSES OF PROJECT DESIGN.

7. CONTINUING U.S. COMMITMENT. THE U.S. IS CURRENTLY CONTRIBUTING A HIGH PERCENTAGE OF TOTAL PROGRAM COSTS. IF THE U.S. CONTINUES TO DO SO, EITHER DIRECTLY OR THROUGH PL 480 COUNTERPART, AND PROVISION IS NOT MADE TO FIND OTHER FUNDING SOURCES OR TO INSTITUTIONALIZE GOZ SUPPORT, THE U.S. MAY BE EXPOSING ITSELF TO PRESSURE FOR CONTINUED SUPPORT BEYOND THAT FOR WHICH ACCOMMODATION MAY BE ANTICIPATED IN FUTURE OYB LEVELS. THEREFORE, THIS PROJECT SHOULD BE PERCEIVED AS POTENTIALLY REQUIRING CONSIDERABLE FUTURE RESOURCES. WE NEED TO KNOW THE MISSION'S COMMITMENT TO CONTINUING EFFORT IN OUT YEARS.

E. A CONCERN WAS ALSO RAISED AT THE ECPR ABOUT EFFICACY OF MISSION'S DECISION TO USE PSC'S. WHEREAS THIS STEP EXPANDS SPAN OF MISSION MANAGEMENT CONTROL, IT ALSO LEAVES A NUMBER OF INDIVIDUALS WITHOUT SUPERVISION OR CLEAR LINES OF AUTHORITY. PROJECT COMMITTEE FELT THAT INSTITUTIONAL CONTRACTS MAY BE MORE APPROPRIATE. THE TOPIC OF PSC'S WILL BE ON THE AGENDA FOR THE MAY PORTFOLIO REVIEW.

9. GC/AFR RAISED THE FOLLOWING CONCERNS:

A. IEE: IT IS PREMATURE TO MAKE NEGATIVE DETERMINATION BECAUSE WATER SUPPLY SYSTEMS AND OTHER CONSTRUCTION IS NOT ADEQUATELY DEVELOPED IN THE PID. THERE IS NO NARRATIVE IN E IEE SUPPORTING THIS RECOMMENDATION IN REGARD TO THESE CRITICAL ELEMENTS.

B. MINORITY BUSINESS: THIS PROJECT MAY BE APPROPRIATE FOR THE PARTICIPATION OF MINORITY, SMALL BUSINESS FIRMS.

C. FAMILY PLANNING: FAMILY PLANNING ACTIVITIES MUST BE IN ACCORDANCE WITH CURRENT AGENCY POLICY, INCLUDING POLICY REGARDING ABORTION. SHULTZ
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CLASS: UNCLASSIFIED
CHRGE: AID 07/19/85
APPRV: D/DIR:ASLEZIN
DRFTD: DEO:BHARRELSON:
CLEAR: PRM:JBABYLON
DISTR: AMB DCM AID2
ECDN CHRON

AIDAC

E.O. 12356: N/A
SUBJECT: ZAIRE BASIC RURAL HEALTH II PROJECT (660-0107) ECPR ISSUES

REF: STATE 123959

1. MISSION IS PRESENTLY FINALIZING SUBJECT PP FOR PLANNED AUTHORIZATION IN AUGUST. THE FOLLOWING INFORMATION IS PROVIDED IN RESPONSE TO QUESTIONS RAISED AT ECPR AND ADDRESSED TO MISSION IN REFTEL. PARAGRAPHS BELOW ARE NUMBERED TO CORRESPOND WITH THE PARAS IN REFTEL.

2. USAID'S AND THE GOZ'S STRATEGIES AND OBJECTIVES IN THE HEALTH, POPULATION AND NUTRITION SECTORS COINCIDE. IN THE HEALTH SECTOR, THE OVERALL GOAL OF THE USAID AND GOZ PROGRAM IS TO ASSURE ACCESS OF THE POPULACE TO WELL-DEFINED BASIC HEALTH CARE BY THE YEAR 2000, RESULTING IN SIGNIFICANTLY DECREASED MORTALITY AND MORBIDITY. USAID'S OBJECTIVE IN THE NUTRITION SECTOR IS TO HELP ZAIRE ACHIEVE ITS GOAL OF ELIMINATING ACUTE MALNUTRITION AND GENERALLY REDUCING CHRONIC MALNUTRITION IN THE UNDER-FIVE POPULATION BY THE YEAR 2000. THE ULTIMATE GOAL OF POPULATION PROGRAMS IS TO IMPROVE THE QUALITY OF LIFE BY PROVIDING ZAIRIAN FAMILIES THE MEANS TO HAVE THE CHILDREN THEY WANT WHEN THEY WANT THEM.

THESE SECTOR OBJECTIVES IMPLY A BROAD COMMITMENT TO SEEKING A LONG-TERM, CUMULATIVE IMPACT. USAID'S EMPHASIS IN THESE SECTORS IS PLACED ON ASSISTING GOZ EFFORTS TO PROVIDE AN ECONOMIC AND SOCIAL ENVIRONMENT THAT WILL LEAD TO IMPROVED HEALTH STATUS, DECREASED LEVELS OF MALNUTRITION, AND SMALLER FAMILIES. THESE INDIVIDUAL SECTOR OBJECTIVES ARE MUTUALLY REINFORCING, WITH THE SUCCESS OF ACTIVITIES IN ANY ONE SECTOR INCREASING THE LIKELIHOOD OF SUCCESSFUL ACTIVITIES IN THE OTHER TWO.

IN ORDER TO ACHIEVE ITS HEALTH, NUTRITION, AND POPULATION OBJECTIVES, USAID CONCENTRATES AVAILABLE ASSISTANCE ON THE FOLLOWING:

A. IMPROVING THE PLANNING CAPABILITIES OF CENTRAL GOVERNMENT INSTITUTIONS AS PLANNING AGENCIES;

95

TRAINING AND ESTABLISHING THE CAPACITY TO TRAIN THE TECHNICAL AND MANAGERIAL PERSONNEL NECESSARY TO STAFF THE HEALTH, NUTRITION, AND FAMILY PLANNING PROGRAMS; 10 (5)

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C. INSTITUTIONALIZING AND EXTENDING A SUSTAINABLE RURAL HEALTH NETWORK; AND

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D. IMPLEMENTING A LIMITED NUMBER OF HEALTH, NUTRITION, AND POPULATION PROGRAMS SO THAT BENEFITS CAN REACH THE HOUSEHOLD LEVEL.

THE MAJORITY OF USAID ASSISTANCE TO THE HEALTH, POPULATION, AND NUTRITION SECTORS IS CHANNELLED THROUGH THE PRIVATE SECTOR PARTICULARLY THE ESTABLISHED PVO NETWORK. THIS APPROACH COMPLEMENTS THE GOZ'S DECISION TO IMPLEMENT MUCH OF ITS RURAL HEALTH PROGRAM THROUGH THE PVO'S.

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USAID'S CHIEF INVOLVEMENT IN THE RURAL HEALTH SECTOR TO DATE HAS BEEN THROUGH THE COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD) PROJECT (698-0421), THE BASIC RURAL HEALTH I PROJECT (660-0086), AND THE SCHOOL OF PUBLIC HEALTH PROJECT (660-0101).

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THE CCCD PROJECT, WITH A USAID CONTRIBUTION OF DOLLARS 4,850,000 TO A TOTAL LOP AMOUNT OF DOLLARS 9,500,000, WAS DESIGNED TO SUPPORT ONE OF THE MAJOR ELEMENTS OF ZAIRE'S NATIONAL PRIMARY HEALTH CARE PLAN FOR 1982-86. THE PROJECT PROVIDES COMMODITIES AND TECHNICAL ASSISTANCE TO SUPPORT AN EXPANDED IMMUNIZATION PROGRAM (EPI) AIMED AT REDUCING MORBIDITY AND MORTALITY CAUSED BY SIX VACCINE-PREVENTABLE DISEASES (MEASLES, TUBERCULOSIS, DIPTHERIA, POLIO, TETANUS AND WHOOPING COUGH) IN CHILDREN UNDER 5 YEARS OLD, AND PREVENTING TETANUS IN PREGNANT WOMEN. THE CCCD STRATEGY TO SUPPORT PRIMARY HEALTH CARE (PHC) ALSO EMPHASIZES PREVENTION AND TREATMENT OF TWO OTHER MAJOR HEALTH PROBLEMS IN ZAIRE: MALARIA AND DIARRHEA. THE PROJECT IS PROMOTING CHEMOPROPHYLAXIS AND PRESUMPTIVE THERAPY FOR MALARIA IN HIGH-RISK GROUPS AND ORAL REHYDRATION

96

THERAPY FOR THE TREATMENT OF DIARRHEA. THE OBJECTIVE OF THE PROJECT IS TO FIRMLY ESTABLISH THESE SERVICES IN THE HEALTH CARE FACILITIES IN 17 URBAN HEALTH ZONES AND 124 RURAL HEALTH ZONES, INCLUDING, OF COURSE, THOSE ZONES SUPPORTED B THE BASIC RURAL HEALTH PROJECTS (660-0086, AND 660-0107).

MAJOR PROJECT ACTIVITIES OF THE CCCD PROJECT ARE TRAINING, DEVELOPMENT OF A HEALTH INFORMATION SYSTEM, HEALTH EDUCATION, AND OPERATIONS RESEARCH.

THE BASIC RURAL HEALTH I PROJECT (BRH I, 660-0086) IS THE MODEL FOR THE BASIC RURAL HEALTH II PROJECT (BRH II, 660-0107). USAID IS CONTRIBUTING DOLS 4,864,000 TO THE TOTAL PROJECT COST OF DOLS 10,700,000. ITS BASIC OBJECTIVE IS TO HELP 50 RURAL HOSPITALS TO CREATE HEALTH ZONES, IN COMPLIANCE WITH THE PUBLIC HEALTH DEPARTMENT'S HEALTH ACTION PLAN. EACH RURAL HEALTH ZONE (RHZ) WILL SEEK, WITH THE COMMUNITY'S PARTICIPATION, TO ESTABLISH A SYSTEM OF HEALTH CENTERS TO COMBAT THE 10 MOST PREVALENT DISEASES IN ZAIRE.

USAID'S SCHOOL OF PUBLIC HEALTH PROJECT (660-0101) WILL HAVE A SIGNIFICANT IMPACT ON ZAIRE'S HEALTH SECTOR, BOTH URBAN AND RURAL. USAID WILL CONTRIBUTE DOLS 8,300,000 OF THE TOTAL LDP FUNDING OF DOLS 11,500,000. THE PURPOSE OF THE PROJECT IS TO DEVELOP THE UNIVERSITY OF KINSHASA (UNIKIN) FACULTY OF MEDICINE'S DEPARTMENT OF PUBLIC HEALTH INTO AN INDEPENDENT SCHOOL OF PUBLIC HEALTH (SPH).

DURING THE LIFE OF PROJECT, A TOTAL OF 220 ZAIRIANS WILL RECEIVE DEGREES FROM A MASTER OF PUBLIC HEALTH LEVEL COURSE AT THE SCHOOL. OVER 500 ZAIRIANS WILL COMPLETE SHORT-TERM TRAINING PROGRAMS AT THE SCHOOL. A LARGE NUMBER OF BOTH LONG- AND SHORT-TERM TRAINEES WILL BE DRAWN FROM THE EXISTING RURAL HEALTH INFRASTRUCTURE, AND WILL RETURN TO WORK IN KEY POSITIONS IN RURAL AREAS UPON COMPLETION OF THEIR TRAINING PROGRAMS. THESE INDIVIDUALS WILL FORM A WELL-TRAINED CADRE THAT WILL HAVE A SIGNIFICANT IMPACT ON THE ACTIVITIES OF THE BASIC RURAL HEALTH II PROJECT.

THE AREA NUTRITION IMPROVEMENT PROJECT (660-0079), WITH A USAID CONTRIBUTION OF DOLS 3,300,000 TO TOTAL NUTRITION ACTIVITY FUNDING OF DOLS 6,200,000, IS THE FOUNDATION OF USAID'S INTERVENTIONS IN THE NUTRITION SECTOR IN ZAIRE.

VERY HIGH RATES OF ACUTE AND CHRONIC MALNUTRITION AMONG RURAL ZAIRIANS ARE INHIBITING IMPROVED AGRICULTURAL PRODUCTIVITY, CONTRIBUTING TO LEARNING DIFFICULTIES IN CHILDREN, AND DEPRESSING THE OVERALL QUALITY OF LIFE. IN 1978, THE NATIONAL NUTRITION PLANNING CENTER (CEPLANUT) WAS FOUNDED AND HAS SINCE PARTICIPATED IN A NUMBER OF NUTRITION PLANNING

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97

ACTIVITIES FUNDED BY THE GOZ AND EXTERNAL DONORS. 10 (7)
THE PURPOSES OF THIS PROJECT ARE TO DEMONSTRATE COST-EFFECTIVE NUTRITION INTERVENTIONS CAPABLE OF REDUCING THE LEVELS OF ACUTE MALNUTRITION BY 25 PERCENT IN CHILDREN UNDER FIVE IN THE BANDUNDU REGION OF ZAIRE, AND TO STRENGTHEN CEPLANUT'S INSTITUTIONAL CAPACITY AS A NUTRITION PLANNING AGENCY.

THE BASIC RURAL HEALTH II PROJECT, AND THE RURAL HEALTH SECTOR IN GENERAL, WILL BENEFIT FROM THE AREA NUTRITION IMPROVEMENT PROJECT IN TWO IMPORTANT WAYS. FIRST, THE NUTRITION SURVEILLANCE SYSTEM DEVELOPED BY THIS PROJECT PROVIDES SPECIFIC INFORMATION TO RURAL HEALTH ZONES WHICH WILL ALLOW THEM TO PREDICT AND REACT TO CRISES WHICH ARE IDENTIFIED IN THEIR AREAS. SECOND, THE AREA NUTRITION PROJECT'S WORK IN THE DEVELOPMENT OF NUTRITION CURRICULA AND EDUCATIONAL AIDS WILL BE OF BENEFIT TO RURAL HEALTH ZONES THROUGHOUT THE COUNTRY.
USAID'S FAMILY PLANNING SERVICES PROJECT (660-0094), WITH A USAID CONTRIBUTION OF ABOUT DOLS 4,000,000 TO A TOTAL LOP FUNDING OF DOLS 9,420,000, HAS AS ITS PURPOSE TO INCREASE URBAN CONTACEPTIVE PREVALENCE FROM THE PRESENT 3 TO 5 PERCENT OF COUPLES TO 12

98

PERCENT BY 1987. WHILE THE FOCUS OF THE PROJECT IS ON URBAN AREAS, ONE COMPONENT OF THE PROJECT IS THE TRAINING OF HEALTH WORKERS IN FAMILY PLANNING PRACTICES. RURAL HEALTH ZONE (RHZ) PERSONNEL FROM ZONES COVERED UNDER THE BASIC RURAL HEALTH II PROJECT WILL BE AMONG THE RECIPIENTS OF THIS TRAINING. IN ADDITION, FAMILY PLANNING SERVICES PROJECT WILL SUPPLY CONTRACEPTIVES TO BRH II FOR USE IN THE HEALTH ZONES. 10 (8)

IN SUM, USAID HAS A PORTFOLIO OF MUTUALLY-SUPPORTIVE PROJECTS IN THE HEALTH, NUTRITION, AND POPULATION SECTORS. THE BASIC RURAL HEALTH II PROJECT WILL BE AT THE CORE OF USAID'S EFFORTS IN RURAL HEALTH. THE PROJECT WILL DRAW IMPORTANT SUPPORT FROM USAID'S OTHER PROJECTS, AND WILL IN TURN SERVE AS ONE OF THE MOST IMPORTANT END-USERS OF OTHER PROJECTS' SERVICES AND TRAINEES.

3. ADDRESSED IN PARA 4 BELOW.

4. THE MAY 1984 EVALUATION OF THE BASIC RURAL HEALTH I PROJECT RESULTED IN SIXTEEN MAJOR RECOMMENDATIONS. OF THESE, FIFTEEN HAVE BEEN OR ARE BEING ACTED UPON. A COMPLETE LIST OF THE RECOMMENDATIONS AND THE ACTIONS TAKEN AS A RESULT OF THESE RECOMMENDATIONS IS BEING POUCHED TO AID/W. OF THESE RECOMMENDATIONS, THE MOST FAR-REACHING IS THAT WHICH RECOMMENDS THAT THE PROJECT BE EXPANDED (BRH II) TO INCLUDE AN ADDITIONAL 50 HEALTH ZONES AND THAT THE NUMBER OF HEALTH CENTERS FINANCED BE INCREASED FROM 250 TO 650. BRH II IS THE RESPONSE TO THIS RECOMMENDATION. IT WILL REPRESENT BOTH AN INTENSIFICATION OF SERVICES CURRENTLY PROVIDED UNDER BRH I, AS WELL AS AN EXTENSION OF THE GEOGRAPHIC AREA COVERED BY THAT PROJECT TO INCLUDE AN ADDITIONAL 50 RURAL HEALTH ZONES.

5. A. AS NOTED IN PARA 4 ABOVE, USAID IS POUCHING TO AID/W AN OUTLINE OF THE ACTIONS TAKEN IN RESPONSE TO RECOMMENDATIONS OF THE EVALUATION OF THE BRH I PROJECT.

B. THE FINAL EVALUATION OF BRH I IS SCHEDULED FOR THE FIRST QUARTER OF FY 1986. IMPLEMENTATION OF BRH II WILL BE BEGINNING AT THAT TIME, AND THE EVALUATION WILL PROVIDE GUIDANCE TO THE PROJECT TEAM ON PROJECT IMPLEMENTATION.

C. PEACE CORPS VOLUNTEERS ARE EXPECTED TO PLAY AN IMPORTANT ROLE IN THE IMPLEMENTATION OF BRH II. IT IS ANTICIPATED THAT PCVS WILL SERVE PRIMARILY IN THE FOLLOWING CAPACITIES:

TRAINERS - IN PRE-SERVICE TRAINING AND CONTINUING EDUCATION OF HEALTH ZONE PERSONNEL AND VILLAGE HEALTH WORKERS (VHWS).

HEALTH EDUCATORS: IN PROMOTING CREATIVE APPROACHES TO HEALTH EDUCATION.

MANAGERS: IN SETTING UP AND IMPROVING THE MANAGEMENT

99

INFORMATION SYSTEM OF THE CENTRAL OFFICES OF SELECTED HEALTH ZONES. 10 (9)
SUPERVISORS: IN SUPERVISING PREVENTIVE AND PROMOTIVE HEALTH ACTIVITIES THROUGH HEALTH CENTERS AND COMMUNITY DEVELOPMENT COMMITTEES.
WATER AND SANITATION: IN COORDINATING AND ORGANIZING THE PROVISION OF POTABLE WATER AND IMPROVED SANITATION FACILITIES FOR VILLAGES AND TOWNS.

BEGINNING IN 1985 PUBLIC HEALTH VOLUNTEERS ARE TO BE PLACED EXCLUSIVELY IN HEALTH ZONES. UNDER THE NEW PEACE CORPS AFRICA FOOD SYSTEMS INITIATIVE IT IS ANTICIPATED THAT THE NUMBER OF WATER VOLUNTEERS WILL INCREASE FROM 10 TO 50 BY 1988. BRH II DESIGN ANTICIPATES THEREFORE THAT A TOTAL OF APPROXIMATELY 150 PEACE CORPS HEALTH AND WATER VOLUNTEERS WILL ASSIST THE PROJECT IN CREATING HEALTH ZONES.

D. THE PP CONTAINS SPECIFIC PERFORMANCE CRITERIA WHICH FOLLOW DIRECTLY FROM RECOMMENDATIONS MADE DURING THE RECENT EVALUATION OF BRH I. THE PP ALSO CONTAINS AN LDP EVALUATION SCHEDULE WHICH CLEARLY IDENTIFIES THE NUMBER, TIMING, AND NATURE OF EVALUATIONS TO BE UNDERTAKEN.

6. A. USER-FEE SYSTEM.
GOZ/MOH POLICY STATES THAT USER FEES ARE TO SUPPORT ALL OF THE OPERATING COSTS OF THE DELIVERY OF

100

SERVICES AT THE HEALTH CENTER LEVEL AND BELOW, EXCEPT FOR THE SALARIES OF THE TWO NURSES AT THE HEALTH CENTER (WHO ARE PAID BY THE GOZ). THE COSTS TO BE PAID FROM USER-FEE RECEIPTS INCLUDE THE FUEL COSTS OF SUPERVISION OF THE HEALTH CENTER BY THE ZONAL PERSONNEL.

EXPERIENCE IN BRH I HAS DEMONSTRATED THAT IT WAS RARELY THE CASE THAT USER FEES WERE COMPLETELY ABLE TO COVER SUPPORT, SUPERVISION, AND AMORTIZATION COSTS. HOWEVER, THE PRINCIPLE THAT FULL COSTS OF MEDICINES SHOULD BE PAID BY USERS IS NEARLY UNIVERSALLY ACCEPTED, AND THE PAYMENT OF SOME FEE FOR A CONSULTATION IS WIDELY ACCEPTED AS WELL. THUS, IN MOST PLACES THE COST OF MEDICINES IS SELF-FINANCED, AS IS SOME PORTION OF THE OTHER COSTS.

THE GOZ EFFORTS AT MOBILIZING COMMUNITY RESOURCES TO FINANCE HEALTH CARE WILL BE SUPPORTED BY BRH II, WHICH WILL HELP THE MOH TO BETTER UNDERSTAND THE POSSIBILITIES FOR AND LIMITATIONS OF THE USER-FEE SYSTEM. THIS SUPPORT WILL INCLUDE: ADDITIONAL OPERATIONAL RESEARCH INTO THE STRENGTHS AND WEAKNESSES OF THE VARIOUS TYPES OF USER-FEE SYSTEMS IN PLACE (ESPECIALLY INVESTIGATION OF THE LEVEL OF COSTS THAT CAN BE COVERED AND THE EFFECT OF FEES ON USE OF SERVICES); TRAINING OF MEDICAL SUPERVISORY STAFF SO THAT THEY MAY BETTER TRAIN NURSES IN HOW TO ESTABLISH FEE SCHEDULES TO BALANCE COST RECOVERY AND USE OF SERVICES; CONTINUING EFFORTS TO FIND WAYS TO CUT RECURRENT COSTS WHILE MAINTAINING QUALITY OF CARE DELIVERED (SUCH AS THE SUPPORT FOR THE PHARMACEUTICAL SUPPLY SYSTEM); AND SPONSORING A NATIONAL LEVEL CONFERENCE(S) TO CONSIDER MODIFICATIONS IN THE COST-RECOVERY POLICY AS A RESULT OF OPERATIONAL RESEARCH FINDINGS.

THE TA PROGRAMMED FOR OPERATIONAL RESEARCH AND HEALTH ECONOMICS WILL BE USED TO HELP DESIGN AND ANALYZE THE DATA FROM THE STUDIES OF USER FEES, ACT AS RESOURCES AT THE CONFERENCE(S) ON FINANCING POLICY, AND ALSO HELP DESIGN A MODULE FOR MEDICAL SUPERVISORY TRAINING SESSIONS ON ESTABLISHMENT OF FEE SCHEDULES.

AN ANTICIPATED OUTCOME OF THE OPERATIONAL RESEARCH WOULD BE THAT USER-FEE RECEIPTS ARE NOT SUFFICIENT TO COVER THE OPERATING COSTS EXPECTED BY GOZ POLICY WITHOUT SUBSTANTIALLY LIMITING USE OR QUALITY OF SERVICES. THIS FINDING WOULD BE USED TO BEGIN A DISCUSSION OF LIMITED GOZ SUBSIDIES TO THE PROVISION OF SERVICES AT THE HEALTH CENTER LEVEL.

RECOVERY THROUGH FEES AND SALES:

AS STATED ABOVE, BRH II WILL UNDERTAKE A STUDY OF THE ~~USER-FEE SYSTEMS ALREADY IN USE IN THE ZAIRE HEALTH~~ SYSTEM TO DETERMINE THE TRADEOFFS BETWEEN THE LEVEL OF COSTS COVERED AND USE OF SERVICES.

THE INCONSISTENCY IN TYPES OF FEE SYSTEMS FROM ONE ZONE TO ANOTHER IS NOT NECESSARILY UNDESIRABLE, AS THE DIVERSITY OF SYSTEMS REFLECTS THE VARYING

CULTURAL AND SOCIO-ECONOMIC CONDITIONS IN ZAIRE. 10 (11)
HOWEVER, A SHARING OF EXPERIENCES WILL BE FOSTERED WHERE THERE ARE SYSTEMS THAT ARE SUPERIOR TO OTHERS USED UNDER SIMILAR CONDITIONS. THE OPERATIONAL RESEARCH PLANNED FOR BRH II WILL MAKE THIS KIND OF SHARING POSSIBLE. THE RESEARCH ALSO WILL PERMIT THE ESTABLISHMENT OF TARGETS FOR USER-FEE COVERAGE OF COSTS.
THE CATEGORIES OF COSTS AND SOURCES OF FUNDING FOR EACH LEVEL OF THE SYSTEM ARE SHOWN IN THE TABLE BELOW:

LEVEL	TYPE OF COST	SOURCES OF FUNDING
NATIONAL	SERVICES	GOZ
-	CAPITAL	GOZ, DONORS
-		
REGIONAL	SERVICES	GOZ
-	CAPITAL	GOZ, DONORS
-	OPERATING COSTS	GOZ, DONORS
-		
ZONAL	SERVICES	GOZ, DONORS, PVOS
-	CAPITAL	GOZ, DONORS, PVOS
-	PHARMACEUTICALS	USER FEES, PVOS
-	OPERATING COSTS	USER FEES, PVOS,
-		DONORS
-		
HEALTH	SERVICES	GOZ, PVOS, USER FEES

102

10 (12)

CENTERS	CAPITAL	DONORS, COMMUNITY
-	PHARMACEUTICALS	USER FEES
-	OPERATING COSTS	USER FEES
-		
VILLAGES	SERVICES	USER FEES, COMMUNITY
-	PHARMACEUTICALS	USER FEES
-		

SERVICES - REMUNERATION OF PERSONNEL
CAPITAL - VEHICLES, BUILDINGS, AND EQUIPMENT.
PHARMACEUTICALS - DRUGS, VACCINES, AND OTHER EXPENDABLE SUPPLIES.
-OPERATING COSTS - FUEL, REPAIRS, AND MAINTENANCE.

THE PROFILE SHOWN ABOVE IS LIKELY TO CONTINUE OVER THE SHORT TERM. FURTHERMORE, THE CONSTRAINTS ON GOZ SPENDING IMPOSED BY THE PRESENT BUDGETARY SITUATION ARE UNLIKELY TO PERMIT THE GOZ TO ASSUME THE COSTS OF CAPITAL GOODS, SUCH AS VEHICLES AND EQUIPMENT, IN THE NEXT FEW YEARS. HENCE, DONOR SUPPORT WILL BE NECESSARY OVER THAT TIME PERIOD.
FOR THE FORESEEABLE FUTURE, IT APPEARS THAT THE GOZ AS WELL AS THE ECZ AND OTHER PVOS ARE COMMITTED TO MAINTAIN THE PROFILE SHOWN ABOVE. THRDUGH BRH II'S EFFORTS TO IMPROVE THE USER-FEE SYSTEM AND THE GOZ'S UNDERSTANDING OF ITS LIMITATIONS, THE PROJECT WILL HELP TD ASSURE THAT THE FUNDING SOURCES FOR EACH COST ARE IDENTIFIED.
OF THE RHZS ESTABLISHED DURING BRH I, 75 PERCENT WERE PVO OR DONOR ASSISTED. THE GOZ IS COMMITTED TO POST THE NECCESSARY ADDITIONAL PERSONNEL TO STAFF THE NEWLY ESTABLISHED RHZS AND HEALTH CENTERS.
-
6B. THE FINANCIAL AND ECONOMIC ANALYSES OF THE PP ADDRESS THE QUESTION OF UNIT-SERVICE COSTS.
7. TO ENHANCE THE PROSPECTS FOR SUSTAINABILITY, BRH II WILL EMPHASIZE THE INSTITUTIONALIZATIDN OF PROJECT ACTIVITIES SPECIFICALLY AND OF THE RURAL PRIMARY HEALTH CARE SYSTEM IN GENERAL. MOST OF THE OTHER MAJOR DONORS ARE ALREADY PARTICIPATING IN THE PRIMARY HEALTH CARE SYSTEM, AND THEIR PARTICIPATION CAN REASONABLY BE EXPECTED TO CONTINUE FOR THE FORESEEABLE FUTURE. SOME EXAMPLES OF THIS PARTICIPATION OF OTHER DONORS ARE THE BELGIANS (PROVISION OF DOCTORS), UNICEF (PROVISION OF EQUIPMENT), AND OXFAM (SUPPORT TO APPROXIMATELY 20 RURAL HEALTH ZONES). FINALLY, USAID ITSELF IS COMMITTED TO THE CONCEPT OF RURAL PRIMARY HEALTH CARE AND ANTICIPATES THAT SUPPORT OF THIS KIND WILL CONTINUE TO CONSTITUTE AN IMPORTANT COMPONENT OF THE MISSION'S HEALTH PORTFOLIO.

8. USAID WILL FILL SEVERAL PROJECT POSITIONS WITH PSCS. THE DECISION TO GO WITH PSCS, AS OPPOSED TO AN INSTITUTIONAL CONTRACT, WAS BASED ON SEVERAL FACTORS. USING PSCS WILL ALLOW USAID A LARGE DEGREE OF FLEXIBILITY AND WILL PERMIT THE MISSION TO ENGAGE A TEAM OF INDIVIDUALS WITH THE SPECIFIC SKILLS AND EXPERIENCE REQUIRED. ALSO, THE COST TO THE PROJECT

103

OF FILLING POSITIONS WITH PSCS WILL BE SUBSTANTIALLY LESS THAN THE COST OF LETTING AN INSTITUTIONAL CONTRACT. FINALLY, USAID'S EXPERIENCE HAS SHOWN THAT THERE IS POOL OF HIGHLY QUALIFIED AMERICANS IN ZAIRE, WITH RELEVANT IN-COUNTRY EXPERIENCE, UPON WHICH THE MISSSION CAN DRAW IN FILLING POSITIONS OF THIS SORT. AS PRESENTLY STRUCTURED, USE OF PSCS IN BRH II WILL NOT RESULT IN LESS SUPERVISION OR LESS CLEAR LINES OF AUTHORITY, COMPARED TO AN INSTITUTIONAL CONTRACT. USAID HAS USED PSC PERSONNEL TO IMPLEMENT A NUMBER OF ITS PROJECTS, WITH EXCELLENT RESULTS, AND IS CONFIDENT THAT USE OF PSCS IS THE MOST COST-EFFECTIVE WAY OF ACQUIRING BRH II PERSONNEL.

9.A. NOW THAT THE WATER COMPONENT HAS BEEN FULLY DEVELOPED AND THE WATER SUPPLY SYSTEMS AND CONSTRUCTION TO BE FINANCED HAVE BEEN SPECIFIED, A MORE DETAILED IEE WILL BE SUBMITTED TO REGIONAL NATURAL RESOURCES OFFICER J. GOODSON, REDSO/WCA, FOR HIS REVIEW. USAID EXPECTS RESPONSE AND DETERMINATION FROM MR. GOODSON PRIOR TO PP AUTHORIZATION.

B. WHILE MOST OF THE LONG-TERM POSITIONS UNDER THIS PROJECT WILL BE FILLED WITH PSCS, THERE WILL BE SHORT-TERM CONTRACTS APPROPRIATE FOR THE PARTICIPIATION OF MINORITY, SMALL BUSINESS FIRMS. FOR EXAMPLE, MOST OFF-SHORE PROCUREMENT SERVICES

UNDER THIS PROJECT ARE EXPECTED TO BE PROVIDED BY AN 10 (14
8A FIRM (BUSINESS PROMOTION CONSULTANTS). OTHER
POSSIBILITIES WILL BE EXAMINED ON A CASE-BY-CASE
BASIS.

C. ALL FAMILY PLANNING ACTIVITIES IMPLEMENTED
UNDER THIS PROJECT WILL BE IN ACCORDANCE WITH CURRENT
AGENCY POLICY, INCLUDING POLICY REGARDI ABORTION.
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105

MAJOR RECOMMENDATIONS

1. THE SANRU PROJECT SHOULD INCREASE THE NUMBER OF RURAL HEALTH ZONES TO BE DEVELOPED FROM 50 TO 100, AND THE RURAL HEALTH CENTERS TO BE CONVERTED FROM 250 TO 650. THE PROJECT SHOULD BE EXTENDED 4-5 YEARS, WITH NEW FUNDS STARTING IN FY 86.

2. THE TARGET OUTPUTS OF THE PROJECT SHOULD BE REVISED AS REDOMMENDED BY THE PROJECT DIRECTION, WITH EXCEPTIONS NOTED IN THE NARRATIVE.

3. NURSING INSTRUCTORS FROM RHZs SHOULD BE SENT TO APPROPRIATE INSTITUTIONS IN FRANCOPHONE COUNTRIES FOR ADVANCED TRAINING IN PRIMARY HEALTH CARE.

4. THE PROJECT SHOULD STRESS REGIONAL TRAINING TRAINERS CENTERS FOR SUPERVISORS, NURSES, AND VILLAGE HEALTH WORKERS.

5. STUDY TOURS TO OTHER AFRICAN COUNTRIES SHOULD BE ORGANIZED FOR SANRU STAFF, GOZ AND MEDICAL CHIEFS OF RHZS TO EXAMINE APPROACHES TO SELF-FINANCING, FAMILY PLANNING AND TRAINING. THEY SHOULD ALSO VISIT BETWEEN RHZS IN ZAIRE.

6. SANRU SHOULD DIVERSIFY THE US SCHOOLS OF PUBLIC HEALTH SELECTED FOR MPH TRAINING OF PHYSICIANS AND ADMINISTRATORS.

7. THE ANNUAL NATIONAL HEALTH CONFERENCE SHOULD BE CONTINUED WITHOUT FAIL AND SHOULD BE A USAID PRIORITY BUDGETARY PRIORITY. OTHER AGENCIES SHOULD SHARE THE COST IF NECESSARY. REGIONAL CONFERENCES SHOULD ALSO BE CONSIDERED.

8. SANRU EVALUATION STRATEGY SHOULD FOCUS ON A FEW INDIRECT INDICATORS OF IMPROVED HEALTH SERVICE SUCH AS ACCESSIBILITY, COVERAGE AND PARTICIPATION OF VILLAGES IN HEALTH PROGRAMS; THE HEALTH INFORMATION SYSTEM SHOULD BE REDUCED TO A FEW KEY ITEMS.

9. SANRU STAFF SHOULD BE EXPANDED IN ORDER TO MAINTAIN QUALITY OF PERFORMANCE AND TO TAKE ON RECOMMENDED NEW ACTIVITIES. A ZAIRIAN HEALTH INFORMATION SYSTEM MANAGER IS PARTICULARLY NEEDED.

10. SANRU SHOULD OFFER HELP TO RHZ IN IMPROVING REGIONAL SUPPLY SYSTEMS.

11. USAID/ZAIRE SHOULD ENGAGE A PROCUREMENT OFFICER INSTEAD OF TECHNICIANS TO PURCHASE PROJECT COMMODITIES.

12. PHARMACEUTICALS PURCHASED WITH USAID FUNDS SHOULD BE LIMITED TO ONE BASIC EFFECTIVE DRUG PER CATEGORY (EX. ONE ANTIBIOTIC, ONE ANTIMALARIAL).

13. TECHNICAL ASSISTANCE IN FINANCIAL MANAGEMENT CHOULD BE GIVEN TO HEALTH CENTERS.

14. SANRU SHOULD FURNISH MORE TECHNICAL EXPERTISE TO RURAL HEALTH ZONES FOR IMPROVED LATRINE CONSTRUCTION AND WATER SOURCE PROTECTION.

15. USAID SHOULD ENTER DISCUSSIONS WITH THE GOZ TO RESOLVE ISSUES ABOUT THE LEGAL STATUS OF HEALTH ZONES.

16. ASSISTANCE SHOULD BE PROVIDED TO THE FIFTH DIRECTION OF THE MOH IN COORDINATING PRIMARY HEALTH CARE IN ZAIRE.

ACTIONS TAKEN IN RESPONSE TO RECOMMENDATIONS

1. THE SANRU PROJECT SHOULD INCREASE THE NUMBER OF RURAL HEALTH ZONES TO BE DEVELOPED FROM 50 TO 100, AND THE RURAL HEALTH CENTERS TO BE CONVERTED FROM 250 TO 650. THE PROJECT SHOULD BE EXTENDED 4-5 YEARS, WITH NEW FUNDS STARTING IN FY 86.

This recommendation is clearly the most far-reaching in its implications and poses the question of "instensification" of efforts in SANRU I assisted RHZs as opposed to "project extention" into new zones as part of a SANRU II. The strategy that is taking shape in the current SANRU II PP development is that we can and should do both.

Intensification of efforts in SANRU I assisted RHZs

An intensification of efforts implies assistance to go beyond the original 250 health centers financed to increase coverage. Within the 50 RHZs assisted in SANRU I it is estimated that 1000 health centers are required for 100% coverage of a population of 5,500,000. It is calculated that SANRU I resources for 250 health centers will increase coverage from 20 % to 45%.

The first progress report of SANRU I (June 1982) pointed out the need to intensify efforts to mobilize more resources for more health centers. This strategy was accepted by USAID and supplementary assistance has been provided by funding a subproject (ECZORT) through ORT (Organization for Rehabilitation through Training) to assist an additional 200 health centers in 1985 and 1986.

The status of projected assistance to the SANRU I RHZs is summerized in Table 1:

TABLE I

DONOR GROUP ASSISTANCE	NBRE HEALTH CENTERS	ESTIMATED COVERAGE
ALREADY FUNC. BEFORE SANRU	150	15%
SANRU I	250	40%
ECZORT	200	60%
OTHER DONORS	100	70%
SANRU II	200	90%
	900	90%

The conclusion is that the 50 SANRU I assisted RHZs can only absorb a limited amount of additional assistance, and that that assistance can and should be provided as part of the SANRU II project. In addtiona to the material assistance for health centers (including bikes, solar refrigerators, and rehab) other forms of assistance could include:

- continued MPH training
- linking RHZs with new national programs (eg. Hydro-Rurale)
- continued intra-zonal recyclage of personnel
- documentation of exeperiences
- operations research
- assist neighboring SANRU II RHZs

SANRU certainly has a commitment to seeing a job started completed. While some of the SANRU I assisted RHZs are nearing 90% coverage others are just starting at 0%. A lot remains to be done, and it will take until 1991 to get the job completed. The big need is time, lots of training, and lots of lessons learner rather than a lot more outside material resources.

Extention to Assist Start-up of New RHZs

The long term health plan estimates a need for approximately 300 health zones. By the end of 1984 there were approximately 150 health zones starting up, but only 85 that could be considered functional (i.e with at least two functioning health centers per health zone). Included among those 85 RHZs were 45 assisted by SANRU. This means that there are a large number of health zones starting up (i.e. the medicin chef has been trained) but which are not linked up to any donor agency. Thus, finding an additional 50 health zones to assist should not be a problem.

The new five year health plan 1986-1991 calls for the start-up of 30 new health zones each year such that by 1991 the full 300 health zones will be operational. This is a very optimistic scenario depending on the availability of outside donor agencies investment costs and GOZ fonctioning costs. A SANRU II project to assist with an additional 50 RHZs should be welcomed by the MOH.

The number of new health zones to be included in SANRU II will depend on consideration of the following factors:

- identification of enough candidate RHZs that merit SANRU II assistance. (I think we can find 50 without much problem)

- asssurance that the support costs from the MOH will be available. (It is doubtful that a RHZ can fund 100% of costs and will need a MOH subsidy for supervision costs)

- assurance that local Zaire funds for project activities will be available. (The counterpart fund budget is estimated at 100-150 million Zaires per year)

- reinforcement of the project administration at ECZ to handle a project of such increased magnitude. (This means an additional increase of staff, office space, and perhaps expatriate technicians).

- adjustment of the coverage objectives to the funds available. (A change in dollar funds would necessitate a change in number of health zones and/or number of health centers to be financed.)

- accomodation with the new strategy to intensify rual water activities through SANRU II. (The SANRU II PID budgeted only $780,000 for water, while the intent of SNHR would be for something like 4-5 million dollars. Can we add such an increase on top of the current PID budget of 13.5 million or must we reduce the RHZ ojectivies?)

2. THE TARGET OUTPUTS OF THE PROJECT SHOULD BE REVISED AS REDOMMENDED BY THE PROJECT DIRECTION, WITH EXCEPTIONS NOTED IN THE NARRATIVE.

This has been done. No major issues have evolved out of these revised target outputs.

3. NURSING INSTRUCTORS FROM RHZS SHOULD BE SENT TO APPROPRIATE INSTITUTIONS IN FRANCOPHONE COUNTRIES FOR ADVANCED TRAINING IN PRIMARY HEALTH CARE.

This has been done.

SANRU sent two nurses to a three month program at Lome to go through a Tranining of Trainers of Village Health Workers course (TOT/VHW). These two persons are now working as co-trainers with a team of three other Zairians and two outside consultants to establish a nationa in-country TOT/VHW team. This team would travel regionally to train 30-40 trainers per year. The scope of this training would go beyond SANRU assisted RHZs to be made available to all Health Zones. It is proposed that this team and course be intergrated into the School of Public Health project as a short term training program.

SANRU is seeking other appropraite courses throughout Africa to send additional nurses for short-term training.

4.THE PROJECT SHOULD STRESS REGIONAL TRAINING OF TRAINERS CENTERS FOR SUPERVISORS, NURSES, AND VILLAGE HEALTH WORKERS.

This has been done.

This approach as been already been used successfully for regional training in family planning (in conjunction with JHPIEGO financing) regional Training of Trainers of Traditional Birth Attendants (in conjunction with ACNM), and regional training of technicians for Water/Sanitation (in conjunction with SNHR).

A similar strategy is proposed for regional training of pharmacists (in conjunction with ECZORT), maintenance of vehicules (ECZORT), nurse supervisiors (SANRU), and management training for MDs/Administrators (SANRU/CTB/PEV).
Typically it is found that for the 50 Zones assisted by SANRU that four regional sessions can cover all eight regions.

The current strategy is to not to establish permanent SANRU training centers around the country but rather to identify a RHZ that can support the logistics (food/lodging) of the seminar and then send in national team of specialists for that particular topic. A major problem is that many RHZs can accomodate training sessions only during certain parts of the year. It would be better if we could identify a non-RHZ "training center" in each region that can be rented on an occasional basis for such seminars. My guess is that with a bit of effort this can be done, and would cost a lot less than setting up our own regional training centers.

5. STUDY TOURS TO OTHER AFRICAN COUNTRIES SHOULD BE ORGANIZED FOR SANRU STAFF, GOZ AND MEDICAL CHIEFS OF RHZS TO EXAMINE APPROACHES TO SELF-FINANCING, FAMILY PLANNING AND TRAINING. THEY SHOULD ALSO VISIT BETWEEN RHZS IN ZAIRE.

This has been only partially completed. We get so got up in the urgency of project activities (and priority actions from the MOH) that we can never seem to arrange to break away for these study tours.

A team of four SANRU (including a Med Chef RHZ) and two CEPLANUT people attended the Abidjan session to discuss "Integration of Nutrition into PHC". This in itself was a good learning experience. While there we also made contacts with a number of other countries to set up possible study tours. We tried for a trip to Senegal in April, but the have not yet been able to get a confirmation from Senegal.

SANRU has encouraged visits between health zones. When a local training event is organized and financed by SANRU the RHZ has an option to bring in an outside training from a neighboring RHZ. SANRU pays for the travel and hororarium of that person. Many RHZs have already taken advantage of this option.

6. SANRU SHOULD DIVERSIFY THE US SCHOOLS OF PUBLIC HEALTH SELECTED FOR MPH TRAINING OF PHYSICIANS AND ADMINISTRATORS.

This is being done.

There are currently six doctors scheduled to go the the US to start MPH studies in 1985. Cit. Utshudi has requested info from at least six schools and is considering sending the current six to Chapel Hill, NC, Boston Univ, MA, and Tulane, LA.

Two problems may hinder this objective. First many schools have only a two year rather than a one-year MPH. SANRU funding is currently scheduled for 12-18 month support including language studies. It may be difficult to diversify if no other schools offer a one-year program. (Tulane is also saying it plans to go to a two year program!)

Some universities are much stricter than Tulane on the English language requirement. Tulane has accepted students who have not passed the TOFEL exam on the condition that they will continue Eglish classes until Tulane is satisfied that they reach a fluency permitting them to take courses.
It remains to be seen whether other schools will accept such a deal.

7.THE ANNUAL NATIONAL HEALTH CONFERENCE SHOULD BE CONTINUED WITHOUT FAIL AND SHOULD BE A USAID PRIORITY BUDGETARY PRIORITY. OTHER AGENCIES SHOULD SHARE THE COST IF NECESSARY. REGIONAL CONFERENCES SHOULD ALSO BE CONSIDERED.

This has been done on the regional level.

A national conference was planned for 1984 and then cancelled. We wanted to have a national conference for all RHZs and not just SANRU assisted zones. This meant that the conference would have to be sponsored by the national direction of PHC rather than by SANRU alone. This was set up, but the subsequent disorder caused by the FONAMES question prevented the planning from going further.

In the meantime we have opted for the strategy of regional conferneces. In 1984 we co-sponsored with OXFAM regional conferences for BANDUNDU and BAS ZAIRE. In 1985 we have sponsored a regional conference for KASAI OCCIDENTAL. These conferences included all health zones of the region and have been extremely successful in finishing the delimitation of health zones. There is a big push now by the MOH to get another four regional conferences completed before the end of 1985.

8.SANRU EVALUATION STRATEGY SHOULD FOCUS ON A FEW INDIRECT INDICATORS OF IMPROVED HEALTH SERVICE SUCH AS ACCESSIBILITY, COVERAGE AND PARTICIPATION OF VILLAGES IN HEALTH PROGRAMS; THE HEALTH INFORMATION SYSTEM SHOULD BE REDUCED TO A FEW KEY ITEMS.

This has been done.

SANRU has spearheaded the design of a national uniform reporting system to be used by all RHZs. This was pre-tested in 1983-1984 by SANRU zones, but has recently been accepted by the MOH as the norm for all health zones.
We are now in the process of setting up a computor program for analysis of this data. We're still waiting for the software that was ordered from WANG more than 6 months ago. In the meantime hand counts are being done.

At the same time I have set up a data base on my home computor (Appleworks) for all hospitals of Zaire of which there are around 420. This data base also includes a few indirect indicators on the current status of health zones, accessibility and coverage of services. At this point information is only collected on a yearly basis. A simplified surveillance system to encourage reporting on a few limited indicators on a three-month basis has yet to be implemented.

9. SANRU STAFF SHOULD BE EXPANDED IN ORDER TO MAINTAIN QUALITY OF PERFORMANCE AND TO TAKE ON RECOMMENDED NEW ACTIVITIES. A ZAIRIAN HEALTH INFORMATION SYSTEM MANAGER IS PARTICULARLY NEEDED.

This has been done.

The original SANRU staff included:
1 project director (50% time)
1 GOZ/MOH rep (50% time)
1 USAID tech.
1 training coord.
1 planning coord.
1 admin. asst.
1 secretary
---
7 total

During 1984/1985 this team has now become:
1 project director (50% time)
2 GOZ/MOH rep (100% time)
1 USAID tech.
2 training coord.
1 planning coord.
1 admin. asst.
2 secretaries (SANRU + ECZORT)
1 photocopy tech
1 warehouse manager (ECZORT)
1 computor operator
1 EXPAT rehab tech (ECZORT)
1 administrator ECZORT
1 tech Water/Sanitation
1 mechanic
---
17 total

This has greatly increased the efficiency of the SANRU office. However we still have a continuing problem with lack of space. Currently five of the staff have no desks and must float around as space becomes temporarily available or sit in the hallway. The new building being constructed behind ECZ will add three new offices, but this will not accomodate the increased staff required for SANRU II. I anticipate the following staff increases before the end of 1985 in conjunction with the SANRU II project:

1 Director for Center of Documentation
1 Secretary/office clerk for Doc Center
1 Asst Warehouse manager
1 Fulltime accountant
1 EXPAT Water/Sanitation technician
1 Personnel Manager
1 Computor programming specialist
2 Health Zone supervisors/trainers

I think we can find the local manpower, but we must get space ready to accomodate these people. The simpliest approach would be add a second story to the new building that is now under construction to provide more office space. If funds could be made availble in 1985, this could be done at a cost of approx. 3 million Zaires. If we wait until 1985 the cost would be 5 million (as it would then require removal and replacement of the roof). Either way the investiment cost would represent less than 1% of the anticipated CPF budget for SANRU II.

10. SANRU SHOULD OFFER HELP TO RHZ IN IMPROVING REGIONAL SUPPLY SYSTEMS.

This has been started.

The long-term sustainability of a RHZ depends on a secure supply line. While many of the mission have in the past depended on import of medicines and supplies to stock their mission health centers, their access to hard currency is not adequate to also assure supplies to the many state run health centers linked to their health zone. There is a need for national and regional supply depots at which RHZs can purchase medicines/supplies in local currency.

At the national level the most promising supplier is LAPHAKI which is currently producing 20+ basic medicnes for distribution to RHZs. SANRU has recently obtained permission from the MOH (in collaboration with CTB) to purchase medicines from LAPHAKI. SANRU could therefore provide a RHZ with a subsidy for purchase of medicnes (Z60,000/health center) or purchase the medicines from LAPHAKI and ship them to the health zone. This latter possibility would necessitate that SANRU go full force into a shipping business which I think should be avoided.

At the regional level there exist several regional depots which are ready to serve as regular suppliers to health zones. These include:

Kikwit - Catholics - serving RHZs in Kwilu/Kwango area
Kananga- Presbys - willing to serve 60 RHZs of Kasais
Uvira - State - Oxfam project for 4 RHZs in a subregion
Gbadolite- Hanns Seidel - serving N. Ubangi subregion
Nyankunde- Prot - serving 4-5 RHZs in Ituri subregion
Kinshasa, CEPAM/ECZ - t o serve BZ and BAN

SANRU strategy is to support these regional efforts by having the medicine subsidies set up as a credit account at the regional supplier. The RHZ can draw on that account up to its subsidy limit. We have done this for nine RHZs in the two Kasais on an experimental basis.

The newest twist is the proposal of Mr. Tammon to buy 40% of DCMP, set up a large factory for production of medicines, and revitalize the regional DCMP depots for sale of medicines. If he can bring it off, so much the better.

11. USAID/ZAIRE SHOULD ENGAGE A PROCUREMENT OFFICER INSTEAD OF TECHNICIANS TO PURCHASE PROJECT COMMODITIES.

Not done, to my knowledge.

Procurement still poses a significant problem to the success of SANRU I. Specific problems that exist are:

Four Wheel drive US produced vehiclules (Chevys and Jeeps) are inappropriate to rural conditions of Zaire
Yamaha 175 motocycles are appropriate
American coaster brake bicycles (Ross) are sturdy but difficult to repair because of lack of spare parts locally
US purchased medicines are inappropriate in dosages and packaging for use in Zaire
Basic Medical equipment for health centers purchased in US is of excellent quality
Delays as long as two years have occured for some commodities.
Back ordering and split shipments results in receiving equipment in dribbles rather than all at once. This prevents a rational repackaging and distribution of commodities.
Office equipment purchased in US is usually appropriate (Sharp calculators and Remington typewriters) but not always (Heyer duplicating machines)
UNICEF TBA midwife equipment ordered nearly three years ago has yet to arrive.

12. PHARMACEUTICALS PURCHASED WITH USAID FUNDS SHOULD BE LIMITED TO ONE BASIC EFFECTIVE DRUG PER CATEGORY (EX. ONE ANTIBIOTIC, ONE ANTIMALARIAL).

This has been done.

SANRU revised the original list when preparing the PIO/Cs for ECZORT. Duplication of drugs per category has avoided.

13. TECHNICAL ASSISTANCE IN FINANCIAL MANAGEMENT CHOULD BE GIVEN TO HEALTH CENTERS.

This has started.

SANRU financed a study in 1985 by the Dept. of Plan to look at the status of auto-financing in three RHZs. This was to assist them in the preparation of the new five year health plan. The person in charge of that study has now left the country so its doubtful we'll get much in the way of results.

SANRU, ECZORT, and ORT are financing a managment study of RHZs and health centers in conllaboration with Technoserve. The group has visited two health zones so far. the idea is to prepare a draft of a manual for the management of health zones that would be used to prepare a two week course for the retraining of doctors and administrators in management. The management of finances would be the central theme of those courses.

14. SANRU SHOULD FURNISH MORE TECHNICAL EXPERTISE TO RURAL HEALTH ZONES FOR IMPROVED LATRINE CONSTRUCTION AND WATER SOURCE PROTECTION.

This has been done.

SANRU hired in 1984 a fulltime technician to take care of WATER/SANITATION aspects of the project. This has included obtaining and translating documents from the WORLD BANK on VIP (Ventilated Improved Pit) latrines which we are promoting to be built at each health center.

SANRU has also completed a purchase order of a technical manual for the capping of springs. This manual proposes 5 different techniques for capping springs depending on the local soil conditions. The manual is now undergoing revision by the SNHR (Service National d'Hydraulique Rurale) and by WASH (Water and Sanitation for Health).

SANRU has also developed with SNHR a two week recyclage for "technicians" within the RHZ who are responsible for the Water/Sanitation program. Two such regional training sessions have taken place. It is planned that a WASH consultant will be hired to assist in finalizing this curriculum that would be a cornerstone of the SNHR national hydro-rurale plan to implement water activities through a RHZ based technician.

15. USAID SHOULD ENTER DISCUSSIONS WITH THE GOZ TO RESOLVE ISSUES ABOUT THE LEGAL STATUS OF HEALTH ZONES.

This is continuing.

The proposal for Legal Statutes of Health Zones is a real mess. It began well enough with our 1983 national health conference that provided feedback on the draft document that then existed. That document was then revised by a small group at the MOH (neither SANRU, ECZ nor the Catholics were included) and tied to the reorganization of FONAMES. The idea was to push both proposals through at the same time.

Every once in a while we would obtain indirectly a copy of the statutes. It was evident in reading them that if they passed they would pose as many problems as they solved. I felt that they needed to be revised by a wider commission made up especially of reps from the Catholics and Protestants who after all will be managing 50% of the RHZs. The statues became subject of discussion at each regional delimitation conference and recently at the conference of all the medical inspectors where it was officially recommended that a further revision be done. The current CommisEtat has asked SANRU to assist in the revision of the statutes and drafting the detailed "arretes" that would need accompany it. This is certainly looking more positive, but it will probably be until the end of 1985 until anything concrete happens.

16. ASSISTANCE SHOULD BE PROVIDED TO THE FIFTH DIRECTION OF THE MOH IN COORDINATING PRIMARY HEALTH CARE IN ZAIRE.

This was started and then stopped in July 1984.

The Fifth direction was created in 1982. It started to become operational in 1984 with the addition of three additional staff doctors (including two persons just back from training at Tulane). SANRU began at that time to provide assistance to help get the Fifth direction moving. It was planned that SANRU should provide office equipment, but in order to do this it was first necessary to assist them in reinforcing the security of the building (adding metal doors) to protect our investment. It was also planned to make at least one vehicule available on loan to the Fifth direction. The Fifth direction even organized a national forum and obtained a consensus from all the major intervenants as to what their job profile should be.

These efforts came to naught in July 1984 when the Sec. Gen. was suspended for a month during which time the Fifth direction staff doctors (Kalambayi and Kahozi) were removed by the CommisEtat from the Fifth direction and placed elsewhere (Kalambayi at SANRU, Kahozi at Kisantu). At the same time a major push was made by the CommisEtat and CTB to push through the reorganization of FONAMES to become the coordinator for PHC within the country. The effort failed, and the dust has yet to settle.

SANRU strategy is that there exists a need for something at the national level to coordinate PHC. At this point its SANRU who is doing most of the work. There is a need to create a structure with which SANRU can work to institutionalize what it is doing. A "FONAMES" type structure may be the solution but I feel that:

1) It needs a new name. Keeping the name FONAMES has just too much connotation of a unilateral Belgium project.

2) It needs a multi-lateral support. CTB says that they have always favored a broad-based support. However up til now they never asked for another opinion or collaboration in the reorganization of FONAMES. Setting up a "cellule de planification" to run a "FONAMES" structure made up of UNICEF, OXFAM, Catholics, Protestants, SANRU, etc. may be a solution.

3) The regional stucture needs to mesh with the exisiting regional medical inspection. It might seem easier to set up a parallel system to coordinate RHZs rather than try to reorganize the medical inspection system, but what are the long-term prospects of conflicts between the two?

MOUVEMENT POPULAIRE DE LA REVOLUTION

REPUBLIQUE DU ZAIRE

Kinshasa, le 0 8 AOUT 1985

ANNEX 2

Conseil Exécutif
Département de la Santé Publique
Bureau du Commissaire d'Etat

A Monsieur le Directeur
de l'USAID
à KINSHASA/GOMBE.-

N/Réf. : DS.1250/BCE/1183/85

V/Réf. :

Objet :

Monsieur le Directeur,

Conformément à la politique nationale en matière de santé et compte tenu de l'impact de SANRU I sur l'implantation des Soins de Santé Primaires en Milieu Rural, j'avais autorisé la mise en place d'une Commission devant étudier la prolongation de ce projet de santé dénommé SANRU II.

Je suis satisfait des travaux sur l'élaboration du Projet SANRU II et je vous demande de le soutenir financièrement.

Veuillez agréer, Monsieur le Directeur, l'expression de mes sentiments de franche collaboration.

Le Commissaire d'Etat,

MUSHOBEKWA KALIMBA WA KATANA

116

MOUVEMENT POPULAIRE DE LA REVOLUTION

FILE Copy

REPUBLIQUE DU ZAIRE

JUL 18 1985

Conseil Exécutif

DEPARTEMENT DE L'AGRICULTURE ET DU DEVELOPPEMENT RURAL

Kinshasa, le 17 JUIL. 1985

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LE COMMISSAIRE D'ETAT

A Monsieur RICHARD L.PODOL
Directeur de l'USAID/ZAIRE

KINSHASA/GOMBE.-

625

Response out 7/19

NAME

Objet : Financement USAID.-

Monsieur le Directeur,

Faisant suite à votre lettre du 08 juillet 1985 et relative au financement par l'USAID des activités du Service National d'Hydraulique Rurale, j'ai le plaisir de vous informer que le Conseil Exécutif attache beaucoup d'importance au programme d'alimentation en eau potable en milieu Rural.

De ce fait, les activités du Service National d'Hydraulique Rurale seront en bonne place dans le budget du Département et nous prenons dès à présent les dispositions nécessaires pour ce programme.

Par ailleurs, mon département a acheté pour le compte du SNHR, une unité de forage d'une valeur de 10.000.000 Z et souhaite l'intervention des agences d'aide au développement pour augmenter d'avantage les capacités de son service spécialisé.

USAID/ZAIRE

.../...

117

Nous confirmons notre accord pour le développement de ce projet et remercions les Etats-Unis pour cette sollicitude.

Veuillez agréer, Monsieur le Directeur, l'expression de mes sentiments distingués.

BOKANA W'ONDANGELA.-

CC : Citoyen Sambwa Pida N'bagi
Président, Comité National d'Action
l'Eau et de l'Assainissement
Commissaire d'Etat au Plan,

KINSHASA

Citoyen Tshiongo Tshibinkubula wa Tumba
Secrétaire Exécutif
Comité National d'Action de l'Eau et de
l'Assainissement.

ANNEX 3

12. LOGICAL FRAMEWORK MATRIX

Narrative Summary	Objectively Quantifiable Indicators	Means of Verification	Assumptions
Goal To improve the health status of the rural population by increasing the proportion of rural Zairians that have access to basic health services.	**Measures of Goal Achievement** Decreased infant and child mortality and malnutrition Decreased maternal morbidity and mortality Reduced incidence of vaccine-preventable diseases Improved health of mothers and children by birth spacing.	- National statistics - Project sample surveys - Studies by organizations such as WHO	Political stability continues. Economic situation does not worsen. There are no famines, droughts, or other natural disasters
Purpose To establish in 100 rural health zones a sustainable system of of community-supported preventive, promotive, and basic curative primary health care services to combat the ten most prevalent public health problems in rural Zaire.	**EOPS: Conditions Indicating Purpose has been Achieved** A system offering basic preventive and curative services will be in a place and functioning on a sustainable basis in 100 rural health zones, including 50 RHZs assisted by SANRU I and fifty additional zones. Water supply systems will be provided to 1,500,000 people by simple technologies such as wells, spring capping, and distribution systems. Various supporting systems will be in place in order to sustain these services: - A functioning institutionalized system within the Ministry of Health of regional and sub-regional supervision and coordination of health zones.	- Project reports - Site visits	GOZ continues to support decentralized community-based PHC delivery system. GOZ and NGOs continue current level of resource support to health sector. GOZ supports the development of a mechanism for coordinating rural PHC services.

	EOPS (cont'd)	Means of Verification	Assumptions
	- A functioning institutionalized system at the health zone level for training lower and middle level personnel in the planning, organization and delivery of PHC. - A national system for coordinating, planning supervising, and gathering and sharing information on PHC activities among health zones throughout Zaire. - A national unit for planning and coordination of water activities in Zaire. - A national and regional support system for 30 sub-regional water brigades.		
Outputs An infrastructure of health centers which increases coverage in 50 SANRU I RHZs by 20% and in 50 SANRU II RHZs by 52% A well functioning decentralized system for training PHC health workers and village-level workers in the planning, organization, and delivery of community-based PHC services, including water and sanitation. A well functioning system within the GOZ for national coordination and regional support and supervision of RHZs .	Output Magnitude Training - 88 physicians and administrators trained at MPH level in primary health care management at the School of Public Health (660-0101) - 200 nurse supervisors trained as trainers and supervisors of community-based PHC activities - 125 water and sanitation coordinators trained for the rural health zones - 2,140 health center nurses and auxilaries trained in health center management and community organization - 2,000 village health workers trained to provide PHC services - 1,000 traditional birth attendants trained to provide improved deliveries	- Project reports and monitoring - Field visits for verification of personnel - Interviews with village development councils - Project evaluations	Sufficient numbers of appropriate GOZ and NGO personnel are available for training. Communities will be motivated to participate in PHC activities. Project inputs are provided in a timely fashion. School of Public Health (660-0101) program begins in 1986 and offers suitable programs. GOZ policy continues to support family planning.

Output Magnitude

PHC

- 3,000 village development and health center committees formed and active
- at least one percent of the women of reproductive age in an RHZ accept family planning each year after the second year of SANRU II assistance to that RHZ
- 52% of children under five living within 50 SANRU II-assisted RHZs have access to under-five clinics
- 52% of women of child bearing age living within 50 SANRU II-assisted RHZs have access to pre-natal clinics
- 1,000 villages successfully complete a village sanitation program with at least 90% of households having a usable latrine
- 3,000 local water sources protected/improved

Infrastructure

- 50 new RHZs established
- Central offices for 50 rural health zones constructed/rehabilitated
- 150 hospitals/health centers equipped with solar-powered refrigeration
- 720 health centers opened or converted from dispensaries and providing basic preventive, promotive, and curative health services following the GOZ's model
- 1,705 wells installed
- 172 gravity-fed - hydraulic ram water distri ion systems constructed

Inputs USAID	Objectively Quantifiable Indicators ($19.750 million)	Means of Verification Project records Site inspections	Assumptions Commodities are ordered and shipped promptly. TA recruited in a timely fashion.
Technical Assistance	($4.897 million) 26 years of long-term TA 87 months of short-term TA		
Training	($0.828 million) 6 persons Master's level training in U.S. 89 persons short-term training/ conferences out of country (U.S., Africa, etc.)		
Commodities	($10.198 million) Medical equipment and supplies; solar refrigerators; basic office equipment and supplies; micro-computers, printers and software; solar calculators; training materials, audio-visual equipment and IEC materials; four-wheel-drive vehicles, motorcycles, and bicycles; light equipment for installing water systems; intermediate-level well-drilling equipment; supplies for spring boxes, wells, water distribution systems, latrines; rainwater catchment cisterns.		
Inflation	($2.716 million)		
Contingency	($1.111 million)		

Inputs	Objectively Quantifiable Indicators	Means of Verification	Assumptions
Peace Corps	($6.389 million) 150 health and water volunteers		
National Contributions	($26.054 million)		
GOZ Operational and Investment Budgets	($4.151 million) Personnel and operating costs Construction/renovation		
GOZ Counterpart Funds	($19.688 million) Other local currency costs such as operational costs of SANRU Office and the HIS, transportation costs, fuel subsidies In-country training programs and conferences Construction/renovation, materials for water systems		
Community Contributions	($2.215 million) Personnel costs Training costs of VDC, VHWs, and TBAs Payment for medicines, ORS, and consultations Labor and local materials for construction/renovation		
ECZ, Other NGOs, and Other Donors	(Estimate $13.000 million)		
ECZ	(Estimate $5.000 million) Salary support for national and expatriate staff, office/warehouse space		
Other NGOs	(Estimate $1.000 million) Some infrastructure, personnel costs, and other financial support Support for NGO water brigades ($137,000)		
Donors such as UNICEF, UNDP, OXFAM, CTB	(Estimate $7,000 million) Renovation, equipment, supplies, training, personnel		

ANNEX 4

13. 5C(2) PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A. includes criteria applicable to all projects. Part B. applies to projects funded from specific sources only: B.1. applies to all projects funded with Development Assistance Funds, B.2. applies to projects funded with Development Assistance loans, and B.3. applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1. FY 1982 Appropriation Act Sec. 523; FAA Sec. 634A; Sec. 653(b).

(a) Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than $1 million over that amount)?

A Congressional Notification was sent to the Hill on July 17, 1985 and cleared on August 2.

Yes.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of $100,00, will there be

(a) engineering, financial or other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?	No. Yes.
3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?	N/A
4. FAA Sec. 611(b); FY 1982 Appropriation Act Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources, dated October 25, 1973? (See AID Handbook 3 for new guidelines.)	N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?	Yes.

6. <u>FAA Sec. 209</u>. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.	The nature of the project is such that regional and multilateral projects will contribute to the attainment of the project goal.
7. <u>FAA Sec. 601(a)</u>. Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.	N/A
8. <u>FAA Sec. 601(b)</u>. Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).	N/A

9.	FAA Sec. 612(b), 636(b); FY 1982 Appropriation Act Sec. 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.	The Government of Zaire has participated in project preparation and will approve the propsed GOZ contribution prior to obligation.
10.	FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	N/A
11.	FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	Yes.
12.	FY 1982 Appropriation Act Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?	N/A
13.	FAA 118(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16? Does	Yes.

the project or program take into consideration the problem of the destruction of tropical forests?

14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)? — N/A

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and

The improved overall health of the rural population which will result from this project will have a direct impact on the capacity of the labor force to engage in labor intensive production.

otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used?

Yes.

c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

Any technologies introduced under this project will be evaluated as to their appropiateness. In particular, the water component will use tried and proven appropiate technologies.

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activitiy with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

Yes.

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"? (M.O. 1232.1 defined a capital project as "the construction, expansion, equipping or alteration of a physical facility or facilities financed by AID dollar assistance of not less than $100,000, including related advisory, managerial and training services, and not undertaken as part of a project of a predominantly technical assistance character.	N/A
f. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?	Yes.
g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage	The project addresses the basic and recognized need of improved health care for the rural populations of Zaire.

institutional development; and supports civil education and training in skills required for effective participation in governmental processes esential to self-government.

2. Development Assistance Project Criteria (Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest. N/A

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan? N/A

c. ISDCA of 1981, Sec. 724 (c) and (d). If for Nicaragua, does the loan agreement require that the funds be used to the maximum extent possible for the private sector? Does the project provide for monitoring under FAA Sec. 624(g)? N/A

3. Economic Support Fund Project Criteria

a. FAA Sec. 531(a). Will this assistance promote economic or political N/A

stability? To the extent possible, does it reflect the policy directions of FAA Section 102?

b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities? N/A

c. FAA Sec. 534. Will ESF funds be used to finance the construction of the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such use of funds is indispensable to nonproliferation objectives? N/A

d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A

14. **FAA Sec. 611e Certification**

Based upon the maintenance and utilization of previous AID-funded projects in Zaire, including the Basic Rural Health I project, I hereby certify that there is adequate reason to believe that the Basic Rural Health II Project will be effectively maintained and utilized.

Richard L. Podol
Director, USAID/Zaire

19 Aug 85
Date

Basic Rural Health II Project - 660-0107

FAA Section 611(a) Certification

The Basic Rural Health II Project (660-0107) will undertake to rehabilitate or construct approximately 500 health centers, and will finance limited renovation of about 40 reference hospitals. In addition, the project will finance the construction of 6 regional pharmaceutical warehouses. The project also contains a significant water and sanitation component, involving spring capping, latrine construction, well digging and drilling, cistern construction, and the construction of small-scale distribution systems.

All of the work described above will be carried out in rural areas either by beneficiary communities, local project staff, local contractors, religious missions, or brigades of the National Rural Water Service. All of the construction will be financed with local currency provided by the GOZ, participating PVOs, or beneficiary communities. (Some of the equipment used in the water component will be AID dollar-funded.)

USAID has extensive knowledge of the types of construction work to be undertaken through its experience with the ongoing and highly successful Basic Rural Health I Project (660-0086). The Shaba Refugee Water Supply Project (660-0116) also provides the Mission with a large pool of experience in the planning of water projects. As in project 086, the construction and rehabilitation to be performed under the present project is extremely basic. Proven engineering and financial plans for health centers, latrine construction, spring capping, etc., already exist and will continue to be employed under Basic Rural Health II.

Based on the above, it has been determined that, because no substantive engineering or financial plans will be required, and, because the construction work required will be financed with non-U.S.-owned local currency (except for the equipment mentioned above), no FAA Section 611(a) Certification is required.

ANNEX 6

15. PROJECT ANALYSES

15.1. Technical Feasibility

15.1.1. Introduction

The SANRU II Project proposes to expand present SANRU I activities into 50 new rural health zones, effectively doubling the scope of its successful predecessor. Sanru II is appropriate for Zaire because it responds to the GOZ policy decision to improve the health status of the rural population by increasing the proportion of rural Zairians that have access to basic health services. The increased access will result from the continued reorientation of a predominantly urban curative health care delivery system to one emphasizing prevention and basic curative services to combat the 10 most prevalent public health problems in Zaire. The project also focuses on the elements of the health care delivery system which affect the greatest number of people, namely services at the health centers as well as community-level activities, including village health workers, traditional birth attendants, and village development committees.

Moreover, SANRU II relates to both the GOZ's goal of "health for all by the year 2000" and to USAID's objective of promoting the welfare of the poorest segments of the population - especially women and children - through community-based health services (in contrast to hospital-based care).

The technical feasibility analysis is based on areas in which quality of performance of existing services has been strengthened in response to evaluation findings of SANRU I, in addition to an assessment of SANRU II new activities.

15.1.2 Village-level Health Activities

SANRU II will deliver PHC services to rural populations by using several key strategies that have already been tested and shown to work in Zaire. One of these strategies is to emphasize on village-level health activities with community participation and involvement. While the health center and the health zone are essential in providing the framework and support activities for PHC, it is ultimately access to and utilization of basic preventive and curative services at the village level which will have the most impact on the health of the rural population.

As in SANRU I, village-level health activities of SANRU II include:
- formation of village development committees (VDCs) and health-center committees(HCCs)
- training of village health workers (VHWs)
- training of traditional birth attendants (TBAs)

The project thus achieves an effective approach to nationally available health care by addressing current health needs through maximum use of already available resources at the village-level.

The VDC is the central focus for PHC within the community. The committee is responsible for "consciousness-raising" at the community level to assure community support in establishing health centers, participation in PHC activities, and effective health-education programs. It is also responsible for supervising the village water and sanitation activities. In communities where there are VHWs, the role of the VDC is crucial, for the committee not only chooses the candidate for training, but also sustains the VHW with moral and material support. The committee members (for example, village elders, teachers or pastors elected or named to serve by the village chief) meet at least once a month to discuss their development-related problems, propose solutions and follow through on supervision of activities. The health center committee (HCC), established with representatives from each VDC, is responsible for management of the health center activities and finances.

Sustained motivation of the development committee is an important issue to be resolved because of frequent demands by members to be paid salaries or some other form of compensation. In successful VDCs, this "compensation" may be in the form of an increased social status and respect within their community. This can be brought about by regular supportive supervisory visits to the community by the health center staff and by the staff of the central office of the RHZ. These visits are regarded as important social events by the community and, as long as the VDC continues to be challenged by new health information and discussions during these supervisory visits, and the VDC continues to be encouraged by the community, interest and participation will be maintained.

While the VDC is the focus for discussion and solving of community health problems as well as planning and supervision of community-level PHC activities, the village health worker is the person responsible for carrying out certain activities within the community. VHWs have been found to be very effective in educating and organizing their communities for immunization, which will reduce the incidence of measles, neonatal tetanus, and other childhood diseases. In some communities, the development committee members collectively perform the functions of a VHW; more commonly, however, one person is selected and trained to function as a VHW. The strategy of selecting and utilizing VHWs is appropriate because of its emphasis on community involvement and making maximal use of locally available resources at the village level. Moreover, the level of technology involved (assist at under-five clinics, assist at village water and sanitation activities, diagnose and treat cases with simple sysmptoms such as fever, diarrhea) is appropriate for workers with limited training in rural Zaire. However, compensation and motivation of VHWs can be a major problem. The project will not be offering financial incentives of anykind to VHWs. SANRU II will have to actively encourage and guide RHZs and communities to find ways and means, in cash or in kind, to compensate and motivate their VHWs, who are the critical grass-roots-level personnel in the delivery of PHC in rural areas. With the accumulated experience of SANRU I, increased use of operational research and consultants, the project will document and disseminate information on technologies and strategies which foster success or lead to failure of village-level activities in specific stituations. In any case, there will be a need for close and continued

supervision of VHWs to sustain motivation as well as to avoid misuse and abuse of drugs in communities in which VHWs are trained and are permitted to dispense selected drugs.

SANRU II will also capitalize on another locally available resource - the traditional birth attendants (TBAs). In the vast rural areas in Zaire where the overwhelming majority of babies (perhaps 80 percent) are delivered by traditional birth attendants, it would be unrealistic to expect health centers with trained personnel to reduce significantly the proportion of home deliveries performed by TBAs during the next few years. SANRU II, like its predecessor, will continue to upgrade the skills of TBAs to recognize and refer high-risk cases to the health center and to train TBAs to provide safer home deliveries. The simple training is carried out in villages or at health centers and focuses on improved home-delivery techniques as opposed to training for clinic deliveries. Upgrading the skills of TBAs will have an impact on reducing complications of childbirth and its associated maternal and infant mortality.

15.1.3. Training

Of all the SANRU I activities, training had the most far-reaching effect. Training and continuing education are of primary importance not only to reinforce technical skills but also to provide continuing motivation of health personnel. Training remains a major component of SANRU II.

Training of health-center and village personnel will be conducted within the RHZ level. Each zone will arrange and conduct its own training courses. The most significant advantage of training at the zone level is that the training is conducted in a setting similar to that in which health workers will be working. Such training will also ensure small classes and will facilitate the use of discussions and practical exercises where needed, so that the trainers can observe the performance of each trainee. On the other hand, since the training is organized by individual zones, courses may be of varying duration and content. Furthermore, the training sites may differ greatly, especially for training VHWs. For example, some VHWs are trained in the villages, while some zones train their VHWs at the health center or even the hospital. Experience has shown that training village-level workers as close to their own community as possible is most effective and this will be encouraged in SANRU II. The bulk of the training is done by RHZ-level nurse-trainers and/or health-center nurses. It is clear, however, that RHZs require continued assistance in training VHWs, which will be provided according to the training plan.

The number of health-center nurses and auxiliaries (2140) to be trained is ambitious but possible: new health zones are expected to train an average of 35, including 10 backups based at the reference hospital.

The number of health-center committees and village committees (3000 total) is not so ambitious and in fact averages fewer per zone than during the SANRU I Project. The reasons are based on the following experiences from SANRU I: (a) Many zones do not really begin to form committees until their third year, and the numbers do not increase

rapidly at first. (b) Often zones do not develop full-fledged committees for both the health centers and the villages, but emphasize one or the other. (c) The new zones that will be supported during SANRU II often lack the personnel, resources, and preventive health experience that characterized many of the SANRU I-assisted zones; thus they cannot be expected to move as fast, particularly in village activities.

Training of health-zone-level personnel will be done in (one-to-four week) region-wide courses and conferences. The SANRU I mid-term evaluation report recommended: "The project should stress regional training-of-trainers centers for supervisors, nurses and village health workers." The regional training-of-trainers (TOT) strategy has already been used successfully by SANRU I to initiate regional training of trainers of VHWs, regional training of trainers of TBAs (in conjunction with ACNM), in family planning (with JHPIEGO financing), and regional training of technicians for water/sanitation (in conjunction with SNHR). SANRU II will continue to intensify these regional training activities. In addition, a similar strategy is proposed for regional training of pharmacists (in conjunction with ECZORT), nurse supervisors (SANRU II), and management training for MDs/Administrators (SANRU/CTB/PEV).

The number of zone personnel to be trained is 800. For their basic training courses, this number is realistic, since the project itself will pay the costs . Their continuing education, however, is to be done through semi-annual or annual regional meetings. SANRU II will pay only a portion of these meeting costs, on a declining scale, over the seven years of the project. Only if the GOZ and other donors agree on the importance of these meetings and help to support them financially will they continue.

The regional trainers themselves will attend national workshops. About 300 regional and national personnel are to be trained, the majority in short courses sponsored by the project. SANRU II's emphasis on a regional and national level "training-of-trainers" approach will produce groups of well trained trainers, which should have a very positive ripple effect on the quality of health worker training throughout the project area.

The ECZORT Project is carrying out a study to document the management system of health zones. The manual produced will be developed into a series of training modules to retrain doctors and administrators in RHZ management. Also at the national level, MDs/national health administrators will attend out-of-country short-term training programs. With the new School of Public Health (SPH), almost all the long-term training is to be done in Zaire; the SANRU II project counts heavily on the SPH opening as scheduled and accepting the planned number of candidates. A critical constraint in the development of a RHZ had been the lack of training in public-health and management skills of physicians assigned to the zones. SANRU II strategy to train MDs/administrators in PHC administration and management skills will greatly enhance the development, implementation, and continuity of the RHZs.

15.1.4. Supervision

Since the VDCs, the HCCs, the VHWs are working on a purely voluntary basis, regular supportive supervision is the main mechanism to influence and motivate these workers to work more effectively. The lack of continued supportive supervision has been the undoing of many PHC schemes.

In SANRU II, village-level workers will be supervised primarily by the health-center nurse and also by the nurse/supervisor from the zone level. The village-level workers and their health-center supervisors will meet at least once a month to work together. This meeting will be held on the same day as the village under-five clinic and other village-based activities which are carried out routinely every month by the health-center staff. In addition, the VHWs will be expected to travel to their supervising health centers on a monthly basis to give reports, replenish supplies, accompany referral patients in some cases, and to attend one-day informal discussion/training sessions.

At least once a month, the nurse/supervisor from the RHZ will also travel to each health center to supervise the nurses and auxiliaries at the centers. The medical chief of the zone will also be responsible for making supervisory visits to the health centers in his zone. During their initial year, the health centers will be visited once a month but once the health centers are well established and functioning, supervisory visits will be decreased to once every two months. SANRU II will train 200 nurse/supervisors in supervisory techniques, which should be a sufficient number to cover proposed health-zone activities.

One area of concern however, will be the number of supervisory visits the health-center nurse will have to make during one month in order to cover all the villages. Each health center serves approximately 5-10 villages, so the nurses will have to travel approximately two times a week to be able to supervise all villages once a month. Ideally the health center should have both a nurse (A2 level) and an auxiliary (A3 level), and the MOH is committed to supporting at least these two positions at every project health center. The auxiliary can then carry on the health center activities while the nurse is away on a supervisory visit. Nurse/supervisors from the zone level will experience similar difficulties, since there are approximately 15-25 health centers per zone.

But perhaps the biggest area of concern regarding feasibility of regular, continued supervision is transportation. In addition to the vehicles which will be provided by the project, fuel costs will need to be met (as discussed in the Financial Analysis). Moreover the experience of SANRU I raises the question of technical feasibility of using American vehicles (Chevys and Jeeps). These U.S.-produced 4-wheel-drive vehicles proved themselves inappropriate for rural Zaire. USAID is requesting a waiver to buy other vehicles that have been proven effective in these conditions. Maintenance presents another problem which is being addressed as ECZORT begins regional training of maintenance technicians for vehicles, motorcycles and bicycles. This training is expected to begin in November 1985.

At the health-zone level, motorcycles are mainly used for supervisory visits and at the health-center level, bicycles are used. The problem is local availability of spare parts, especially for American bicycles, although parts are readily available for non-American bicycles commonly sold in Zaire. If these bicycles were provided to the health centers instead of American bicycles they would probably last for many years. A waiver for non-American bicycles is also being incorporated into the project paper. Spare parts that are needed for all forms of transport should be commercialized and made locally available to ensure long-term maintenance. If SANRU II is unable to solve the problem of transport requirements and maintenance, these would present important constraints to effective, continued supervision.

15.1.5. Establishment of Rural Health Zones and Health Centers.

The SANRU I mid-term evaluation report recommended that "the SANRU project should increase the number of rural health zones to be developed from 50 to 100, and the rural health centers to be converted from 250 to 650. The project should be extended 4-5 years with new funds starting in FY 86." This recommendation has broad implications and poses the question of "intensification" of efforts in SANRU I-assisted RHZs versus "project extension" into new zones. The strategy adopted for SANRU II encompasses both - that is, intensification in established zones plus extension into new zones. The intensification in established zones will be accomplished through the transformation of an additional 200 curative dispensaries into full-service health centers: between 1987 and 1990 an average of 1 health center per zone per year will be established. SANRU II will also assist in the establishment of an additional new 50 RHZs and will support the transformation of 520 curative dispensaries into full-service health centers in the 50 new RHZs. This is expected to be carried out at the rate of two health centers per health zone per year (one center per zone in the final project year). This pace, which has proved feasible during SANRU I, would result in achieving the target of increasing access to PHC by 52 percent in the 50 new project-assisted health zones.

This activity of SANRU II proposes nothing new. It is essentially an expansion of the geographic scope of its successful predecessor. The project mid-term evaluation will examine the rate and success of health-center expansion and, if necessary, propose a revised pace.

15.1.6. Supply Line

A secure supply line is essential to the long-term sustainability of a rural health zone delivery system. SANRU I addressed this problem in part by providing each new RHZ with local currency to buy an initial stock of basic medicines. However, SANRU I did not attempt to deal with the underlying problem of drug procurement and distribution.

At present, each RHZ obtains drugs and supplies from multiple sources. Some zones buy from relatively reliable pharmaceutical warehouses (Catholic, Protestant, and private) in their areas. Some zones directly import medicines and supplies from abroad; some receive donations of drugs from UNICEF, OXFAM, or from sister organizations (e.g., church groups). All receive vaccines from the CCCD Project and

contraceptives from international agencies. The increased demand for medicines and inability to obtain hard currency pointed out the need for a local system — a need for regional (or national) supply depots from which RHZs can purchase medicines/supplies in local currency.

At the national level, LAPHAKI, a Belgian-supported GOZ project is currently producing more than 20 basic medicines for distribution to RHZs. SANRU I has recently obtained permission from the MOH to purchase medicines from LAPHAKI. Also at the national level, a private merchant has proposed to buy 40 percent of the national drug distribution system (Depot Central Médical Pharmaceutique: DCMP) to commercialize production, sale, and distribution of drugs. As with LAPHAKI, this would serve SANRU II to assist RHZs in improving and securing their supply lines.

In some areas, there already exist regional or sub-regional depot projects that could potentially serve as regular suppliers to health zones (in Kikwit, Kananga, Uvira, Gbadolite, Nyankunde, Kinshasa). Although most of these are privately supported, they are beginning to experiment with expanding to serve all state and privately supported health centers within their area. For example, the pharmacy at Kananga, under the auspices of the Presbyterian Church, is now supplying several of the SANRU RHZs throughout Eastern and Western Kasai. SANRU strategy is to establish the RHZ's credit with the pharmacy at Kananga instead of supplying local currency to individual RHZs in the region. The RHZs in that region will therefore be able to draw on their regional credit account.

SANRU II will play a major role in strengthening the drug distribution system, at national, regional, and RHZ levels. LAPHAKI has had difficulty obtaining hard currency and thus in importing necessary raw materials from abroad. The project is investigating the possibility of importing raw materials for LAPHAKI: this would have the additional benefit of generating local currency. SANRU II will also provide technical assistance and funding for national and regional conferences to address implementation of the drug supply and distribution system as well as policy issues, such as the development of a national formulary with specific drug lists for each level and examination of the relative costs of local production versus importation of pharmaceuticals.

SANRU II will also finance the construction or rehabilitation of six warehouses at the regional and sub-regional levels. Each regional warehouse will receive an adequate stock of drugs so that it can fill initial orders from the RHZs. The project will provide training, technical assistance and micro-computers to regional warehouses to support the implementation of efficient inventory-control procedures and the nationalization of procurement and distribution operations.

At the RHZ level, SANRU II will support the RHZs to ensure a secure supply line by financing the rehabilitation of RHZ warehouse space. The project will also assist in training of staff for RHZ pharmacies. SANRU II will finance a credit to the RHZs for a six-month supply of medicines for each new project-assisted center in the zone. The health centers will get their initial stocks free of charge from the RHZ warehouse, but they will have to purchase subsequent supplies at a price that is adequate for the RHZ to recover the costs of purchasing and distributing replacement stocks. From the initial stocks they received free of charge, the health centers will generate funds to ensure resupply.

The potential for long-term sustainability of a secure supply line is high. Pharmaceuticals will be sold at their real cost so the distribution system will be self-financing at every level. The development of basic drug lists will lead to more efficient national purchasing procedures, simplification of packaging, and more efficient inventory systems resulting in lower prices. The development of regional warehouses with greater purchasing power and more efficient procurement and distribution systems will ensure a more reliable, secure supply line of drugs to the RHZs. If all these strategies can be carried out successfuly to ensure a secure supply line, long-term sustainability of the RHZs in the project can be feasible.

15.1.7. Health Information System

A uniform annual reporting system for project health zones has already been developed during SANRU I. This system assists the health zone in identifying what health information to collect and also in analyzing data locally for immediate feedback in program monitoring. This system has now been accepted as the prototype for national use by the MOH. SANRU II will also support national seminars to refine the system with inputs of other programs (such as CCCD and family planning) in order to gain a national consensus. SANRU I is experimenting with the use of micro-computer systems for data analysis. SANRU II will continue this activity and extend it to the regional level as well as to selected health zones where there is keen interest in using micro-computers for word-processing and establishing a data base. Much can be done with micro-computers in a decentralized system to make local management more efficient and responsive. However, it will be necessary to carefully select the information required. There should be a simplified surveillance system to encourage reporting on a quarterly basis. At present, information is collected on a yearly basis only. SANRU II aims to establish in the system those indicators which are technically feasible, such as accessibility of services (e.g., the percentage of pregnant women residing in areas with access to pre-natal clinics) and coverage of services (e.g., the percentage of pregnant women having access to pre-natal clinics and actually attending the clinics). Measurement of impact of services (e.g., reduction in morbidity, mortality; reduction of disease incidence and prevalence) is not always feasible. Routinely collected data is rarely adequate to demonstrate impact, and specific community-based impact studies are expensive and time consuming. Furthermore in a strategic project like SANRU, whose main inputs are training, technical assistance, planning and infrastructure rather than service delivery, impact studies are not directly pertinent. Nevertheless, to supplement more easily obtained data, (e.g., accessibility, coverage), SANRU II will organize in a few representative areas, baseline and end-of-project community-based sample surveys to assess impact on changes in health status, particularly changes in infant and child mortality.

SANRU II also aims to institutionalize the health information system at the national level. This will be accomplished in coordination with the National Department of PHC and other MOH coordinating structures as they develop (in particular, the restructured FONAMES). To implement this activity, SANRU will, in collaboration with the MOH, set up a

national documentation center which will centralize and provide access to PHC reports and resource materials from all the health zones. The creation of the documentation center should be technically feasible as it will be developed in conjunction with the comprehensive public health library at the School of Public Health (SPH). This library, which will be a major supportive element of the school, will initiate the establishment of the computer-assisted system for entry, retrieval, and cataloging of information. The SANRU II-assisted documentation center will channel information from the health zones to the library at the SPH.

Long-term sustainability of the health information system should be feasible because the system will be integrated progressively into the MOH so that it will be institutionalized at the end of the project.

15.1.8. Water and Sanitation

The technical feasibility of the water component of the project deals with two basic concerns. They are:

(1) Do the implementing agencies possess technical competence to ensure an adequate level of quality control in the construction of systems and the resolution of other technical issues related to the technologies of choice for the project?

(2) Will the outputs of the project lead to improved health status and a better quality of life for the beneficiaries?

(1) Technical Competence

The magnitude of water activities and range of technologies planned for the project cannot be implemented by the RHZ staff without technical assistance from outside the zone. The SNHR, in its current state, cannot adequately do the job either. Although some local NGOs have technical competence in this area, they cannot be depended upon to provide all the technical support necessary to implement the project. Therefore the project will provide assistance in improving the technical competence of the SNHR, the NGOs already operating in the project area, and the water staff of the RHZs. To improve the technical capabilities of these three sources of technical back-up for water activities, the SANRU II Project will support training at various levels and provide equipment and materials for water systems. The project will also support 7 person-years of long-term TA and approximately 30 months of short-term TA (2/3 through the SNHR and 1/3 through the MOH) in a variety of areas to strengthen existing institutions and ensure adequate quality control in project implementation.

a) Design Standards for Selected Technologies

The recently adopted rural water and sanitation policy and strategy document directed the SNHR to coordinate the development of standard specifications for the different types of water points to be developed in Zaire. The Planning Unit in the SNHR will be responsible for developing plans in collaboration with field brigades and NGOs. These plans will include standard specifications for spring capping, spring boxes, hand-dug wells, drilled wells, pumps, gravity-fed systems, etc.

Blueprints developed for all systems will be shared with the NGOs operating in this sector as well as with RHZ water coordinators (for those simpler systems not requiring prior technical approval by the SNHR for construction). Efforts will be made to ensure that water points are developed to accommodate short- and long-term population growth as well as minimum water needs of 20 liters per capita.

It is expected that after two years of project implementation, two Zairians will return from long-term U.S. training with advanced degrees in public health or environmental engineering, to further strengthen the technical capability of SNHR to carry out research and development of new systems as well as to program and implement rural water interventions.

b) Selection of Equipment, Level of Technologies, and Hydrogeological Considerations

The technologies requiring special technical feasibility considerations are wells (hand dug or drilled) fitted with handpumps, and the equipment needed to drill wells. Regarding handpumps, a review of the recent World Bank performance rating of handpumps has led to the choice of the India Mark II handpumps for this project. This pump has been shown to withstand heavy-duty use such as drawing water from depths of up to 80 meters and operating continuously for up to 16 hours a day. The pump therefore has adequate lift capacity for most of the wells that will be constructed and maintenance at the community level is possible.

Drilling rigs: The project-paper drilling consultant has recommended, based on local hydrogeological conditions and power needs to drill through and retrieve drilling bits, a drill that can drill with air, mud-rotary, and air-hammer techniques. Only equipment meeting these criteria will be purchased for use in the project.

c) Equipment Maintenance

With the approval of this project, USAID will be assisting the GOZ in the rural water sector in two separate projects. The first is confined to the Shaba Region (Project 660-0016). Water activities under the SANRU II Project will constitute the second. Discussions between the two projects, are underway to standardize drills so as to economize and simplify maintenance and spare parts procurement for both projects. Owing to the current weaknessess of the SNHR, it is planned that the American vendor of drilling rigs will provide, in addition to the hardware and spare parts, in-country assistance in the assembly of the equipment and initial short-term training of Zairian technicians who will operate it. After that, it is expected that an expatriate drill mechanic, resident in Zaire and funded by the two projects, will assist Zairian crews in both the SANRU II and Shaba projects.

The availability of spare parts for handpump maintenance at the community level will also be critical to project success. An adequate quantity of spare parts will be ordered and stocked at the rural RHZs Communities in need of spare parts will procure these from the RHZ staff. The rural water brigades can be consulted for repairs which are beyond the technical competence of the community agent.

(2) Improvements in Quality of Life

The technologies selected for this project were chosen using the following criteria:

- low per capita investment cost.
- low per capita recurrent maintenance cost.
- potential to improve water quality, quantity, and reduce labor output for procuring water.

Improved water sources and sanitation are one component of the PHC package which is expected to improve the health of the beneficiaries and reduce morbidity and mortality. The project water interventions are also expected to improve the quality of life for rural Zairains through an increased quantity of household water and more accessible water points, which will reduce the labor and time spent fetching water.

In sum, adequate provision has been made to ensure that the current technical weaknesses of the SNHR, RHZ staff, and NGOs do not constrain project implementation. Furthermore, it is expected that by the end of the project these institutions will develop the technical capability to continue to provide service in this area.

15.2 Financial Analysis

15.2.1 Profitability Analysis

This project's expected direct output is an improved health delivery structure; its indirect output will be reduced morbidity and mortality for the health-care recipients. It is not expected to produce monetary revenues greater than costs, hence it is not subject to profitability analysis.

15.2.2 Use of Project Revenues

Even though the project will not earn net profits, some revenues will be earned from the sale of medicines and from consultation fees. These receipts will defray some costs of the delivery of health-care services. Village development committees (VDCs) may choose to have village health workers (VHWs) charge fees for their services, be paid in kind, or sell medicines to raise funds for their compensation. VDCs may also find other ways to compensate these workers. Traditional birth attendants (TBAs) already receive payments in kind or cash for their services; these payments may increase after the TBAs receive project-supported training. Receipts from the sale of medicines at all levels of the delivery system are expected to cover the full costs (purchase price, including transportation) of acquisition so that the supply of medicines will be financed on a revolving-fund basis. Consultation fees are to pay some salary costs of the health center (HC) staff, the costs of maintaining the HC, and perhaps the cost of supervision of the HC by the rural health zone (RHZ) staff. Non-personnel costs of reference hospitals (such as building maintenance and some amortization of equipment) will be financed by receipts from the sale of medicines and consultation fees. In Government of Zaire (GOZ) operated hospitals, physicians are permitted to keep 40 percent of consultation fees as a salary supplement.

15.2.3. Recurrent Costs

The recurrent costs of the project interventions include salaries, medicines, fuel and maintenance, and amortization of capital goods. The expected sources of funds for these costs are GOZ spending, PVO support (principally religious missions), user fees, corporations, the beneficiary population, and continued donor support. (Throughout this section the term community will be used to refer to the beneficiary population, not religious missions.)

In this discussion, costs are stated in both real and nominal terms. Real refers to costs as though they were paid in 1985 Zaires; nominal refers to the expected costs in Zaires adjusted for inflation in the year in which the costs are incurred. The annual inflation rate used is 25 percent. Costs stated in real terms can be compared with current budgetary allocations to understand their order of magnitude relative to current spending. The number of Zaires that will actually be spent is better reflected by the nominal figures.

Summaries of real and nominal expected recurrent costs are shown in Tables 15.1 and 15.2. The recurrent cost of the project-assisted activities in 1993 is estimated to be 69.7 million real Z ($US 1.4 million). Of this, 37.2 million Z($US 750,000) will be paid by the GOZ. The rest will be paid by the communities through user fees and by PVOs.

Real Recurrent Costs

Table 15.1: Recurrent Costs of SANRU II (in 1985 Zaires)

Costs (000 Z):		1986	1987	1988	1989	1990	1991	1992	1993
SALARIES:									
MOH National		SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	240
Reg Off Staff		1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512
S/Rg off staff		1,978	1,978	1,978	1,978	1,978	1,978	1,978	1,978
RHZ cent off		7,344	9,039	10,169	11,299	11,299	11,299	11,299	11,299
HC nurses		634	2,957	5,702	8,870	12,038	14,150	15,206	15,206
HC staff		1,148	5,356	10,329	16,068	21,806	25,632	27,544	27,544
Nat SNHR staff		768	768	768	768	768	768	768	768
Water Brigades									
GOZ		1,714	3,427	5,141	6,365	6,365	6,365	6,365	2,122
PVOs		979	979	979	979	979	979	979	326
FUEL AND MAINTENANCE:									
SNHR	Brg	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	600
Brg	RHZ	SANRU	SANRU	SANRU	SANRU	SANRU	2,196	2,196	732
Nat	RHZ	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	1,150
R-S/R	RHZ	225	450	675	900	1,125	1,350	1,575	1,575
RHZ	HC	0	72	228	216	444	912	948	4,620
TOTAL		16,301	26,538	37,482	48,955	58,314	67,141	70,371	69,673
TOTAL GOZ		14,175	20,131	25,945	31,692	35,085	39,618	40,899	37,182
TOTAL Community		1,148	5,428	10,557	16,284	22,250	26,544	28,492	32,164
TOTAL PVOs		979	979	979	979	979	979	979	326

Unit Costs (in Zs):	
	Annual Salaries
24,000	MOH national staff
189,040	Regional office staff
98,880	Sub-Regional office staff
12,992	RHZ central office staff
21,120	HC nurses paid by GOZ
38,256	HC staff paid by communities
192,000	SNHR national staff
244,800	Rural water brigades (incl. operational support)
	Fuel and maintenance costs:
15,000	Ann SNHR s'vision per brg (aft 1st two yrs, once/yr.)
73,200	Brigade travel to RHZs
11,500	National supervision per RHZ
75,000	MOH regional and sub-regional offices per vehicle
1,000	RHZ supervision per HC visit

Nominal Recurrent Costs

Table 15.2: Recurrent Costs of SANRU II (in nominal Zaires -- 25% rate of inflation)

Costs (000 Z):	1986	1987	1988	1989	1990	1991	1992	1993
SALARIES:								
MOH National	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	1,431
Reg off staff	1,890	2,363	2,954	3,692	4,615	5,769	7,211	9,014
S/Rg off staff	2,472	3,090	3,863	4,828	6,035	7,544	9,430	11,787
RHZ cent off	9,181	14,124	19,862	27,586	34,482	43,103	53,879	67,348
HC nurses	792	4,620	11,138	21,656	36,738	53,979	72,510	90,637
HC staff	1,435	8,369	20,174	39,227	66,546	97,776	131,342	164,177
Nat SNHR staff	960	1,200	1,500	1,875	2,344	2,930	3,662	4,578
Water Brigades								
GOZ	2,142	5,355	10,041	15,539	19,424	24,280	30,350	12,646
PVOs	1,224	1,530	1,913	2,391	2,988	3,735	4,669	1,945
FUEL AND MAINTENANCE:								
SNHR | Brg	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	3,576
Brg | RHZ	SANRU	SANRU	SANRU	SANRU	SANRU	8,377	10,471	4,363
Nat | RHZ	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	SANRU	6,855
R-S/R | RHZ	281	703	1,318	2,197	3,433	5,150	7,510	9,388
RHZ | HC	0	2,063	5,273	9,375	14,832	19,684	23,174	25,392
TOTAL	20,377	43,416	78,035	128,367	191,438	272,328	354,208	413,137
TOTAL GOZ	17,718	31,455	50,675	77,374	107,072	151,132	195,023	221,623
TOTAL Community	2,659	11,961	27,360	50,993	84,366	121,196	159,185	191,514
TOTAL PVOs	1,224	1,530	1,913	2,391	2.988	3,735	4,669	1,945

15.2.3.1. Salaries

There are five levels of salaries that will continue after the project ends. They are: (1) national, regional, and sub-regional personnel of the Ministry of Health (MOH); (2) RHZ staff; (3) HC staff; (4) VHWs and TBAs; and (5) national and brigade water and sanitation personnel of the Ministry of Agriculture and Rural Development (MOARD).

The salaries stated throughout this section are base salaries, not including bonuses which may or may not be paid. The salaries are those paid at the time the report is written. The GOZ's commitment to pay salaries should be based on the number and types of positions described and paid at whatever salary level is practiced during the life of the project. Thus, the figures given below should be regarded as indicative, rather than precise.

(1) National, Regional, and Sub-Regional. The GOZ will pay the salaries of MOH personnel at the national, regional, and sub-regional levels, including the personnel seconded to work with SANRU II. The MOH will add an assistant administrator at the regional office to oversee the utilization of PHC resources. The annual cost of this position at the eight regional medical inspection offices will be 172,800 real Z, or 1,030,000 nominal Z at the end of the project. Other personnel already on the payroll will be used for the remaining positions, so they will not involve any additional cost to the GOZ. At the end of the project, about ten positions will have to be transferred from the SANRU Project Office to the MOH at the national level to help manage the rural health system. This will mean an annual increase in the MOH payroll of about 240,000 real Z, or 1,431,000 nominal Z in 1993. The professional staff of the eight regional offices and their annual salaries are as follows:

Medical inspector	40,740 Z
PHC physician	24,720
Gen services administrator	24,720
Hospital adminstrator	24,720
Pharmacy inspector	24,720
Epidemiology phys. or nurse	24,720
Education physician or nurse	24,720
TOTAL	189,040 Z

The professional staff of the thirteen sub-regional offices that will be assisted by SANRU II and their annual salaries are as follows:

S/regional medical chief	24,720 Z
Gen services administrator	24,720
Pharmacist or assistant	24,720
Sanitation technician	24,720
TOTAL	98,880 Z

150

(2) Rural Health Zone. The GOZ will pay the salaries of the RHZ medical chief and other RHZ central-office professional personnel in the 50 new RHZs to be established during the project. Secretaries and aides are hired locally by the RHZs. Medical chiefs and other physcians serving at GOZ hospitals are permitted to supplement their salaries by keeping 40 percent of consultation fees at the hospital. Salary supplements are usually paid to medical chiefs in zones headed by PVOs or corporations. The PVOs and corporations are expected to pay those supplements indefinitely. The RHZ central-office staff and their annual salaries are as follows:

Medical chief	21,600 Z
Administrator	15,500-18,000
Nurse supervisor	15,600
Pharmacist/asst pharm	18,000
Water/san supervisor	10,320-10,800
Driver-mechanic	10,800
Secretary	10,320
Aide	9,312
TOTAL	111,552-114,432 Z

By 1989, all of the new RHZs planned for in the project will be in operation. The annual salary cost of the project-assisted RHZs' personnel to the GOZ thereafter will be about 11,299,000 real Z, or 27,586,000 nominal Z.

Nearly all of the physicians who will be medical chiefs are already on the MOH payroll. All of the water supervisors will be new hires. Many other RHZ positions will be filled by staff already on the payroll. The GOZ will hire other personnel necessary to fully staff the RHZs.

The RHZ hospitals will have no new functions added to them by the project: hence no additional recurrent costs are created. Hospital workers' salaries will continue to be paid by the GOZ, supplements and subsidies paid by non-government organizations (in some cases), medicines and laboratory charges paid by patients, and other overhead costs paid for out of consultation fees.

(3) Health Centers. HC staffs will be paid partly by the GOZ, partly by non-governmental organizations, and partly by communities through user fees. The HC staff and annual salaries are as follows:

Nurse (A2)	10,800 Z
Nurse (A3) x 2	20,640
Receptionist	9,312
Watchman	9,312
Aide	9,312
TOTAL	59,376 Z

The total annual recurrent cost of these personnel in the 720 HCs assisted by the project at the end of the project (1993) will be 42,750,000 real Z, or 254,841,000 nominal Z.

The A2 nurse and one of the A3 nurses will be paid by the GOZ. The other nurses will be paid by the community served out of the receipts from consultation fees. At 200 consultations per month, HCs will have to charge an average of 16Z ($US 0.32) per consultation to cover these salary costs. The total consultation fee will have to be higher to cover other HC costs. HCs having non-governmental sponsors (religious missions, corporations, or community groups) may benefit from subsidies.

(4) Villages. VHWs and TBAs trained during the project will be recompensed by the communities they serve. TBAs are traditionally paid in cash or in kind for their services. There will be no fixed wage or salary for either of these workers. The VDCs will decide whether the VHWs should be compensated through charging fees in cash or in kind for their services, through the sale of simple medicines, through an honorarium paid by the committee, or whether they should work as volunteers.

(5) Water and Sanitation Personnel. The GOZ will pay the salaries and operational support costs of the national staff at SNHR (National Rural Water Service) and of the SNHR water brigades supported by the project. Four brigades will be operated by non-governmental organizations. Twenty employees on the SNHR central staff and 17 employees on each brigade will be supported. Operational support will amount to about 20 percent of salary costs. The annual cost when the full set of 26 government-supported brigades are operational (1989) will be 7,084,000 real Z.

However, the GOZ will not have to support brigades with a full complement of personnel after the project ends since a team of only about one-third the size is needed to maintain the water interventions completed by the project. Thus, even if the GOZ chooses to keep the brigades to carry out other water interventions, only one-third of the full cost of the brigades is attributable as a recurrent cost. The recurrent project cost of maintenance brigades in 1993 will be 2,361,000 real Z, or 14,072,000 nominal Z.

15.2.3.2. Medicines

Medicines used at all levels of the system will be sold at their full cost, so that the receipts earned can be used for resupply and the medicines will be self-financing. The project will supply initial stocks of medicines to HCs, RHZ hospitals, and sub-regional drug warehouses which thereafter will be self-financing for medicines. Two exceptions are vaccines and contraceptives. The Expanded Program on Immunization will continue to provide donor-supplied vaccines without charge to the RHZs for the foreseeable future. Similarly, the Family Planning Services Project will supply the contraceptives.

15.2.3.3. Fuel and Maintenance

The project will result in fuel and maintenance costs at the national, regional, sub-regional, and RHZ levels. Vehicles will be supplied at all levels; motorcycles will be supplied to RHZs for supervision of health and water activities. A 6-ton truck will be supplied to the SANRU Office for the transport of water and sanitation supplies and equipment to RHZs. The project will supply spare parts for the vehicles, truck, and motorcycles. SANRU II will also help support some fuel and maintenance costs of these vehicles on a declining basis over the LOP. The GOZ, PVOs, and communities will be required to take over these costs as project support declines.

(1) National. At the national level, the project will pay for fuel and maintenance for two supervisory visits per year by SNHR staff to each brigade for the first two years of the project, then once a year for the next three years of the project. At the end of the project, the MOARD will be responsible for these costs. One visit per year will be sufficient supervision of the brigades at that time, so that the annual cost of fuel and maintenance will be 600,000 real Z, or 3,576,000 nominal Z in 1991.

The National Water and Sanitation Supervisor, to be hired by the project to oversee RHZ water activities, will coordinate supervision of each of the RHZs twice a year for the duration of the project. The SANRU Office will pay the costs of national supervision of RHZs during the project. After the project ends, the supervisor will be absorbed into the MOH and the annual cost of national water supervision will be 1,150,000 real Z, or 6,855,000 nominal Z.

The costs of fuel and maintenance for the delivery of water and sanitation supplies and equipment to RHZs using the 6-ton truck will be paid by the project. These are one-time costs, so there are no recurrent costs at EOP.

(2) Regional and Sub-Regional. The project will supply vehicles to 21 regional and sub-regional offices over LOP. It will be the responsibility of the MOH to finance fuel and maintenance for these vehicles. This annual cost will be about 75,000 Z per vehicle. At the end of the project, the annual costs of fuel and maintenance for all of the vehicles will be 1,575,000 real Z, or 9,388,000 nominal Z. The regional and sub-regional water brigades will receive motorcycles for travel to help RHZs with installations and maintenance. The project will support fuel and maintenance costs of these motorcycles for the first five years, thereafter the costs will be the responsibility of the MOARD. After the project ends, only travel for maintenance will be necessary, so the cost of transportation will be only about one-third of that incurred during the intervention stage. The recurrent cost in 1993 is about 732,000 real Z or 4,363,000 nominal Z.

(3) RHZ. Each RHZ assisted by the project will receive a vehicle and three motorcycles for the supervision of health activities; each will also receive a motorcycle for the supervision of water activities. RHZs will be allocated 12,000 Z for the fuel and maintenance costs of monthly supervision of each HC in its first year of operation. Each year thereafter, the subsidy will drop 20 percent. As the subsidy declines, the costs are to be supported by receipts from consultation fees charged by the HCs. As a health center matures, the need for supervision is expected to diminish to once every two months. At EOP the annual fuel and maintenance costs of supervision of the 720 project-assisted HCs will be 4,260,000 real Z, or 25,392,000 nominal Z.

15.2.3.4. Amortization of Capital Goods

Capital goods, such as vehicles, equipment, and buildings, provided by the project, will eventually need replacement. Neither the GOZ nor the community are currently able to pay for the amortization of these capital goods. Hence, continued reliance on donor support for the replacement of capital goods will be necessary.

15.2.3.5. Conclusion

The GOZ or the beneficiaries of the activities will pay the bulk of recurrent costs throughout the project. Donors will be relied upon to finance vaccines, contraceptives, and the replacement of capital goods. Counterpart funds will be used during the project to support some recurrent expenditures. These expenditures will, in most cases, gradually be shifted over to the GOZ ordinary budget. In real Zaires, the total recurrent cost of the project-assisted activities in 1993 will be 69.7 million Z, or 19.4 Z ($US 0.39) per beneficiary (assuming a 3.2 percent rate of population growth in the areas served). In addition, beneficiaries are expected to pay about 50 Z per episode of illness for medicines. The burden on the GOZ budget after the end of the project is estimated to be 37.2 million real Z ($US 750,000) per year.

15.2.4. Detailed Budgets

Detailed budgets for each of the project components, showing annual spending by activity, by local currency and foreign exchange, and expected unit costs, are shown in Tables 15.3 and 15.4. The detailed training budget is shown in Table 15.5. The GOZ's contribution of counterpart funds represents about 45 percent of total project costs.

Table 15.3: MOH Budget for SANRU II

(a) Unit Outputs	1986	1987	1988	1989	1990	1991	1992	LOP
New RHZs	15	15	10	10	0	0	0	50
Cumulative RHZs	65	80	90	100	100	100	100	
Cum W/S RHZs	40	80	90	100	100	100	100	
New Ref HCs	6	13	15	17	17	16	8	92
New HCs	24	97	115	133	133	84	42	628
Cum New HCs	30	140	270	420	570	670	720	
Reg-S/Reg Off supported	3	3	3	3	3	3	3	21
Reg-S/Reg Pharm	1	1	1	1	1	1	0	6
RHZ Wat/San Syst.								
Spring caps	0	300	300	300	300	300	300	1,800
Spring boxes	0	200	200	200	200	200	200	1,200
Drilled wells	0	80	160	160	160	160	160	880
Hand wells	0	50	75	100	150	200	250	825
Grav dist syst	0	6	10	20	25	31	33	125
Pump ast dist	0	3	4	6	8	9	10	40
Infil dis sys	0	1	1	1	1	2	1	7
VIP latrines	0	200	300	375	375	375	375	2,000
PCV W/S Motorcycles	15	15	4	4	15	15	2	70
Trng W/S supers	31	62	93	94	63	32	0	375
Out-of-Country Trng								
L-term trng	0	2	2	0	0	0	0	4
Courses/conf	0	18	18	18	18	12	10	94
3-mo training	0	6	2	0	0	0	0	8
Technical Assistance								
SANRU L-T	2	3	3	2	2	1	1	14
USAID L-T	1	1	1	1	1	0	0	5
Short-term	10	18	14	13	9	1	3	68

(b) Loc Cur (000Zs)	1986	1987	1988	1989	1990	1991	1992	LOP
Renov/Constr								
National Offi	5,000	0	0	0	0	0	0	5,000
Ref Hosp	8,500	8,500	8,500	8,500	0	0	0	34,000
RHZ Offices	11,250	11,250	7,500	7,500	0	0	0	37,500
HCs	3,900	8,450	11,050	13,650	13,650	13,000	6,500	70,200
Reg Pharmacies	1,000	1,000	1,000	1,000	1,000	1,000	0	6,000
Drug Sup for HCs	1,800	6,600	7,800	9,000	9,000	6,000	3,000	43,200
Opn SANRU Office	11,750	23,500	23,500	23,500	23,500	23,500	23,500	152,750
Supplies Nat Off	2,000	2,000	2,000	2,000	2,000	2,000	2,000	14,000
Supervision								
RHZ fuel subs	360	1,320	1,560	1,800	1,800	1,200	600	8,640
Nat SANRU W/S	601	1,061	1,176	1,291	1,291	1,291	1,291	8,000
RHZ W/S Supers	768	1,536	1,728	1,920	0	0	0	5,952
IE&C mat for HCs	300	1,100	1,300	1,500	1,500	1,000	500	7,200
Hlth Worker Trng	10,684	15,739	17,073	15,720	14,484	10,989	9,349	94,038
RHZ Wat/San Syst								
Spring caps	0	1,200	1,200	1,200	1,200	1,200	1,200	7,200
Spring boxes	0	2,720	2,720	2,720	2,720	2,720	2,720	16,320
Drilled wells	0	1,700	3,400	3,400	3,400	3,400	3,400	18,700
Hand wells	0	588	881	1,175	1,763	2,350	2,938	9,694
Grav dist syst	0	4,308	7,180	14,360	17,950	22,258	23,694	89,750
Pump ast dist	0	2,405	3,206	4,809	6,412	7,214	8,015	32,060
Infil dis syst	0	960	960	960	960	1,919	960	6,717
VIP latrines	0	500	750	938	938	938	938	5,000
Ship RHZ W/S mat	0	846	964	1,882	2,098	2,318	1,123	9,232
Trng RHZ W/S sup	1,085	2,170	3,255	3,290	2,205	1,120	0	13,125
Impact Studies	3,750	0	0	0	0	0	3,750	7,500
TOTAL Local Curr	62,748	99,452	108,702	122,113	107,869	105,416	95,477	701,777
Inflation (5%)	3,137	10,194	17,131	26,315	29,157	35,852	38,869	160,655
Contingency	4,392	6,962	7,609	8,548	7,551	7,379	6,683	49,124
$US value (000)	1,406	2,332	2,669	3,139	2,892	2,973	2,821	18,232
TOTAL LOP in Z:	911,556							
in $US:	18,232							

(c) $US Costs (000)	1986	1987	1988	1989	1990	1991	1992	LOP
Basic Equip								
National Off	100	0	0	0	0	0	0	100
Ref Hospital	225	225	150	150	0	0	0	750
RHZ Hlth Off	105	105	70	70	0	0	0	350
RHZ W/S Off	40	40	10	10	0	0	0	100
RHZ W/S Fld Eq	200	200	50	50	0	0	0	500
Reg-S/Reg Off	21	21	21	21	21	21	21	147
Med Equip & Sup								
for New HCs	72	291	345	399	399	252	126	1,884
for Ref HCs	30	65	75	85	85	80	40	460
Drug Stock								
for Reg Pharm	40	40	40	40	40	40	0	240
for Ref Hosp	150	150	100	100	0	0	0	500
Transport								
W/S Truck	35	0	0	0	0	0	0	35
Veh for RHZs	248	248	165	165	0	0	0	825
RHZ Hlth M'cyc	90	90	60	60	0	0	0	300
RHZ W/S M'cyc	30	30	20	20	0	0	0	100
PCV W/S M'cyc	30	30	8	8	30	30	4	140
Reg-S/Reg veh	0	50	50	50	50	50	99	347
HC Bicycles	18	66	78	90	90	60	30	432
Cold Chain Equip								
Ref Hosp Refr	78	78	52	52	0	0	0	260
Ref HC Refr	31	68	78	88	88	83	42	478
Computers & Calc								
Reg-S/R Micros	12	12	12	12	12	12	12	84
Reg Phm Micros	4	4	4	4	4	4	0	24
RHZ Calculator	3	1	1	1	0	0	0	5
RHZ W/S Systems								
Spring boxes	0	2	2	2	2	2	2	12
Drilled wells	0	41	82	82	82	82	82	452
Grav dist syst	0	15	25	50	63	78	83	313
Training								
L-term trng	0	72	108	36	0	0	0	216
Courses/conf	0	72	72	72	72	48	40	376
3-month trng	0	36	12	0	0	0	0	48

(c) (cont'd) $US Costs (000)	1986	1987	1988	1989	1990	1991	1992	LOP
Technical Asst								
SANRU L-T	300	450	450	300	300	150	150	2,100
USAID L-T	75	75	75	75	75	0	0	375
Short-term	130	234	176	169	117	13	39	878
Impact Studies	175	0	0	0	0	0	100	275
TOTAL $US (000)	2,242	2,809	2,3899	2,260	1,529	1,004	869	13,102
Inflation (5%)	112	288	377	487	422	342	354	2,382
Contingency	156	197	167	158	107	70	61	917
TOTAL LOP	16,401							

NOTE: Elements may not sum to totals shown exactly because of rounding.

MCH Budget for SANRU II

Unit Costs (in Zs):	
750,000	Renovation/Construction of RHZ Offices
850,000	Renovation/Construction of Reference Hospitals
130,000	Renovation/Construction of Health Centers
1,000,000	Renovation/Construction of Regional Pharmacy Warehouses
60,000	Initial Drug Supply for Health Centers Supervision
12,000	Phased fuel subs for HC supervision over five years
11,500	Fuel for SANRU Super per RHZ visited
140,700	SANRU W/S Super salary and support costs
19,200	Fuel for RHZ super (9,600 km/yr at 2.0 Z.km)
23,500,000	Annual operating costs of the SANRU Office
10,000	IE & C materials for all RHZs
	Hlth Worker Training: see Training Budget
	RHZ Water/Sanitation System Supplies
4,000	Spring-cap supplies
13,500	Spring-box supplies
21,250	Drilled-well supplies
11,750	Hand-dug well supplies
718,000	Gravity-fed water dist system supplies
801,500	Pump-assisted water dist system supplies
959,500	Infitration water dist system supplies
2,500	VIP-latrine supplies
5,129	In-country shipping per RHZ intermed water system
35,000	RHZ W/S supervisor training

Unit Costs (in $US):	
15,000	Basic equipment for Reference Hospitals
10,000	Initial drug supply for Reference Hospitals
40,000	Initial drug supply for Regional Pharmacies
7,000	Basic equipment for RHZ Health Offices
1,000	Basic equipment for RHZ W/S Offices
5,000	Field equipment for RHZ W/S Offices
3,000	Medical equipment and supplies for new Health Centers
5,000	Med Equip and supplies for new Reference Hlth Ctrs
35,000	6-ton truck for transport of RHZ W/S supplies
16,500	Vehicles and parts for RHZs
2,000	Motorcycles and parts
200	Bicycles for HCs
5,200	Cold chain solar refrigerators
4,000	Microcomp, printers, & software for Reg Off and Reg Pharmacies
50	Calculators for each SANRU-assisted RHZ
	RHZ Water/Sanitation Systems
10	Spring-box supplies
514	Drilled-well supplies
2,505	Gravity distribution system supplies
	Out-of-country training
54,000	Long-term training per person (2 yrs at $27,000)
4,000	Short courses and conferences per person
6,000	Med and nursing schl and comm organizer' 3-mo per person
30,000	Water and Sanitation Masters Degree per person
	Technical assistance
150,000	SANRU PSC per year
75,000	USAID local-hire PSC per year
13,000	Short-term per person month

MOH Budget for SANRU II

Program of Short-term Technical Assistance (person-months)

Type	1986	1987	1988	1989	1990	1991	1992	LOP
Training	0.0	7.0	2.5	1.0	1.0	0.0	0.0	11.5
Social Science	2.0	1.0	1.0	1.0	1.0	0.0	0.0	6.0
Evaluation	0.0	0.0	0.0	3.0	0.0	0.0	3.0	6.0
Operational Res.	0.0	2.0	2.0	2.0	0.0	0.0	0.0	6.0
Health Info syst	2.0	1.0	1.0	1.0	1.0	0.0	0.0	6.0
Management/Fin.	1.0	1.0	1.0	1.0	1.0	1.0	0.0	6.0
Health Economics	0.0	1.0	1.0	0.0	1.0	0.0	0.0	3.0
Logistics/Drugs	3.0	3.0	3.0	2.0	2.0	0.0	0.0	13.0
W/S Training	1.0	1.0	1.0	1.0	1.0	0.0	0.0	5.0
W/S Tech Support	1.0	1.0	1.0	1.0	1.0	0.0	0.0	5.0
TOTAL	10.0	18.0	13.5	13.0	9.0	1.0	3.0	67.5

Table 15.4: MOARD Budget for SANRU II

(a) Unit Outputs	1986	1987	1988	1989	1990	1991	1992	LOP
New RHZs	15	15	10	10	0	0	0	50
Cum W & S RHZs	40	80	90	100	100	100	100	
Vehicles for Brg	10	0	0	0	0	0	0	10
Water Brigades								
supported	11	7	7	5	0	0	0	30
active brg	11	18	25	30	30	30	30	
drill equip	1	1	0	0	0	0	0	2
In-country Trng								
Brg eng tech	12	12	18	18	18	12	0	90
Reg workshops	15	15	15	15	15	15	0	90
Out-of-Country Trng								
Short courses & conferences	4	4	4	4	4	0	0	20
W & S Masters	1	0	1	0	0	0	0	2
Technical Assistance								
SNHR L-term	2	2	1	1	1	0	0	7
Short-term	5.5	4.0	4.0	3.0	3.0	0.0	0.0	19.5

MOARD Budget for SANRU II

(b) Loc Cur (000Zs):	1986	1987	1988	1989	1990	1991	1992	LOP
Supervision								
National SNHR	330	540	585	630	525	450	450	3,510
Regional	805	1,318	1,830	2,196	2,196	0	0	8,345
Planning Unit	384	384	384	384	0	0	0	1,536
Ship Brg Equip	550	350	350	250	0	0	0	1,500
SNHR support								
Plan Unit sup	2,250	1,500	1,250	1,000	950	0	0	6,950
Res & develop	350	350	350	0	0	0	0	1,050
Consultancies	600	600	600	600	600	600	600	4,200
System Eng'ing	1,683	2,754	3,825	4,590	4,590	4,590	4,590	26,622
Trng Eng/Tech	420	420	630	630	630	420	0	3,150
TOTAL Local Curr	7,372	8,216	9,804	10,280	9,491	6,060	5,640	56,863
Inflation (5%)	369	842	1,545	2,215	2,622	2,061	2,296	11,951
Contingency	516	575	686	720	664	424	395	3,980
$US value (000)	165	193	241	264	256	171	167	1,456
TOTAL LOP in Z:	72,794							
in $US:	1,456							

162

MOARD Budget for SANRU II

(c) $US Costs (000):	1986	1987	1988	1989	1990	1991	1992	LOP
Basic Equip								
SNHR Office	12	12	0	0	0	0	0	24
Brg Offices	33	21	21	15	0	0	0	90
Brg lt equip	100	60	70	50	0	0	0	280
Brg drill equip	329	329	0	0	0	0	0	658
Transport								
Veh for SNHR	33	0	0	0	0	0	0	33
Veh for Brg	165	0	0	0	0	0	0	165
Brg M'cycles	22	14	14	16	22	14	14	116
Training								
Short courses & conferences	16	16	16	16	16	0	0	80
W/S Masters	36	18	36	18	0	0	0	108
Technical Asst								
SNHR L-T	290	290	145	145	145	0	0	1,015
Short-term	72	52	52	39	39	0	0	254
TOTAL $US (000)	1,108	812	354	299	222	14	14	2,823
Inflation (5%)	55	83	56	64	61	5	6	329
Contingency	77	57	25	21	16	1	1	197
TOTAL LOP	3,349							

NOTE: Elements may not sum to totals shown exactly because of rounding.

MOARD Budget for SANRU II

Unit Costs (in Zs):

	Supervision:
15,000	Per visit (2 vis/yr 1st 2 yrs, then 1 vis/yr)
73,200	Regional (1,220 km/mo per active brigade at 5 Z/km)
384,000	Planning Unit (4 vehicles at 8,000 Z/mo)
50,000	In-country shipping of brigade equipment
	SNHR support:
350,000	Annual research and development budget
50,000	Local consultants (per person month)
153,000	Syst Engineering (12,750 Z/mo/active brg)
35,000	In-country training of brigade engineers and technicians

Unit Costs (in $US):

	Basic equipment costs:
24,000	SNHR office equipment and supplies
3,000	Brigade office equipment and supplies
10,000	Brig lt equip for shal wells & grav-fed wat dist systems
329,000	Brigade intermediate-level well-drilling equipment, including vehicles, supplies, air compressor, bits
	Transportation:
16,500	Vehicle and spare parts
2,000	Motorcycles and spare parts
	Out-of-Country training:
4,000	Short courses and conferences per person
54,000	Water and Sanitation Masters Degree per person
	Technical assistance:
145,000	PSC per year
13,000	Short-term per person month

Training Budget

Table 15.5 Training Budget

Position	Type of Training	Cost of Consultant Training (Zs)	Months
Nurses and auxiliaries	First course	4,000	
	Continuing ed.	2,000	
VHWs and TBAs	First course	3,000	
	Continuing ed.	2,000	
Zone Medical Chief	Org. of RHZ	30,000	
	Mgmt. of RHZ	30,000	2
	Continuing ed.	2,500,000	
	Special course	20,000	2
	Selected topics	20,000	2
	Visits to RHZs	12,000	
	Cert. in PH	75,000	
Zone Admin.	Basic course	25,000	
	Continuing ed.	1,125,000	
	Cert. in PH	75,000	
Zone Secretary	Basic course	3,000	
Zone Pharmacist	Basic course	15,000	1
	Continuing ed.	1,125,000	
Zone Mechanic	Basic course	6,000	
	Continuing ed.	5,000	
Zone Water and San. Tech.	Basic course	1,125,000	2
Zone supervisors and Trainers of HC nurses	Basic course	15,000	2
	Special courses	11,000	2
	Continuing ed.	2,000,000	
Zone trainers of VHWs, TBAs, and committees	Basic course	15,000	2
	Continuing ed.	1,500,000	
Teachers in Med Insts & Regional and PHC Hlth Officials	Update on RHZs	24,000	
	Followup visits	17,000	
S/Reg water eng & tech	Update on RHZs and PHC	15,000	3
Reg Hlth Insp	Cert in PH	75,000	
Teachers in Med Insts	Integrating PHC	15,000	3

Training Budget

Position	Type of Training	Pers., Sessions, or Share of Costs Paid by SANRU II 1986	1987	1988	1989	1990	1991	1992
Nurses and auxiliaries	First course	150	390	420	430	380	230	230
	Continuing ed.	0	150	540	810	850	820	620
VHWs and TBAs	First course	0	450	650	650	650	300	300
	Continuing ed.	0	0	450	1,100	1,300	1,300	950
Zone Medical Chief	Org. of RHZ	15	15	15	15	10	0	0
	Mgmt. of RHZ	20	15	15	10	10	0	0
	Continuing ed.	1	1	1	0	0	0	0
	Special course	0	15	0	15	0	15	0
	Selected topics	0	0	15	0	15	0	15
	Visits to RHZs	20	20	20	20	20	20	20
	Cert. in PH	0	8	8	8	8	8	8
Zone Admin.	Basic course	25	25	20	20	0	0	0
	Continuing ed.	1	1	1	0	0	0	0
	Cert. in PH	0	4	4	4	4	4	4
Zone Secretary	Basic course	20	20	20	20	20	0	0
Zone Pharmacist	Basic course	0	20	20	15	15	0	0
	Continuing ed.	1	1	1	0	0	0	0
Zone Mechanic	Basic course	0	20	20	15	15	0	0
	Continuing ed.	15	15	15	15	15	15	15
Zone Water and San Tech.	Basic course	1	1	1	1	0	0	0
Zone supervisors and Trainers of HC nurses	Basic course	40	55	40	35	20	10	0
	Special courses	25	25	25	25	25	25	25
	Continuing ed.	1	1	1	0	0	0	0
Zone trainers of VHWS, TBAs, and committees	Basic course	0	40	40	30	20	20	0
	Continuing ed.	1	1	1	0	0	0	0
Teachers in Med Insts & Regional and PHC Hlth Officials	Update on RHZs	25		25				
	Followup visits	15	15	15	15	15	15	15
S/Reg water eng & tech	Update on PHZs and PHC	75	75					
Reg Hlth Off	Cert in PH	4	4	4	4			
Teachers in Med	Integrating PHC	50	50					

Best Available Document

Training Budget

		Costs of Training (000Zs)							
		[illegible]	[illegible]	[illegible]	1989	1990	[illegible]	1992	[illegible]
Zone Medical Chief	Org. of RHZ	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
	Mgmt. of RHZ	600	450	450	300	300	0	0	2,100
	Continuing ed.	1,250	1,250	1,250	825	825	625	625	6,650
	Special course	0	300	0	300	0	300	0	900
	Selected topics	0	0	300	0	300	0	300	900
	Visits to RHZs	240	240	240	240	240	240	240	1,680
	Cert. in PH	0	600	600	600	600	600	600	3,600
Zone Admin.	Basic course	625	625	500	500	0	0	0	2,250
	Continuing ed.	563	563	563	371	371	281	281	2,993
	Cert. in PH	0	300	300	300	300	300	300	1,800
Zone Secr	Basic course	60	60	60	60	60	0	0	300
Zone Pharm	Basic course	0	300	300	225	225	0	0	1,050
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Special course	275	275	275	275	275	275	275	[illegible]
Trainers of HC nurses	Continuing ed.	1,000	1,000	1,000	660	660	500	500	5,320
Zone trners of VHWs, TBAs, & comm	Basic course	0	600	600	450	300	300	0	2,250
	Continuing ed.	750	750	750	495	495	375	375	3,990
Teachers in Med Inst & Reg Hlth Office	Update on RHZs and PHC	600	0	600	0	0	0	0	1,200
	Followup visits	255	255	255	255	255	255	255	1,785
S/Reg water	Update on RHZs	1,125	1,125	0	0	0	0	0	2,250
Reg Hlth Off	Cert in PH	300	300	300	300	0	0	0	1,200
	Integrating PHC	0	[illegible]	[illegible]					[illegible]
TOTAL COST		10,684	15,739	17,073	15,720	14,484	10,989	9,349	94,036

15.2. (22

147

15.2.5. Sustainability

Overall GOZ spending is and will be constrained by the provisions of the agreement between the GOZ and the International Monetary Fund. It is unlikely that real spending by the MOH and MOARD will substantially increase over the near term. However, the MOH plans to go ahead with its plans to establish 300 RHZs by 1991. The project will assist the MOH in establishing 50 additional RHZs with 520 new HCs in them, intensifying activities in the 50 RHZs established during SANRU I by helping to establish 200 new HCs in those zones, and in improving national planning and management of the PHC system at minimum additional recurrent cost to the MOH. The project will also assist the MOARD in carrying out a variety of water and sanitation interventions in the RHZs assisted by SANRU I and II.

The minimization of additional recurrent costs will be accomplished by retraining existing personnel to the maximum extent possible, by cost recovery through charging user fees for services, and by undertaking water interventions requiring maintenance that can be done almost entirely by direct beneficiaries using local materials. Table 15.1 shows that the estimated real recurrent cost of project-assisted activities to the GOZ in 1993 will be 37.2 million Z (10.3 Z per beneficiary). The recurrent-cost burden to communities will be about 32.2 million Z (8.9 Z per beneficiary), while private voluntary organizations will pay 0.1 million Z in recurrent costs plus bonuses to many physicians and HC personnel, and subsidies to hospitals and HCs.

15.2.5.1. User-fee System

GOZ/MOH policy states that user fees are to support all operating costs of the delivery of services at the HC level and below, except for the salaries of two nurses at HCs who are paid by the GOZ. The costs to be paid from user-fee receipts include the fuel costs of supervision of the health center by RHZ personnel.

Experience in SANRU I shows that it is rarely the case that user fees are able to support all of these costs. In particular, it is rare that a health center contributes toward the cost of supervision. However, the principle that full costs of medicines should be paid by users is nearly universally accepted, and the payment of some fee for a consultation is widely accepted as well. Thus, in most places the cost of medicines is self-financed, as is some portion of other costs.

The GOZ efforts at mobilizing community resources to finance health care will be supported by SANRU II by helping the MOH to better understand the possibilities for and limitations of the user-fee system. The project support will include: additional operations research into the strengths and weaknesses of the various types of user-fee systems in place (especially investigation of the level of costs that can be covered and the effect of fees on use of services); improved training of medical chiefs, so that they may better train nurses in how to establish fee schedules to balance cost recovery and use of services; continuing efforts to find ways to cut operating costs while maintaining quality of care delivered (such as the support for the pharmaceutical-supply system); and sponsoring a national-level conference(s) to consider modifications in the cost-recovery policy as a result of the findings of the operational research.

15.3. Economic Analysis

This economic analysis consists of two parts. The first explains the limitations of the benefit-cost technique for analysis of such a project, attempts to identify benefits and costs, and does some indicative calculations. The second part discusses the cost-effectiveness of the package of interventions assisted by the project.

15.3.1. Application of Standard Benefit-Cost Criteria to the Project

For most development projects, economic analysis involves the application of standard benefit-cost methods. The streams of adjusted project costs and benefits over time are compared by calculation of the present value of net benefits or the internal rate of return.

Ideally, one or both of these methods would be applied in the economic analysis of this project. However, such analyses are at least partly inappropriate here for two reasons. First, the project intends to expand and improve the structure of the primary health care (PHC) delivery system, rather than directly delivering services. The benefits from the project of improved health status and quality of life for the population affected are difficult to quantify in terms of reductions in morbidity and mortality and how soon the reductions will occur after project interventions are in place.

Second, benefit-cost analysis is not able to address some important aspects of health-sector interventions. The interventions have fairly well-defined costs, but the benefits arise indirectly from averting cases of illness. When illnesses are averted the savings from cost of treatment avoided usually can be quantified, but the pure-utility values of reduced morbidity and mortality and the value of improved performance in school or on the job are nearly impossible to estimate. Given that a complete benefit-cost analysis is not applicable, the manner in which quantifiable benefits could be measured is discussed and non-quantifiable benefits are described.

15.3.1.1. Benefits from Project-Assisted Interventions

The project will assist in the establishment of PHC services to address the ten most prevalent public health problems in rural Zaire and to promote the acceptance of family planning. It will provide improved access to clean water as well. The interventions may be categorized as producing six types of benefits: reductions in mortality, morbidity, and malnutrition, changes in treatment, reductions in fertility, and general improvement in the quality of life. Within each type of benefit, there are both quantifiable and non-quantifiable elements. These are shown in Table 15.6.

Estimation of the other impacts can only be speculative without the baseline studies that will have to be done to assess the current situation with regard to these indicators. It is expected, however, that child mortality under age five years will decline by 10 to 50 percent, with the probable reduction about 20 percent. An indicative calculation can be made assuming the national infant and young-child mortality rates of 114 and 30 will apply to the areas assisted by the project. Table 15.7 shows that between 2,600 and 13,000 young children's deaths would be averted each year once interventions reach their full impact (probably three to five years after initial implementation) in the population of 3,000,000 persons affected, under the given assumptions. Not enough is known about other morbidity and mortality rates to make even similar rough calculations.

15.3.1.1.2. Quantifiable Benefits

The benefits that are quantifiable, in principle, are the avoided costs of treatment, savings in medicine costs where less costly treatments can be used, the effects of reduced population growth, and time savings from better access to water. However, little is known about the before-project status of the population with regard to these quantifiable benefits. When baseline studies are done to allow future assessment of project impact, information could be gathered with regard to:

(a) spending on medicines and hospitalizations for illnesses, and pregnancies expected to be averted by the preventive and family planning interventions;

(b) current treatment methods where less expensive alternatives will be promoted, such as childhood diarrhea treatments, (to be able to measure the savings in treatment costs resulting from the promotion of oral rehydration therapy);

(c) current levels of fertility (to be able to estimate the economic changes resulting from reduced or increased dependency due to changes in population growth brought about by increased acceptance of family planning and increased child survival);

(d) current time spent fetching water and the opportunity cost of that time.

15.3.1.2. Costs

The costs of the project are shown in Tables 15.3 and 15.4. The real recurrent costs of the activities assisted by the project are given in Table 15.1. No adjustments need be made in these costs for distortions in the prices and wages used since:

- The wages paid by the government at this time may be less than the real cost to the economy.

- The Zaire is floating in value.

- No interest rates come into the calculations.

- All prices are stated exclusive of taxes.

However, there is a non-monetary cost that should be considered. Population growth would increase as a result of the expected reductions in mortality. Table 15.7 shows a rough calculation of the population growth consequences of the expected 10 to 50 percent reduction in mortality in children under age five. The population growth rate would rise from 3.20 percent to 3.29-to-3.62 percent and the time it would take for the population to double in size would be reduced by 0.5-to-2.5 years.

The expected rate of acceptance of family planning under the project (one percent of women of childbearing age in a rural health zone each year after the second year of SANRU II assistance), implies a long lag before the impact of improved child survival on population growth will be compensated for by reduced fertility. It would take three years at the expected pace of family planning acceptance for fertility reduction to match a 10-percent reduction in child mortality and nine years to match a 50-percent reduction. In the intervening years, a large number of children will have been added to the population.

Table 15.7: Hypothetical Deaths Averted and Population Consequences of Project Interventions

		Mortality Reduction:		
	Status Quo	-50%	-20%	-10%
IMR =	114	57	91.2	102.6
YCMR =	30	15	24	27
Life Exp. at Birth =	46.9	51.8	48.9	47.9
Deaths 1 yr. =	13,372	6,686	10,698	12,035
Deaths 1-5 yrs. =	12,681	6,341	10,145	11,413
Deaths |= 5 yrs. =	21,947	21,947	21,947	21,947
Total Deaths =	48,000	34,973	42,789	45,395
Total Births =	144,000	144,000	144,000	144,000
Ann. Addition to Pop.	96,000	109,027	101,211	98,605
Deaths Averted =	0	13,027	5,211	2,605
CDR =	16.0	11.7	14.3	15.1
Pop. Growth Rate =	3.20	3.63	3.37	3.29
Doubling Time (yrs) =	22.0	19.4	20.9	21.4

Assumptions:

Total Population	3,000,000
% Pop 1 yr =	3.9
% Pop 1-5 yrs =	14.1
% Pop |= 5 yrs =	82.0
CBR (1985) =	48
CDR (1985) =	16
CMR (a) =	8.9

However, as explained in the social soundness analysis, decreased child mortality is an important factor leading to a desire to control fertility, hence to accept family planning. Thus, there may be a necessary delay owing to the interaction between reductions in child mortality (and resulting short-run population increase) and the eventual reduction in population growth through acceptance of family planning. This delay or "demographic transition" has been observed in many other countries.

15.3.1.3. Calculation of Benefits and Costs

Since even those benefits which are measurable in principle are not measurable in practice, it is not possible to calculate even a partial benefit-cost ratio or rate of return. However, it is possible to calculate an indicative present cost of a death averted. This calculation is shown in Table 15.8. There are three hypotheses about the reductions in child mortality (i.e., -10, -20, and -50 percent) that will result from the interventions assisted by the project which are used to project the number of deaths averted over 30 years. It is assumed that some of the capital investments made by the project would have to be replaced after five years, others after ten years. Both costs and deaths averted are discounted at a rate of 15 percent over thirty years. The result shows that the present cost of a death averted would be between $517 and $2,489. These figures overstate the cost of death averted since they attribute all project costs to averted deaths and none to the other impacts of the interventions, such as averted morbidity and malnutrition or improved quality of life. A more complete analysis would subtract from costs the treatment costs saved as well. Nevertheless, the costs per death averted calculated under the three assumed child-mortality reductions all fall within the range of costs per death averted for other types of health interventions in other settings:

Intervention	Cost per Death Averted
ORT, growth monitoring, & health education, Central America	$835
Measles immunizations, worldwide	$490-980
Rotavirus immunizations, worldwide	$1,300
ORT, Egypt, Zaire, and Honduras	$445
Water supply & sanitation, worldwide	$9,000-27,000
SANRU II, Zaire	
-10 % child mortality	$2,489
-20 % child mortality	$1,292
-50 % child mortality	$517

Table 15.8: Present Cost of Deaths Averted

Year	Investment and Project Spending ($000)	Recurrent Spending ($000)	Total ($000)	-10% Cum HCs	-20% Deaths Averted	-50% Deaths Averted	Deaths Averted
1986	$ 5,210	$ 282	$ 5,492	30		0	0
1987	6,415	466	6,881	140	0	0	0
1988	5,847	665	6,512	270	120	231	579
1989	6,113	880	6,993	420	579	1,115	2,786
1990	5,001	1,067	6,068	570	1,152	2,218	5,546
1991	4,146	1,243	5,389	670	1,849	3,561	8,902
1992	3,547	1,308	4,855	720	2,589	4,988	12,468
1993	1,886	1,360	3,246	720	3,141	6,050	15,125
1994	0	1,360	1,360	720	3,484	6,710	16,774
1995	0	1,360	1,360	720	3,595	6,924	17,310
1996	0	1,360	1,360	720	3,710	7,146	17,864
1997	5,688	1,360	7,048	720	3,829	7,375	18,436
1998	1,886	1,360	3,246	720	3,951	7,611	19,026
1999	0	1,360	1,360	720	4,078	7,854	19,635
2000	0	1,360	1,360	720	4,208	8,106	20,263
2001	0	1,360	1,360	720	4,343	8,365	20,912
2002	0	1,360	1,360	720	4,482	8,633	21,581
2003	1,886	1,360	3,246	720	4,625	8,909	22,271
2004	0	1,360	1,360	720	4,773	9,194	22,984
2005	0	1,360	1,360	720	4,926	9,488	23,720
2006	0	1,360	1,360	720	5,084	9,792	24,479
2007	5,688	1,360	7,048	720	5,246	10,105	25,262
2008	1,886	1,360	3,246	720	5,414	10,428	26,070
2009	0	1,360	1,360	720	5,588	10,762	26,904
2010	0	1,360	1,360	720	5,766	11,107	27,765
2011	0	1,360	1,360	720	5,951	11,462	28,654
2012	0	1,360	1,360	720	6,141	11,829	29,571
2013	1,886	1,360	3,246	720	6,338	12,207	30,517
2014	0	1,360	1,360	720	6,541	12,598	31,494
2015	0	1,360	1,360	720	6,750	13,001	32,501
	$47,625	$23,591	$71,216		59,435	114,477	286,182
Net Present Value (15%)			$27,145		10,906	21,005	52,511
Present Cost per death averted:				$2,489	$ 1,292	$ 517	

Investment Assumptions:
Every 5 years replace items at $1,886,000.
Every 10 years replace items at $5,688,000.

15.3.2. Cost-Effectiveness Analysis

There are three types of cost-effectiveness analysis done here. The project as a whole is compared to alternative interventions; PHC's package of interventions is compared to individual interventions; and some individual components of the project are examined.

15.3.2.1. The Project Versus Alternatives

The economic analysis of the predecessor to this project, Basic Rural Health I or SANRU I, compared the project to several alternatives:

1. assistance to central hospitals;
2. assistance to vertical programs;
3. assistance to the GOZ alone;
4. assistance through Catholic or Kimbanguist Mission networks; and
5. provision of medicines and equipment alone in lieu of technical assistance.

The project was expected to be superior to each alternative. This proved to be so for SANRU I and should be so for SANRU II as well. A brief discussion of each alternative follows:

1. The central hospitals continue to absorb a disproportionate share of health spending relative to the population served. SANRU I helped the GOZ begin to reorient its health efforts toward rural areas by assisting the development of 50 RHZs. SANRU II will continue that effort by strengthening activities in the RHZs assisted during SANRU I and assisting an additional 50 RHZs.

2. The SANRU Projects strengthen the structure of a basic health service delivery which is necessary to make vertical programs work. SANRU complements the vertical CCCD project which addresses vaccine-preventable diseases, diarrheal disease, and malaria. CCCD handles regional delivery of commodities and training in the techniques of disease control. SANRU assists the RHZs and HCs which actually deliver the ORT and chloroquine and administer the vaccinations.

3. The SANRU I analysis argues that the GOZ did not have the capacity to manage the project's assistance to the RHZs. During SANRU I, long-term training of MOH personnel in public health built substantial new capacity. However, more assistance is still necessary before the MOH can stand alone. Thus, SANRU II will build the GOZ's capacity to manage health-care activities with the understanding that the MOH will take over complete responsibility for supervision and coordination of the RHZs at the end of the project (many RHZs will continue to be operated by PVOs). Technical assistance will be provided in health planning and policy; national, regional, and sub-regional offices will be strengthened; and MOH health managers will be trained in public health at the USAID-supported UNIKIN School of Public Health. All of these activities will allow the MOH to manage the system after 1992.

4. The ECZ was held to be more capable of management than the Kimbanguists and more rural-health oriented than the Catholics in the SANRU I analysis. The ECZ has proven to be an excellent manager of the SANRU I Project. There has been growing cooperation among Kimbanguists, Catholics, the ECZ, and the GOZ throughout SANRU I. There is no reason to change project management for SANRU II.

5. This point is related to point 3, above. The MOH still lacks the managerial capacity to handle medicines and equipment alone.

15.3.2.2. The PHC Package

It is impossible to make a quantitative analysis of the PHC package versus individual intervention alternatives since there are few cost and impact data available. However, a review of 21 PHC and nutrition projects (Wilcox, et al 1984) found that ORT, growth monitoring, health education, immunizations, family planning, and nutritional counseling show consistently positive results in reducing morbidity and mortality. A study of mortality (WHO, "Interventions for Reducing Diarrhoea Morbidity and Mortality," 1984) classifies promotion of breast feeding (nutrition education), water supply and sanitation, measles vaccinations, and personal and domestic hygiene (health education) as "clearly effective and known to be feasible and affordable." Thus, there is at least general evidence that the PHC approach of SANRU II, which combines all of the elements mentioned above, is cost effective. In addition, the package of interventions is able to spread the costs of overhead over many interventions. Moreover, the calculations shown in section 15.3.1.2. indicate that SANRU II will be in the same range of cost per death averted as other interventions.

15.3.2.3. Components of the Project

There are many ways the project minimizes costs and improves its cost-effectiveness. Some of them follow:

- The project takes advantage of the previous investment made in 50 RHZs during SANRU I by assisting in the establishment of an additional 200 HCs in those RHZs. This raises the cost-effectiveness of the RHZs.

- By working with village development committees and training TBAs, the GOZ strategy supported by SANRU II makes use of already-existing resources at the village level.

- The water and sanitation interventions will make use of voluntary community labor to dig wells and latrines and lay out distribution systems. The systems to be put in place will be maintained mainly by the beneficiary populations.

- The support given to reference hospitals by SANRU II strengthens the back-up referral service which is necessary to give a PHC system credibility.

- The project will train trainers who then train others. This builds permanent capacity to train new workers.

- Training in management to improve resource use will be provided through the project to both national health administrators and chief medical officers of the RHZs. The zonal medical chiefs will work with the nurses at the HCs to improve the management of their operations.

- Training of RHZ personnel will be done in regional training sessions.

15.4. Social Soundness Analysis

15.4.1. Socio-cultural Context

The two overwhelming features of Zaire are its vastness (each of its nine regions in larger in area or population than a number of African countries) and its diversity (some 200 ethnic groups with distinct languages). The vastness is complicated by poor communications, inadequate freight and passenger service, and very poor roads. Although Zaire has national political unity and administration and various national programs in agriculture, education, and health, its rich diversities persists.

Diversity is evident, for example, in the residential patterns of Zaire. A "village" in some parts of the country is an agglomeration of 200-5000 persons, with an average of 1000 per village and a distance of 6-20 kilometers between villages. Elsewhere, the average village contains 160 people with no more than 3 kilometers between villages. In other areas, an outsider is hard put to say where one "village" ends and another begins: individual houses or homesteads are scattered over the countryside in every direction, with little empty land between.

The local political systems are also diverse. Some ethnic groups have a hierarchical structure, with a high-level chief or king having authority over a large number of villages, each headed by one lesser chief. Other groups are organized only up to the level of the family or lineage group who live together; each lineage group of 50-200 people has its own head; if several lineage groups live in the same village, the village has several heads.

Organized religion is present in diverse forms as well. Most rural areas of Zaire long ago adopted and adapted Christianity, but the church structures vary greatly. Some are centralized, hierarchical systems (and not necessarily in the ethnic areas with hierarchical political systems). Others have congregational organization, with strong local autonomy. Some religious groups were begun by missionaries from abroad and still have foreigners working with them; some once had missionaries but no longer; some never had foreigners.

During most of the colonial period, missionary groups operated all the educational institutions and many of the health services of the colony. These groups, from the United States and several European countries, were allowed considerable freedom and diversity in their approaches, and both the freedom and diversity continue to this day among the independent Zairian churches. In the health field particularly, the Government of Zaire recognizes and encourages the diversity. While it sets some rules and standards, it does not attempt to compete, co-opt, coerce or, closely control the religious and philanthropic organizations.

Thus, fi s ago, on the eve of the SANRU I Project and of the GOZ's prima h care plan, the rural health situation was nearly as diverse as t o-cultural systems of Zaire. Some villages had access to good cura e, at a hospital or a well-supervised dispensary. A few areas of to 60,000 people had good community health programs with pre-sc pre-natal consultations, nutrition surveillance, immunizatio amily planning programs (usually with considerable aid from ou rches, universities, or other donors). The good programs, t re few, especially those that included preventive services, a h coverage varied tremendously. Some rural areas averaged on facility for 1600 people; some villages had two or more dispen Other areas had only one hospital and perhaps one health cent 5,000 people or more.

The cha then, facing the government and private organizations of Zaire wa r much wider rural health coverage without sacrificing lity or destroying the good systems and programs already wor In line with the new GOZ policy of administrative decentraliz he health plan called for a decentralization of health authority t created rural health zones (RHZs). Each zone was to be responsi the health of a population defined along geographic lines, with lapping of services or authorities.

The pla e rational on paper, is often not so clear-cut in the diverse soc health contexts of Zaire. Hospital A, for instance, has for man trained, supervised, supplied, and paid the nurses of 6 far-flung saries, all offering good curative and preventive services. he new health-zone plan, some of those dispensaries fall into t of hospital B which has a poor record for supervision and financi nsibility. Hospital A is reluctant to relinquish its traditional n for the nurses and the populations now officially under Hospit Furthermore, Hospital A is now charged with integrating s health zone a number of dispensaries and maternities formerly un pital C; but Hospital C has trained, supervised, and supplied th , and wants to continue to do so. Finally, Hospital A finds withi jurisdiction several traditional healers and a number of

nurses working independently and unsupervised; the health-zone staff considers some of them to be harmless, some helpful to the population, and some ill-trained, unscrupulous, and dishonest. These independent health workers are barely making a living, and they hope that the health zone will offer them training and drug supplies so they can increase their income. The zone staff, though, wants them to offer vaccines, nutrition surveillance, and home visits, none of which will bring them income.

This, then, is the kind of complex and diverse situation that exists in every new health zone when it approaches the SANRU Project for help.

15.4.2. Socio-cultural Feasibility

Can the health-zone concept and the SANRU II Project succeed in the socio-cultural context described above? Five years ago, the answer was uncertain, but now we know that zones connected with SANRU I are working, and working well (and other zones aided by other donors are developing well too). Progress, of course, is uneven, but enough experience has been gained to identify danger points and to say that SANRU II is a feasible project since the following points will be watched closely:

(a) SANRU II will continue to view health zones as autonomous entities, able to decide their own priorities and needs, plan and carry out their own programs, procure their own supplies, and work out their own systems of training, supervising, and financing. Gradually, SANRU and the zones are developing certain common approaches, such as a workable health information system, and effective training modules. Nevertheless, SANRU II will guard against the temptation to over-standardize or control the activities of health zones. The project will also encourage the GOZ and the churches to resist those temptations. Only then will the primary health care system of Zaire maintain the diversity and the imaginative approaches that are its hallmark and its strength.

(b) SANRU II will re-examine the existing diversity of health zone structures and organizations. The guidelines set forth in national documents suggest an ideal for deployment of staff and organization of administrative committees. SANRU I is now intimately involved with 50 zones, and no two of them have exactly the same structure. In some zones, the medical chief of the zone and the medical director of the hospital are one and the same person; elsewhere two persons hold the two posts. Some zones have physicians as supervisors; others have nurses of A-2 or even A-3 level. Probably none has all the administrative staff and committees foreseen in the plan. Some zone offices supervise all health centers; elsewhere church medical offices supervise their centers, and the zone office supervises the government centers. Training within zones is also organized in different ways. Probably no zone has all the staff and committees outlined in national documents.

The zones differ in their functioning, but all are functioning. They are moving generally in the direction of the national guidelines, but many are not convinced that all parts of the ideal are feasible or appropriate in their situations. They may be right. SANRU II will provide a real service to the nation by helping health zones document

their decisions, successes, and failures. SANRU II will also sponsor comparative studies to determine which health zone structures fit best with which existing political, cultural, and health systems. Because of its national scope and its close relationships with the GOZ and all the church groups, SANRU II is uniquely placed to encourage and support such studies. The lessons learned will help all zones organize themselves more effectively.

(c) SANRU II will continue to encourage zones to experiment with different ways of supplying and financing their work. "Autofinancing" has many different interpretations and possibilities. An ongoing (SANRU I) PRICOR study and other proposed operations research and short-term technical consultants examine a few of these. Again SANRU II will encourage more documentation and comparative studies to identify what characteristics make a given system succeed or fail.

15.4.3. Participation

Community participation in decision-making, management, delivery, and financing of health care is said to be a keystone of the primary health care program for Zaire. However, community participation is one of the least developed aspects of the rural health zones so far. It will be given a great deal of attention by the SANRU II Project.

As for financial participation, Zairians are already accustomed to paying for health services, both curative and preventive. Traditional healers and TBAs, as well as private physicians, nurses, and pharmacists have always been paid fees for services. Church hospitals and dispensaries have long charged moderate fees for drugs, consultations, vaccines, pre-natal clinics, and family planning services. Even in government facilities, which were supposed to give free services and drugs, patients often had to pay for favors and had to go to private pharmacies to find the drugs prescribed. Recently the GOZ has inaugurated an official system of hospitals paying for their drugs and of patients paying for drugs and services. Thus residents of rural health zones are willing to pay reasonable fees for curative and preventive services, if they feel they are getting something for their money. They are less likely to feel that supervisory visits, promotive health services, and health education are worth paying for.

At the level of village participation, a few zones have had remarkable success with village development committees over a period of 5-15 years, but even they have problems sustaining interest and activities. In some zones, village committees name and supervise village health workers and traditional birth attendants; elsewhere, VHWs and TBAs do not exist, and village committee members take on special tasks themselves.

These experiments and their lessons are now in the heads (and perhaps the notebooks) of health workers scattered throughout the country. Those people have valuable anecdotes and experiences to report. They also have hunches as to why certain villages became well organized to carry out health projects. For example, we have heard these explanations:

--the church had always encouraged self-help projects
--one or two dynamic people got things done
--the health project used the existing power structures

Experienced health workers also have hunches (sometimes conflicting) as to why certain village programs failed. For example,

--the committee was the same old power structure with vested interests in the status quo
--the committee was made up of young people who expected to get paid
--the church had always given villagers the buildings and supplies they needed
--villages composed of the royal lineage were unwilling to do the necessary work

So far few of the experiences in community organization for health have been written down. Only one systematic comparison has been done, the 1983 study by anthropologist S. Yoder, who admits that his few days in each of five zones were hardly adequate to grasp the dynamics of village participation. None of the above hunches have been turned into hypotheses and tested with documentation from a variety of zones. Nor do the following questions seem to have been posed in the context of primary health care in Zaire:

--Is it better for a village to form a committee and then do a project or is it better to do a project first and then form a committee from the best workers?
--When is it wise to work with existing organizations (chiefs, church women's groups, co-operatives, political party, etc.) and when is it best to set up a new village structure?
--What modes of organization are appropriate for which types of villages?
--Should committee members be elected or appointed?
--What are the best roles for the health-center nurse and the zone supervisor in organizing, teaching, and encouraging village committees?
--Do village committees go through identifiable stages over their first 5-10 years?

At the level of health centers, some zones have active health-center committees; some actually manage health-center operations. Most zones have few of these committees or none. Again basic questions need to be raised. For example:

--When is it appropriate to have a committee made up of village chiefs or their appointees? When is it appropriate to have representatives elected by the entire population of their villages?

Once again, the diversity of Zaire requires a diversity of approaches to community participation in primary health care. One or two strategies should not be forced upon every zone or every village. Furthermore, Zaire is an excellent laboratory for trying and testing different approaches. The SANRU II Project will be able to tap the resources of social scientists and community development specialists (both within and outside Zaire) to study the Zaire experiences. SANRU II will then assist other zones to apply the lessons learned, to organize their zones effectively, and to stimulate community participation.

At the level of health zones, regions, and the nation, Zairian health personnel have participated in all phases of planning the SANRU II project. Dozens of doctors, nurses, supervisors, and trainers with relevant experience under SANRU I have shared their time, their problems, and their solutions. The SANRU II project will depend very heavily on Zairian expertise and involvement at the highest levels of planning, teaching, administration, and technical consultations.

15.4.4. Motivations

Observers of functioning rural health zones are often struck by the high level of enthusiasm and motivation among physicians and nurses at all levels. What does primary health care, with SANRU I inputs, offer these people?

--continuing education
--new responsibilities and challenges
--stimulation
--contact with colleagues
--regular supervision by superiors
--prestige in rural communities
--equipment, transportation, books, and supplies for their work

The enthusiasm for primary health care work is all the more remarkable when one realizes the effect of one motivation: money. For example, a rural nurse may take home as little as 700 Z per month (US $14), an amount that will buy one length of cheap cloth, 3 kilos of rice, 5 cans of sardines, and a bit of kerosene, salt, sugar, and soap.

Primary health workers make the same salaries as their hospital-based colleagues, and their work is often much more demanding. Furthermore, they have less opportunity to make extra money through increasing their curative work, either officially or unofficially. As time goes by, some salaried primary health care workers are sure to become disillusioned with the lack of pay raises, despite the fact that they have taken on extra training, responsibilities, and work. Stimulation and prestige may simply not be enough for people with families to support. They will be tempted to go to curative work in towns or to divert their time, drugs, and supplies to more lucrative uses.

As for village health workers and committee members, some zones have worked out systems for remuneration by their communities. Other zones expect them to work as unpaid volunteers. These are the factors that seem to motivate them to participate in primary health work:

--prestige and power in their communities
--learning new skills
--improving their families and communities
--free preventive or curative services (in some zones)
--a small profit from the sale of drugs (in some zones. VHWs receiving this profit, however, are tempted to spend more time selling drugs and less time in preventive and educative activities.)
--fee for services (TBAs)
--hope of later becoming salaried health workers

The SANRU II Project will not be offering financial incentives of any kind to rural health workers, at either the zone or the village level. This policy is unquestionably necessary, for such incentives would not be sustainable after the project. However, no primary health worker in Zaire today makes an honest living wage, so the project cannot ignore the pleas for some form of remuneration for services. SANRU II will actively encourage zones and communities to find creative and diverse ways to compensate their health workers (in goods, services, or money). The entire health zone concept, successful as it has been so far, could eventually fail if this issue is not addressed openly, honestly, and with imagination.

15.4.5. Beneficiaries

The immediate beneficiaries of the SANRU II Project will be the health workers who receive training, equipment, stimulation, and supervision in their work. Fifty physicians, nearly all young Zairian men, are (or soon will be) assigned to new rural health zones that are not currently functioning as they should. These young doctors lack sufficient training to orient their zones toward primary health care, and to organize and manage a community-based system. SANRU II will provide that training.

Some 2500 nurses, auxiliaries, pharmacists, and sanitation technicians will receive thru SANRU II the training, equipment, and supervision they need to work effectively in rural areas. The majority of these persons are themselves from poor, rural families. About 800 (32 percent) of them are women. In addition, 3,000 village residents will receive training for health work in their own communities. An estimated 1,500 (50 percent) will be women.

The ultimate beneficiaries of the project are, of course, village residents who will have better health care and better water supplies, in large part through their own efforts. In 50 new health zones and in 50 established zones, a total of 720 new health centers will be functioning, serving some 3,600,000 people. All of those people will have improved access to better preventive and curative care. About 500,000 people will have more accessible water; another 1,000,000 will have water that is cleaner, more abundant, and more accessible. The most intensive preventive health programs will serve the 700,000 children under age 5 (nutrition and immunizations) and the 800,000 women of childbearing age (pre-natal care and birth spacing).

The family planning part of the project deserves special mention. Rural Zairians can see evidence of the demographic transition in their own families over the span of one generation. For example, the grandmother says that she had eight to twelve pregnancies, and only four to six of her children reached adulthood. The adult couple in their mid-thirties find that after eight pregnancies, they have seven or eight living children, much to their surprise. Thus the decrease in child mortality, which the demographers have documented on a broad scale, is perceived also at the level of families and villages.

Records from family planning programs in Zaire show that, when services first become available, many of the acceptors of contraception say they do not want any more children. They say that they already have enough (often 6-8) and that the economic burden of paying for school, clothes, and medical care forces them to stop. As the program continues (particularly if family planning teachers and motivators are active), acceptors tend to come from younger age groups and to have fewer children. They are beginning modern contraception earlier in their child bearing years; whether they finally have fewer children than their mothers and older sisters remains to be seen. In any case, the means to limit their number of children is available to them and has in fact already become part of their culturally acceptable behavior patterns.

It is possible that the SANRU II Project, coupled with other rural programs and health interventions, will contribute to a rapid and noticeable decrease in child mortality in some zones and regions. Experience shows that Zairians perceive such decreases in mortality, as well as rapid increases in the costs of raising children. They will turn to family planning services, if they are available in their rural communities. The project will make the services accessible for some 600,000 couples.

Finally, because of this SANRU II, hundreds of rural communities will have become more attractive places to live, with better water, better sanitation, fewer communicable childhood diseases, and more accessible medical care than they have at present. Their residents will have begun to take control of some parts of their lives where they currently feel they have little control or choice: childbearing and basic health services.

15.4.6. Spread Effects

There is no question that the many training programs developed for health zones under SANRU I and II will be replicated and expanded to the other 200 zones of Zaire. Lessons learned about organization, financing, and community participation will be also be valuable to other zones since SANRU II will assure that experiences are documented, analyzed, and reported.

SANRU II will directly affect the national health system by involving and building consensus among various regional and local groups. The project will continue to take the lead in developing a health program in the country. SANRU II will also play a special role in helping nursing schools integrate primary health care subjects and practice into their pre-service training curricula.

Zaire has successfully begun primary health care on a national scale, and the SANRU I Project can take substantial credit for the accomplishment. SANRU II will help disseminate Zaire's experiences and lessons to other countries through both church and government channels. The project will enable health personnel to participate in international conferences (and can also encourage them to publish their experiences in international journals). Finally, SANRU will no doubt receive observers on study tours from other parts of Africa and the world. The project will offer them the opportunity to see how Zaire's health program struggles with, yet capitalizes on, the nation's diversities.

15.5 Administrative Feasibility

The SANRU II project administration will build upon the same premise as that of SANRU I, i.e., a major bilateral project is administered on behalf of the GOZ and USAID by a non-governmental agency, the ECZ (Church of Christ of Zaire). This novel approach to management of a bilateral project has been recognized as extremely efficient for several reasons:

1) Day-to-day project management decisions are made by a team of representatives including ECZ (project director), GOZ (MOH representative), and the AID-funded TA project manager. The USAID project officer closely monitors these activities. Each partner thus has a fair say in project management in a structure independent of any one administrative bureaucracy. Each person is responsible for reporting and dealing with inquiries/problems pertinent to his respective organization.

2) The administration of SANRU provides a flexibility in planning and budgeting which enables the project to react quickly to the needs of health zones. Time lags for responding to requests for assistance are thus kept to a minimum.

3) The project has an excellent track record of getting financial and material assistance quickly and safely to the implementing agencies at the health-zone level.

4) SANRU has provided a structure through which other AID centrally-funded projects can work. Projects such as PRICOR, AVS, and JHPIEGO are each able to sign agreements with an NGO such as ECZ while profiting from the umbrella management structure of the SANRU Project.

5) The SANRU Project, in providing assistance to 100 health-zone programs, provides a mechanism to distribute the resources of a large bilateral project without overwhelming the beneficary beyond its absorptive capacity.

The implementation of the greatly expanded activities of SANRU II using an administrative structure similar to that of SANRU I is feasible. However certain issues must be resolved including personnel, office and warehouse space, logistical and supervisory support, and relationships with other projects. Specfic areas of reinforcement required to assure SANRU II management are as follows:

Office Space: Office space now available at ECZ is appropriate for a staff of 10 persons. The current full-time and part-time staff of SANRU however exceeds twenty and is seriously hampered by lack of space. With significant staff increases projected for SANRU II, the issue becomes even more critical. This problem is now being solved by construction of a new building behind ECZ - the first floor to be used as a "retail" warehouse and a PHC documentation center, the second floor as office space for SANRU II.

Warehouse Space: Much of the funding increase in SANRU II is in commodities which will mean a need for more warehouse space. SANRU II will continue to use ECZ's central warehouse for short-term in-transit storage of items such as motorcycles and bicycles. The small warehouse now being constructed behind ECZ will serve adequately for repackaging "kits" for health centers and for temporary central-supply storage of most project commodities. However, the additional commodities to be purchased for the water/sanitation component will necessitate either renting or building additional bulk space for pumps, pipes, and parts.

Personnel: It is anticipated that activities of SANRU II are likely to require an increase to 30-40 personnel. For example, while SANRU I managed Z 2,000,000 in its 1982 annual budget with one accountant, it is expected that the 1986 budget will be on the order of Z 100,000,000. Assuring adequate management of just this one activity will necessitate at least three full-time accounting people. An administrative challenge presented by SANRU II will be to retain a streamlined management structure despite increases in personnel.

Supervision: Supervision of health zones suffered during SANRU I due both to lack of sufficient staff and frequent urgencies at the national level. A short-term solution is to standardize the supervision process and train a larger team at the national level, including representatives from other projects and agencies, who can supervise and report on health zone activities. The long-term solution is to strengthen personnel at the regional and sub-regional levels within the MOH structure who will supervise and report on health zone activities. SANRU II will incorporate both of these approaches into the development of its supervision strategy.

Relationship to Other Subprojects - SANRU, as the principal health project within the Central Medical office of ECZ, has established both internal administrative and external assistance capabilities. The tendency has been for other centrally-funded projects to attach their assistance programs to SANRU administration. Examples of this are AVS equipment assistance for operating rooms, JHPIEGO training in family planning, and PRICOR operations-research projects, all of which were established by agreements signed with ECZ and administered through SANRU. The ECZORT Project represents a similar situation but necessitated establishing separate administrative procedures according the guidelines specified by ORT.

The attachment of a large water/sanitation subproject to SANRU II will be a further step in collaboration, with a subproject component situated within another ministry. The water/sanitation activities constitue a SANRU II subproject with two major components - the development of the national and regional capability of the National Rural Water Service (SNHR), and the financing of water/sanitation interventions within the health zones. The first of these components is to be implemented under a separate grant agreement with the Ministry of Agriculture and Rural Development and managed by the SNHR. This will include an administration completely separate from the central SANRU Office (located at ECZ). Coordination of activities between SNHR and SANRU will be essential.

Two AID-financed long-term technical advisors will be based at SNHR, one of whom will spend at least 10 percent of his time at SANRU. In addition SANRU staff will be involved in joint planning meetings with SNHR and the National Sanitation Program (PNA) to integrate water and sanitation activities into the structure of the health zone. In short, the two components of the water/sanitation subproject of SANRU II will have clearly defined scopes of work to assure that administrative overlap is kept to a minimum.

15.6 Environmental Analysis

Two components of SANRU II potentially may affect the environment (either positively or negatively). These components are the construction of health facilities and the various planned environmental sanitation interventions (water supply and distribution systems, latrines). Because the precise sites and exact natures of these activities have not yet been identified, the required environmental review has been deferred until sufficient information is available. This is in accordance with State 247639 (85), attached. The review will be carried out with the assistance of the Regional Environmental Officer. Both Project Grant Agreements include covenants authorizing an environmental review of santitation and construction activities.

15. 6. (2)

(6) ACTION AID2 INFO AMB DCM ECON CHRON

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INFO RUEHAB/AMEMBASSY ABIDJAN 6642
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LOC: 306 303
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AIDAC ABIDJAN FOR REDSO/WCA, GOODSON

E.O. 12356: N/A
TAGS:
SUBJECT: ZAIRE: BASIC RURAL HEALTH II, PROJECT 660-0127-
INITIAL ENVIRONMENTAL EXAMINATION

REF: A) KINSHASA 13099 B) KINSHASA 12694 C) KINSHASA 13196
D) ABIDJAN 12728

1. AS SUGGESTED REF.A), PARA 5, BUREAU ENVIRONMENTAL OFFICER SUGGESTS DEFERRING ENVIRONMENTAL REVIEW PER REF.(D). APPROPRIATE COVENANTS SHOULD BE INCLUDED IN AUTHORIZATION AND AGREEMENT, IN ACCORDANCE WITH AID REGULATION 16, SECTION 216.3 (A)(7) (I) AND (III).

2. THIS DEFERRAL WILL ALLOW REGIONAL ENVIRONMENTAL OFFICER TO RESCHEDULE TDY TO KINSHASA AS OFFERED IN REF. (D) IN FIRST WEEK OF NOVEMBER IN ORDER TO COORDINATE WORK WITH MISSION. SHULTZ
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ANNEX 7

16. SUPPLEMENTARY PROJECT INFORMATION

16.1. Peace Corps Participation

The Peace Corps public-health and water programs have recognized the orientation of the GOZ to create health zones as the best framework within which their volunteers could work. PCVs become ready members of the staff of the central office of the health zone. The medical chief of the health zone supervises the work of the PCVs while a nurse supervisor and/or rural water coordinator generally serve as their counterparts.

16.1.1. Participation in Public-Health Programs

Working with their Zairian counterparts, PCVs who have received technical training in primary health care (including CCCD activities) are able to make positive contributions as:

Trainers:	conducting in-service training and continuing education of health zone personnel and VHWAs.
Health educators:	promoting creative approaches to health education with limited resources.
Managers:	setting up and improving the management information system of the central office of the health zone.
Supervisors:	supervising preventive and promotive health activities through health centers and community development committees.

16.1.2 Participation in Water Programs

Sub-regional level: Only a few volunteers working in the water and sanitation component of the project will be working at this level. It is expected that Peace Corps will provide 2-4 mechanic/engineer volunteers to work with the SNHR brigades equipped with drilling rigs. These volunteers will provide technical, management and administrative support services to these teams. Specifically they will perform the following tasks in association with their Zairian counterparts:

- Provide TA to drilling operations
- Provide on-the-job training for Zairian counterparts
- Assist in planning sub-regional water-point interventions
- Provide assistance in planning for adequate stocks of spare parts, fuel, pipes, and other brigade needs
- Assist in performing brigade commodity and equipment audits and inventory

- Assist in preparing and verifying monthly brigade performance reports
- Participate in the installation and/or construction of wells and pumps

To enable them to carry out these activities, the PCVs have to be provided initial short-term equipment-specific training. These volunteers will work under the technical and administrative supervision of SNHR.

Rural health zone level: Most water volunteers will serve as counterparts to the rural water coordinators. Working with the brigade team leaders and communities, they will identify and plan a schedule for community water projects. They will also order supplies and keep an inventory of all RHZ water and sanitation commodities (pump spare parts, cement pipes, fitting, etc.),

In addition, these volunteers will work with the beneficiary communities to organize local water activities. Since community participation (labor, materials, and cash) will be the key to successful implementation of these activities, this aspect of PCV assistance will be critical.

16.1.3. Collaborative Efforts

Collaboration between Peace Corps and SANRU as part of SANRU I has been very fruitful. Currently over 50 percent of PCVs are working in and making important contributions to RHZs assisted by SANRU. SANRU has assisted Peace Corps in the identification of newly developing health zones which could serve as viable posts for PCVs. SANRU personnel also participate regularly in the initial and continuing training of PCVs.

SANRU additionally provides PCVs throughout the country with health education materials and equipment required for their work. This assistance includes providing equipment and construction materials for spring capping, well digging, and rain catchment systems.

Recent Peace Corps policy statements favor a continued collaboration during SANRU II. Beginning in 1985 public health volunteers are to be placed exclusively in health zones. Secondly, under the new Peace Corps Africa Food Systems Initiative it is anticipated that the number of water volunteers will jump from 10 to 50 by 1988. SANRU II anticipates therefore that during the life of the project there will be a total of approximately 150 Peace Corps health and water volunteers assisting SANRU II to establish and develop rural health zones. The combination of Peace Corps "person-power" and SANRU material/financial/management assistance appears to make a good development team.

16.2 Collaboration with Non-Governmental Organizations

A strong extensive system of non-governmental organizations (NGOs) is already established and working in the health sector. These NGOs include the church-sponsored organizations and individual private enterprises. The three main NGOs active in Zaire are the Protestant missionary groups, the Catholic missionary groups and the Kimbanguists. The church systems are most extensive in the rural areas and have been active in health care delivery in Zaire for over 100 years. In contrast, the state services have tended to concentrate in the semi-urban and urban areas.

Table 16.1 depicts the various sources of assistance to hospitals in Zaire. It is noteworthy that of the total 417 hospitals in Zaire, 44 percent are run by either the Catholic Church or the Protestant Church, and 18 percent by individual private enterprises. Moreover, the current trend is for the GOZ to turn over to NGOs the management of other state hospitals either entirely or partially.

Table 16.1

Sources* of Assistance to Hospitals in Zaire by Region

Region	NO. HOSP	CATH.	PROT.	STATE	PRIV	CTB	SANRU	OXFAM	UNICEF	PEACE C.	HANS	EPI
Bandundu	48	14	9	28	4	6	10	12		3		20
Bas-Zaire	38	9	9	13	8		5	13	12	2		13
Equateur	64	15	14	27	13	9	7			6	10	15
Haut Zaire	66	13	10	37	11	5	6		1	4		8
Kivu	54	10	11	27	11	7	10		17	9		17
Shaba	59	14	10	22	20	5	5			4		9
Kasai Occidental	43	21	11	13	3	5	4	5		1		10
Kasai Oriental	31	8	4	23	2	4	5	5	7	6		14
Kinshasa	14	2		6	4	2						3
Total	417	106	78	196	76	43	52	35	37	35	10	109
Proportion assisted by		25%	19%	47%	18%	10%	12%	8%	9%	8%	2%	26%

* Some zones assisted by more than one source.

By the end of 1984, there were approximately 150 health zones starting up, but only 85 that could be considered functional (i.e., with at least two functioning health centers per health zone). Table 16.2 shows that of the 85 functional health zones 80 percent were being assisted at least in part by NGOs.

Thus, in Zaire, NGOs take on a much larger responsibility for managing health care delivery than in most other African countries. These NGOs are able to provide the infrastructure, the personnel, and the in-kind contribution that are important in establishing a health delivery system. They are also receiving financial support from outside the country. Acknowledging these traditional private-sector efforts as well as the desire to establish a more pluralistic private sector support base for PHC delivery, NGO collaboration will be an important component of SANRU II. Through such collaboration, SANRU II will support the AID health-sector strategy to improve donor and intersectoral coordination. Collaborative activities will also be in line with AID policy to support the non-governmental sector in development.

It should also be noted that a number of NGOs have been active in the development of the rural water sector. SANRU II has programmed material and other resources for four of these to enable them to expand their current activities and function as sub-regional water brigades. Thus, like the SNHR brigades, the NGO brigades be able to provide technical support for water interventions in the RHZs in their catchment areas.

Table 16.2

Assistance to Functional Health Zones, by Source*, at the end of 1984

	CATH.	PROT.	STATE	PRIV	CTB	SANRU	OXFAM	UNICEF	PEACE C.	HANS	EPI
No. of functional RHZs assisted	40	28	40	5	23	45	22	21	19	7	79
Proportion of the 85 functional RHZs	47	33	47	6	27	53	26	25	22	8	93

* All zones assisted by more than one source.

16.3 The Water and Sanitation Component of the SANRU II Project

16.3.1. Purpose

SANRU II Project assistance to the MOARD's National Rural Water Service (SNHR) which is the GOZ agency directed to develop and coordinate rural water systems, has two purposes:

1) To assist the SNHR, in providing technical back-up to project-assisted health zones implementing rural water activities; and,

2) To help the SNHR concurrently strengthen its capability to continue providing such technical assistance after the project ends.

16.3.2. Background

The SANRU I Project initiated village-level water and sanitation activities along with other PHC activities in 1982. A project evaluation and subsequent review by WASH consultants showed that SANRU I was making significant advances in providing water and improving sanitation in participating villages. The key elements of the project's strategy were the use of technically simple and affordable technologies, and involvement of beneficiary communities in the planning, implementation, and maintenance of the systems constructed. Project outputs (1982-84) include 1,617 capped springs, 100 cisterns and wells, and 584 villages with active sanitation programs. Expenditures for these activities are estimated at 6.35 million Zaires ($127,000).

SANRU I's mid-term project evaluation recommended that the project intensify its water and sanitation activities. SANRU II's water and sanitation component directly responds to this recommendation.

In February 1985, at the initiative of the CNAEA and USAID, a WASH-assisted seminar was held in Kinshasa to develop a national policy and strategy for this sector. The resulting draft document, prepared by an interministerial team of Zairian experts, was reviewed, revised, and adopted at a national seminar in May 1985 which brought together all governmental and non-governmental agencies involved in the sector. The GOZ Executive Council is currently reviewing the document for final approval. The objective of this process is to bring a systematic and orderly approach to implementing projects in this heretofore chaotic sector. The policy and strategy document emphasizes inter alia the following needs:

- to emphasize affordable and technically appropriate technologies;
- to establish technical norms for low-cost and intermediate technologies;
- to involve beneficiaries in the planning, implementation, and maintenance of all systems installed;
- to pay special attention to women's concerns in the installation of systems; and

to develop a planning unit to establish technical norms, perform research and development, and serve as an information focal point for the country.

These previous USAID-assisted activities, as well as increased interest in the sector by UNICEF, UNDP, and bilateral donor agencies, are culminating in the provision of multilateral assistance to SNHR within the seven-year life of SANRU II.

16.3.3. Current Status of the SNHR

The SNHR was created in 1983. It has developed an operational strategy based on regional field stations which assist local communities in developing their water supply systems. Currently ten field stations of variable size are dispersed throughout the country (See Figure 16.1).

As shown in Table 16.3, the SNHR currently has a total staff of 136, of whom 13 are located in the Kinshasa office and the rest distributed among the field stations. The field-station staff is usually greater than shown because stations hire temporary labor (local bricklayers and carpenters) to meet the needs of each assignment.

The central SNHR office is currently divided into the following three functional units: an administrative and financial unit, a technical unit, and a logistics-support unit.

According to SNHR documents, four new stations are planned:

Station d'Hydraulique Rurale de Nord-Ubangi (Equateur)
Station de Mweka (Kasai-Occidental)
Station d'Hydraulique Rurale Nord-Shaba (Shaba)
Station d'Hydraulique Rurale de Sandoa (Shaba)

Table 16.3: Current SNHR Stations and Personnel

	PERSONNEL			TOTAL
	Civil Service	N. of* Engi-neers	Contractual	
S.N.H.R.				
Central Office	9	3	4	13
1)Station RUTSHURU	5	2	11	16
2)Station MASISI	2	1	6	8
3)Station BUNIA	1	2	10	11
4)Station NGANDAJIKA	15	1	12	27
5)Station LUPUTA	1	1	4	5
6)Station LUSAMBO	1	1	15	16
7)Station MISELE	1	1	11	12
8)Station N'SIONI	11	1	2	13
9)Station BIKORO	1	1	6	7
10)Station BARAKA	2	1	6	8
TOTAL GENERAL	49	15	87	136

* Number of Engineers out of total civil-service employees.

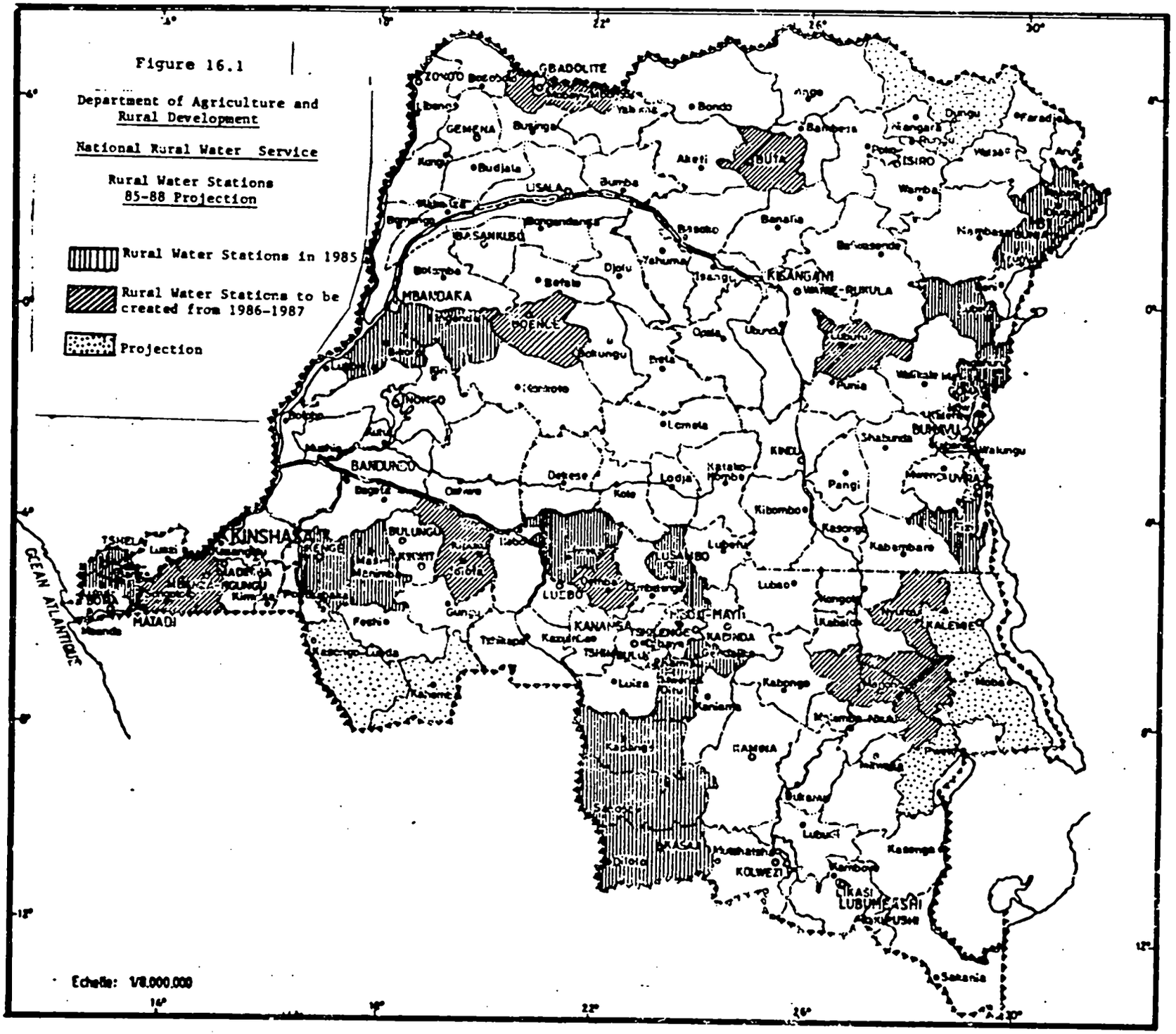


Figure 16.1
Department of Agriculture and Rural Development
National Rural Water Service
Rural Water Stations 85-88 Projection
Rural Water Stations in 1985
Rural Water Stations to be created from 1986-1987
Projection
GBADOLITE
ZONGO
GEMENA
BUTA
ISIRO
USALA
BASANKUSU
KISANGANI
MBANDAKA
BOENDE
BANDUNDU
KINSHASA
BULUNGU
KENGE
MATADI
LUEBO
KANANGA
MBUJI-MAYI
KABINDA
KALEMIE
KAMINA
KOLWEZI
LIKASI
LUBUMBASHI
BUKAVU
UVIRA
OCEAN ATLANTIQUE
Echelle: 1/8.000.000

16.3 (3)

196

16.3.4. SNHR Budgetary Support from the GOZ

Since its formal creation in September 1983, the SNHR has received the following budgetary support:

Year	Amount (Zaïres)	Major Equipment (Value in Zaïres)	Total (Zaïres)
1983	1,000,000		1,000,000
1984	4,201,500	10,000,000	14,201,500
1985	1,700,000	-	1,700,000

Funds made available to SNHR cover contract personnel salaries and operational costs. The SNHR has relied on UNICEF to provide most of the materials and equipment for constructing water systems.

In 1984, the MOARD purchased one drilling rig (CONRAD Combi 71) and accessories estimated to cost 10,000,000 Zaires. Thus the GOZ support to SNHR for 1984 is estimated at 14.2 million Zaires.

The SNHR has published the following statistics on its output performance and that of its predecessor organizations from 1978-84:

System	No. Installed
Spring cappings	800
Hand pumps	180
Gravity-fed systems	23

SNHR's 1985 objective is to cap 167 springs, install 230 hand pumps on constructed wells, and install approximately 130 kilometers of gravity-fed water systems.

UNICEF, which has been the main source of material and equipment to the SNHR, reports the following figures for water points that have been personally inspected by the UNICEF (Kinshasa-based) water expert:

	1978-1985 total	1984 only	1985 only
Spring cappings	67	20	0
Hand pumps/wells	63	4	8
Gravity-fed systems	26	3	0

Project-design discussions with UNICEF, UNDP, and SNHR clearly showed that SNHR will have to revise implementation procedures to improve its performance and monitoring of stations. The creation of the SNHR and its ten field stations was relatively easy compared to the tasks of funding operational costs and managing the program, given Zaire's current financial problems and infrastructural constraints. Especially for 1985, SNHR's performance has been far from satisfactory. A major covenant to project assistance will be MOARD's agreement to administrative reforms within the SNHR. The following areas, among others, will be reviewed with a view to more efficient performance:

- Personnel management and administration
- Financial management
- Field supervision
- Increased training for field and central staff
- Preparation and approval of workplans at the regional level
- Program planning (and budgeting)
- Field stations' reporting system

16.3.5. RHZs and NGOs in Water and Sanitation

Many RHZs are operated by missionary organizations under the auspices of the GOZ. Some of these NGOs have already developed a strong capability to implement water programs. The project aims to use these NGOs (in the project area), in addition to the SNHR water stations, to implement project water activities. In some SANRU I Project RHZs, the zonal health authorities have also begun assisting water and sanitation activities. SANRU II will enhance the material and technical capability of RHZs to support these activities. The RHZ office will be staffed by rural water coordinators, many of whom will work as counterparts to Peace Corps water volunteers.

Thus, three major sources will provide technical back-up for community water and sanitation activities planned for SANRU II: SNHR, NGOs, and the RHZ staff. The current technical capabilities of all three need to be reinforced and strengthened to guarantee the attainment of project outputs.

16.3.6. Objectives, Inputs, and Outputs

(a) Objectives

The national rural-water-supply objective, as set by the President of Zaire in his November 5, 1985 inaugural speech, is to serve 50 percent of the rural population by the year 1991. Currently less than 1,400,000 persons, approximately 5 percent of the rural population, is estimated to have access to safe drinking water.

Utilizing SANRU II funding over seven years (estimated U.S. $5.6 million plus $6.9 million equivalent in GOZ counterpart funds), it is expected that 1,500,000 people will be provided with sufficient quantities of safe and accessible water. This represents about 11 percent of the 50-percent national objective, and 17 percent of the total population in SANRU I and II RHZs. Given a depreciation period of 15 years for the average installation, the per capita annual cost of the SANRU II water initiative amounts to roughly U. S. $0.50.

Slightly more than 70 percent of the USAID dollar grant and counterpart funds will be spent for construction materials which will be used directly for the improvement, protection, storage, and piping of water to villages. Approximately 15 percent of total costs are slated for the transport of materials (and of technical personnel) to worksites. The remaining expenditures are for setting up and/or reinforcing the institutions, (RHZs, NGOs, SNHR) necessary to support, coordinate, and supervise the various water activities.

(b) Inputs

Technical assistance, training, and commodities are the three major project inputs.

Technical Assistance: A total of seven person-years of long-term technical assistance has been programmed for the SNHR. One senior water and sanitation planner will be based in the Planning Unit for two years to develop the unit's planning capability. The other, five-year SNHR position, the technical advisor for field operations, will be concerned primarily with the implementation of SANRU II activities at the regional RHZ and community levels. Both technical advisors will work with Zairian counterparts.

Approximately twenty person-months of short-term TA for SNHR have been budgeted for in SANRU II, most of which will be in the construction, mechanical, and social-sciences areas, and provided through the WASH Project. WASH has agreed to share the costs of short-term TA, thus additional WASH TA is expected to be provided at no cost to SANRU II. Furthermore, ten person-months of TA have been programmed for training and technical support for the RHZ water component. This combination of long- and short-term technical assistance will strengthen the SNHR and NGO water brigades, RHZ water staff, and community water agents.

Training: The second purpose of the SANRU II water activity (to strengthen the technical capabilities of SNHR and selected NGOs) will be achieved primarily through training, including long-term out-of-country masters-level training in environmental and/or public health for two central-level engineers. These trainees will rejoin the central SNHR by the end of the second project year. During the seven-year life of the project, 180 persons will be trained in short-term in-country water-related courses and conferences. In the second project month, a WASH training consultant will develop a training schedule addressing the needs of community water agents, rural health zone staff (especially RWCs), lightly equipped brigades, and brigades equipped with drills. The short-term in-country training plan will also involve on-the-job training through counterpart relationships.

Commodities: Most project counterpart funds allocated for water will be used to purchase pipes, fittings, cement, etc., for the construction of the water systems. A standard list of equipment will be furnished to all NGO and SNHR "light" brigades (see Annex 10, 19.5.). At least two brigades will be equipped with drills.

The project will supply motorcycles to brigades as well as to Peace Corps volunteers at the RHZ office. UNICEF has agreed to furnish the brigades with four-wheel-drive vehicles and some equipment. SANRU II will furnish a limited number of additional four-wheel-drive vehicles, as well as office equipment to the brigade stations and SNHR central office.

(c) Outputs.

The immediate community-level benefit of the above inputs will be 3,000 springs and spring boxes, 880 drilled wells, 825 hand-dug wells, 125 gravity-fed systems, 40 pump-assisted distribution systems, seven infiltration galleries, and 2,000 VIP latrines — all serving approximately 1.5 million rural Zairians.

16.3.7. Technical Feasibility

Refer to Annex 6, Section 15.1.8.

16.3.8. Organizational Implementation Arrangements

Figure 16.2. depicts the organizational relationships between the various entities involved in the implementation of water and sanitation activities at the central, regional, and community levels.

(a) Central Level: The key implementing bodies of the project at this level are the National Water and Sanitation Coordinating Committee, which is under the direction of the CNAEA executive secretariat, the SNHR central office, and the SANRU II Project Office (located at ECZ). The National Water and Sanitation Coordinating Committee will include representatives of the following organizations which are active in the sector:

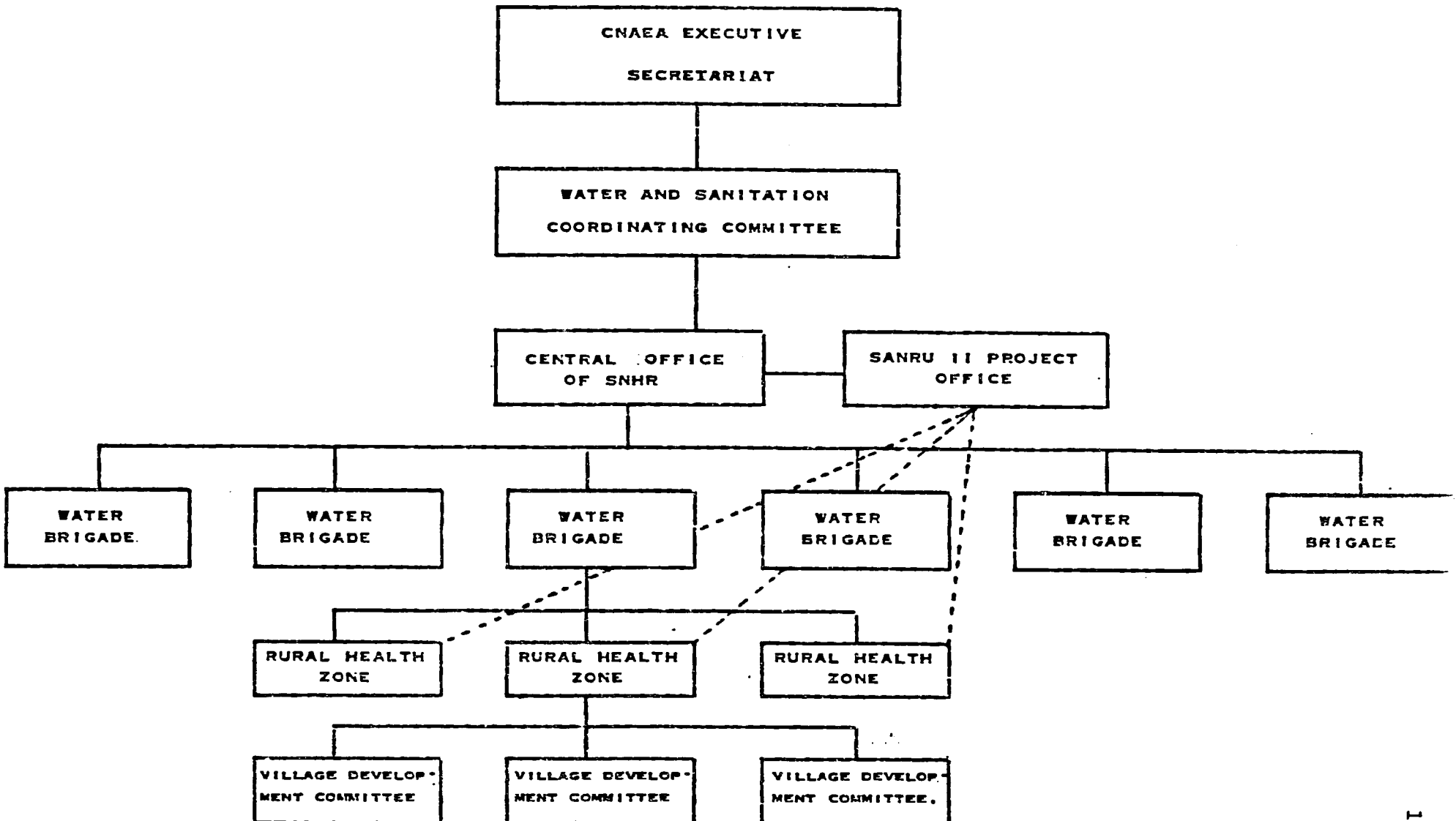
- SNHR
- SANRU II Project Office
- CNAEA representatives
- PNA
- UNICEF
- USAID
- Other bilateral donors
- UNDP
- NGOs represented in Kinshasa
- Peace Corps
- WHO

This committee will meet at least once every two months to review project plans and progress, resolve problems, and provide general guidance to the SNHR Director's Office and the Planning Unit staff.

SNHR and SANRU II Collaboration: Coordinated planning and cooperation between these two offices at the central level is critical to project success. The SNHR has direct administrative control over the water stations and brigades but does not control the materials (cement, pipes, etc.) used to construct water points in the rural communities in RHZs. The SANRU Project Office in Kinshasa will be responsible for procuring and delivering these inputs directly to the RHZs. To facilitate this close working relationship, the rural-water field-operations advisor will spend at least 10 percent of his time coordinating workplans of the two offices. In carrying out its national role, the SNHR-based Planning Unit will work closely with project staff. The Planning Unit will:

- establish and promulgate construction standards for the different types of water and sanitation interventions feasible in rural Zaire;
- establish regional intervention strategies based on hydrogeological, economic, and social factors;
- prepare the rural water supply component of the National Plan;
- keep an inventory of all water and sanitation projects in progress, including their location and level of funding;
- identify NGOs that could be assisted to assume greater technical advisory roles in the development of this sector;

FIGURE 16.2 ORGANIZATION CHART OF SANRU II RURAL WATER COMPONET



201

- investigate and promulgate new rural water technologies for Zaire;
- plan and carry out operational research; and
- establish a library/documentation center.

(b) Regional Level: The key implementing entities at this level are the rural water brigades (SNHR or NGO), the RHZs, and the communities benefiting from the interventions. Since the health zones are the self-contained functional units of the health system, the RHZ water programs will be developed independently (although this does not preclude cooperation between zones in training). The SNHR brigades will, however, cover several RHZs in their operational area. This overlap makes it imperative to institute frequent planning sessions between each brigade and the RHZs in the brigade's area of activity. This situation would also necessitate the joint development of integrated annual work plans between brigades and RHZs. The planning sessions and workplans must be cognizant of the different roles and responsibilities of the cooperating parties, for example:

(1) The RHZ water coordinator is responsible for planning and coordinating all project-financed water interventions in his/her zone.

(2) The RHZ health authorities will serve as the guardians of project materials.

The brigades will work in RHZs following a workplan established together with the rural water coordinator for each zone. Based on decisions and procedures to be made jointly by the SNHR, Peace Corps, SANRU II Office, and RHZ health authorities, prior review and approval may not be required for community projects involving the simpler technologies such as spring capping and spring boxes. When such procedures for simple interventions are adopted, it would be important that the Planning Unit of the SNHR provide plans and technical literature to assist the work of the local technicians. For the more sophisticated technologies, such as cisterns, gravity-fed systems, wells (wide-diameter or drilled), infiltration galleries, etc., it will be essential that a technical review and approval of all such proposed interventions be carried out in the field prior to constructing the system. This would be accomplished by a RHZ-based committee composed of the following:

- Area brigade team leader
- Rural water coordinator
- Community representative
- Brigade supervisor/engineer from Kinshasa
- Peace Corps representative
- PNA representative (if present)

A field review permits on-site verification of costs, and site inspections that would be impossible if the review were carried out in Kinshasa. After the technical approval has been obtained, the RHZ water coordinator and the brigade team leader would together schedule the construction of the water system.

To facilitate planning and information gathering, the SNHR Office, NGO brigades, and the SANRU Office will jointly develop forms to be used in collecting background information needed for decision-making concerning each type of village water system. This information would be useful in determining whether special on-site visits and studies are required before undertaking an intervention.

(c) Community Level: Some villages in Zaire have village development committees which are responsible for implementing community-level activities. These committees will choose a community water agent who will be in charge of articulating water and sanitation needs and negotiating the village contribution (labor, sand, stones, etc.) to water activities. The RWC in each health zone will work closely with village authorities within this framework to ensure that each community water activity is properly planned, and executed with minimum delay.

(d) Communication between the Central, Regional, and Community Levels: Rapid communication between these three levels is essential to a ensure a satisfactory pace of project implementation. Because poor communications have hindered many development activities in Zaire, the project will install a high-frequency radio system to keep strategically located water stations in touch with the SNHR central office. The technical advisor for field operations and his Zairian counterpart are expected to travel 50 percent of their time to ensure that the brigades' operations are closely monitered. Brigade team leaders, RWCs, and community water agents are expected to schedule their interventions together. These various interactions will promote rapid communication from the RHZ level to the SNHR central office.

Copies of the RHZs' water and sanitation reports for the SANRU II Office will be simultaneously transmitted to the SNHR central office. The RHZ reports will also be cross-checked with brigades'reports to the SNHR Office.

16.3.9. Financial Estimates and Recurrent Costs

Tables 15.3 (MOH) and 15.4 (MOARD) (Annex 6, Section 15.1), detail the dollar and Zaire counterpart-fund budgets for SANRU II. These should be considered capital-investment budgets. For the water and sanitation component, recurrent costs will be borne by the two implementing ministries:

Ministry of Agricultural and Rural Development: The MOARD's estimated recurrent costs related to this project are depicted in Table 16.4, which shows annual personnel-cost increases associated with the increasing number of brigades. The Ministry has agreed to budget for these costs for the life of the project.

Ministry of Health: The other project recurrent costs for water and sanitation will be at the RHZ level (see Section 15.2.3.). Most RHZ personnel are already on the payroll and will not constitute an additional cost to the MOH. However, all 100 rural water coordinators (one per RHZ) will be new hires. Based on an RWC's annual salary estimated at 10,000Z, the MOH would pay approximately 1.08 million real Z (i.e., value in 1985 Z) per year in salaries for these new-hires. These recurrent costs are relatively low and the MOH has agreed to absorb them.

Table 16.4.: Estimation of Recurrent Costs to be Assumed by SNHR

	1986	1987	1988	1989	1990	1991	1992
SNHR Brigades	10	16	22	26	26	26	26
Field Staff	170	272	374	442	442	442	442
Central Office Staff	20	20	20	20	20	20	20
Total Staff	190	291	394	462	462	462	462
Total Salaries	2,640,000	3,864,000	5,088,000	5,904,000	5,904,000	5,904,000	5,904,000
Operating Costs	528,000	772,800	1,017,600	1,180,800	1,180,800	1,180,800	1,180,800
Grand Total	3,168,000	4,636,800	6,105,600	7,084,800	7,084,800	7,084,800	7,084,800

Notes:
- The water brigades consist of 17 staff members each.
- The cost per brigade is 17,000 zaires/team/month.
- The central office operating costs are assessed at 50,000 zaires/month.
- No increases owing to inflation or salary increases are considered in this table. As they occur, these would be assumed by GOZ.

204

16.3.10. General Description of Selected Technologies

This section describes the salient features of the technologies selected for the project. Measurements indicated in the diagrams do not necessarily represent measurements to be used in project systems. The SNHR Planning Unit will be responsible for developing modifications and/or specifications for these systems that are suited to the various regions of Zaire.

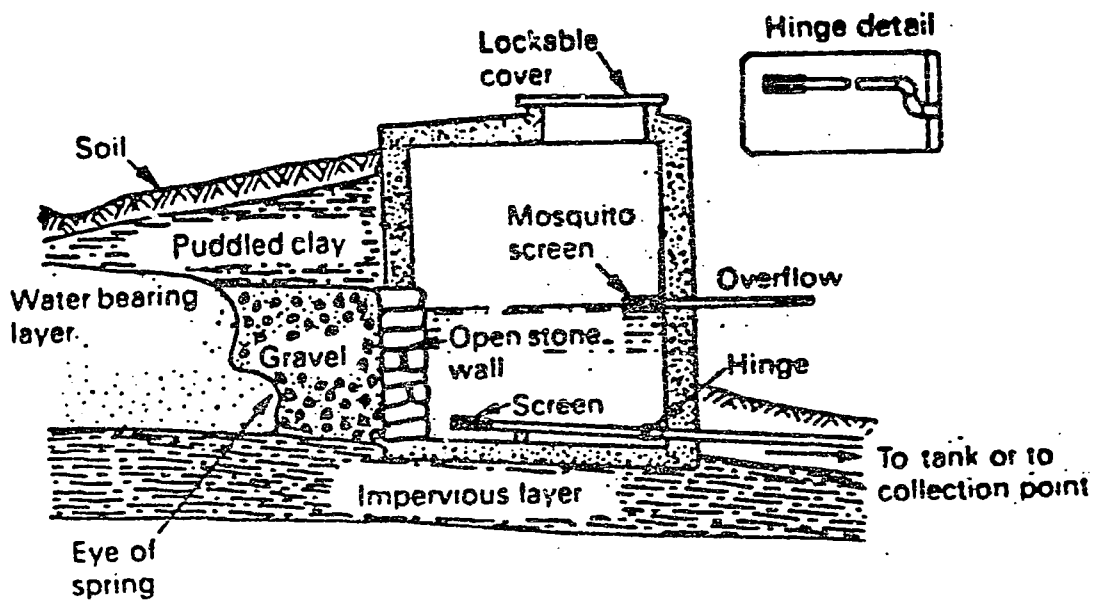
(a) Spring Protection: Most rural Zairians depend on spring water. As indicated in Figure 16.3, all that is involved in spring capping is the identification of the source or "eye" of a spring, collecting the emerging water, and protecting it from surface or underground pollution. The water can be fetched directly from an overflow pipe at the springbox or an additional collection pipe can be installed to convey the water to a storage tank or to the point of use. Various spring-capping methods have been used successfully. These aim to improve water yield from low-yield springs and protect the spring's source from pollution by man, animal, and surface runoff, or from underground. Before developing a spring, it is important to determine whether or not it is seasonal. If so, it should be developed during the dry season, when it would provide the least amount of water. The following description of spring capping is adapted from Environmental Health Engineering in the Tropics by Sandy Cairncross and Richard Feashem.

Springs, where they exist and have a reliable flow, can make ideal sources of water for a community water supply. No pumping is required to extract water from them, and all that is usually necessary to obtain water of good quality is to collect it and protect it from pollution. This is done by building a box of brick, masonry, or concrete around the spring so that water flows directly out of the box into a pipe without ever being exposed to pollution from outside (Figure 16.3).

The water emerging at a spring has generally been forced to the surface by an impervious layer of soil or rock; a layer through which water cannot pass. In excavating the foundations for a spring box, it is important to avoid digging through this layer, or the water may seep downward so that the spring disappears or moves downhill.

The point where the water emerges, known as the "eye" of the spring, should be covered with carefully selected sand or gravel. If this material is too coarse, the spring water may erode the soil behind it, but it should not be finer than the existing soil behind it or it may block the flow. If there is a danger that it could be washed away, then still coarser gravel should be placed in front of it, with the gravel progressively increasing in size to the stones of the spring box wall. A spring may sometimes flow very strongly for brief periods after rain, and the whole structure must be sound enough to resist erosion.

FIGURE 16.3 A SPRING BOX



A spring box. The inset detail shows a hinge made with two flexible pipe bends, enabling the screen to be lifted above the water for cleaning

Fine sediment is suspended in the water from most springs. A spring box therefore should be built to prevent this sediment from settling over the eye of the spring and blocking its flow. This is best done by ensuring that the overflow pipe is not above the eye (Figure 16.3). It is also important for the spring box to have a removable cover, so that it can be cleaned out from time to time. Alternatively, one or more small springs may be connected to a single "silt trap" (Figure 16.4), where the silt is allowed to accumulate and is periodically cleaned out.

Care is required to prevent surface water from running into the spring box and polluting the water in it. Puddled clay should be used to backfill behind the box to seal the ground against infiltration. The top of the spring box should be at least 300 millimeters above the ground, and the access hole should have a lip around it and a cover which is not easily removed. In addition, a ditch may be dug on the uphill side of the spring, and the excavated soil thrown up into a bank of "bund" (Figure 16.4) to divert surface water. Finally, a fence or prickly hedge planted on the bund will help to keep people and animals away.

During SAHRU I, two Peace Corps volunteers developed a village-level step-by-step manual, which will be utlized in SANRU II to implement most of the village spring-capping activities.

(b) Wells: Hand-dug wide-diameter wells and drilled wells (small diameter) will be constructed in this project. Both will be fitted with the India Mark II handpump. Figure 16.5 gives the main features of the wide-diameter hand-dug well.

Although hand-dug wells can continue to be used with a rope and bucket if the pump breaks down, the well becomes more subject to pollution. The following pollution sources must then be considered (although only the first two are of concern if the well is properly sealed and the pump functioning):

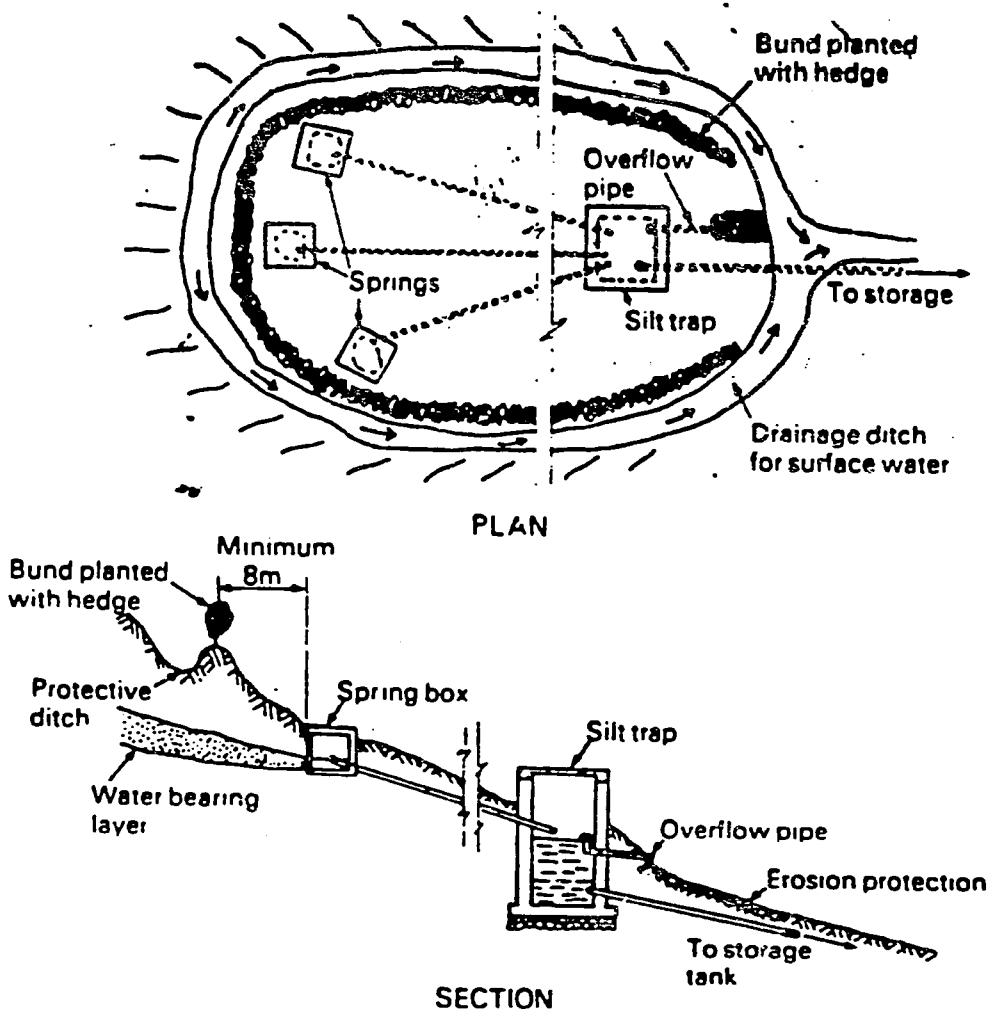
(1) Polluted groundwater: This can result from location of the well too close to pit latrines, soakaways, or refuse dumps, whose influence may extend up to about 15 meters in a typical soil. In fissured strata such as limestone and fractured rock, water may flow in underground streams rather than seeping through the soil, and so carry fecal pollution much longer distances.

(2) Seepage water from the surface: This may enter through the top few meters of the well lining if it is not sufficiently watertight near the surface.

(3) The vessels used for drawing water: However often these may be rinsed out, they can cause some pollution of the well. An improvement can be achieved by having a bucket permanently hanging in the well, probably from a windlass, so that it is never taken home and never put on the ground. If the bucket is made of collapsible rubber, it is likely to be put on the ground or stolen.

(4) Rubbish thrown down the well: The chance of this may be reduced by preventing children from playing near the well.

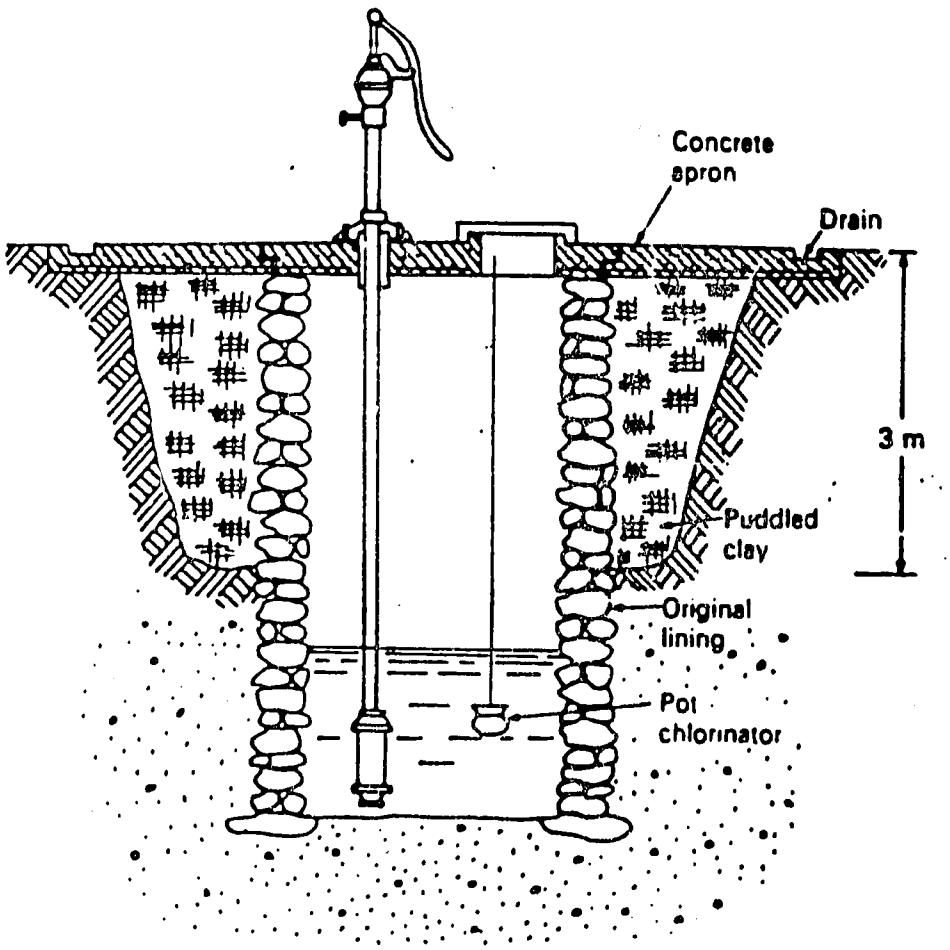
FIGURE 16.4 THREE PROTECTED SPRINGS CONNECTED TO A SLIT TRAP



Three protected springs connected to a silt trap

208

FIGURE 16.5 WIDE DIAMETER HAND-DUG WELL



(5) Surface water: This may be washed straight down the well, especially if the ground surface has sunk, as is often the case when the well does not have an adequate lining. It can be prevented by building a headwall which will also help to prevent animals and people from falling into the well.

(6) Spilt water: If there is no headwall, or if people stand on the headwall to draw water, water which has splashed against their feet can fall back into the well.

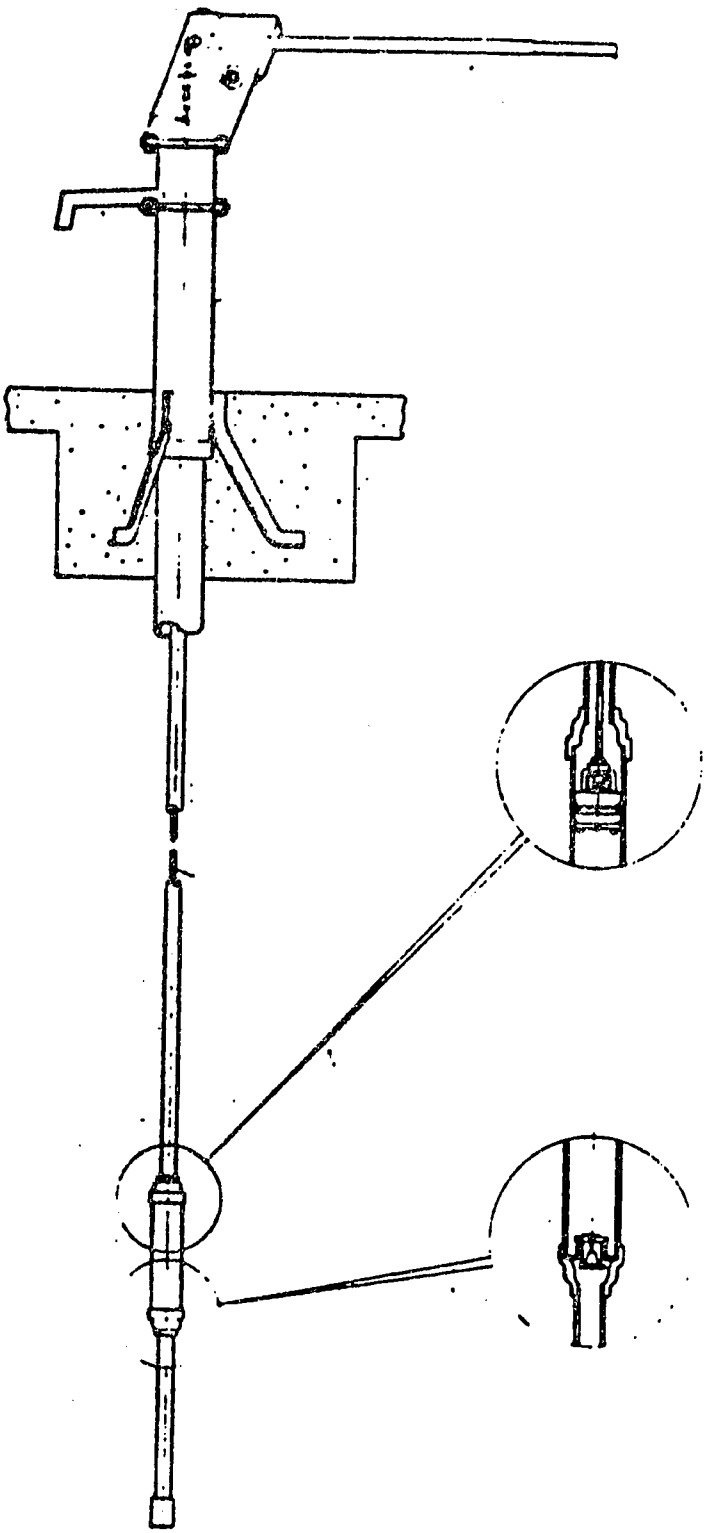
Drilled Wells: Properly constructed and maintained drilled wells are generally superior to hand-dug wells since they are virtually pollution-free. However, a breakdown in the installed handpump renders the well unusable. Therefore, for drilled wells, the choice of handpumps and their maintenance is extremely important. Based on the following criteria, the India Mark II handpump (Figure 16.6) is considered the pump most responsive to the environment in Zaire:

1) The pump should be as simple as possible and easy to repair.
2) The maintenance required must be easy to carry out and not required too frequently.
3) Manufacture should not present major quality-control problems and should preferably be undertaken in the country where the pump is to be installed.
4) The pump must be reliable.
5) The pump should be resistant to abuse, vandalism, and theft of parts.
6) It should be acceptable to users and produce water at an acceptable rate.
7) It should be suitable to local hydrogeological conditions, e.g., depth of water table and corrosiveness of groundwater.
8) The pump should be provided with a basic maintenance tool kit and clearly illustrated installation instructions.
9) The price should be as low as possible.

(c) Gravity-fed Distribution Systems: Of all the SANRU II water interventions, distribution systems using gravitational pressure are expected to reach the greatest number of beneficiaries. A number of water brigades in Zaire have been actively employing this system with widespread acceptance because of its flexibility and ability to solve medium- to large-scale water-supply problems (populations from 1,000 to 20,000 can benefit from one of these types of interventions).

Gravity-fed distribution systems are preferred over mechanically powered ones because of their simple construction and easy maintenance by local development committees. Essentially, water from a spring situated at an elevation above its desired destination is captured and channelled through a main feeder line. Public fountains are placed strategically along the main feeder line and branch lines. Generally private taps are disallowed, however, installations at medical and other public facilities are common and many times are the primary object of such an initiative.

FIGURE 16.6 THE INDIA MARK II PUMP



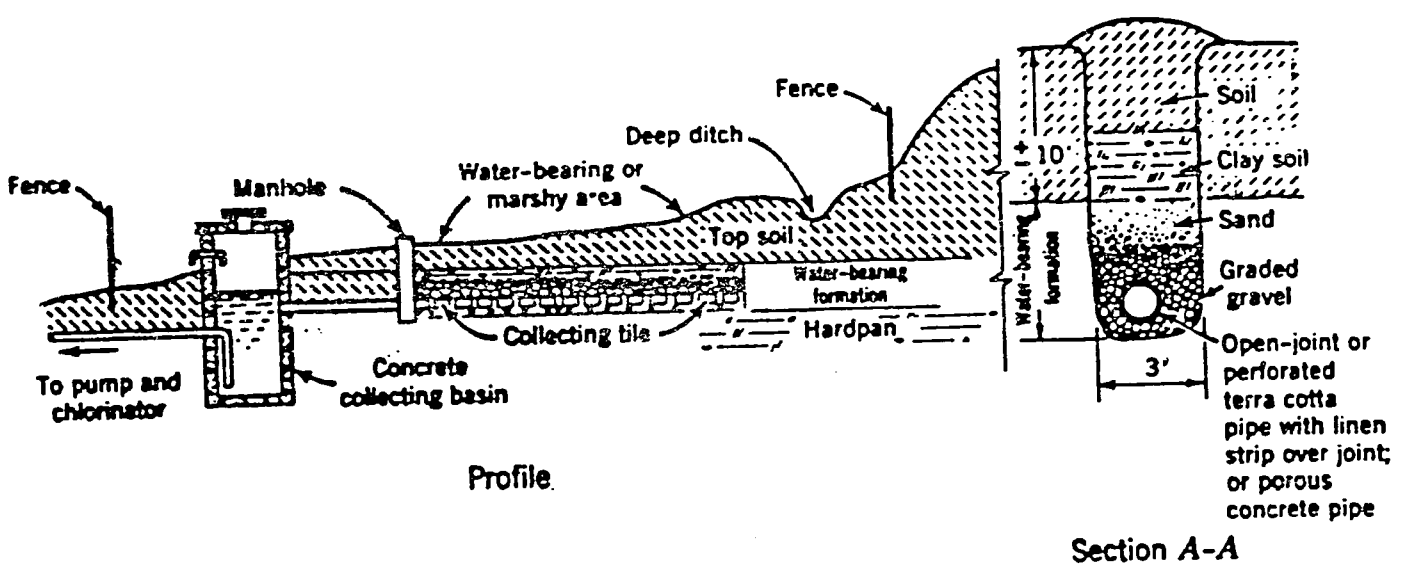
In cases where the flow rate of the spring is not sufficient to supply an adequate quantity of water during peak consumer usage and/or in the dry season, a storage reservoir is constructed. Various control devices, such as air-release valves, pressure break chambers, and control valves, are also installed according to the layout of each system. Quarterly maintenance inspections by locally trained village technicians, are normally sufficient to keep the system in good order. Major repairs or additions to the system would require intervention by the RWC and/or a subregional water-brigade technician. All tools necessary for general repairs can usually be found locally, but will also be provided to the RWC by the project.

(d) Pump-assisted Distribution Systems: This intervention is used when the users reside at a location higher in altitude than that of the source of water. Pump-assisted systems require energy to force water to a point from which it can continue its way to the consumer under gravitational pressure. The energy may be produced by hydraulic (turbine or ram pump), solar (solar-energy panel collectors), or fossil-fuel (e.g., diesel generator) means. The suitability of each energy source will be determined on a case-by-case basis.

These systems require regular care to perform with minimal service disruption. A competent mechanic must be available locally to perform the necessary maintenance and repair service. This person's time, and (in the case of fuel driven pumps) daily fuel costs must be paid for regularly by the users, or the system will not function for long. The recurrent costs and maintenance problems of this intervention must be seriously considered before its installation. Pump-assisted distribution systems will be constructed only for institutions with a technical and financial base strong enough to resolve the maintenance and recurrent fuel and spare-parts costs involved.

(e) Infiltration Galleries: An infiltration gallery consists of a system of porous, perforated, or open-joint pipe or other conduit draining to a receiving well. The pipe is surrounded by gravel and located in a porous formation such as sand and gravel below the water table. The collecting system should be located 20 feet or more from a lake or stream, or under the bed of a stream or lake if installed under expert supervision. It is sometimes desirable, where possible, to intercept the flow of groundwater to the stream or lake. In such cases, a cut-off wall, or puddled clay dam is carefully placed between the collecting conduit and the lake or stream to form an impervious wall. It is not advisable to construct an infiltration gallery unless the water table is relatively stable and the water intercepted is free of pollution. The water-bearing strata should not contain cementing material or yield a very hard water as it may clog the strata or cause incrustation of the pipe, thereby reducing the flow. An infiltration gallery is constructed similar to that shown in Figure 16.7. The depth of the collecting tile should be about 10 feet below the normal ground level, and below the lowest known water table, to assure a greater and more constant yield. An infiltration system consisting of horizontal perforated or porous radial collectors draining to a collecting well can also be designed and constructed, where hydrogeological conditions are suitable (usually under a stream bed). The infiltration area should be

FIGURE 16.7 DEVELOPMENT OF A SPRING IN A SHALLOW WATER-BEARING AREA



Development of a spring in a shallow water-bearing area.

controlled and protected from pollution by sewage and other wastewater and animals.

(f) Cisterns: A cistern is a watertight tank in which rainwater collected from roof runoff is stored. When the quantity of groundwater or surface water is inadequate or the quality objectionable, and where an adequate municipal water supply is not available, a cistern supply may be acceptable as a limited source of water. Because rainwater is soft, little soap is needed when used for laundry purposes. On the other hand, rain will wash air pollutants, dust, dirt, bird and animal droppings, leaves, paint, and other material on the roof into the cistern unless special provision is made to bypass the first rainwater. Users of the system will make sure that the first rains after the dry season are not collected into the cistern, as the water is usually highly contaminated. The cistern will need to be cleaned out and disinfected periodically. The capacity of the cistern is determined by the size of the roof catchment area, the probable water consumption, the maximum 24-hour rainfall, the average annual rainfall, and the maximum duration of dry periods.

ANNEX 8

17. PROJECT STAFFING AND TRAINING

17.1 Detailed Training Plan

17.1.1 Training for Health-Center and Village Personnel

Rural health zones will train these categories of personnel for work in health centers and villages.

Nurses and auxiliaries for health centers	2,140
Village health workers (VHWs) and traditional birth attendants (TBAs)	3,000
Health-center committees and village development committees	3,000

Not all zones will necessarily have every category of worker. Some zones find VHWs or TBAs inappropriate in their situations and have very active committees instead. Some zones are developing one type of committee more than the other. Therefore the zone itself will determine the courses it needs, arrange the logistics, and conduct its own sessions for these personnel. Zones will usually train nurses at the reference hospital; they will train the other categories at health centers or in villages. For the first three categories, SANRU II will aid the zone with costs of the basic course and two refresher courses; the project will pay half the training costs and the zone itself will provide the rest. (This shared financing is already established under SANRU I.) The last two categories (committees) will be activated and oriented at minimal expense, to be borne by the zone or the village. More details of the training are outlined in Table 17.1

17.1.2 Training for Health Zone Personnel

Eight categories of staff of rural health zone offices will be trained. The majority will be in new zones developed during SANRU II. Some will be serving in certain SANRU I zones which have not yet received a particular type of training. Some will be replacements for personnel who were trained but who are no longer in place.

Medical chiefs of zones	70
Administrators	90
Secretaries	100
Pharmacists	70
Mechanics	70
Rural water coordinators	125
Supervisors/trainers of health center nurses	200
Trainers of VHWs, trainers of TBAs, organizers of committees	150

Few, if any, health zones will have a full-time person in every category. Nevertheless, a separate training course will probably be needed for each function. All training will be done within Zaire.

In-country Training (Short-term):

During SANRU II, persons already at work in rural areas will be re-trained for their new health zone duties. Most training will occur in short (1-4 week) region-wide courses and conferences; some will occur in short national courses. After the basic training, one-week regional meetings (every year or every two years) will offer continuing education for the zone personnel and provide for interchange of ideas and experiences.

No new construction of training facilities for these courses is anticipated. Each region can probably identify one or two rural health zones that have dormitories, kitchen facilities, and classrooms, as well as access to health centers and villages for field training. For example, nursing schools, secondary schools, and church conference centers can be rented for short courses. In some cases, minor repairs and furnishings will be provided by SANRU II.

To organize these regional and national courses, the project will often collaborate with other agencies with similar needs or expertise (Expanded Program on Immunization, Catholic Medical Office, National Rural Water Service (SNHR), OXFAM, UNICEF, and the Sixth Department of the MOH). Teachers for the short-term courses will be drawn from among the faculty of the School of Public Health, medical institutes and nursing schools, national and regional health officials, and experienced personnel from established health zones. Funding of the courses will often be a joint venture, with SANRU II paying a portion of the total cost, or the per-person costs for the participants from SANRU health zones.

In-country Training (Long-term):

With the opening of the new School of Public Health in 1986, a nine-month advanced course will lead to a certificate in public health. SANRU II will sponsor a quota of zonal medical chiefs and administrators each year, a total of 72 for the life of the project. In addition, the project will sponsor public-health-certificate training for eight regional medical inspectors and eight regional PHC physicians.

After the Project:

By the end of the project, medical institutes and faculties will have started producing young graduates with basic pre-service training in primary health care. Functioning rural health zones will perhaps be able to offer practical internships for these students. Short-term training courses may no longer be necessary, though some form of continuing education such as bi-annual regional meetings will still be important.

17.1.3. Training for Regional and National Personnel

Several categories of personnel will receive advanced training through courses or conferences. Some will be staff members of the national SANRU II Project Office. Some will be government health officials with little previous training or experience in primary health care. Some will be experienced zonal medical chiefs. Some will be educators currently teaching in medical institutes and nursing schools. All will profit from updates on rural health zones and from workshops on teaching and supervising rural health workers. They will then constitute pools from which teachers can be drawn for the short-term regional and national training of zone personnel (described in the preceding section).

Teachers in medical institutes and nursing schools (ITM, IEM, ISTM)	100
Regional health officials	16
Sub-regional water engineering technicians	90
SANRU II project staff	10
Medical chiefs of zones	20
National health officials	25
National water-sanitation managers	2

In-country Training (Short-term):

Two national workshops of two weeks' duration will prepare about 50 teachers and regional officials to give the short-term training scheduled in the various regions. After they have begun teaching the courses, SANRU II will enable the teachers to make follow-up visits to their students working in rural health zones.

Each of the nation's 87 nursing schools will send an instructor to a regional conference on integrating primary health care knowledge and practice into the curriculum.

About 90 water engineers and technicians of the sub-regional water brigades will attend regional courses on managing water projects and training zonal water technicians.

In-country Training (Long-term):

SANRU II will sponsor 16 regional health officials as candidates for the certificate of public health in the nine-month course at the Zaire School of Public Health.

Out-of-country Training (Short-term):

SANRU II will sponsor 10 of its own staff, 20 zonal medical chiefs, and 25 national health officials to attend short-courses and conferences in other countries.

Three teachers of trainers (for village health workers) will take courses or apprenticeships at the WHO Training Institute at Lome.

Five persons will study community organization, probably at the Pan-African Institute for Development at Douala.

Six faculty members of nursing schools will study nursing education for primary health care at CESSI in Yaoundé or Dakar.

Twenty water engineers will attend conferences and short courses in other African countries.

Out-of-country Training (Long-term):

Two national water-sanitation managers will take a one- or two-year environmental health course at the master's level, probably in the U.S. Four additional national health officials will be sent for master's degrees in specialized subjects not available at the School of Public Health in Kinshasa.

Table 17.1 Training Plan, by Year

PART A TRAINING FOR HEALTH CENTER AND VILLAGE PERSONNEL

PART A
TRAINING AT SANRU II EXPENSE

POSITION	SUBJECT MATTER	TYPE OF TRAINING	1986	1987	1988	1989	1990	1991	1992
Nurses and auxiliaries for health centers & reference health centers	Management of health center Maternity care Family planning Pre-natal consultations Pre-school consultations Immunizations Sanitation Laboratory Curative care How to supervise VHWs & TBAs How to organize and work with communities	Short courses given by zone at hospital or health center Average numbers of nurses 2 each in 620 new health centers. 4 each in 100 new reference health centers, 10 backups in 50 new reference hospitals Total 2140 persons	Total persons to be trained: 150	540	960	1240	1230	1050	800
			SANRU II helps a zone with training costs for three years SANRU II pays half, zone pays half. The above figures allow courses in three consecutive years for each nurse or auxiliary (total 6 weeks in first year 2 weeks in second and third years)						
Village health workers (VHWs) and traditional birth attendants (TBAs)	Basic skills	Short courses given by zone trainers in villages or health centers Total 3000 persons	Persons:	450	1100	1750	1950	1600	1250
					(Each village worker has courses totaling 4 weeks in first year, 2 weeks in second and third years)				
Health-center committees and village development committees	Management of health center Community sanitation Health projects Health education	Meetings at health center and in villages (guided by H.C. nurse and zone trainers) Total 3000 committees							
			Expenses paid by village, health center, or zone. No costs paid by SANRU II.						

PART B — TRAINING FOR HEALTH ZONE PERSONNEL — PART B

TRAINING AT SANRU EXPENSE

FUNCTION	SUBJECT MATTER	TYPE OF TRAINING	1986	1987	1988	1989	1990	1991	1992
Medical Chief of Zone	Basic course: Organization of a RHZ	National course (3 weeks) 50 MCZs from SANRU II Zones, 20 replacements from I & II	Persons: 15	15	15	15	10		
	Basic course Management of a RHZ	Regional course (3 weeks) 20 from I; 50 from II	Persons: 20	15	15	10	10		
	Continuing education: Setting zone boundaries Presentation of zone Evaluation of progress Selected topics	Annual Regional Medical Conferences (1 week)	Eight region meet every year, total 250 MCZs attending. SANRU will pay these proportions of the total costs 1/2	1/2	1/2	1/3	1/3	1/4	1/4
				UNICEF, OXFAM, and/or GOZ will pay the rest.					
	Specialized course: Reproductive health 50 from SANRU II Zones	Nat. or reg. course (3 weeks)	Costs borne by PSND, CNND, JHPIEGO None by SANRU II						
	Specialized course: Bio-statistics, evaluation, operational research	Nat. or reg. course (2 weeks) 45 from I & II Zones	Persons:	15		15		15	
	Specialized courses: Selected topics	Nat. or reg. course (2 weeks) 45 from I & II Zones	Persons:		15		15		15
	Selected problems	MCZs from older zone visits new zone to give help or MCZs from new zone visits older zone to get help	Visits: 20	20	20	20	20	20	20
	Certificate in Public Health	Nine-month course at Zaire Sch Pub Hlth 48 MCZs from I and II zones	Persons: 8	8	8	8	8	8	8
			Tuition costs borne by GOZ and School of Public Health Project (?) Room and board paid by SANRU II						

PART B

TRAINING FOR HEALTH ZONE PERSONNEL

PART B

FUNCTION	SUBJECT MATTER	TYPE OF TRAINING	1986	1987	1988	TRAINING AT SANRU EXPENSE 1989	1990	1991	1992
Zone supervisors and trainers of health-center nurses	Basic course: How to train H.C. nurses How to supervise H.C.s and village activities	Regional courses (4 weeks) 50 sup. from SANRU I zones; 150 from SANRU II zones	Persons: 40	55	40	35	20	10	
	Specialised courses Selected topics	National or regional course (2 weeks) 150 sup. from I & II zones	Persons: 25	25	25	25	25	25	
	Continuing education	Regional mtngs. of superv. (1 week, bi-annual)	Four regions meet every year, total 300 attend each year. SANRU will pay these proportions of costs: 1/2	1/2	1/2	1/2	1/2	1/2	
Zone trainers of VHWs, trainers of TBAs, and organizers of committees	Basic course: How to train VHWs How to train TBAs How to discover and work with village structures How to encourage and work with health center cmtes and vill dev cmtes How to teach and motivate adults	Regional courses (4 weeks) 50 from I; 100 from II	Persons:	40	40	30	20	20	
	Continuing education	Regional meetings of trainers and organizers (1 week, bi-annual)	Four regions meet each year, total 200 attending each year. SANRU II will pay these proportions of total costs: 1/2	1/2	1/2	1/3	1/3	1/4	1/4

PART C — TRAINING FOR NATIONAL AND REGIONAL PERSONNEL (in-country) TRAINING II AT SANRU EXPENSE — PART C (In-country)

FUNCTION	SUBJECT MATTER	TYPE OF TRAINING	1986	1987	1988	1989	1990	1991	1992
Teachers in medical institutes (ITM, IEM, ISTM); and regional health officials	Update on health zones and primary health care How to give in-service training to MCZs, zone administrators, pharmacists, supervisors, trainers, etc. Officials: how to supervise rural health effectively Teachers: how to give basic pre-service training in primary health care	National workshops (2 weeks) 50 persons	Persons: 25		25				
Teachers	Follow-up of former students	visits to zones	Zones to be visited: 15	15	15	15	15	15	
Sub-regional water engineers and technicians	Update on health zones and primary health care Management of water-sanitation projects How to teach and supervise health zone water technicians	Regional workshops (2 weeks) 90 persons	20	Persons: 25	25	20			
Regional health officials	Certificate in public health	Nine-month course at UNIKIN: 16 persons	4	Persons: 6	6	Room and board paid by SANRU II			
Teachers in medical institutes (ITM, IEM, ISTM)	Integrating primary health care methods, & practice in pre-service training	Regional workshops (2 weeks) 100 persons	Persons:	50	50				

17.1 (7)

221

PART C — TRAINING FOR NATIONAL AND REGIONAL PERSONNEL (out-of-country) — TRAINING AT SANRU EXPENSE — PART C (out-of-country)

FUNCTION	SUBJECT MATTER	TYPE OF TRAINING	1986	1987	1988	1989	1990	1991	1992
National health officials and SANRU II national project staff and MCZs	Health management Program evaluation Epidemiology	Short courses (1-3 mo.) and conferences (1-3 weeks) in other countries 25 nat. officials, 10 SANRU staff, 20 MCZs	Persons (total) 8	8	8	8	8	8	7
National health officials	Master's degree in environment sciences and other specialized programs	1-2 year course in U.S.; 6 persons	Persons: 3	2	1				
Sub-regional water-sanitation engineers	Update on water and sanitation in Africa	Conferences and courses in other countries (average 3 months): 20 persons	Persons: 4	4	4	4	4		
Experienced teachers of trainers	Advance course: How to teach trainers of village-level workers	Course or apprenticeship at WHO Training Inst., Lome (3 months); 3 persons	Persons: 1	1	1				
Experienced community organizers	How to teach health personnel to analyze & organize communities	Courses at PADI, Douala (1-3 months); 5 persons	Persons: 2	2	1				
Faculty of medical institutes	Primary health care in the nursing school curriculum	Course at CESSI, Yaounde (3 months) 6 persons	Persons: 3	3					

17.2 Job Descriptions for Long-term Technical Advisors

17.2.1. Project Manager

General Description of Responsibilities - The SANRU II project manager will be responsible for overall project management in coordinating AID, ECZ and GOZ inputs to and through the SANRU project. The project manager will report to the project director.

Specific Duties and Responsibilities -

- Recruiting and hiring of project staff.
- Oversee assignment of responsibilities to project personnel and monitor their completion of individual work plans.
- Coordinate project assistance with other national programs centrally-funded projects and international agencies.
- Strengthen the ECZ and MOH capabilities in managemenmt of PHC activities.
- Represent the project on technical and planning committees of the MOH.
- Develop and oversee the project health information system, PHC documentation unit, and operations-research capacity.
- Prepare and monitor counterpart fund budgets and project reports.

Qualifications

1 - MPH equivalency with concentration in international health
2 - Minimum five years experience in working in developing countries, especially in sub-Saharan Africa, preferably Zaire.
3 - Experience in working with NGOs.
4 - French language proficiency at FSI level S-3/R-3.
5 - Experience with micro-computers and management information systems.

17.2.2. Deputy Project Manager/Rural PHC Coordinator

General Description of Responsibilities

The Deputy Project Manager/Rural PHC Coordinator will be responsible for the planning, coordination, management, monitoring, and evaluation of 100 rural health zones assisted by the SANRU project. She/he will be assigned to the SANRU II Project Office located at ECZ and will report to the project manager. Specific duties and responsibilities will include:

- Oversee the scheduling of orders, inventory control, distribution, and accountability of equipment, supplies, medicines and other commodities.
- Monitor financial disbursement of 500 renovation projects for health centers and hospitals.

- Assist RHZ personnel in developing and implementing their project action plans.
- Prepare responses to all correspondence dealing with project RHZs, including water/sanitation activites.
- Maintain the project management information system.
- Other duties as assigned by the project manager.

Qualifications:

1 - MPH equivalency with skills in management.
2 - Previous experience working in developing countries, especially in sub-Saharan Africa, preferably Zaire.
3 - Minimum two years previous experience in management of PHC programs in developing countries.
4 - French language proficiency at FSI level S-3/R-3.
5 - Experience with micro-computers and their use in management information systems.

17.2.3. Community Development Specialist/Trainer

General Description of Responsibilities - The community development specialist will assist in the promotion, organization, and evaluation of community-based PHC activities. He/she will also assist in the organization of national, regional, and RHZ training events. He/she will be assigned to the SANRU Project Office at ECZ and will report to the project manager.

Specific Duties and Responsibilities:

- Develop, implement, monitor, and evaluate models for village-development and health-center committees and their relationship to the RHZ structure, sub-regional water brigades, and other integrated development activities.
- Develop and monitor the project training plan for VDCs, VHWs, TBAs, health-center and RHZ personnel.
- Coordinate inter-project training collaboration with other national programs such as CCCD, PSND, SNHR, CEPLANUT.
- Assist with the development of national/regional courses for training in PHC management, supervision, and delivery of health services.
- Coordinate requests for short-term TA for development of special courses.
- Advise project and RHZ personnel on pedagogical techniques, training materials, and evaluation.
- Oversee financial disbursements relating to training activities.
- Establish selection procedures of candidates for short-term and long-term national and out-of-country training.
- Develop and maintain a project management information system for all training-related activities.
- Other duties as assigned by the project manager.

Qualifications:

1 - MPH equivalent studies specializing in training and community-based PHC activities.
2 - Minimum two years previous experience in developing countries, especially in sub-Saharan Africa, in community-based activities, including village development committees and village health workers.
3 - French language proficiency at FSI level S-3/R-3.
4 - Previous experience in Zaire preferable.

17.2.4. Technical Advisor: Rural Water and Sanitation Program Planning

General Description of Responsibilities

The primary objective of this position is to provide technical assistance in starting a national planning and information unit in rural water and sanitation. The unit will be based within the SNHR for administrative and logistic purposes but its specific mandate will be established by the members of the National Action Committee for Water and Sanitation (CNAEA). The unit will be involved primarily in planning for all of Zaire and will be informally involved in the water activities funded under the SANRU II project. Specifically, the technical advisor will work with Zairian counterparts to:

1) Establish and promulgate construction standard for the different types of water and sanitation interventions feasible in rural Zaire.
2) Establish regional intervention strategies based on hydrogeological, economic, and social factors.
3) Prepare the rural water supply component of the National Plan.
4) Keep an inventory of all water and sanitation projects in progress, their location and level of funding.
5) Identify NGO's that can be assisted to assume a greater technical advisory roles in supporting the development of this sector.
6) Investigate and promulgate new technologies for Zaire in this sector.
7) Plan and carry out operational research.
8) Establish a library/documentation center for this sector.

Qualifications

1) At least a masters degree in public health or sanitary engineering.
2) At least 5 years experience in program planning and development with 2 of them in sub-Saharan Africa.
3) French language proficiency at FSI level S-3/R-3 required.
4) Experience in the use of micro-computers in program development highly desirable.

17.2.5. Technical Advisor: Rural Water Field Operations

General Description of Responsibilities

The technical advisor for the water and sanitation program will be based within the SNHR and report to the SNHR Director. S/he will work with a counterpart nominated by the GOZ and will assist in program planning, coordination, and implementation, as well as monitoring and evaluation. This position will involve intensive field work/travel estimated at 50 percent of the advisor's time. Specifically, the technical advisor will:

- Participate in annual program planning.
- Participate in coordinating program inputs between SNHR and the SANRU II Office (at least 10 percent of time to be spent at SANRU II Office).
- Participate in organizing training for the water brigades and RHZ water coordinators.
- Assist in the development of technical specifications for technologies of choice for the project.
- With Zairian counterpart, supervise and implement a quality-control and increased productivity program for brigades and RHZ water coordinators.
- With Zairian counterparts, review and approve community water projects following established procedures and criteria.
- Assist brigades in developing annual workplans and implementing them.
- Perform stock control of brigade equipment and supplies.

Qualifications

1) At least a college degree in civil engineering with emphasis in water and sanitation.
2) At least 2 years previous experience in water and sanitation projects in Francophone sub-Saharan Africa, preferably Zaire.
3) French language proficiency at FSI level S-3/R-3 required.
4) Experience in program planning and mangement essential.

17.2.6. USAID Deputy Project Officer

General Description of Responsibilities

Working under the overall supervision of the public health officer, the deputy project officer will assist the Basic Rural Health II project officer in performing administrative, management, procurement and monitoring tasks essential to USAID/Public Health Office management and support of the Basic Rural Health I (660-0086) and Basic Rural Health II (660-0107) Projects..

Specifically this individual will:

- Assist in monitoring the Basic Rural Health I and II Projects, including project implementation and accountability of project resources, and assist in management of USAID project inputs.

- Arrange project procurement and prepare relevant USAID documentation (purchase orders and PIO/Cs).

- Make arrangements for and facilitate participant trainees and technical advisors, and prepare relevant documentation (including PIOs).

- Act as liaison between USAID, GOZ, and project staff, and participate in meetings and represent the Public Health Office as assigned.

- Travel to the interior to monitor project activities.

- Prepare responses to correspondence.

- Review and summarize reports.

- Research and collate information required to prepare reports.

- Prepare reports and assist in developing position and/or issues papers.

- Assist in implementing improved office-management procedures for the Public Health Office.

- Perform all other duties assigned by the public health officer.

Qualifications

1. Must have at least a college degree. Master's degree in public health (or equivalent) highly desirable.

2. Must have French proficiency at the FSI level S-3/R-3 to permit reading documents in French and working with GOZ officials.

3. Prior experience in management/administration of health programs in third-world countries, particularly in sub-Saharan Africa highly desirable

4. Training/experience with micro-computers and management information systems highly desirable.

5. Good writing skills essential.

18. ACQUISITION PLAN AND WAIVERS

18.1. (1) Overall Acquisition Plan

18.1.1. Responsibilities

a. The implementing agencies for this project will be the Ministry of Health and the Church of Christ in Zaïre (ECZ). At the same time, host country contracting for project commodities is not anticipated other than possibly a host-country contract for the procurement services of a PSA.

b. USAID/Zaïre: The project officer, USAID/Zaïre, is responsible for initiating procurement actions in coordination with the MOH and the ECZ Contracting for project commodities and services (other than that done by the PSA) will be undertaken by USAID/Zaïre. In those instances when contract costs exceed the mission's contracting authority, contracting will be completed by REDSO/WCA or AID/W. Procurement of project commodities and technical services by USAID/Zaïre will be by AID-direct contracting and will therefore be carried out in accordance with the Federal Acquisition Regulation (FAR) and AID Acquisition Regulation (AIDAR) which became effective in April 1984.

Other smaller actions, such as procurement of short-term technical services and PSCs, will be done by the USAID.

18.1.2. Commodity Procurement

a. It is envisioned that procurement of commodities will be undertaken using one of the following three methods:

(1) A major portion of the proposed project commodities will be procured using AID-direct contracting procedures. It is anticipated that USAID will procure project vehicles and motorcycles, bicycles, some hospital equipment, solar refrigerators, office and audio-visual equipment, micro-computers and water pumps. Procurement will be in accordance with the Federal Acquisition Regulation (FAR), AID Handbook 14. In instance where a contract will exceed the contracting authority of USAID/Zaïre, the contract will be executed by AID/W or REDSO.

It is estimated that approximately $ 3 million will be available to finance local currency for shelf-item procurement. A number of commodities required for this project such as office equipment, solar refrigerators and some hospital equipment are available as shelf-items. The Mission Director has determined based upon a reasonable analysis of the supply and prices of indigenous and shelf-item goods and services expected to be required, that such prices are reasonable, taking into account comparable delivery items and prices from eligible sources, and the implementation schedule of the project. Shelf-item procurement will follow the rules and procedures set forth in Handbook 1 Suppl. B, Chapter 18.

For small value procurement under $ 25,000, purchase orders will be used. Fixed price supply contract will be used for commodity procurements in excess of the small value limitation.

When procuring audio-visual equipment a worksheet PIO/C will be prepared and forwarded to AID/W (M/SER/COM/CPS) for procurement action. PIO/Cs for audio-visual equipment will also request service/repair manuals and spare parts. Packing instruction and the voltage and cycle requirements will also be stated.

Estimated cost of micro-computer equipment, software, training, T.A. and installation will be greater than $ 100,000; therefore SER/IRM review/approval will be sought.

(2) A second method of procurement will be to purchase through UNICEF. Commodities planned for procurement through UNICEF include pharmaceuticals, bicycles (if not procured directly by USAID), and, if not procured through a procurement services agent in the U.S., health-center equipment. In cases where UNICEF will be used, USAID/Zaïre will forward an AID-issued PIO/C worksheet to M/SER/COM/CPS/PS for processing and issuance in final form to UNICEF. In addition, source/origin and transportation waivers are required prior to using UNICEF, as is a justification for other than full and open competition. These waivers and the justification will be approved prior to forwarding the worksheet PIO/C to SER/COM/CPS.

(3) A final method of procurement will be the use of a procurement services agent (PSA). USAID/Zaïre is in the process of finalizing an Indefinite Quantity Contract (IQC) for procurement services. This project will draw on the IQC for procurement of hospital and lab equipment as well as other U.S.-source equipment which is not purchased directly by the USAID.

The PSA will be responsible for procurement, freight forwarding, consolidating procurements, shipping, insurance and follow-up reports. Detailed scope of work and methods of financing the PSA fee and commodities are outlined in the IQC.

b. Regardless of the method of procurement utilized, procurement actions will be initiated as soon as possible following the signing of the Project Grant Agreement and the meeting of the conditions precedent by the GOZ. A schedule of commodity procurement requirements is incorporated into the detailed implementation plan contained in this project paper. The project officer can also call upon the services of the Regional Commodity Management Office, REDSO/WCA, to assist in implementing the procurement process.

Procurement rules and regulations concerning competition source and origin, shipping, insurance, and marking requirements will be observed in conformance with AID Handbooks.

18.1.3. Commodity Eligibility

All commodities intended for procurement as part of the project are eligible for AID financing, and will be procured only from AID Geographic Code 000 (U.S. only) except for items designated for shelf-item procurement or which have an approved source/origin waiver.

18.1.4. Transportation and Insurance

Commodities will be procured on a CIF Matadi basis. Commodities will be shipped on U.S. flag carriers unless a transportation waiver has been approved. While most commodities will be delivered by sea shipment, some essential and smaller items may be shipped by air if appropriate.

Marine insurance will be placed in AID Geographic Code 000 (U.S. only).

18.1.5. Delivery Schedule

The schedule for delivery of commodities has been integrated into the implementation schedule. Due to the sometimes irregular schedule of U.S. flag carrier to Zaïre, additional time has been allowed for shipping delays and inland transportation from Matadi. The PSA contractor, if utilized, will be informed of delivery requirements in the PIO/C.

18.1.6. Shelf-Item Procurement

The project will utilize approximately $ 3 million for local cost procurement of such items as office supplies and equipment, solar refrigerators, some hospital equipment and some construction materials such as cement. Procurement using the shelf-item rules will be in accordance with Handbook 1, Suppl. B., Chapter 18.

Prices paid for locally procured commodities will be no more than the lowest available competitive prices and purchases will be in accordance with good commercial practices. Commodities on the local market that are imported from non-Free World Countries are not eligible for AID financing. Invoices for payment should state the source and origin of locally purchased materials if such a requirement is practicable. Vehicles are not eligible items under the shelf-item rule but POL, sand, gravel and other construction materials are obtainable with local-cost financing.

(2) Acquisition Plan for Water Component

The major acquisitions planned for the water component of the SANRU II water component are as follows:

1) PVC pipe totalling 860 kms in standard dimensions ranging from 1/2" through 5". Service pressure ratings of 6-bar, 10-bar and 16-bar (150,000 6-meter lengths of PVC pipe).

   8000 6-meter lengths of steel pipe in all standard dimensions

2) PVC pipe fittings (exact quantities cannot be given at this time but this is expected to be a major purchase item). This includes elbows, tees, reducters, connectors, etc.

3) Valves — approximately 2,000 steel-alloy-type valves of all standard dimensions 1/2" to 5".

   -Also included under valves are faucets. During the life of the project approximately 4,000 faucets or small-diameter (1/2" & 3/4") stop-valves would be installed.

4) Well-drilling equipment including vehicles to support the rig activities in drilling mud.

5) India Tata Mark II hand pumps - LOP - project will need about 600 of these high-lift positive-displacement pumps.

6) Blair model low-lift plastic-drop pipe hand pump 500 units for LOP.

7) CEATA air-displacement low-lift hand pump (made in Lubumbashi) — 400 units for LOP.

8) 60 centrifugal or displacement motor-drive pumps.

9) 20 hydraulic turbines.

10) 20 diesel generators.

11) 10 solar power units to drive pumps.

18.2 Waivers

Several source/origin waivers will be required. Waivers which can be identified at this time are included in Annex 10 Sec. 19.2. Additional waivers which may become necessary later will be prepared for the approval of the Director, USAID/Zaïre. Following is a summary of the requested waivers:

(a) 4-wheel-drive vehicles and motorcycles and spare parts at an approximate value of $ 2.35 million. The lightweight motorcycles required for this project are not presently manufactured in the United States. In regard to the 4-wheel-drive vehicles; these will be used exclusively in the remote rural regions of Zaïre where there is no service or maintenance support for U.S.-manufactured vehicles nor are spare parts available for U.S.-manufactured vehicles. Since the dollar value of this waiver request exceeds $ 50,000, the approval authority is the AA/AFR. USAIAD/Zaire's cabled request for approval of this waiver is attached.

(b) A source/origin waiver is required for bicycles and spare parts at a value of approximately $ 360,000. There is no maintenance or service capability in Zaïre for U.S.-manufactured bicycles. The attached waiver has been approved by the USAID Director.

(c) Health-center pharmaceuticals will be procured through UNICEF. The estimated value of the procurement is $ 925,000. A source/origin waiver and transportation waiver are required prior to procuring from UNICEF. These waivers as well as a justification for other than full and open competition (which will be sought later) have been approved by the USAID Director and are attached. They must accompany the worksheet PIO/C sent to AID/W (M/SER/COM/CPS). SER/COM/CPS will then proceed to arrange for procurement by UNICEF. For health-center equipment, a waiver for UNICEF procurement may eventually be sought, but first USAID will query the IQC PSA regarding their capacity to provide these items from U.S. sources in kit form.

(d) The water pumps required for project activities are not manufactured in the U.S., although more expensive (greater than 50 percent more), sophisticated models are. Therefore, the USAID Director has approved the attached source/origin waiver for $780,000 of water pumps.

(e) Approximately $ 75,000 worth of French language training and health education materials as well as reference books and journals will be required for project activities. The vast majority of these materials would not be available from the U.S.; therefore a source/origin waiver in the amount of $60,000 is required. The attached waiver has been approved by the USAID Director.

(3) CERTIFY THAT THAT EXCLUSION OF PROCUREMENT FROM FREE WORLD COUNTRIES OTHER THAN THE COOPERATING COUNTRY AND COUNTRIES INCLUDED IN CODE 941 WOULD SERIOUSLY IMPEDE THE ATTAINMENT OF U.S. FOREIGN POLICY OBJECTIVES AND THE OBJECTIVES OF THE FOREIGN ASSISTANCE PROGRAM. 18.2. (5)

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APPROVED:

DISSAPPROVED:

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233

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/ZAIRE

DATE: July 31, 1985

FROM: Glenn L. Post, M.D., PHO

SUBJECT: Basic Rural Health II (660-0107), Source/Origin, and Ocean Transportation Waiver Request for Bicycles and Spare Parts

Waiver Control Number 660-85-022

Problem: Your approval is requested for a source/origin and ocean transportation waiver for bicycles and spare parts from Code 000 (U.S. only) to Geographic Code 935 (free world including cooperating country).

a)	Cooperating Country	: Zaire
b)	Project	: Basic Rural Health II (660-0107)
c)	Nature of Funding	: Grant
d)	Description of Commodities	: Raleigh or equivalent European-standard (metric) bicycles plus spare parts
e)	Approximate Value	: $360,000
f)	Probable Source/Origin	: United Kingdom, Netherlands (Code 935 Countries)

Discussion: The project aims to establish a sustainable system of community-supported preventive, promotive, and basic curative primary health care to combat the ten most prevalent public health problems in rural Zaire. The project will accomplish this utilizing Peace Corps volunteers, health center nurses and village health workers stationed in 50 Rural Health Zones to promote and provide health education programs and health care services to rural populations. Bicycles will be needed by these personnel to facilitate transportation of basic medicines from the reference hospitals to the health centers and to transport health workers to and from the villages where supervision, vaccination, and other health promotive and preventive activities will take place.

Under the predecessor Basic Rural Health I Project (660-0086), 500 bicycles plus spare parts were purchased from the U.S. and delivered to rural health zones. Within two years of their use in rural areas of Zaire about half of the acquired bicycles required major repairs and additional spare parts (i.e., not purchased with the original order) which could not be found on the local market. Frequent breakdown of the U.S.-manufactured bicycles has demonstrated their inability to withstand the road conditions in rural areas of Zaire. The U.S. bicycles are not the same as European (metric) models common in the project area with respect to tires, valves, brake systems, etc., and thus would be extremely difficult to maintain. Unavailability of spare parts and the lack of maintainance and repair services for the U.S.-manufactured bicycles have hindered the delivery of promotive and preventive activities at the local level during the predecessor project (660-0086).

Justifications: The Mission's experience with Basic Rural Health I amply confirms that U.S.-manufactured bicycles do not withstand the road conditions in rural Zaire. There are no spare parts available on the local market for these bicycles and maintenance and repair services are also lacking. Mission sources confirm also that Raleigh bicycles are in common use in rural areas of Zaire. Spare parts for these bicycles are interchangeable with locally produced spare parts and Zairian mechanics are able to maintain and repair these bicycles. Raleigh bicycles are not available from the authorized Code; they are available from Europe (England or Holland). Non-AID foreign exchange is not available for this purpose. Inquiries conducted by the Mission locally confirm that no regularly scheduled U.S.-flag vessels transport commodities between Europe and Central Africa.

Recommendations: Under AID HB 1 Supp. B. Chap 5B4a(2), if "the commodity is not available from countries or areas included in the authorized Geographic Code," a source origin waiver may be granted. Moreover, under Delegation of Authority 140, Revised, you are authorized to waive source/origin nationality requirements of up to $3 million per transaction (except for motor vehicles). You also have the authority to approve a transportation waiver not to exceed 25 percent of your authority to waive source/origin. Finally, HB 1, Supplement B, Section 7B4a(5), authorizes a waiver to expand the flag eligibility requirements to allow use of vessels under flag registry of Code 899 countries (free world) when: "Eligible vessels do not provide liner service from the shipment's source to the destination country." Therefore, based upon the above justifications, it is recommended that you:

a) authorize a source/origin, proprietary procurement and ocean transportation waiver from Geographic Code 000 (U.S. only) to Code 935 (free world including the cooperating country); and

b) certify that exclusion of procurement from free world countries other than the cooperating country and countries included in Code 941 would seriously impede the attainment of U.S. foreign policy objectives and objectives of the foreign assistance program.

Approved RPodol

Dissapproved: _____

Richard L. Podol
Director, USAID/Zaire

Date: 2 Aug 85

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/ZAIRE

DATE: July 31, 1985

FROM: Glenn L. Post, M.D., PHO GP

SUBJECT: Basic Rural Health II (660-0107) Source/Origin and Ocean Transportation Waiver Request

Waiver Control Number 660-85-021

Problem: Your approval is requested for a source/origin and ocean transportation waiver from Geographic Code 000 (U.S. only) to Code 899 (free world excluding cooperating country) so that USAID, acting on behalf of the GOZ Ministry Health, can procure needed basic medicines for rural health facilities in Zaire.

a)	Cooperating Country	: Zaire
b)	Project	: Basic Rural Health II (660-0107)
c)	Nature of Funding	: Grant
d)	Description of Commodities	: Basic medicines in dosage forms and packaging units suitable for rural health facilities
e)	Approximate Value	: $925,000
f)	Probable Source/Origin	: UNICEF (Code 899 countries)

Discussion: The project aims to establish a sustainable system of community-supported preventive, promotive, and basic curative primary health care in 50 rural health zones to combat the ten most prevalent public health problems in rural Zaire. Implementation of this program will require furnishing rural health facilities with basic medicines in formulations and packaging units that are suitable for these facilities.

Information available to USAID confirm that basic medicines in formulations and in packaging units for rural health facilities are not available from the authorized Geographic Code (000). These basic medicines are available from UNICEF and STATE 172603 provides guidelines on how such procurement should be made through SER/COM/CPS/PS.

Justifications: Basic medicines in dosage forms and packaging units suitable for rural health facilities are essential to this project. Experience with the predecessor Basic Rural Health I Project (660-0086) showed that many needed basic medicines were not available in the appropriate dosage forms and packaging units from the U.S. STATE 172603 supports procurement of needed medicines from UNICEF, which can deliver the needed basic medicines in the formulation and packaging units recommended for rural health facilities in Zaire. Furthermore UNICEF currently is the only AID-approved pharmaceutical supplier which would be able to supply the needed medicines. Non-AID foreign exchange is not available for this purpose. Inquiries conducted by the mission locally confirm that no regularly scheduled U.S. flag vessels transport commodities between Europe and Central Africa.

Recommendations: Under the AA/AFR Delegation of Authority 140, Revised, the Mission Director has been granted the authority to waive source/origin - nationality requirements of up to $3 million per transaction (except for motor vehicles). The Director also has the authority to approve a transportation waiver not to exceed 25 percent of his authority to waive source/origin. Moreover, HB 1, Supp. B, Section 7B4a(5), authorizes a waiver to expand the flag eligibility requirements to allow use of vessels under flag registry of Code 899 Countries (free world) when: "Eligible vessels do not provide liner service from the shipment's source to destination country."

Based on the above justifications and under AID HB 1 B, Chapter 5B4a(2), which states that if, "the commodity is not available from countries and areas included in the authorized Geographic Code," a source/origin waiver may be granted, as well as under the authority granted you under the AA/AFR Delegation of Authority 140, Revised, it is recommended that you:

a) authorize a source/origin and transportation waiver from Geographic Code 000 (U.S. only) to Code 899; and

b) certify that exclusion of procurement from Free World countries other than cooperating country and countries included in Code 941 of specified commodities would seriously impede the attainment of U.S. foreign policy objectives and the objectives of the Foreign Assistance program.

Approved RPodol

Dissapproved: _____

Richard L. Podol
Director, USAID/Zaire

Date: 2 AUG 85

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/ZAIRE

DATE: July 31, 1985

FROM: Glenn L. Post, M.D., PHO GP

SUBJECT: Basic Rural Health II (660-0107) Source/Origin and Ocean Transportation Waiver Request for Hand Pumps

Waiver Control Number 660-85-020

Problem: Your approval is requested for a source/origin and ocean transportation waiver to permit procurement of desired hand pumps for the water component of the Basic Rural Health II.

a)	Cooperating Country	: Zaire
b)	Project	: Basic Rural Health II (660-0107)
c)	Nature of Funding	: Grant
d)	Description of Commodities	: a) India Tata Mark II, deep-well steel hand pump b) Blair Madzi pump, for small-diameter shallow wells (less than 25 meters deep)
e)	Approximate Value	: $780,000
f)	Probable Source/Origin	: India, Malawi (Code 941 Countries)

Discussion: One of the major components of the Basic Rural Health II Project is a water and sanitation program which includes the construction of shallow and deep wells in rural areas of Zaire where either the India Tata Mark II or Blair Madzi pump is considered appropriate. This project component will be under the technical supervision of the GOZ National Rural Water program (SNHR) which has specified the need for these models of hand pumps.

The India Tata Mark II deep-well hand pump is the UNICEF-recommended pump for use in Central and Western Africa. Spare parts are available locally and from near-by African countries, and maintenance and repair services can be done locally by trained technicians. The American equivalent of Mark II does not have spare parts in-country or from nearby African countries. The U.S.-manufactured pump is considered more sophisticated and more difficult to maintain and repair by the local technicians.

The Blair Madzi pump is preferred for shallow wells. It is made of plastic materials except for the head assembly which is a lightweight alluminum alloy material. This particular pump is also being used in rural areas of Zaire. It is easy to maintain and repair, and spare parts are also available locally.

Delivery to rural areas of Zaire and installation costs for Mark II pumps is estimated at $800 each and for Blair Madzi pumps delivery and installation costs are estimated at $80 each. The best available U.S. equivalent pumps are estimated to cost more than 50 percent more for delivery and installation at rural health zones level in Zaire.

Justifications: The subject supplies are essential to this AID-financed project. They are available from India and Malawi and are in use in rural areas of Zaire. The best available U.S. price is more than 50 percent higher than the selected free world price and non-AID foreign exchange is not available for the purpose. Inquiries conducted by the Mission locally confirm that no regularly scheduled U.S.-flag vessels transport commodities between India and Central Africa.

Under the AA/AFR Delegation of Authority 140, Revised, you are authorized to waive source/origin nationality requirements of up to $3 million per transaction (except for motor vehicles). HB 1 Supp B, Chap 5B4a(3) confirms also that such waivers are permitted for goods for which the lowest available delivered price from the U.S. is estimated to be 50 percent or more higher than the delivered price from a country or area included in Geographic Code 941. The Director also has the authority to approve a transportation waiver not to exceed 25 percent of his authority to waive source/origin. HB 1, Supplement B, Section 7B4a(5), authorizes a waiver to expand the flag eligibility requirements to allow use of vessels under flag registry of Code 899 countries (free world) when: "Eligible vessels do not provide liner service from the shipment's source to the destination country."

Recommendations: For the reasons presented above, it is recommended that you:

a) authorize the requested source/origin waiver from Geographic Code 000 (U.S. only) to Code 941; and

b) authorize a transportation waiver from Geographic Code 000 (U.S. only) to Code 899.

Approved RLPodol

Dissapproved: _____

Richard L. Podol
Director, USAID/Zaire

Date: 2 AUG 85

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/ZAIRE

DATE: July 31, 1985

FROM: Glenn L. Post, M.D., PHO

SUBJECT: Basic Rural Health II (660-0107) Source/Origin and Ocean Transportation Procurement Waiver Request

Waiver Control Number 660-85-019

Problem: Your approval is requested for a source/origin and ocean transportation waiver from Geographic Code 000 (U.S. only) to Geographic Code 899 (Free World), to permit procurement of needed French-language training and health education materials.

a)	Cooperating Country	: Zaire
b)	Project	: Basic Rural Health II (660-0107)
c)	Nature of Funding	: Grant
d)	Description of Commodities	: Teaching aids in French language
e)	Approximate Value	: $60,000
f)	Probable Source/Orogin	: Code 899 countries (such as United Kingdom, France, Senegal, Togo, Switzerland)

Discussion: The project aims to establish a sustainable system of community-supported preventive, promotive, and basic curative primary health care to combat the ten most prevalent public health problems in rural Zaire. Training, a major project component, will take place at the national, regional/sub-regional, and local levels for various categories of health workers. French language training materials required will include texts, flip charts, reference books, journals, flannelgraphs, film strips and color slides.

Justifications: Needed French language training materials are particularly necessary and appropriate for use under this project. It is estimated that $60,000 worth of these materials of a total of $75,000 programmed under this project are not available from the authorized Geographic Code. They are available from Code 899 countries (United Kingdom, France, Senegal, Togo, Switzerland). Subject materials are essential to this AID-financed project and non-AID foreign exchange is not available for the purpose. Inquiries conducted by the Mission locally confirm that no regularly scheduled U.S.-flag vessels transport commodities between Europe or West Africa and Central Africa.

Recommendations: For the reasons presented above and under AID HB 1, Supp. B, Chap 5B4a (2), which states that if "the commodity is not available from countries or areas included in the authorized Geographic Code," a source/origin waiver may be granted. Under the AA/AFR Delegation of Authority 140, Revised, you are authorized to waive source/origin nationality requirements of up to $3 million per transaction (excluding motor vehicles). You also have the authority to approve a transportation waiver not to exceed 25 percent of your authority to waive source/origin. Furthermore HB 1, Supplement B, Section 7B4a(5), authorizes a waiver to expand the flag eligibility requirements to allow use of vessels under flag registry of Code 899 countries (free world) when: "Eligible vessels do not provide liner service from the shipment's source to the destination country." Therefore, it is recommended that you:

a) authorize a source/origin and transportation waiver from Code 000 (U.S. only to Code 899 (free world countries); and

b) certify that exclusion of procurement from free world countries other than the cooperating country and countries included in Geographic Code 941 would seriously impede attainment of U.S. foreign policy objectives and objectives of the foreign assistance program.

Approved RLPodol

Dissapproved: _____

Richard L. Podol
Director, USAID/Zaire

Date: 2 Aug 85

ANNEX 10

19. EQUIPMENT AND SUPPLY LISTS

19.1 Medical Equipment and Supplies (for Health Centers)

	Description	Volume/Packaging	Quantity
1.	Handle of platinum		1
2.	Funnel, stainless steel		1
3.	Suture needle	DZ	2
4.	Suture needle semi-circle No. 3	DZ	1
5.	Ice pack 4 each		4
6.	Cold box (vaccine carrier)		1
7.	Needle hypodermic 18 G, 1 1/2 inch	DZ	2
8.	Needle hypodermic 20 G, 1 1/2 inch	DZ	2
9.	Needle hypodermic 22 G, 1 inch	DZ	1
10.	Steering rods (glass)	DZ	1
11.	Surgical blade	DZ	1
12.	Surgical blade handle		1
13.	Brush, hand		2
14.	Brush for test tubes	DZ	1
15.	Petri dish		5
16.	Kidney basins		2
17.	Scale (infant, hanging type), salter model or equivalent		1
18.	Scale (adult)		1
19.	Scale infant (for use in maternity)		1
20.	Compress bandage for use in maternity	ROLLS	37
21.	Hand centrifuges		1
22.	Scissors bandage straight		1
23.	Scissors bandage curved		1
24.	Scissors surgical straight		1
25.	Scissors surgical curved		1
26.	Medicine droppers	DZ	6
27.	Catheter, medium	DZ	1
28.	Cylinder graduated	500ml	1
29.	Cylinder graduated	200ml	1
30.	Cylinder graduated	10ml	1
31.	Sink for colouring agents		1
32.	Amber bottle	200ml	1
33.	Gloves, size No.7	CARTON	1
34.	Lamp alcohol		1
35.	Cover-glass	BX	10
36.	Slide (glass) (microscope)	BX	5
37.	Measuring tape		5
38.	Microscope		1
39.	Pelvimeter		1

242

Description	Volume/Packaging	Quantity
40. Bed pan		2
41. Needle holder		1
42. Test tube holder		2
43. Forceps, hemostatic without teeth		1
44. Forceps with teeth		1
45. Forceps de michel		1
46. Filter paper	DZ	1
47. Pipette, graduated 5ml		5
48. Stethoscope		1
49. Dressing jars with covers		1
50. Stethoscope obstetrical		1
51. Utility bowls		2
52. Syringes 2ml graduated	DZ	1
53. Syringes 5ml graduated	DZ	1
54. Syringes 10ml graduated	DZ	1
55. Sterilizer (pressure type)		1
56. Suture Nylon with needle 3/0	DZ	1
57. Suture, catgut	DZ	1
58. Speculum, medium		1
59. Speculum, small		1
60. Sphygmomanometer aneroid (cuff)		1
61. Thermometer, calibration centigrade	DZ	2
62. Test tubes	DZ	1
63. Test tubes rack		1
64. Test tubes for hand centrifuge	DZ	2
65. I.V. sets	DZ	10
66. Beds, type 180 (FNMA)		2
67. Gynecological table		2
68. Folding screen (3 panels)		1
69. Albuminometer		1

19.2 Basic Medicines for Health Centers, (6 months supplies)

No.	Product Description	Dosage	Volume/Packaging	Quantity One HC (of 720 HCs)
1.	Acetyl Salicylic Acid	500 mg/tab	1000 tabs/bx	50 bx
2.	Chloroquine	100 mg/tab (chloroquine base)	1000 tabs/bx	50 bx
3.	Levamisole	50 mg/tab	1000 tabs/bx	30 bx
4.	Metronidazole	200 mg/tab	1000 tabs/bx	12 bx
5.	Folic Acid	5 mg/tab	1000 tabs/bx	36 bx
6.	Ferrous sulfate	150 mg/tab	1000 tabs/bx	36 bx
7.	Procaine Peni-G	400,000 units IV/vial	100 vials/bx	6 bx
8.	Ampicillin	125 mg/5m/vial	100 vials/bx	
9.	Ampicillin	500 mg/caps	1000 caps/bx	1/2 bx
10.	Tetracycline	250 mg/caps	1000 caps/bx	3 bx
11.	Streptomycin	5 g/vial		8 vials
12.	Diatebene	Combination of Isoniazide and Thiacetazone	1000 tabs/bx	12 bx
13.	Chloramphenicol (eye ointment)	0.5%/5 g tube		120 tubes
	or Tetracycline eye ointment	1%.5 g tube		120 tubes
14.	Chloramine T	500 mg/tab	1000 tabs/bx	14 bx
15.	Benzyl Benzoate Lotion	25%	1 liter/bx	1000 bx
16.	Gentian violet powder	250 mg/bx		150 bx
17.	Mercurochrome powder	500 g/bx		150 bx
18.	Zinc sulfate eye drops	0.25%/30ml dropper bottles		22 btls
	or silver nitrate eye drops	1%/30 ml dropper bottles		22 btls
19.	Aluminum Hydroxide	500 mg/tab	1000 tabs/bx	12 bx
20.	ORS sackets			
21.	Belladona	100 mg/tab	1000 tabs/bx	5 bx
22.	Ergonovine or methergine	amp	100 amps/bx	6 bx
23.	Xylocaine Hcl	amp 1%	100 vials/bx	30 bx
24.	Vaccines (DPT, Measles Vaccine, OPV, and BCG)			

Medicines for regional diseases, 6 months supplies

No.	Product Description	Dosage	Volume/Packaging	Quantity	Disease
25.	Niclosamid	50 mg/tab	1000 tabs/bx	1 bx	Taeniasis
26.	Diethylcarbamazine	50 mg/tab	1000 tabs/bx	6 bx	onchocerciasis, other filariasis
27.	Promethazine	25 mg/tab	1000 tabs/bx	12 bx	
28.	Niaidazole	50 g/tab with dose package	10 tabs/bx	100 bx	schisto
29.	Chloramphenicol	250 mg/caps	1000 caps/bx	6 bx	typhoid
30.	Dapsone	100 mg/tab	1000 tabs/bx	10 bx	leprosy
31.	Arsobal	amp	100 amp/bx		trypano

19.3 Office Equipment and Supplies (for Rural Health Zone office)

	Description	Qty Health Center	Qty RHZ
1.	Rain coat medium size (durable)	5	10
2.	Dating machine	0	1
3.	Stapler	1	2
4.	Paper cutter	0	1
5.	Hole puncher	0	1
6.	Bucket	1	1
7.	Stamp	1	1
8.	Typewriter	0	2
9.	Slide projector	0	1
10.	Safe	0	1
11.	Filing cabinet	3	20
12.	Shelves for filing	0	1
13.	Folders	0	200
14.	Steel cabinet Pb1	0	1
15.	Steel cabinet Pb2	0	1
16.	Calculator (office type)	0	1
17.	Solar calculator	1	1
18.	Stylet for stencil	0	1
19.	Duplicator (Gestetner)	0	1
20.	Stencils	0	500
21.	Tube, ink, for duplicator	0	40
22.	Simple folders	10	100
23.	Register	4	10
24.	Duplicating paper (reams)	-	100
25.	Typing paper (reams)	2	40
26.	Chairs	5	5
27.	Tables	2	-
28.	Mail sorter	0	3
29.	Pencil Sharpner	1	1
30.	Block note pads	1	3
31.	Ruler	1	3
32.	Impermeable Briefcase	3	5
33.	Draft Note-book	0	10
34.	Retro projector	0	1
35.	Plastic paper for retro-projector	0	300
36.	Pencil for above	0	100

19.4 Training and IEC Equipment and Supplies

Reference Library for Health Center

1. Maternité et santé
   Kangu-Mayombe
2. La ou il n'y pas de Docteur
   David Werner
   ENDA
   B.P. 3370
   Dakar, Sénégal
3. Helping Health Workers Learn
   David Werner & Bill Bower
   The Hesperian Foundation
   P. O. Box 1692
   Palo Alto, California 94302 USA
4. L'enfant & la Santé
   Kangu-Mayombe
5. La Lutte contre la malnutrition
   Kangu-Mayombe
6. Infirmier, Comment faire votre diagnostic
   Kangu-Mayombe
   Dr. Daniel Fountain, Dr. Robert Johnson
   CBZO
   B. P. 4728 Kinshasa II
   (Kintambo)
7. Notions de Pharmacologie
   Kangu-Mayombe
8. Infirmier Comment Batir le Santé
   Kangu-Mayombe
9. Infirmier Comment Traiter Votre Malade
   Dr. Fountain
   CBZO Kintambo
   B. P. 4728
   Kinshasa II
10. Aide-memoire pour le dispensaire
    Kangu-Mayombe
11. Lexique medical
    Kangu-Mayombe
12. Tuberculose
    Kangu-Mayombe
13. La malaria
    Kangu-Mayombe
14. L'alcoolisme
    Kangu-Mayombe
15. Nutrition
    Kangu-Mayombe
16. Les vers intestinaux
    Kangu-Mayombe
17. La Consultation de Contraception en Afrique
    Drs. Brown
18. Rec the Disease
19. How to Look After a Fridge
20. Principles and Practice

21. Teaching for Better Learning
22. Health Sector Policy Paper
23. Under Fives Clinic: What Difference
24. Flannelgraph (Growth Chart)
25. Nutrition and Child Health Flannelgraph
26. Questioning Development
27. Growth Chart Kits (English)
28. Cole's Slide Rule Calculators
29. Insult or Injury
30. Where There is No Doctor (English)
31. Small Talks
32. Guidelines for Health Planners
33. Primary Child Care II, Guide for Community Leader
34. Request all free materials available in French
35. Sets of teaching slides, unmounted with plastic file/folder
    2 complete sets for the following:
    AmH, AmP, Bf, BL, CcO, Cd, ChD, ChG, Clg, CH, DhH, DMP, EAf, Fbr, GCr, GR, GwH, JAH, KwM, Lp, LpCn, CDTD, MI, MnC, MS, MUE, NbC, NbD, NbK, NbL, Ntr, ObTw, OnC, Pcd, PEM, PH, PhW, Sk, SkT, SpC, TbNH, TbP, TERL, Xma, XrC (24 slides per set)
36. DSG, FWa, MR (48 slides per set), 2 sets unmounted ea
37. Pca - J (240 slides), unmounted
38. Sets of teaching slides: OnC, Gcr, PCD, ChD, PhW, 50 slides per set, unmounted

Communications Filmstrips

39. Buvez de l'eau pure (Afrique)
40. La vinculture ou élérage des poissons pour avantages nutritifs et économiques
41. Un choix et non le Hasard (Afrique)
42. Un père fier
43. Les protecheurs volominaires de le santé
44. Qui doit manager l'oeuf (Afrique)
45. Essayons des nouvelles idées
46. La maladie de la farin
47. Slide & filmstrip projector plus accessories

19.5 Water and Sanitation Equipment and Supplies

The following is a list of basic equipment and to be provided to RHZs and SNHR/NGO water brigades through the SANRU II including a suggested list of equipment for the 2 stations to be equipped with drilling equipment. This is a generic list which can be modified depending on the UNICEF contributions in equipment and on-site surveys of individual water stations.

(1) RHZ Water Equipment Description List (Per RHZ)

No.	Quantity	Description	$ Budget	Z Budget
1.	1	Altimeter, portable accurate to ± 3 meters		X
2.	2	Surveyer's hand level		X
3.	1	Solar-powered business calculator	X	
4.	1	Total coliform bacterial analysis kit with incubater and millipore filters		X
5.	1	Conductivity/TDS meter, hand held with scales of 10, 100, 1000 ppm TDS		X
6.	1	Manual typewriter with French keyboard	X	
7.	1	Steel tool chest with lock		X
8.	5	Wood saw	X	
9.	2	Hack (steel saw with extra blades	X	
10.	2	1, 3, 5 kg. masonery hammer		
11.	3	Carpenter's claw hammer		
12.	10	Mason's trowell		
13.	2	Mason's level		
14.	5	Mason's shovel		
15.	2	Fine and medium sand screening boxes		
16.	5	10 kg. breaker bars (barre d'amine)		
17.	10	Spades		
18.	10	Regular shovels		
19.	10	Pick axes		
20.	10	trois dents		
21.	2	3 kg. axes		
22.	10	Heavy-duty buckets		
23.	2	1/2" - 1-1/2" spanners (Pipe Wrenches)		
24.	1	Bureau starter kit (rulers, pens, receipt books)		
25.	1	30 meter tape measure (plastic)		
26.	4	Folding meter stick (plastic)		

24B

27.	1	Surveyers measuring unicycle
28.	1 set	Table, file, chairs
29.	1	3 x 6 meter canvas tarp
30.	1	200 liter fuel drum
31.	10	hoes
32.	2	Day-pack back-packs
33.	1	Yamaha 175 AG type motorcycle with helmet and spare parts
34.	2	50 meter heavy-duty nylon cords
35.	1	pH test kit (wide range)

(2) Water Brigade Equipment List (Per Brigade)

No.	Quantity	Description
1.	2	Altimeter Portable accurate to ± 3 meters
2.	4	Surveyer's hand level
3.	4	Solar powered Hand Calculator with trigonometric functions
4.	1	Manual typewriter with French keyboard
5.	1	HF Radio
6.	1	Items Nos. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 31, 33, 34 on RHZ Water Equipment/List
7.	2	Items No. 23, 24, 25, 26, 27, 28, 29, 30, 32 on RHZ Water Equipment/Supply List
8.	1	Office Safe 1.5 cu. ft.
9.	1	HACH type portable water analysis kits for: -Alkalinity -PH (wide range) -Hardness -TDS (meter) -Iron -Dissolved oxygen
10.	1	Pipe threader 1/2" - 2"
11.	1	Pipe threader 1-1/2" - 4"
12.	1	144-piece metric tool set in carrying case
13.	2	2"-4" spanner (pipe wrenches)
14.	2	12mm iron bar cutters
15.	4	Pliers/wire cutters
16.	1	Plumbers portable vice
17.	2	Grease guns
18.	1	240 amp arch welder (optional)
19.	1	220V 3-5 hp portable generator (optional)
20.		Various technical manuals in French

(3) Equipment per Drilling Brigade (suggested)

1.	1	Trailer-mounted drilling rig (modified)
2.	1	Mud recirculating pump
3.	1	Trailer-mounted air compressor
4.	30x1.85m	Drill pipe
5.	10x8"	Drag bits
6.	10x6"	Drag bits
7.	2x6"	Air hammer
8.	10x6"	Hammer bits
9.	1	Air cleanout assembly
10.	2	Foam pumps with accessories
11.	1	Breakout wrench
12.	1	Subassembly for air hammer
13.	50	Drums foam for air drilling
14.	1	Button-bit dressing equipment
15.	1000x100lb	Sacks
16.	1 set	Spare parts for five years
17.	1 set	Tools
18.	2	Nissan Datsun 4x4 pick-up trucks (or equivalent)
19.	40	Replacement tires
20.	1	Sand-line winch

(4) SNHR National Bureau and Planning Unit Materials List

No.	Quantity	Description
1.	1	Wang-type computer with 3 terminals, 1 printer
2.	1	Apple II type computer with 1 terminal and printer
3.	2	Electric typewriters with French keyboard
4.	1	Medium-size photocopy machine with reduction and collating capabilities
5.	1	HF radio base unit with antenna
6.	4	VHF portable radios
7.	1	Polaroid instant camera
8.	1	35mm single reflex Cannon type AE-1 camera with 30-70mm telescopic lens
9.	1	Slide projector
10.	1	Screen for slides or overhead projector
11.	1	Overhead projector
12.	1	3.5 cub. ft. refrigerator
13.	2	Engineers drafting tables
14.	2	Land Cruiser type vehicles
15.	1	175cc YAMAHA type motorcycle
16.	1	6-ton long-bed Toyota-type transport truck