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DESIGN OF A NATIONAL RURAL WATER SUPPLY AND SANITATION PLAN IN ZAIRE



WATER AND SANITATION
FOR HEALTH PROJECT

Operated by
CDM and Associates

Sponsored by the U.S. Agency
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WASH FIELD REPORT NO. 171

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Prepared for
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WASH Activity No. 219

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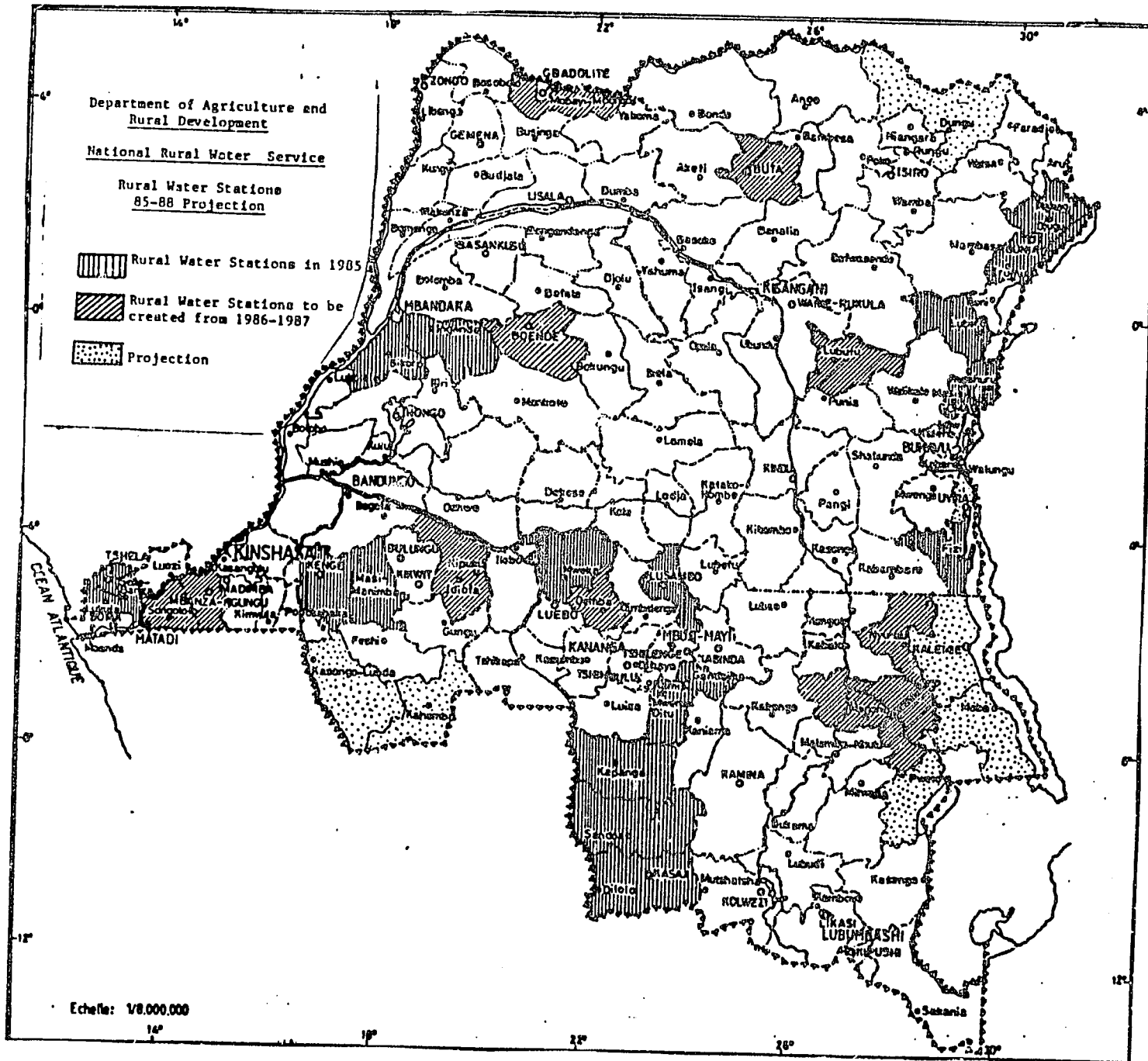
Prepared for the USAID Mission to the Republic of Zaire
under WASH Activity No. 219

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ZAIRE

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ACRONYMS

CEMDAEP	Centre des Etudes Multidisciplinaires pour le Développement de l'Alimentation en Eau Potable
CNAEA	Comité National d'Action de l'Eau et de l'Assainissement (National Action Committee for Water and Sanitation)
DSSP	Direction des Soins de Santé Primaires (Division of Primary Health Care)
ECZ	Eglise du Christ au Zaïre
ERTS	Etudes des Ressources Terrestriales par Satellite
FBI	Fonds de Bien-Etre Indigène (Local Improvement Fund)
GOZ	Government of Zaïre
lcd	liters per capita per day
NGO	Nongovernmental organization
PAZ	Priority Action Zone
PNA	Programme National d'Assainissement (National Sanitation Program)
PRINT	Programme Intérimaire de Réhabilitation Economique
REGIDESO	Régie de Distribution d'Eau de la République du Zaïre (National Urban Water Agency)
SANRU	Projet de Soins de Santé Primaires en Milieu Rural (Basic Rural Health Project)
SNHR	Service National de l'Hydraulique Rural (National Rural Water Service)
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
WASH	Water and Sanitation for Health
WHO	World Health Organization

EXECUTIVE SUMMARY

As part of a continuing process of USAID assistance aimed at strengthening water and sanitation planning capabilities of the Government of Zaire (GOZ), a two-person WASH team visited Zaire over the period 12 to 27 January 1986 to assist the National Action Committee for Water and Sanitation (CNAEA) in designing a national rural water and sanitation plan. The WASH team met daily over a two-week period with an interministerial subcommittee of the CNAEA to discuss the elements constituting a national plan, to review questionnaires and field data which the subcommittee had developed, and to develop an outline and a program for preparing a first draft of the plan.

This planning session is part of a long-term process of development of the rural water and sanitation subsector in Zaire. The main accomplishments in this process are as follows:

- | | |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| February 1981 | The CNAEA is established by presidential ordinance to be responsible for all planning, coordination, and execution of programs in the water and sanitation sector. |
| February 1983 | CNAEA organizes an international donors' conference in Kinshasa on the water supply and sanitation (urban and rural) sector. |
| September 1983 | The National Rural Water Service (SNHR) is established to provide potable water in rural areas. |
| September 1984 | A WASH team visits Zaire and outlines a five-step process leading to the preparation of a national rural water supply plan. |
| January 1985 | The CNAEA, with WASH assistance, develops draft policies and strategies for the rural water and sanitation subsector. |
| May 1985 | The CNAEA, with WASH assistance, holds a national seminar for both GOZ and external donor organizations on the national policies and strategies. |
| October to December 1985 | A planning subcommittee of the CNAEA is established and begins data collection for the Rural Plan. |
| January 1986 | The planning subcommittee of the CNAEA, with WASH assistance, holds a two-week planning session to develop the framework of the Rural Plan. |

In the course of developing an outline and a suggested sequence of activities for the Rural Plan, the CNAEA subcommittee and the WASH team identified a number of issues requiring further consideration:

- Problems of coordination among GOZ organizations and within the donor community

- The need to better define urban versus rural populations regarding appropriate water supply and sanitation systems
- Methods of determining priority action zones
- The need for strengthened hygiene education programs
- The need for strengthened community participation programs
- Uncertainties regarding the determination of unit costs
- Budget requirements to meet national water and sanitation targets.

The conclusions of the WASH consultants are as follows:

1. The CNAEA subcommittee is now in a position to undertake the preparation of the Rural Plan in accordance with a sequence of suggested activities.
2. Several key issues need resolution:
 - a. Improved coordination is needed at the national level, in preparing a Rural Plan, and at the field operational level.
 - b. Operational procedures for ensuring health education and community participation in rural water and sanitation programs need to be better developed.
 - c. An in-depth study is needed of external assistance likely to be available for the five-year plan period.
3. USAID has several key roles to play:
 - a. As the main donor agency in the rural water and sanitation subsector, USAID should encourage greater coordination among all involved organizations.
 - b. USAID support for the CNAEA is having an important influence on the development of GOZ institutions.
 - c. USAID should continue operational support to the rural water and sanitation subsector through SNHR and the Department of Health.

The resulting recommendations of the WASH team are as follows:

1. Recommendations to the CNAEA:
 - a. The CNAEA should encourage full participation by all relevant organizations, especially SNHR, the Department of Health, REGIDESO, PNA, and the Department of Plan, in preparing the Rural Plan.
 - b. The CNAEA should convene a quarterly meeting of all water and sanitation organizations, including GOZ, NGOs (nongovernmental organizations), and bilaterals.

2. Recommendations to USAID:

- a. USAID should encourage both the CNAEA and UNDP to exercise stronger leadership in the water and sanitation sector.
- b. USAID should request the CNAEA to prepare a work plan and expenditure reports on the Z2,225,300 (\$39,000) grant provided for preparing the Rural Plan.
- c. USAID should provide follow-up assistance to the CNAEA by having a WASH team return to Zaire to review and help revise the draft of the Rural Plan.
- d. Upon final completion of the Rural Plan, USAID should consider supporting the preparation of project proposals and the holding of a donors' conference.

Chapter 1

INTRODUCTION

In June 1985, the Executive Secretary of the CNAEA informed the USAID Mission in Kinshasa that plans were going forward to develop a national plan for water supply and sanitation in rural areas. This plan would provide program information needed by the Department of Plan to justify budget allocations in the water and sanitation sector for the Five-Year Development Plan 1986-1990 which was then under preparation. The Executive Secretary indicated that a group of national experts drawn from the CNAEA Subcommittee for Rural Water Supply and Sanitation would be responsible for preparing the plan and requested support from USAID for both technical and financial assistance for a series of field visits by a combined Zairian-United States team to gather information on the severity of needs and the availability of local resources.

During the course of subsequent discussions, it was agreed that the field investigations would be carried out by the Zairian team and that the U.S. experts would provide guidance on data collection and processing. The Water and Sanitation for Health (WASH) Project was requested to provide a team composed of a sanitary engineer and an economist. The visit of the WASH team to Kinshasa over the period 13 to 27 January 1986 coincided with the return of the Zairian experts from their field trips and permitted an evaluation of the type and quality of data they collected. The WASH consultants helped to develop a "complementary" survey of each subregion based on the recollections and judgment of each investigator. In addition, they conducted a review of planning principles for the subcommittee and participated in a discussion of the remaining steps necessary for developing a national Rural Plan.

This report describes the background to rural water supply planning in Zaire and the part played by the WASH Project in initiating the planning process. It also includes the outcomes of the two-week meeting, the issues which were unresolved at the end of the meeting, and the conclusions and recommendations of the WASH consultants.

Chapter 2

PLANNING BACKGROUND IN THE RURAL WATER SUPPLY AND SANITATION SUBSECTOR

National planning is relatively new in Zaire. The first attempt at an overall national economic plan was the Mobuto Plan which covered the period January 1981 to September 1983. This attempt was followed by PRINT (Intermediate Program of Economic Rehabilitation) for the period October 1983 to December 1985. The GOZ is now making final adjustments to its first Five-Year Development Plan for 1986 to 1990. The rural water supply and sanitation plan (hereafter called the Rural Plan), which is described in this report, is intended to be an elaboration of the programs needed in the rural water and sanitation subsector over the five-year plan period.

Before 1984, the GOZ had not attempted to prepare any national plan, either rural or urban, for water supply and sanitation. Urban water supply is under the jurisdiction of REGIDESO, whose origin dates back to 1929. Following various administrative reorganizations in 1966 and 1973, REGIDESO was constituted as a public enterprise along parastatal lines in 1978. As such, it works outside of direct ministerial control and is responsible for its own budget and methods of operation. In 1984, REGIDESO began preparing a national urban water supply plan as input to the impending Five-Year Development Plan of 1986 to 1990.

Rural water supply efforts in the pre-1960 colonial period were centered on the Fonds de Bien-Etre Indigène (FBI), which constructed wells, boreholes, and protected springs in many parts of Zaire. After independence, the FBI was terminated and the burden of rural water supply improvements rested with missions and various NGOs. In 1978, the predecessor of the National Rural Water Service (Service National d'Hydraulique Rurale, or SNHR) began operating in a limited number of rural areas with material support from UNICEF. SNHR was formally reconstituted as a national service in September 1983 (Arrêté No. 0019 of 19 September 1983), under the Ministry of Agriculture and Rural Development, and given responsibility for the provision of potable water in the rural areas. At the time of this administrative change, SNHR prepared a list of projects for a five-year program expansion over the period 1983 to 1988.

Rural sanitation responsibilities are divided between the Department of Public Health and the Department of the Environment, Conservation of Nature, and Tourism. The National Sanitation Program (Programme National d'Assainissement, or PNA) was created in 1981 to be responsible for planning, coordination, execution, and evaluation of activities affecting public health. In practice, however, it has little impact on the rural areas. The PNA has just prepared its first attempt at a national program of activities. The Department of Public Health has only limited responsibilities for rural sanitation. In 1982, a Division of Primary Health Care (Direction des Soins de Santé Primaires, or DSSP) was established within the Department of Public Health, with authority to integrate water and sanitation activities within rural health zones. The SANRU I and SANRU II primary health care projects financed by USAID were set up to work with DSSP.

In February 1981, the GOZ Executive Council, through presidential ordinance No. 81-023, created the National Action Committee (Comité National d'Action de l'Eau et de l'Assainissement, or CNAEA) to be responsible for all planning, coordination, and execution of programs of development and rehabilitation of the overall water and sanitation sector. The CNAEA immediately set a target of 35 percent rural and 70 urban coverage, respectively, for potable water supply by the end of the Water Decade in 1990.

Since 1981, the CNAEA has been involved in a number of planning-related activities. In June 1982, the CNAEA and WHO carried out a study to identify projects for the first phase of the Water Decade. Later that same year, in November 1982, the national political party, the Congrès du Mouvement Populaire de la Révolution, decided to develop a socioeconomic development plan for the country. The Executive Council of the GOZ later assigned responsibility for the Five-Year Development Plan 1986-1990 to the Department of Plan. It also ordered all departments in the subsector to develop their own organizational plans for the five-year period.

The largest meeting in the water and sanitation sector to date occurred in February 1983 when the CNAEA organized an international donors' conference in Kinshasa. The document, produced by WHO for this meeting, still provides the most complete compendium of data on existing resources and projected needs available today.

In early 1984, the CNAEA requested assistance from USAID in preparing a national rural water supply plan. A WASH Project team visited Zaire in September 1984 and recommended a process of institutional development and planning-related activities leading to the eventual preparation of a national plan. These recommendations were accepted by the GOZ and, with WASH assistance, have led to the formulation of national policies and strategies in the rural water and sanitation subsector (January 1985) and the holding of a national seminar on these policies (May 1985). The GOZ has also agreed to set up a permanent planning unit within SNHR but, as of January 1986, had not yet done so.

Throughout 1985, work progressed on the Five-Year Development Plan for 1986 to 1990. To adhere to the timetable for developing a rural water and sanitation plan as input to the overall Five-Year Development Plan, the GOZ turned to USAID in May 1985 for technical and financial assistance in preparing the Rural Plan. USAID responded by providing a grant to the CNAEA of 22,225,300 (\$39,000) in counterpart funds in October 1985 and by sending a two-person WASH planning team to Zaire in January 1986. While waiting for the USAID assistance to be approved, the GOZ, through the CNAEA, set up an interministerial subcommittee of senior officials in the water and sanitation sector and began initial data collection and preparation of the plan. At the same time, the Department of Plan requested all GOZ organizations active in the subsector to develop their own projections of programs and projects for the 1986 to 1990 period.

Thus, by the beginning of 1986, the Five-Year Development Plan was in draft form and was under revision; USAID had provided funds for the preparation of the Rural Plan, and the CNAEA had organized and carried out a series of field visits to collect data on water and sanitation conditions. It was at this point that a WASH team arrived in Kinshasa to work with the CNAEA subcommittee on designing and developing the Rural Plan.

Chapter 3

WASH PARTICIPATION IN THE CNAEA SUBCOMMITTEE

3.1 Background to WASH Involvement

During the initial WASH visit to Zaire in September 1984, a long-term program for developing a national rural water supply plan was established. The report of WASH consultants Dennis B. Warner and Pierre R. Leger (WASH Field Report No. 135, January 1985) recommended a series of major steps, including:

1. Formulation of rural water policies and strategies (January to February 1985)
2. National seminar on policies and strategies (April 1985)
3. Establishment of a permanent planning unit (April 1985)
4. Preparation of a national rural water plan (June to August 1985)
5. Preparation of an overall national water supply plan (September 1985).

For the preparation of the national rural water plan (Step 4), the WASH report recommended that USAID provide three short-term consultants for a total of 12 person-weeks to work with the permanent planning unit.¹

The follow-on WASH team of James T. Thomson and Fred R. Weber, which assisted the CNAEA with the development of national policies and strategies in January 1985, reiterated the foregoing recommended program, including the use of short-term consultants for the preparation of a national rural water (and sanitation) plan (WASH Field Report No. 142, May 1985).

Following the completion of the national seminar in May 1985, the GOZ wanted to begin work on the preparation of the rural water and sanitation plan in order to make it available for incorporation into the Five-Year Development Plan for 1986 to 1990, which was to be assembled later in the year. A lack of funds, however, prevented the establishment of the permanent planning unit and the initiation of planning activities. In June 1985, the CNAEA requested financial and technical assistance from USAID for preparing the rural plan. The CNAEA submitted terms of reference for two consultants, a sanitary engineer and a planner, to spend a total of 12 person-weeks working with five to ten Zairian counterparts on institutional analyses, field trips, and program development. A budget for GOZ expenses totalling Z1,496,000 (later increased to Z2,225,300) was also included in the request. Subsequent discussions between USAID and the CNAEA and the Department of Plan resulted in the transfer of Z2,225,300 in counterpart funds to the GOZ on 22 October 1985 for the preparation of the Rural Plan. USAID authorized this larger sum to obtain detailed information on the status of SNHR field brigades.

¹Initial discussions between the CNAEA and WASH were directed toward the establishment of a national plan for rural water supply only. Rural sanitation was added after the foregoing program was recommended.

The WASH office was first notified of the GOZ request in July 1985 when the USAID Mission cabled the terms of reference for consultants submitted by the CNAEA the previous month. The Mission indicated in the cable that a number of issues remained unresolved, including funding of GOZ costs, start date, duration of consultancy, and the necessity for WASH participation in the field studies. Until these issues could be resolved, WASH was informed not to make any specific travel plans.

On 16 October 1985, the CNAEA gave the USAID Mission its work schedule for preparing the Rural Plan. The CNAEA indicated that a seven-person interministerial team of senior officials under the direction of the deputy executive secretary of the CNAEA had been appointed and was scheduled to begin work on 1 November. The Mission informally alerted WASH of this timetable in late October and on 1 November cabled the formal request for WASH assistance to begin work as soon as possible. The cable indicated that the consultants would be expected to spend two weeks on identifying analytic variables, developing a questionnaire for field visits, and preparing a draft outline of the plan. After a period of data collection by the GOZ, the consultants would be expected to return to Zaire for another two weeks to assist in data analysis and report preparation.

Because of some difficulty in identifying acceptable consultants, as well as scheduling conflicts within the CNAEA subcommittee, the arrival of the WASH team was delayed until the second week of January. On 12 January 1986, Dennis B. Warner, economist/planner, and Prescott A. Stevens, sanitary engineer, arrived in Zaire for a two-week working session with the subcommittee. The team completed the assignment and departed Zaire on 27 January 1986. They proceeded to Brazzaville and Geneva to brief the WHO Regional Office for Africa (29 January) and the WHO headquarters (3 February) on the status of USAID/WASH activities in Decade planning in Africa.

3.2 Scope of Work

The original scope of work for the WASH team was based on the USAID Mission cable (Kinshasa 18367) of 1 November 1985, which called for two consultants to undertake a two-phase assignment. This report describes the work performed during Phase I, as follows:

Phase I (January 1986)

- a. Refine the terms of reference for the activity.
- b. Assist in determining what data need to be collected.
- c. Determine the types of analyses that will be necessary after the data are collected.
- d. Assist the Zairian team members in clarifying their roles and responsibilities in the data-collection process.
- e. Assist in identifying analytic variables for a national rural water supply and sanitation plan.

- f. Assist in developing a planning model applicable to Zaire.
- g. Assist in formulating an outline for the plan.
- h. Assist in developing a questionnaire for data collection for the plan.
- i. Orient the Zairians in data-collection techniques and methods.
- j. Assist in developing a timetable for data collection and analysis.
- k. Assist in running a series of working meetings with the Zairian team to address the foregoing points.
- l. Prepare a report for USAID describing the foregoing process and making necessary recommendations for Phase II.

Phase II (March/April 1986)

- m. Assist in analyzing the data.
- n. Assist in preparing the plan.
- o. Prepare a WASH report for USAID describing the planning process and outcomes and including any recommendations for future assignments and/or follow-on activities.

3.3 Methods of Work

The CNAEA subcommittee that was assigned responsibility for preparing the draft of the rural plan consisted of the following seven officials:

<u>Name</u>	<u>Training</u>	<u>Organization</u>
Kadima Mwamba	Economics and Finance, Ph.D.	Deputy Executive Secretary, CNAEA
Sowa Lukono	Hydraulics Engineering Technician	Director, SNHR
Kabeya Mukeni	Chemical Engineer	Director, PNA
Muba Kabanza	Sanitary Engineer	Director, Department of Public Health
Ntangala Kayilu	Economist	Director, Department of Plan
Bangunguloend'a Namba	Civil Engineer	Deputy Director, REGIDESO
Kalala Muamba	Hydrogeologist	Head, Program Division, ERTS

Meetings of the subcommittee were held every morning and occasionally were extended into the afternoons. The deputy executive secretary of the CNAEA acted as chairman of the meetings while the representative of the Department of Health served as rapporteur. All of the subcommittee members, except the representative of the Department of Plan, attended at least one meeting. The effectiveness of the discussions was seriously reduced, however, because the designated representatives of SNHR, PNA, and REGIDESO attended only one or two meetings (although alternative representatives were sent by these organizations).

The daily program for the two-week session was based on a preliminary agenda suggested by the WASH consultants. This agenda was intended to cover all essential topics relevant to preparation of a rural water and sanitation plan. In setting up the final program (shown in Appendix C), the chairman of the subcommittee included a meeting with the executive secretary of the CNAEA, Cit. Tshiongo Tshibinkubula wa Tumba; a meeting with representatives of UNDP, WHO, and UNICEF; and visits to the offices of RFGIDESO, SNHR, PNA, CEMDAEP, and SANRU.

For much of the two-week session, there was some uncertainty among the WASH consultants regarding who was to be responsible for presenting the topics listed on the agenda. The WASH team assumed that the meetings of the subcommittee would be working sessions led by the chairman who would introduce topics and either lead the discussions himself or assign one of the subcommittee members responsibility for leading the discussion. From the scope of work and initial meetings with USAID and CNAEA officials, the consultants assumed their roles were to be those of advisors and commentators on the overall planning process. As it turned out, however, they were expected to introduce and lead the discussions on most of the topics. Because the WASH team had not come with specific lecture topics prepared in advance, it became necessary to prepare agenda materials the night before the topic was discussed by the subcommittee. The overall result of this basic misunderstanding of the role of the consultants was that the daily discussions were not as well organized and did not elicit as much participation of the subcommittee members as they might have with more advance preparation. Participation in the discussions was limited further by the absence at the subcommittee meetings of several designated representatives of the executing agencies.

At the end of the two-week session, the subcommittee met with the executive secretary of the CNAEA and reviewed the progress of the meeting. The main discussions held during the overall session were summarized in written minutes which were formally approved by the subcommittee chairman; the representatives of the Department of Health, SNHR, PNA; and the WASH consultants. These minutes are attached as Appendix F.

Chapter 4

OUTCOMES OF MEETING

4.1 Structure of the Plan

The structure of the Rural Plan adopted by the subcommittee follows the model established by the Department of Plan for all sectors included in the Five-Year Development Plan 1986 to 1990. Before accepting this model, however, the subcommittee spent several sessions discussing the essential elements in national water and sanitation planning, reviewing WHO documents on the Water Decade, and using as examples Decade plans prepared for other countries. The WASH consultants also presented a provisional outline of a rural Decade plan for Zaire to the subcommittee. This outline was subsequently revised to follow the format set up by the Department of Plan and, with minor changes, was adopted by the subcommittee as the basis for the development of the Rural Plan. The report of the subcommittee mentioned that the outline might be modified during the preparation of the final document.

As shown in Figure 1, on the following pages, the Rural Plan will be developed in four sections:

1. Diagnostic Information
2. Objectives
3. Strategies and Policies
4. Programming Elements.

The first section, Diagnostic Information, will contain general information, baseline data, water and sanitation needs, and the status of available resources. Section 2, Objectives, includes the specific year-to-year targets for various types of water supply improvements and for latrines as well as the populations served by each. The total populations to be supplied with potable water by 1990 and 1991 have been set by the GOZ at 35 percent and 50 percent, respectively, of the rural total. No other targets have been established. The annual figures for water systems, latrines, and populations served will be determined in later analyses.

The third section, Strategies and Policies, consists of the national goals for rural water and sanitation which were established last year by the GOZ with the aid of USAID and the WASH Project. The final section, Programming Elements, will contain the core of the Rural Plan. This section will present all of the coverage and support programs necessary to expand and maintain water and sanitation services in the rural areas as well as indicate priority action zones for initial implementation. Also included here will be the plan budget, allocation of responsibilities, and a timetable for program activities.

4.2 Objectives of the Plan

Basic policies and strategies for the rural water and sanitation subsector were drafted by the CNAEA in January 1985 and then revised and officially adopted by the GOZ at a national seminar held in May 1985. Because these

1. Subsector Review

1.1 General Description

- 1.1.1 Geography
- 1.1.2 Water Resources
- 1.1.3 Demography
- 1.1.4 Socioeconomics
- 1.1.5 Administration
- 1.1.6 Health

1.2 Current Water Supply and Sanitation

- 1.2.1 Water Supply
- 1.2.2 Sanitation

1.3 Subsector Institutions

1.4 Pertinent Legislation

1.5 Planning Background

1.6 Subsector Needs

- 1.6.1 Water Supply
- 1.6.2 Sanitation
- 1.6.3 Major Problems and Constraints

1.7 Available Resources

- 1.7.1 Institutional Resources
- 1.7.2 Human Resources
- 1.7.3 Equipment and Material
- 1.7.4 Financial Resources

2. Objectives

2.1 Water Supply

	1986	1987	1988	1989	1990	1991	TOTAL
NUMBER OF WATER POINTS							
Sources							
Wells without pumps							
Wells with pumps							
Boreholes							
Piped systems							
Populations served							

Figure 1

Outline of National Rural Water and Sanitation Plan

2.2 Sanitation

	1986	1987	1988	1989	1990	1991	TOTAL
Number of latrines							
Population served							

3. Policies and Strategies

- 3.1 Policies
- 3.2 Strategies

4. Programming Elements

4.1 Coverage Programs

- 4.1.1 Selection Criteria for Priority Action Zones (PAZ)
- 4.1.2 Selection Criteria for Projects
- 4.1.3 Appropriate Technology
- 4.1.4 Rural Water Supply
 - Coverage Standards
 - Unit Costs
- 4.1.5 Rural Sanitation
 - Coverage Standards
 - Unit Costs

4.2 Support Programs

- 4.2.1 Training
- 4.2.2 Hygiene Education
- 4.2.3 Community Participation
- 4.2.4 Information System
- 4.2.5 Appropriate Technology

4.3 Plan Implementation

- 4.3.1 Roles and Responsibilities
- 4.3.2 Program and Project Preparation
- 4.3.3 Schedule of Activities

4.4 Plan Financing

- 4.4.1 Investment Costs
- 4.4.2 Recurrent Costs
- 4.4.3 Possibilities of Enlarging Internal and External Resources

4.5 Monitoring and Evaluation

- 4.5.1 Performance Control
- 4.5.2 Financial Control
- 4.5.3 Periodic Evaluation

Figure 1 cont'd

important issues had been already resolved, the subcommittee concentrated its attention on the specific objectives of the Rural Plan, especially the size of the rural population needing to be served with potable water and the number to be served by the end of the plan period.

A first provisional draft of the Five-Year Development Plan (prepared by the Department of Plan) stated that the CNAEA has set water service objectives for the Water Decade of 70 percent of the urban population and 35 percent of the rural population. The committee, however, decided on a higher target of 50 percent of the rural population in 1991. This figure was first mentioned by President Mobuto in his reinaugural speech of November 1984 and was subsequently included in the policies and strategies document, which was approved in May 1985.

In applying the target percentages of people-to-be-served, the subcommittee had some difficulty in determining the actual rural population. Provisional information from the national census of July 1984 does not indicate the rural and urban proportions of the population. It does state that there are 27 subregions, within which are found 143 zones. Total population in July 1984 was 29.7 million. In its earlier planning documents, the CNAEA had been using an estimate of 20 million rural inhabitants and 10 million urban residents. For the purposes of the Rural Plan, the subcommittee adopted the following provisional 1985 population breakdowns:

Total population = 30,000,000
Urban population = 32%, or 9,600,000
Rural population = 68%, or 20,400,000

The subcommittee was in general agreement that approximately 4.0 million rural people had been provided with potable water to date. On the basis of the rural population assumptions given above, it was shown that at least 3.7 million additional rural inhabitants needed improved water supplies to reach the 1990 goal of 35 percent coverage and a minimum of 7.25 million additional people needed water services to attain the 1991 goal of 50 percent coverage. (See Appendix F.) Plan objectives for sanitation were not discussed, and the subcommittee left open the question of how many latrines would be built and what proportion of the rural population would be served by improved sanitation at the end of the plan period.

4.3 Information Issues

4.3.1 Questionnaires

Prior to the arrival of the WASH consultants, the subcommittee had conducted field surveys in December 1985 to gather information on resources and needs in all parts of the country. The surveys were carried out by six subcommittee members who were assisted in the field by regional and zone officials. To standardize the surveys, the subcommittee prepared two questionnaires, A and B. Questionnaire A was directed at the water, sanitation, and health aspects of a subregion. It attempted to obtain subregional totals of populations served with potable water, sources and quantities of water, types and numbers of water systems, methods of waste control, clinical morbidity figures, and

types of hygiene education and medical training. This questionnaire required data from the various technical and health officials found in the subregion.

Questionnaire B was drawn up for use in a locality, which usually is either a village or a small cluster of villages contained within the smallest administrative subdivision of local government. This questionnaire dealt with the specific water and sanitation practices in the community as well as its demographic, socioeconomic, and health-related aspects. The main purpose of Questionnaire B was to give an in-depth look at the water and sanitation situation in a specific community. It was expected that several localities within each subregion would be investigated with the aid of Questionnaire B.

Although both questionnaires were directed at information needed for the preparation of the Rural Plan, the actual data they provided proved to be difficult to analyze and incorporate directly in the plan. The WASH consultants, therefore, prepared a complementary questionnaire intended to complete the information already available in questionnaires A and B and to draw out general water and sanitation observations of the subcommittee members who had participated in the field trips. The complementary questionnaire was drawn up as a means of estimating types of water sources, improved water systems, and populations served with both potable water and latrines within a subregion. The subcommittee member who had visited a specific subregion during the field trips was expected to give his best quantitative estimate of the foregoing variables and to give his qualitative assessment of the priority water and sanitation problems existing there. Questionnaires A, B, and the complementary questionnaire are included in Appendix D.

4.3.2 Data Collection

As indicated in the previous section, questionnaires A and B had been used in the field to collect data before the arrival of the WASH consultants. The complementary questionnaire, developed by the subcommittee and the consultants, was intended to provide additional information not readily available from questionnaires A and B. Because of costs, time constraints, and the difficulty of obtaining accurate data in the field, the complementary questionnaire was designed to be completed in Kinshasa by subcommittee members on the basis of data they had collected and general observations they had made during their field trips. Thus, no additional field trips were suggested. Each subcommittee member was asked to complete a complementary questionnaire for each subregion visited. Where specific information may not have been available in the field, as for example, the percentage of the rural population using a protected water source, the individual was requested to give his best estimate. Other key questions requiring estimates included the percentage of the rural population using permanent water sources, the average distance between the water source and the house, and the average daily amount of water used at the house by each person.

To demonstrate how to fill out the complementary questionnaire, the subcommittee used Haut-Uele Subregion in Haut-Zaire Region as an example. The subcommittee member who had visited this subregion provided his own information and estimates to the questions, while the rest of the subcommittee observed the process and had an opportunity to observe how the information was to be generated.

4.3.3 Data Analysis

At the request of the chairman of the subcommittee, the WASH consultants prepared data summary forms and examples of data coding for questionnaires A and B, as shown in Appendix E. These forms allow summarization of the most important information from Questionnaire A on a regional and national basis and from Questionnaire B by localities within regions. The consultants did not attempt to code all information on the questionnaires, only the most relevant for planning purposes. The method of preparing questionnaire codes, however, was explained and demonstrated with examples. The final coding and summarization of data collected in the field was left as a future activity of the subcommittee.

The WASH consultants also prepared a coding form for the complementary questionnaire, as shown in Appendix E. These forms are intended to summarize all subregional data into regional and national totals which could be used as direct input for preparing the Rural Plan. As in the case of questionnaires A and B, the coding and summarization of data from the complementary questionnaire were left as a future task.

4.3.4 Other Information Available

During the two-week meeting of the subcommittee, a number of reports and studies were introduced which contained relevant information for preparing the plan. These included the following:

1. Le Plan Quinquennal 1986-90 de Développement Socio-Economique du Zaïre (Version Provisoire No. 1) -- by Department of Plan.
2. Combien Sommes-Nous, Résultats Provisaires de la Recensement Scientifique de la Population, 1 July 1984 -- by Department of Plan and National Census Commission.
3. Profil de Mobilisation de Ressources, October 1985 -- by CNAEA and WHO, Kinshasa.
4. Rapport à la Sous Commission des Infrastructures -- by Department of Public Health.
5. Evaluation de la Décennie à Mi-Parcours, CNAEA 13th session, CNAEA/XIII/Doc. 02 -- by CNAEA.
6. (Plan for the Rural Water Sector), January 1986 -- by A. Vandenberghe, UNICEF.
7. Plan National d'Assainissement, July 1985 -- by PNA.
8. Projection des Activités de 85-88, January 1985 -- by SNHR.

Unfortunately, none of these reports were available for the use of the WASH consultants at the start of the meeting. They were introduced by various members of the subcommittee during the course of the daily sessions and,

therefore, there was little opportunity to integrate them effectively into the scheduled program.

4.4 Investment Criteria

The CNAEA had little actual cost data available to it. The unit cost of improved water supplies (of all types) was interpreted by the subcommittee as an average of Z500 (\$9.00) per person served. This amount supposedly included sanitation and associated health education and community participation costs, although no separate data on these nonwater aspects were available to the subcommittee. SNHR claimed that this average was much too high and that it could provide potable water at an equivalent cost of US \$6 to US \$7 per person served (approximately Z350 to Z400 per capita). The subcommittee decided to use Z500 per capita as a conservative measure.

Some discussion occurred on the total budget necessary for the rural water and sanitation sub-sector. Several budget estimates of Z2.3 billion to Z2.7 billion (\$40 million to 47 million) for the 1986 to 1990 plan were mentioned. No separate figures for sanitation were available. The WASH consultants prepared a crude budget estimate based upon rural population assumptions of 22 million in 1990, 22.5 million in 1991, and Z500 per person served with potable water. The resulting capital budget was Z1.85 billion (\$35 million) in 1990 and Z3.625 billion (\$64 million) in 1991 (see Section 5.7). The chairman of the subcommittee remarked that the actual 1991 figure should be closer to Z5 billion (\$88 million) because of the need to serve approximately 10 million people at Z500 each. No resolution of this budget issue was reached during the meeting.

In a separate meeting with Cit. Tshiongo Tshibinkubula wa Tumba, the executive secretary of the CNAEA, the WASH consultants were told that a legislative committee reviewing the Five-Year Development Plan 1986 to 1990 was considering budget allocations of Z9.4 billion (\$165 million) for urban water supply, Z0.4 billion (\$7 million) for rural water supply, and Z1.5 billion (\$26 million) for urban and rural sanitation. Cit. Tshiongo added that he would welcome any arguments that would help justify an increased allocation to the rural subsector.

4.5 Preparation of the Plan

4.5.1 Priority Action Zones

One of the major issues in preparing a plan intended to direct investments, especially when investment resources are limited, is the choice of priority areas to serve first. Zaire has 143 administrative rural zones but only 10 or 11 functioning SNHR water supply construction brigades. Each zone averages more than 16,000 square kilometers in area and only a limited number contain a reasonable road network.

The WASH consultants suggested that Priority Action Zones (PAZ) be established to direct initial investment allocations. Because of budget limitations, this would allow the GOZ to concentrate water and sanitation activities in these zones during the early years of the plan. An example was given of how such

zones were set up in the Central African Republic. For Zaire, the committee discussed possible criteria for selecting PAZs. It was suggested that the area included in a PAZ could be an administrative zone, which would allow an SNHR brigade to employ its work crews and equipment more effectively. A tentative general definition of a PAZ was given as a zone which has a large population in need of improved water supplies.

The committee then reviewed and revised a method of determining PAZs by ranking zones on the basis of the following four variables:

1. Population

Calculate the average population density of a zone in population per square kilometer.

2. Water shortage

Determine the deficit between the average daily quantity carried to the house and the national standard of 30 lcd.

3. Water-related illness

Calculate the percentage of water-related illnesses in the total illnesses reported to health facilities.

4. Distance to water

Compare the average distance to water with the national standard of 500 meters.

4.5.2 Project Selection

The subcommittee reviewed tentative criteria for selecting projects for implementation in the field. Although specific procedures for project selection are unnecessary for preparing the Rural Plan, the subcommittee believed that there is a need for the executing agencies to develop improved selection criteria. The following general criteria were accepted as being important for rural water projects:

1. Criteria for need

- Large population
- Few protected water sources
- Water shortages occur
- Long distances to collect water
- High incidence of water-related illnesses
- Existence of a center of interest (dispensary, school, market, etc.)

2. Criteria for community participation

- Existence of a local development or health committee
- Village provides manual labor

- Village supplies locally available materials
- Village participates in planning, construction, and management of the installations
- Village accepts full responsibility for routine maintenance

3. Criteria for technical design

- Maximum distance from the house to the water source is 500 meters
- System must be protected from surface pollution
- System capacity is at least 30 lcd
- Unit costs not to exceed Z500 per capita
- Manual appropriate technology

The committee also accepted the argument that the existence of access roads could be a factor affecting the priority of the area.

4.5.3 Capacity Studies

To initiate planning process and establish an initial basis for the Rural Plan, the WASH consultants suggested that capacity studies be carried out on each organization associated with the rural water and sanitation subsector. Each capacity study should be done by the individual organization itself and should indicate the maximum output the organization can produce for each year of the plan given the resources it expects to have during that year. For example, SNHR could project the number of drilled wells, piped systems, and handpumps it could install, as well as populations served, for each year of the plan. In a similar manner, all other organizations should project their own outputs based upon full capacity. By summing up on a year-to-year basis all capacity outputs of the various organizations involved in the subsector, a rough, first estimate of expected capacity could be determined.

Where shortfalls occur between populations served under expected capacity and populations needing to be served to reach plan targets, particular attention to resolving these differences must be given. It may be possible to reduce shortfalls by changing the operations of some organizations or by increasing the flow of resources (money, equipment, personnel) into the subsector. Although specific solutions cannot be defined in advance, the use of capacity studies in the foregoing manner may assist in highlighting individual organizational weaknesses and overall subsector deficiencies.

4.5.4 Key Tables Needed for the Plan

As a practical method of beginning the actual assembly of the plan document, it was suggested to the subcommittee that several key tables be prepared first and then the text associated with them be written afterwards. Five specific tables were determined to be essential to the plan:

Table 1: Water Supply Targets (shown in Figure 1).

This table should contain the types and numbers of improved water installations (protected springs, drilled wells, piped systems, and

Secteur : E A U

REGIDESO

PLAN QUINQUENNAL 1986 - 1990 - PROJETS IDENTIFIES

(Millions de zaires - Prix 1985)

PROJETS DU PEINT

Désignation du projet	Sources et Mode de financement									
	Budget	Autofinancement		Financement extérieur (D)				Total		
	Z	Z	D	Prêts		Dons		Z	D	Total
				Acquis	N/Acquis	Acquis	N/Acquis			
1. Mbuji-Mayi - eau	27,5			46,8				27,5	46,8	74,3
2. Mbandaka - eau	0,5			2,3				0,5	2,3	2,8
3. Kisangani - eau	17,0				30,4			17,0	30,4	47,4
4. Kamina - eau	3,0				37,4			3,0	37,4	40,4
5. Renforcement distribution eau à Kinshasa	102,0			58,1				102,0	58,1	160,1
6. Bukavu - eau	0,9				26,2			0,9	26,2	27,1
7. Matadi - eau	0,9				26,2			0,9	26,2	27,1
8. Likasi - eau	166,4			418,6				166,4	418,6	585,0
9. Uvira - eau	85,4							85,4		85,4
10. Etudes et collect. Hydr.	10,8				111,5			10,8	111,5	122,3
11. Rutshuru - eau	2,7				10,0			2,7	10,0	12,7
12. Kalemie - eau	6,2				50,0			6,2	50,0	56,2
13. Kikwit - eau	90,0							90,0		90,0

Figure 2. Example of Budget Table

so forth) to be built, as well as the corresponding populations to be served, for each year of the plan.

Table 2: Sanitation Targets (shown in Figure 1).

This table should list the number of latrines to be built and the populations to be served in each year of the plan. Most of these latrines will be built on a self-help basis.

Table 3: Coverage Programs

This table should be a functional one summarizing essential information on proposed coverage programs intended to expand water and sanitation services. The table should contain the following columns:

<u>Column No.</u>	<u>Column Heading</u>
1	Number and Name of Project/Program
2	Location
3	Description of Project/Program
4	Total Cost
5	Population to be Served
6	Start Date
7	Finish Date
8	Present Status (Execution, Negotiation, Study, Idea)
9	Funding Agency
10	Executing Agency

Table 4: Support Programs

This table should be a functional one summarizing essential information on support programs, such as training, hygiene education, community participation, information systems, and so forth, which are necessary for effective implementation and long-term performance of coverage programs. The same column headings shown for Table 3 can be used for Table 4.

Table 5: Budget and Finance

This table should follow the model established by the Department of Plan. Each program should be listed with its own budget and sources of financing in terms of government finance, self-financing, and external loans and grants. Figure 2 is an example of the format.

4.6 Roles and Responsibilities

Of the eight national organizations which are concerned with the water and sanitation sector, seven intervene in the rural subsector, as shown in Table 1 of this report. REGIDESO plans, builds, and operates water supplies in rural localities which can support the cost of the service. Such areas are found primarily in the suburbs of cities and a few large "rural agglomerations" (see

Table 1
 Republic of Zaire
 Institutional Structure and Responsibilities

Function Organization	General Planning	Negotiation of loans/project	Urban Water Supply			Rural Water Supply			Urban Sanitation			Rural Sanitation		
			Planning and Studies	Construction	Operation and Maintenance	Planning and Studies	Construction	Operation and Maintenance	Planning and Studies	Construction	Operation and Maintenance	Planning and Studies	Construction	Operation and Maintenance
CNAEA	x		x			x			x			x		
Department of Plan	x	x												
Department of Finance and Budget		x												
REGIDESO (Department of Mines and Energy)			x	x	x	1/	1/	1/						
SNHR (Departments of Agriculture and Rural Development)						x	x	x						
PNA (Department of Environment, Conservation of Nature & Tourism)														
Division of Roads and Drainage									x	x	x	x		
Department of Public Works									2/	2/	2/			
SANRU (Division of PHC, Depart- ment of Public Health)					x	x	x		x	x	x	x	x	x

1/ In economically well developed rural localities where the intervention of REGIDESO is justified.

2/ Only for stormwater drainage and erosion control

Source: Adapted from République du Zaire, Profil de Mobilisation de Ressources, Annex 6, prepared by the Executive Secretariat of the CNAEA in collaboration with WHO, Kinshasa, October 1985.

section 5.2.) SNHR plans, builds, and helps maintain water supplies in all other rural localities, except those assisted by nongovernmental organizations. The Department of Public Health through the Division of Primary Health Care (Direction des Soins de Santé Primaires, or DSSP) cooperates with the USAID-supported SANRU¹ Project in planning, and operating water supply systems within its project area.

In the area of sanitation PNA carries out studies and develops plans for rural sanitation systems. The Department of Health, through the DSSP, works with the SANRU Project in the promotion of rural sanitation systems within its project area. In the future, PNA may become involved in the construction and maintenance of rural sanitation systems. The director of SNHR has recommended that PNA technicians be attached to SNHR teams to demonstrate and guide the construction of village latrines when a village water supply is under construction. In addition to latrine construction, PNA is responsible for water source protection in urban and periurban areas through proper drainage and the control of insect vectors which breed or propagate in relation to water. The director of PNA would prefer that the rural sanitation work of his directorate be developed cooperatively with the Department of Public Health and the SANRU Project, where applicable.

Except for the work done by the DSSP through the SANRU project, the Department of Health does not appear to have any significant responsibilities in rural water and sanitation. In 1977, the Sanitation Service of the Department of Health was transferred to the Department of the Environment, Conservation of Nature, and Tourism, and since that time the Department of Health has had no direct responsibility for rural sanitation or water quality. The external support organizations which play an active role in assisting the GOZ with its rural water supply and sanitation programs are UNDP, WHO, UNICEF, and USAID.

4.7 Timetable for Preparation of the Plan

After reviewing the status of plan preparation and the information needed to complete the plan, the WASH team suggested a sequence of 19 activities which the subcommittee would need to accomplish in order to finish the plan. These activities are as follows:

1. Complete field reports by subcommittee members.
2. Discuss work schedule for the Rural Plan.
3. Allocate planning assignments to subcommittee members.
4. Begin drafting sections 1 and 3 of the Rural Plan.
5. Complete data processing of questionnaires (A, B, and complementary questionnaire).
6. Determine Priority Action Zones (from questionnaire results).

¹SANRU II is the Basic Rural Health Project (660-0086), being implemented by the Eglise du Christ au Zaire through the Department of Health and SNHR.

7. Prepare five-year capacity plans for each organization (SNHR, PNA, REGIDESO, DSSP, and so forth).
8. Review/revise five-year capacity plans and Priority Action Zones by subcommittee.
9. Prepare overall capacity plan for all government organizations.
10. Compare overall capacity plan with Rural Plan objectives. Determination of capacity surplus or shortfall.
11. Revise overall capacity plan to achieve Rural Plan objectives. Revision of individual capacity plans of organizations, as needed.
12. Prepare budget projections for each year of the Rural Plan.
13. Draft sections 2 and 4 of the Rural Plan.
14. Type first draft of the Rural Plan.
15. WASH team arrives to work with the subcommittee.
16. Review first draft of Rural Plan.
17. Revise first draft of Rural Plan.
18. Review second draft by CNAEA and other organizations.
19. Make final revisions to the Rural Plan.

The WASH team estimated it would require 14 weeks to complete these activities, as shown in the scheduling chart in Figure 3 on the following page. In reviewing this timetable, the subcommittee decided that the need to provide inputs to the Five-Year Development Plan 1986 to 1990 was so great that the Rural Plan would have to be completed in six weeks, starting with 27 January 1986. A new timetable for the remaining planning activities was not developed prior to the departure of the consultants.

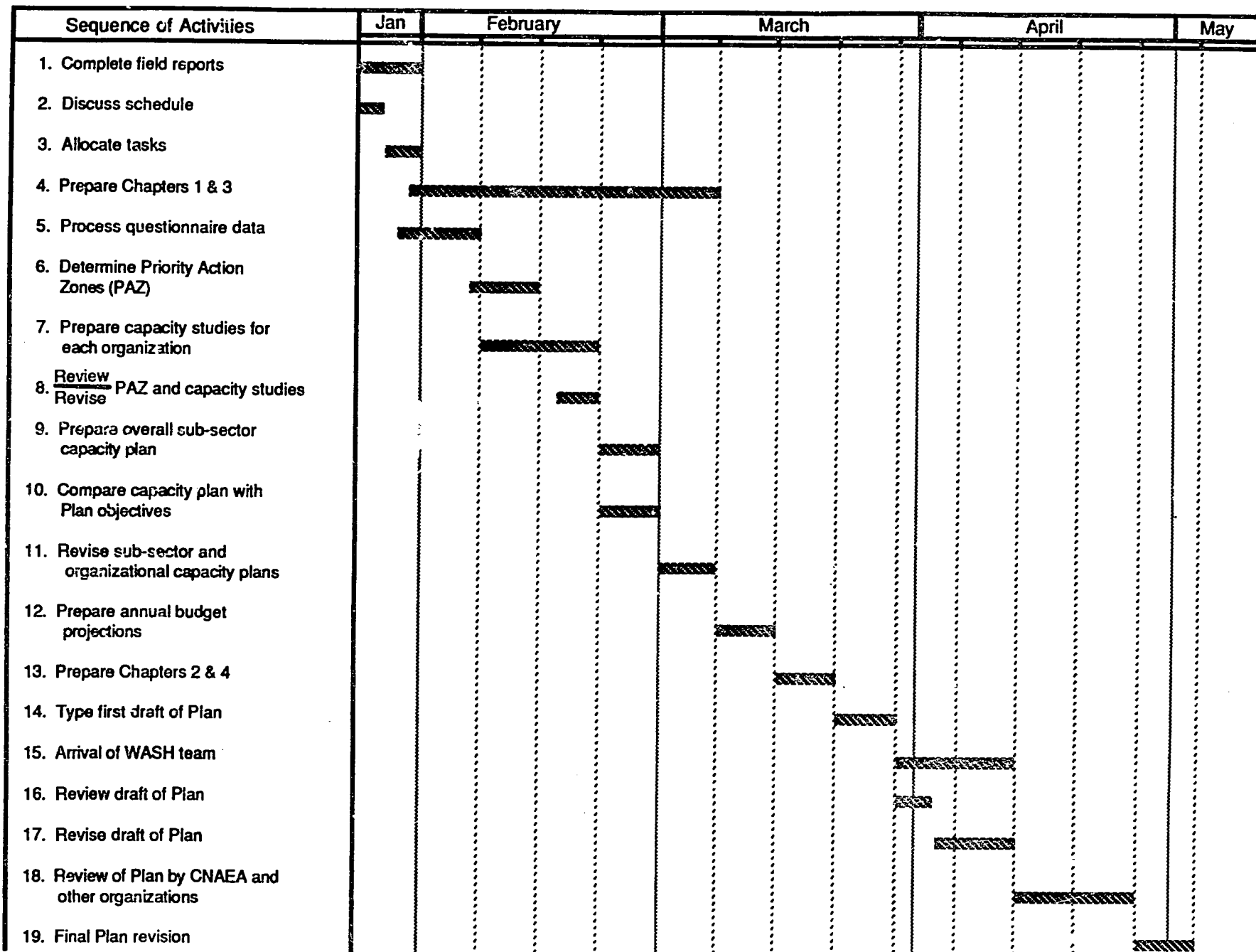


Figure 3. SCHEDULE OF ACTIVITIES TO COMPLETE THE RURAL WATER AND SANITATION PLAN

Chapter 5

UNRESOLVED ISSUES

5.1 Coordination

In the rural water supply and sanitation subsector, coordination problems of three types are discerned: general coordination, coordination in preparing the Five-Year Plan, and coordination in field operations.

5.1.1 General Coordination

Insufficient coordination exists among the planning, executing, and support agencies active in the subsector. As interest in developing rural water and sanitation services grows, the problems of lack of coordination become increasingly evident. Although some progress was made by the GOZ in organizing the subsector during the first half of the Water Decade, a number of important program needs remain, including:

- An overall master plan for the subsector
- Procedures for selecting priority action zones
- Standard designs and field operational procedures
- Systematic exchange of information
- Clear definition of present coverage.

The CNAEA and its executive secretariat, despite considerable efforts, have not had significant success in achieving these needs.

Similarly, the coordination of external assistance to rural water supply and sanitation activities in Zaire should have resulted in basic agreement between external support organizations on technical approaches, information exchange on assistance activities, and the avoidance of significant gaps and overlaps in assistance activities. Proper coordination of external assistance would also have made easier the planning procedures of the GOZ agencies.

The general absence of these desirable conditions in the Zairian rural water supply and sanitation subsector shows the need for better coordination of the individual efforts of both national executing agencies and external support organizations.

5.1.2 Coordination in Preparing the Five-Year Plan

National and external agencies have been involved for more than a year in the preparatory stages of developing a national rural water supply and sanitation plan. These stages have included the preparation of a document on policies and strategies, convening a national seminar, collecting data on conditions in all subregions of the country and, finally, outlining the plan and identifying the specific actions needed to complete it. In general, the participation by national executing agencies in these preparatory steps has been good. Moreover, the directors of all key agencies (except the Department of Plan) signed the minutes of the meeting with the WASH team. Unfortunately, the

director of the Department of Plan did not attend the meeting and was not represented, and the directors of SNHR and PNA each attended only one session. As a result, the sessions were largely devoted to presentations by the WASH team, and the ensuing discussions were far less productive than they might have been if the responsible officers had been able to take part.

5.1.3 Coordination in Field Operations

The basic field operations of most rural water supply and sanitation programs (information gathering, community mobilization, design and construction, operation and maintenance) generally involve people working for different organizations. To accomplish these tasks effectively without raising costs, the various agencies involved should agree on basic procedures and should exchange operational information regularly. They should also cooperate closely with the responsible officials and the inhabitants of the localities concerned. Cooperation in field operations exists, in part, between SANRU, SNHR, and USAID. It is, however, lacking in other cases, such as the integration of sanitation activities of PNA with the water supply activities of SNHR.

5.2 Rural-Urban Definition

A rural area is defined in the Introduction to the policies and strategies document as "any non-urbanized settlement or series of settlements inhabited by an essentially peasant population." In the provisional census publication of 1 July 1984, the population is classified into cities, urban zones and rural zones. The urban zones are essentially suburbs of cities and the rural zones meet the foregoing definition. Nevertheless, most urban zones have areas of scattered dwellings and most rural zones contain one or more medium to large "rural agglomerations" with concentrated populations of as much as 50,000 or more. Rural agglomerations are not quantified in the census document referred to above.

The SNHR is staffed and equipped to design and build small water supply systems serving communities of, at most, a few thousand inhabitants. Large rural agglomerations in some regions have already been included in the REGIDESO program, but there is no clear dividing line of responsibility between the two agencies. Until an acceptable rural-urban definition is found, the size of the target population for the Rural Plan will be uncertain, and approximations will be used (the subcommittee during the WASH team's visit assumed 68 percent of the population is rural.)

5.3 Priority Action Zones

The subcommittee considered four parameters for selecting priority action zones which are defined as zones in which water supply and sanitation improvements will be programmed during the next five years. These parameters are population density, insufficient domestic water use, water-related and filth-related diseases, and distance from the water point. The WASH consultants suggested that subcommittee members estimate the average daily water use and the average distance walked by villagers in the subregions in

which they carried out field work. These averages then should be compared with the program norms, which are 30 liters per capita per day and 500 meters, respectively, as measures of need. Average population density in the subregions was challenged by some subcommittee members as an unsuitable indicator and, instead, an estimate of population density within settlements was put forward as an alternative. Similarly, two different indicators of water-related disease were proposed: cases per 100,000 population during one year, and cases of water-related disease calculated as a percent of all recorded cases of disease during the same period. These points were not completely resolved. Moreover, time was not available to discuss methods of evaluating and ranking subregional priorities.

5.4 Health Education

The dissemination of information on water- and filth-related diseases, as well as measures of personal, domestic, and community hygiene necessary to eliminate them, appeared to be accepted as essential to the success of rural water and sanitation projects. Specific health education activities are programmed into the SANRU II project in relation to the construction of water supply and sanitation improvements, although some doubts have been expressed about the availability of trained health service staff to supervise these activities. Outside of SANRU project areas, no arrangements have been made to ensure that this important support program is implemented.

5.5 Community Participation

The policies and strategies document developed by the CNAEA indicates that the participation of communities is obligatory and that such participation should be organized and animated by village water committees. Further, where such committees do not yet exist, they should be developed by the executing agency (SNHR or NGO) before any steps are taken to build a new water supply system. The recent survey showed that villagers in most parts of the country give high priority to improved water supplies and readily agree to participate in making improvements. In at least one region, however, (Ecuator), the December field survey showed that surface and shallow groundwater are so abundant that villagers show little interest in improving their existing water supplies.

Improved domestic and community hygiene, which includes the construction and maintenance of sanitary latrines, the drainage of surface water and the cleaning of streets and collection of refuse, depends almost entirely on community motivation and action. The only inputs needed from national or private agencies are technical guidance and the provision of certain elements, such as concrete latrine slabs, plastic pipes, and insect screens to ventilate the pits and make them flyproof. The WASH team did not discern any program or budget provisions for specialized personnel and materials to ensure the implementation of this program.

5.6 Determination of Unit Costs

The WASH team found that little agreement exists between the responsible technical staff of different executing agencies and the external support

agencies regarding the unit costs which should be used in estimating program budgets. This situation is due to several factors. On the one hand, many estimates fail to take into account all program costs, including: (a) surveys, preliminary hydrogeological investigations (where required), design, construction, and operational supervision; (b) integrated or separate programs of education, training, and guidance in the localities and regional field centers; (c) organizing, staffing, equipping, and operating the regional centers and carrying out both routine preventive maintenance and major repairs to previously constructed installations, and (d) program management and technical assistance.

On the other hand, other factors which affect unit costs assumptions are: (a) average number of persons using a water point and (b) types of water points. No clear policy exists on the desirable number of users per water point and the minimum (economic) number of persons per water point. The WASH consultants were unable to find any estimates showing the proportion of different types of water points projected in each region.

5.7 Budget Requirements

To estimate the overall assumed budget requirements for the Rural Plan, the subcommittee assumed a 1985 rural population of 22.5 million persons, present coverage of 4 million persons with adequate water supplies, and an average investment cost per person of Z500, including both water supply and sanitation programs. Assuming the rural population will increase at a rate of 2 percent annually, the rural population will reach 24.8 million in 1990. The Decade goal is to cover 35 percent or 8.7 million persons by 1990, which means that the sector program should cover an additional 4.7 million persons during the five-year period. The estimated investment, ignoring cost increases and inflation, is Z2.35 billion.

The current GOZ Septennat (the presidential term of office) includes the objective of covering 50 percent of the rural population by 1991. Of the projected 1991 rural population of 25.3 million, 12.65 million should be covered, of which 4 million are already served with potable water supplies. An additional 8.7 million, therefore, should be covered during the six-year period at an estimated investment of Z4.35 billion.

The subcommittee was informed that the legislative commission which was considering the program and budget submissions of the various sector agencies had retained an amount of Z50 million (\$880,000) for the rural water supply program for 1986 and a total amount of Z400 million (\$7 million) for the five-year period 1986 to 1990. The WASH team notes that this allocation would cover approximately 17 percent of the proposed Decade program and approximately 9 percent of the proposed Septenna' program.

Chapter 6

CONCLUSIONS

6.1 Status of Preparation of the Plan

Considerable progress has been made by the CNAEA in preparing the Rural Plan. Despite delays in receiving financial and technical assistance from USAID for preparation of the plan, the CNAEA has moved ahead with planning activities because of the need to develop a rural water and sanitation plan as input to the Five-Year Development Plan 1986 to 1990. It has established an interdepartmental subcommittee to prepare the Rural Plan, and this subcommittee, in turn, has taken the initiative by developing questionnaires and carrying out data collection visits to seven of the eight regions of the country. In addition, each operational agency has prepared for the Department of Plan lists of projects to be implemented over the period 1986 to 1990.

By moving ahead with the planning activities, however, the CNAEA subcommittee has not used the USAID financial and technical assistance as effectively as had been anticipated. WASH consultants were expected to advise on the preparation of questionnaires and methods of data collection in the field. Instead, the subcommittee drew up the questionnaires and carried out the field work prior to the arrival of the consultants. Upon arrival, the consultants were informed by the CNAEA that they were expected to review the data and to provide an overall planning framework for consideration by the subcommittee. USAID was unaware of these activities being carried out by the subcommittee and, consequently, was unable to provide an accurate scope of work for the WASH consultants. Although the two-week working session of the consultants with the subcommittee was adapted to take account of these activities, a more effective series of meetings could have been prepared in advance if USAID had been informed of the work of the subcommittee.

The CNAEA is now in a position to undertake the preparation of the Rural Plan. It has carried out field data collection and it has agreed upon a planning framework. Although much of the field data are in a form which makes it difficult to use directly in planning, the costs in money and time of additional field work are unwarranted. A complementary questionnaire has been developed to assist subcommittee members in estimating the information needed to complete the plan. The remaining steps necessary to prepare the Rural Plan have been discussed by the subcommittee, which has stated that it can complete the work within six weeks. In the view of the WASH consultants, this target date is possible if the CNAEA obtains full cooperation of all key institutions and officials associated with the Rural Plan. The main steps in this process are the following:

1. Process and summarize all questionnaire data.
2. Determine Priority Action Zones.
3. Prepare capacity studies for individual organizations and for the entire rural subsector.
4. Determine annual targets to meet plan objectives.
5. Develop coverage and support programs for each organization.
6. Determine budget requirements.
7. Write text of plan.

6.2 Main Issues Needing Resolution

6.2.1 Coordination

Improved coordination between organizations is needed at three distinct levels. The first is at the national level and involves the general planning and operational activities of all organizations, including those of the GOZ, the United Nations, bilaterals, and NGOs in the water and sanitation sector. As overall activities in the rural subsector increase, there is a growing need for greater sharing of information and improved cooperation on a routine, day to day basis. Such coordination should be viewed as a means of strengthening the capabilities of operational institutions. The second level comprises the preparation of the Rural Plan by the CNAEA. This plan will not reflect the actual productive capacity and needed programs of the subsector unless all key organizations, especially SNHR, the Department of Health, REGIDESO, PNA, and the Department of Plan, fully participate in preparation of the plan. All organizations need to realize that a well-developed plan is essential for continuing budgetary support.

The third level of coordination involves the field activities of organizations having operational responsibilities. The need to integrate engineering, health, and community development efforts in rural water and sanitation projects calls for close coordination of programs and priorities by the relevant organizations. These efforts should efficiently support the work of the communities themselves. This coordination should not only be limited to the governmental sector but also should include cooperative efforts between external agencies, NGOs, and the private sector.

6.2.2 Health Education and Community Participation

Both health education and community participation are considered to be essential for effective water and sanitation projects. General procedures to ensure that these aspects occur in all projects, however, have not been well developed, nor have funds been specifically set aside for them. A need exists to establish operational procedures showing how SNHR and the Department of Health, as well as NGOs, when appropriate, should work together to provide health education and to foster community development. Additional personnel and funds must be provided.

6.2.3 Budget Requirements

The budget necessary to meet overall plan objectives (35 percent coverage by 1990; 50 percent coverage by 1991) is clearly beyond the means of the GOZ at this time. A need exists for an in-depth study and projections of both internal resources and external assistance likely to be available during the five-year plan period. Such a study might suggest a revision of the objectives of the plan or, preferably, potential new sources of external assistance.

6.3 Role of USAID

6.3.1 Coordination

As the main donor agency in the rural water and sanitation subsector, USAID could encourage greater coordination among all organizations involved in subsector activities. Improved coordination would result in several important benefits, including more rapid development of the subsector and strengthening of USAID-financed water projects (SANRU II and Shaba²). A need exists, therefore, for USAID to use its considerable financial and psychological leverage to support coordination within governmental organizations, on the one hand, and among the donor community on the other.

6.3.2 Planning

USAID has been the prime mover in developing and supporting the process of national water and sanitation planning in Zaire. For the first time in its history, the GOZ is about to develop a national rural plan in this sector. Support for this process is allowing USAID to have an important influence on the development of key GOZ institutions. For these reasons, USAID has unique opportunities to support the CNAEA and, in particular, the development of a rural water and sanitation plan.

6.3.3 Operations

As a result of USAID involvement, operational activities in the rural water and sanitation subsector are more extensive now than at any other time in the past. A key aspect of current USAID involvement is support for governmental institutions, particularly SNHR and the Department of Health, as well as NGOs. Because long-term development of the rural areas is dependent upon the GOZ establishing the capability to deliver essential services, it is important that USAID continue this process of basic institutional development by providing operational support to the rural water and sanitation subsector through SNHR and the Department of Health.

²Shaba is the Shaba Refugee Water Supply Project being implemented by the International Association for Rural Development (AIDR) through the Department of Agriculture and SNHR.

Chapter 7

RECOMMENDATIONS

7.1 Recommendations to the CNAEA

7.1.1 Participation in Preparation of the Plan

To develop a plan that accurately reflects the existing needs and potential programs in the rural water and sanitation subsector, the CNAEA must encourage full participation by all relevant organizations, especially SNHR, Department of Health, REGIDESO, PNA, and the Department of Plan. It is recommended that special attention be given to obtaining the active participation of SNHR, which is the key organization in implementing rural water programs, and the Department of Plan, which is the organization responsible for preparing the Five-Year Development Plan 1986 to 1990.

7.1.2 Coordination of Sector Organizations

A need exists for vigorous leadership to coordinate the activities of the various organizations working in the water and sanitation subsector. It is recommended that the CNAEA, which is the official agency established by the GOZ to coordinate the water and sanitation sector, convene a quarterly meeting of all water and sanitation organizations, including governmental, United Nations, bilateral, and NGOs, for the purpose of sharing information, reviewing current activities, and proposing future programs.

7.2 Recommendations to USAID

7.2.1 Coordination of Sector Organizations

USAID should use its considerable financial and psychological influence within the donor community to encourage greater coordination among relevant organizations. It is able to support two specific types of coordination. The first is the convening of quarterly meetings of sector organizations under the leadership of the CNAEA (see section 7.1.2). The second is to encourage UNDP to exercise stronger leadership among the United Nations organizations on matters related to the International Drinking Water Supply and Sanitation Decade. To this end, it is recommended that UNDP consider holding monthly meetings of the U.N. Technical Support Team, which is composed of officials from associated United Nations' organizations (UNDP, WHO, UNICEF, ILO) concerned with water supply and sanitation matters.

7.2.2 CNAEA Work Plan for USAID Funds

USAID has provided a grant of Z2,225,300 of counterpart funds to the GOZ for preparing a rural water and sanitation plan. To assess GOZ progress toward this plan and to be able to provide effective technical assistance, USAID should request the CNAEA to prepare a work plan for the use of the remaining funds and periodic reports on the actual expenditure of funds.

7.2.3 Follow-up WASH Assistance

A need exists for further USAID support, in the form of a return visit by WASH consultants, to the CNAEA in preparing the Rural Plan. It is recommended that a WASH team return to Zaire after a first draft of a Rural Plan is completed to assist the CNAEA in reviewing and revising the document. This team should spend approximately two weeks working with the CNAEA and should consist of a senior sanitary engineer and a senior economist/planner. The scope of work for this team should include the following:

1. Review plan priorities, programming criteria, and the selection of Priority Action Zones.
2. Review the capacity of individual organizations to achieve targets.
3. Review coverage and support programs in view of national goals.
4. Review the budget projections and compare them with anticipated resources.
5. Advise on the final drafting of the text of the plan.

7.2.4 Future USAID Support

It is likely that USAID will be asked to support additional activities arising from the preparation of the Rural Plan. These activities may include the preparation of project proposals and support for a donors' conference for the rural subsector. Both activities are important for the development of national planning capabilities. It is recommended, however, that USAID consider supporting such activities only after final completion and official approval of the Rural Plan.

APPENDIX A
Officials Interviewed

USAID/Zaire

Glenn Post	Head, Public Health Division
Felix Awantang	PSC, Public Health Division
Cit. Utshudi-Lumbu	SANRU Project Officer, Public Health Division
Lee Braddock	Head, Evaluation and Development Planning Division
Tim Born	Project Officer, Evaluation and Development Planning Division

GOZ (other)

Cit. Tshiengo Tshibinkubula wa Tumba	Executive Secretary, CNAEA, and President Delegate General, REGIDESO, 22.792
Cit. Ileo Itambala	Deputy Delegate General, REGIDESO, 22.792
Cit. Finunu Samba	Director of Training, REGIDESO, 59.336
Manuel Fernandez-Diego	Principal Advisor to the President, REGIDESO, 22.792

GOZ Participants in CNAEA Subcommittee

Cit. Kadima Muamba	Deputy Secretary General, REGIDESO/CNAEA, 22.792
Cit. Mubu Kabanza	Director, Department of Public Health
Cit. Sowa Lukono	Director, SNHR
Cit. Kabeya Mukeni wa Mulumba	Director, PNA
Cit. Kalala Mwamba	Head, Service Division, ERTS
Cit. Mwanambuyu Kabala	Head, Service Division, PNA
Cit. Mukalayi Mwema	Head, Service Division, REGIDESO
Cit. Luvula Agnen	Technical Deputy, SNHR
Cit. Kapiamba Mbuikila	Bureau Head, PNA
Guy Goyens	Advisor, SNHR

UN/Zaire

Dr. Herta J. Krestovsky	UNDP Assistant Resident Representative, 30.600
Nihat O. Akmanoglu	WHO Sanitary Engineer, 31.063
Andre H. Vandenberghe	UNICEF Rural Water Projects Administrator, 30.257
Robert Sarr	UNICEF Programme Head

Others

Dr. Franklin C. Baer	Deputy Director, SANRU/ECZ, 31.337
Cit. Itoko-Y'Oluki	Head, Water and Sanitation, SANRU/ECZ, 31.337
Florence Galloway	Deputy Training Coordinator, SANRU/ECZ, 31.337
Cit. Kalambay Kalula	SANRU Project Advisor, Department of Public Health

APPENDIX B
Documents Reviewed

USAID Documents

Correspondence from USAID files, Kinshasa, period covering March 1985 to January 1986

Jennings, Henry L., National Seminar on Rural Water Supply Policies and Strategies in Zaire, WASH Field Report No. 150, June 1985

Thomson, James T., and Fred R. Weber, Formulation of National Rural Water Supply Policies and Strategies in Zaire, WASH Field Report No. 142, May 1985 (also in French version).

USAID, Basic Rural Health II Project (SANRU II Project Paper), Project No. 660-0107, August 19, 1985.

Warner, Dennis B., and Pierre R. Leger, Recommendations for National Rural Water Supply Planning in Zaire, WASH Field Report No. 135, January 1985 (also in French version).

GOZ Documents

Département du Plan, Combien Sommes-Nous, Résultats Provisoires de la Recensement Scientifique de la Population, 1 July 1984.

CNAEA, Evaluation de la Décennié à Mi-Parcours, 13 ème session ordinaire, CNAEA/XIII/Doc. 02, décembre 1985.

Le Plan Quinquennal 1986-90 de Développement Socio-Economique du Zaire (Version Provisoire No. 1)

CNAEA and WHO, Profil de Mobilisation de Ressources, October 1985

Département de la Santé Publique, Rapport à la Sous Commission des Infrastructures

PNS, Plan National D'Assainissement, July 1985.

SNHR, Projection des Activités de 85-88, January 1985

Other Sources of Documents

WHO, Première Phase de la Décennie: Besoins et Moyens de Financement, (Prepared for the GOZ), ETS/82-3, 1982.

WHO, International Drinking Water Supply and Sanitation Decade: Briefing Document, EHE/80-8, 27 February 1980.

PAHO, Guide for Formulation of the National Plan for the International Drinking Water Supply and Sanitation Decade, IDWSSD, (1981-1990), April 1982.

WHO, National Decade Plans: Eight Questions They Answer, 1982.

WHO, Drinking Water and Sanitation, 1981-1990: A Way to Health, 1981.

Various national water and sanitation plans for Africa, Asia, and Latin America.

APPENDIX C

Schedule of WASH Consultants

PROGRAMME DE SEJOUR DES EXPERTS WASH.-

LUNDI 13 JANVIER 1986

14 H 00 : Secrétariat Exécutif

- . Examen et adoption du calendrier de travaux
- . Occupation du Bureau

MARDI 14 JANVIER 1986

10 H 00 : Secrétariat Exécutif

- Séance de travail avec les Experts Zaïrois
- Rôle d'un plan d'AEPA Rural
 - Examen des Politiques et Stratégies
 - Examen du Questionnaire utilisé pour la récolte de données.

MERCREDI 15 JANVIER 1986

9 H 00 : Secrétariat Exécutif

- Séance de travail (suite)
- Réponse aux huit questions de l'OMS
 - Structure d'un plan national

15 H 30

~~10 H 00~~ : Visite de courtoisie au Citoyen Secrétaire Exécutif du CNAEA,
Président Délégué Général de la REGIDESO.

11 H 00 : Séance de travail (suite)

JEUDI 16 JANVIER 1986

9 H 00 : Secrétariat Exécutif

- Séance de travail (suite)
- Réglementation et Politique en matière de l'eau et de l'assainissement
 - Systèmes de production et distribution de l'eau
 - Systèmes d'assainissement
 - Evolution démographique.

VEDREDI 17 JANVIER 1986

9 H 00 : Secrétariat Exécutif

- Séance de travail (suite)
- Cadre administratif
 - Etude socio-économique
 - Mobilisation de ressources (humaines, financières, institutionnelles et matérielles)

20 H 00 : Dîner offert par le Citoyen Secrétaire Exécutif du CNAEA,
Président Délégué Général de la REGIDESO au Restaurant du 700.

LUNDI 20 JANVIER 1986

9 H 00 : Secrétariat Exécutif

Séance de travail (suite)
- Type de données à récolter

10 H 00 : Rencontre avec des représentants des Organismes Internationaux :
O M S , P N U D , U N I C E F.

MARDI 21 JANVIER 1986

9 H 00 : Visite du CFO

10 H 00 : Visite du SNHR

11 H 00 : Visite du CENDAEP PNA

13 H 00 : Visite du BEAU et VOIRIE

N.B. : Une demande d'audience est introduite auprès des Commissaires
d'Etat à l'Agriculture et Développement Rural et à la Santé

MERCREDI 22 JANVIER 1986

9 H 00 : Secrétariat Exécutif

Séance de travail (suite)

Ebauche du plan

- Objectifs
- Structure
- Information complémentaire

JEUDI 23 JANVIER 1986

9 H 00 : Secrétariat Exécutif

Séance de travail (suite)

- Rôles et responsabilités
- Calendrier et coût

N.B. Une demande d'audience est introduite auprès du Président du
CNAEA, Commissaire d'Etat au Plan pour ce jour .

VENDREDI 24 JANVIER 1986

10 H 00 : Séance de travail présidée par le Citoyen Secrétaire Exécutif
du CNAEA, pour faire la synthèse de travaux.

APPENDIX D

Questionnaires A, B, and Complementary

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT
EN MILIEU RURAL

QUESTIONNAIRE D'ENQUETE - A

(A remplir pour chaque sous-région)

Nom et fonction de l'enquêteur : -----

Lieu et date d'établissement : -----

I. - RENSEIGNEMENTS GENERAUX :

1. Région -----

2. Sous-région -----

3. Nombre des centres urbains -----

4. Nombre des collectivités -----

5. Nombre des groupements -----

6. Nombre des localités -----

7. Taux d'alphabétisation au-dessus de 6 ans -----

II. - POPULATION

Agglomérations	Population totale (hab.)	Population alimen- tée en eau	Organismes d'AEP
Centres urbains			
Centres ruraux			
Autres localités rurales			
Total			

III. - HYDROLOGIE ET AEP RURAL

1. Principaux cours d'eau :

Nom du cours d'eau	débit moyen (m ³ /sec)	Nombre de prises d'eau	débit total prélevé (l./sec)	Nom(s) de l'agglomération alimentée

2. Principales nappes d'eau superficielles :

Nom du lac	Superficielle (km ²)	Volume d'eau (10 ⁶ m ³)	Débit total prélevé (l/sec)	Nom(s) de l'Agglomération alimentée

3. Sources utilisées pour l'AEP

Etat de sources	Nombre sous-régional	Débit total (l/sec)	Noms des agglomérations alimentées
Sources aménagées			
Sources non-aménagées			

4. Eaux souterraines utilisées pour l'AEP

Type d'aménagement	Nombre	Débit total prélevé	Nom de l'agglomération alimentée
Puits démunis de pompe			
Puits équipés d'une pompe à main			
Puits équipés d'une pompe à moteur			
Forage			
Champ captant			
Autres (préciser)			
TOTAL			

IV. - ASSAINISSEMENT RURAL

1. Existe-t-il des programmes en cours ou planifiés touchant un aspect de l'assainissement rural : oui non.....

. Si oui, remplissez le tableau ci-dessous.

Titre du programme	Organisme responsable	Objectif du programme	date de démarrage	Durée

2. Décrivez brièvement le dispositif le plus répandu pour l'évacuation des excréta

Type ou Nature de Latrine	Fosse	Soubassement - Plancher	ABRI

3. - Quelles sont les méthodes utilisées pour l'évacuation des ordures ménagères ? Indiquez-les en commençant par celle qui est la plus répandue. (enfouissement, incinération, décharge dans un puits, décharge non contrôlée (préciser le milieu) , fumier, etc.)

- A) -----
- b) -----
- c) -----
- d) -----

4. Méthodes de lutte contre les insectes, mouches et moustiques :

- a) -----
- b) -----
- c) -----
- d) -----

5. Méthodes de lutte contre les rongeurs :

- a) -----
- b) -----
- c) -----
- d) -----

6. Méthodes de lutte contre les mollusques hôtes intermédiaires

- a) -----
- b) -----
- c) -----

7. Quelles sont les actions de la coordination sous-régionale du DECNT ?

- | <u>Actions</u> | <u>Ressources affectées</u> |
|----------------|-----------------------------|
| a) ----- | ----- |
| b) ----- | ----- |
| c) ----- | ----- |

V. - EPIDEMIOLOGIE

Donnez dans le tableau ci-dessous le nombre total sous-régional des cas et des décès durant une année complète pour les maladies suivantes :

Année ou période couverte : -----

N° OMS	Diagnostic	Nombre des cas	Nombre des décès
001-019	Tuberculose		
040-041	Fièvre typhoïde et paratyphoïde		
045	Dysentérie bacillaire		
046	Dysentérie amibienne		
048	Formes non précisées de dysentéries		
071	Fièvre récurrente à tique		
085	Rougeole		
110-114	Paludisme		
121	Trypanosomiase (nouveaux cas)		
123 - 0	Schistosomiase vésicale		
123 - 1	Schistosomiase intestinale		
127	Filariose		
129-130	Helminthiases		
134	Mycose		
135	Gales		
138	Autres maladies parasitaires		
251	Goître		
379	Maladies des yeux		
535	Maladies des dents et gencives		
	Total des maladies ci-dessus		
	Total général des maladies pour la même période		

VI. - EDUCATION SANITAIRE

Citez ci-dessous les programmes d'éducation sanitaire en cours ou planifiés :

Catégorie des populations cibles (X)	Organisme en charge	Méthodes, moyens ou matériels utilisés	Qualification du personnel en charge	Nombre des habitants touchés	Date de démarrage	Durée

(X telles que le grand public, écoles primaires, femmes paysannes, etc...

VII. - FORMATIONS MEDICALES

1. Les zones de santé déjà implantées dans la sous-région et leur délimitation géographique :

2. Nombre des hôpitaux généraux de référence : -----

3. Nombre des centres de santé de référence : -----

4. Nombre des postes de santé/centre de santé : -----

5. Nombre des postes d'animation pour la santé : -----

PLAN DE L'HYDRAULIQUE ET L'ASSAINISSEMENT
EN MILIEU RURAL.-

QUESTIONNAIRE D'ENQUETE - B

(A remplir pour chaque localité choisie)

Nom et fonctions de l'enquêteur : -----

Lieu et date d'établissement : -----

QUESTIONNAIRE I - DONNEES GENERALES :

1. Situation administrative :

1.1. Région :

1.2. Sous-Région :

1.3. Zone :

a- administrative :

b- de santé :

1.4. Collectivité :

1.5. Localité :

1.6. Existe-il un comité de santé ou de développement ;

1.7. Altitude

1.8. Distance à la Station SNHR :

2. Population (Si l'on n'a pas des renseignements détaillés, indiquez seulement la population totale)

Nombre d'habitants	M	F	Total
Jeunes . de moins de 7 ans . de 7 à 16 ans			
Adultes			
TOTAL			

3. Situation socio-économique :

3.1. - Nombre moyen de personnes par famille ;

3.2. - Principales activités économiques ;

3.3. - Routes d'accès ;

3.4. - Infrastructures ;

4. D'autres sources d'eau utilise - t' - on pour les activités ci-dessus ou d'autres activités ? -----

Si oui lesquelles et pour quels usages : -----

5. Problèmes de l'AEP (oservations de l'enquêteur) ;

6. Solutions envisageables ;

QUESTIONNAIRE III - ASSAINISSEMENT

1. Caractéristiques des latrines ;

- . Type :
- . Abri :
- . Soubassement-plancher ;
- . Fosse :
- . Durée moyenne d'utilisation ;
- . Distance moyenne à l'habitation :

2. Utilisation des latrines Nombre de personnes moyen utilisant régulièrement une latrine par famille :

	Adultes		Jeunes de 7 à 16 ans		Enfants moins de 7 ans	
	M	F	M	F	M	F
Nombre total de personnes par famille						
Nombre de personnes utilisant la latrine						

3. Quels sont les problèmes concernant les latrines :

- . Mouches et/ou moustiques : -----
- . Cancrélat et cafards : -----
- . Rats et souris : -----
- . Vers parasitaires : -----
- . Odeurs : -----

- . Inondations durant les pluies : -----
- . Défaillance de l'abri ou du plancher : -----
- . Effondrement des parois : -----
- . Autres (préciser) : -----

4. Quelles sont les méthodes utilisées pour l'évacuation des ordures ménagères ? :

- . Enfouissement : -----
- . Décharge (préciser le milieu) : -----
- . Inclination : -----
- . Fumier : -----
- . Autres (préciser) -----

5. Quels sont les insectes et rongeurs fréquents :

- . Cancrélats et cafards : -----
- . Moustiques : -----
- . Mouches : -----
- . Mouches : -----
- . Punaises : -----
- . Poux : -----
- . Puces : -----
- . Tiques : -----
- . Chiens : -----
- . Rats : -----
- . Souris : -----
- . Autres (préciser) -----

6. Moyens de lutte utilisés contre les insectes et rongeurs :

7. Observations générales de l'enquêteur concernant l'assainissement :

QUESTIONNAIRE IV - MALADIES COURANTES ET EDUCATION SANITAIRE

1. Quelles sont les maladies les plus courantes (cochez les lignes correspondantes.

- . Tuberculose :
- . Maladies vénériennes :
- . Maladies diarrhéiques :
- . Fièvre récurrente à tique :
- . Poliomyélite :

- . Paludisme (Malaria)
- . Trypanosomiase (maladie de sommeil) :
- . Schistosomiase (bilharziose) :
- . Filariose :
- . Verminoses :
- . Gales :
- . Goitre :
- . Mbwaki ou IWASHIORKOR (malnutrition) :
- . Troubles mentaux :
- . Maladies des yeux :
- . Rhumatisme :
- . Grippe :
- . Maladies des l'appareil respiratoire
- . Maladies des dents et gencives :
- . Maladies de la peau :
- . Plaies :
- . Autres (préciser)

2. Education sanitaire :

2.1. Est-ce que la localité a bénéficié d'un programme d'éducation sanitaire depuis un an ? oui non

2.2. Si oui donnez les précisions suivantes :

- . Qualification du personnel effectuant les visites :
.....
- . Fréquence des visites :
- . Lieu et nombre de personnes qui assistent aux séances :.....
.....
- . Sujets développés pendant les séances d'éducation sanitaire :
 - Hygiène corporelle
 - Hygiène alimentaire
 - Hygiène de l'habitat
 - Evacuation des excréta
 - Elimination des ordures
 - Lutte contre les vecteurs
 - Aménagement et protection des points d'eau.

- Nutrition
- Vaccination
- Naissances désidérables
- Pharmacie familiale
- Autres (préciser)

2.3. Le message d'éducation sanitaire est-il

- . bien compris par l'audience : oui non parfois
- . applicable compte tenu des conditons locales : oui ... non ... parfois...

2.4. Existe-il un programme de promotion féminine : oui.... non

- . Si oui, donnez des précisions:.....
-

3. Observations de l'enquêteur sur les maladies fréquentes et éducation sanitaire

4. Améliorations envisageables :

Il est suggéré que certaines informations et évaluations, complémentaires, à celles incluses dans les questionnaires A et B, soient enregistrées par les membres du comité alors que les souvenirs des visites sont encore frais dans leur mémoire. Ces éléments peuvent aider dans la formulation du Plan et en particulier dans le choix des zones d'action prioritaire pour les prochains cinq ans. Voulez-vous répondre à toutes les questions soit avec les chiffres enregistrés soit avec les estimations que vous pouvez faire sur la base de vos observations personnelles. Dans tous les cas ou plusieurs exemples sont demandés, ils seront présentés en ordre d'importance ou de préférence, selon votre évaluation.

1. Région..... Sous-région.....
2. Nom de l'enquêteur Dates de visite
3. Population rurale de la sous-région.....
4. Approvisionnement en eau potable en localités rurales
 - 4.1. Enumérer les principaux points d'eau de boisson (protégées) ou non-protégées) utilisés dans les localités rurales de la sous-région: (types de points d'eau)
.....
.....
.....
 - 4.2. Combien existent-ils de chacun des systèmes d'AEP suivants ?
 - Adductions gravitaires.....
 - Puits avec pompe
 - Puits sans pompe.....
 - Forages avec pompe
 - Sources captées
 - 4.3. Quelle est votre estimation des éléments suivants. (en %)
 - Population rurale utilisant l'eau des points d'eau protégées. (points d'eau de toute sorte.).....
 - Population rurale utilisant l'eau des points non-protégés
 - Population rurale utilisant l'eau des points permanentes.....
 - Population rurale utilisant l'eau des points qui tarissent pendant certaines saisons.....
 - 4.4. Les habitants ruraux de la sous-région sont obligés de porter l'eau quelle distance moyenne (en mètres) entre la source et la maison?.....
 - 4.5. Quelle quantité d'eau en moyenne portent-ils chaque jour pour l'usage à la maison (en litres/personne/jour)?.....

4.6. Quelles organisations, gouvernementales et non-gouvernementales a ellement aident les localités rurales à améliorer leur systèmes d'approvisionnement en eau potable?

.....
.....
.....

4.7. Enumérer les trois problèmes les plus pressants auxquels doivent faire face les localités rurales dans la sous-région qui ont décidé d'améliorer leur système d'aep: (Choisir et ranger trois des contraintes de la liste suivante, en leur marquant "1, 2, 3."

- incidence élevée de maladies hydriques
- distances excessives (plus de 500m en. moyen) entre les sources d'eau et les maisons
- points d'eau carrossables
- manque de fonds
- manque d'équipement et de matériaux
- manque d'expertise
- manque d'intérêt parmi les habitants
- manque d'appui competent
- manque de route d'accès carrossable
- manque d'informations et d'éducation sanitaire.

5. Assainissement

5.1. Quelle est votre estimation des chiffres suivants, ...

- Population rurale utilisant des latrines hygiéniques (profondeur - 2 m, soubassement lavable).....
- Population rurale utilisant les latrines hygiéniques ---
- Population rurale n'utilisant aucune latrine.....

5.2. Enumérer les organisations gouvernementales et non-gouvernementales qui encouragent et assistent la construction des latrines hygiéniques dans la sous-région:

.....
.....
.....

5.3. Enumerer les organisations gouvernementales et non-gouvernementales qui offrent aux gens des localités l'éducation sanitaire concernant les maladies hydriques et les moyens pour les éviter:

.....
.....
.....

5.4. Choisir et ranger (1,2,3) dans la liste suivante les trois problèmes les plus pressants pour les localités rurales qui veulent améliorer leur latrines:

manque d'intérêt parmi les habitants

manque de fonds

manque de matériaux et d'équipement.

manque d'expertise

manque d'appui technique

manque de route d'accès.

manque d'information et d'éducation Sanitaire.

APPENDIX E

Data Summary Forms for Questionnaires A, B, and Complementary

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
ENQUETE SOUS-REGIONALE (QUESTIONNAIRE A)
TABLEAU I. RENSEIGNEMENTS GENERAUX

Région:

Sous-Région	No. des centres urbains	No. des collectivités	No. des groupements	No. des localités	Taux d'alphabétisation au dessus de 6 and
Totaux					

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE SOUS-REGIONALE (QUESTIONNAIRE A)
 TABLEAU 2. SITUATION DE L'EAU POTABLE

Région:

Sous-région	Population total				Population alimentée en eau				Sources d'eau							
	centres urbains	centres rurales	autre	total	centres urbains	centres rurales	autres	total	sources aménagées	sources non-amér.	puits	puits avec pompe man.	puits avec pompe mot.	Forages	champs captants	autre
Totaux																

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE SOUS-REGIONALE (QUESTIONNAIRE A)
 TABLEAU 3. ASSAINISSEMENT

Région:

Sous-région (1)	Types de latrine			Evacuation des ordures ménagères (5)	lutte contre les vecteurs			
	fosse (2)	soubassement (3)	abri (4)		mouches moustiques (6)	rongeurs (7)	mollusques (8)	coordin. DECNT (9)

Codes: Colonne 5

- A = enfouissement
- B = incinération
- C = décharge dans un puits
- D = décharge non-contrôlée
- E = fumier
- F = autres méthodes

colonne 6

- A = constr. des latrines
- B = débroussaillage
- C = élim. des immondices
- D = brûlage
- E = insecticides
- F = autres méthodes

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL:
 ENQUÊTE SOUS-REGIONALE (QUESTIONNAIRE A)
 TABLEAU 4. EPIDEMIOLOGIE

A

Région:

Sous-région	année	nombre de cas (décès entre parenthèses)											total général des maladies pour la même période	pourcentage des cas des maladies liées à l'eau et à l'assainissement	
		typhoïde et paratyph.	dysentérie bacillaire	dysentérie amibienne	dysentérie non-precis	palludisme	trypanosom. (nouv. cas)	schistosom. vésicale	schistosom. intestin.	filariose	helminthiase	maladies des yeux			total
Totaux															

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE SOUS-REGIONALE (QUESTIONNAIRE A)
 TABLEAU 5. EDUCATION SANITAIRE ET FORMATIONS MEDICALES

Région:

Sous-région (1)	Eduaction sanitaire			Formations médicales			
	Population cible (2)	Agence d'exécution (3)	Méthodes (4)	Hopitaux généraux de référence (5)	Centres de santé de référence (6)	Postes de santé (7)	Postes de d'animation (8)
Totaux							

Codes: Colonne 2
 A = grand public
 B = femmes
 C = paysans
 D = autres

Colonne 3
 A = zones de santé
 B = affaires sociales
 C = sociétés privées
 D = missions
 E = autres

colonne 4
 A = audi-visuelles
 B = autres

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE DES LOCALITES (QUESTIONNAIRE B)
 TABLEAU 3. APPROVISIONNEMENT EN EAU POTABLE

Région:

No. du questionnaire (1)	Source actuelle de l'aep (2)	Qui collecte l'eau?		Consommation moyenne (lcd) (5)	Problèmes de l'aep (6)	Solutions envisagables (7)
		Généralement (3)	parfois (4)			

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Colonne 2
 A = Regideso
 B = lac
 C = fleuve
 D = source
 E = puits
 F = forage

Colonnes 3 + 4
 E = enfants
 F = femmes
 H = hommes

Colonne 6
 A = manque d'eau
 B = dist. à la source
 C = pH élev./bas
 D = mat. organique
 E = eau sale

Colonne 7
 A = captage source
 B = adduction
 C = nouvelles pompes
 D = réhab. pompes
 E = Regideso

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE DES LOCALITES (QUESTIONNAIRE B)
 TABLEAU 4. ASSAINISSEMENT

Région:

No. du quest- ionnaire (1)	Latrines						Evacuation des ordures ménagères (8)	Insectes et rongeurs (9)	Observa- tions gén- érales (10)
	Type (2)	Abris (3)	Soubas- sement (4)	Fosse (5)	Durée moyenne d'utilis(6)	Problèmes (7)			

Colonne 2
 A = Arabe
 B. Siphon

Colonne 4
 A = plancher
 B = fer
 C. radin

Colonne 3
 A = en brique
 B = en chaume

Colonne 5
 A = arabe
 B = séptique

Colonne 7
 A = mouches/moustiques
 B = cacrelat/cafards
 C = rats/souris
 D = vers parasitaire
 E = odeurs
 F = inondations
 G = effondrement
 H = autre

Colonne 8
 A = enfouissement
 B = décharge
 C = incinération
 D = fumier
 E = autre

Colonne 10
 A = mobiliser
 ressources

Colonne 9
 A = cacrelats/cafards
 B = moustiques
 C = mouches
 D = punaises
 E = poux
 F = puces
 G = tiques
 H = chiques
 I = rats
 J = souris
 K = autre

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE DES LOCALITES (QUESTIONNAIRE B)
 TABLEAU 5. MALADIES ET EDUCATION SANITAIRE

Région:

No. du questionnaire (1)	Maladies prévalentes (2)	Education sanitaire			Existence d'un programme féminin (7)	Observations (8)	Améliorations envisageables (9)
		Existence (3)	Qualification des agents (4)	sujets (5)			

Colonne 2
 A, B, C selon liste

Colonne 4
 A = de l'hôpital
 B =

Colonne 8
 A = séances sur les maladies
 B =

Colonne 5
 A = hygiène corporelle
 B = hygiène alimentaire
 C = hygiène de l'habitat
 D = évac. des excréta
 E = élim. des ordures
 F = lutte contre les vecteurs
 G = amén./prot. points d'eau
 H = etc.
 I =

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
ENQUETE SOUS-REGIONALE (QUESTIONNAIRE COMPLEMENTAIRE)

TABLE 1. EAU POTABLE

Région.....Nom de l'enquêteur.....Dates.....

Sous-région (1)	Population rurale (2)	Principales types de points d'eau (3)	No. de systèmes d'aep					Population rurale utilisant points d'eau (8)		Distance moyenne source/maison (m) (11)	Consommation moyenne d'eau à la maison (l/j) (12)	Organisations qui soutiennent l'aep (13)	Les plus pressants problèmes de l'aep		
			Adductions gravitaires (4)	Puits avec pompe (5)	Puits sans pompe (6)	Forages av. pompe (7)	Sources cartées (8)	Pro. tégés (9)	Non-pro. tégés (10)				1. (14)	2. (15)	3. (16)

Codes: Colonne 3

- A = sources
- B = puits
- C = forages
- D = fleuves
- E = lacs
- F = autres

Colonne 8

- A = SNHR
- B = SANRU II
- C = Regideso
- D = Min. de Santö
- E = ONG
- F = autres

Colonnes 9

- A = incidence élevée de maladies hydriques
- B = distances excessives (plus de 500m en moyen) entre points d'eau et maisons
- C = manque de fonds
- E = manque d'expertise locale
- F = manque d'intérêt parmi les habitants
- G = manque d'appui compétent
- H = manque de routes d'accès carrossables
- I = manque d'informations et d'éducation sanitaire
- J = autres

PLAN D'HYDRAULIQUE ET L'ASSAINISSEMENT EN MILIEU RURAL
 ENQUETE SOUS-REGIONALE (QUESTIONNAIRE COMPLEMENTAIRE)
 TABLEAU 2. ASSAINISSEMENT

Région.....Nom de l'enquêteur.....Dates.....

Sous-région (1)	Pourcentage de la population rural utilisant			Organisations qui encouragent et soutiennent la construction des latrines (5)	Oranisations qui offrent éducation sanitaire sur aepa (6)	Problèmes les plus pressants		
	latrines hygiéniques (2)	latrines non-hygièn. (3)	aucune latrine (4)			1 (7)	2 (8)	3 (9)

Code colonnes 5&6

- A = Min. Santé
- B = SANRU II
- C = SNHR
- D = PNA
- E = ONG
- F = Autres

Code colonnes 7,8&9

- A = manque d'intêret parmi hab.
- B = manque de fonds
- C = manque de matériaux et équipement
- D = manque d'expertise
- E = manque d'expertise locale
- F = manque d'appui léchnique
- G = manque de routes d'accès
- H = manque d'information et d'éd.san.

APPENDIX F

Procès-Verbal des Séances de Travail
entre C.N.A.E.A. et WASH

(Minutes of the Meetings
between C.N.A.E.A. and WASH)

PROCES-VERBAL DES SEANCES DE TRAVAIL ENTRE
LES EXPERTS DU C.N.A.E.A ET DE WASH.

PREAMBULE

Dans le cadre du processus de planification du sous-secteur de l'Hydraulique et de l'Assainissement en Milieu Rural, il s'est tenu une série des séances de travail consacrées à la définition du contenu du plan directeur de développement du sous-secteur de l'eau potable et de l'assainissement en milieu rural pour la période 1986 - 1990.

Ces séances de travail qui se sont déroulées sous la responsabilité du Secrétaire Exécutif du Comité National d'Action de l'Eau et de l'Assainissement " CNAEA " ont regroupé les Représentants des Départements et Organismes du Conseil Exécutif intéressés au développement du sous-secteur concerné ainsi que deux Experts de l'USAID "WASH".

Elles ont débuté le lundi 13 janvier 1986 et ont pris fin le vendredi 24 janvier 1986.

DEROULEMENT DES TRAVAUX

Les points ci-après ont été discutés :

a) Rôle d'un plan d'AEPA Rural

Les Experts ont examiné et arrêté comme suit le rôle que doit jouer un plan d'AEPA :

Un plan national constitue un outil précieux pour le Gouvernement du Zaïre dans ses prises des décisions. Il aide également à atteindre les objectifs suivants :

1. Définition de tous les aspects importants du sous-secteur d'alimentation en eau et d'assainissement des milieux ruraux.

2. Définition d'un cadre et des objectifs pour guider les interventions du Gouvernement, des communautés et des organismes donateurs dans le sous-secteur.
3. Bon usage des ressources limitées.
4. Organisation d'un cadre approprié pour les projets de développement du sous-secteur.
5. Rationalisation des bases sur lesquelles reposent les décisions concernant le mode de financement des projets, les investissements, l'ampleur des services à entreprendre et la création des infrastructures.
6. Discussion et justification des programmes du sous-secteur avec les décideurs nationaux et des organismes externes.

b) Examen des Politiques et Stratégies

Il s'agissait essentiellement de déterminer les critères de sélection des projets. Les participants ont convenu que les dispositions contenues dans le document des Politiques et Stratégies élaboré lors du Séminaire National sur l'Hydraulique et l'Assainissement en milieu rural (mai 1985) définissent clairement ces critères.

Toutefois, il a été admis que pour atteindre la couverture de 50 % de la population en milieu rural d'ici la fin du septennat 1991, il est nécessaire d'identifier les critères de priorité et d'en déterminer le choix.

c) Examen du questionnaire utilisé pour la récolte de données

Les Experts WASH, après analyse fouillée du questionnaire "A" d'enquêtes se rapportant aux sous-Régions, ont constaté l'absence de définitions des termes utilisés dans ce questionnaire pour faciliter aux enquêteurs autres que les Experts de bien cerner la signification des mots et d'en interpréter le sens.

Ils ont également fait remarquer que la liste des maladies établies pour l'épidémiologie est longue et non limitative et qu'il fallait s'arrêter aux maladies d'origine hydrique et de mauvaises conditions d'hygiène.

Ils ont proposé un tableau synthèse reprenant les renseignements contenus dans le questionnaire A de même qu'ils ont soumis, pour appréciation, aux experts zaïrois un autre questionnaire pour les points omis dans le questionnaire A.

d) Réponse aux huit questions de l'OMS

Les renseignements que doit apporter un Plan établi en vue de la Décennie peuvent être résumés sous forme de réponses aux huit principales questions ci-dessous :

1. QUEL SONT LES BESOINS ?

Situation nationale en matière d'approvisionnement en eau saine et en matière d'assainissement, dans l'immédiat et à l'avenir, compte tenu des objectifs de la Décennie et des ressources du pays.

2. PARMIS CES BESOINS, AUXQUELS POURRA-T-ON FAIRE FACE ET A QUEL MOMENT ?

Objectifs de la politique nationale et buts fixés dans le sens d'une amélioration au cours de périodes déterminées.

3. COMMENT POURRA-T-ON Y FAIRE FACE ?

Stratégies générales, tactiques particulières et méthodes choisies en vue d'atteindre les objectifs et les buts.

4. A QUI INCOMBERONT LES DIVERSES FONCTIONS ?

Répartition des responsabilités opérationnelles entre les divers services officiels et entre les organisations, les collectivités et les familles.

5. COMMENT FAIRE POUR RENFORCER LES EFFETS BENEFIQUES DU PLAN SUR LA SANTE ?

Modalités du soutien accordé en vue de la mise en place d'installations d'approvisionnement en eau et de moyens d'assainissement, de façon à contribuer à la réalisation des objectifs fixés en matière de santé.

6. QUELLES RESSOURCES FAUDRA-T-IL REUNIR ?

Développement et financement, d'une part des institutions et du personnel, d'autre part des équipements, du savoir-faire et des systèmes de gestion.

7. QUAND LES DIVERSES MESURES SERONT-ELLES MISES EN OEUVRE ?

Définition des projets et fixation des priorités et des diverses phases d'exécution.

8. COMMENT FAIRE POUR ASSURER ET CONTROLER L'EXECUTION DU PLAN

Direction et gestion du développement, contrôle des services et évaluation des activités et de leurs répercussions.

e) Structure d'un plan national

Les experts ont examiné un modèle de plan provisoire soumis à leur attention par les experts de l'USAID. Après un échange de vues, les experts zaïrois ont remis aux experts WASH une édition provisoire du plan quinquennal du développement économique et social pour la période 1986-1990, en demandant aux derniers de conformer le projet aux structures du plan quinquennal zaïrois.

f) Reglementation et Politique en matière de l'eau et de l'assainissement.

Lecture a été donnée sur la législation sanitaire en matière d'Hygiène publique et des eaux. Cette législation est contenue dans le tome III du Code et Lois du Congo Belge et Rwandais, 4^e édition bilingue 1979 " PIRON et DEVOS ".

En ce qui concerne les normes de construction des ouvrages d'eau il est constaté que le législateur ne les a pas codifiées pour chaque type d'installation. (bornes fontaines, sources, adoucisseurs, forages et puits etc...)

g) Systèmes d'AEPA

Ayant effectué des missions de récolte de données en régions, les experts zaïrois ont fourni des renseignements spécifiques sur la situation ad hoc prévalant dans les sous-régions et localités rurales des Régions qu'ils ont visitées (fr. quest. - naire A et B)

h) Evolution démographique

Etant donné que l'analyse du recensement scientifique de 1984 n'est pas encore terminée, la commission a adopté provisoirement les chiffres suivants en ce qui concerne la population zaïroise

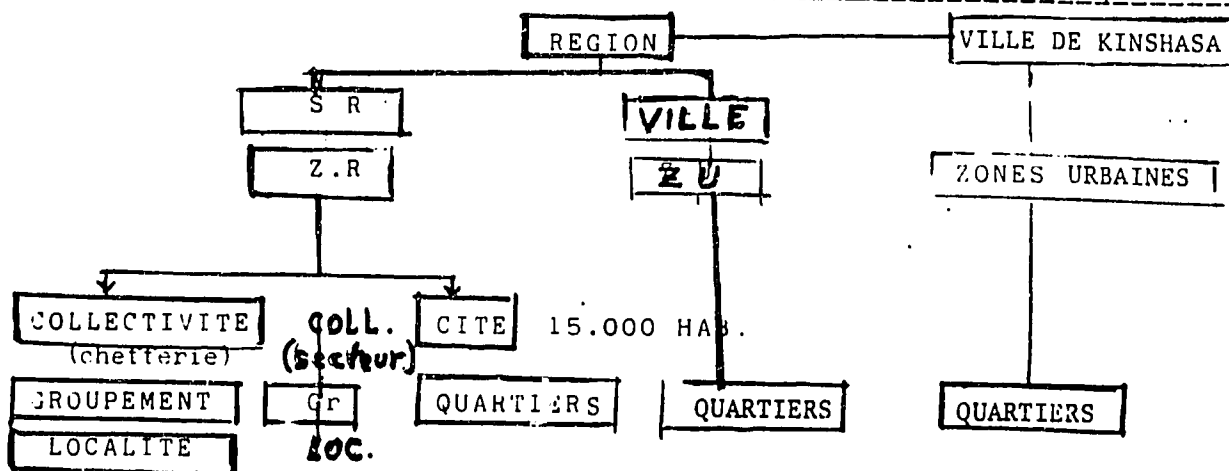
- Population totale : 30.000.000
- Population urbaine : 32 % soit 9.600.000
- Population rurale : 68 % soit 20.400.000

Source : Perspectives démographiques du ZAIRE
(Département du Plan)

i) Cadre administratif

La République du Zaïre comprend outre les villes 27 sous-régions rurales subdivisées en 143 zones rurales.

Structure territoriale administrative de la République du ZAIRE.



N.B. Ville : toute agglomération de 100.000 habitants au moins, ou toute agglomération créée par une ordonnance spéciale. (Ordonnance-loi no 82/006 du 25 février 1982).

j) Etude socio-économique

Les experts WASH ont proposé deux types de structures socio-économique à savoir :

- structure de la localité
- structure du revenu par personne et ménage.

Il a été examiné si les différents critères à utiliser pour déterminer les zones prioritaires d'intervention. Ces critères seront définis au moment où sera examinée la structure définitive du plan d'AEPA.

k) Mobilisation de ressources (humaines, financières institutionnelles et matérielles)

Les participants ont été informés de l'existence d'un document portant sur le profil de mobilisation de ressources élaboré par le Secrétariat Exécutif du CNAEA assisté de la Coordination de l'OMS à Kinshasa en octobre 1985.

.../...

1) Type de données à recueillir

Les participants ont examiné comment peuvent être synthétisés les résultats de données recueillies lors des missions en Régions. Les experts WASH ont proposé un modèle de questionnaire complémentaire pour tenir compte du manque de renseignements sur les questionnaires A et B.

m) Structure d'un plan national d'AEPA en milieu rural

Les discussions ont porté sur les informations prioritaires et la manière dont elles pourraient être exploitées sur base des tableaux sommaires. L'esquisse provisoire du Plan à élaborer contenant quatre rubriques à savoir :

1. Diagnostic
2. Objectifs
3. Politiques et Stratégies
4. Elements de Programmation

n) Ebauche du Plan

Une analyse de toutes les parties du projet de l'ébauche du plan présenté a été minutieusement faite comme indiqué sur le document d'explication joint à l'esquisse du plan qui pourrait être l'objet de modification lors de l'élaboration du document final.

POUR L'AEPA DANS LE MILIEU RURAL (REVISEE)

1. Diagnostic
 - 1.1. Description générale
 - 1.1.1 Géographique
 - 1.1.2 Ressources en eau
 - 1.1.3 Démographique
 - 1.1.4 Socio-économique
 - 1.1.5 Administrative
 - 1.1.6 Santé
 - 1.2. Situation AEPA actuel
 - 1.2.1 AEP
 - 1.2.2 Assainissement
 - 1.3. Organisation institutionnelle du sous-secteur
 - 1.4. Législation pertinente
 - 1.5. Historique du plan national du secteur AEPA
 - 1.6. Besoins du sous-secteur
 - 1.6.1 AEP
 - 1.6.2 Assainissement
 - 1.6.3 Problèmes majeurs et contraintes
 - 1.7. Ressources disponibles pour réaliser le Plan
 - 1.7.1. Ressources institutionnelles
 - 1.7.2 Ressources humaines
 - 1.7.3 Equipement et matériaux
 - 1.7.4 Ressources financières

2. Objectifs

2.1. Objectifs spécifiques

2.1.1 AEP

Nombre des points d'eau.	1986	1987	1988	1989	1990	1991	TOTAL
Sources							
puits sans pompe							
puits avec pompe							
forages							
adductions							
populations desservie							

	1986	1987	1988	1989	1990	1991	TOTAL
Nombre des latrines							
Population desservie							

3. Stratégies et Politiques

3.1. Stratégies

3.2. Politiques

4. Elements de Programmation

4.1. Réalisation de couverture (AEP, Assainissement)

4.1.1 Critères des sélections des zones d'action prioritaires(ZAP)

4.1.2 Critères de sélection des projets spécifiques

4.1.3 Technologie appropriée

4.1.4 Programme de couverture d'AEP en milieu rural

- Normes d'une couverture adéquate

- Prix unitaires

4.1.5 Programme de couverture d'assainissement rural

- Normes d'une couverture adéquate

- Prix unitaires

4.2. Programmes d'appui

4.2.1. Développement du personnel

4.2.2 Education Sanitaire

4.2.3 Programmes destinés à favoriser la participation communautaire

4.2.4 Programmes destinés à développer un système d'informations du secteur AEPA

4.2.5 Programmes destinés à développer la technologie appropriée

4.3. Exécution du Plan

4.3.1 Répartition des responsabilités institutionnelles

4.3.2 Préparation des programmes et des projets

4.3.3 Calendrier des activités

4.4. Financement du plan

4.4.1 Coût des investissements

4.4.2 Ressources financières à mobiliser

- Fonds de roulement

- Possibilités d'accroître les ressources externes et internes

4.5. Surveillance continue et évaluation du Plan

4.5.1 Contrôle de la performance des activités

4.5.2 Contrôle financier

4.5.3 Evaluation périodique des réalisations

INFORMATION COMPLEMENTAIRE - SUJETS A DISCUTER ET RESOUDRE

1(a). Estimation des investissements nécessaires pour atteindre les objectifs de la Decennie d'Eau

Eau potable en milieu rural

1990 objectif	eau potable accessible à 35% de la population rurale
1985 population rurale	20 million habitants
1990 population rurale	22 million
pop.rur. couverte 1985	4 million
pop.rur.couv.cible 1990	7,7 million
pop.add. à couvrir 1985-1990	3,7 million
coût unitaire	500 Z par personne couverte
Investissement total	1,85 milliards de Z

1(b). Estimation des investissements nécessaires pour atteindre les objectifs du septennat 1985-1991

1991 objectif	eau potable accessible à 50% de la population rurale
1991 population rurale	22,5 million
pop.rur.couv.cible 1991	11,25 million
pop.add. à couvrir 1985-1991	7,25 million
Investissement total	3,625 milliards de Z

2. Education sanitaire sur maladies hydriques et aepa

Education sanitaire des populations rurales est un élément essentiel pour la réussite des projets d'aepa. Durant la période du Plan l'éducation sanitaire sera entreprise dans les localités couvertes par le projet SANRU II. Dans les délibérations du Comité, l'éducation sanitaire des autres populations rurales n'est guère mentionné. L'on doit considérer cet élément pour renforcer les activités d'aepa partout.

3. La participation communautaire dans les activités d'aepa

Le document de "politiques et stratégies" établi par le CNAEA précise que la participation des communautés est obligatoire, et que les communautés devraient participer à chaque étape d'un projet des prospections préliminaires à l'entretien des installations construites. Le Plan doit préciser comment seront formés les comités locaux d'eau et d'assainissement, et par quelles procédures ils doivent mobiliser la participation communautaire.

4. Critères provisoires pour le choix des "zones d'action prioritaire"

Puisque les ressources qui sont assurées pour accomplir les objectifs de la Décennie sont très limitées, le Gouvernement devrait considérer l'établissement des "zones d'action prioritaire" où les activités seront concentrées pendant la période du Plan.

L'aire d'une "zone d'action prioritaire" ou "ZAP" pourrait être une zone administrative. La sélection des ZAP pourrait être faite parmi les zones où un large pourcentage de la population rurale a besoin d'une amélioration de leur système d'aepa. L'on peut ranger zones sur la base des facteurs suivants :

1. Population : calculer la densité moyenne pour la zone en habitant par km² ;
2. Pénurie d'eau : calculer le déficit en soustrayant la quantité moyenne portée à la maison quotidiennement de la quantité admise comme norme pour les populations rurales (30 lhj).
3. Maladies hydriques : calculer le pourcentage de tous les cas rapportés que représentent les maladies hydriques.
4. Distance au point d'eau : comparer les distances moyennes avec la norme de 500 m.

5. Critères provisoires pour la sélection des projets

L'on peut évaluer la priorité des projets au niveau des localités avec trois catégories de critères :

1. Critères de besoin

- grande population
- manque de points d'eau protégés
- manque d'eau en quantité suffisante
- distance moyenne au point d'eau est élevée
- incidence élevée de maladies hydriques
- existence d'un centre d'intérêt (dispensaire, écoles, marché...)

2. Critères de participation communautaire

- existence d'un comité local de développement
- fourniture de main d'oeuvre
- fourniture de matériaux localement disponibles
- participation en planification, construction et gestion des installations
- acceptation de pleine responsabilité pour l'entretien de routine des installations.

3. Critères de dessin technique

- distance maximale maison/point d'eau 500 m
- protection contre l'introduction des eaux polluantes et d'autres substances polluantes
- capacité du système 30 lhj
- coût unitaire maximale 500 z
- technologie appropriée manuelle.

N.B. L'existence de voies d'accès pourrait être considérée comme facteur d'intervention prioritaire.

6. Définition des aires urbaines et rurales

Afin de pouvoir allouer rationnellement les responsabilités pour le développement des programmes et des projets entre différentes organisations, l'on devrait adopter une définition claire entre les aires urbaines et les aires rurales.

Définition : Le milieu rural est défini comme étant toute agglomération ou suite d'agglomérations non urbanisées, habitées par une population essentiellement paysanne.

REPUBLIQUE DU ZAIRE
STRUCTURE INSTITUTIONNELLE ET RESPONSABILITE

ORGANISME / FONCTION	Planification générale	Négociation de Prêts/Projets	AEP urbain			AEP rural			ASN urbain			ASN rural		
			Planification et Etudes	Construction	Fonctionnement et Entretien	Planification et Etude	Construction	Fonctionnement et Entretien	Planification et Etudes	Construction	Fonctionnement et Entretien	Planification et Etudes	Construction	Fonctionnement et Entretien
CNAEA	X		X			X			X			X		
Département du Plan	X	X												
Département des Finances et du Budget		X												
REGIDESO (Départements des Mines et Energ(e))			X	X	X	1/ X	1/ X	1/ X						
SNRR (Départements de l'Agriculture et Développement Rural)						X	X	X						
PNA (Département de l'Environnement, observation de la Nature et Tourisme)									X	X	X	X		
Direction de Voirie et de Drainage (Département des Travaux Publics)									2/ X	2/ X	2/ X			
SANRU (Direction des SSP Département de la Santé Publique)						X	X	X				X	X	X

1/ Dans les localités rurales assez développées sur le plan économique pour justifier l'intervention de la REGIDESO.
2/ Uniquement pour les ouvrages de drainage des eaux pluviales et pour la protection contre l'érosion.-

p) l'alendrier et coût

Il a été examiné la manière pratique de remplir les tableaux prévus dans l'esquisse du plan. Ceux-ci sont au nombre de cinq

- Tableau n° 1 Objectifs AEP
- Tableau n° 2 Objectifs Assainissement
- Tableau n° 3 Réalisation de couverture
- Tableau n° 4 Programmes d'appui
- Tableau n° 5 Financement du plan.

Tenant compte de l'importance des tâches définies dans l'esquisse du plan, les Experts WASH ont proposé un calendrier qui prévoit la fin de la rédaction du plan au cours du mois de mai 1986, soit 14 semaines de travail. Les experts zaïrois basant sur la répartition des tâches qui sera opérée à partir du lundi 27 janvier 1986, ont fait comprendre que la fin de la rédaction du plan pourrait intervenir en moins de 6 semaines; ceci pour rester dans les limites du temps nécessaire à l'examen du Plan Quinquennal National au niveau du Conseil législatif (Parlement).

A cet effet, les Experts Zaïrois comptent préparer le programme à suivre pour le reste des travaux de l'élaboration du Plan de l'AEPA Rural.

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Au cours de leur séjour, les Experts WASH ont été reçus en audience le mardi 14 janvier 1986 par le Citoyen TSHIONGOMBE TSHIBINKUBULA wa TUMBA, Secrétaire Exécutif du CNAEA et Président Délégué Général de la REGIDESO.

Recevant la mission WASH, le Secrétaire Exécutif lui a manifesté l'intérêt du Comité à disposer d'un plan directeur pour l'hydraulique et l'assainissement en milieu rural.

De même, il a donné à ses hôtes les détails précis sur le programme d'investissements concernant le secteur de l'AEPA retenus au titre du Plan Quinquennal National actuellement en discussion au Conseil Législatif.

.../...

Les intéressés ont remercié le Secrétaire Exécutif pour sa disponibilité et ont promis d'apporter leur concours à leurs homologues zaïrois pour l'élaboration d'un schéma cohérent et réaliste qui servira de base pour l'élaboration du Plan Quinquennal du sous-secteur de l'AEPA Rural.

Le Secrétaire Exécutif s'est déclaré disposé à recevoir toutes les suggestions de nature à consolider les acquis de la coopération avec WASH.

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Le lundi 20 janvier 1986, les Experts WASH se sont entretenus avec des Représentants des Organismes Internationaux OMS, PNUD et UNICEF.

Au cours de cette rencontre, ils ont expliqué à leurs interlocuteurs l'objet de leur mission au ZAIRE qui est d'assister les Experts Zaïrois dans l'élaboration du Plan Quinquennal du sous-secteur de l'AEPA Rural.

Le PNUD s'est déclaré disposé, lorsque le plan de l'Hydraulique et de l'assainissement en milieu rural sera prêt, à patronner une conférence de bailleurs de fonds du genre de celle qui s'est tenue du 7 au 11 février 1983 à KINSHASA pour faire la promotion des projets intéressant l'Hydraulique et l'Assainissement en milieu rural, si le Conseil Exécutif le lui demandait.

L'OMS de son côté se prépare à effectuer entre autres les activités suivantes au cours de l'année 1986 en matière d'AEPA au ZAIRE :

- Conjointement avec le Secrétariat Exécutif du CNAEA, organisation d'une étude d'évaluation de la Décennie en mi-parcours et d'identification des lignes politiques principales pour la seconde moitié de la Décennie.
- Organisation, en collaboration avec le Secrétariat Exécutif du CNAEA, d'un atelier national sur les normes nationales de l'eau potable.
- Participation à l'enquête sanitaire programmée par le PNA suivie de l'organisation d'un atelier sur des résultats de cette opération.
- Octroi d'une bourse d'étude pour spécialisation d'un ingénieur en génie sanitaire.
- Elaboration des modules sur les composantes eau potable et assainissement des Soins de Santé Primaires et sur l'aspect éducationnel de ces composantes.

L'UNICEF a informé les Experts WASH de ce qu'elle a élaboré comme programme dans le cadre du Septennat du Social, une étude tendant à mettre en place de nouvelles structures en milieu rural.

Elle a par ailleurs, affirmé qu'avec une dotation de 100.000.000 de dollars US le programme lancé par le Président de la République dans son discours du 5 décembre 1984 de couvrir en eau potable 50 % de la population en milieu rural à l'horizon 1991 sera complètement réalisé.

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La journée du 21 janvier 1986 a été consacrée aux
visites des services suivants :

- Centre de Formation de la FREDERCO (FB) y compris la
mini station de traitement à usage expérimental à BIRSA
dans la Zone de NGALIEMA.
- Centre d'Etudes Multidisciplinaires pour le Développement
de l'Approvisionnement en Eau Potable " FENDEEP " dans la
Zone de la Gombe
- Soins de Santé en Milieu Rural " SANRU " dans la Zone de
la Gombe (journée du 23 JANVIER 1986)
- Service National de l'Hydraulique Rurale " SNHR " dans la
Zone de la GOMBE
- Programme National d'Assainissement " P N A " dans la Zone
de LINETE.

Les travaux se sont déroulés dans un climat de parfaite compré-
hension. Les Experts WASH remercient le Secrétaire Exécutif
pour l'accueil qui leur a été réservé et les conditions particu-
lièrement efficaces dans lesquelles les rencontres ont évolué.

Fait à Kinshasa, le 24 janvier 1986

Mr. Dennis WARNER

Dennis Warner

Citoyen KADIMA MWAMBA

Kadima Mwamba

Mr. Prescott STEVENS.-

Prescott Stevens

Citoyen MUBA KABANZA.-

Muba Kabanza

Pour le S N H R

Sowa Lukona
Citoyen SOWA LUKONA.-

Pour le P N A

Citoyen KABEVA MUKENI wa MULUMBA.-

Kabeva Mukeni

ANNEXE

LISTE DES PARTICIPANTS

1. Citoyens KADIMA MWAMBA, Secrétaire Général Adjoint à la REGIDESO/CNARA.
2. " MUBA KABANZA, Directeur au Département de la Santé Publique.
3. " SOWA LUKONO, Directeur du Service National de l'Hydraulique Rurale Département de l'Agriculture et Développement Rural.
4. " KABEYA MUKENI wa MUKUMBA, Directeur du Programme National d'Assainissement Département de l'Environnement, Conservation de la Nature et Tourisme.
5. Monsieur Prescott Stevens, Consultant WASH
6. Monsieur Dennis WARNER, Directeur Adjoint WASH
7. Monsieur Félix AWANTANG, Responsable Eau et Assainissement USAID/KINSHASA.
8. Monsieur AKMANOGLU N.O., Chef d'Equipe Projet ZAI/CWS/001 O M S.
9. Monsieur Goyens GUY, Conseiller au S.N.H.R.
10. Citoyens KALALA MWAMBA, Chef de Division au Service ERTS.
11. " MWANAMBUYU KABALA, Chef de Service au P N A.
12. " MUKALAYI MWEMA, Chef de Service à la REGIDESO
13. " LUVULA AGNEN Adjoint Technique SNHR.
14. " KAPIAMBA MBUIKILA, Chef de Bureau PNA
- 1.5. " ITOKO y'OLUKI, Responsable Eau et Assainissement SANRU.

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