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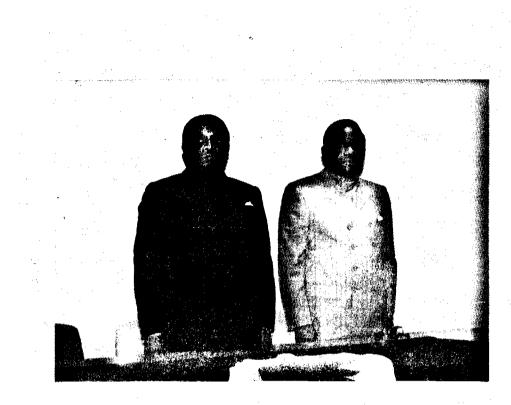
WATER SUPPLY AND SANITATION IN ZAIRE

A BI-DECENNIAL STRATEGY

UNITARY GENERATIONAL REFERENCE CENTRE FURCEMENTER SCHPPLY AND SARHABING DRC)

1990

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Misters President and Executif Secretary in july 1988

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LIBERENCE INTERNATION OF THE FUTHCE CENTRE FOR COME MITY WATER SUPPLY AND EAST 1. TON (HEC) P.O. Box 11 (100) (HEC) FO, Box 11 (100) (HEC) Tol. 1970) (HEC) (HEC) (1990)

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I. INTRODUCTION

The International Decade for Water Supply and Sanitation " IDWSS " was proclamed by UN General Assemblee on november 10, 1980 for the 1981-1990 period according to the Mar del Plata Conference resolution of march 1977.

Like all the developing countries, Zaïre adhesion to the IDWSS declaration allowed the country to understand the precarious situation pravailing in the water supply and sanitation sector in which only 43 % of population in the urban areas and 5 % of population in the rural areas had access to drinking water whereas 8 % and 6 % of people in the urban and rural areas were in touch with good sanitation.

In a letter sent to the UN Secretary General, the President of Zaïre took an engagement of covering progressively up to 1990, 35 % and 70 % of population living in the rarul and urban areas respectively.

National Action Committee

In order to guide all of the actions to be undertaken during the IDWSS period, the President created by his ordonnance n° 81-023 of february 14, 1981, as modified and completed by the ordonnance n° 87-105 of april 3, 1987 a National Action Committee in charge of, on the one hand, defining first order options, priorities and development strategy and on the other hand, elaborating and insuring the execution of rehabilition, development in the existing centers, equipment in the new centers and training programmes.

Composition

The National Action Committee is composed as follow

President	: Ministry of Planning
Vice-President	: Ministry of Environment
Executif Secretary	: REGIDESO

Members

- Presidency of the Republic

- National Assembly

- Ministry of Territory Administration and Decentralization

- Minitry of Foreign Affairs

- Ministry of Finance

- Ministry of Budget

Ministry of National Defence and Territory Security

- Ministry of Mining and Energy

- Ministry of Public Works and Land Development

- Ministry of Rural Development

- Ministry of Public Health

- Ministry of Family and Feminine Condition

- Ministry of Urban Planning and Housing

- Ministry of International Cooperation

- Ministry of Social Affairs

- Ministry of Higher Education, University and Scientific Research

- Ministry of Primary and Secondary Education

- National Electricity Society " SNEL "

- Office of Roads and Drainage " OVD "

- Superior Council on State Portefolio

Definition of a New Strategy

The starting of IDWSS coincided with a big economic crisis which hampered the chance of many countries to achieve the goals that they gave themselves. In Zaïre, the water supply programmes serve a number of people less than that of population increase - there are no programmes for the sanitation subsector. That is why by the end of the IDWSS period 2/3 of urban and 1/5 of rural citizens will have access to drinking water; but less than 1/8 of urban quarters and 1/8 of villages could be considered as sanatory.

To solve this situation the National Action Committee has approved on july 19, 1988 the present document which contains the new Strategy which comprises two parts:

. The first part presents a global strategy which tends to revive the national sector programmes. It demands the use of technologies which are effective and which are adapted to the conditions of the country.

It must, in addition, distribute the national resources equitably to the various subsectors according to their priorities and mobilise local responsability and self financing schemes as much as possible.

The human resources - including both the personnel and the benefiting population-must be correctly trained and utilised.

Hence the role played by the National Action Committee Permanent Bureau must be reinforced in order to optimise the planning, execution and coordination of the programmes.

The second part defines particuliar strategies for the different subsectors : Water Supply both in the Urban and Rural areas and Sanitation in the Urban and Rural areas.



National action meeting, july 1988

2. NEW SECTOR STRATEGY

2.01. The national policy aims eventually at providing the whole population of the country with adequate and operational water supply and sanitation systems, through a continous action to be carried out in close collaboration by the authorities and the people.

2.02. Considering the 300-odd agglomerations of over 5000 inhabitants as urban and the 43000 agglomerations of less than 5000 inhabitants as rural, and assuming the following overall rates of population increase :

1988	-1990	3.1 %
1991	-1995	3.1 %
1996	-2000	3.1 %
2001	- 2005	3.0 %
2006	- 2010	2.8 %

the urban and rural population of the country will evolve as follows (in millions of inhabitants) :

	1987	1990	1995	2000	2005	2010
Total population	32.5	35.6	41.5	48.3	56.0	64.3
Urban population	13.3	15.3	18.7	22.7	26.9	32.2
Rural population	19.2	20.3	22.8	25.6	29.1	32.1

2.03. It is observed that at the present rate of sector development the water supply programmes serve each year an additional population of about 700 000, which is however less than the annual increase in the national population. As far as wastes disposal is concerned, the rural sanitation programme, which is incorporated into the rural health programme SANRU, and the new urban sanitation project CRAM

in Lubumbashi are promising. But at the present time only a feasibility study for the improvement of the Kinshasa drainage system exists which has not been implemented. There are as yet no approved sanitation projects for the other large cities.

2.04. In a country as large as Zaïre certain important factors constrain the development of virtually all the sector programmes. These constraints must be allowed for in formulating a global strategy.

The technical constraints include

- high concentration of suspended solides in the surface water, poor knowledge of groundwaters and of the stability and permeability of the soils,*
- very low population density in built-up areas and rapid development of urban fringes, poor knowledge of the geography and layout of most urban areas and of their water and wastes disposal facility, lack of urban planning;
- lack of a network of motor roads, of telecommunication and of electrification, sharp price increase in interior towns for building materials and fluel;
- insufficiency of competitive contractors and of specialists in planning, project preparation, groundwater prospection, wastes disposal methods and water/wastes/health studies, as well as in management.

The financial constraints include

- the effects of the successive devaluations of the Zaïre-money and of inflation, the shrinking of household budgets;
- the high cost of construction especially in the interior of the country, the high proportion of capital costs and of foreign exchange costs and the relatively small proportion for operation and maintenance of installations;
- water tariffs already high for large consumers, no receipts for wastes disposal services, slow development of community participation, a few large cities virtually subsidizing the others.

The organizational constraints include

- lack of an agency for the management of natural resources;
- relative weakness of sectoral agencies other than the REGIDESO both at central and field levels, divided administative responsability for wastes disposal;
- large number of uncoordinated non-gouvernmental organizations;
- reluctance of local authorities to take over the operation and maintenance of water supply installations, virtually no responsibility assumed by local authorities for wastes disposal.

2.05. A new strategy is necessary to revive the national sector programmes. This strategy demands the use of technologies which are effective and which are adapted to the conditions of the country. It must distribute the national resources equitably to the various subsectors according to their priorities and mobilise local responsability and self-financing schemes as much as possible. The human resources - including both the personnel of national agencies and the benefiting population - must be correctly trained and utilised. Finally the institutional framework of the sector must be improved in order to reinforce and optimize the planning, execution and coordination of the programmes.

Institutional strategy principles

2.06. Two principles are essential in the institutional strategy. First, the national technical agencies which are specialized in planning, financing, building and operating water supply and wastes disposal facilities must give their contribution to all the administrative agencies needing these services, rather than creating new parallel specialized agencies. Second, the public services of the Administration must concentrate more on such tasks as preliminary studies, identification and formulation of projects and essential preparatory activities to sensitize the populations to their responsibilities in the execution of projects and the correct maintenance of installations. The feasibility studies to be carried out by the specialized agencies mentioned above will indicate the least cost solution for each project. In this way the construction by contract or by force labor will be decided. With the exception of small dispersed installations, the least cost method would usually be by international competitive bidding to which specialized firms would be invited, following prequalification.

Permanent Bureau for National Action Committee

2.07. The creation in 1987 of a permanent office acting as Permanent General Secretariat for the National Action Committee makes possible better sector planning and closer coordination of sector programmes. Tehnical assistance for the Committee is needed for a period of one or two years to guide the development of the new sector strategy. This could best be provided by a retired expert who has aquired substantial experience in solving similar problems in his own country or in a development country.

International Decade for Water Supply and Sanitation in Zaïre

2.08. Zaïre subscribed in 1980 to the principles of the International Drinking Water Supply and Sanitation Decade and established as national objectives in 1990 the provision of drinking water for 70 % of its urban population and for 35 % of its rural population. The latter objective was raised in the seven year social Plan 1985 - 1991 to 50 %. Because of the lack of organizational structures and of up-to-date information on wastes disposal facilities in the country, Decade objectives in urban and rural sanitation could not be established. Considerable progress has been made in urban water supply but it was slowed by difficulties in financing the large investments which were necessary and by the rapid increase in urban population so that the coverage at the end of the Decade is expected to be about 66 % rather than 70 %. The National Rural Water Supply Service SNHR was only established in 1983 and despite the existence of the National Five Year Plan prepared in 1986 and a considerable effort during 1987 the SNHR has not yet been able to prepare a long term detailed programme nor to acquire an organisational structure adequate to carry out its functions effectively. For these reasons its capacity to absorb new investments is very limited. Assuming that all existing and new installations will be operational, the coverage foreseable at the end of the Decade is therefore about 19 % rather than 35 % (or 50 %).

3. SUB-SECTOR STRATEGIES

Water Supply in Urban Areas

3.01. A public organization named REGIDESO provides water supply in urban areas. REGIDESO is a technical, industrial and commercial enterprise having legal status and an autonomous management. At the end of 1989 the urban water supply systems distibuted water through about 298.803 connections and 1500 publics standposts serving respectively 59% and 5% of the urban population of the country, the greater part of them living in 25 large cities of 60.000 or more inhabitants. During the past five years about 16.000 connections and 125 public standposts ware built each year.

3.02. A concerted effort to improve services during the Decade has increased the averall production capacity of the REGIDESO installations by 31 %, the number of individual connections by 31 %, the number of public standposts by over 100 %, the quantity of water sold by 26 % and the number of cities served by 22 %. Since eight years the REGIDESO has begun to switch from surface water sources to underground water sources wherever it is feasible, thereby reducing the need to import chemicals, which at present cost \$ 5 millions each year.

3.03. Nevertheless these beneficial results have for the most part been concelled by the 30 % increase in urban population since 1980. In addition a number of technical problems have appeared. The present production capacity of REGIDESO plants is well below the demand in the majority of the 72 existing systems and the distribution networks of all the systems need to be extended, strengthened and rehabilitated. Even the reduced production capacity is not fully utilized because of limited networks, leaks and losses in the networks and frequents shortage of fuel in the interior of the country which prevents continuous functionning of the equipment.

3.04. The REGIDESO is capable to overcome these obstacles. It is a well managed and financially autonomous enterprise, which has followed since its creation a strict policy of cost recovery, including maintenance costs as well as financial costs. In addition to its administrative services the REGIDESO has had for a number of years specialized units equipped to plan, prepare and execute projects and to train technicians. These units are respectively the Planning and Programming Directorate DPP, the Water Supply Study Center CEMDAEP and the Training Centers CFO. Amongst the 3358 employees of the REGIDESO 48 % work in administrative and 52 % in technical posts.

3.05. The Government and the REGIDESO have signed a "contrat programme " for the 1988 - 1990 period which defines REGIDESO's objectives and establishes government's and REGIDESO's rights and obligations respectively as well as procedures to follow up and to evaluate the contrat-programme. The investments realised between 1984 and 1989 show an important effort in autofinancing, which could continue and be reinforced in connection with the contrat-programme. The development strategy of this subsector foresees an annual progression of 6.3 % of new water distribution points (private connections and public standposts). The result will be water supply service to 66 % of the urban population (9.6 millions inhabitants) in 1990, 68 % (12.9 millions) in 1995, 76 % (17.5 millions) in 2000, 88 % (23.8 millions) in 2005 and 100 % (32,2 millions) in 2010.

3.06. The investments are estimated in constant 1988 prices on the basis of US \$ 120 per inhabitant served in new centers and US \$ 60 per inhabitant served in existing centers, totalling US \$ 1614 millions. The financial plan, including all components to be financed by the government and by various external financing agencies (IDA, ADB, EDF and various bilateral programmes), is consistant with the Priority Public Investment Programme (PIP) for the water and sanitation sector

The PIP for water/sanitation represents about 7 % of the overal PIP for all sectors of the economy during the same period. In the future programme the tarif structure will be periodically and systematically adjusted so as to take into account inflation, exchange risks and an adequate margin of autofinancing of the REGIDESO in connection with articles 7 and 12 of the contrat-programme. The Government must assure with its own funds, or borrewed funds, the investments for the water supply systems of the small centers which are not financially feasible, and where the REGIDESO cannot carry out a policy of full cost recovery from the users. In general only the operation, maintenance and headquarters costs can be recovered for these systems.

3.07. The immediate actions of the REGIDESO should be directed towards optimising the operation of existing systems and rehabilitating existing works. For the small centers of 5000 to 20.000 inhabitants (and in some cases even larger centers) simple and inexpersive technologies should be used to the maximum both for construction and for operation. In this connection the economic and financial opportunity should be explored of turning over the operation of small water supply systems to the local commuties, for exemple through a concession.

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3.08. In line with the principle of utilized existing specialized services instead of creating new ones, the Ministry of Public Health should resume its former responsibility for the surveillance and control of the quality of urban drinking water and should organize and carry out the health education of urban dwellers concerning the protection and use of potable water.

3.09. During the same period it is necessary to strengthen the " support " programmes, especially the reconnaissance of groundwater resources, the optimisation of water distribution by individual connections, the improvement of methods of operating and managing the installations (functioning and maintenance of equipement, control of treated water quality, billing and collection of charges and general " client management ") and the training and recycling of staff. The strengthened support programmes should include appropriate elements of technical assistance and should make allowance for the extension of responsibilities of the specialized units mentioned earlier in connection with the development of the rural water supply and urban sanitation subsectors.

3.10. The training programme must be planned taking into account the new staff responsabilities and positions which will result from the opening of new centers as well as from the strenthening of the central units already referred to. All training courses for operators and supervisers alike - whether they concern technical matters, accounting or management - should concentrate on operational effectiveness and efficiency.

Sanitary Wastes disposal in Urban Areas

3.11. The insufficiency and the failures of the public systems for the collection and disposal of rainwater and of liquid and solid wastes in Zairian cities, which have been neither maintained nor extended for many years, affect the economic development of the cities and continually imperil the health of their citizens. Some land owners build individual disposal systems in which the wastewater infiltrates into the soil, where its permeability allows. In the Capital and in the Regional Centers, the Office of Roads and Drainage " OVD " is responsible for maintaining 227 km of wastewater collectors and sewers, 374 km of open drains and 268 culverts. These installations are frequently underdimensioned in relation to present-day water flows, or blocked as a result of the lack of maintenance and of illegally discharged solid wastes. In most districts of Kinshasa, domestic solid wastes are handed over by the inhabitants to sweepers, who are paid directly by the inhabitants themselves and who discharge the wastes, without control. A private

enterprise operating under nominal capacity control ensures the collection of the refuse of less than 100.000 inhabitants in the well-to-do neighborhoods. Industrial wastes are in general not treated, and are discharged without official control. A general programme of urban sanitation CRAM has recently been inaugurated in Lubumbashi by the regional authority with the support of local private and public enterprises.

3.12. The public activities in urban sanitation are at present entirely financed from the Government budget, but during 1986 and 1987 less than half of the credits approved were spent. Responsability for urban sanitation is divided between Office of Roads and Drainage " OVD " and the National Sanitation Programme " PNA ". The OVD, responsible for the construction and maintainance of public rainwater drainage works, has a well qualified staff of 230 persons. The National Sanitation Programme " PNA " responsible for the management of solid and liquid wastes and for the control of insect vectors, has a staff of 443 persons. Building permits at present require landowners to construct wastewater disposal units but no service exists to control the quality of such individual systems. The REGIDESO has recently taken an important initiative in requiring an adequate wastewater disposal systems as a prerequisite for installing a new water supply connection.

3.13. The ultime objective of the urban sanitation subsector is the construction in all cities of rainwater drainage systems and of individual wastewater disposal systems and the organization of adequate systems for collecting and discharging solid wastes. In those districts, yet to be identified, where individual wastewater disposal systems cannot be used, because of the high population density, the soil's impermeability or the nature of the wastewater - for example, hospital wastes - sanitary sewers must be provided. The city of Matadi, built on a steep and rocky slope, has practically no alternative solution to suspended sewers ! In the other cities it is estimated that the districts where sanitary sewers must be provided will include between 5 and 10 percent of the urban population.

3.14. In the Five Year Development Plan 1986-1990 basic sanitation measures were foreseen for 40% of the country's urban population, but no financially valid programme was presented and only a few scattered activities have been undertaken. In order to set this process in motion studies and pilot activities are needed. The CRAM project in Lubumbashi may fulfil locally at least part of this need. A partial improvement of the situation in the Capital might be obtained if the urban development project, which has elements of drainage and solid wastes management, were to be undertaken. The impact of such a project would be felt by the entire

population of the city and should incited the authorities to undertake other projects amongst the most urgent to eliminate domestic and industrial wastewaters in Kinshasa and to attack the wastes disposal problems of the other cities of the country. The optimum overall system for Kinshasa wastes disposal, including its financing, cost recovery schema and organization and management, will emerge from the feasibility study and master plan of sanitation, drainage and environmental protection of Kinshasa which form part of the World Bank (IDA) Third Water Supply Project.

3.15. Programmes for the construction of latrines and other individual systems and programmes for the collection and disposal of domestic solid wastes should in principle be directly self- financed. An adequate and recovery mechanism must be set up to cover the maintenance as well as the investments for rehabilitating the existing sewers and open drains and building essential new ones. The sewer systems might be financed by a surtax on drinking water and the drainage systems might be financed by a land property tax. A programme of specific projects for the next five years should be identified in the sector study and detailed in the Master Plan 1990-2010.

3.16. The reorganization of the public services responsible for the disposal of liquid and solid wastes will on the one hand depend upon technically and administratively competent executing agencies and on the other hand upon the effective coordination of all the actions in planning, programming, followup and public relations. If the actual attributes of the OVD and the PNA could be concentrated in a single organization all of these objectives would be achieved; this is in it self a strong reason for considering this alternative.

The OVD - which has a larger staff of qualified personnel and other resources and which has the status of a State Society could in this case be prefered. If on the other hand it is decided to retain the two organization the PNA must be reinforced and must also be given the status of State Society in order to be able to fulfil its mission completely.

3.17. Whatever organizational framework is chosen the administrative service or services must be able to call on the specialized sectorial knowhow existing in the REGIDESO in the fields of planning, training, feasibility studies, search for financing final design, calling for and evaluating tenders, executing projects and operating facilities. In order words, the responsible administrative service, together with the public health service, should retain and reinforce its role as planner and as advisor on standards for sanitation, control and following up of domestic and

industrial wastes disposal and environment protection, while subcontracting to the REGIDESO the tasks mentioned above, in the framework of a close collaboration with the REGIDESO and the Public Health Ministry within the National Action Committee. In the immediate future the responsible service, with the collaboration of the REGIDESO/DPP and on the basis of the investigation recently carried out by the PNA in the principal cities, should identify specific priority projects to be included in the feasibility study and master sector investment plan financed by the African Development Bank, which has begun in 1989. These projects, chosen according to their economic and public health importance, should emphasize the extension of self-financed individual wastewater disposal schemes in districts served by individual drinking water supply connections and the rehabilitation and construction of sanitary sewers in crowded districts where individual wastewater disposal systems are not feasible.

3.18. If the Kinshasa urban development project were realised it could provide practical training for technical and administrative sector personnel responsible for drainage and solid wastes systems, it could help define and follow up the performance indicators for the various kinds of installations and it could enable trials of health education techniques amongst the inhabitants of different districts of the city, to be carried out jointly by the PNA, the MSP and the Ministry of National Education. The MSP should organize the health education programmes and collaborate with the Education Ministry in introducing appropriate courses for primary school students.

Water Supply in Rural Areas

3.19. It is necessary to distinguish in Zaïre the dispersed rural settlements, which can be supplied by boreholes or wells equipped with handpumps or by springs or gravity schemes, from the rural or semi-rural agglomerations in which private house connections may be envisaged. The latter agglomerations are dealt with in paragraphs 3.01-3.10 above; the following considerations concern mainly the dispersed rural settlements.

3.20. At the end of 1989 the rural water supply installations included 6.307 improved springs, 1175 dug wells and drilled wells, 88 gravity supplies and 16 pumped supplies. These installations served 3.5 millions (17,5%) of the 19 million rural Zaïrois, of which 72% by springs, 13% by supply systems and 15% by wells. Allowing for defective maintainance of some installations a somewhat lower effective coverage may be assumed. 32% of the improved springs, 41% of the wells

and 63% of the piped supplies have been built by the National Rural Water Supply Service "SNHR" and the others have been built by various public and private organizations. The improved water points completed by the SNHR during 1988 served 240,000 persons, but the rural population increased during the same period by about 400,000 persons.

3.21. Since its creation in 1983 the SNHR has been mainly financed by UNICEF and USAID. The contributions of the Government and of the benifitting villages represented less than 20%. The yearly expenditures in 1986 and 1987 were of the order of \$2 millions. The unit cost of improved springs and gravity supplies was about \$10 per capita while the unit cost of drilled wells was about \$50 per capita.

3.22.323 persons work in the SNHR including 39 persons at headquaters (technical, administrative and supply services) and 284 persons in fifteen field stations. 18 persons are assigned to four drilling units, which are attached to the field stations as needed. In each assisted locality the inhabitants contribute labor for the improvement of their water points : the men dig wells and trenches and the women and children transport materials and take care of the maintainance of completed installations.

Each SNHR field station is intended to cover a land surface of 30.000 Km2 with about 800 villages, but it cannot operate effectively throughout such an area. The average productivity of the field stations, based upon the number of new water points improved per year, was increased during 1989, but it is still considerably less than the target set by the SNHR (21.000 inhabitants newly served instead of 40.000 or 50.000 hoped for). This difference is due to several factors, notably inexperienced staff, lack of transport, fuel and roads, lack of technical equipment and spare parts, delays in paying salaries, and especially lack of geographical and groundwater reconnaissance and of ability to prepare projects.

3.23. The rural water supply development strategy foresees serving about 19% of the rural population (3.8 millions inhabitants) in 1990. During the period 1991-2010, with an annual progression of 10% new water points, the following results would be obtained : service to 28% of the rural population (6.1 million persons) in 1995, 40% (10.0 million) in 2000, 55% (19.5 million) in 2005 and 80% (25.6 million) in 2010. The feasible rate of progression will be determined at a later date and will depend upon the results of the geographical reconnaissance, the regional projects identified in the master plan and the capacity of the central and field organizations in place in 1990.

3.24. The level of investments must be increased from the present level of \$2 million per year to \$20-30 or more. In order to realise such large investments efficiently and in a short period of time it is necessary on the one hand to assign the major part of the construction work to specialized contractors chosen by international competitive bidding and on the orther hand to reserve the present entrepreneurial role of the SNHR for specific cases where construction by direct labor represents the most economical solution.

3.25. In order to correct rapidly the precarious situation in which the number of rural people who are unserved is increasing every year, important action must be undertaken immediatly to set in motion large regional and local projects. Consequently :

- 1. SNHR must be reinforced and be given the status of a State Society.
- 2. In the maintime, the activity of the SNHR should be focused on :
- (a) the identification of regional and local projects which can be executed by specialized contractors chosen by competitive bidding, or by non-governmental organizations, based on the feasibility study and master sector investmment plan financed by the African Development Bank;
- (b) carrying out directly the protection of springs, weel-drilling and construction
 of gravity systems in those cases where construction by direct labor represents
 the least cost solution;
- (c) the development of approriate activities in collaboration with the competent national specialized agencies, notably subcontracting as necessary to the planning unit of the REGIDESO, to the project unit CEMDAEP, to the water ressources unit of the REGIDESO and to the training centers of the REGIDESO respectively the preparation of projects, the verification of studies and supervision of the work of contractors, the collection of hydrogeological data and the training of staff; and
- (d) the followup of the programme and of its components.

3.26. To support fully these projects and give them the best chance to succeed, the SNHR, in cooperation with the rural health zones, must intensify its geographical reconnaissance work, its activities of sensitizing local populations and its follow-up of completed projects. The SNHR must moreover diffine a programme of preventive maintenance and repair of all improved installations. The water supply installations will be maintained by the villagers themselves at their own cost. The initiative for carrying out successfully the maintenance programme, including all the actions of sensibilization and animation of rural populations so that they will assume their responsabilities in respect of maintenance and of recovering the

corresponding costs as well as part of the cost of the original installation, will be taken jointly by the SNHR and the rural health zones.

3.27. To maximize the potential effectiveness and impact of the SNHR field stations in carrying out the future expanded rural water supply programme, their functions and staffing must be reconsidered, and their number and location carefully optimized. It will be important to recrute or recycle personnel for the tasks of the SNHR, and to explore the economic and operational advantages of conferring on competent non-governmental organizations part of the field work at present directly carried out by the SNHR.

SANITATION IN RURAL AREAS

3.28. Sanitary wastes disposal is recognized to be a determining factor in the success of the primary health care programmes in rural communities of the country. In each organized rural health zone the inhabitants are motivated and assisted to clean up their villages and the villages which are maintened in satisfactory sanitary conditions are certified each year by the zone medical chief. Amongst the 306 rural health zones, 75 zones (including about 11.000 of the 43.000 villages of the country and having a present population of about five million persons) are assisted by the Rural Health Project SANRU. At the end of the year 1985, 880 villages (8% of the villages assisted by SANRU) were certified as "sanitary" and this number was increased to 1677 (15% of SANRU villages) at the end of 1986. This represents a very encouraging result especially since the work was entirely done at the expense of the inhabitants themselves.

3.29. The SANRU water and sanitation coordinator, or another professional member of the health zone staff, visits each village about once a mounth, where he undertakes the inspection, the health and hygiene education, and the technical assistance for the construction and maintenance of simple improved water points, the construction of sanitary latrines and the hygiene of houses and of their surroundings. The water and sanitation coordinator is assisted on site by a community health agent and sometimes by the local health center nurse. The salary and travel costs of the coordinator are included in the budget of each rural health zone, which will eventually be totally financed by the benefiting population. Financial support by the Government and by donor agencies is however needed during the initial period of the programme.

3.30. The participation of the National Sanitation Programme in the future rural sanitation activities is foreseen, but this participation has not yet been precisely defined. In order to rationalize and coordinate the assistance of various governmental and external agencies with the aim of achieving and maintaining sanitary communities, a technical and financial Rural Sanitation Programme must be established for the period 1988-1992, placing emphasis on the key roles of the rural health zones and of the benefitting communities.

3.31. The concept of sanitary villages is a dynamic one and includes all of the elements of environmental sanitation; the sector study in preparation and the Master Plan 1990-2010 should identify and describe ways and means to ensure that the rural communities in all rural health zones in the country may achieve and maintain the status of "sanitary villages".

3.32. The investment programme should allow many villages to attain the sanitary village status in the following way :

- at least 12% of the villages in 1990 (3,6 millions of inhabitants);
- 49% of the villages in 2000 (14,8 millions of inhabitants);
- 100% of the villages in 2010 (32,1 millions of inhabitants).



National action meeting, july 1988

ABREVIATIONS

AEP		Alimentation en Eau Potable
AEPA`	:	Alimentation en Eau Potable et Assainissement
BAD	:	Banque Africaine de Développement
BEAU	:	Bureau d'Etudes et d'Aménagement Urbain
DPP	:	Direction de Planification et Programmation
ONG	:	Organisation Non Gouvernementale
OVD	:	Office de Voirie et Drainage
PNA	:	Programme National d'Assainissement
REGIDESO	:	Régie de Distribution d'Eau du Zaïre
SANRU	:	Projet de Santé Rurale
SNHR	:	Service National d'Hydraulique Rurale
UNICEF	:	United Nations Children's Fund
USAID	:	United States Agency for International Development.