FEDERAL REPUBLIC OF NIGERIA

NATIONAL RURAL WATER SUPPLY AND SANITATION PROGRAMME

A STRATEGIC FRAMEWORK

Draft Final

prepared by

The Department of Water Supply and Quality Control, Federal Ministry of Water Resources (with Stakeholders Input)

In association with:

36 States and Federal Capital Territory The National Water Resources Institute The United Nations Children's Fund, UNICEF The European Commission The World Bank

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MARCH 2004

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1.0 COUNTRY BACKGROUND



Figure 1.1: Map of Nigeria Showing 36 States/FCT and 6 Geopolitical Zones

1.1 Introduction

Nigeria became a nation in 1914 with the amalgamation of the protectorates of southern and northern Nigeria by the British colonial power. The country has a land mass of approximately 923,768 square kilometers falling between latitudes 4° 1 and 13° 9 N and longitudes 2° 2 and 14° 30 E. Nigeria shares border with four countries: the Republic of Niger to the north, Republics of Chad and Cameroon to the east, and Republic of Benin to the west. The country is bounded on the south by the Atlantic Ocean with a coastline which measures about 800 kilometers.

1.2. Population

The results of the 1991 census place Nigeria's population at 88.5 million, and, using an average growth rate of 2.8%, the year 2002 estimate of the population is about 120 million distributed in 774 local government areas (LGAs) of the 36 states and the Federal Capital Territory (FCT). About one half of this population, that is 60 million, live in rural communities of less than 5,000. Of those living in rural communities, half live in small communities of less than 1,500 persons where handpumps are likely to be the most suitable technology, making it possible for women and children to go not more than 500m walking distance, to get potable

water, while the other half live in larger communities between 1,500 and 5,000 persons where small piped systems are likely to be appropriate.

Life expectancy in Nigeria is 48.2 years for female and 46.8 years for male. Crude birth rate is 47.7 births per 1000 population while crude death rate is 13.9 deaths per 1000 population.

1.3 Socio-Economic Indicators.

Some of the indicators of economic growth are the Gross Domestic Product (GDP) and the Gross National Product (GNP). The country has a very slow economic growth with the GDP growing by 2.7% per year (or less than the population growth), between 1989 and 1999 while GNP per capita has dropped from US\$599 in 1975 to US\$310 in 1999. This is a reflection of the poverty level in the country which is more severe in rural than urban areas . In practical terms, about 70% of the population now live on less than US\$ 1 a day and 90% on less than US\$2 a day.

The 1999 National Demographic Health Survey (NDHS), quoted in *Children's and Women's Rights in Nigeria: A Wake Up Call*, put infant and under-five mortality rates at 71 and 133 per 1,000 live births respectively. Malaria, diarrhoea and acute respiratory infections (ARI), which are water and sanitation related, are the three major causes and, when combined with typhoid, account for almost 70% of child mortality and morbidity. Vaccine preventable diseases, malnutrition and others account for the rest.

Rural Communities, in the context of the water and sanitation sector in Nigeria, have populations less than 5,000 and usually do not have electricity, pipe water or tarred roads. The National standard of water consumption for rural areas is currently 30 litres per capita per day. Based on data from two major national surveys (Multi-Indicator Cluster Survey, MICS, of FOS and UNICEF and National Demographic Health Surveys of the FMOH) access to safe water and sanitation is put at less than 50% for rural areas. Specifically MICS, in 1999, gave figures of 48% and 44% access to safe water and sanitation respectively.

The main economic activities in rural areas are agriculture and livestock rearing, with about two-thirds of the population engaged in small holdings. Residents are usually willing to contribute money for Community Based Projects but cash flow is often tied to harvests and may not be dependable throughout the year.

1.4 Water Resources

The average rainfall is about 500 mm/year in the north (occurring between and April and September, increasing to about 3000 mm/year in the south (occurring between March and October). The country is noted for its two river systems: the Niger entering the country from North West and the Benue entering from the North East which together with their tributaries drain half the area of the country. The two rivers meet at Lokoja then move in a southerly direction into an extensive delta before discharging into the Atlantic Ocean. Other rivers flow directly into the Atlantic Ocean or into Lake Chad. Many rivers in the North are intermittent having water in them only in the rainy season but majority of the rivers in the South are perennial, flowing all year round and are important sources of drinking and irrigation water.

About 60% of the country is underlain by crystalline rocks, 20% by consolidated sedimentary materials, and 20% by unconsolidated sedimentary materials. Static water level in water wells ranges between zero in parts of the coastal alluvium to 200 metres in some sedimentary areas.

Well yield are unpredictable in the crystalline rocks found in many part of the North; where sufficient depth of weathering exists, the area may be suitable for operation of handpump

(minimum of 10 litres per minute), but only at specific localities where deep weathering and underlying fracture coincide are yields likely to be sufficient for motorized schemes.

Groundwater quality in the country is good. Only in some areas are iron, nitrate or fluoride concentrations above recommended WHO levels. The corrosiveness of groundwater is also an important consideration in choosing materials for water supply equipment. Using Ph as an index of corrosion potential, about 20% of the country is underlain by highly corrosive ground water (PH < 6.5), 40% by moderately corrosive groundwater (PH 6.5 to 6.8) and the remaining 40% by non-corrosive groundwater (PH > 6.8). With the lack of an acceptable standard of drinking water quality for the country as well as lack of a comprehensive water quality data base, it is difficult to know if there are major water quality problems such as those due to arsenic or fluoride. However, it is hoped that a planned UNICEF/WHO water quality assessment project will reveal areas of problems and provide the basis for developing an acceptable National Standard for Drinking Water Quality.

1.5 Water supply and sanitation

The Water Supply and Sanitation sector engages in the provision of services essential to the life and human development. To this end, nations have directed sector efforts at achieving access to safe water and improved sanitation and hygiene practices by their populations. In Nigeria, the inadequacy of safe water and improved sanitation services is manifested in the prevalence of water and sanitation related diseases. Diarrhoea, which results from poor sanitary/hygiene habits and consumption of water of poor quality, is the second main cause of infant mortality, after malaria, and the third main cause of under-five mortality. The prevalence of diarrhoea is higher in the rural than urban areas and in the northern zones than the south. An estimated 150,000 to 200,000 diarrhoea-related deaths occur among children below 5 each year.

Dracunculiasis (Guinea worm), which causes morbidity more than mortality, remains an important health concern with multiple adverse effects on health, education and economic activities especially in the rural areas. Although success has been recorded in reducing cases of the disease, from about 650,000 cases in the mid 80's to slightly less than 1500 cases in 2003. Total eradication is yet to be achieved. In addition, Onchocerciasis (River Blindness), caused by the black fly commonly found around fast moving streams of the Savannah and forest zones, is highly endemic in Nigeria with 40 million people exposed to the disease. Of this number, 22 million are infected and about 120,000 are estimated to be blind from the disease. Schistosomiasis, a parasitic disease transmitted through active penetration of the human skin by the snail vector, which lives in slow moving and stagnant water, is also endemic in the country causing mainly morbidity especially in the rural areas.

The high morbidity and mortality rates and the impact of these diseases are due to a combination of inadequate health care, water supply and sanitation services and unhygienic practices. The National Primary Health Care (PHC) Programme, implemented under the guidance of the Federal and State Ministries of Health, reflects the need for a multi-component approach to improving health as it encompasses EPI/ORT treatment, immunization against major infectious diseases, hygiene education, provision of essential drugs, appropriate treatment of common diseases, and the prevention and control of endemic diseases. FMOH activities need to be supplemented by a National Programme designed to provide widespread and sustainable rural water supply and sanitation facilities.

The drive for poverty reduction in Nigeria recognises water supply and sanitation as an important component. The National Poverty Elimination Programme (NAPEP) views the Ministry of Water Resources as one of 14 key government agencies relevant to the elimination of absolute poverty and the reduction or alleviation of relative poverty. Water supply and sanitation cuts across and affects several sectors including agriculture, rural infrastructure development, education, industrial development and indeed all the sectors of development that require the use of water and the management of sanitation for the benefit and welfare of human beings.

Thus the Water Supply and Sanitation sector in Nigeria has come under increasing focus since independence, but particularly during the last 20 years when the country participated in the global efforts and initiatives aimed at addressing the problem of low access to safe water and sanitary means of excreta disposal. Many entities are involved in rural water supply and sanitation, including: FMWR, FMARD, FMOH, SWAs, ADPs, RBDAs, LGs, and external support agencies including UNICEF, UNDP, World Bank, DFID, JICA, CIDA, Global 2000, WaterAid, Concern Universal, and ZONTA International. These institutions employ their own implementation strategies and involve individual communities and LGAs to varying degrees. Because of the inadequacy of the approach to maintenance adopted by these, about half of the pumps in the country are out of service at any one time. To resolve this problem, most sector agencies are moving toward community management of maintenance, where individual communities maintain their pumps themselves or hire the services of a private mechanic or State water agency.

One major problem that affects the balance of the sector is the wide disparity between the demand for water and sanitation. Knowledge, attitude and practice (KAP) studies reveal a wide disparity in the priority ranking of water supply and sanitation by communities where water is considered the topmost priority of most communities and latrines (as an indicator for sanitation demand) is viewed as the least problem (Figure 1.2).



Figure 1.2: Major Problems Identified by Rural Households in Nigeria

Source: UNICEF's Knowledge, Attitude and Practice Study, 1999

In a similar vein, the development of the sanitation component of the sector has significantly lagged behind water supply. Generally, this is due to several factors including the following:

- There are several government agencies clamoring for the ownership of sanitation but not the responsibility for funding it.
- There is generally inadequate sector capacity at all levels for managing the sanitation development.
- Policy development in the sector is more advanced for water supply than for

sanitation.

1.6 Need for National RWSS Programme Framework

For four decades, since independence in 1960, rural water supply and sanitation development in Nigeria has proceeded inconsistently. It suffered from poor coordination, lack of clear policy direction, lack of focus in terms of goals and objectives which resulted in the country's inability to achieve full coverage of the rural population with safe water and improved sanitation services.

Serious efforts at addressing rural water supply and sanitation issues began with the on-set of the International Drinking Water Supply and Sanitation Decade (IDWSSD, 1981-1990), which established target of universal coverage. This was followed immediately by the World Summit for Children (1990), which established goals of universal access to safe water and sanitation and complete eradication of Dracunculiasis (Guinea worm). Following this, the National Programme of Action (NPA) for the Survival, Protection and Development of the Nigerian Child envisaged achievement of 100% coverage in water supply and sanitation by the year 2000. Initiatives that emerged during this 20-years period included among others the

- National Borehole Programme,
- DFRRI RUWATSAN Programme,
- FGN/UNICEF Water and Environmental Sanitation (WES) Programme,
- UNDP-World Bank RUSAFIYA Project,
- Water Supply Projects of the Agricultural Development Programmes,
- Drought Relief Water Supply Programme,
- National Water Rehabilitation Programme,
- FMOH/UNICEF Fund-In-Trust (FIT) Water Supply and Sanitation Project,
- EEC Middle-Belt Rural Water Supply Project,
- Petroleum Trust Fund (PTF) Water Supply Project,
- DFID Water and Sanitation Project in Benue State,
- JICA intervention in some Guinea worm endemic states and,
- Intervention programme on Improved National access to Water Supply and Sanitation.

Despite these initiatives, by the most conservative estimates, we are still recording less than 50% access to safe water and sanitary means of excreta disposal. Some of the main reasons for this are:

- Except for the joint Federal Government of Nigeria and UNICEF WES Programme, which has consistently been implemented throughout the 20 years of the Decade and post-Decade period to date, most of these programmes and projects were interventionist, short-lived, pilot or demonstrative in nature.
- Until recently (in year 2000), there has been no National Water Supply and Sanitation policy, which defines policy objectives, guidelines and targets for the entire sector. This first edition of the policy will subsequently undergo further review to provide more balance between water supply and sanitation.
- There has not been a comprehensive National Rural Water Supply and Sanitation Programme framework to ensure co-ordination, streamlining and lending of focus

and thrust to all these initiatives. Although it was intended to do so, the Rural Water Supply and Sanitation Sector Strategy and Action Plan, developed in 1992 after a major review by a cross-section of stakeholders, did not lead to the planning and implementation of a national RWSS programme. This document had substantial input from the RUSAFIYA Project, a demonstration project on development of a replicable, LGA-based institutional model for RWSS. It was clearly intended that, these major national efforts, with substantial external support, would lead to the development and implementation of a National RWSS programme.

 The programming environment has also been marked by discontinuity in development policies occasioned mainly by the many changes of the three tiers of governments, which took place during the past 20 years.

In view of the above situation, the necessity for a RWSS programme framework has become increasingly important. Furthermore, experience in Africa has clearly demonstrated the need for an overall programme framework in order to minimise duplication and maximise effectiveness. Consequently, the RWSS Sector Strategy and Action Plan has been revised and this National RWSS Programme framework formulated to

- Lend focus to the sub-sector,
- ensure overall programme coherence,
- enable co-ordination at various levels and
- provide a basis for the development, implementation, monitoring and evaluation of various RWSS programme components by sub-sector partners and stakeholders.
- strengthen the coordinating role of the government agencies responsible for the subsector at the federal, state and local levels and
- enable rural communities, who are the primary stakeholders, to move from being
 passive recipients of external support to full participants, having responsibility for the
 management of the RWSS programme development at their level.
- Provide enabling environment for support by External Support Agencies.

All agencies and organizations involved in rural water supply and sanitation in the country are required to work within the framework of the National Rural Water Supply and Sanitation Programme.

2.0 Programme Goals, Objectives and Critical Assumptions

2.1 Millennium Goals and National Policy Context

Following failure to achieve targets of the IDWSSD and the WSC, new International Development Targets (IDTs) and Millennium Development Goals (MDGs) were agreed at the Second World Water Forum and the Millennium summit. These envisage, by 2015, the reduction by half of the proportion of people without access to hygienic sanitation facilities and adequate quantities of affordable and safe water and, the attainment of water, sanitation, and hygiene for all by 2025.

Building on previous efforts aimed at implementing the country's response these MDGs and IDTs, a National Water Supply and Sanitation Policy was developed and issued in the year 2000. The policy stipulates the main objective for the sector to be the provision of sufficient potable water and adequate sanitation to all Nigerians in an affordable and sustainable way through participatory investment by the three tiers of government, the private sector and the beneficiary. The specific elements of the policy objective are:

- i. Increase service coverage for water supply and sanitation nationwide to meet the level of socio-economic demand of the nation in the sector;
- ii. Ensure good water quality standards are maintained by water supply undertakings;
- iii. Ensure affordability of water supply and sanitation services for citizens;
- iv. Guarantee affordable access for the poor to the **basic human need** level of water supply and sanitation services;
- v. Enhance national capacity in the operation and management of water supply and sanitation undertaking;
- vi. Privatise water supply and wastewater services (where feasible) with adequate protection for the poor;
- vii. Monitor the performance of the sector for sound policy adjustment and development for water supply and sanitation;
- viii. Legislations, regulations and standards for water supply and sanitation; and
- ix. Reform of the water supply and sanitation sector to attain and maintain internationally acceptable standards.

The National policy also sets consumption standards for water and targets for the achievement of the main policy objective with full and sustained coverage envisaged for the year 2011 and beyond.

2.2 Goals and Objectives of the RWSS Programme

In consonance with the Policy objective, the National RWSS Programme will lend coherence and thrust to the sub-sector and be implemented in a cost effective manner and within a realistic time frame, at national and sub-national levels. The programme will support the achievement of the main policy objective and the MDGs/IDTs through support for community management of the community-level implementation processes and water and sanitation systems so as to ensure sustainable access to and hygienic use of safe water and improved sanitation services. Thus the programme will contribute to a reduction in poverty, reduction of water and sanitation related diseases, increased productivity and, overall, the improved well being of the rural populace.

The MDGs/IDTs and the National Water Supply and Sanitation policy objective, targets and safe water consumption standards have implications for the National RWSS Programme. Thus the goals and objectives given below are in consonance with aspirations of the National policy and need to be pursued through the application of the strategies and implementation processes enunciated in this document.

Goals

The goals of the National RWSS programme are:

- Consolidate, increase and sustain universal access to adequate quantities of affordable and safe water by the year 2015.
- Consolidate, increase and sustain universal access to hygienic sanitation facilities by the year 2020.

Objectives

To achieve these goals, the key outcome objectives of the programme are:

- i. To promote improved hygiene and sanitation practice by developing and applying appropriate participatory and social marketing methods and techniques that will lead to demand for household and communal sanitary facilities.
- ii. To support, strengthen and enhance community management resulting in sustainability of water supply and sanitation services.
- iii. To increase the capacity of local, state and federal government to assist communities to obtain the basic water supply and sanitation services that the communities themselves can maintain with private sector support.
- iv. To increase the capacity of local, state and federal governments, NGOs and Civil Society Organizations to deliver water supply, sanitation and hygiene services to communities experiencing crisis and outbreaks of endemic diseases.
- v. To increase the capacity of the local, state and federal government institutions to manage programme implementation in support of communities in an efficient and cost-effective manner.
- vi. To enhance the capacity of the private sector to supply goods and services for the sub-sector.
- vii. To support the poverty reduction programme by reducing the disease and workload burden so that the poor and disadvantaged, especially women, in the rural areas, can lead a more productive and fulfilling life.
- viii. To support the Nigerian Guinea worm Eradication Programme through provision of adequate safe water to all Guinea worm endemic villages.
- ix. To supplement the National Primary Health Care Programme by promoting better health practices, focusing on safe water, good hygiene, diarrhoea control and proper excreta disposal.
- x. To supplement the Universal Basic Education Programme through the provision of water and sanitation facilities to make primary schools and junior secondary schools child and especially girl friendly.
- xi. To monitor the performance of the sub-sector for sound policy and strategy adjustment and development.

2.3 Critical Assumptions

Several critical assumptions, the absence of which will result in failure to achieve programme goals and objectives, must be taken into cognisance. These are:

- There is conducive political and socio-economic environment enabling democratic governance to take root at the three tiers of government and resulting in sustainable sector-wide programme planning and implementation.
- The three tiers and arms of government are well aligned with each other and their constitutional roles fully understood, appreciated and respected resulting in effective collaboration between them in the discharge of these roles as they affect rural water supply and sanitation thereby avoiding duplication of efforts and wastage of scarce resources in the process.

- There is sustained political will, interest and commitment for the implementation of the programme at all levels of governance.
- Each level of government subscribes to a partnership and human rights approach of working with communities for the development of their water supply and sanitation systems.
- Resources for programme delivery are made available through regular and adequate government budgetary releases and support by ESAs, the private sector and communities and that these resources are efficiently managed and optimally used.
- The anti-corruption drive will be vigorously and sustainably pursued, yielding dividends of changed behaviours and attitudes with respect to integrity and accountability in the use of public funds committed to the RWSS Programme.
- The programme is able to increase and sustain community interest and that through various IEC (information, education and communication) and promotional activities the negative impact of certain cultural/religious believes and habits are minimised
- Bureaucracy in the various levels of decision / implementation of the programme are reduced to the barest minimum.

3.0 **Programme Composition and Structure**

3.1 Sector Context

The sectoral context of the National RWSS Programme is shown in Figure 3.1 below:



Figure 3.1: Water and Sanitation Sector Instruments

The National Rural Water Supply and Sanitation Programme is being developed within the context of the overall water and sanitation sector. Both government and donor/lending agencies have a broad consensus on the need to pursue the Sector-Wide Approach within the context of a Poverty Reduction Strategy. This approach recognises a process in which funding for the sector (both internal and external) supports a single policy and expenditure programme, under government leadership and adopting common approaches across the sector, and progressing towards relying on government procedures to disburse and account for all funds. Over the years, effort has been made to develop various sector-wide instruments all aimed at organising the sector into a coherent whole. These include the National Water Supply and Sanitation Policy now in place, the sector overarching Water Resources Policy, the Water Law, the Water Resources Management Strategy and the National (Environmental) Sanitation Policy in advanced stages of development.

The National RWSS Programme framework document puts the sub-sector into proper sectoral perspective and will provide the guidance for the programme to be implemented within this context.

3.2 Programme Conceptual Framework

The National RWSS Programme is composed of the key components of Hygiene Promotion and Education, Sanitation and Water Supply. It is also structured to include three types of programmes: government, ESAs and private sector/NGO programmes. This composition and structure of the National RWSS programme is framework is conceptually depicted in Figure 3.2 and further elaborated below:



Figure 3.2: Conceptual Framework of the National RWSS Programme

3.3 Programme Components

Prior to the 80's, most water supply projects focussed on improvement on water quality alone for the reduction of water related diseases. Experience gained from many projects implemented especially during the IDWSSD period (1981-1990) and the cumulative results from an increased number of health impact studies, have led to a consensus among most sector professionals that¹

- Isolated water supply interventions are not effective in the prevention of disease
- Sanitation alone has a larger impact on health than does water alone
- Hygiene education, together with sanitation has more of an impact on the reduction of diarrhoea than does water (because many of the causes of diarrhoea are not water borne).
- Improvements in the quality and quantity of water in communities continues to be important for public health, if implemented together with effective sanitation and hygiene education programme.

¹ Toward better programming A Water handbook - UNICEF WES Technical Guidelines Series - No.2



Figure 3.3: Impact of Water, Sanitation and Hygiene on Diarrhoea Reduction

Thus the National programme will pursue an integrated approach for the delivery of safe water supply and improved sanitation and hygiene services, targeting communities, health centres, schools and other public/private institutions in the rural areas of the Federal Republic of Nigeria. The main components of the programme therefore are:

- hygiene promotion and education;
- sanitation; and
- water supply

Hygiene Promotion and Education

Hygiene Education can be regarded as all activities aimed at encouraging behaviour practices that help to prevent water and sanitation related diseases¹. *Hygiene Promotion* creates an awareness such that people recognize and understand diseases as well as their causes and prevention. It is a continuous process until new behaviour has taken root in individuals and households concerning water and latrine use. The process of hygiene promotion and education helps to:

- Improve public health and personal well being
- Reduce the cost of curative health services
- Improve productivity of school children and working people because less energy is lost from poor health illness.

Hygiene promotion and education is linked to and also links both water supply and sanitation as

- Hygiene promotion and education promotes the optimum use of safe water and sanitation facilities, in order to have the desired reduction in diseases.
- The advantage of safe water will easily be lost if water is not collected and handled in such a way as to prevent contamination before it is used. Moreover, latrines meant to help sanitation can become a continuous source of diseases when they are not used and cleaned properly.
- The potential benefits of water supply and sanitation projects can only be maximized when they go hand in hand with an effective hygiene promotion and education.

Source: Esrey, 1996

 Water supply even when combined with sanitation was found not to be effective for health improvement unless accompanied by hygiene promotion and education.

For this component, the programme shall ensure the provision of adequate knowledge and skills for improved personal and food hygiene and household water protection and use. To achieve this, the following key activities will be implemented:

- Training of government and NGO personnel on effective communication skills, and participatory and social marketing methods/techniques for mobilising community action and promoting behaviour change with respect to improved hygiene practices
- Development, testing and provision of guidelines and materials on participatory hygiene promotion and education.
- Establishment of Environmental Health Clubs in schools

Sanitation

In its narrowest sense, sanitation refers to the disposal and management of human waste or excreta, sometimes diluted with water as sewage. In the broader sense of environmental sanitation, however, it also includes drainage and disposal of sullage and solid waste (or refuse). The sanitation component of the programme will be limited to the disposal of human and management of human excreta.

Thus, access to sanitation here means the availability of a hygienic facility for human excreta disposal within a convenient distance from the user's dwelling i.e not too far away to discourage its use. The technology selected should give the community the highest service level that it is willing and able to pay and at the same time has capacity to maintain. Selection of technology should be guided by the communities, since they will be the ones responsible for paying for much of the systems and for maintaining them. However, communities will need technical assistance, so that they can make informed decisions based on the costs, service level and operation and maintenance.

Knowledge, attitude and practice (KAP) studies, conducted in 1999¹ indicate that the need for latrines ranks very low in the priorities of most rural communities. This generally translates into low demand for improved sanitation and is thus one of the major problems militating against improved sanitation coverage. It is therefore important that a range of different cost designs for improved sanitation (from simple traditional latrine to improved traditional latrine to various types of other latrines) be developed and promoted for both household and public use. Also, the use of low cost, locally available materials should be promoted for latrine construction to further reduce the cost and increase acceptability.

Technology options that could be promoted in rural areas for sanitation include

For households

- The Sanplat (<u>Sanitary Plat</u>form) latrine;
- Single deep pit V.I.P
- Traditional latrines

For communal use in schools, health centres, markets and other public places

- Pour flush toilets
- Multi-compartment alternating V.I.P

¹ Knowledge, Attitude and Practice Studies, UNICEF, 1999

For sanitation, the programme aims to provide the basic level of service of at least one sanitary latrine to serve 10 persons in the community and 50 persons in the school environment. The main activities required for the delivery of sanitation services in the rural areas are:

- Construction of new latrines and improvement of traditional latrines
- Training and equipping of community latrine artisans and linking them to sanicenters
- Training of State, LGA and Community on sanitation development
- Establishment of Community sanicenters

Water Supply

In the context of the RWSS programme,

Water supply means the delivery of 30 litres per capita per day of *safe water* within 250 metres of the community and serving about 250 – 500 persons per water point; and

Safe water means water that meets the National Standard for Drinking Water Quality for Nigeria.

Water supply to rural communities requires the use of technologies that can be operated and maintained by the communities themselves with the private sector providing services for repairs and spare parts retail. Groundwater is the main source of water supply in the rural areas, but in some areas where groundwater resources are limited, of poor quality or access to drilling sites are difficult, rain water catchment and low cost treatment of surface water (using slow sand filtration processes) may be the only options.

For water supply from groundwater sources, the supply options involve the means of accessing and abstracting the resource into the supply system. In most communities, hydrogeological surveys using both geological appraisals and geophysical methods and techniques will be required to evaluate groundwater resources prior to borehole drilling or well construction. Springs, which are groundwater brought to the surface, may sometimes only require some clearing and protection and supply through an overflow pipe, pumping into storage or be gravity-fed into the community.

For the delivery of safe water to rural communities therefore, the programme will employ the following range of technology options.

Groundwater sources

- Protected hand-dug wells
- Hand-dug wells equipped with handpumps (including optional radial collector wells for increased yields from dug wells)
- Boreholes equipped with handpumps
- Mechanised boreholes schemes using wind and electric power from solar, diesel generator or the National Electric Power grid
- Spring development (including gravity feed system in hilly areas)

Surface and atmospheric water sources

- Infiltration galleries and slow sand filtration system
- Rain water harvesting

To achieve the delivery of safe water using the above options, the following activities will be required to be implemented:

- Formation and initial training of the village water and sanitation committee (WASCOM)
- Inventory of existing safe water facilities and sources and development of community plan
- Hydro-geological surveys (including use of electrical resistivity and electromagnetic equipment)
- Rehabilitation of broken down and construction of new and safe water facilities
- Sampling and analysis of water from sources based on standardized protocols
- Training of government personnel and the private sector on various aspects of water supply
- Training community members and the WASCOM on the management of operation and maintenance of the safe water source and facilities

3.4 *Major Elements of Programme Delivery*

To ensure attainment of programme goals, programme delivery will involve the following major elements.

Advocacy and Mobilization

Advocacy will target political leaders and policy makers at all levels of government, civil society and non-governmental organizations, the formal private sector, multi and bi-lateral donor and development organizations to:

- Ensure balanced programmes giving adequate attention to hygiene promotion and education, sanitation, water supply and community management processes,
- Subscribe and be committed to contributing to the realization of the programme goals and objectives,
- Work within the overall National RWSS Programme framework,
- Develop and implement programmes and/or projects which contribute to the achievement of the National RWSS programme goals and objectives;
- Provide Financial, Technical and Material assistance to support all aspects of the Programme;
- Collaborate with the main government agencies and community groups responsible for co-ordinating programme implementation at the National level (the Federal Ministry of Water Resources), at the State level (the State RWSS Agencies), at the local government level (the LGA Water and Sanitation Departments) and at the community level (the Community Water and Sanitation Committees);
- Move away from direct provision of goods and services to establish efficient contract procurement and implementation systems that will encourage cost effective provision of goods and services by the private sector and;
- Follow the standards and guidelines established for the implementation, monitoring and evaluation of the National Programme.

Mobilisation will target community, religious and opinion leaders; youth groups, women's groups and other civil society, non-governmental and community-based organizations to

Fully understand the programme

- Use their positions and influence in the society and communities to leverage support for the programme;
- Take an active role in changing the behaviours of the community to make the programme effective
- Resolve conflicts related to the programme and;
- Compliment the roles of the three tiers of government in the programme processes.

Building of National Capacity

Building capacity of institutions and individuals will be employed as a means for the sustainable delivery of the programme at all levels. Communities, RWSS personnel at the local, state and federal levels, trainers, private contractors and mechanics need to be trained; and decision makers at all levels need to be informed and involved.

Communities and community artisans need to

- Have basic skills for management of the programme implementation process including development of action plans, monitoring and record keeping
- Construct and maintain latrines and ensure overall environmental cleanliness
- Know how to carry out basic repairs and maintenance of their safe water sanitation facilities
- Know how to ensure household water security (in terms of quality and quantity)

RWSS personnel need to

- learn new communications skills that encourage dialogue and participation rather than rely on directives,
- learn effective work planning skills including monitoring, evaluation, and problem resolution,
- gain a thorough knowledge of the policies and the technical details of the programme and obtain practical experience.

To achieve this, an assessment of training needs and institutional capacity need to be done leading to the development of a national training scheme which requires a major effort by all concerned agencies and special ESA support. Training will be standardised by development of training modules on various aspects of the programme and delivered at different levels. Key elements of the capacity building strategy include:

- The establishment of the National Water Resources Institute at Kaduna as a Training Network Centre (TNC) equipped and linked with the International Training Network (ITN) to focus on training for rural water supply and sanitation, including the development of training materials and methods, the training of sector personnel, and dissemination of information related to implementing water and sanitation programmes.
- Each state will be responsible for designing and implementing a training scheme for LGA and state RWSS personnel. Introductory training for state personnel and key LGA staff will be provided by the TNC followed by field training at state or LGA level. In addition, each state should initially designate at least one LGA as a field training centre where personnel from other LGAs in the state can get practical experience
- Finally, RWSS Specialty Groups (e.g. for community development, sanitation,

hydrogeology and piped system design) should be formed to maintain links between state project personnel, to refine implementation strategies, and to coordinate training and training material development.

Delivery of Services

In Rural Communities

To achieve the goal of access to safe water and improved sanitation and hygiene, the delivery of these services will be done at the community level with the support of States and LGAs. Service delivery will follow a process which involves collection of baseline data, support for establishment of community management structures, training of and working with communities to develop a comprehensive plan of action which will ensure sanitation development, hygiene promotion and installation of safe water supply facilities.

Cost effective water and sanitation technology options will be focused upon as a means of accelerating access to safe water and improved sanitation. To accelerate and ensure efficient service provision, a key element of this strategy is the creation of the enabling environment for private sector participation.

For Water Supply, the delivery of services will involve

- Construction of dug wells, protected springs, rain water catchment systems, mechanised and hand-pumped boreholes primarily by the private sector. The River Basin Development Authorities, State RWSS Agencies with UNICEF provided and/or their own drilling equipment, some State Water Boards/Corporations and Agricultural Development Programmes with drilling equipment will be supported by the FMWR and ESAs to implement limited borehole drilling using these equipment and gradually shift this responsibility to the private sector as their equipment age while they develop more facilitative and enabling roles.
- Maintenance of safe water facilities will be managed by the communities including simple repairs while major repairs beyond community capacity will be handled by private mechanics.
- Where feasibility, privately managed piped water schemes serving contiguous rural communities could be established.
- In all cases the overall management community level service delivery and ownership, operation and maintenance of the safe water facilities are the responsibilities of the communities.

For improved sanitation and hygiene the provision of services involves:

- Establishment of community-management sanicentres in response to demand for sanitation services.
- Construction of improved sanitary facilities will be by trained private artisans. These
 artisans will be identified, trained and supported with necessary tools/equipment to
 provide services to communities and households for a fee.
- The maintenance and use of the communal and household latrines is the responsibility of the communities and households.
- Provision of services for the promotion of improved sanitation and hygiene at the community level would be by LGA, NGO and CBO personnel trained in participatory and social marketing techniques and methods.

In Rural-based Institutions

This is an important aspect of programme delivery in support of Universal Basic Education (UBE) which aims at ensuring access to primary and junior secondary education for all Nigerians. Reports of national surveys on the status of basic education in Nigeria revealed that teaching and learning is far from being conducive to achieve the set goal.

Lack of safe water and adequate sanitation facilities have been identified as some of the major factors contributing to the poor and unfriendly environment in most of the schools, which have negative impact on school enrolment and attendance. In order to improve the school environment for effective learning, it has become imperative to provide safe water and adequate sanitation facilities in schools.

Provision of water and sanitation facilities in schools should be a joint responsibility of Governments at all levels, benefiting communities/School PTAs and other agencies working on education development in the country. Achieving this requires inter-sectoral linkages among all the stakeholders. The provision of facilities will not be limited to schools alone but also to other public places such as market/motor parks, health facilities, worship centres, etc.

Technology options that could be promoted for provision of water and sanitation in schools and other rural institutions should include

Water Supply

- Borehole equipped with handpump
- Borehole equipped with submersible pump (powered using solar or national electricity supply)
- Hand dug well equipped with handpump.
- Rainwater catchment, protected spring catchment and infiltration galleries.

Sanitation

- Multi-Compartment V.I.P latrine
- Pour flush toilet
- Multi-Compartment Pit latrine (Pits to be emptied when full)
- Water Closet System (where adequate water is available)
- Ecological sanitation

Research and Development

R&D is an important aspect of the programme strategy. It involves a number of activities aimed at continuous improvement on programme processes, strategies, technologies and systems. The R&D should be multi-disciplinary in nature and focusing on but not limited to:

- Water Supply technologies for
 - Groundwater resource evaluation;
 - Various hydrogeological situations including deep water tables, difficult hydrogeochemical areas (e.g. coastal regions susceptible to saline ground water intrusion, areas with corrosive grounwaters, groundwaters requiring iron removal or arsenic remediation measures), areas with problems of access for heavy drilling equipment to exploit fresh but deep aquifers
 - Groundwater abstraction.
 - Spring development
 - Rain water catchment
 - Low cost surface water treatment;

- Water quality issues
- Sanitation technologies for
 - > Human excreta disposal under various hydrogeological conditions
 - Solid waste management
 - Spilt and effluent water management
- Hygiene improvement models
- Development of new and improved tools
- Public-Private Partnerships for hygiene promotion
- Impact of water supply and sanitation on:
 - > Health
 - Time and energy savings especially for women and girls;
 - Girls' education

R&D will be decentralised, be co-ordinated by the National Water Resources Institute (NWRI) and involve other sub-sector stakeholders including the States, institutions of higher learning (universities and polytechnics), NGOs and ESAs. Outcomes of the R&D will be used to improve programme implementation resulting in achievement of programme goals and objectives.

3.5 *Programme Structure*



Figure 3.4: The National RWSS Programme Structure

The National RWSS Programme may be described as a composite programme involving several interrelated interventions, projects and programmes (Figure 3.4). To deliver the Programme, participation of the three tiers of government, NGOs, CSOs, the private sector,

external support agencies (donors and lending institutions) at all levels and the rural communities themselves will be required. Specific projects and programmes will be developed, funded and implemented individually and jointly by these partners with the three tiers of government providing coordination through the designated agencies.

Although, these projects and programmes will have specific goals and objectives of their own and may apply a range of strategies, their design and implementation need to be guided by the National programme framework. Non of the programmes in itself can be called the "National RWSS Programme" but all of them put together. It is the summation of the inputs, processes, outputs, outcomes and impact of these projects and programmes that will result in the achievement of the goals and objectives of the national programme.

Three main groups of programmes and projects are recognised:

- Government programmes and projects planned and implemented directly by agencies of the three tiers of government.
- Programmes and projects of External Support Agencies
- Programmes and projects of the private sector and NGOs

Government Programmes and Projects

The National Programme is structured in such a way (as shown in Figure 3.4) that it is driven by community demand for government support for safe water and improved sanitation services. All communities in Nigeria have one thing in common. They have development priorities and plan, fund and implement projects to address these priorities. With their own initiative, they raise funds both within themselves and from interested donors. The UNICEF KAP study carried out in 1999 showed that communities listed water supply and sanitation among eight of their key priorities (Figure . More commonly, water supply ranks first in the priorities of communities and forms one of their key projects. In many communities where sanitation habits are fairly well developed, the building of latrines communally and by households, as well as environmental sanitation, are also practiced.

However, as shown by the UNICEF KAP study, there is often a wide disparity between water supply and improved sanitation/hygiene practice in most rural communities. Consequently, community efforts in water supply and sanitation are an important contribution to the National RWSS Programme. The programme will build on these community initiatives and support the development of community capacity to participate in planning and implementation of the programme as well as to manage the operation and maintenance of safe water and improved sanitation facilities.

This aspect of the national programme is jointly funded and owned by the rural communities, the LGAs, the states/FCT and the federal government (through the Federal Ministry of Water Resources and other government agencies). It represents the commitment of the three tiers of government to support rural communities to obtain the basic level of service that the communities themselves can maintain. The constitution of the country, within the exclusive and concurrent lists, supports the provision of basic infrastructure to all Nigerians. Statutory responsibility for the delivery of water supply and sanitation services to Nigerians residing in rural areas is the shared responsibility of the three tiers of government. The Federal Ministry Water Resources and the State RWSS agencies (working under the supervision and policy guidance of the State Ministries of Water Resources) and relevant LGA departments at these levels are required to have well defined programmes of safe water supply and sanitation to rural communities. They are also to be responsible for coordinating the efforts of other agencies involved in the sub-sector.

Thus, there is a clear recognition that, as in other sectors and as stipulated in the national policy, communities, government and the private sector need to enter partnership for the development of sustainable systems for the delivery of safe water and sanitation services.

ESA Programmes

To support the programme delivery, the Federal and State governments will seek support from ESAs or the ESAs themselves may have initiatives of their own to invest in the subsector. Such supports will usually come in the form of ESA funded projects or programmes or joint FGN/ESA projects/programmes that address specific aspects of the national RWSS programme. Most ESAs (multi-lateral and bilateral aid/lending agencies) are tending towards the sector-wide approach and generally plan their support to address one or a combination of the following areas:

- Support to government for sector reforms including development of policy, strategy and regulatory frameworks at national level
- Support to government for institutional reforms and capacity building at national and sub-national levels (including funding of pilot/demonstration projects to develop replicable models and approaches)
- Support to the private sector organisations (PSOs), CSOs, NGOs and CBOs for operational reforms and capacity building

The Major ESA Projects and Programmes that are ongoing or about to be finalised include

- FGN/UNICEF WES Project which is being expanded to cover all the thirty six states and the FCT.
- DFID funded FGN/UNICEF WES project in four states
- FGN/EC Water and Sanitation Programme in six states
- FGN/JICA/UNICEF WES Project in Oyo State
- FGN/World Bank Water and Sanitation Programme
- UNDP Water and Sanitation Project

All existing ESAs programmes will be required to be streamlined with this National RWSS Programme framework which will also form the basis for the negotiations, development and design of all other future ESA programmes and projects in the country.

NGO/Private Sector Programmes

NGOs, CSOs, CBOs, the private sector have water supply and/or sanitation as part of their other programmes. These include inputs of Local NGOs and the private sector. Some of the notable ongoing NGO/Private sector programmes include:

- WaterAid RWSS Programme
- Concern Universal RWSS Project
- Global 2000 water supply projects in Guinea worm endemic communities
- Tulsi Chanrai Foundation RWSS project
- Programmes of the Oil Companies in the Niger Delta region
- Programmes of religious and social organisations

4.0 Programme Strategies

The programme will move away from interventionist and sporadic approaches to consolidating of all RWSS initiatives into a coherent form, providing for and coordinating the contribution of all stakeholder programmes and projects. All national and external stakeholders and development agencies involved in RWSS will be required to work within the National RWSS Programme framework.

The implementation of the Programme will be guided by this document, the National Rural Water Supply and Sanitation Programme Strategic Framework. In addition, policy guidelines will be provided by the National Water Supply and Sanitation Policy and the National Sanitation Policy while technical guidelines will come from the various technical guidelines, manuals and standards developed under the programme.

To achieve the goals and objectives, the programme will be implemented in an integrated manner ensuring a balance between the three components, Hygiene Promotion and Education (HPE), Sanitation and Water Supply by employing the following strategies.



Figure 4.1: Programme Strategies

4.1 Community ownership and management

In line with the government's desire to have communities take the lead in determining their development activities and it's stress on building a maintenance culture to ensure that infrastructure is sustained, the main thrust of the programme strategies will be based on community management with government promoting improved services and the private sector supplying goods and services. Under this strategy

- Individual communities will make all decisions about their water supply and sanitation facilities (including the type of system, its layout and management) and to assume full responsibility for managing them, including operation, maintenance, and collection of revenues to cover recurrent and normal replacement costs;
- LGA personnel (or personnel of an NGO, private sector group or the implementing agency) will assist the communities to plan for their facilities and its management using a combination of participatory and social marketing approaches;

- State-level personnel will assist LGAs to establish RWSS Departments and provide training, technical support and supportive supervision to them; and
- The private sector will provide goods and services including local manufacture of RWSS equipment and materials; construction of high quality dug wells, protected springs and rainwater catchment systems; drilling of boreholes and construction of handpump and mechanised borehole schemes; construction of latrines and; repair of water supply and sanitation equipment and facilities (for which communities will pay) under agreed terms.

To ensure community management for the sustainability of water and sanitation services, communities need to be empowered with knowledge, skills and tools and to have authority, control and responsibility for the overall management of the systems. All programmes and projects targeting the rural areas should have an in-built component for the empowerment of the benefiting communities using the appropriate participatory methods and techniques.

As part of the empowerment process, each community will be supported to establish a water and sanitation committee (or have its functions incorporated within an existing community development committee if preferred by the community) with adequate representation of women and youths and reflecting the socio-cultural/religious constitution of the community. Women and youth groups where available will also be supported to contribute to the community level management of water and sanitation services.

Usually an extension agent or a pair of extension agents will provide the ongoing facilitation for supporting communities while some specific training events targeting the specific community functionaries will provide the main knowledge and skills base for community management of the water supply and sanitation services.

4.2 Demand Responsive Approach (DRA)

A demand responsive approach is essential if government funds are to be channeled to states, LGAs and communities that will use them efficiently to provide sustainable water supply and sanitation services. This implies that the programme will operate on the basis of responding to demands from each level based on agreed criteria for participation in the programme. Invariably, this will result in participation by States, LGAs and communities self-selecting themselves through meeting minimal compliance criteria (MCC) for participation. The MCC for participation by each level are listed below:

States

For a state to participate in and benefit from the national programme it must fulfill these basic criteria. The state:

- Establishes by an act, a single State Rural Water Supply and Sanitation Agency (RWSSA), to monitor and coordinate all activities in the rural sub-sector. (Given the constitutional oversight of LGAs by States, this act will also contain a provision for the establishment of LGA Water and Sanitation Departments.) The agency will also implement the provision of safe water supply so as to set cost and quality control for all LGAs and contractors to follow. The agency will carry out training and support capacity building activities at LGA and community levels so as to ensure programme sustainability. The agency will also monitor and coordinate, and will be supported by, all sector projects of any ESA that may be operative in the state.
- Provide adequate and timely budgetary releases to the State RWSSA for capital and recurrent expenditures. The budget will represent the state's share of the capital and recurrent costs of the programme in line with national policy.
- Develop a State RWSS Action Plan for implementing the programme

- Writes to the FMWR indicating its willingness to participate in the national programme in line with the NWSSP, including the cost sharing arrangement, and the National RWSS Programme Framework.
- Signs a programme implementation agreement (PIA) with the Federal Government (the FMWR).

Local Governments

- Establishes a LGA Water and Sanitation Department in line with the State Act to coordinate and support all activities of the sub-sector within the LGA.
- Provide adequate and timely budgetary releases to LG WSS Department for capital and recurrent expenditures. The budget will represent the LGA's share of the capital and recurrent costs of the programme in line with national policy.
- Develop a LGA RWSS Action Plan for implementing the programme.
- Writes to the State government indicating its willingness to participate in the National programme in line with the NWSSP, including the cost sharing arrangement, and the National RWSS Programme Framework.
- Signs a PIA with the State Government.

Communities

- Establishes a community Water and Sanitation Committee (WASCOM), membership of which should include women and youths.
- Opens a WSS bank account and collect regular contributions towards meeting its share of the capital cost of the RWSS programme.
- Writes to the Local Government indicating its willingness to participate in the programme.
- Signs a PIA with the LGA.

Consistent with this approach, all states will be invited to participate in the National RWSS Programme, but only the states that fulfill the minimal compliance criteria will be eligible for drawing on the Federal Government share. Other states will be offered assistance in preparing State RWSS Plans and in training their RWSS personnel.

Those states that do not complete a State RWSS Plan and establish a State RWSS Agency within one year of signing their PIA will be dropped from the Programme and will be replaced by states which have completed these requirements. In subsequent funding cycles the level of financing in participating states will be adjusted to reflect their performance and other states will be added to the programme. In both instances participation will be determined on the basis of demand, where demand is measured in terms of progress in meeting the minimum compliance criteria. The involvement of LGAs within participating states and communities within LGAs will similarly be linked to funding cycles and demand.

4.3 Starting Small and Scaling up

Starting small is important because it is not prudent to invest large sums of money in large numbers of states and LGAs until implementation strategies and training materials/methods are better refined and key sector personnel are trained. The action plans at National, state and LGA will be developed on this basis. Based on the local and state action plans, prioritizing of communities which have met the MCC will be done based on agreed criteria which could include endemicity/prevalence of water and sanitation related diseases such as diarrhoea, cholera, Guinea worm, schistosomiasis and onchocerciasis.

Consistent with starting small, the National RWSS Programme will be initiated in all the states that meet the MCC and in a limited number of LGAs in each State. In practical terms this means that in the first three years funding cycle activities should be financed in the number of states that have met the MCC. However, implementation within each state will progress in a phased manner.

4.4 Demonstrating and Piloting

Aspects of programme delivery that require further development/refinement before application will be demonstrated and piloted. Demonstration is aimed at building confidence in a given approach leading to advocacy for its adoption and application on a wider scale. Approaches are demonstrated in the form of specific projects. At the end of a demonstration project, a process, system or approach is judged to either be successful and worthy of piloting or unsuccessful and rejected or modified and re-demonstrated.

One clear example of a demonstration project, in the context of the Nigerian RWSS subsector, is the UNDP/World Bank RUSAFIYA Project implemented between 1987 and 1993. It had the immediate objective of developing an LGA and community based institutional model for the planning and implementation of rural water supply and sanitation with particular emphasis on the role of women. It also had a developmental or programme objective of expanding and improving the delivery of water supply and sanitation services to rural communities in Nigeria¹. Although major sector lessons were learned from this project, it could not be replicated as it was eventually terminated.

The DFID funded, WaterAid implemented Oju/Obi LGAs RWSS Project followed close on the heels of the RUSAFIYA Project as another demonstration project and built upon it, taking forward some of the major aspects of the former. It was implemented in two LGAs curved out from one of the RUSAFIYA Projects. The project has been completed successfully and has formed a major basis for the support of DFID through UNICEF of a Water and Environmental Sanitation (WES) project in 20 LGAs of four states.

Piloting on the other hand relates more to a process where systems that have been accepted need to be further tested and refined for wider replication. It represents an initial phase of scaling up the approach into a programme. The planned FGN/DFID/UNICEF WES Project in four states represents a pilot project. JICA is also carrying out a pilot WES project in Oyo state in collaboration with Oyo State WATSAN and UNICEF.

Demonstrating and piloting of approaches will continue to be a strategic feature of the RWSS sub-sector under the national programme. This is an area in which ESAs have particular strength and can lend support to the programme in certain strategic areas to strengthen programme delivery mechanisms and processes.

4.5 Partnership and Collaboration

The programme will adopt a partnership and collaborative approach as a key strategy for ensuring effective delivery of support at each level of programme implementation. This approach recognises that the key stakeholders - the communities (the primary stakeholders); the government, ESAs, NGOs, CSOs, CBOs and the private sector need to collaborate together in partnership based on a recognition of each other's area of comparative advantage. The partnership approach is a key strategy employed in all sectors of development to ensure that there is complimenting of roles and coordination and streamlining of efforts towards the achievement of common goals and objectives.

¹ UNICEF Nigeria 1999: An Independent Evaluation Report on Rusafiya Project (1987 - 1993)

Various partnerships and collaborations are ongoing and possible within the RWSS programme framework. Some of the partnership and collaborative projects and programmes include:

- FMWR, UNICEF, NWRI, SON and handpump manufacturers for the development and application of handpump technology, standards and local handpump manufacture, distribution and maintenance processes. This is taking place within the WES Project of the FGN/UNICEF Country programme (2002-2007).
- FMWR/DFID/UNICEF and communities/governments of Benue, Ekiti, Enugu and Jigawa states - for the planning and implementation of the DFID funded/UNICEF executed WES project (2002-2008).
- FGN/European Commission and communities/governments of Abia, Cross Rivers, Osun, Kebbi, Plateau and Gombe States - for the planning and implementation of the EC funded Water and Sanitation programme (2001-2008)
- FGN/JICA/UNICEF and communities/government of Oyo State for the planning and implementation of the JICA funded WATSAN Project.

Other areas in which the programme will employ the partnership and collaborative approach include the establishment of a training network centre at NWRI and training centres in other parts of the country; the research and development project; and school water and sanitation.

4.6 Cost sharing

Although the Federal Government will have the major responsibility for funding the National RWS/S Programme, financing strategies at the state level will in large part be determined by the strengths of the LGAs and the extent to which each is able to bear technical and financial responsibility for the programme's implementation. The cornerstone of the strategy, however, is the participation of communities, both in contributing to initial capital costs and in paying for the operation and maintenance of their water supply facilities.

Government has been reluctant to request rural communities to contribute to the cost of water supply and sanitation because of communities' limited resources and other political considerations. It is important to recognize, however, that this issue is not merely one of transferring all or part of the burden of provision from the government to the communities. Obtaining community contributions can yield a number of other important advantages:

- For investment costs, it is the sole objective indicator of interest and need, particularly in relatively water abundant areas, and thus can help ensure that investments are based on community demand.
- Communities will sufficiently value their systems to maintain them, since they will have a stake in ensuring that their own initial investment does not go to waste.
- If communities pay for and manage operation and maintenance, they can ensure more systematic preventive maintenance, more timely repair of malfunctioning equipment, and generally more reliable service.

To ensure that substantial funds are available to implement a nationwide rural water supply investment programme, the Federal Government will take the lead in mobilizing domestic funds and external assistance for implementation of the programme. To be eligible for federal financing, states, LGAs and individual communities must share in the capital cost of new facilities and major replacements on the following basis: Federal Government (50%), states (25%), LGAs (20%) and communities (5%). In addition, communities will be responsible for 100% cost of operation and maintenance in line with the national policy.

The financing strategy for sanitation will be based on the premise that individual families are solely responsible for paying for the construction of their household sanitation facilities. The focus of the RWS/S Programme will be generating demand for improved environmental sanitation and thus creating a self-sustaining market for widespread construction of latrines. To this end, each LGA should set funds aside for the training of artisans and promotion of improved hygiene and sanitation practices. This will be supported at the state level by a mass-media program hygiene/latrine promotional programme. Since one of the key elements influencing demand is cost, funds will be allocated for the development of lower-cost latrines that can be marketed throughout the country, including the conversion/upgrading of existing latrines.

The recurrent costs of the RWSS Programme will be borne by the local, state, and federal governments, respectively. Each level of government will be required to include a provision in their annual budgets to cover the salaries of staff and consultants working on the programme, including travel allowances and transportation costs. Provision will also need to be made for office space and activities such as training, promotion, and publicity. It is important that the basic support costs necessary to run the programme be financed entirely from the regular budgets of local, state and federal government to ensure long-term sustainability. Care will need to be taken to ensure that in receiving additional funds for the programme through ESA assistance, adequate budgetary provision is made for the personnel and other resources needed to guarantee proper supervision of the use of those funds.

5.0 Programme Implementation

The National RWSS Programme will be implemented at community, LGA, State and National levels. Each implementation level need to be guided by the provisions of the framework but will require a well defined action plan which is phased out in line with the strategy of starting small and scaling up. The LGAs, States and Federal governments need to develop investment plans taking into cognisance their plans of action to realise the targets for the programme. This chapter of the framework, therefore sets out to review policy targets, define the key elements for the development of action and investment plans as well as provide some guidelines on the phased implementation of the programme.

5.1. Programme Targets

The National Water Supply and Sanitation Policy sets coverage targets for safe water supply and sanitation. From a baseline of 40% coverage, it envisages 60% coverage by 2003, 80% by 2007, 100% by 2011 and sustained full coverage beyond 2011. The baseline set by the policy is low but realistic in comparison with more recent studies (MICS and NDHS 1999). However, for rural water supply, the Presidential Water initiative (PWI) of 2003 envisages attainment of 67% of safe water by 2007. It is planned that, under the National RWSS Programme, there will be a more comprehensive baseline survey to establish a more realistic benchmark for measuring achievement of the programme goal of universal access to safe water and sanitation by the stipulated dates. Moreover,, given the rate at which the rural sector is progressing and the need for the programme to be demand and process driven (to ensure sustainability of facilities) there is a need to review the policy targets for the rural sector as follows.



Figure 5.1: National RWSS Programme - Service Coverage Targets

Increase service coverage

 From 40% to 50% for safe water and from 35% to 40% for improved sanitation between 2003 and 2005.

- From 51% to 80% for safe water and from 41% to 60% for improved sanitation between 2006 and 2010.
- From 81% to 100% for safe water and from 61% to 90% for improved sanitation between 2011 and 2015.
- From 91% to 100% for improved sanitation between 2015 and 2020 and sustain 100% coverage for safe water beyond 2015.
- Sustain 100% coverage for improved sanitation beyond 2020.

These service coverage targets are for the rural communities and the institutions within them including primary and secondary schools.

5.2 Action and Investment Plans (AIPs)

Action and investment plans will be developed at the National, State and Local government levels for the implementation of the programme at those levels. Two main planning cycles will be involved:

- The Phased Cycle based on the programme phases (see below). Macro AIPs will need to be developed for each phase of programme implementation.
- The Annual Cycle with annual action plans developed for each year of a given phase.
 These represent the breakdown of the milestones and activities to be implemented for the given year to achieve the goals and objectives on an incremental basis.

The process to be used in developing these plans will involve the following elements:

- Developing terms of reference for consultant support to facilitate development of the AIPs
- Securing consultants to facilitate national orientations for state RWSS personnel on development of the AIPs. The NWRI should be used to fulfil this role as much as possible.
- Holding FMWR/Consultants/ESA facilitated state workshops for state and LGA RWSS personnel to develop LGA AIPs.
- Holding FMWR/Consultants/ESA facilitated a national workshop for National and State personnel to develop state AIPs and the national AIP.

Participation in the development of the AIP by any state or LGA will depend on the fulfillment of the minimum compliance criteria (MCC) for participation in the programme (see chapter 4) on a "first come first served" basis. These states will participate in the orientation workshop and be supported to develop their plans. Each AIP will contain the key activities for each programme objective and the major elements of programme delivery (Chapters 2 and 3).

Such AIPs will be guided by the provisions of this programme framework, but specific to each level. Support for the development of these plans will come essentially from

- The National Water Resources Institute, Kaduna
- Consultants appointed by the Federal Ministry of Water Resources and
- External Support Agencies working at each level

The FMWR (with the technical support of an interagency RWSS Working Group and the ESAs involved in RWSS) will coordinate the development of these plans nationally. The respective State and Local government RWSS agencies/departments will be supported by

an interagency/interdepartmental working group and ESAs to coordinate the development of the plans at their own levels.

For the development of the national, state and local government action plans the main elements to be considered are:

- Goals, Objectives and targets (see chapter 2 and above)
- Agreed indicators for monitoring inputs, processes, outputs, outcomes and impacts
- Milestones and activities under each of the major elements of programme delivery
 - Advocacy and Mobilisation
 - Building of National Capacity
 - Delivery of services
 - Research and Development
- Individual plans of
 - Government
 - > External Support Agencies working with each tier of government
- The current service coverage level for the tier of government
- Time scale for implementing the activities
- Human and financial resources available or that can be secured

Action Plans

Action plans will be developed for the implementation of each phase of the programme and be built into the annual budget for each tier of government. Specific aspects of the national, state, local and community action plans are summarised below for guidance.

National Action Plan

Federal Ministry of Water Resources (FMWR) will develop a National Action Plan (NAP) for Rural Water Supply and Sanitation. The NAP will reflect the milestones and activities that need to be implemented nationally and take full cognisance of action plans of the states and FCT. These will include activities that are best implemented by the national level and activities in support of states accounting for the 50% capital cost sharing of the Federal government. Such activities will include:

- National studies and surveys including baseline surveys, training needs assessments etc.
- Research and Development activities
- Development of training materials and manuals for water and sanitation
- Training of sector professionals
- Advocacy and sector meetings and workshops for various stakeholder groups
- Technical support to states through consultants for development of AIPs
- Procurement for state distribution of critical equipment/materials
- Monitoring and evaluation activities including GIS-based data base establishment
- National review meetings
- Establishing minimum standards for water supply and sanitation.

State Action Plan

A State Action Plan (SAP) will be developed by the State RWSS Agency of each state which will include the milestones and activities for that level, all accounting for the 25% State share of the capital cost. The SAP will take full cognisance of the Action Plans of the LGAs. Key activities to be included on the SAP include

- Holding of state level planning and review workshops
- State level training of sector professionals
- Geophysical surveys for well siting
- Rehabilitation of broken down water supply schemes
- Borehole drilling and pump installation (By Government and/ or Private Sector)
- Construction of mini water supply schemes based on mechanised pumping systems
- Construction of water and sanitation facilities in rural primary and secondary schools
- Advocacy and mobilisation meetings
- Monitoring and evaluation activities including GIS-based database establishment

The plan must include:

- Cost sharing arrangements between the State, LGAs and Communities involved in the rural water supply and sanitation programme.
- Well defined hygiene promotion and education activities that focuses excreta disposal, personal hygiene and diarrhoea control
- Preparation of financing plan for the state indicating the types (new and rehabilitated hand dug wells, boreholes and piped systems) and approximate numbers of facilities that are needed to reach 100% coverage.
- Preparation of an investment plan for the provision of water and sanitation facilities to be constructed and operational costs of the State RWSS Agency including physical facilities, equipment, staffing and operations, and training.

Local Government Action Plan

Each LGA needs to develop a Local Action Plan (LAP). The development of this plan will be coordinated by the appropriate department: the LGA Water Supply and Sanitation department or WES Unit, where these exist, or by another arm of the LGC pending the creation of the WSS department. This plan will be based on activities required to support all rural communities in the LGA obtain basic safe water and improved sanitation services. These include the following:

- Rapid assessment of villages using rapid rural appraisal techniques
- Mobilisation of communities based on well designed workplan for extension agents
- Establishment and training of village water and sanitation committees (WASCOMs)
- Supporting communities to develop their own action plans
- Training of village artisans on latrine promotion/construction, maintenance of WSS facilities
- Construction of hand-dug wells, rainwater catchment and spring systems and demonstration latrines

- Promotion of Hygiene and Sanitation
- Monitoring and evaluation including establishment of LGA database

Community Action Plan

As part of the criteria for participation in the programme, each rural community will be assisted by the LGA to prepare a community action plan (CAP). The details of the CAP will vary from community to community but will include some basic elements:

- Establishment of the WASCOM
- Planning and implementing community mapping
- Collection of financial contributions
- Participation in various LGA facilitated community meetings
- Participation in construction activities
- Construction of household and communal latrines and hand-washing facilities
- Operation and maintenance of WSS facilities
- Promotion of Hygiene and Sanitation

Investment Plan

Investment plans are also required for each tier of government. These represent macro level planning for capital investment in the RWSS sub-sector to achieve the programme goals and objectives. Without the Investment Plan it would be difficult to make reasonable budgetary allocation and monitor the required resources for bridging the gap of the unserved population. The investment plan includes the cost of water supply and sanitation facilities to be constructed the recurrent costs for establishing and running the agencies or departments responsible for RWSS. The recurrent cost also includes physical works, facilities and equipment, staffing training and per diem/transport costs for field staff working in the communities.

The following tables and charts provide broad outlines and some data for the development of the detailed investment plans for each tier of government.

Technology options	Per Capita cost \$	Service population per facility	Technology proportion %
Motorised/solar scheme	20	3000	20
Handpump Borehole	20	300	40
Handpump Dugwell	15	100	10
Protected Hand-dug well	10	100	20
Protected spring	15	3000	10

Table 5.1: Major Technology options for rural water supply and Per Capita Costs

Table 5.2: Mai	ior Technolog	v options	for rural	sanitation	and Per	Capita Costs
		<u>y</u> options	, ioi i ai ai	Samuation		oupilu 000l0

Technological Options	Proportion	Per capita cost		
	%	\$		
VIP latrine	5	25		
Pour Flush (PFL)	5	25		
Sanplat (SPL)	60	3		
Upgraded pit latrine (UPL)	30	1		
	100			

Based on the above tables, gross estimates of required investment for safe water and improved sanitation facilities are as shown in the charts below.





Figure 5.3: National RWSS Programme - Gross Investment Plan (2003 -2020) Improved Sanitation



The cost of investment required for the National RWSS Programme to achieve 100% access to safe water and improved sanitation will be secured from several sources mainly:

- Federal Government Budget
- State Government Budgets
- Local Government Budgets
- Communities
- External Support Agencies
- The input of the private sector and NGOs.

Substantial portion of the sanitation costs will come from households (about 70%) in view of the fact that household latrine construction is the main responsibility of the households. Other stakeholders, either than the communities will provide the rest of the sanitation costs through provision of some form of subsidy and construction of demonstration latrines during training and institutional latrines in schools.

6.0 Programme Management

Programme management could be described as the process of achieving the set goals and objectives through efficient use of resources and the planning, organizing, coordinating, directing and controlling of both human, material and financial resources.

One of the major reasons for the current poor performance of the sector is inefficient sector management resulting in duplication of efforts and waste of scarce resources which could have been used in improving access to safe water and sanitation. It is therefore imperative to have an efficient programme management system within the context of the present political dispensation in order to achieve the RWSS programme goals and objectives. Achieving this requires that there be first a clear understanding of and agreement on roles and responsibilities by each stakeholder. There needs to be an open negotiation between all main stakeholders in order to reach this position and then each stakeholder can play their roles effectively and thus contribute to the overall success of the programme.

It is therefore imperative that there be reforms in institutional and financial arrangements to create a more effective and efficient programme management process. Consequently, efforts made in this regard, especially with the support of the ESAs, will be built upon in the first few years of the national programme in order greatly improve sector performance for a total quality and results-based management.

6.2 Institutional Arrangement

Figure 6.1 summarises the institutional arrangement for the National RWSS Programme management. The main stakeholders and the linkages between them are indicated.



Figure 6.1: Institutional Arrangement for RWSS

The programme management structure at each level is discussed in the following sections beginning, in bottom-up manner, with the community.

1. Community Level

For the RWSS programme, the communities are the primary stakeholders while all others are secondary stakeholders providing support to the former to enable them obtain safe water and sanitation systems. Thus, the main thrust of National RWSS Programme is a decentralised management strategy that ensures that communities are put in the centre of the development process and are empowered to manage the process at their own level.

Community management in the sector means the ability of a community to control or at least strongly influence, the development of its water and sanitation system. It consists of three basic components:

- **Responsibility:** the community takes on the ownership of and obligations to the system.
- Authority: the community has the legitimate right to make decisions regarding the system on behalf of the users (i.e individuals and households).
- Control: the community is able to carry out and determine the outcome of its decisions.

The main support for the development of the process leading to establishment of management by communities will come from the LGA or in some cases, NGOs or a combination of both. In any case, it will involve the support agency facilitating a process involving a series of steps. These include, the initial baseline survey in the community, community (self-) selection, holding various meetings with the community, signing of community agreement with the LGA, formation of the Water and Sanitation Committee (WASCOM), development of technology options for both water supply and sanitation systems, training of the key community functionaries, construction of the facilities and management of operation and maintenance of the water and sanitation systems. Figure 6.2 is a flow chart depicting this process.

For community management to be functional in RWSS the following essential elements must be in place as a minimum :

- Facilitative support to community by LGA/NGOs
- Cost sharing by Federal, State, LGA and Community partners
- Functional and gender-sensitive WASCOM
- Availability of spare parts for the Water Supply systems
- Availability of trained mechanics for repair of water supply equipment
- Availability of trained latrine artisans

The structure for the management of the programme at the community level is shown in Figure 6.2. For community management of the programme, it is essential to establish Water and Sanitation Committee (WASCOM) with adequate representation of women. In cases where an appropriate association already exists, adding the functions of the committee to the association would serve the purpose. In addition, there is a need for a community - LGA agreement which indicates the roles and responsibilities of each partner and allows the community to demand for water and sanitation services from the LGA and requires that communities own and manage the water and sanitation systems put in place.



Figure 6.2: Programme Management Structure at Community Level

The major roles and responsibilities of the community and the WASCOM for the management of programme include the following:

- Request LGA for National Rural Water Supply and Sanitation construction and technical assistance;
- Plan, manage and maintain their water and sanitation facilities;
- Improve sanitation, including construction of household and communal latrines as appropriate;
- Monitor facilities operation and revenue collection, identify constraints and modify management strategy as needed;
- Keep record of accounts and management decisions;
- Ensure that the community pay 5% of construction cost in cash or in kind towards provision of water system;
- Construct household latrines;
- Provide manpower to be trained; and
- Ensure proper use of their water supply and sanitation facilities and promote hygiene and sanitation practices.

Traditional/Opinion leaders, Community based organizations, Youth Associations and Women groups are expected to provide complimentary services in the areas of;

- social mobilization,
- resource mobilization,
- hygiene and Sanitation promotion,
- provision of water supply and sanitation services, and
- monitoring usage/functionality of water and sanitation facilities.

2. LGA Level

At the LGA level, a RWSS Department which, should be staffed with a multi-disciplinary team of community development, hygiene promotion and education, sanitation, water supply and monitoring/evaluation should be established. This is a prerequisite for the LGA to take part in National RWSS Programme. The department would consist of; Community Mobilization and

Hygiene Education, Sanitation, Water Supply and Monitoring/Evaluation units. Also, a LGA RWSS Steering Committee is to be established comprising LGA chairman and heads of relevant departments (Primary Health Care (PHC), Education, Works and Community Development (CD)), state RWSS personnel, LGA counselors, traditional rulers, retired public officers, and women's groups. Figure 6.3 shows the programme management structure at the LGA level.



Figure 6.3: Programme Management Structure at LGA Level

The major responsibilities of the LGA RWSS Department would include the following:

- Prepare and periodically update LGA RWSS Plan;
- Prepare annual work plan and budget;
- Provide fund and Execute LGA RWSS Programme;
- Establish agreement with communities;
- Empower Communities through Mobilization and enlightenment;
- Assist communities to do needs assessment, to form WASCOM and to plan their facilities;
- Train WASCOM members and provide on-going support;
- Keep an inventory of water supply and sanitation facilities in all communities and monitor their operational status;
- Test water quality of all new facilities;
- Monitor the availability of spare parts;
- Coordinate training of private mechanics and latrine artisans;
- Promote good hygiene and sanitation practices;
- Monitor sanitation coverage;
- Monitor capability and availability of mechanics and latrine artisans;
- Monitor effectiveness of hygiene education and promotion;
- Monitor functionality and use of water and sanitation facilities;
- Let contracts for hand dug wells and spring catchment and inspect construction;
- Let contract for public latrines and inspect construction;
- The PHC, Community Development and Works departments are expected to play complimentary roles in RWSS Programme implementation. The expected responsibilities include;
 - Compile and make available authentic list of guinea worm endemic villages for provision of safe water sources in the state,

- Support the programme in hygiene promotion and education and control of water and sanitation related diseases,
- Support on R&D pertaining to impact of water supply and sanitation on Health, and
- > Take part in programme monitoring and evaluation.

3. State Level

At the State level, a RWSS Agency is to be established or an existing one strengthened to coordinate all RWSS activities in the state. This is a prerequisite for the state to be able to take part in National RWSS Programme. The agency should comprise of a multi-disciplinary team of training, community participation, sanitation, hygiene education, hydrogeology, RWS technologies and planning, monitoring and evaluation specialists. In determining the institution in which the State RWSS Agency should be located, a number of factors should be taken into consideration.

- The Agency should be established by an act of the State House of Assembly and be included in the annual state budget and should be self-accounting. Its manager should have no more than one other officer between him/herself and the state chief executive.
- The Agency should be solely responsible for RWSS and should be independent of organizations that have more general responsibilities in rural areas (such as health, community development and agriculture), but should be advised by an inter-agency committee to ensure complementary policies and activities.
- The Agency should be independent of urban water supply agencies which as commercial enterprises give priority to urban areas where revenues are greater and whose personnel require different technical, communications and planning skills.





Figure 6.4: Programme Management Structure at State Level

Also to be established at State level is the State RWSS Steering Committee to advise on the development and implementation of the State RWSS Programme. The steering committee should compose of all State agencies and ministries involved in rural water and sanitation.

The major responsibilities of State RWSS Agency would include the following:

- Prepare and update State RWSS Action and Investment Plan;
- Prepare annual work plan and budget;
- Assist LGAs to establish RWSS Department;

- Mobilize financing for RWSS;
- Execute State RWSS programme including LGA training and technical assistance, hand dug well, spare part distribution and mass media hygiene/latrine promotion components;
- Establish memorandum of understanding with LGAs;
- Develop Implementation Guidelines/ Standard for LGAs;
- Coordinate with other ministries;
- Keep inventory of water supply and sanitation facilities in all communities and RWSS database (including quality and well logs of all boreholes drilled in the state) linked to GIS;
- Monitor capability and availability of water supply equipment spare parts;
- Monitor water well drillers operating in the state;
- Monitor sanitation coverage and effectiveness of hygiene education;
- Identify better ways of implementing programme components and feed back to State RWSS plan and training programme;
- Supervise/carry out geophysical surveys for well siting;
- Supervise the design and construction of machine drilled boreholes and piped water systems;
- Test water quality of new water sources;
- Provide training and technical support to LGA RWSS staff on communication and community participation, technical and financial issues, work planning, and monitoring and evaluation;
- Adapt/refine training materials for local use;
- Participate in Research and Development;
- Train hand dug well contractors, and assist LGA personnel to train mechanics and latrine artisans; and
- Pre-qualify contractors and let out contract for machine, borehole drilling and pipe System.

In collaboration with RWSS Agency, other ministries/agencies are expected to contribute to the overall programme development and implementation within the framework. Some of the responsibilities expected from these ministries/agencies include;

The Ministry of Water Resources (or some other designated authority) will provide overall supervision of the RWSS agency and chair the interagency RWSS steering committee. In addition the Ministry will

- carry out its designated role as the policy organ for the water and sanitation sector,
- mobilize resources for the State RWSS programme including ensuring the release to the agency of budgetary allocation for capital and recurrent expenditure,
- provide technical support to the agency in the planning and implementation of the programme,
- monitor and evaluate the implementation of the programme, and
- plan and hold state meetings for the review of the programme.

Other state government ministries/agencies involved in RWSS such as the MARD, MOH, MEnv, MOE and the ADP will play complimentary roles in the programme through their respect programmes/projects. Their RWSS activities will however be coordinated by the RWSS agency.

4. Federal Level

The management structure at this level would involve the establishment of RWSS Division within the structure of the Water Supply and Quality Control (WS&QC) Department of the FMWR. This division, headed by a deputy director, will under the guidance and supportive supervision of the director of WS&QC, the permanent secretary and minister of water resources, be responsible for the overall management of the National RWSS Programme at that level.

The division will have four units; Rural water supply, Sanitation, Hygiene Promotion and Education, and Monitoring and Evaluation. Each unit is to be headed by an Assistant Director. This is necessary for a focussed and well-articulated programme implementation in the country.

There will also be an interagency National RWSS Steering Committee (RWSS SC) to provide advisory and technical support to the programme. The director of WS&QC, assisted by the deputy director RWSS will head this committee, while the assistant director Monitoring and Evaluation will be its secretary. Membership of the committee will include the FMF, NPC, FMWR, FMEvn, FMOH, FMARD, The National Assembly, FMJ, ESAs (including UNICEF, EC etc) and the Nigeria Water and Sanitation Association.



The programme management structure at the federal level is shown in Figure 6.5.

Figure 6.5: Programme Management Structure at Federal Level

The major responsibilities of RWSS Division would include the following:

- Coordinate and regulate RWSS programme;
- Prepare and periodically update National RWSS Programme Frame work;
- Assist States in the establishment of RWSS Agency and the preparation of their RWSS Plans;
- Manage the National RWSS Programme, including national and international financing for RWSS;
- Collaborate with other ministries, organizations, NGOs and ESAs;
- Set national standards, specifications and guidelines in collaboration with relevant agencies/organizations;

- Maintain national database on rural water supply and sanitation including Coverage, water resources, water quality and well logs;
- Provide its own share of cost and Monitor utilisation of funds disbursed to States;
- Maintain record of well drillers and their construction work;
- Develop a national GIS database for RWSS Programme;
- Facilitate the involvement of equipment manufacturers, well contractors, mechanics, latrine artisans and spare part distributors;
- Provide technical assistance to States;
- Pre-qualification of contract and supervision of RWSS Programme;
- Plan, implement and oversee research and development;
- Oversee national training scheme ensuring that State and Federal RWSS personnel are fully trained; and
- Establish training network center centered at NWRI, involving States, LGAs, higher institutions, NGOs and the private sector.

In collaboration with RWSS Division, other ministries/agencies are expected to contribute to the overall programme development and implementation within the framework.

5. External Support Agencies, NGOs and Private Sector

The RWSS programme/projects of External Support Agencies in the country at whatever level will be executed within this programme framework. Most of these programmes/projects are designed to address strategic issues supportive of the overall national programme. These programmes are usually implemented under very well defined programme documents, which specify the management arrangements. It will be required that each of these agencies work within the framework of the sector-wide approach and support the government agencies designated to coordinate the RWSS sub-sector. Their specific roles and responsibilities will include financial and technical support in the following areas:

- training of sector personnel on programme implementation;
- provision of logistic support such as vehicles and motor cycles;
- quality assurance of materials, equipment and programme processes;
- processes for local manufacture of RWSS materials and equipment;
- establishment of computerized database for monitoring of RWSS Programme;
- advocacy and resource mobilization for programme implementation;
- development of hygiene and sanitation promotion materials;
- establishment of R&D centers;
- guinea worm eradication programme; and
- programme monitoring and evaluation.

NGOs will

- support community mobilization and social marketing,
- develop of hygiene and sanitation promotion materials,
- be involved in implementation of pilot projects,

- support in provision of water supply and sanitation facilities in schools,
- take part in programme monitoring and evaluation,
- support the training of sector personnel on programme implementation, and
- support the guinea worm eradication programme.

The private sector will

- support the Research and Development project,
- take active part in provision of water supply and sanitation services,
- support in resource mobilization for programme implementation,
- take part in programme monitoring and evaluation, and
- do most of the construction and repair of facilities.

6.3 Financing Arrangement

Although the Federal Government will have the major share for funding the National RWSS Programme, the cornerstone of the strategy is the participation of communities, both in contributing to initial capital costs and in paying for the operation and maintenance of their water supply facilities.

To be eligible for federal financing, states, local governments and individual communities must share in the cost of the National RWSS Construction Programme for new facilities and major replacements on the following basis: federal government (50%), states (25%), LGAs (20%) and communities (5%). For sanitation development, the cost sharing formula is; federal government (5%), States (15%), LGAs (20%) and Community (60%). Special consideration should be given to communities where Guinea Worm is prevalent or that need an improved water supply but can not afford their share of the investment cost. In all cases the full cost of operations and maintenance will be borne by individual communities.

Community contributions have several benefits. For investment costs, they provide a means to direct scarce government funds to communities that really want an improved water supply and sanitation system and will maintain it; and for operations and maintenance costs, they ensure more systematic preventive maintenance, more timely repair of malfunctioning water points, and generally more reliable service. A community's cash contribution should be made for its handpump or piped distribution system, with payment required only after the water source has been tested for capacity and quality. Handpumps should be purchased from local retail outlets and payments for piped system should be made as the final 5% payment to the contractor.

Individual families are solely responsible for paying for the construction of household latrines. However, each LGA will implement a sanitation programme to train artisans and promote improved hygiene and sanitation practices through the establishment of Sani-centres. At least 5 percent of the investment for the National RWS/S Programme must be reserved for the sanitation component.

The technical and administrative support costs of the RWSS Programme, including personnel and general operational costs, will be borne by the local, state, and federal governments. Each level of government must make provision in their annual budgets to cover the salaries of staff and consultants working on the programme, including travel allowances and transportation costs. Provision will also need to be made for office space and training. Federal, state and local funds and external loans will be channeled through special State and LGA RWSS Construction Accounts. Financial assistance can also be channeled through these accounts or through management units at the state level, linked to State RWSS Agencies. External loans for RWSS will be negotiated at the federal level and on lent to state governments, with the FMWR acting as the central recipient agency for lending in the sector and charged with supervising disbursements.

Working with the Federal Ministry of Finance/National Planning Commission and others that are active in the sector, the FMWR will seek the financing needed to implement the National RWSS Programme through federal budget allocations, grants from external assistance agencies, and discretionary loans from international financing agencies. Financing will be sought both for specific components that are needed by the sector as a whole (such as preparation of training materials and support to local manufacturers) and for state specific activities (such as preparation of State RWSS Plans and construction of water supply and sanitation facilities).

6.4 Monitoring and Evaluation

Monitoring and evaluation are important aspects of Rural Water Supply and Sanitation Programme in order to achieve the goals and objectives of the programme. Key aspects of the monitoring and evaluation process should include:

- Review of existing monitoring systems and identifying constraints;
- Engendering the political will in allocation of resources and capacity building;
- Involving functionality of monitoring network at all levels;
- Identifying core indicators for monitoring;
- Mobilizing and/or sensitizing key actors; and
- Testing monitoring system (use Triple "A" Assessment, Analysis and Action).

In order to quickly gather basic planning data, a rapid assessment and GIS mapping of all communities within a participating LGA should be conducted. Such information as surface geology, existing water sources, sanitation practice, felt needs, willingness to pay, availability of construction materials and community priorities should be gathered and synthesized in order to draw up planning list of communities phased intervention. This exercise should be carefully planned and carried out by trained combined team of LGA and State personnel to ensure that the correct information is gathered and that no community is missed out in the process. Key outputs of this activity will be a report with clear recommendations on categories of communities for programme intervention and a digitized LGA map showing all the communities in the LGA. This activity will also provide a form of evaluation of existing RWSS situation in the given LGA.

Baseline survey is a more detailed exercise than the rapid assessment and is expected to be carried out with the participation of the community in order to initiate their involvement in programme implementation. Additional details on the community will be gathered and the rapid assessment data will be verified for a final consolidation of the community situation. The output of this activity will provide a clearly defined situation as well as the socio-cultural disposition of the community, the settlement pattern, behavioural practices, community structures and information of their water sources for use by the State/LGA personnel as a planning tool for the next activities.

The collection of baseline data and an improved ability to monitor and evaluate, as a continuing process at Federal, State and LGA levels should be supported. This will greatly improve and facilitate the planning functions at all levels, thereby systematizing service delivery.

In order to measure the efficiency, effectiveness and impact of the sector, the following monitoring indicators should be adopted:

- Community Mobilization and Hygiene Education: improvement of the health status of the communities and the number of cases or incidences of water borne/related diseases reported.
- Water Supply: Number of safe water sources provided (by type), Number of people with access to safe water sources/percentage of people with adequate access to safe water source, percentage of functioning water sources/facilities.
- Sanitation: Number of toilets constructed in the community (by type), Number of households/inhabitants with access to safe sanitary facilities, Number of schools with safe sanitary facilities.
- *Maintenance:* percentage functionality of facilities at any given period and appropriate use of facilities.
- *Funding:* percentage planned budget released and used for programme implementation.

The monitoring mechanism will involve the use of simple formats, which are to be developed for data collection at all levels of programme implementation. These formats should capture major activities for monitoring Rural Water Supply and Sanitation Programme at all levels. All agencies that are involved in the implementation of the programme are primarily responsible for monitoring and evaluation

The Village Water and Sanitation Committees will report on a monthly basis using the agreed format to the Local Government RWSS Department, who in turn will consolidate all community reports and submit copy to the State RWSSAs. The State RWSSAs will forward comprehensive state output reports to Federal Ministry of Water Resources. The Federal Ministry of Water Resources will collate all the State reports and share it with ESAs/Donors and State RWSSAs. A feedback mechanism should be established for passing information pertaining to programme execution from Federal government to State and from State to LGA and communities. This is necessary to have a complete loop in programme monitoring and evaluation and provide an effective channel for communicating government policies to all stakeholders.

Continuous monitoring of the programme implementation will be carried out at the LGA and State levels through regular programme management meetings on monthly basis. Quarterly review meetings will be undertaken by the programme monitoring committees at the State and LGA levels and annual review by the Federal level committee to review strategies and evaluate the progress/outputs. National programme performance against set targets set annually will be evaluated at biannual review meetings held each year and presided over by the Federal Ministry of Water Resources.

There is need for constant monitoring of quality of water provided and being consumed by people to ensure that the water is safe. A rapid assessment of water sources should be conducted to ensure that the water being consumed meet the National drinking water quality standard. Water quality monitoring system is to be established which will include community water quality surveillance. This is to be achieved by;

Monitoring the water quality on a random sample basis in each LGA using the approved water quality field test kits. On average, 20 samples should be tested per month in each LGA. Additionally, 5% of samples collected from all LGAs during the month should be tested for all parameters as per National drinking water quality standards in the State level laboratories, reference laboratories and any other laboratories that have the capacity for analyzing the samples. Coordinates of all locations/sources from which water samples have been taken should be collected and plotted on the digitized state map.

- Each State is expected to develop water quality maps based on analysis carried out.
- Water samples should be taken from all sources (boreholes, dug-well, rainwater system, springs etc) being used by the people.

A comprehensive programme evaluation is to be carried out at mid-term and end of term for each phase of programme implementation. This evaluation will be aimed at assessing the impact of the programme specifically in terms of

- Reduced incidence of water and sanitation related diseases.
- Total eradication of dracunculiasis.
- Percentage of population with adequate access to safe water.
- Percentage of population with adequate access to safe means of excreta disposal.

It is recommended that monitoring and evaluation on periodic basis should be employed as a management tool to improve sector performance by Federal, State and Local Governments.

6.5 Documentation

The Federal Ministry of Water Resources is to establish an effective Management Information System (MIS) for providing information to support planning, control and operation of the sector. A national monitoring network should be maintained at Federal, State and Local government. There should be proper documentation of sector activities at all levels of programme implementation.

6.6 Communication

A regular and effective channel of communication should be established among the people and between people and the various tiers of government as well as to promote mass consciousness and mass participation in programme implementation. The State RWSSAs should be connected by telephone and E-mail while the Federal Ministry of Water Resources should establish and maintain a web site for efficient and effective information dissemination. The Federal Ministry is required to coordinate annual publication of journals/bulletin on trends and events on sector development.